

FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 2004 LAND CRUISER.

Applicable models: UZJ100 Series

For service specifications and repair procedures of the above models other than those listed in this manual, refer to the following manuals;

Manual Name	Pub. No.
▲ 2004 LAND CRUISER Repair Manual Volume 1	RM1071U1
Volume 2	RM1071U2
▲ 2004 TOYOTA New Car Features	NCF257U

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.

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NOTICE

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

2004 LAND CRUISER ELECTRICAL WIRING DIAGRAM

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A INTRODUCTION

This manual consists of the following 13 sections:

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

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

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

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

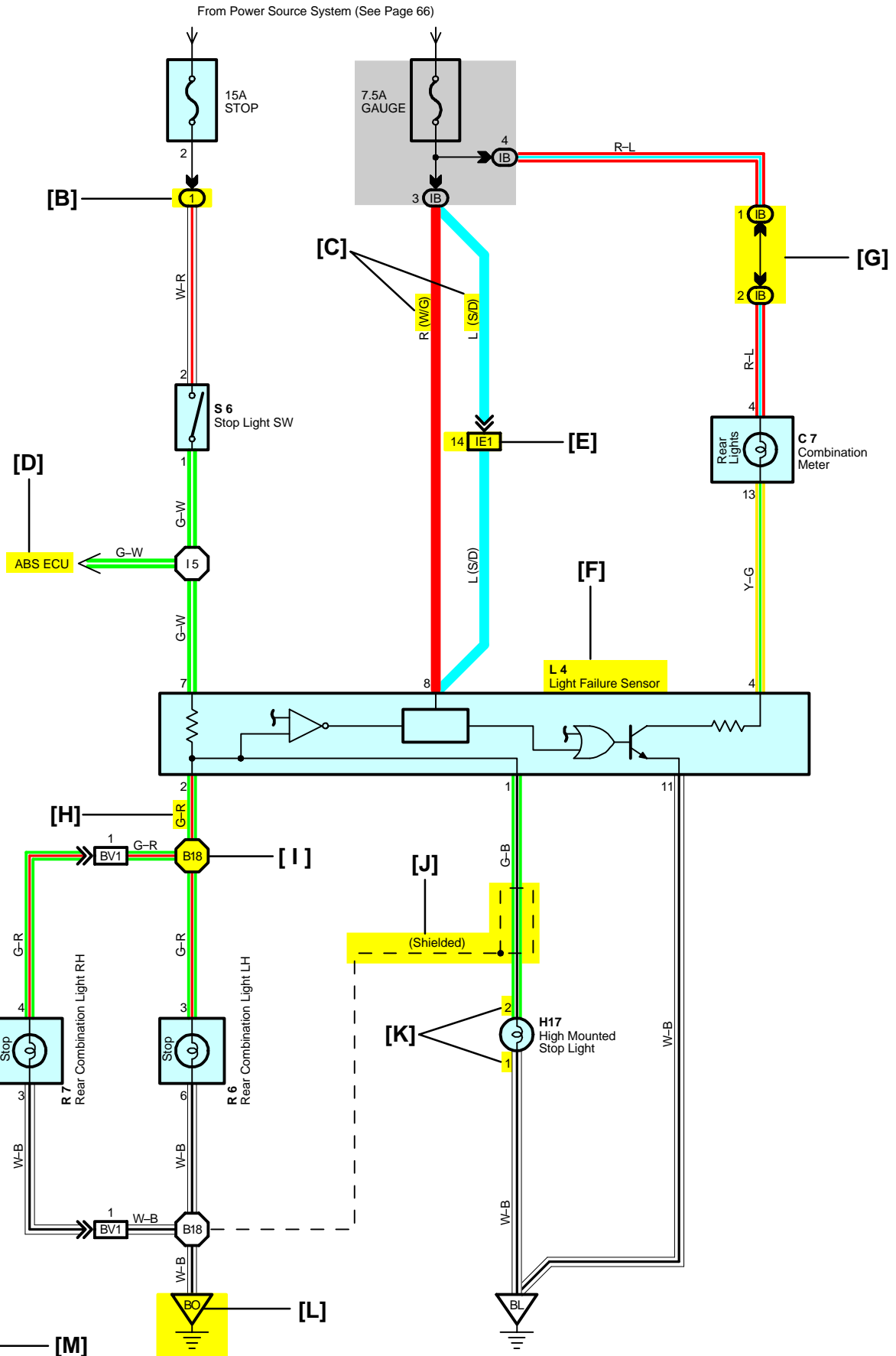
When the circuit operation is understood, begin troubleshooting of the problem circuit to isolate the cause. Use Relay Location and Electrical Wiring Routing sections to find each part, junction block and wiring harness connectors, wiring harness and wiring harness connectors, splice points, and ground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

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

B HOW TO USE THIS MANUAL

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

[A] Stop Light



[A] : System Title

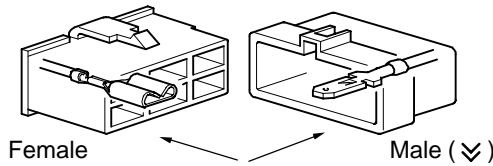
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

Example: ① Indicates Relay Block No.1

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

[D] : Indicates related system.

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



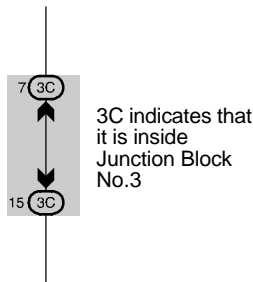
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g, "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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

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

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

Example:



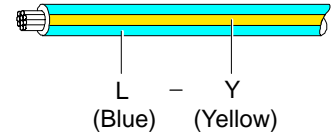
[H] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

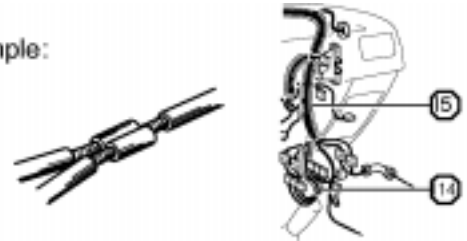
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L - Y



[I] : Indicates a wiring Splice Point (Codes are "E" for the Engine Room, "I" for the Instrument Panel, and "B" for the Body).

Example:



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

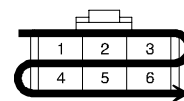
[J] : Indicates a shielded cable.



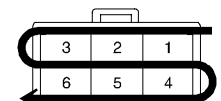
[K] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

[L] : Indicates a ground point.

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

[M] : Page No.

B HOW TO USE THIS MANUAL

[N] System Outline

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

Stop Light Disconnection Warning

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

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

[O] Service Hints

S6 Stop Light SW

2-1 : Closed with the brake pedal depressed

L4 Light Failure Sensor

1, 2, 7-Ground : Approx. 12 volts with the stop light SW on

4, 8-Ground : Approx. 12 volts with the ignition SW at ON position

11-Ground : Always continuity

[P] ○ : Parts Location

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

[Q] ○ : Relay Blocks

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

[R] ○ : Junction Block and Wire Harness Connector

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

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

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

[T] ▽ : Ground Points

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

[U] ○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I5	44	Cowl Wire	B18	50	Luggage Room Wire

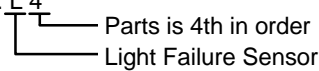
[N] : Explains the system outline.

[O] : Indicates values or explains the function for reference during troubleshooting.

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

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

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

Example : L 4


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

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

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

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

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

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

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

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

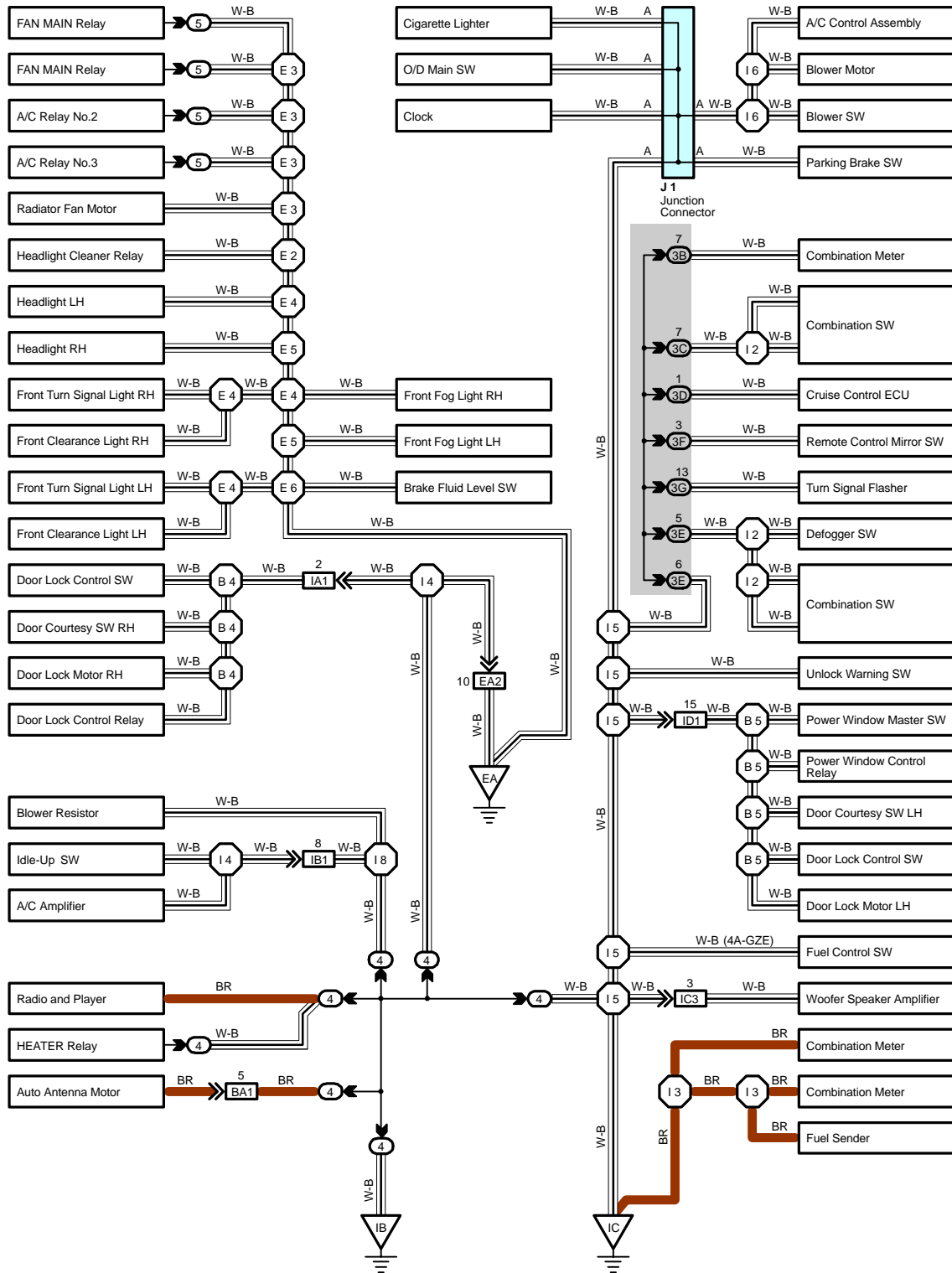
[U] : Indicates the reference page showing the position of the splice points on the vehicle.

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

B HOW TO USE THIS MANUAL

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

I GROUND POINT

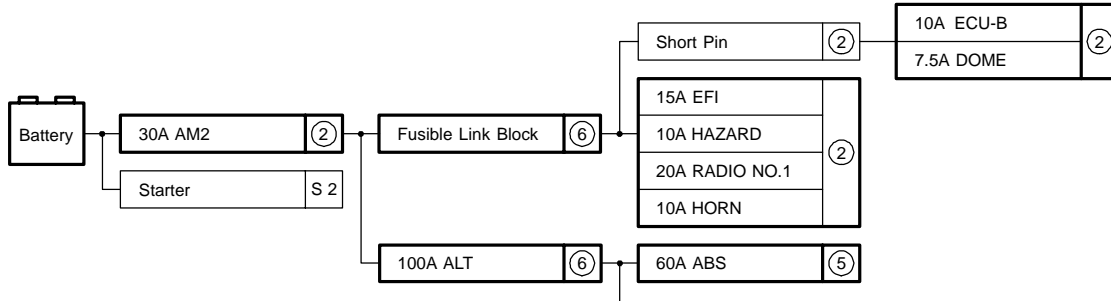


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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

J POWER SOURCE (Current Flow Chart)

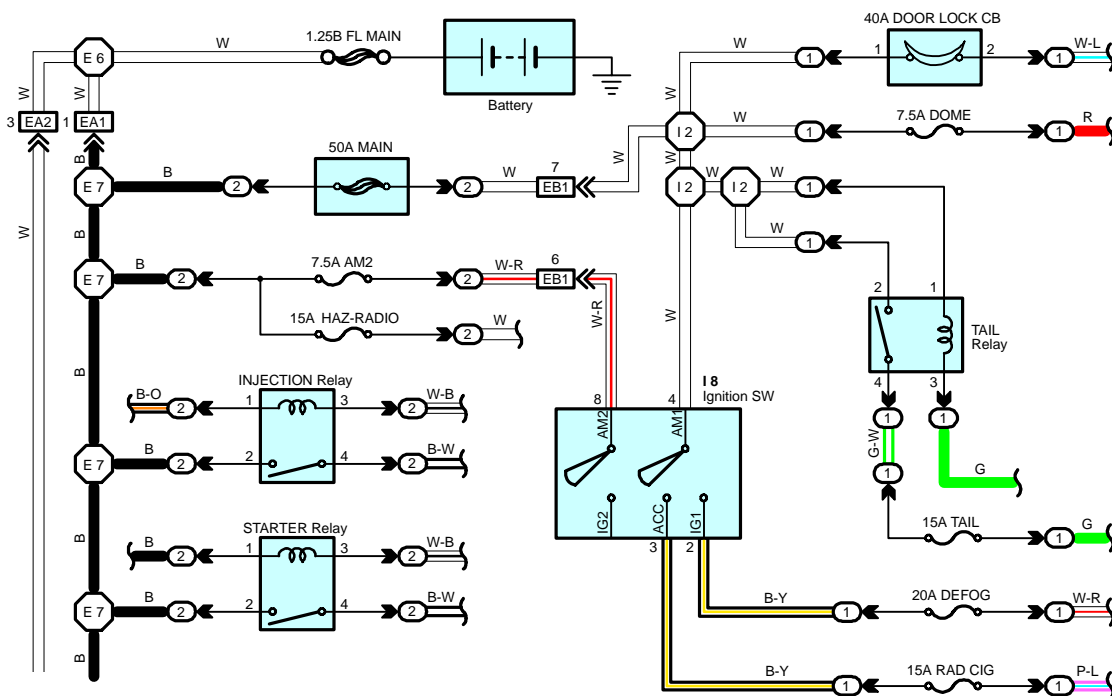
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

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

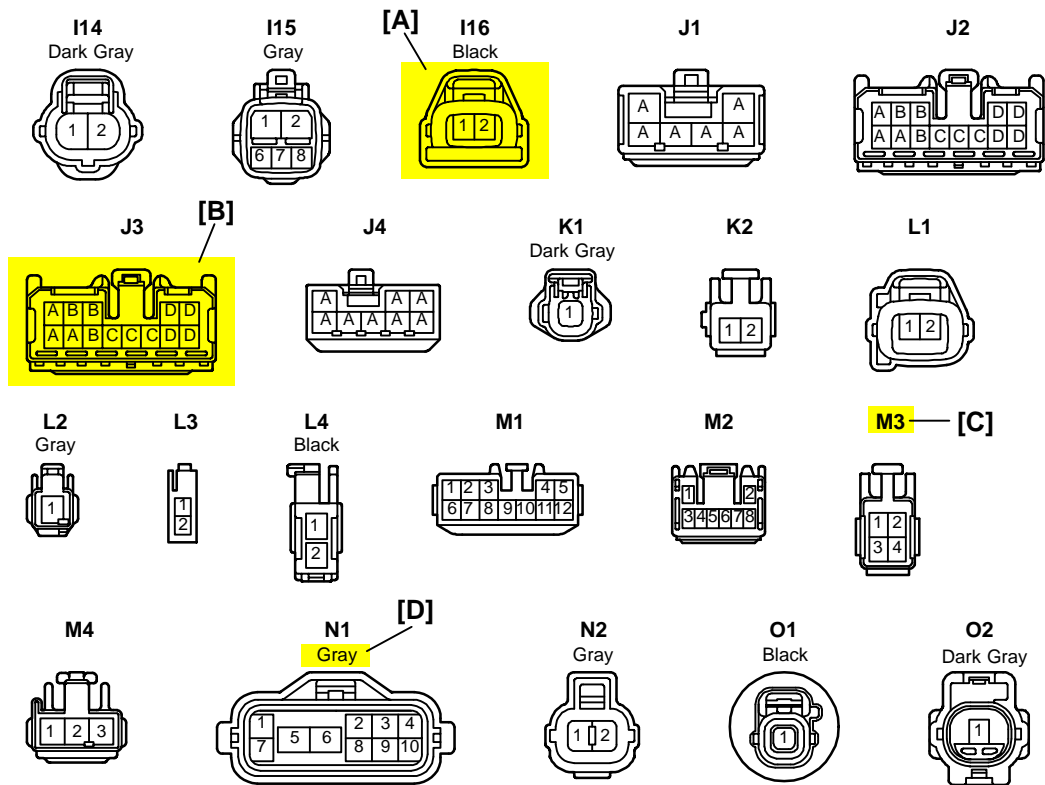
Power Source



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

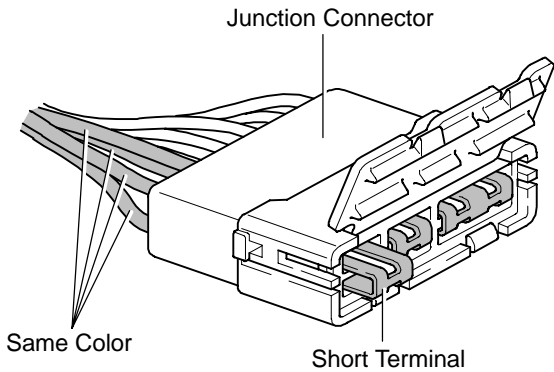
B HOW TO USE THIS MANUAL

K CONNECTOR LIST



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

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



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

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

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

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-1 1070	D 4	Diode (Courtesy)	90980-1 1608
A 2	A/C Condenser Fan Motor	90980-1 1237	D 5	Diode (Interior Light)	90980-10962
A 3	A/C Condenser Fan Relay	90980-10940	D 6	Diode (Moon Roof)	90980-1 1608
A 4	A/C Condenser Fan Resistor	90980-10928	D 7	Door Lock Control Relay	90980-10848
A 5	A/C Magnetic Clutch	90980-1 1271	D 8	Door Lock Control SW LH	90980-1 1148
A 6	A/T Oil Temp. Sensor	90980-1 1413	D 9	Door Lock Control SW RH	
[A]	ABS Actual [B]	909-151 [C]	D10	Door Courtesy SW LH	90980-1 1097
A 8	ABS Actuator	90980-1 1009	D11	Door Courtesy SW RH	
A 9	ABS Speed Sensor Front LH	90980-10941	D12	Door Courtesy SW Front LH	90980-1 1156
A10	ABS Speed Sensor Front RH	90980-1 1002	D13	Door Courtesy SW Front RH	
A11	Airbag Sensor Front LH	90980-1 1856	D14	Door Courtesy SW Rear LH	
A12	Airbag Sensor Front RH		D15	Door Courtesy SW Rear RH	
A13	Airbag Sensor Front LH	90980-1 1194	D16	Door Lock and Unlock SW LH	90980-1 1170
		90980-1 1194			

[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.

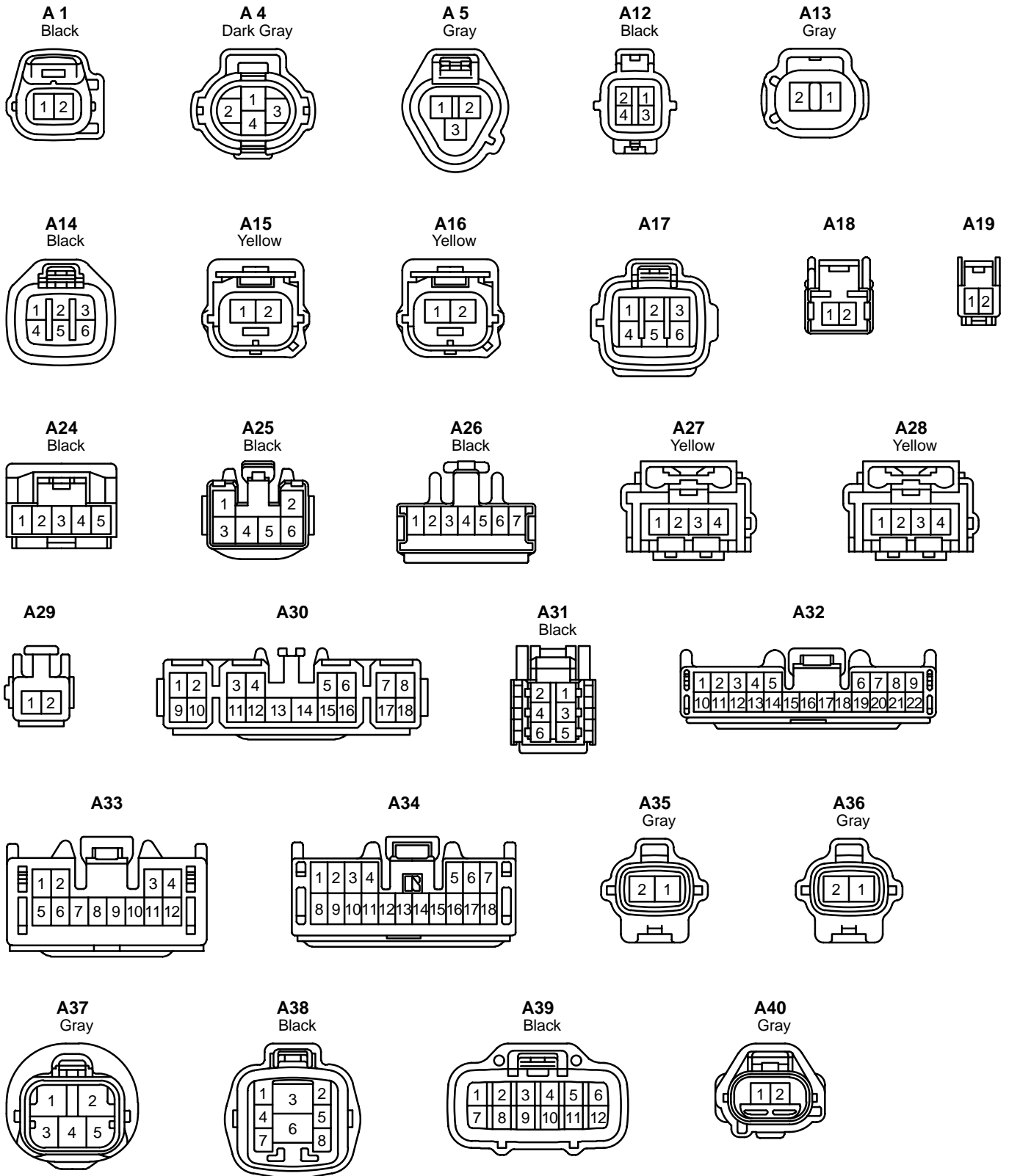
ABBREVIATIONS

The following abbreviations are used in this manual.

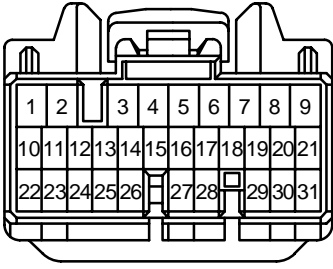
A/C	=	Air Conditioning
A/T	=	Automatic Transmission
ABS	=	Anti-Lock Brake System
ACIS	=	Acoustic Control Induction System
BA	=	Brake Assist
DIFF.	=	Differential
DVD	=	Digital Versatile Disc
EC	=	Electrochromic
ECU	=	Electronic Control Unit
ESA	=	Electronic Spark Advance
ETCS-i	=	Electronic Throttle Control System-intelligent
EVAP	=	Evaporative Emission
IC	=	Integrated Circuit
J/B	=	Junction Block
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
VSC	=	Vehicle Stability Control
VSV	=	Vacuum Switching Valve
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.

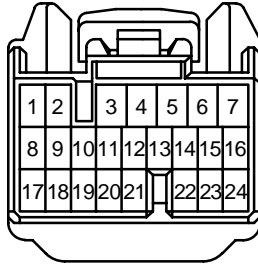
K CONNECTOR LIST



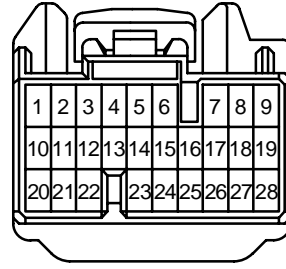
A41



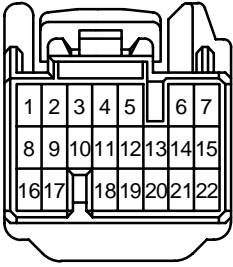
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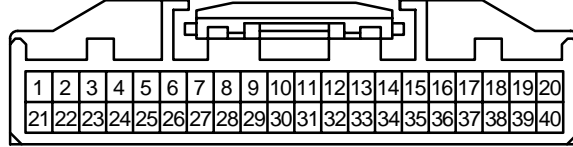
A43



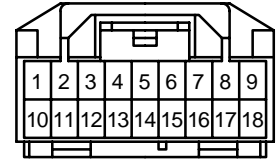
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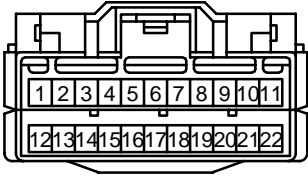
A45



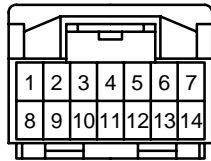
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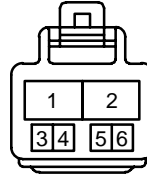
A47



A48



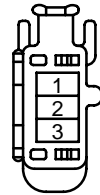
B 1
Black



B 2



B 3



B 4
Black



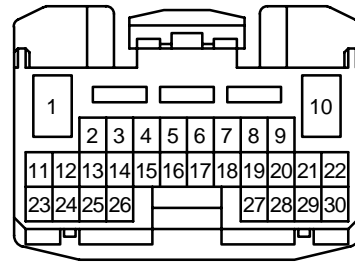
B 5



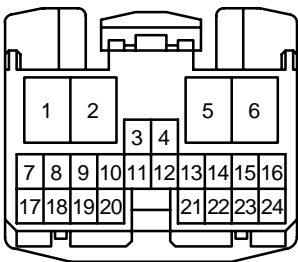
B 6
Gray



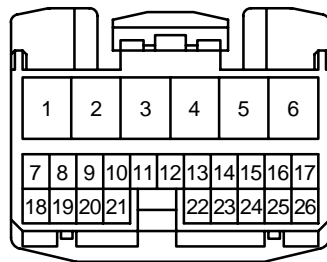
B 7



B 8



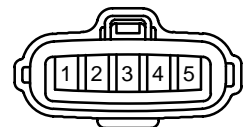
B 9



C 1
Dark Gray

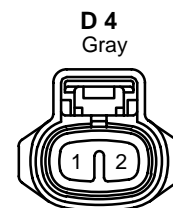
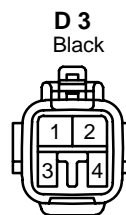
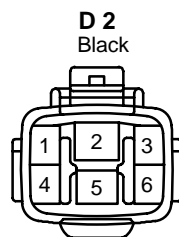
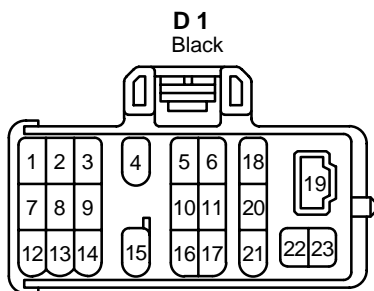
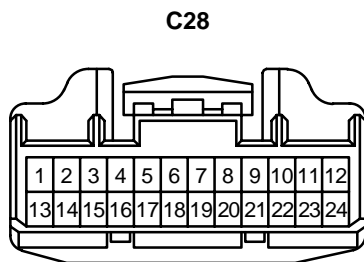
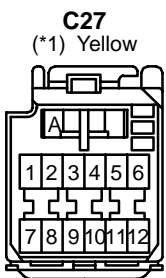
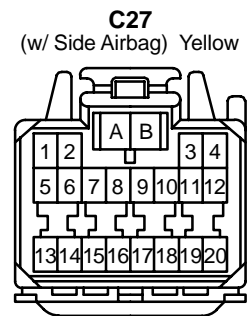
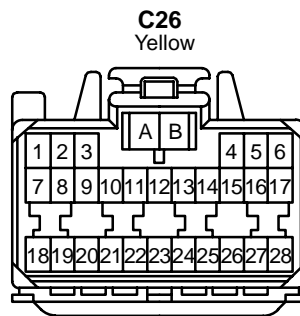
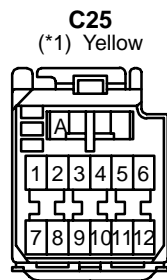
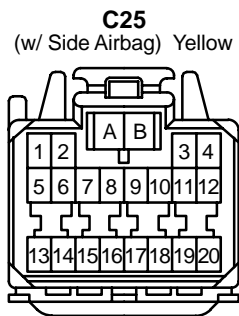
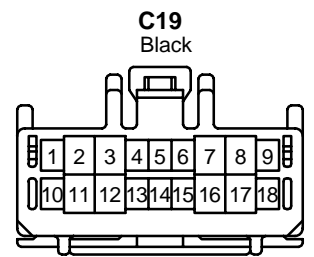
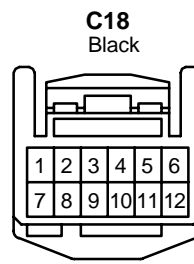
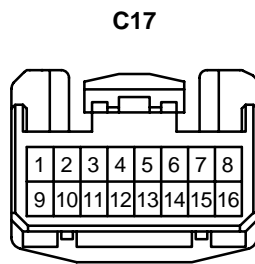
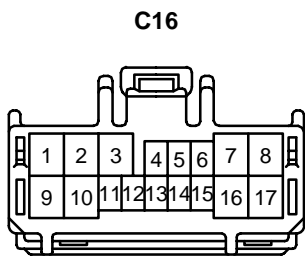
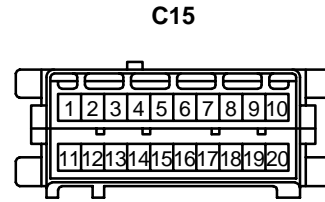
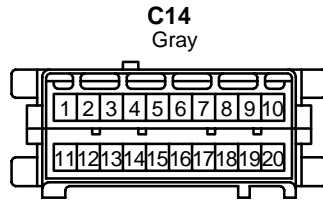
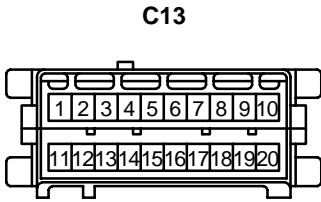
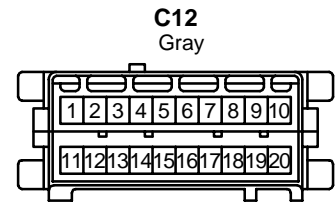
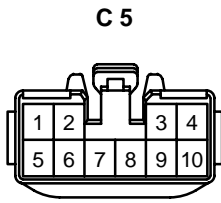


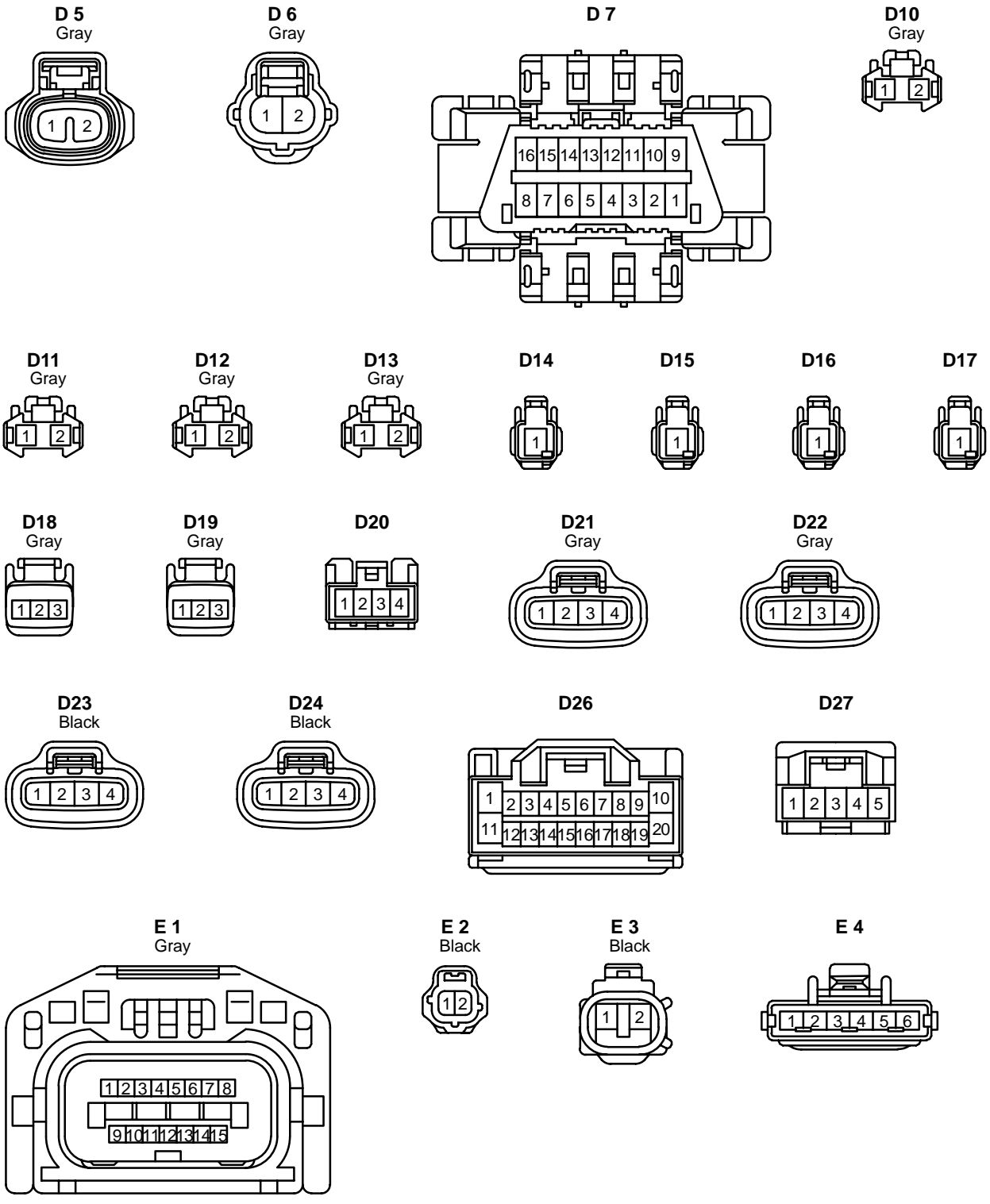
C 2
Black



K CONNECTOR LIST

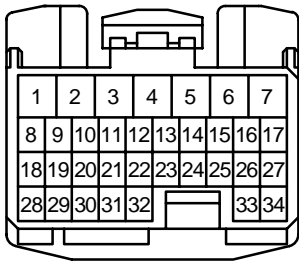
*1 : w/o Side Airbag



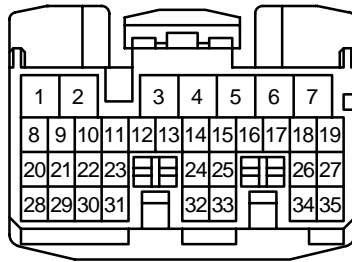


K CONNECTOR LIST

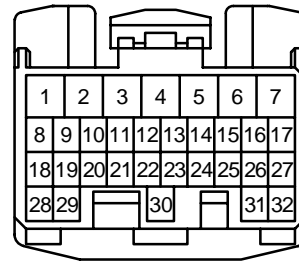
E 5



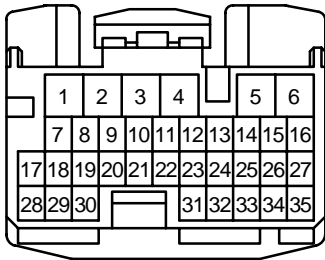
E 6



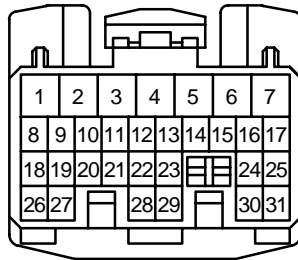
E 7



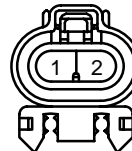
E 8



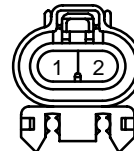
E 9



F 1
Brown



F 2
Brown



F 3
Gray



F 4
Gray



F 5
Black



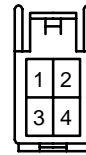
F 8



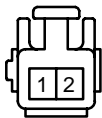
F 9



F 10



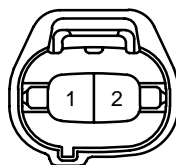
F 11



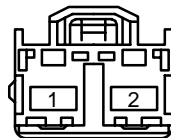
F 12
Dark Gray



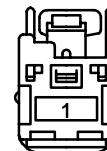
F 14
Dark Gray



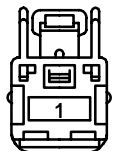
F 15
Black



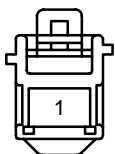
F 16
Black



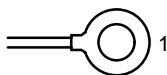
F 17
Black



F 18
Black



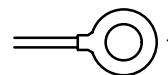
F 19



G 1
Black



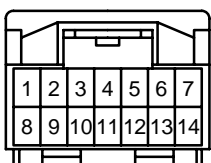
G 2



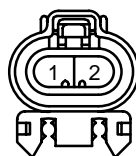
G 3



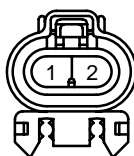
G 4
Gray



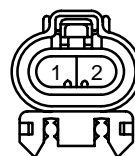
H 1
Black



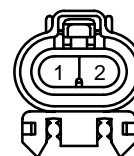
H 2
Brown

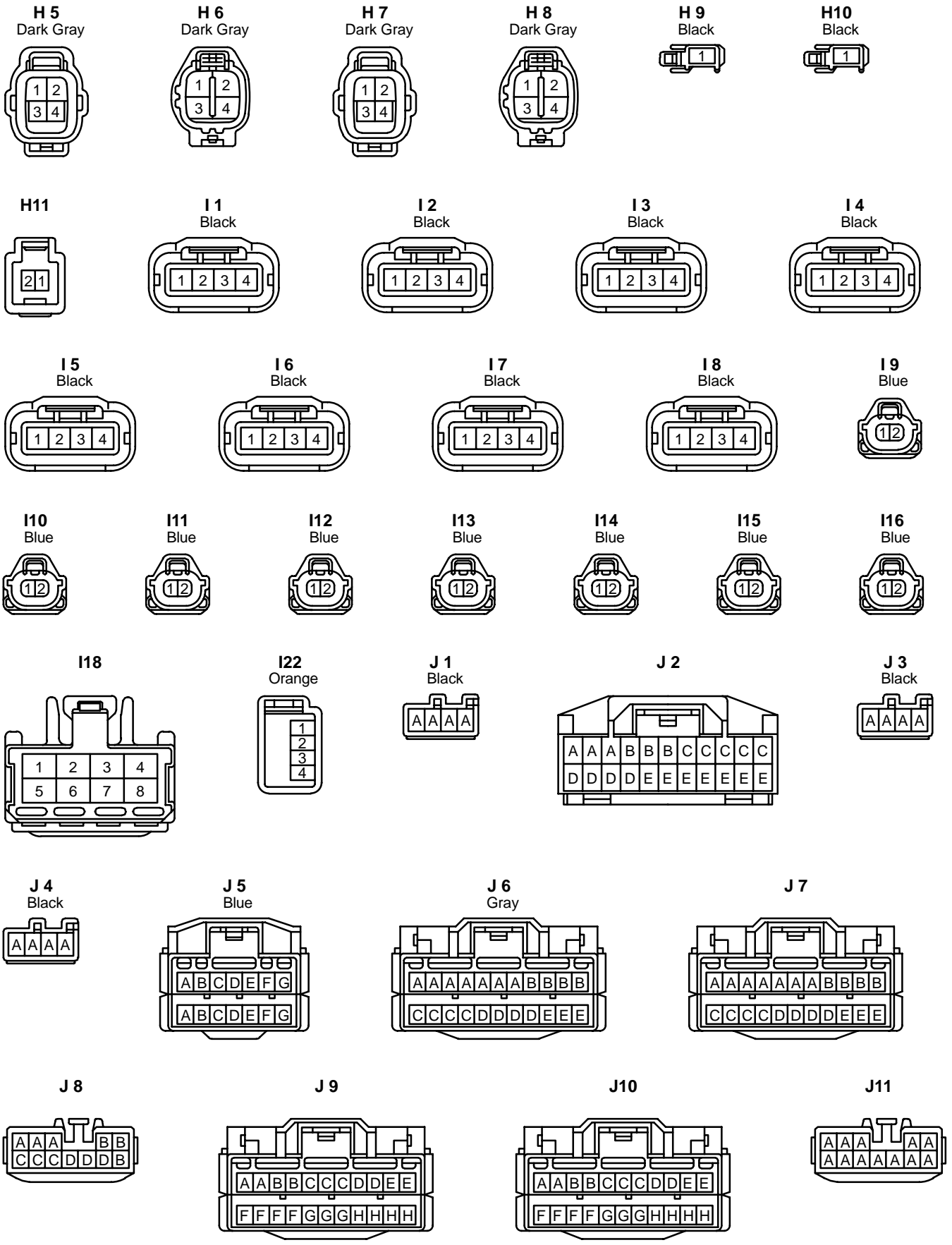


H 3
Black



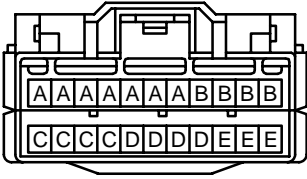
H 4
Brown



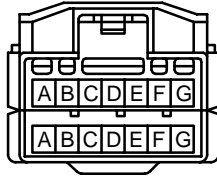


K CONNECTOR LIST

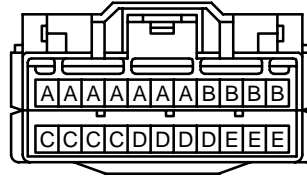
J12
Gray



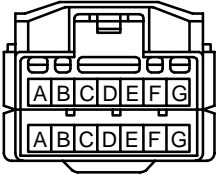
J13
Blue



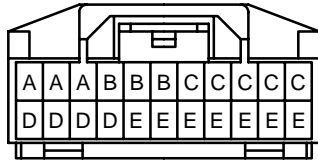
J14



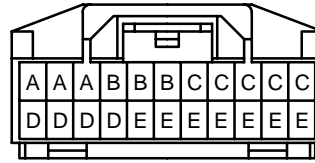
J15



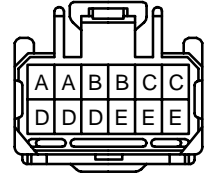
J16



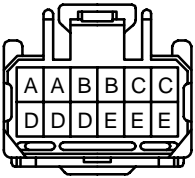
J17



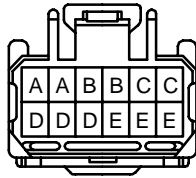
J18
Gray



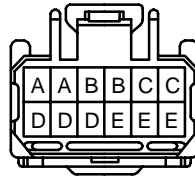
J19
Gray



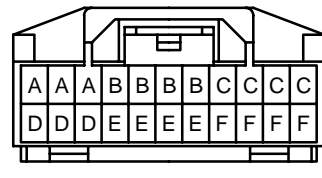
J20



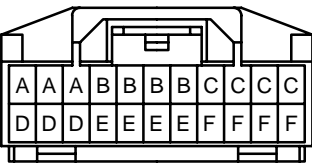
J21



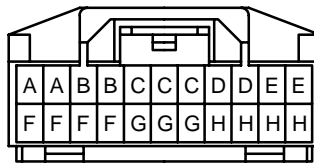
J22



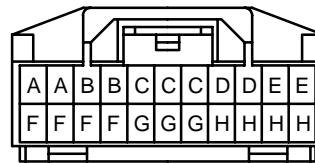
J23



J25



J26



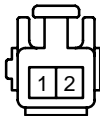
K 1
Dark Gray



K 2



K 3
Black



L 1



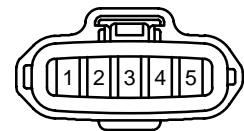
L 2



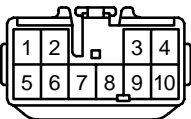
L 3



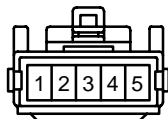
M 1
Black



M 2



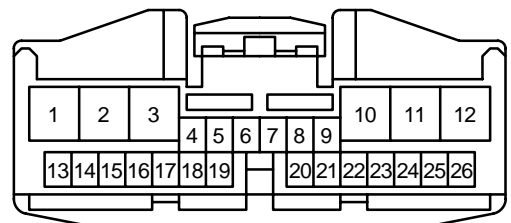
M 3

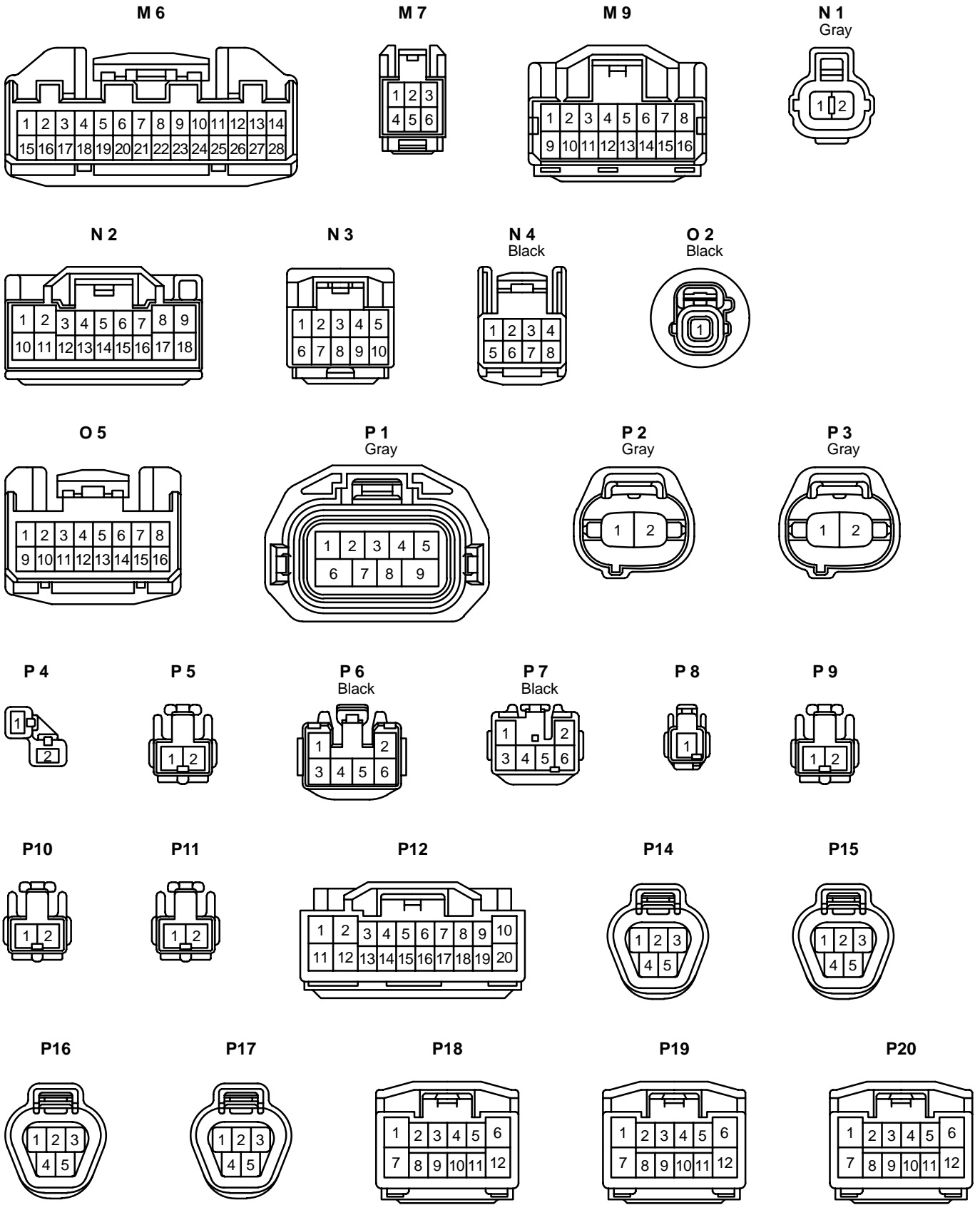


M 4
Gray

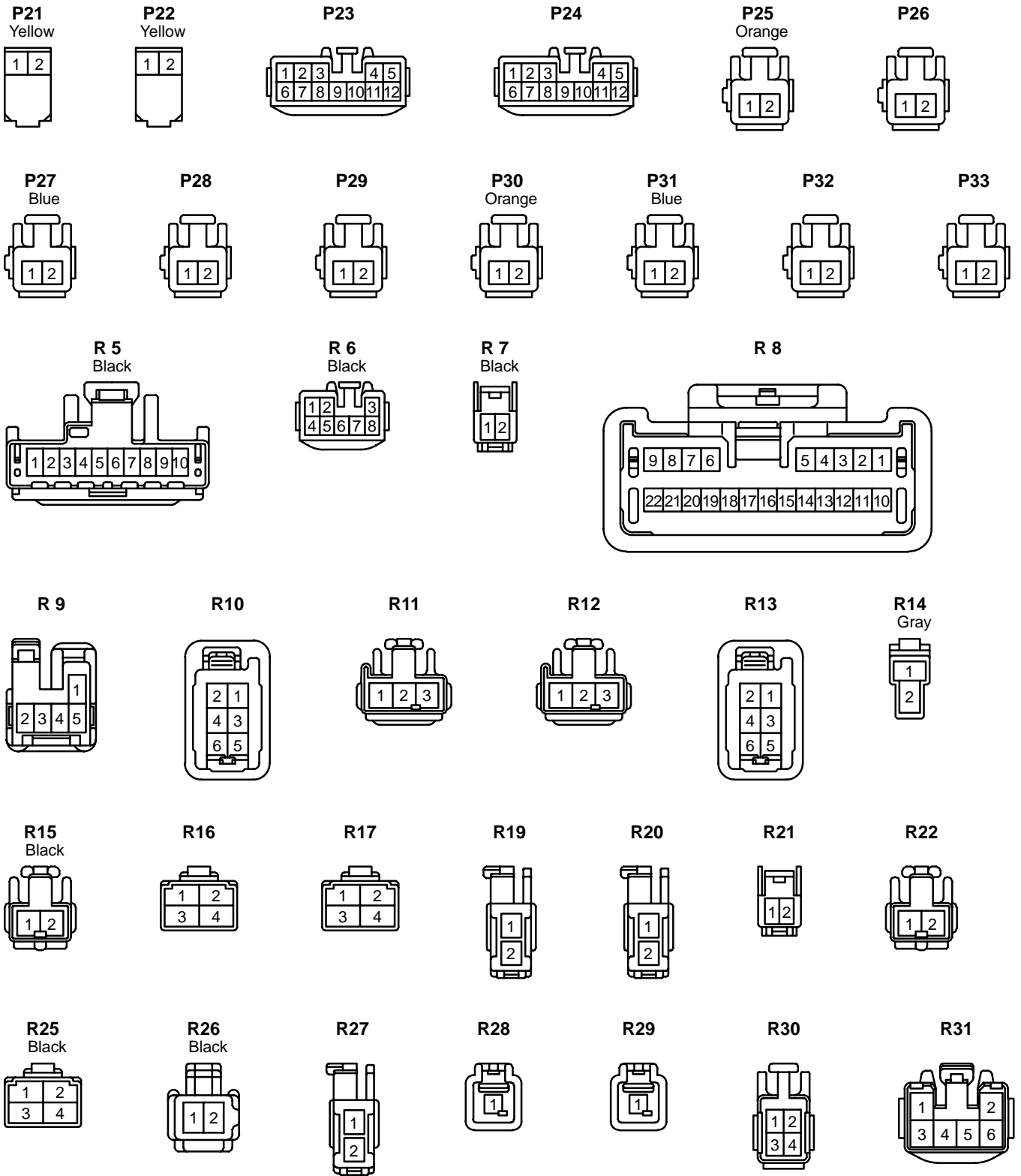


M 5

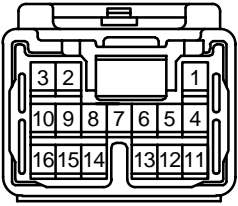




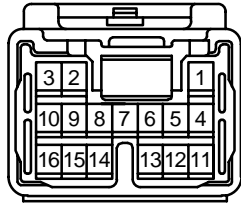
K CONNECTOR LIST



R32



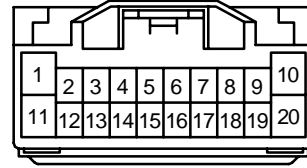
R33



R34
Black



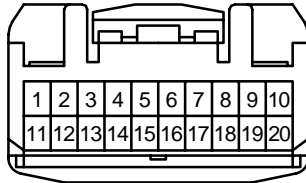
R36



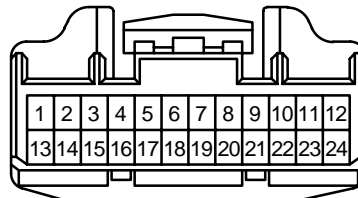
R37



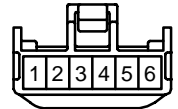
R38



R39



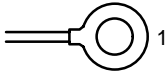
R40
Black



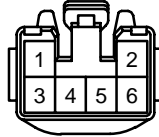
S1
Black



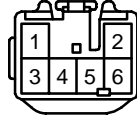
S2



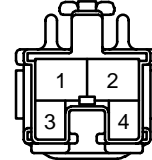
S3
Black



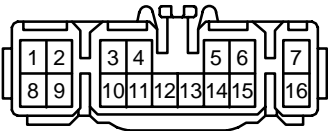
S4
Brown



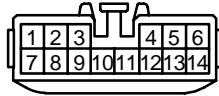
S5
Blue



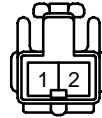
S6
Gray



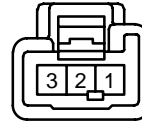
S7
Gray



S8



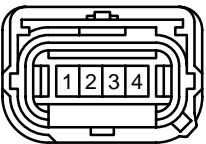
S9



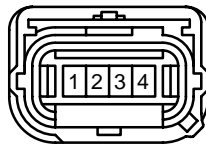
S10



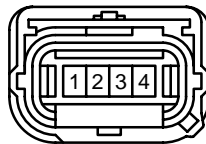
S11
Yellow



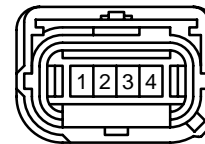
S12
Yellow



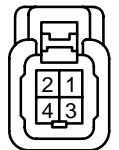
S13
Yellow



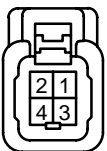
S14
Yellow



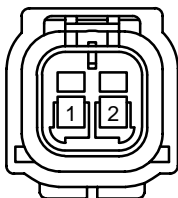
S15



S16



S17
Black



S18
Yellow



S19
Yellow



T1
Black

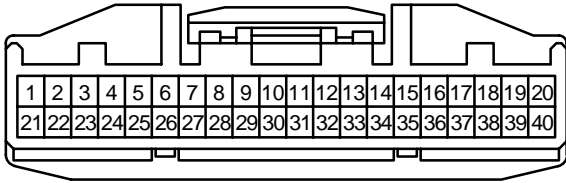


T4

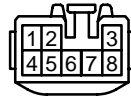


K CONNECTOR LIST

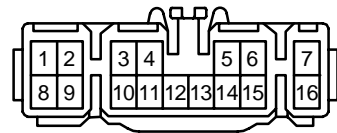
T 5



T 7



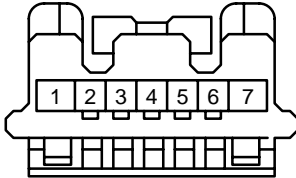
T 8



T 9
Black



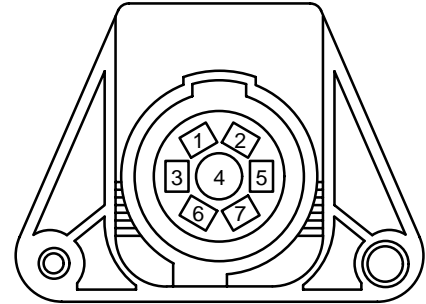
T10
Black



T11
Black



T12
Black



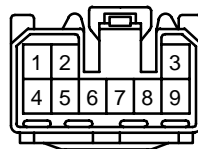
T13



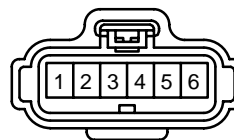
T14



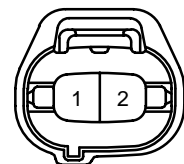
T15
Orange



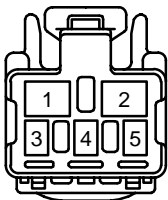
T16
Black



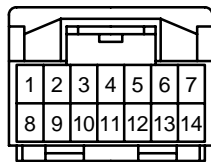
T17
Black



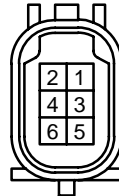
T18



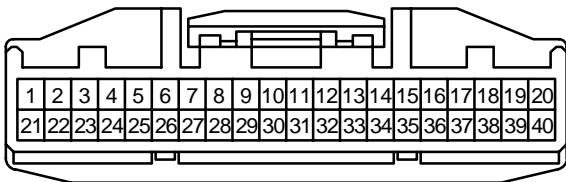
T19



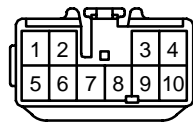
T20



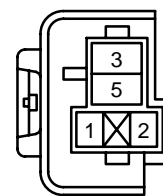
T21



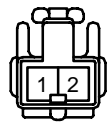
T22



T23



U 1



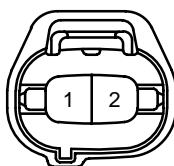
V 1
Black



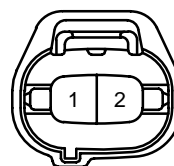
V 2
Black



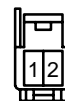
V 3
Black



V 4
Black



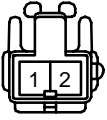
V 6



V 7



V 8
Black



V 9
Gray



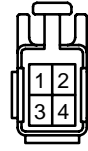
V10
Blue



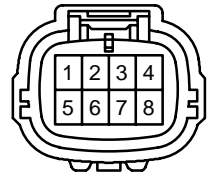
W 1
Gray



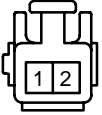
W 4



Y 1
Black



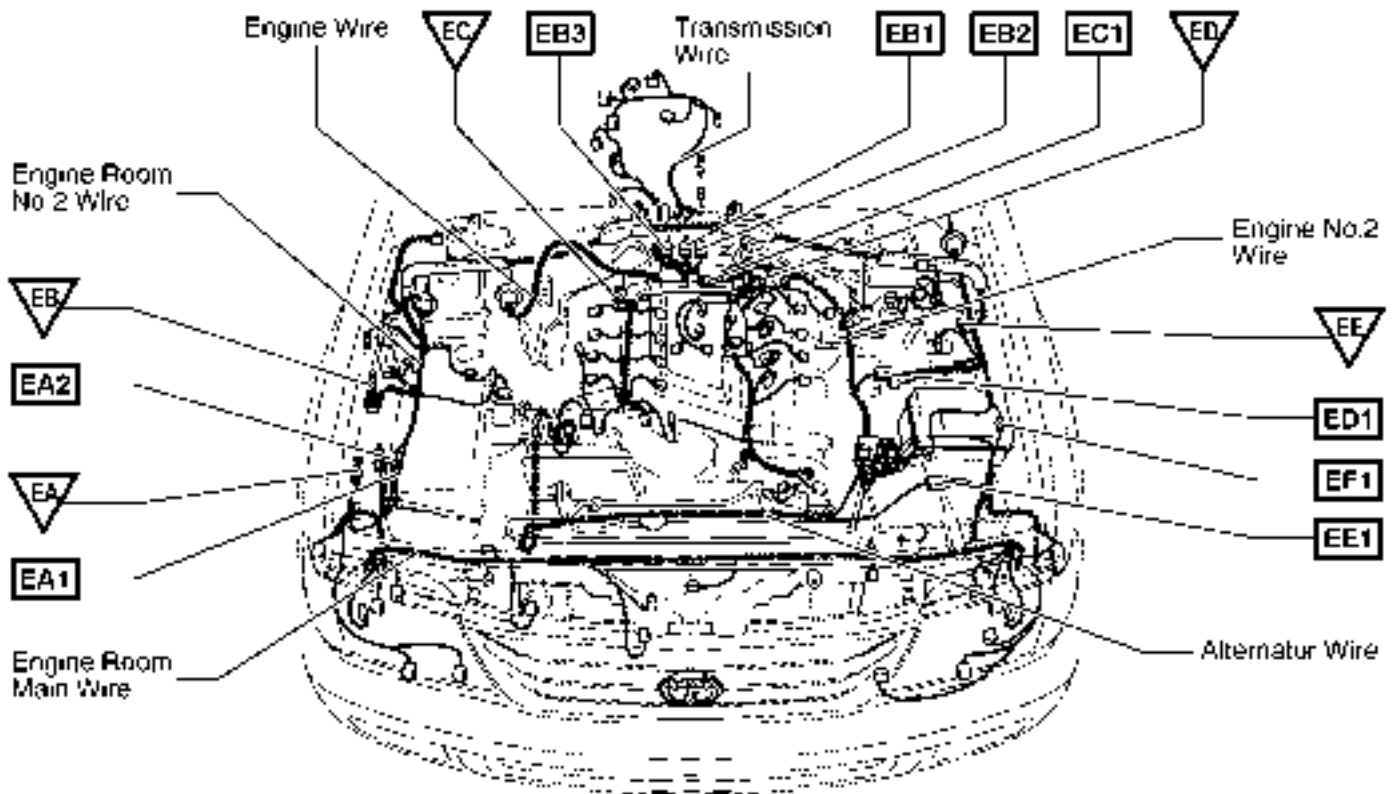
Z 1



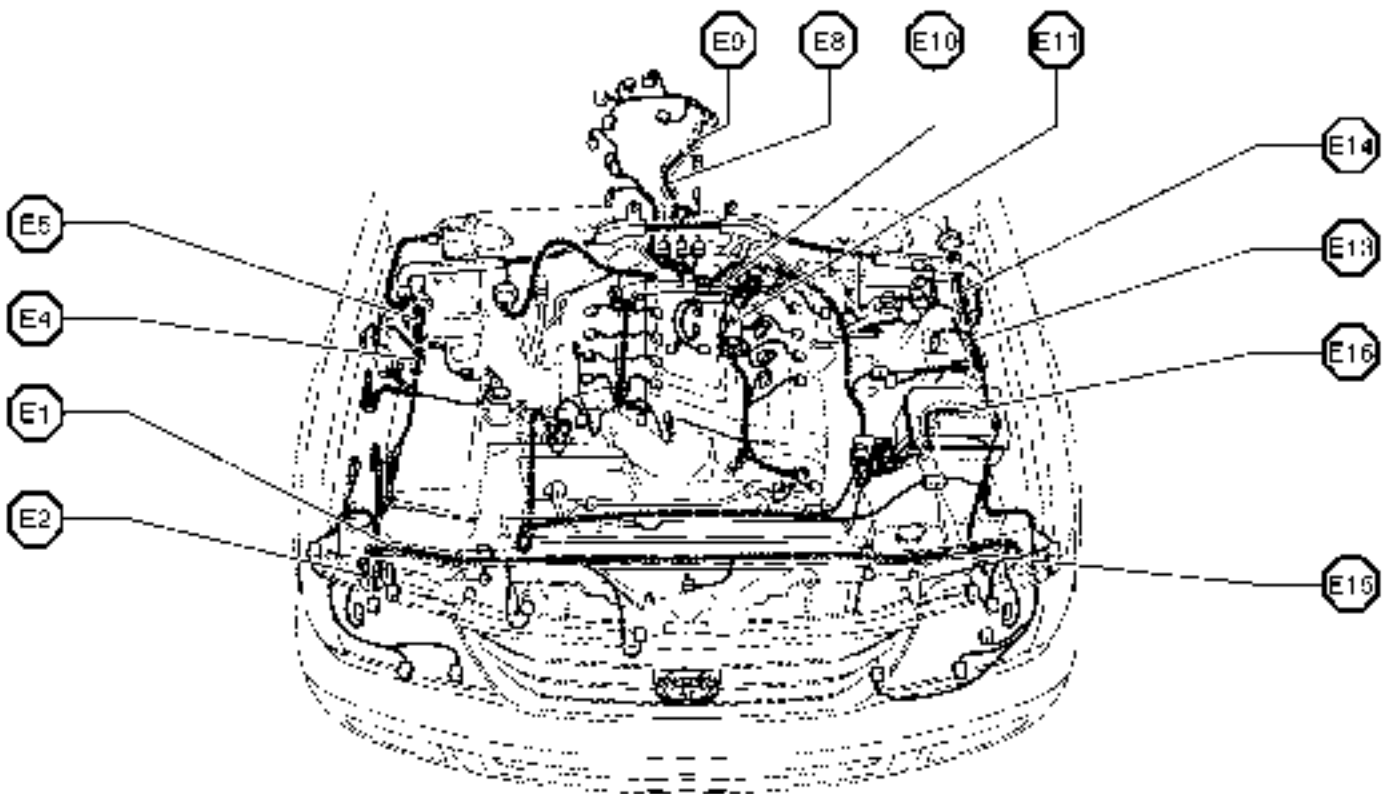
G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

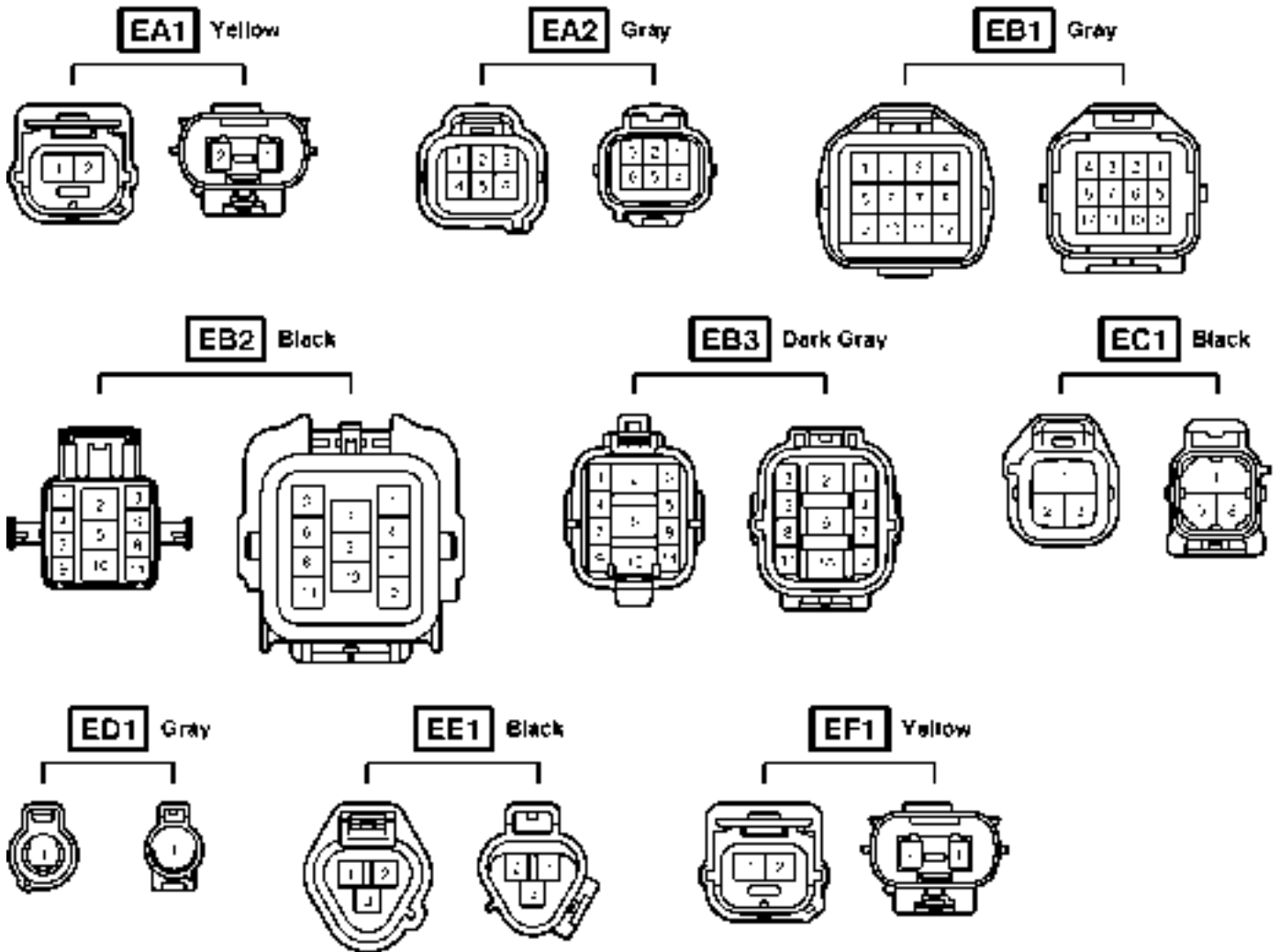
▽ : Location of Ground Points



○ : Location of Splice Points



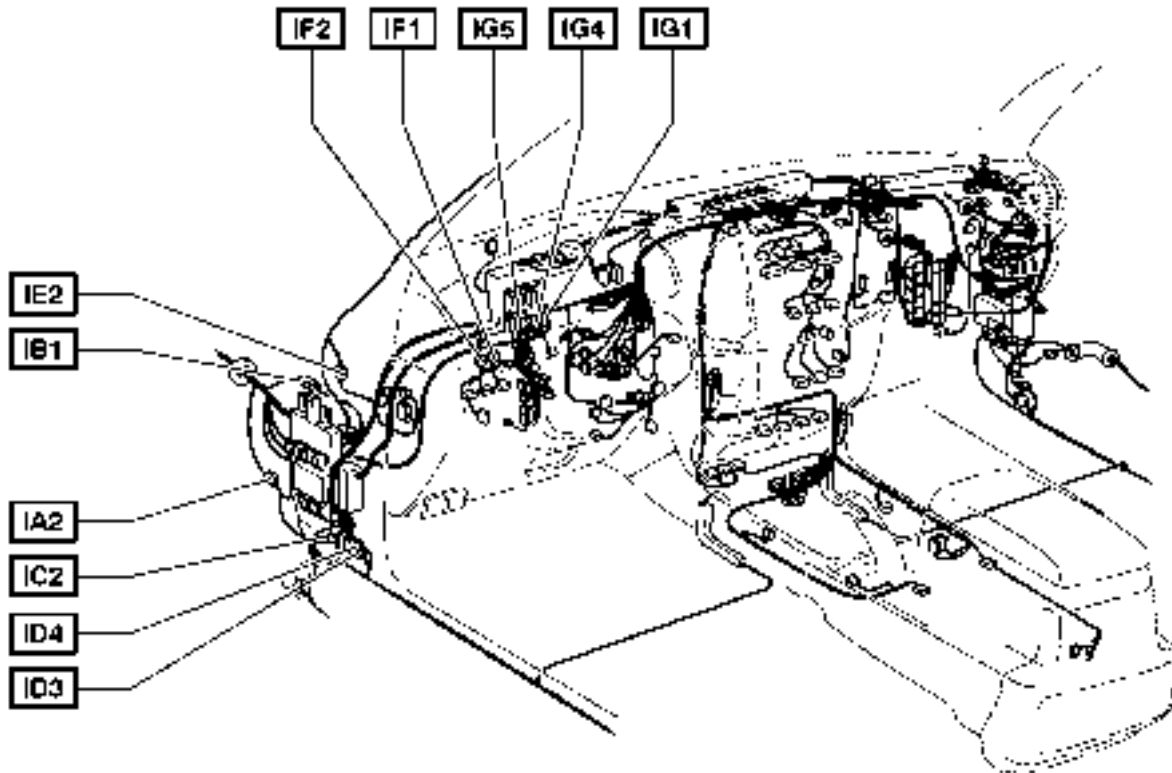
Connector Joining Wire Harness and Wire Harness



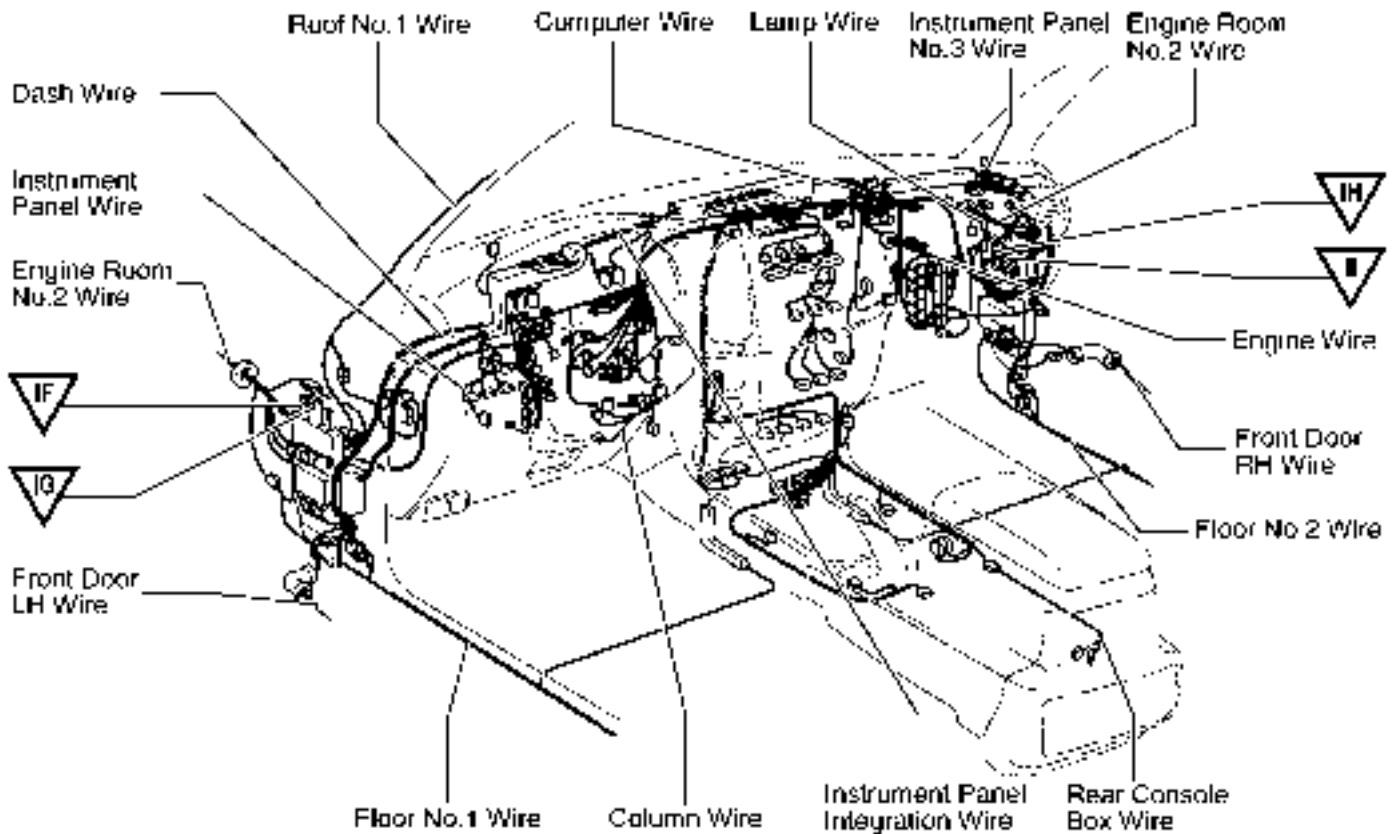
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
EA2	
EB1	Engine Wire and Transmission Wire (On the Transmission)
EB2	
EB3	
EC1	Engine No.2 Wire and Engine Wire (On the Transmission)
ED1	Engine No.2 Wire and Engine Room No.2 Wire (Near the Engine Room J/B)
EE1	Engine Room Main Wire and Alternator Wire (Near the Battery)
EF1	Engine Room No.2 Wire and Engine Room Main Wire (Under the Engine Room J/B)

G ELECTRICAL WIRING ROUTING

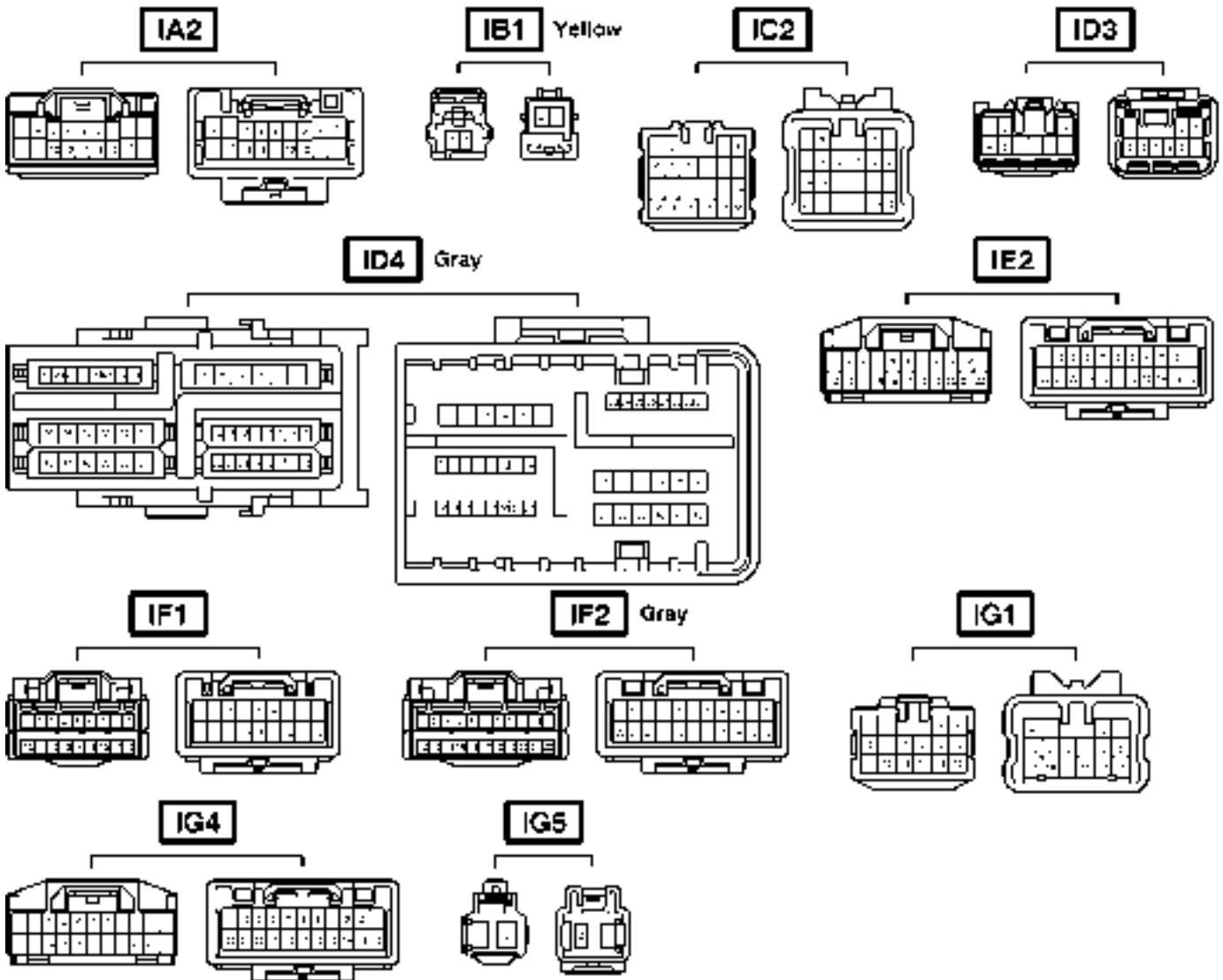
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



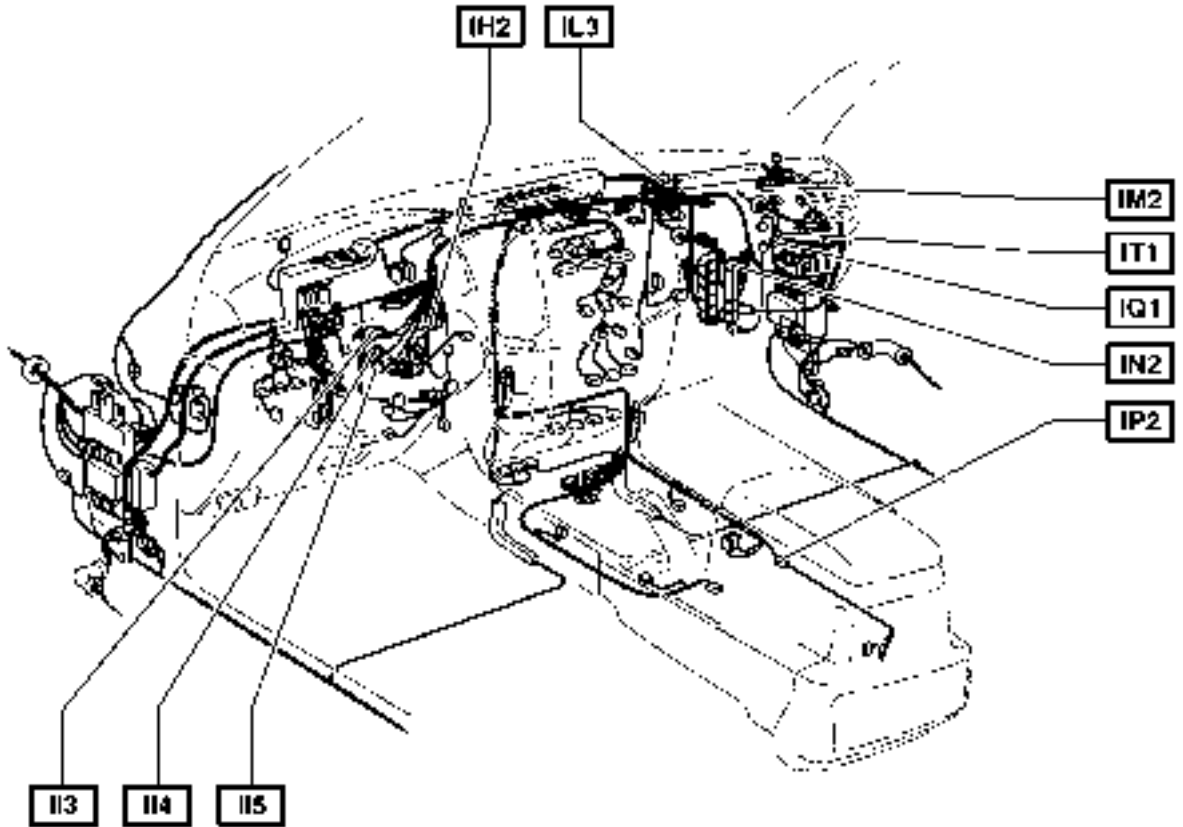
Connector Joining Wire Harness and Wire Harness



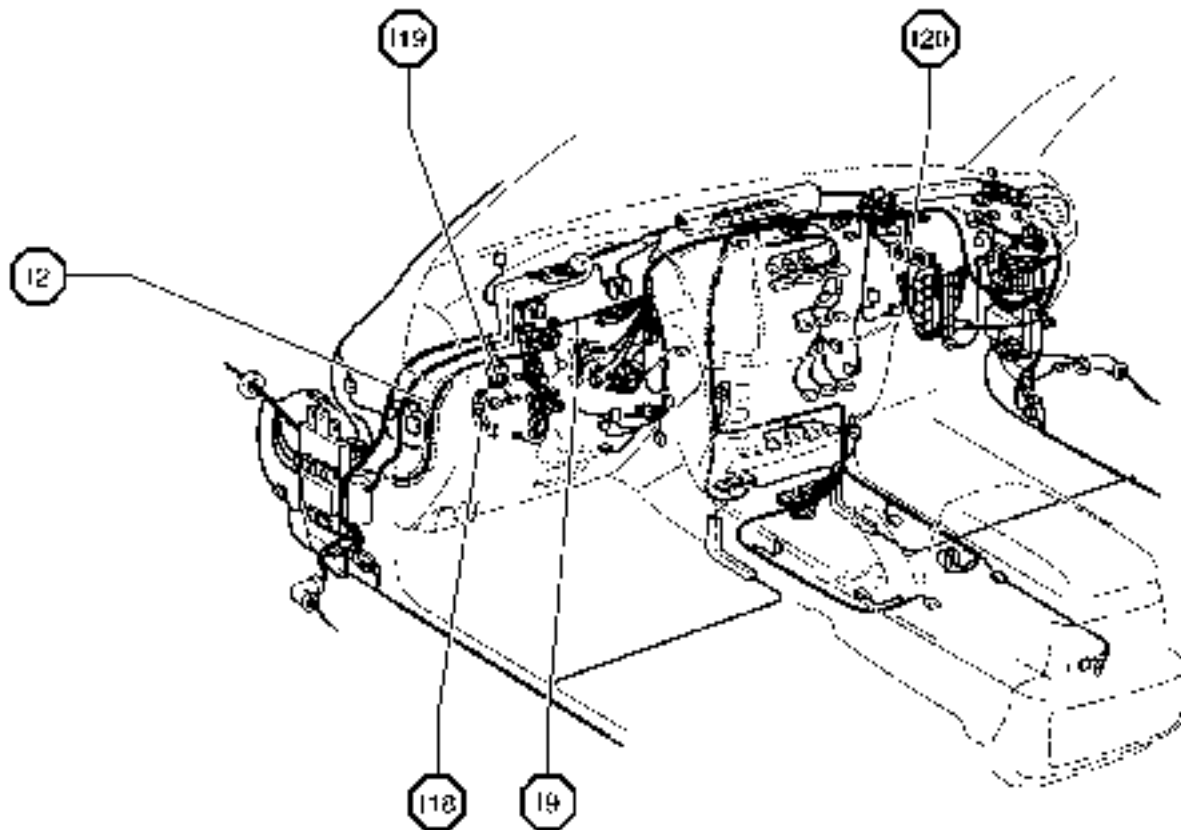
Code	Joining Wire Harness and Wire Harness (Connector Location)
IA2	Engine Room No.2 Wire and Floor No.1 Wire (Left Kick Panel)
IB1	Engine Room No.2 Wire and Dash Wire (Left Kick Panel)
IC2	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID3	Dash Wire and Floor No.1 Wire (Left Kick Panel)
ID4	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IE2	Dash Wire and Roof No.1 Wire (Left Kick Panel)
IF1	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IG1	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG4	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG5	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)

G ELECTRICAL WIRING ROUTING

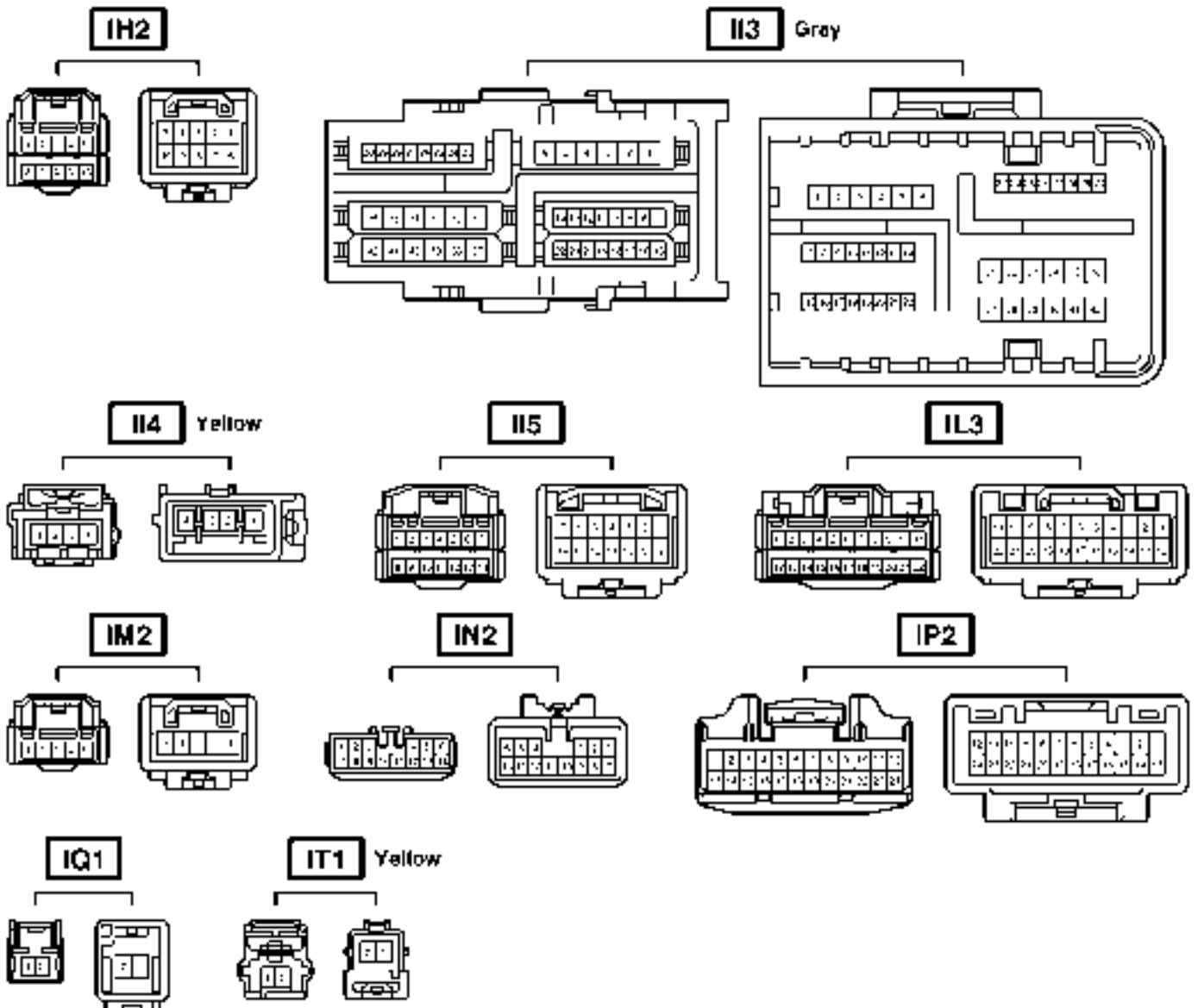
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



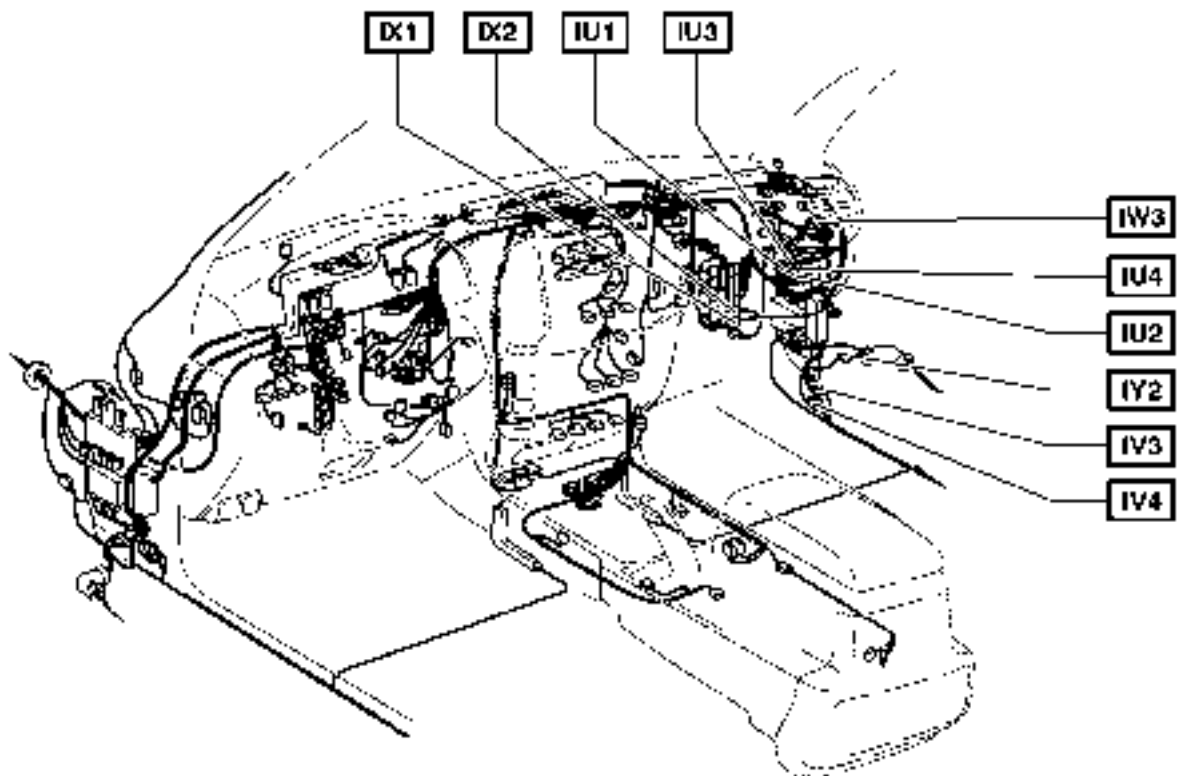
Connector Joining Wire Harness and Wire Harness



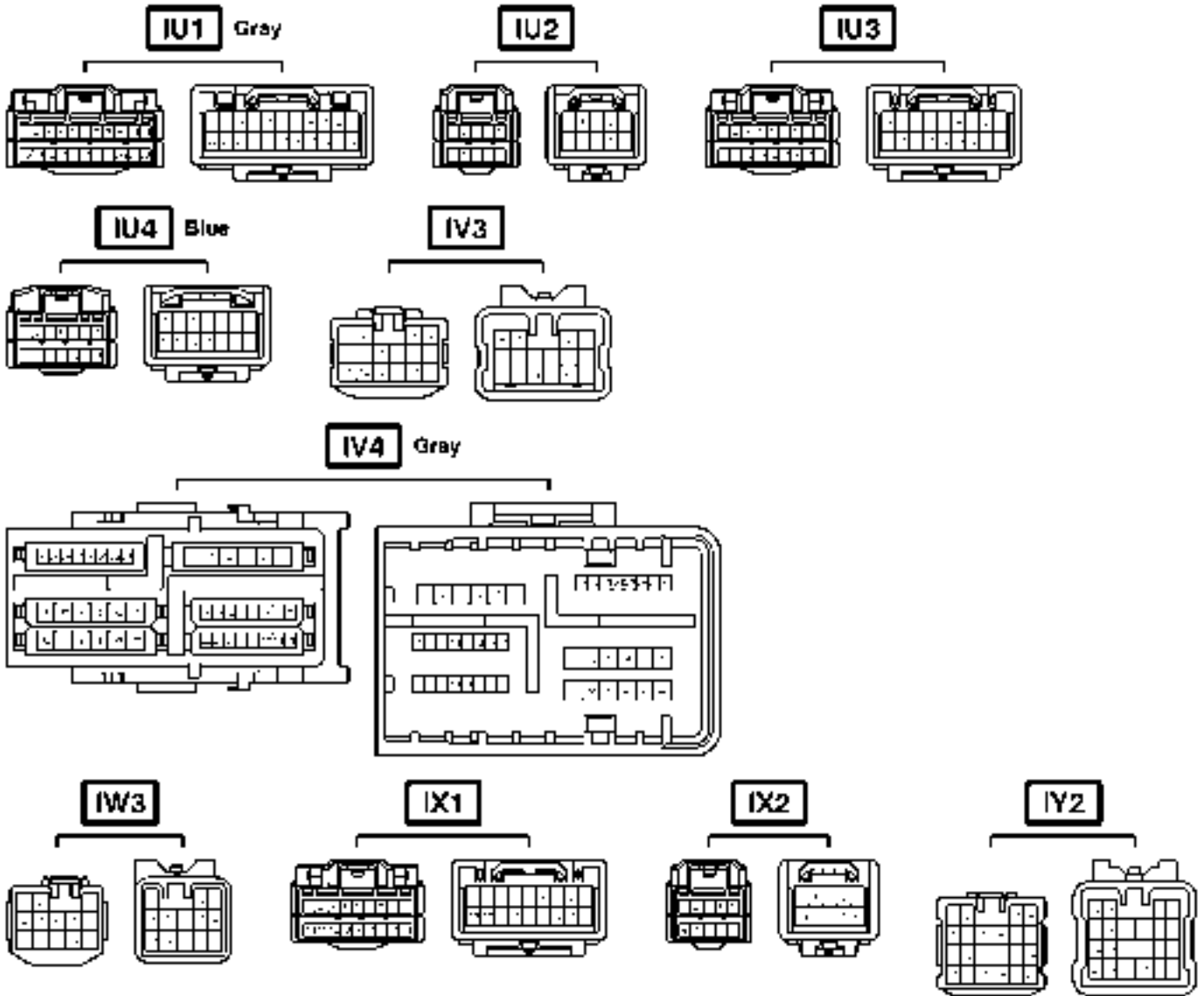
Code	Joining Wire Harness and Wire Harness (Connector Location)
IH2	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	Dash Wire and Column Wire (Near the Ignition SW)
II4	Dash Wire and Column Wire (Near the Ignition SW)
II5	Dash Wire and Column Wire (Near the Ignition SW)
IL3	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IM2	Instrument Panel Integration Wire and Instrument Panel No.3 Wire (Right Side of Instrument Panel)
IN2	Engine Wire and Dash Wire (Behind the Glove Box)
IP2	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IQ1	Instrument Panel Integration Wire and Lamp Wire (Behind the Glove Box)
IT1	Engine Room No.2 Wire and Dash Wire (Right Kick Panel)

G ELECTRICAL WIRING ROUTING

 : Location of Connector Joining Wire Harness and Wire Harness



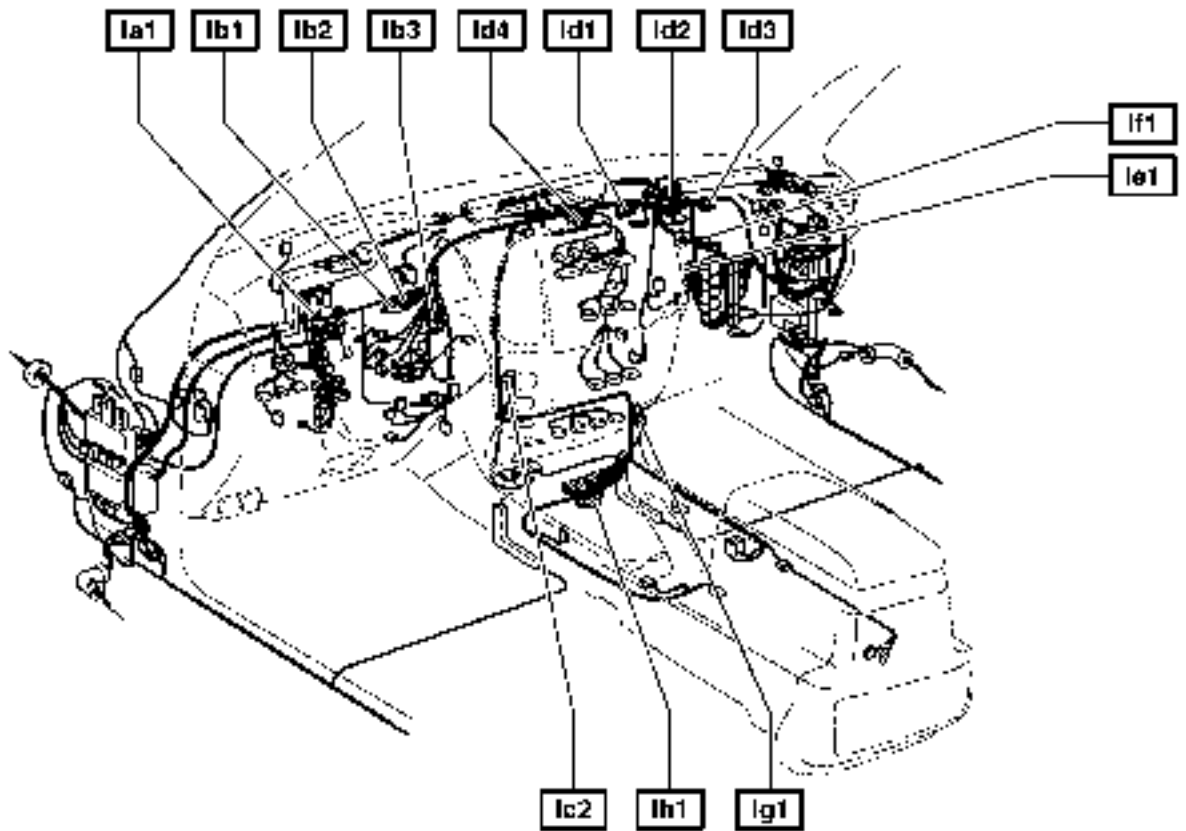
Connector Joining Wire Harness and Wire Harness



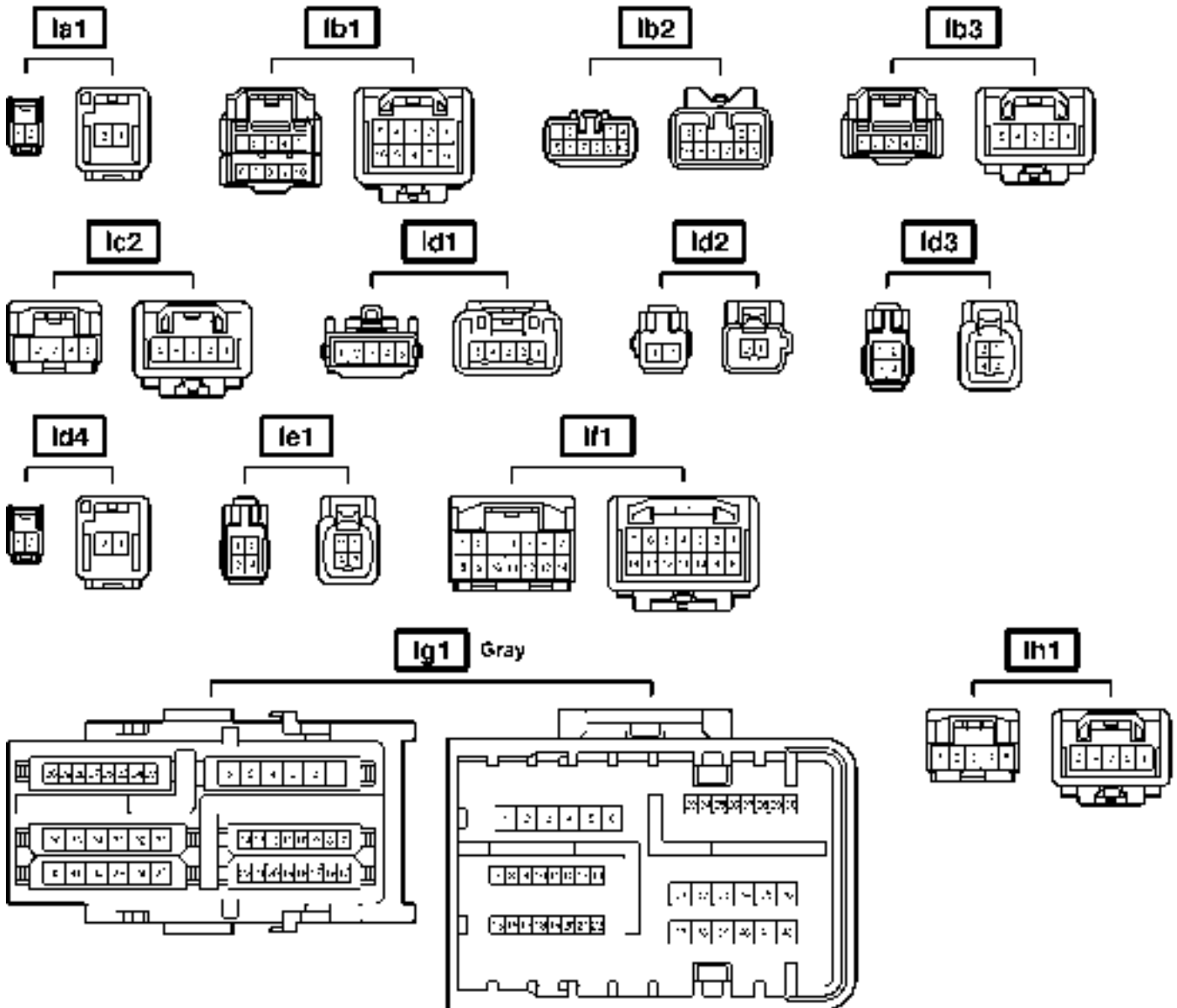
Code	Joining Wire Harness and Wire Harness (Connector Location)
IU1	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU2	
IU3	
IU4	
IV3	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IV4	
IW3	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IX2	
IY2	Front Door RH Wire and Dash Wire (Right Kick Panel)

G ELECTRICAL WIRING ROUTING

 : Location of Connector Joining Wire Harness and Wire Harness



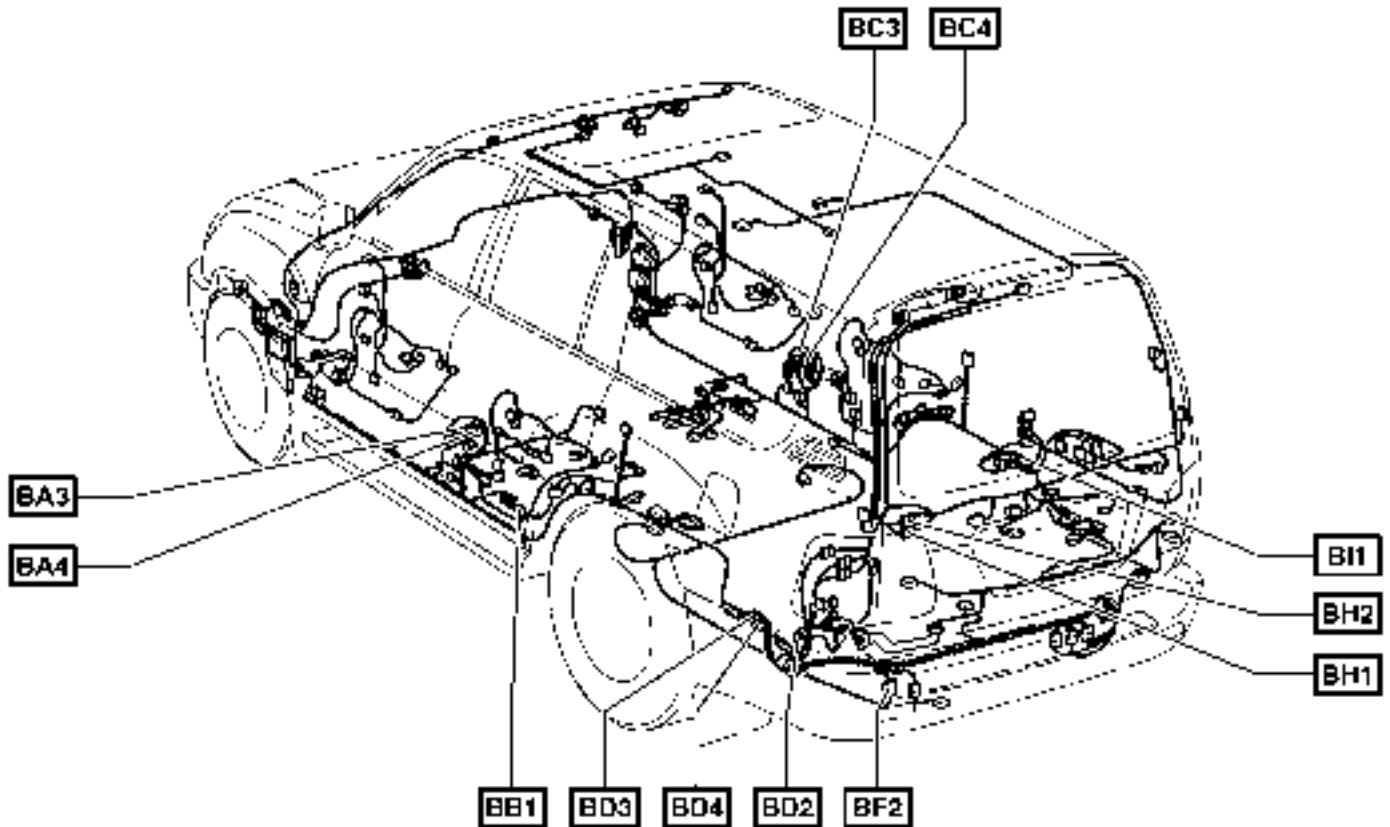
Connector Joining Wire Harness and Wire Harness



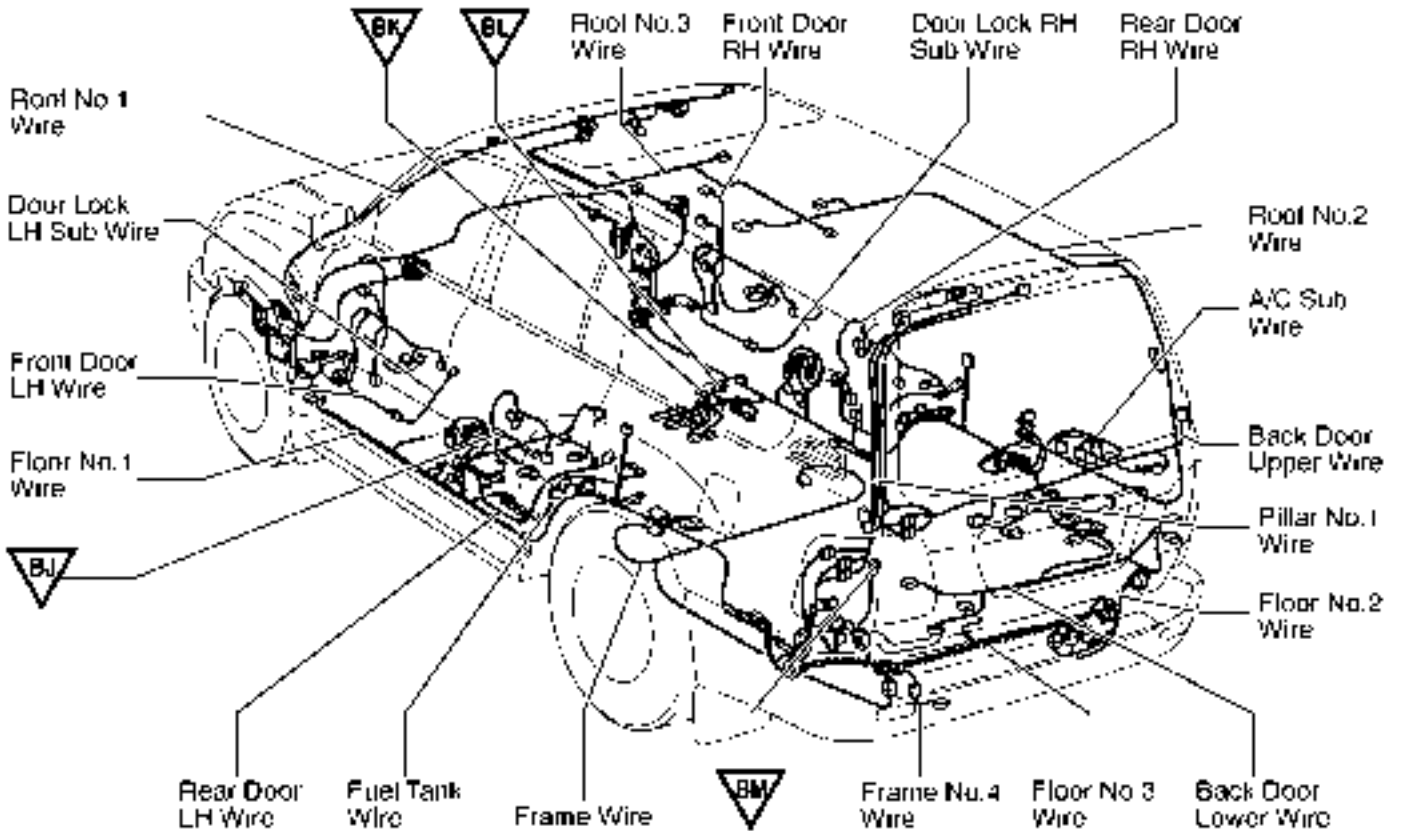
Code	Joining Wire Harness and Wire Harness (Connector Location)
Ia1	Dash Wire and Dash Wire (Behind the Combination Meter)
Ib1	
Ib2	Dash Wire and Dash Wire (Behind the Combination Meter)
Ib3	
Ic2	Dash Wire and Dash Wire (Behind the Center Panel)
Id1	
Id2	Dash Wire and Dash Wire (Instrument Panel Center)
Id3	
Id4	
Ie1	Dash Wire and Dash Wire (Behind the Glove Box)
If1	Engine Wire and Engine Wire (Behind the Glove Box)
Ig1	Dash Wire and Floor No.2 Wire (Right Side of Front Console)
Ih1	Dash Wire and Dash Wire (Center Side of Front Console)

G ELECTRICAL WIRING ROUTING

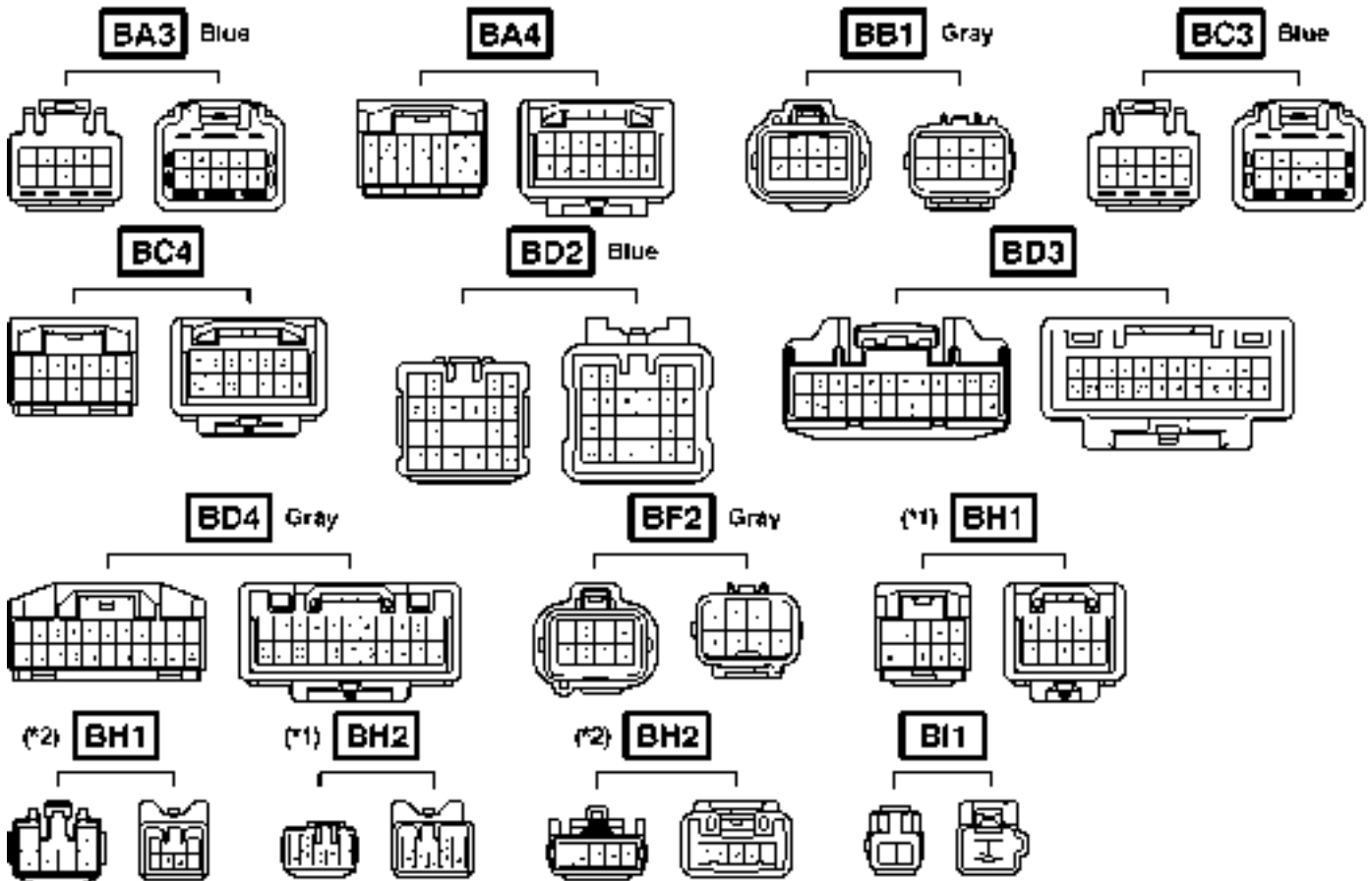
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



Connector Joining Wire Harness and Wire Harness

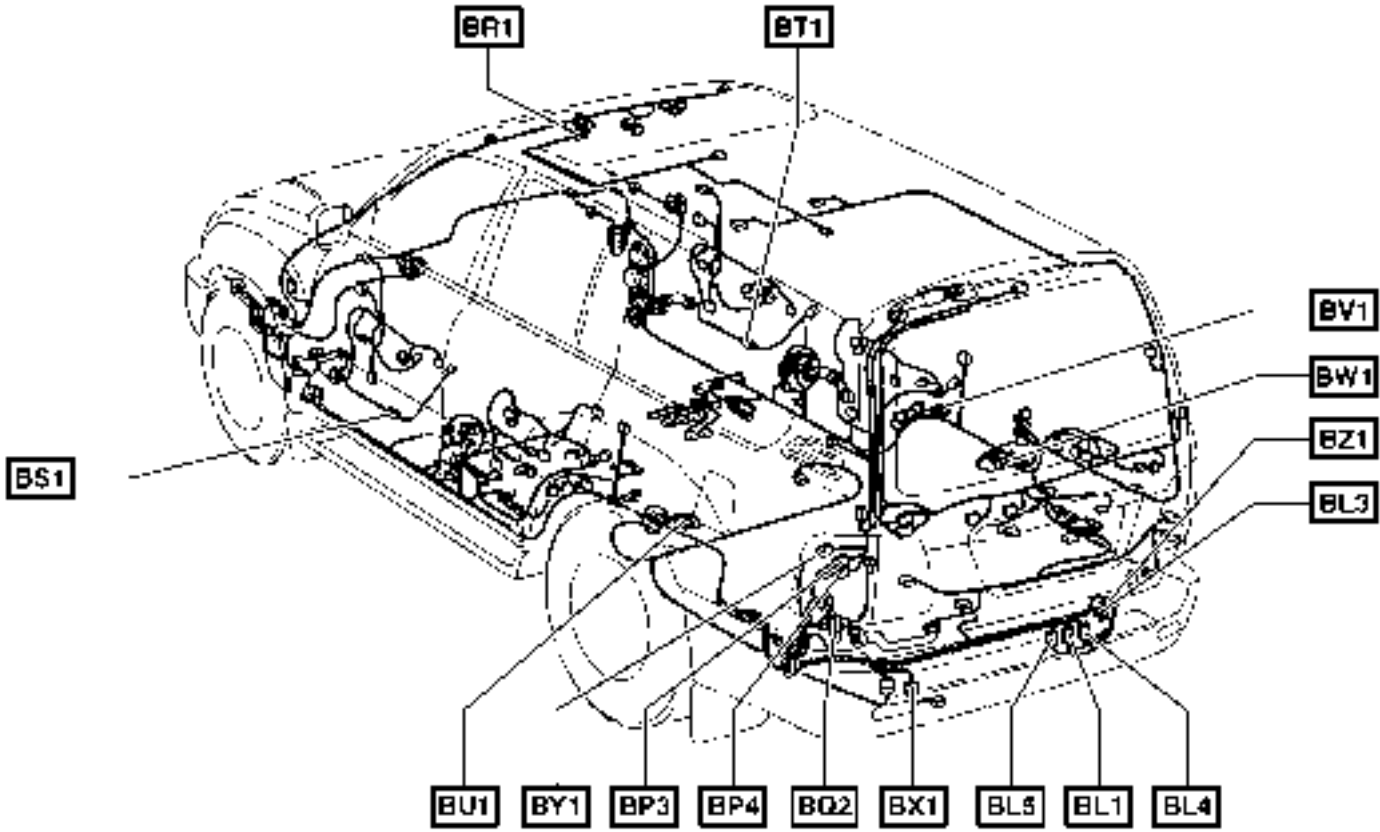


^ 1:w/ Navigation System
^ 2:w/o Navigation System

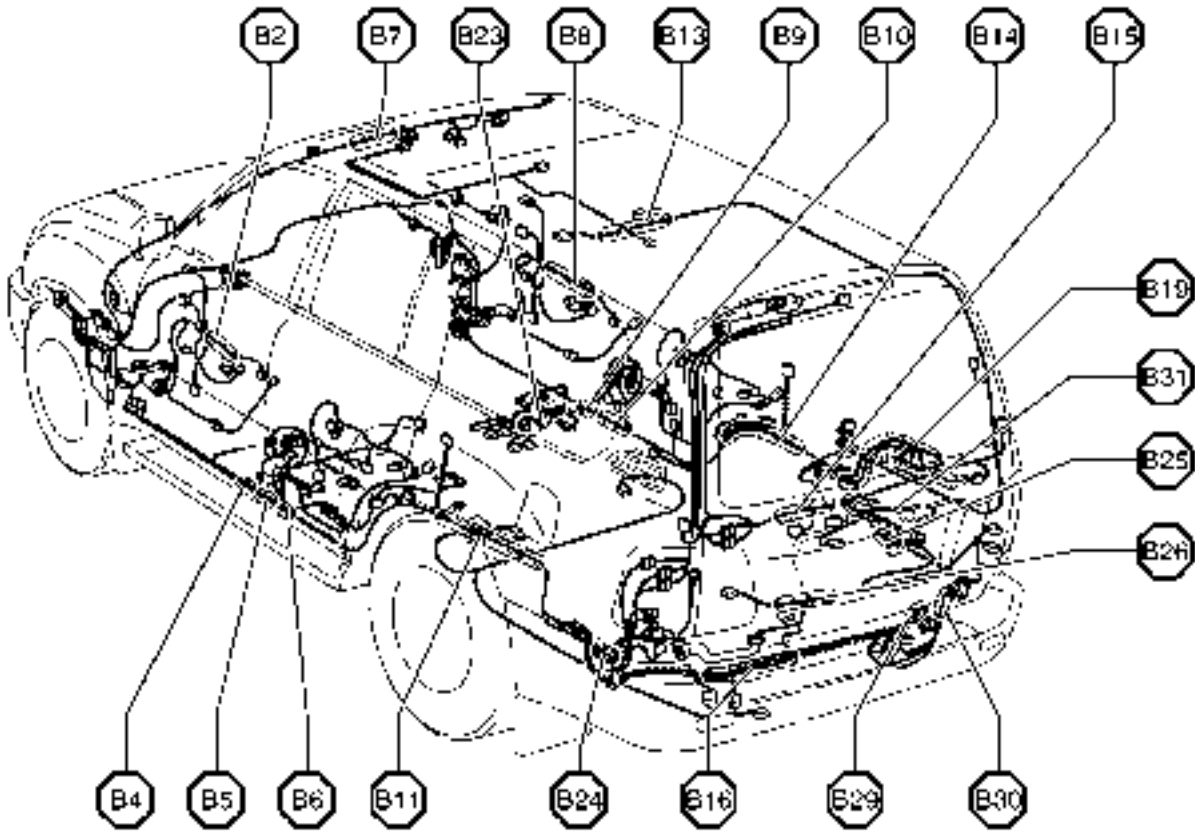
Code	Joining Wire Harness and Wire Harness (Connector Location)
BA3	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BA4	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BB1	Floor No.1 Wire and Fuel Tank Wire (Near the Fuel Tank)
BC3	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC4	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BD2	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BD3	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BD4	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)
BF2	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)
BH1	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BI1	Roof No.2 Wire and Floor No.2 Wire (Right Side Rear Quarter Panel)

G ELECTRICAL WIRING ROUTING

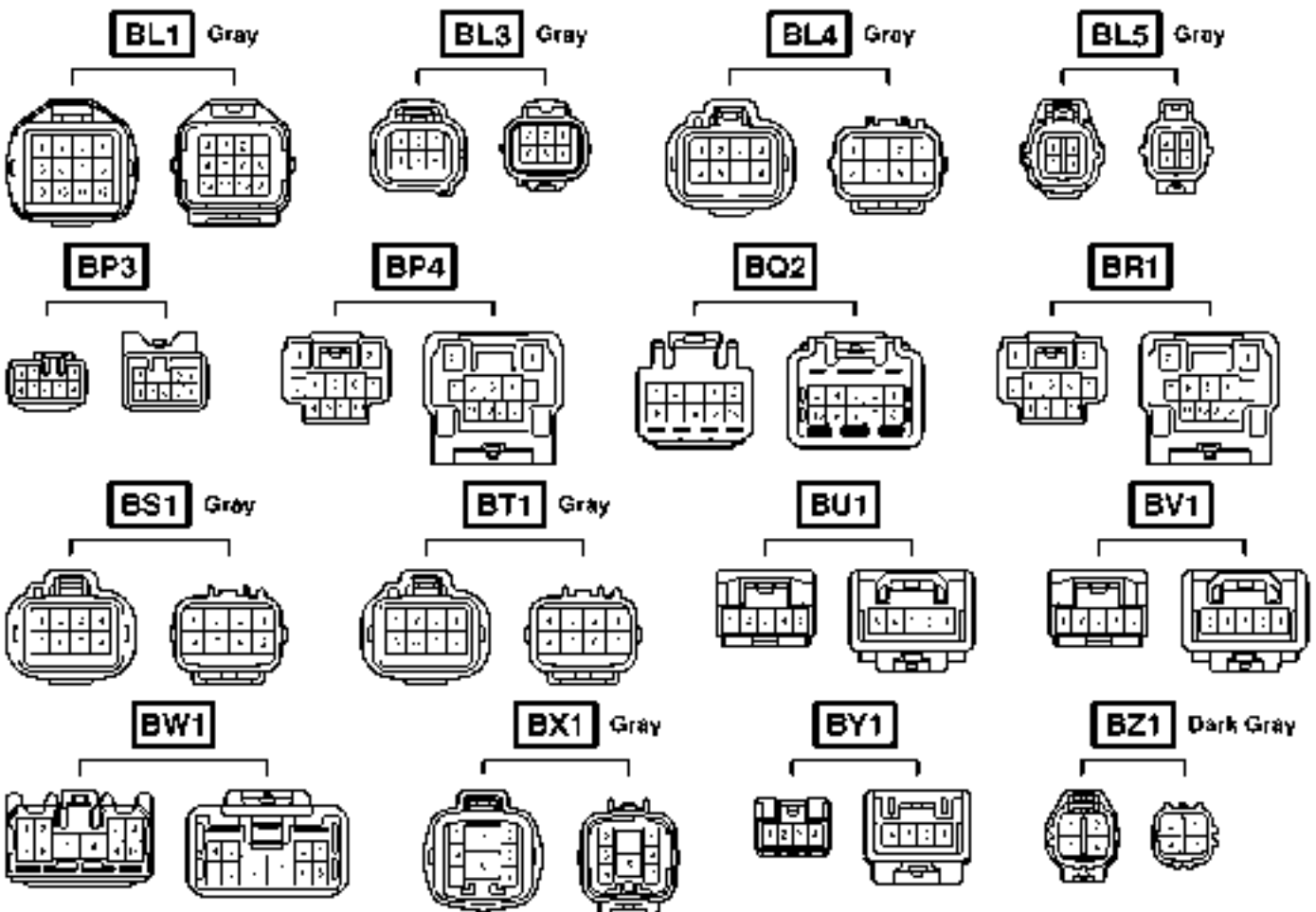
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



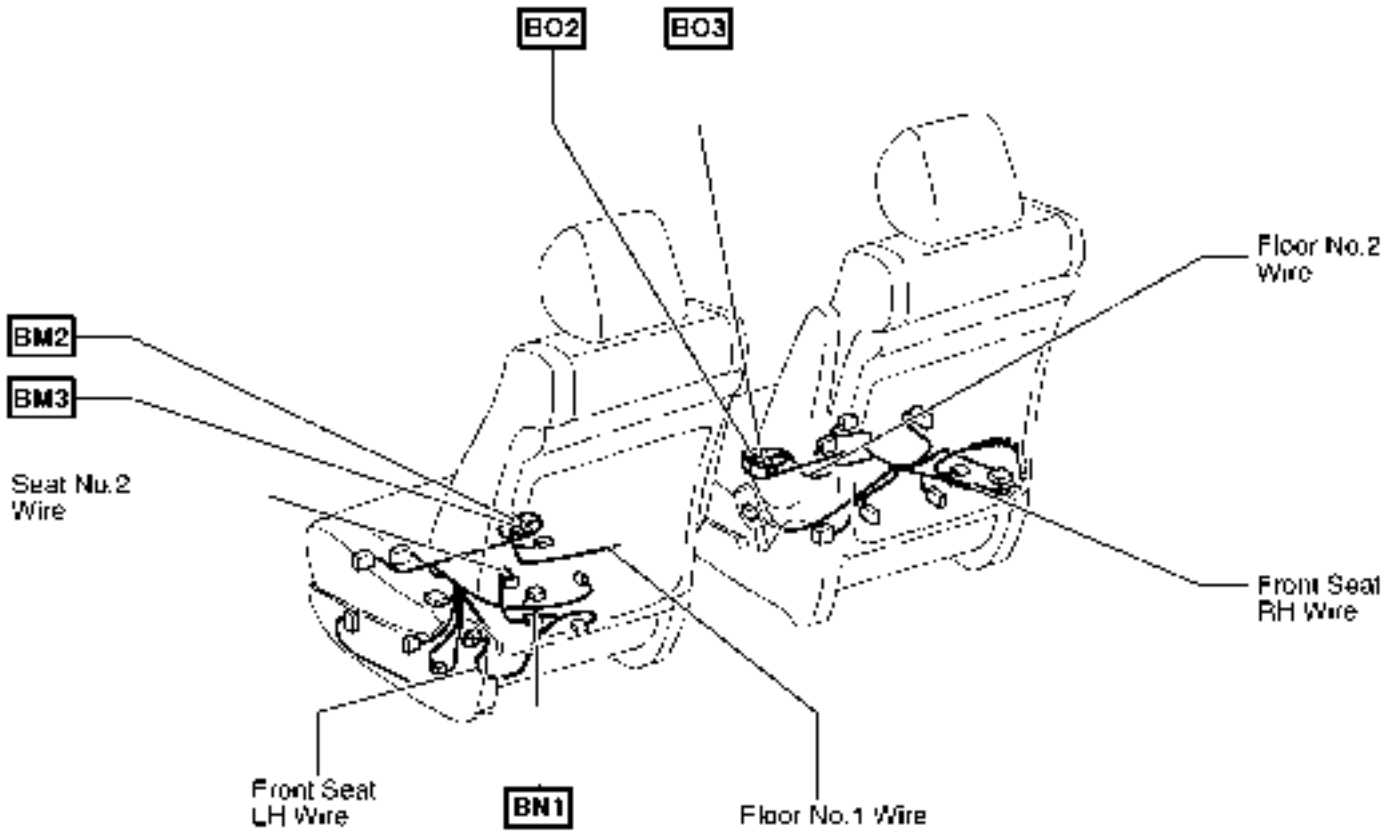
Connector Joining Wire Harness and Wire Harness



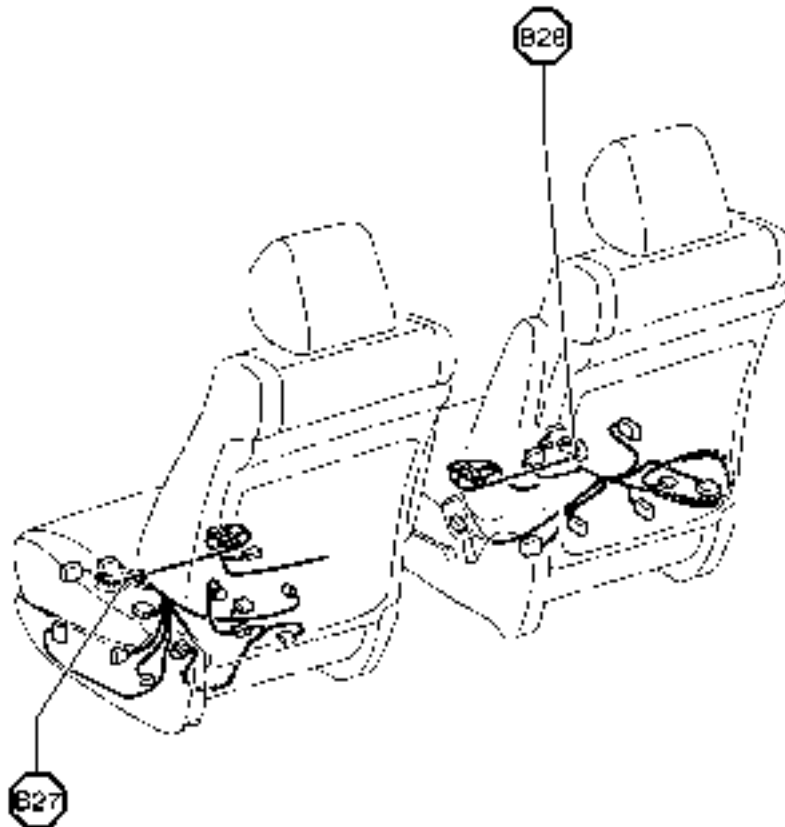
Code	Joining Wire Harness and Wire Harness (Connector Location)
BL1	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL3	
BL4	
BL5	
BP3	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4	
BQ2	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BR1	Roof No.3 Wire and Roof No.1 Wire (Front Side of Roof)
BS1	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)
BT1	Door Lock RH Sub Wire and Front Door RH Wire (Front Door RH)
BU1	Floor No.1 Wire and Floor No.1 Wire (Near the Left Rear Suspension Support)
BV1	Floor No.2 Wire and Floor No.2 Wire (Near the Right Rear Suspension Support)
BW1	Floor No.2 Wire and A/C Sub Wire (Right Side Rear Quarter Panel)
BX1	Frame No.4 Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)
BY1	Pillar No.1 Wire and Floor No.3 Wire (Left Rear Side Quarter Panel)
BZ1	Floor No.3 Wire and Floor No.2 Wire (Right Side of Rear Floor Crossmember)

G ELECTRICAL WIRING ROUTING

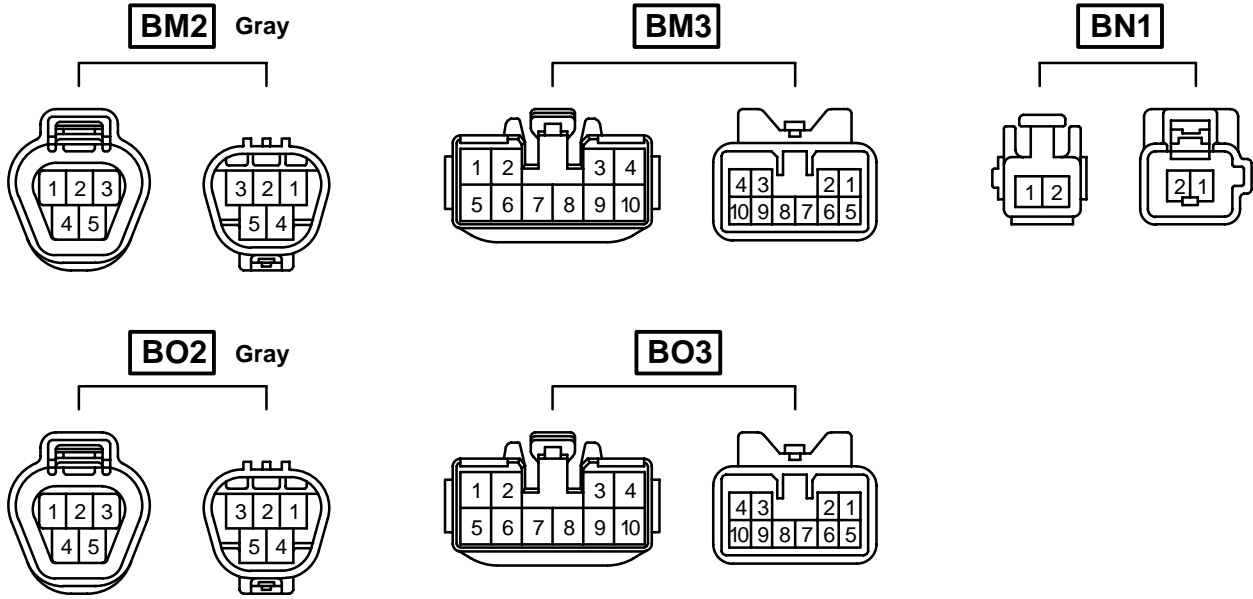
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points

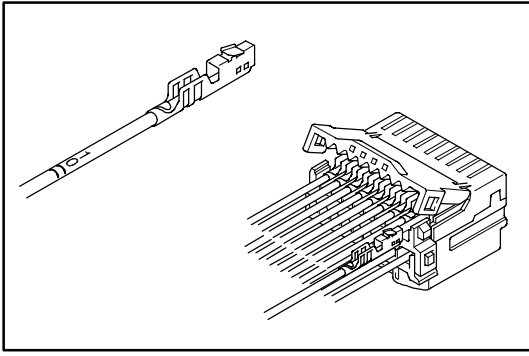


Connector Joining Wire Harness and Wire Harness



Code	Joining Wire Harness and Wire Harness (Connector Location)
BM2	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BM3	
BN1	Seat No.2 Wire and Front Seat LH Wire (Rear Side Under the Driver's Seat)
BO2	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)
BO3	

HINT



WIRE COLOR AND TERMINAL NUMBER

In some parts of the instrumental panel wiring harness, the same wire color (i.e. SB: Sky Blue) is used for all the wiring to a specific connector.

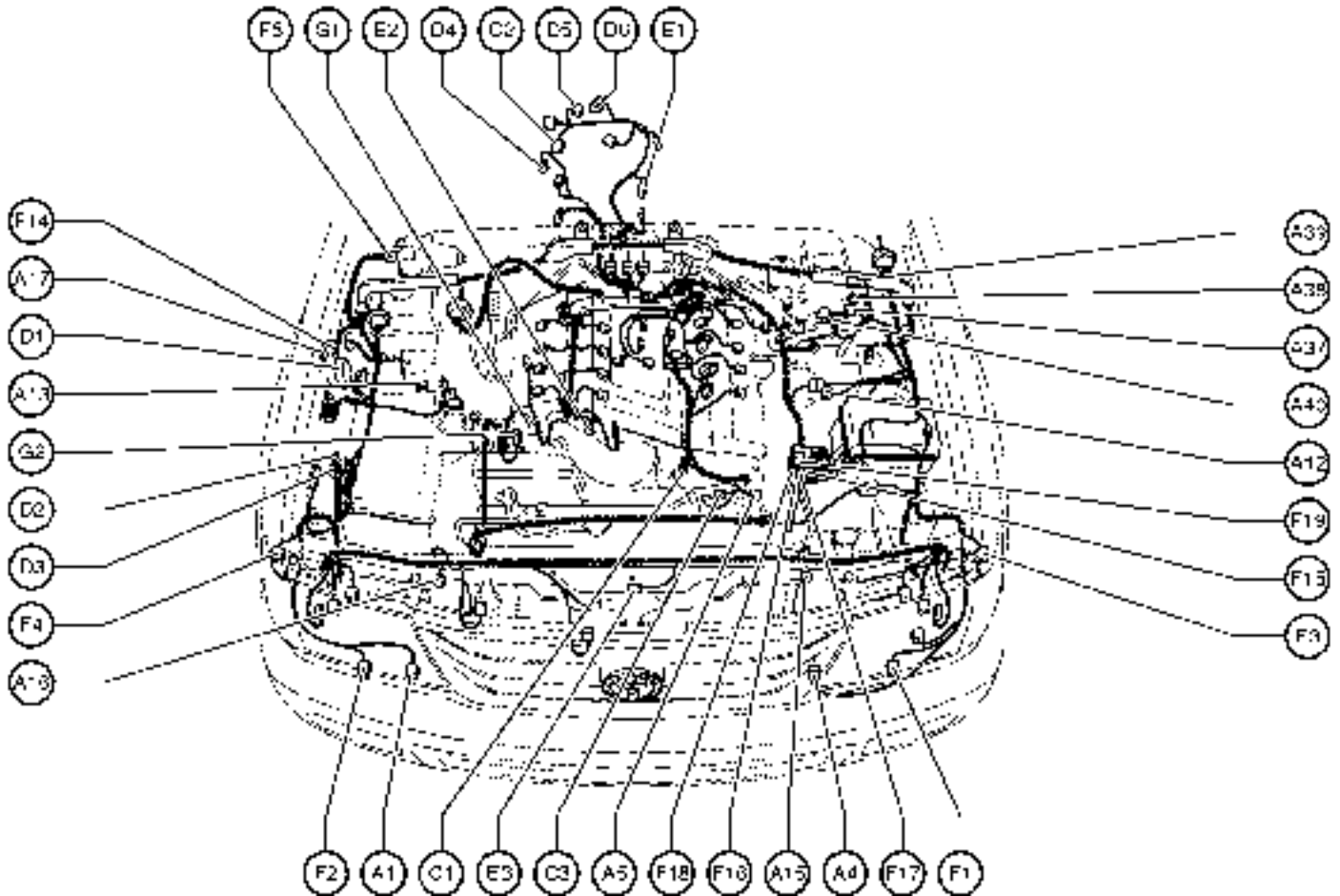
In order to identify the wiring, the terminal number is printed on the wiring.

Install the wiring to the connector position with the same terminal number.

Some early production Vehicles may not have these terminal numbers printed.

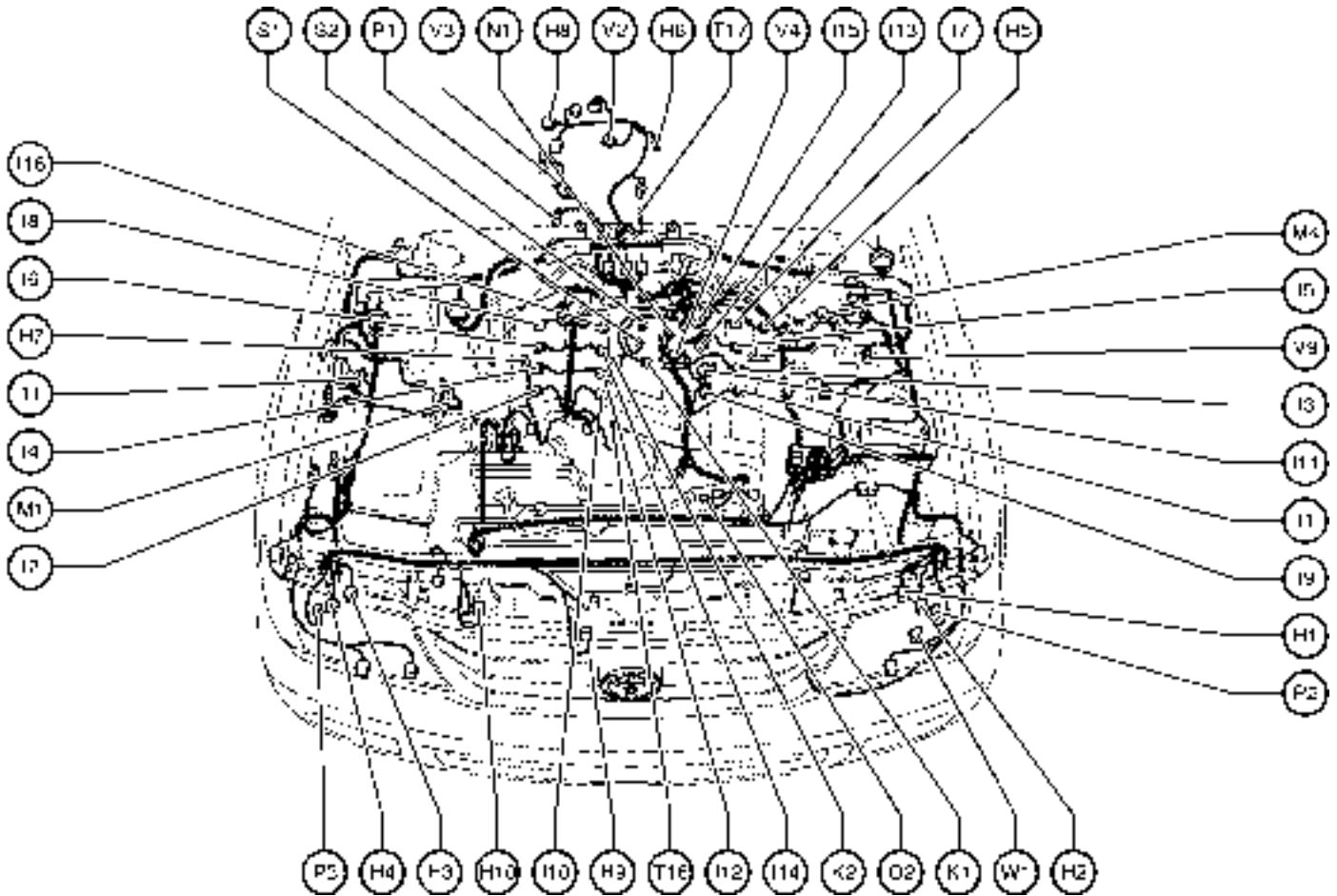
G ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment



- | | |
|--|--|
| A 1 A/C Ambient Temp. Sensor | E 1 Electronically Controlled Transmission Solenoid |
| A 4 Pressure SW | E 2 Engine Coolant Temp. Sensor |
| A 5 A/C Lock Sensor
A/C Magnetic Clutch | E 3 Engine Hood Courtesy SW |
| A12 ABS Speed Sensor Front LH | F 1 Front Fog Light LH |
| A13 ABS Speed Sensor Front RH | F 2 Front Fog Light RH |
| A15 Airbag Sensor Front LH | F 3 Front Turn Signal Light LH
Side Marker Light LH |
| A16 Airbag Sensor Front RH | F 4 Front Turn Signal Light RH
Side Marker Light RH |
| A17 Auto Antenna Motor | F 5 Front Wiper Motor |
| A37 ABS & BA & TRAC & VSC Actuator | F14 Fuel Pump Resistor |
| A38 ABS & BA & TRAC & VSC Actuator | F15 Fusible Link Block |
| A39 ABS & BA & TRAC & VSC Actuator | F16 Fusible Link Block |
| A40 ABS & BA & TRAC & VSC Actuator | F17 Fusible Link Block |
| C 1 Camshaft Position Sensor | F18 Fusible Link Block |
| C 2 Center Diff. Lock Control Motor | F19 Fusible Link Block |
| C 3 Crankshaft Position Sensor | |
| D 1 Data Link Connector 1 | G 1 Generator |
| D 2 Daytime Running Light Relay No.3 | G 2 Generator |
| D 3 Daytime Running Light Relay No.3 | |
| D 4 Detection SW (Center Diff. Lock) | |
| D 5 Detection SW (Transfer L Position) | |
| D 6 Detection SW (Transfer Neutral Position) | |

Position of Parts in Engine Compartment



H 1 Headlight LH (High)
 H 2 Headlight LH (Low)
 H 3 Headlight RH (High)
 H 4 Headlight RH (Low)
 H 5 Heated Oxygen Sensor (Bank 1 Sensor 1)
 H 6 Heated Oxygen Sensor (Bank 1 Sensor 2)
 H 7 Heated Oxygen Sensor (Bank 2 Sensor 1)
 H 8 Heated Oxygen Sensor (Bank 2 Sensor 2)
 H 9 Horn LH
 H10 Horn RH

I 1 Ignition Coil and Igniter No.1
 I 2 Ignition Coil and Igniter No.2
 I 3 Ignition Coil and Igniter No.3
 I 4 Ignition Coil and Igniter No.4
 I 5 Ignition Coil and Igniter No.5
 I 6 Ignition Coil and Igniter No.6
 I 7 Ignition Coil and Igniter No.7
 I 8 Ignition Coil and Igniter No.8
 I 9 Injector No.1
 I 10 Injector No.2
 I 11 Injector No.3
 I 12 Injector No.4
 I 13 Injector No.5
 I 14 Injector No.6
 I 15 Injector No.7
 I 16 Injector No.8

K 1 Knock Sensor 1
 K 2 Knock Sensor 2

M 1 Mass Air Flow Meter
 M 4 Master Cylinder Pressure Sensor

N 1 Noise Filter (Ignition)

O 2 Oil Pressure Sender

P 1 Park/Neutral Position SW

P 2 Parking Light LH

P 3 Parking Light RH

S 1 Starter

S 2 Starter

T 1 Theft Deterrent Horn

T 16 Throttle Control Motor and Sensor

T 17 Turbine Speed Sensor

V 2 Vehicle Speed Sensor (Combination Meter)

V 3 Vehicle Speed Sensor
(Electronically Controlled Transmission)

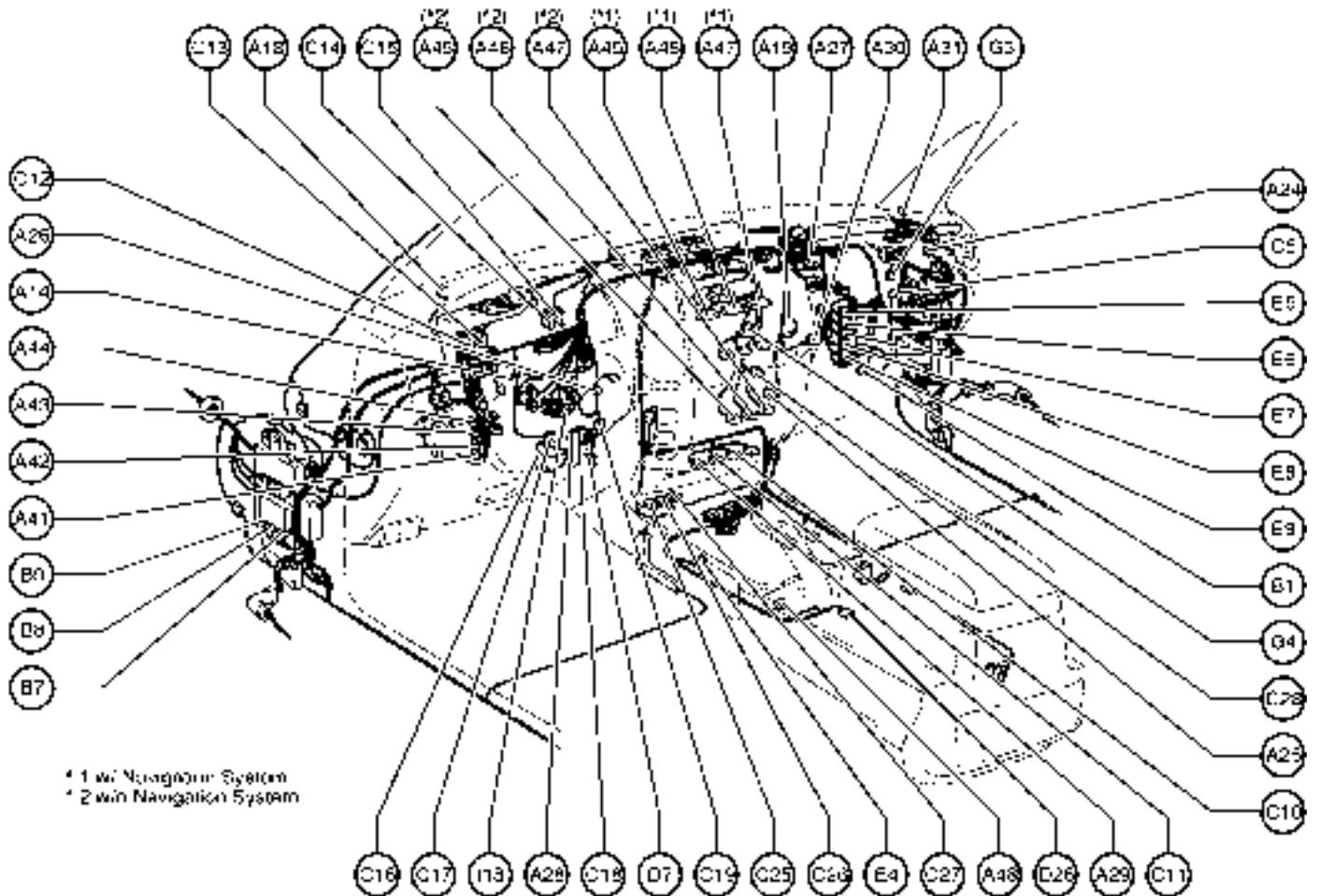
V 4 VSV (EVAP)

V 9 VSV (Canister Closed Valve)

W 1 Washer Motor

G ELECTRICAL WIRING ROUTING

Position of Parts in Instrument Panel



- A 14 Accel Position Sensor
- A 18 A/C Solar Sensor
- A 19 A/C Thermistor
- A 24 Air Inlet Control Servo Motor
- A 25 Air Mix Control Servo Motor
- A 26 Air Vent Mode Control Servo Motor
- A 27 Airbag Squib (Front Passenger Airbag Assembly)
- A 28 Airbag Squib (Steering Wheel Pad)
- A 29 Ashtray Illumination
- A 30 Auto Antenna Control Relay
- A 31 Automatic Light Control Sensor
- A 41 ABS & BA & TRAC & VSC ECU
- A 42 ABS & BA & TRAC & VSC ECU
- A 43 ABS & BA & TRAC & VSC ECU
- A 44 ABS & BA & TRAC & VSC ECU
- A 45 A/C Control Assembly
- A 46 A/C Control Assembly
- A 47 A/C Control Assembly
- A 48 A/T Shift Lever Illumination
Shift Lock Control ECU

- B 1 Blower Motor Controller
- B 7 Body ECU
- B 8 Body ECU
- B 9 Body ECU

- C 5 Center Diff. Lock Control Relay
- C 10 Cigarette Lighter

- C 11 Cigarette Lighter Illumination
- C 12 Combination Meter
- C 13 Combination Meter
- C 14 Combination Meter
- C 15 Combination Meter
- C 16 Combination SW
- C 17 Combination SW
- C 18 Combination SW
- C 19 Combination SW
- C 25 Center Airbag Sensor Assembly
- C 26 Center Airbag Sensor Assembly
- C 27 Center Airbag Sensor Assembly
- C 28 Center Cluster Integration Panel

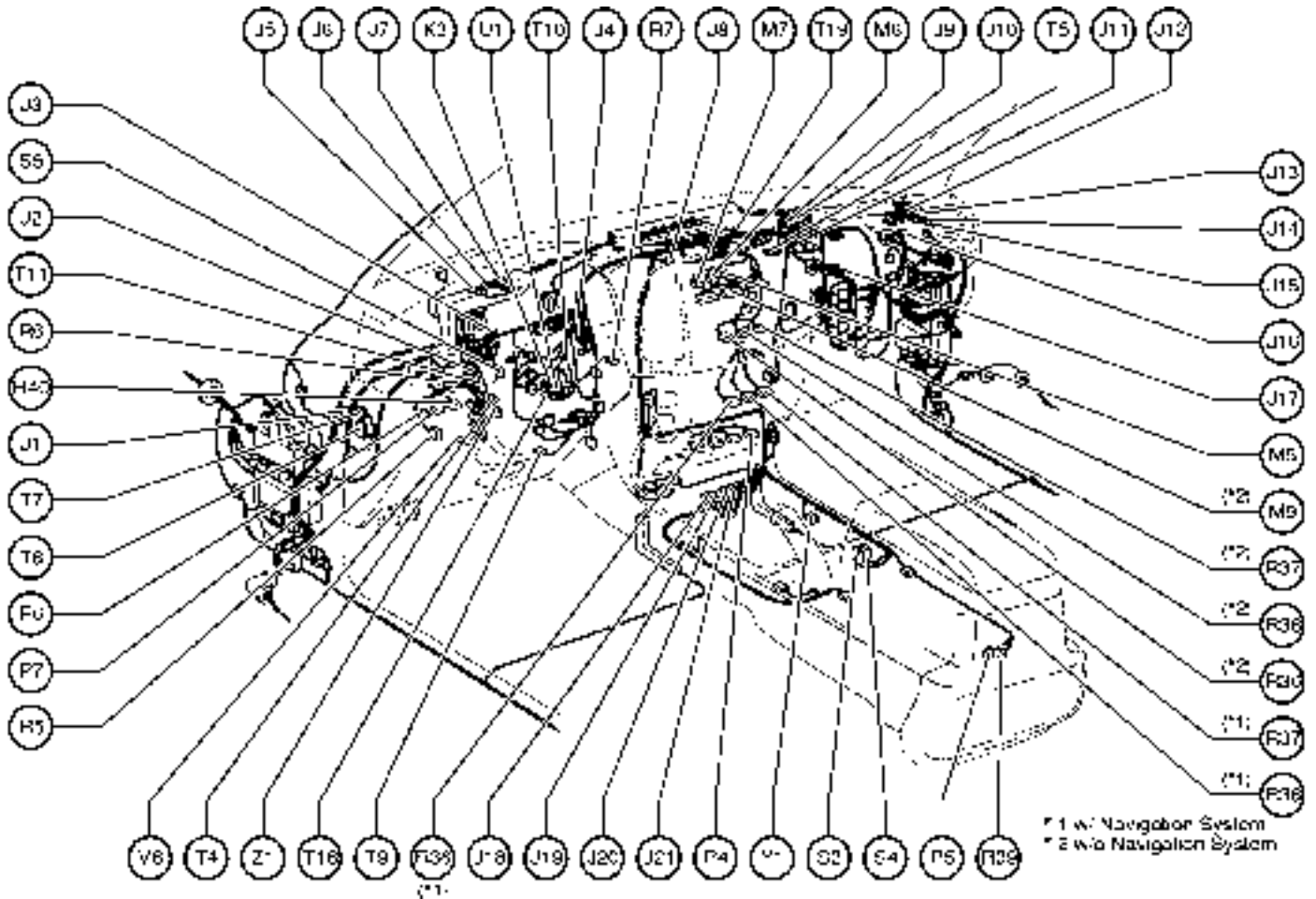
- D 7 Data Link Connector 3
- D 26 DVD Automatic Changer

- E 4 Electronically Controlled Transmission Pattern Select SW
- E 5 Engine Control Module
- E 6 Engine Control Module
- E 7 Engine Control Module
- E 8 Engine Control Module
- E 9 Engine Control Module

- G 3 Glove Box Light
- G 4 Gateway ECU

- I 18 Ignition SW

Position of Parts in Instrument Panel



J 1 Junction Connector
 J 2 Junction Connector
 J 3 Junction Connector
 J 4 Junction Connector
 J 5 Junction Connector
 J 6 Junction Connector
 J 7 Junction Connector
 J 8 Junction Connector
 J 9 Junction Connector
 J 10 Junction Connector
 J 11 Junction Connector
 J 12 Junction Connector
 J 13 Junction Connector
 J 14 Junction Connector
 J 15 Junction Connector
 J 16 Junction Connector
 J 17 Junction Connector
 J 18 Junction Connector
 J 19 Junction Connector
 J 20 Junction Connector
 J 21 Junction Connector

K 3 Key Interlock Solenoid

M 5 Multi-Display
 M 6 Multi-Display
 M 7 Multi-Display
 M 9 Multi-Display

P 4 Power Outlet (Front)
 P 5 Power Outlet (Rear Console Box)
 P 6 Power Quarter Window SW LH
 P 7 Power Quarter Window SW RH

R 5 Remote Control Mirror SW
 R 6 Rheostat
 R 7 Room Temp. Sensor (Front)
 R 36 Radio and Player
 R 37 Radio and Player
 R 38 Radio and Player
 R 39 Rear Seat Audio Controller
 R 40 Roll Sensing of Curtain Shield Airbags Cutoff SW

S 3 Seat Heater SW (Driver's Seat)
 S 4 Seat Heater SW (Front Passenger's Seat)
 S 5 Stop Light SW

T 4 Telescopic Motor
 T 5 Theft Deterrent ECU
 T 7 Tilt and Telescopic ECU
 T 8 Tilt and Telescopic ECU
 T 9 Tilt Motor
 T 10 Ignition Key Cylinder Light
 Transponder Key Amplifier
 T 11 Turn Signal Flasher
 T 18 Towing Brake Controller
 T 19 Transponder Key Computer

U 1 Unlock Warning SW

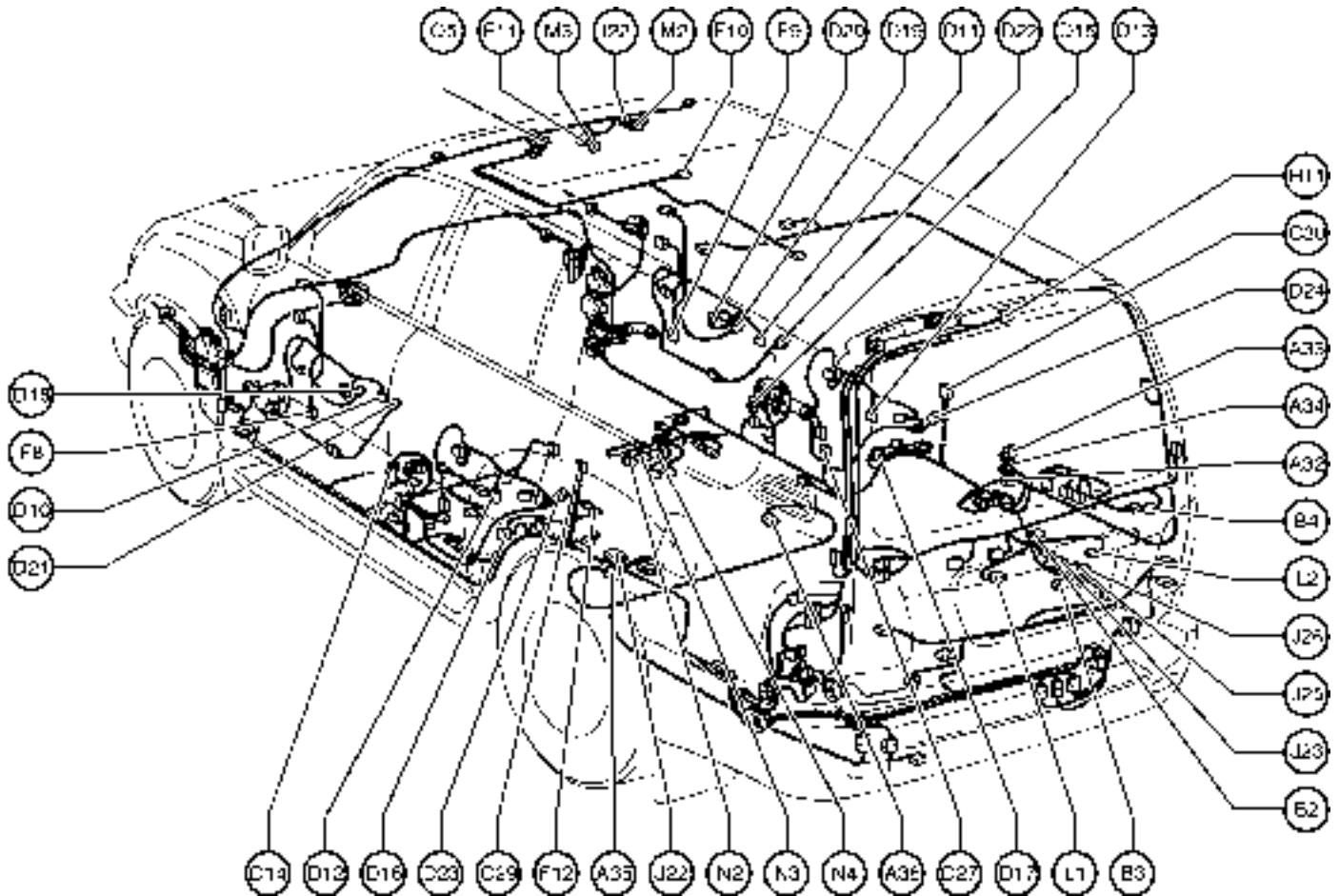
V 8 VSC Warning Buzzer

Y 1 Yaw Rate Sensor

Z 1 Option Connector (Glass Breakage Sensor)

G ELECTRICAL WIRING ROUTING

Position of Parts in Body



- A32 A/C Amplifier (Rear)
- A33 A/C Amplifier (Rear)
- A34 A/C Amplifier (Rear)
- A35 ABS Speed Sensor Rear LH
- A36 ABS Speed Sensor Rear RH

- B 2 Back Door Courtesy SW
- B 3 Back Door Key Lock and Unlock SW
- B 4 Back Door Lock Motor
Back Door Unlock Detection SW

- C29 Curtain Shield Airbag Squib LH
- C30 Curtain Shield Airbag Squib RH

- D10 Door Courtesy Light Front LH
- D11 Door Courtesy Light Front RH
- D12 Door Courtesy Light Rear LH
- D13 Door Courtesy Light Rear RH
- D14 Door Courtesy SW Front LH
- D15 Door Courtesy SW Front RH
- D16 Door Courtesy SW Rear LH
- D17 Door Courtesy SW Rear RH
- D18 Door Key Lock and Unlock SW LH
- D19 Door Key Lock and Unlock SW RH
- D20 Door Lock Control SW RH
- D21 Door Lock Motor Front LH
Door Unlock Detection SW Front LH
- D22 Door Lock Motor Front RH
Door Unlock Detection SW Front RH
- D23 Door Lock Motor Rear LH
Door Unlock Detection SW Rear LH
- D24 Door Lock Motor Rear RH
Door Unlock Detection SW Rear RH
- D27 Door Control Receiver

- F 8 Front Door Speaker LH
- F 9 Front Door Speaker RH
- F10 Front Interior Light
Rear Personal Light
- F11 Front Personal Light
- F12 Fuel Pump
Fuel Sender

- H11 High Mounted Stop Light

- I 22 Inner Mirror

- J22 Junction Connector
- J23 Junction Connector
- J25 Junction Connector
- J26 Junction Connector

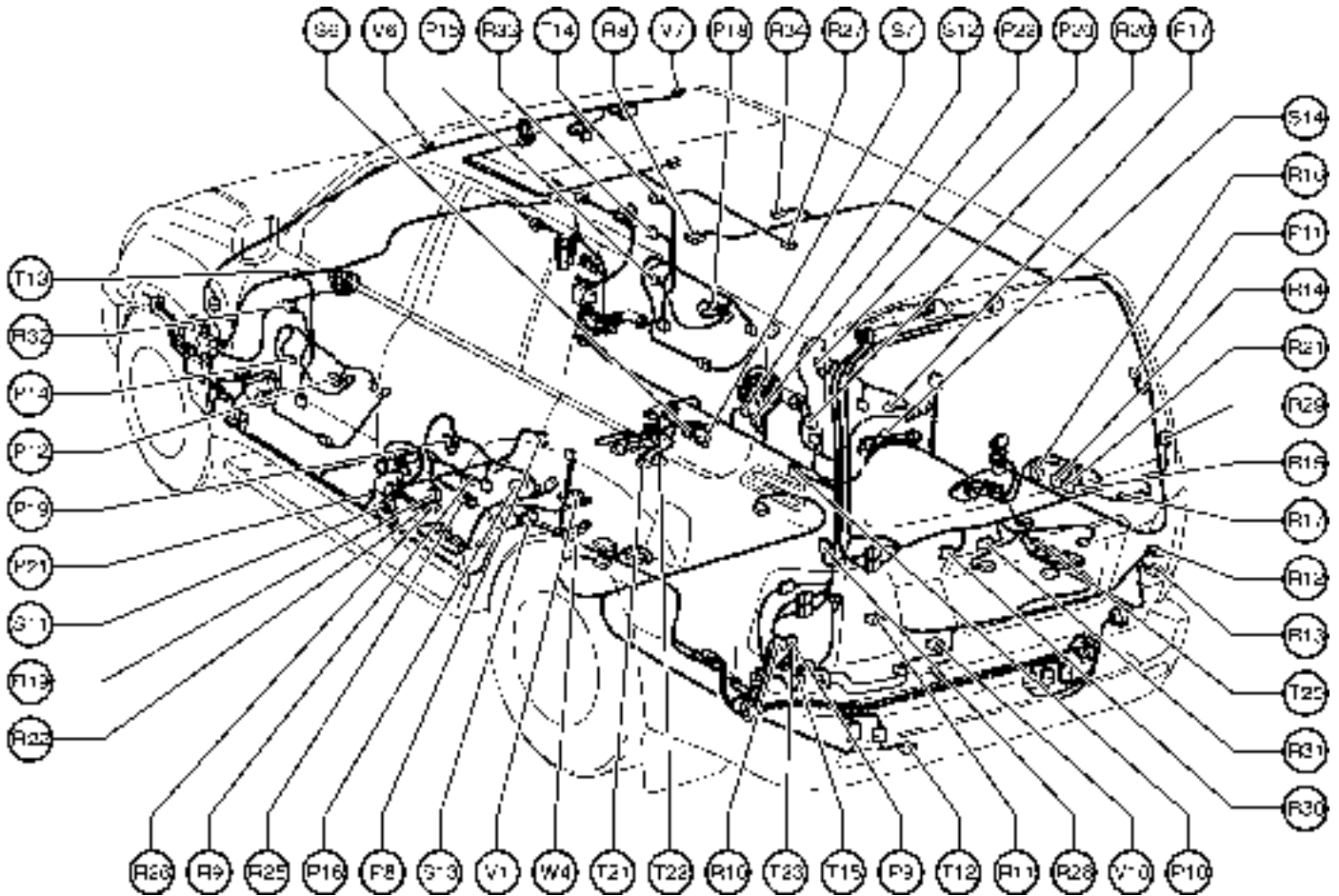
- L 1 License Plate Light LH
- L 2 License Plate Light RH

- M 2 Moon Roof Control ECU
- M 3 Moon Roof Control SW

- N 2 Navigation ECU
- N 3 Navigation ECU
- N 4 Navigation ECU

- O 5 Overhead J/B

Position of Parts in Body



P 8 Parking Brake SW
 P 9 Power Outlet (Luggage Compartment)
 P10 Power Vent Window Motor LH
 P11 Power Vent Window Motor RH
 P12 Power Window Master SW
 P14 Power Window Motor Front LH
 P15 Power Window Motor Front RH
 P16 Power Window Motor Rear LH
 P17 Power Window Motor Rear RH
 P18 Power Window Control SW Front RH
 P19 Power Window Control SW Rear LH
 P20 Power Window Control SW Rear RH
 P21 Pretensioner LH
 P22 Pretensioner RH

R 8 Rear A/C Control SW
 R 9 Rear Air Mix Control Servo Motor
 R10 Rear Combination Light LH
 R11 Rear Combination Light LH
 R12 Rear Combination Light RH
 R13 Rear Combination Light RH
 R14 Rear Cooler Blower Motor
 R15 Rear Cooler Magnetic Valve
 R16 Rear Cooler Power Transistor
 R17 Rear Cooler Relay
 R19 Rear Door Speaker LH
 R20 Rear Door Speaker RH
 R21 Rear Evaporator Temp. Sensor
 R22 Rear Heater Blower Motor
 R25 Rear Heater Power Transistor
 R26 Rear Inlet Air Temp. Sensor

R27 Rear Interior Light
 R28 Rear Window Defogger
 R29 Rear Window Defogger
 R30 Rear Wiper Motor
 R31 Rear Wiper Relay
 R32 Remote Control Mirror LH
 R33 Remote Control Mirror RH
 R34 Room Temp. Sensor (Rear)

S 6 Stereo Component Amplifier
 S 7 Stereo Component Amplifier
 S11 Side Airbag Sensor Front LH
 S12 Side Airbag Sensor Front RH
 S13 Side Airbag Sensor Rear LH
 S14 Side Airbag Sensor Rear RH

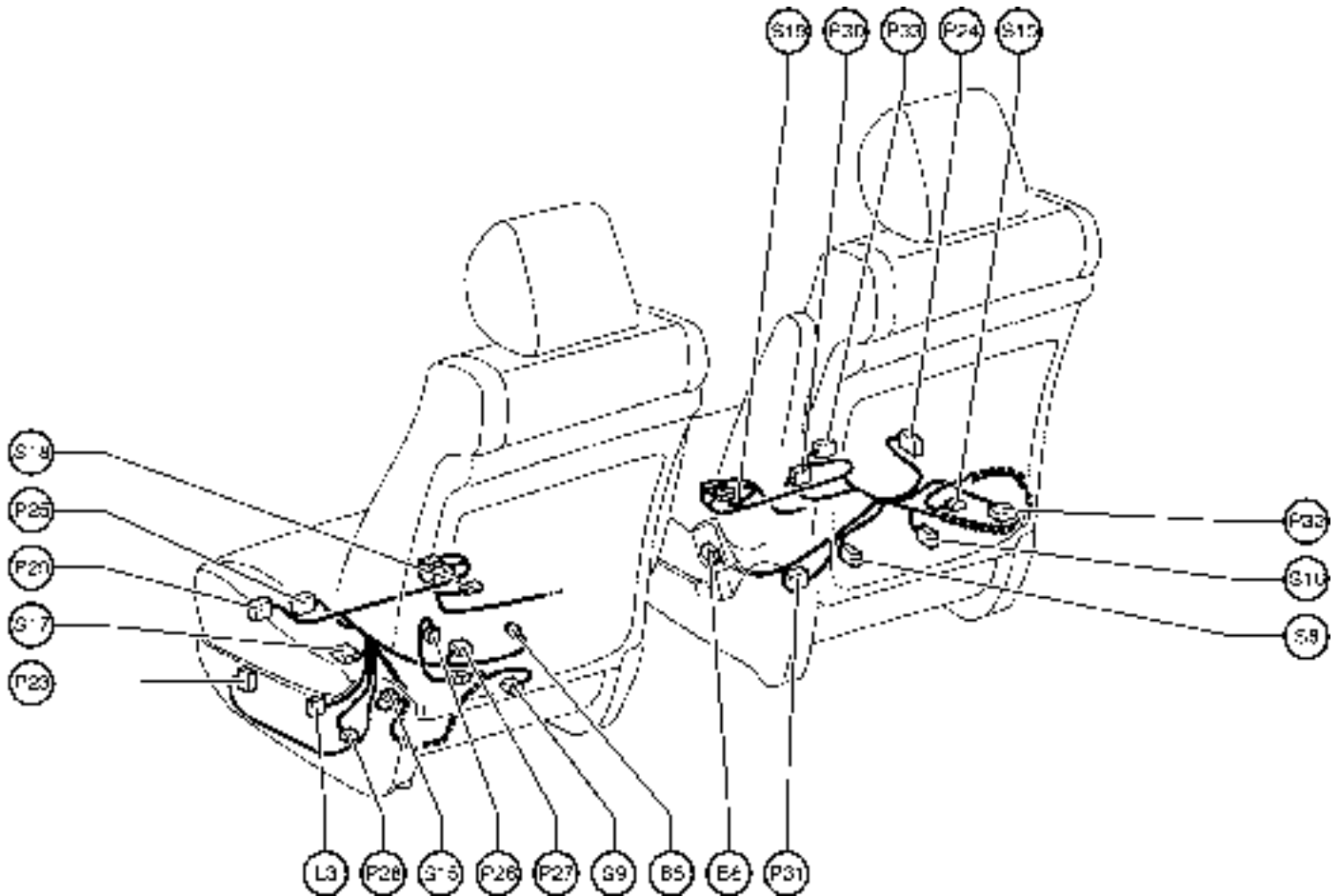
T12 Trailer Socket
 T13 Tweeter LH
 T14 Tweeter RH
 T15 Towing Converter Relay
 T20 Television Camera
 T21 Television Camera ECU
 T22 Television Camera ECU
 T23 Towing Hitch Relay

V 1 Vapor Pressure Sensor
 V 6 Vanity Light LH
 V 7 Vanity Light RH
 V10 VSV (Pressure Switching Valve)

W 4 Woofer (Speaker)

G ELECTRICAL WIRING ROUTING

Position of Parts in Seat



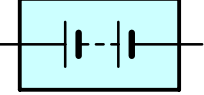

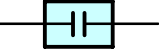
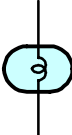

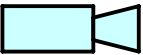
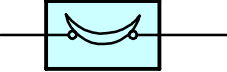


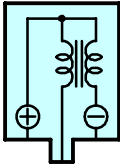




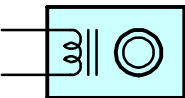

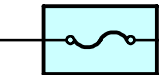
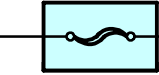
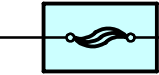
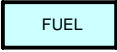

B 5 Buckle SW LH
B 6 Buckle SW RH

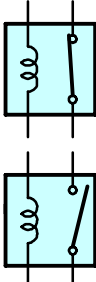

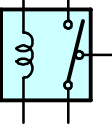
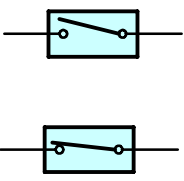
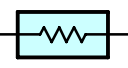
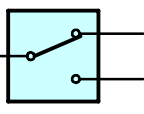
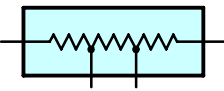
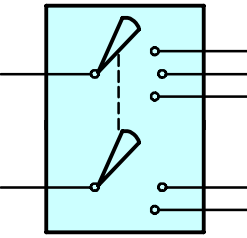

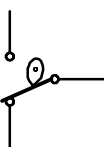

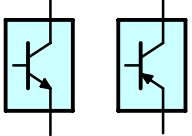
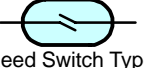
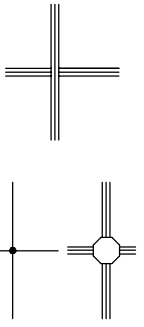
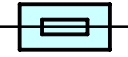
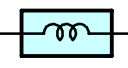
L 3 Lumbar Support Control SW (Driver's Seat)

P23 Power Seat Control SW (Driver's Seat)
P24 Power Seat Control SW (Front Passenger's Seat)
P25 Power Seat Motor (Driver's Seat Front Vertical Control)
P26 Power Seat Motor
(Driver's Seat Lumbar Support Control)
P27 Power Seat Motor (Driver's Seat Rear Vertical Control)
P28 Power Seat Motor (Driver's Seat Reclining Control)
P29 Power Seat Motor (Driver's Seat Slide Control)
P30 Power Seat Motor
(Front Passenger's Seat Front Vertical Control)
P31 Power Seat Motor
(Front Passenger's Seat Rear Vertical Control)
P32 Power Seat Motor
(Front Passenger's Seat Reclining Control)
P33 Power Seat Motor
(Front Passenger's Seat Slide Control)

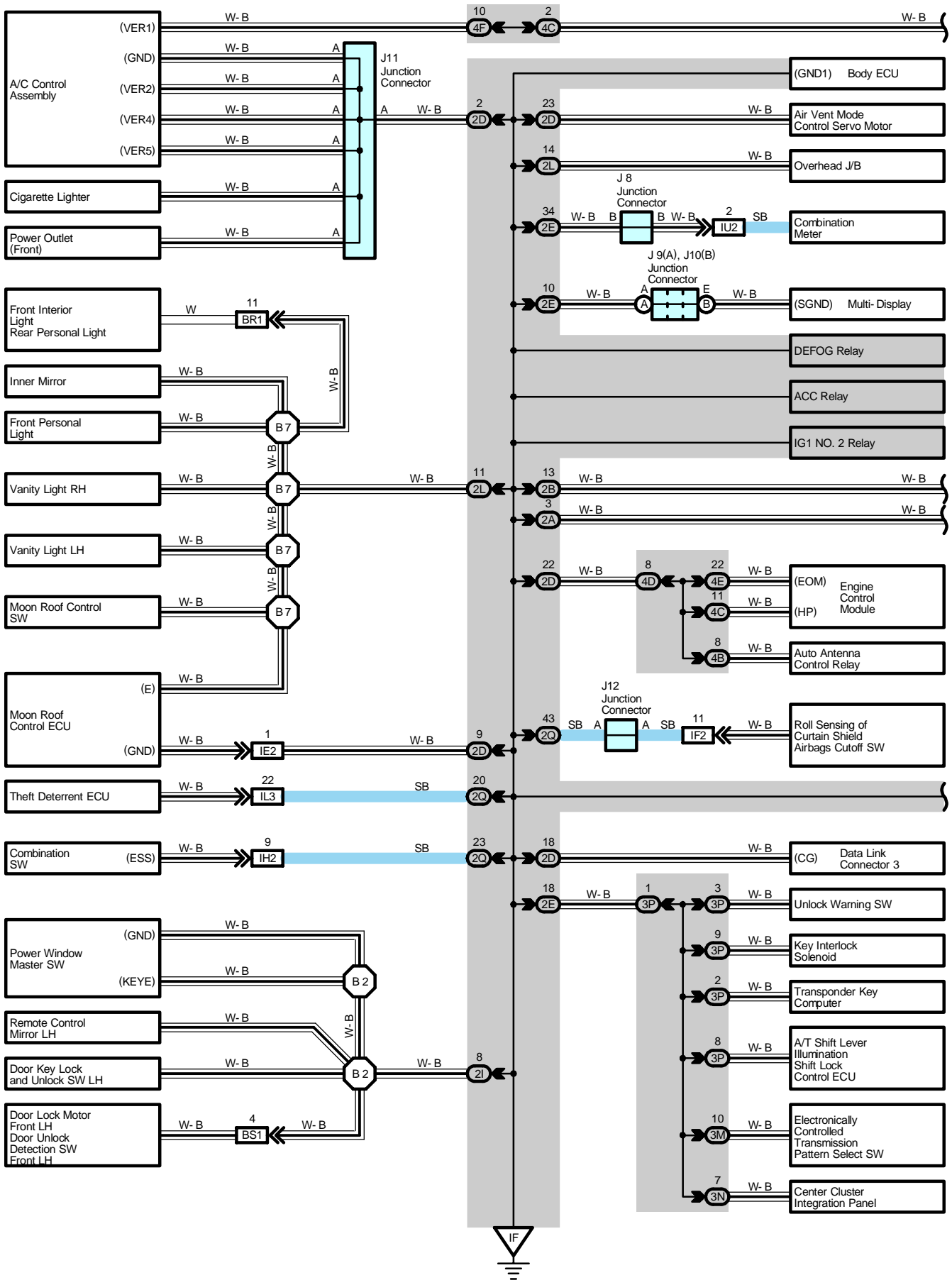
S 8 Seat Belt Warning Occupant Detection Sensor
S 9 Seat Heater (Driver's Seat)
S10 Seat Heater (Front Passenger's Seat)
S15 Seat Heater (Driver's Seat Cushion)
S16 Seat Heater (Front Passenger's Seat Cushion)
S17 Seat Position Sensor
S18 Side Airbag Squib LH
S19 Side Airbag Squib RH

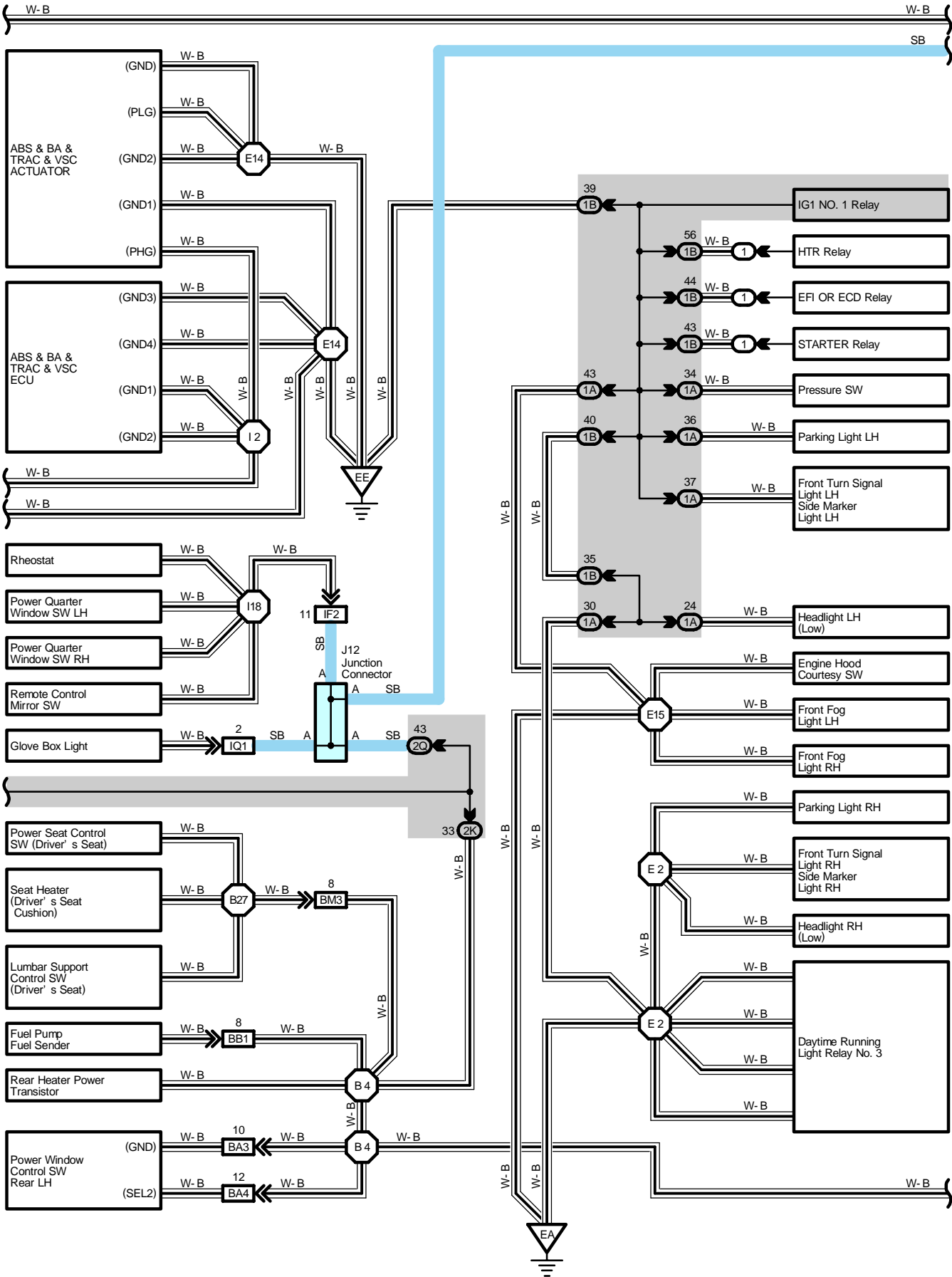
E GLOSSARY OF TERMS AND SYMBOLS

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

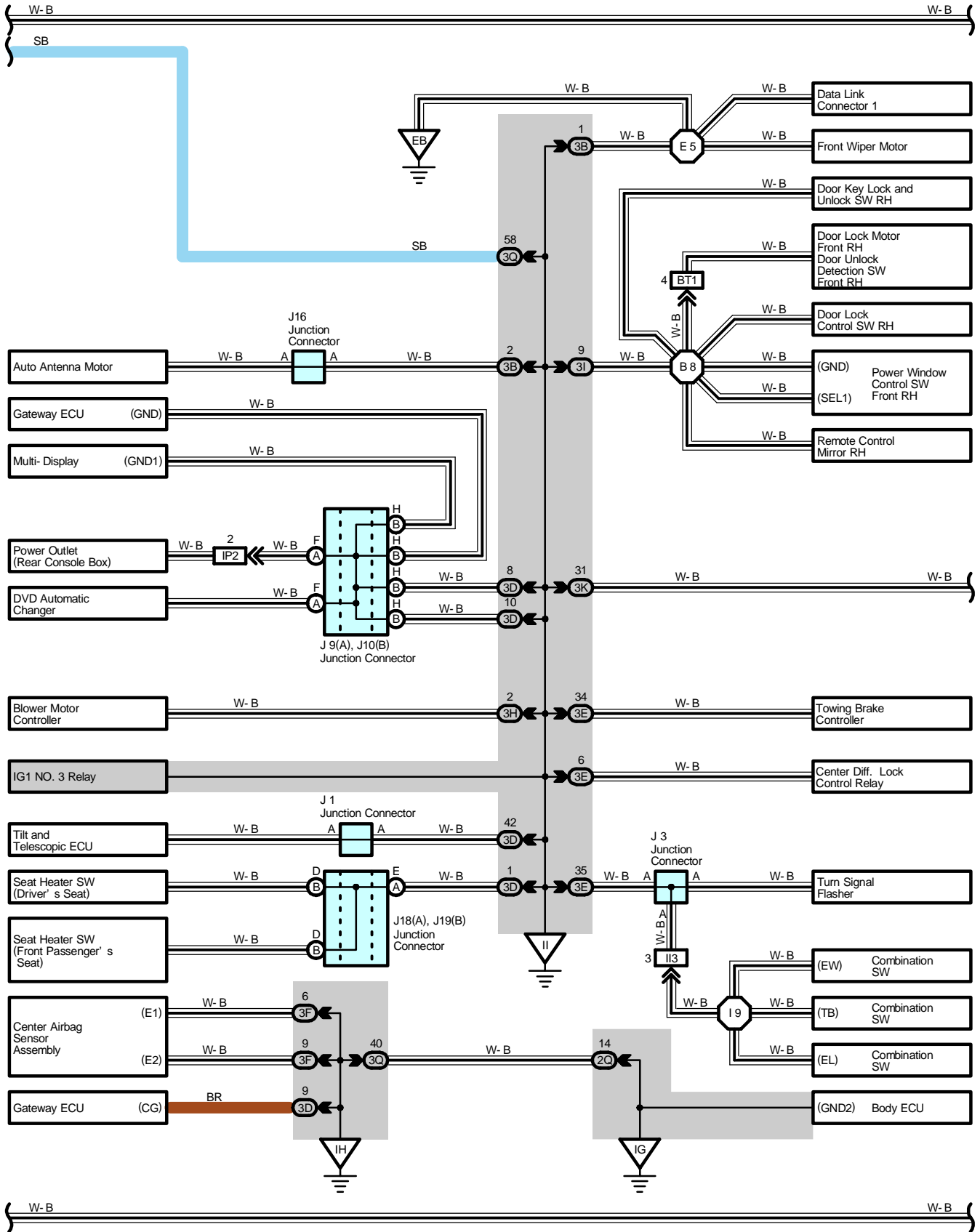
 <p>RELAY Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p> <p>1. NORMALLY CLOSED</p> <p>2. NORMALLY OPEN</p>	 <p>SPEAKER An electromechanical device which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

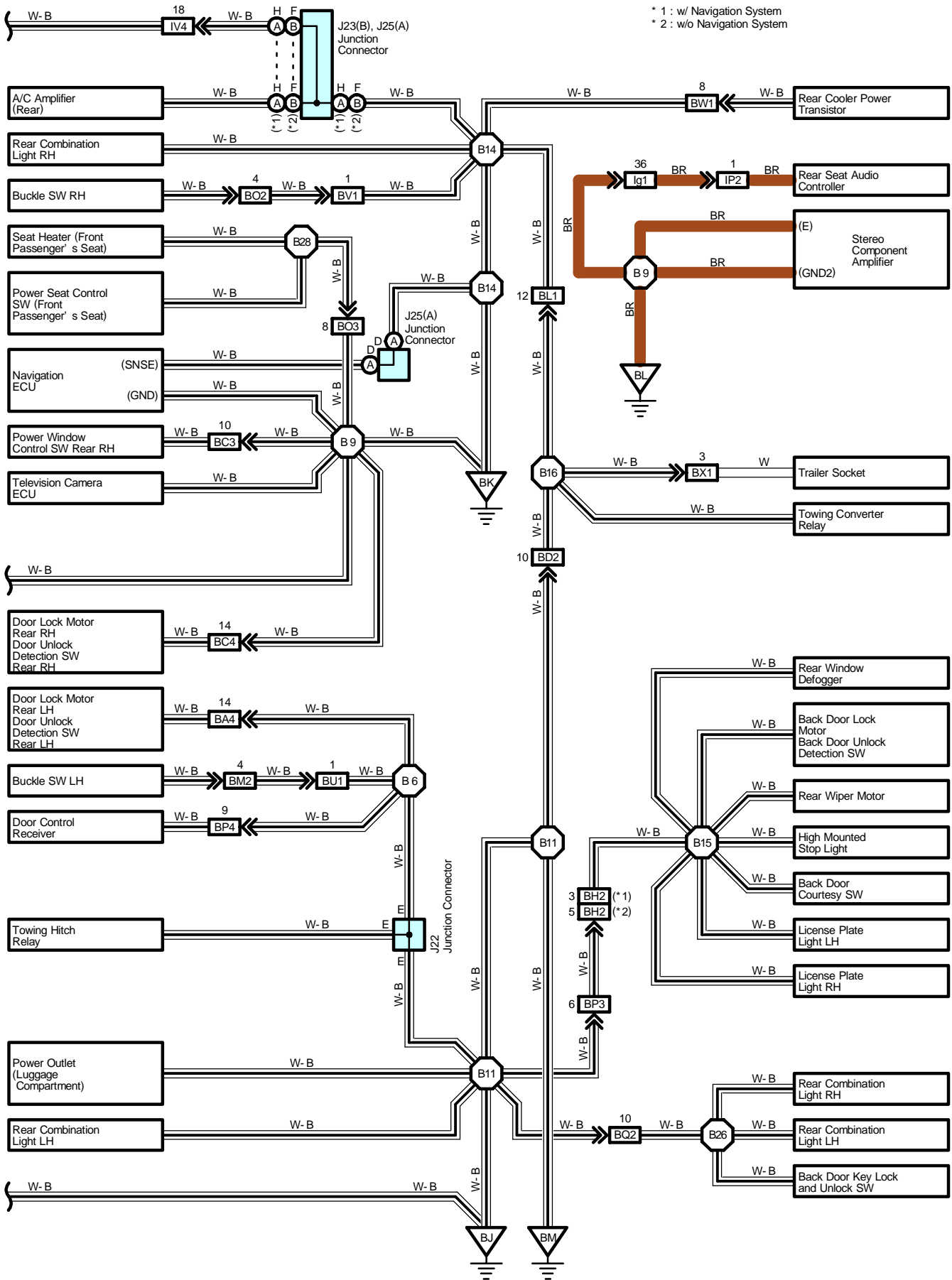
I GROUND POINT



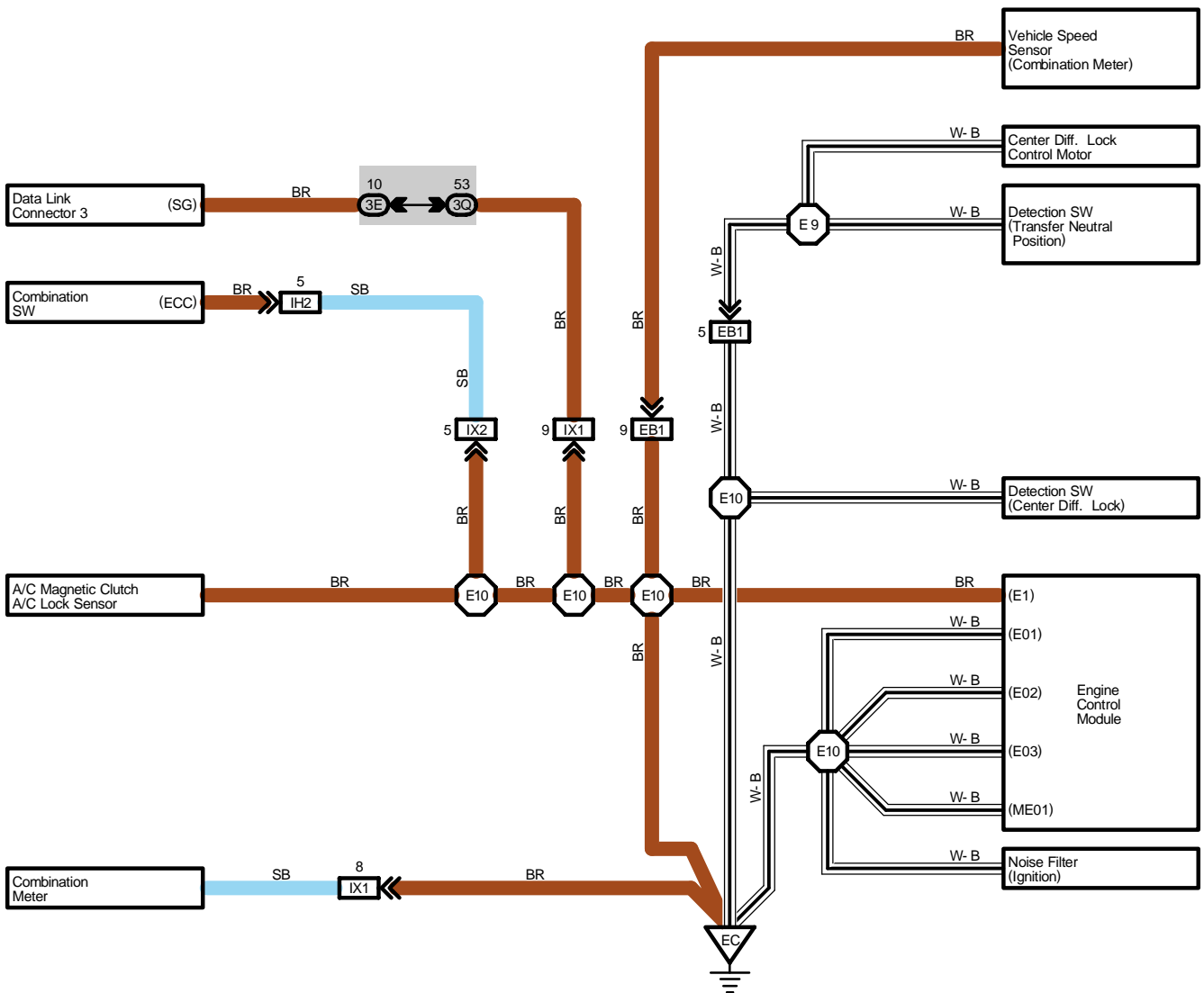
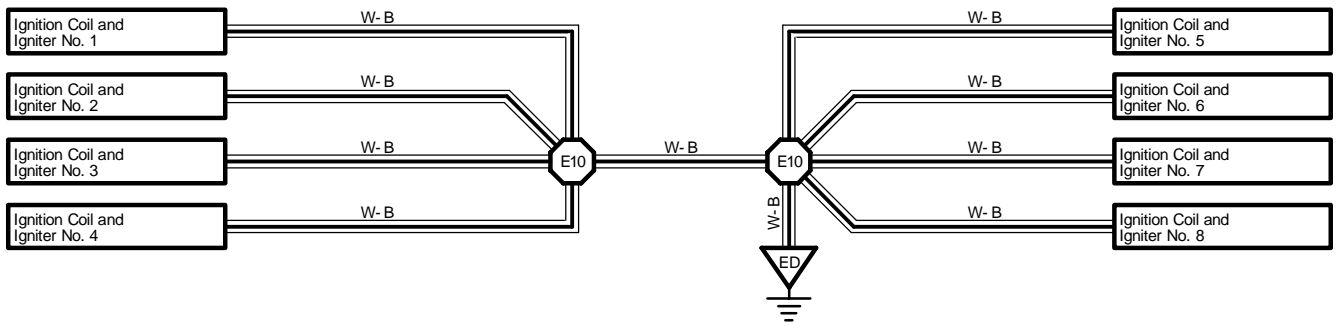


I GROUND POINT





I GROUND POINT



○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
J1	71	J11	71	J22	72
J3	71	J12	71	J23	B 72
J8	71	J16	71	J25	A 72
J9	A 71	J18	A 71		
J10	B 71	J19	B 71		

○ : 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	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3F		
3H		
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3N		
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4B	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		

I GROUND POINT

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
IE2	78	Dash Wire and Roof No.1 Wire (Left Kick Panel)
IF2	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IP2	80	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IQ1	80	Instrument Panel Integration Wire and Lamp Wire (Behind the Glove Box)
IU2	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IX2		
Ig1	84	Dash Wire and Floor No.2 Wire (Right Side of Front Console)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BA4		
BB1	86	Floor No.1 Wire and Fuel Tank Wire (Near the Fuel Tank)
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC4		
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH2	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BL1	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BM2	90	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BM3		
BO2	90	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)
BO3		
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BR1	88	Roof No.3 Wire and Roof No.1 Wire (Front Side of Roof)
BS1	88	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)
BT1	88	Door Lock RH Sub Wire and Front Door RH Wire (Front Door RH)
BU1	88	Floor No.1 Wire and Floor No.1 Wire (Near the Left Rear Suspension Support)
BV1	88	Floor No.2 Wire and Floor No.2 Wire (Near the Right Rear Suspension Support)
BW1	88	Floor No.2 Wire and A/C Sub Wire (Right Side Rear Quarter Panel)
BX1	88	Frame No.4 Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

▽ : Ground Points

Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EB		
EC	76	Rear Bank of Right Cylinder Head
ED	76	Rear Bank of Left Cylinder Head
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH
IG		
IH	78	Set Bolt of Cowl Side J/B RH
II		
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat
BL	86	Rear Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel



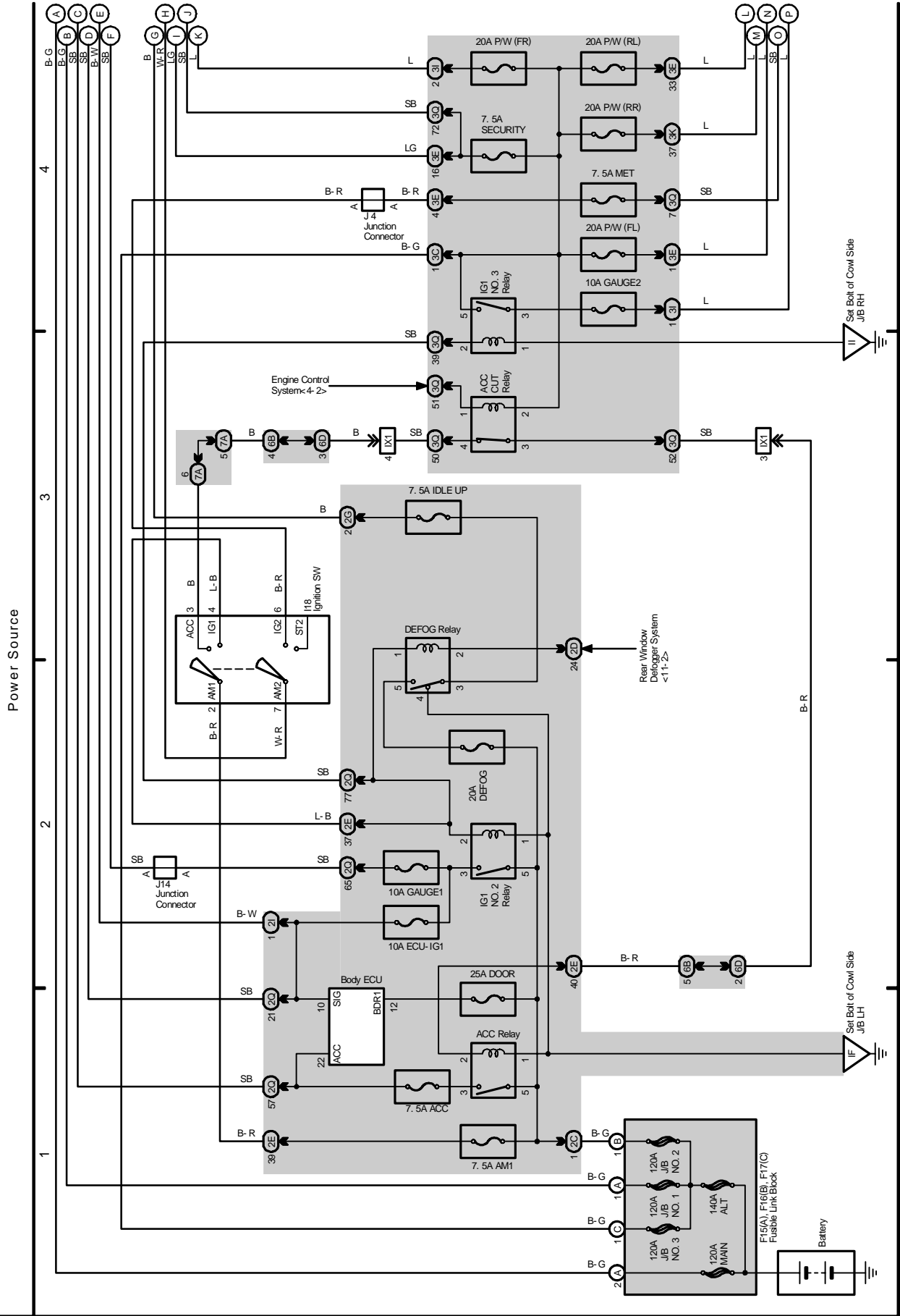
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	76	Engine Room Main Wire	B6	88	Floor No.1 Wire
E5	76	Engine Room No.2 Wire	B7	88	Roof No.1 Wire
E9	76	Transmission Wire	B8	88	Front Door RH Wire
E10	76	Engine Wire	B9	88	Floor No.2 Wire
E14	76	Engine Room No.2 Wire	B11	88	Floor No.1 Wire
E15	76	Engine Room Main Wire	B14	88	Floor No.2 Wire
I2	80	Engine Room No.2 Wire	B15	88	Back Door Upper Wire
I9	80	Column Wire	B16	88	Floor No.3 Wire
I18	80	Instrument Panel Wire	B26	88	Back Door Lower Wire
B2	88	Front Door LH Wire	B27	90	Front Seat LH Wire
B4	88	Floor No.1 Wire	B28	90	Front Seat RH Wire

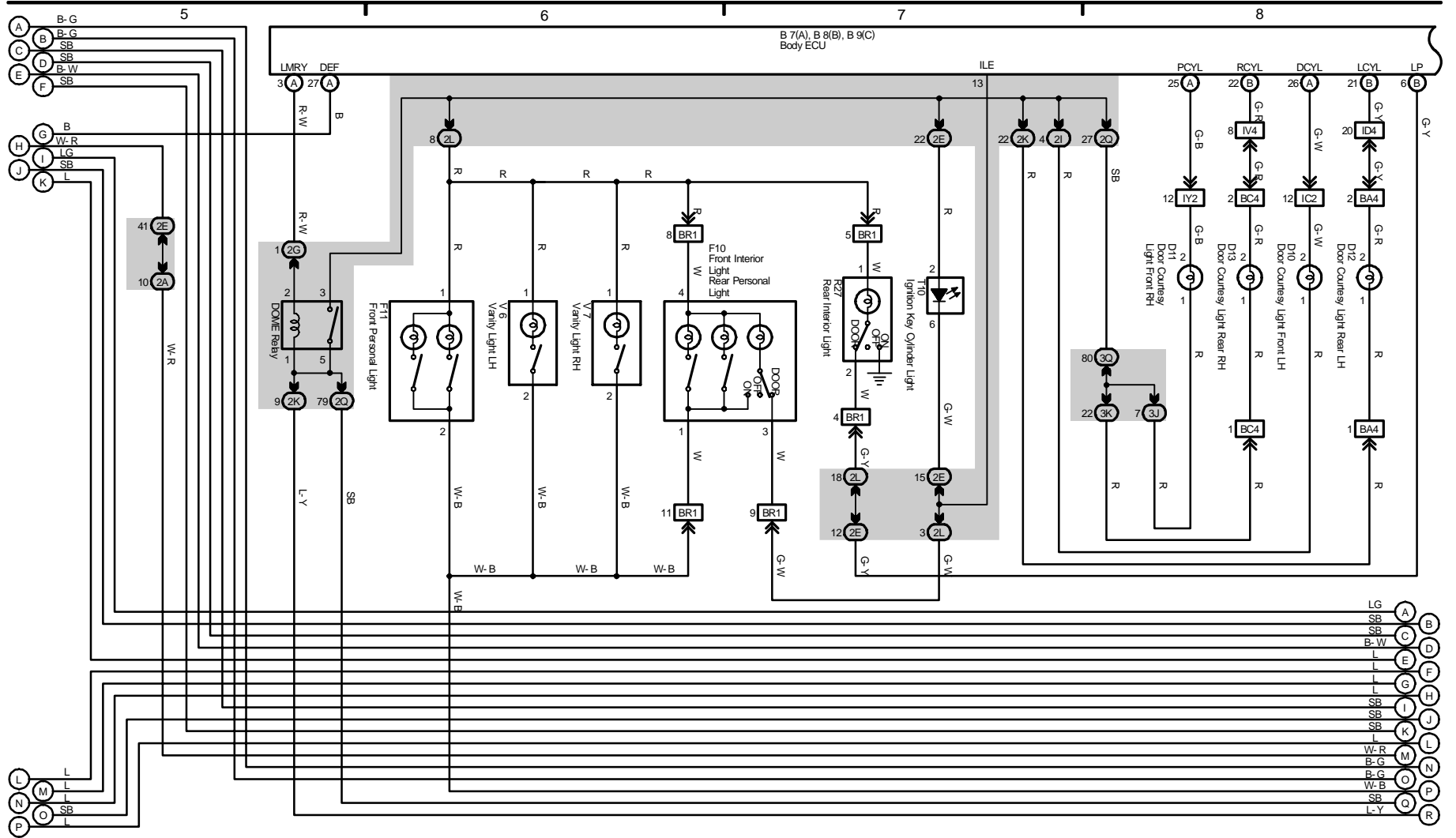
M OVERALL ELECTRICAL WIRING DIAGRAM

1 LAND CRUISER

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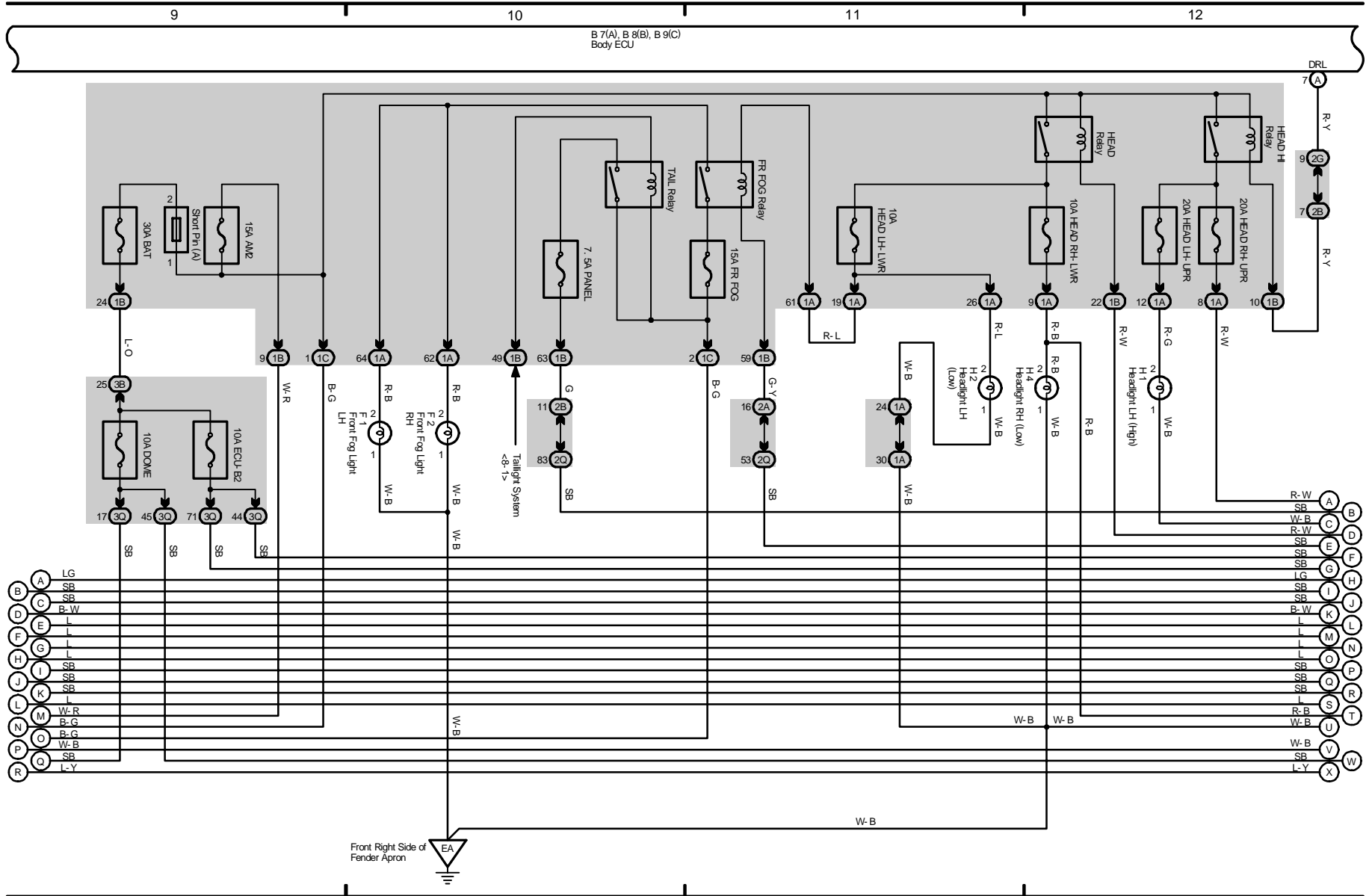
Multiplex Communication System



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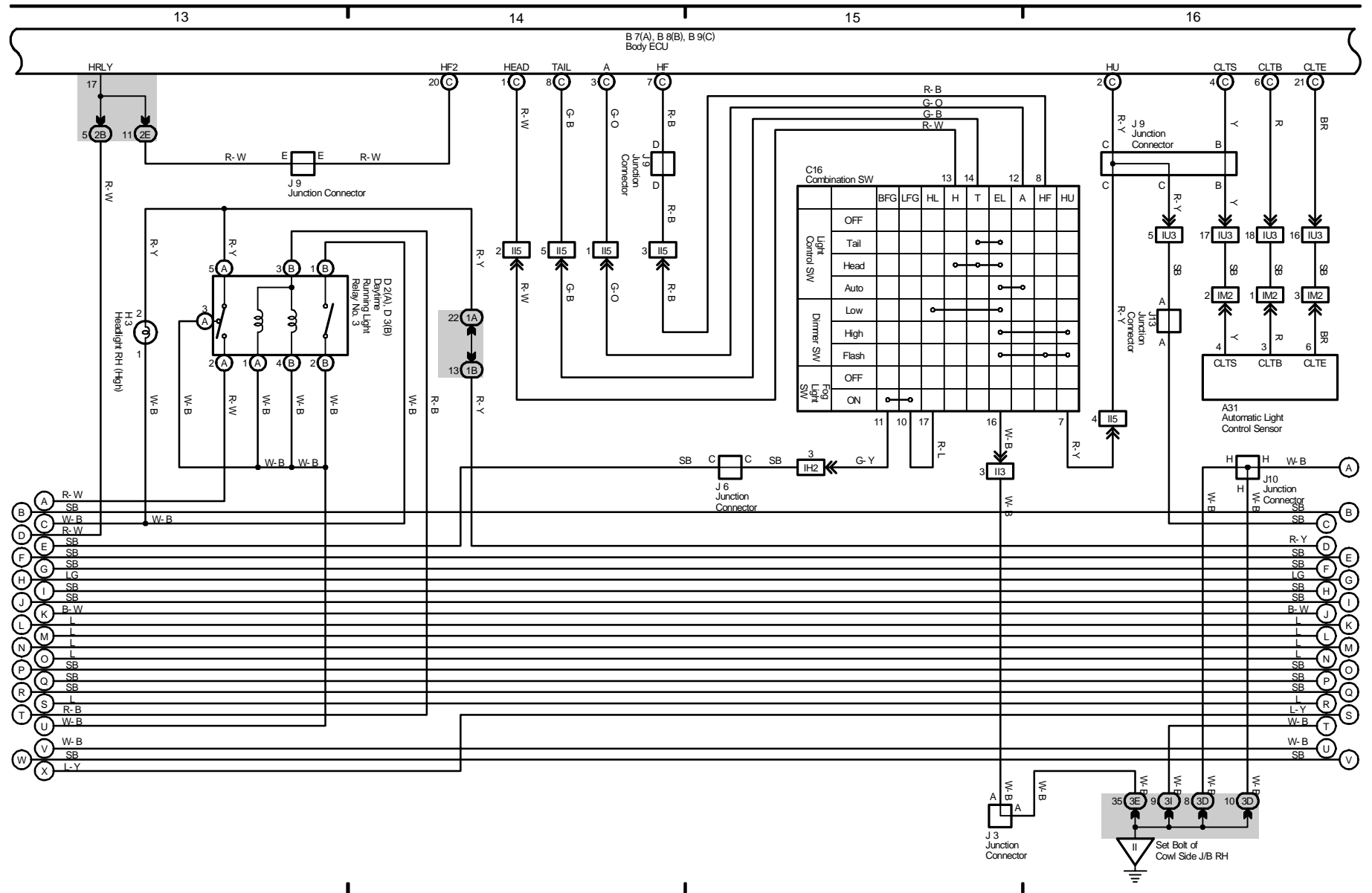
M OVERALL ELECTRICAL WIRING DIAGRAM

Multiplex Communication System



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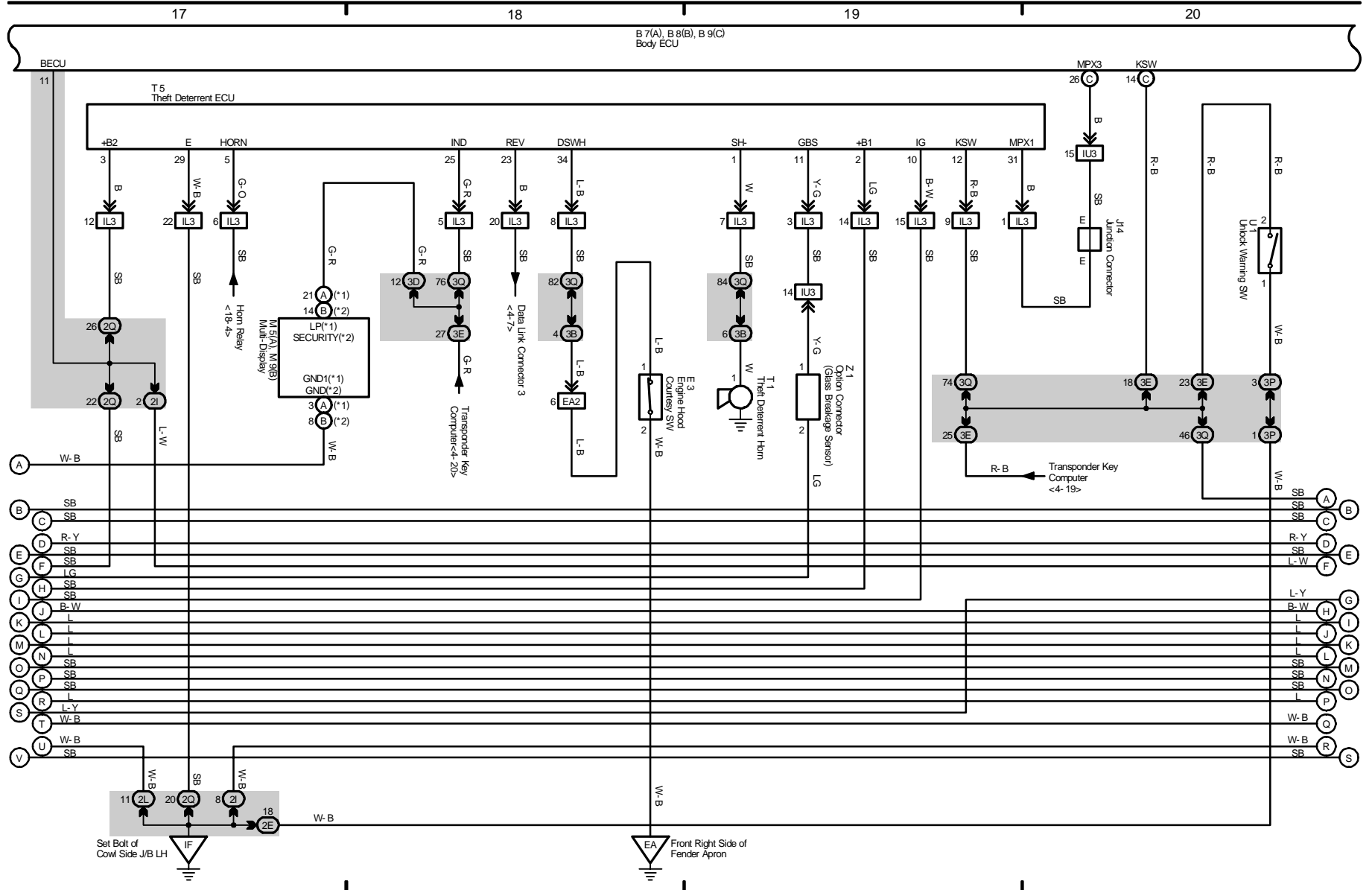
Multiplex Communication System



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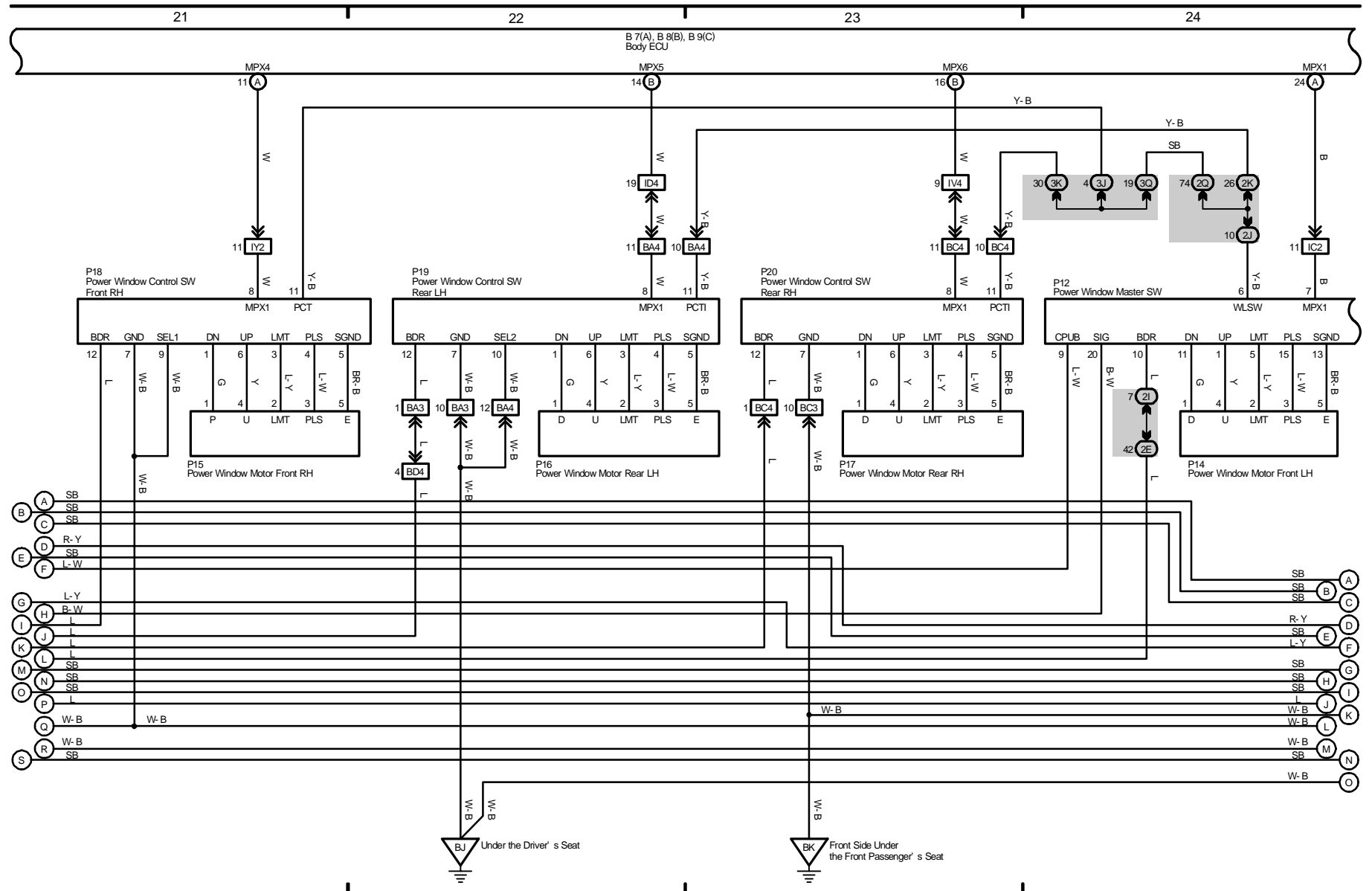
Multiplex Communication System

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



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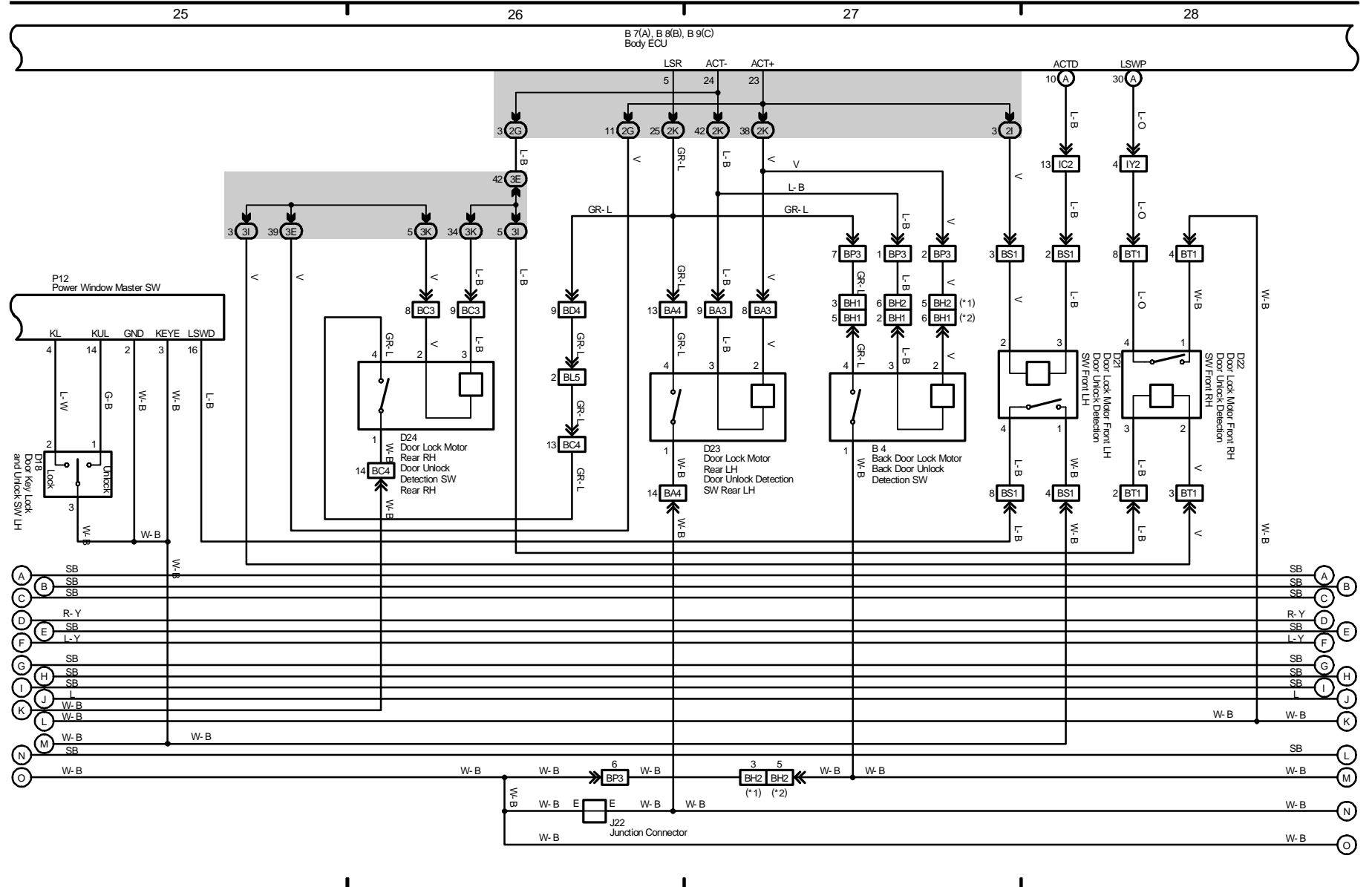
Multiplex Communication System



2004 LAND CRUISER (EWD548U)

Multiplex Communication System

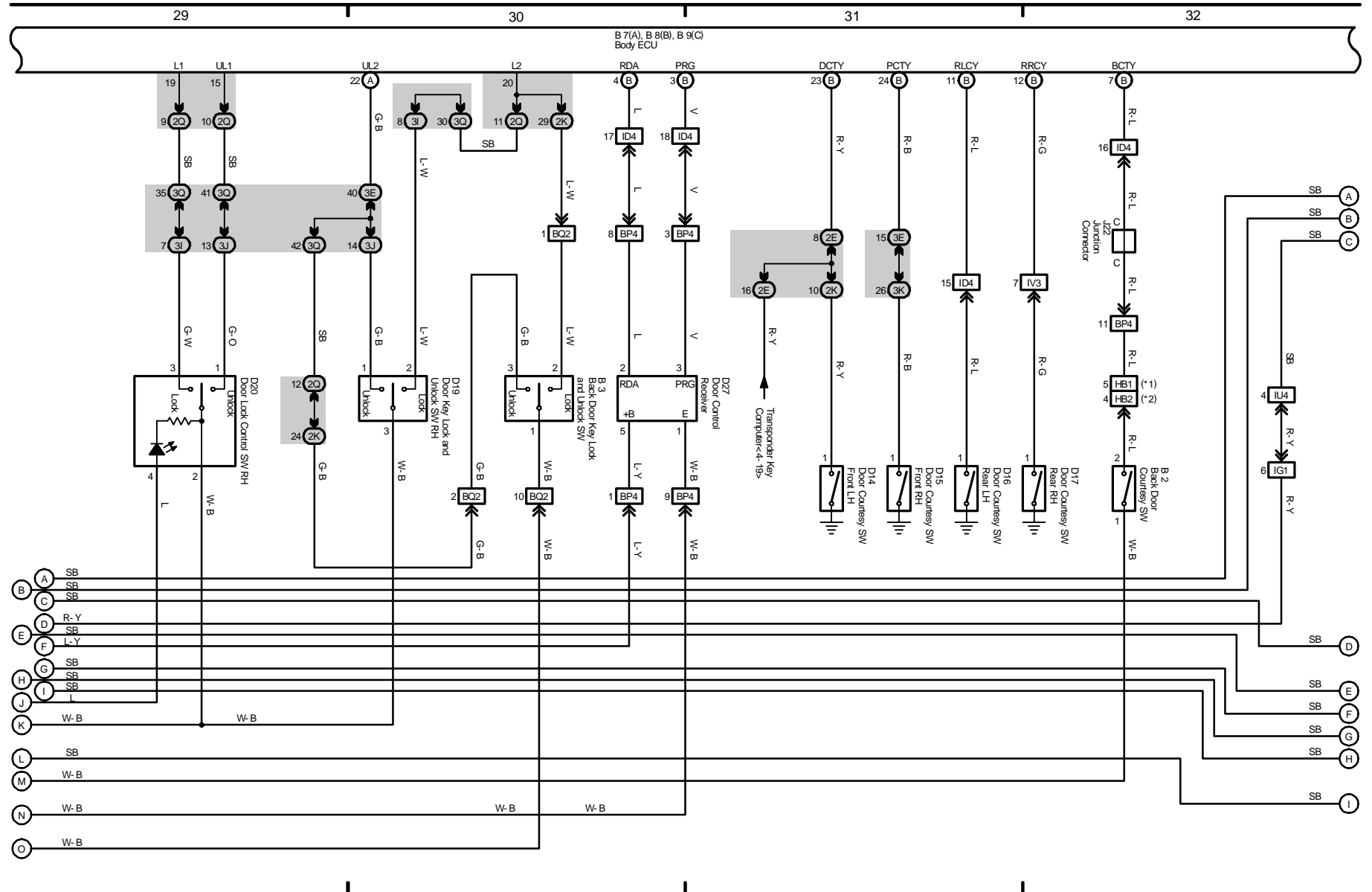
* 1 : w/ Navigation System
 * 2 : w/o Navigation System



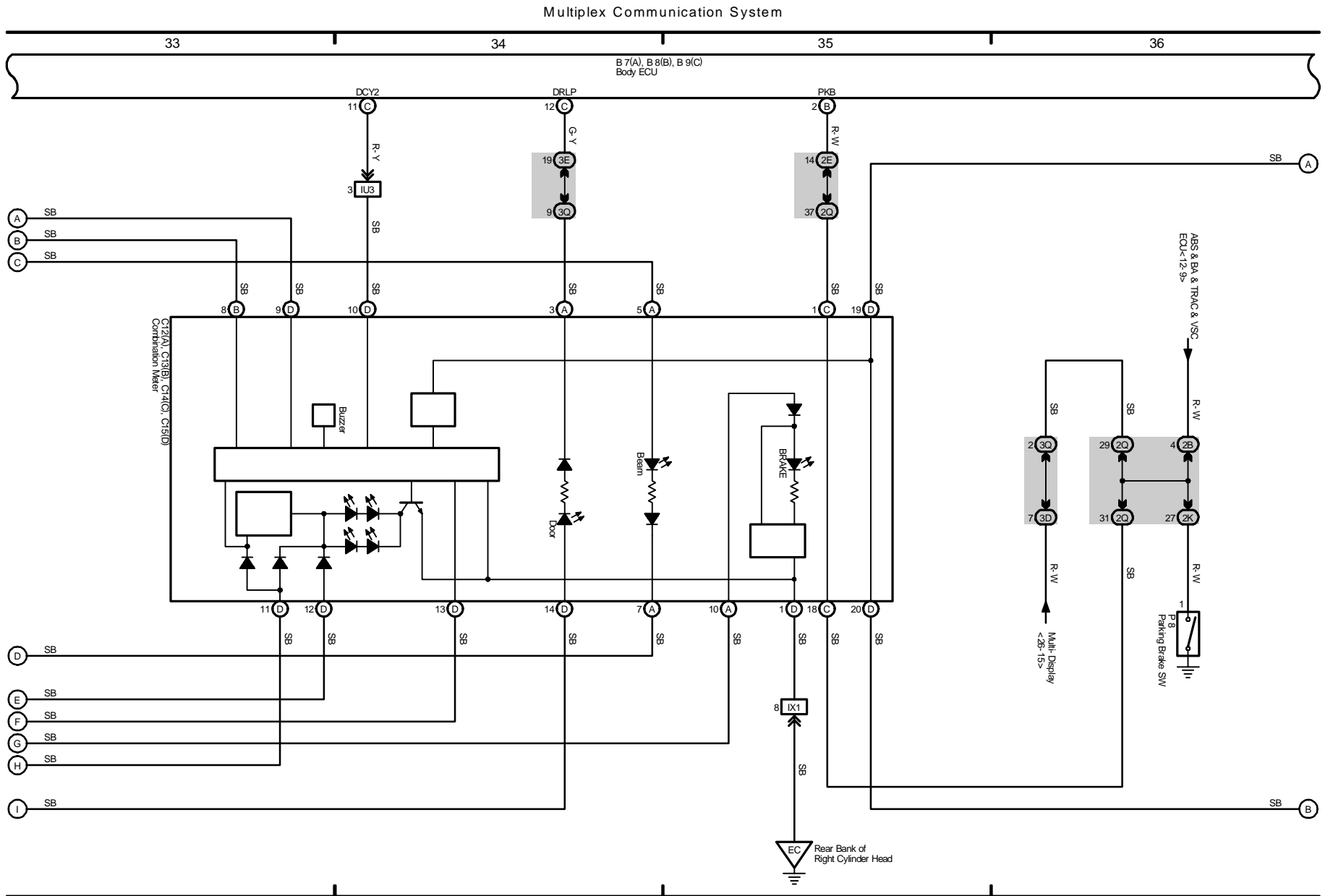
2004 LAND CRUISER (EWDS48U)

Multiplex Communication System

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



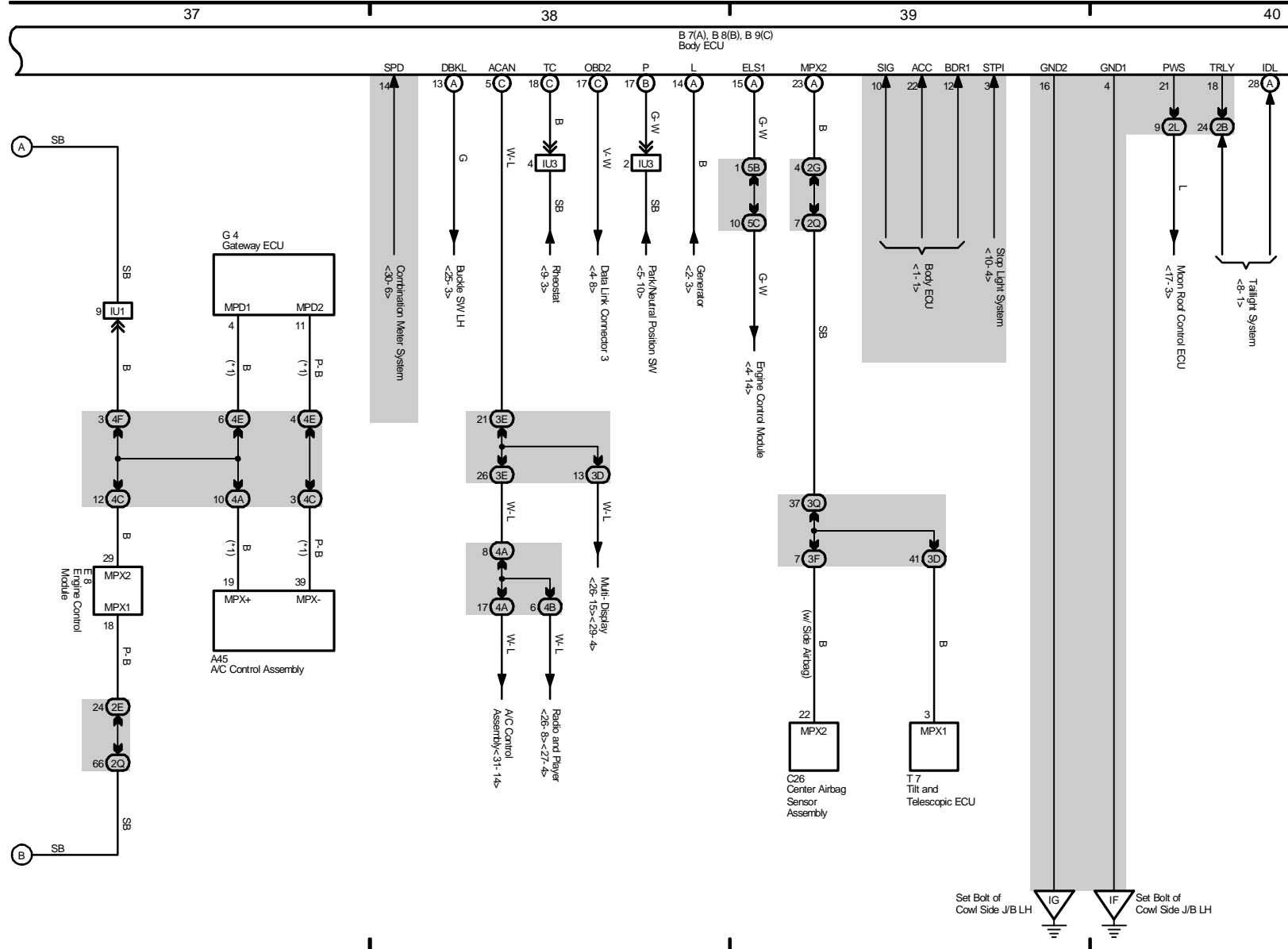
2004 LAND CRUISER (EWD548U)



1 LAND CRUISER (Cont' d)

Multiplex Communication System

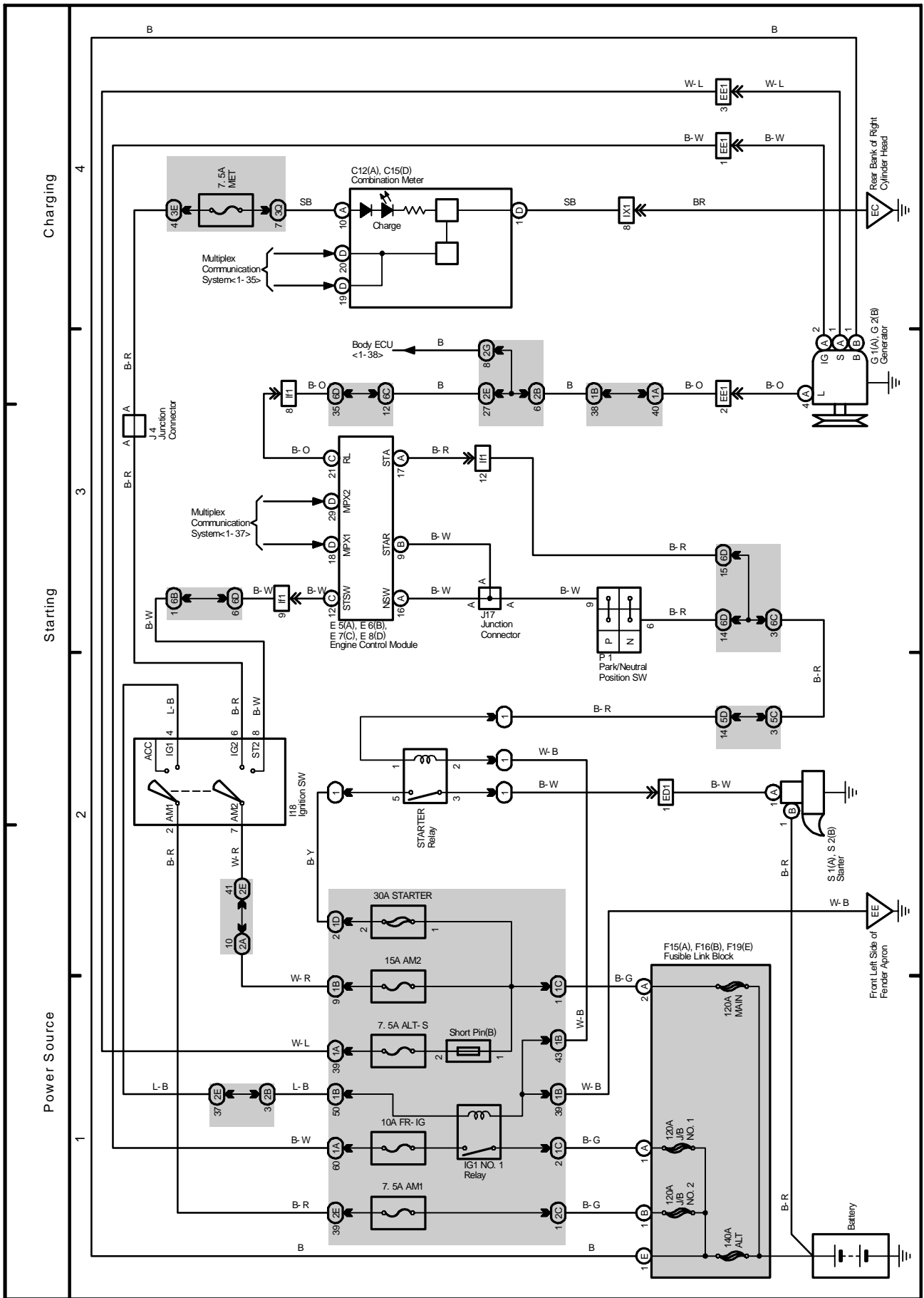
* 1 : w/ Navigation System



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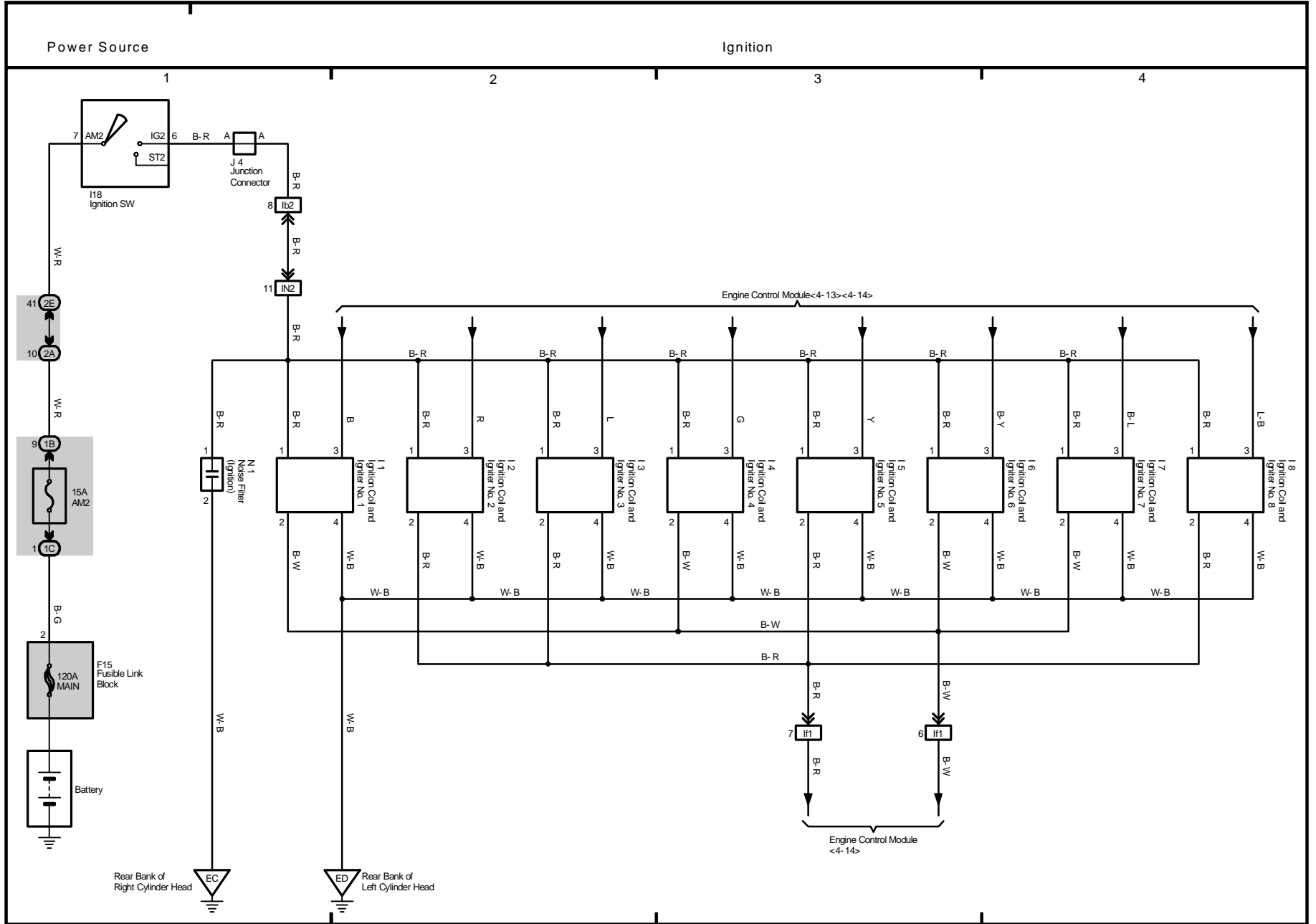
M OVERALL ELECTRICAL WIRING DIAGRAM

2 LAND CRUISER



3 LAND CRUISER

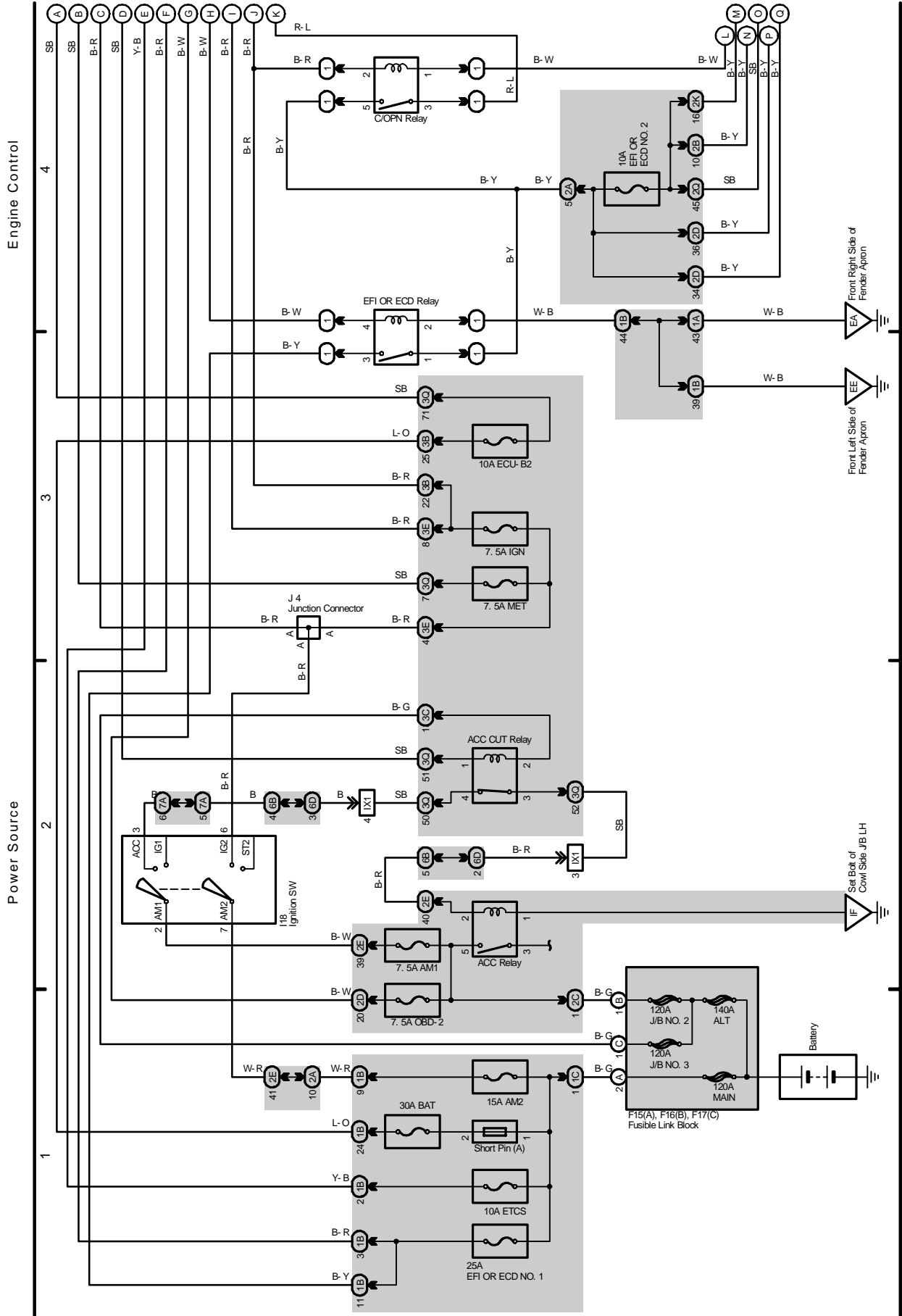
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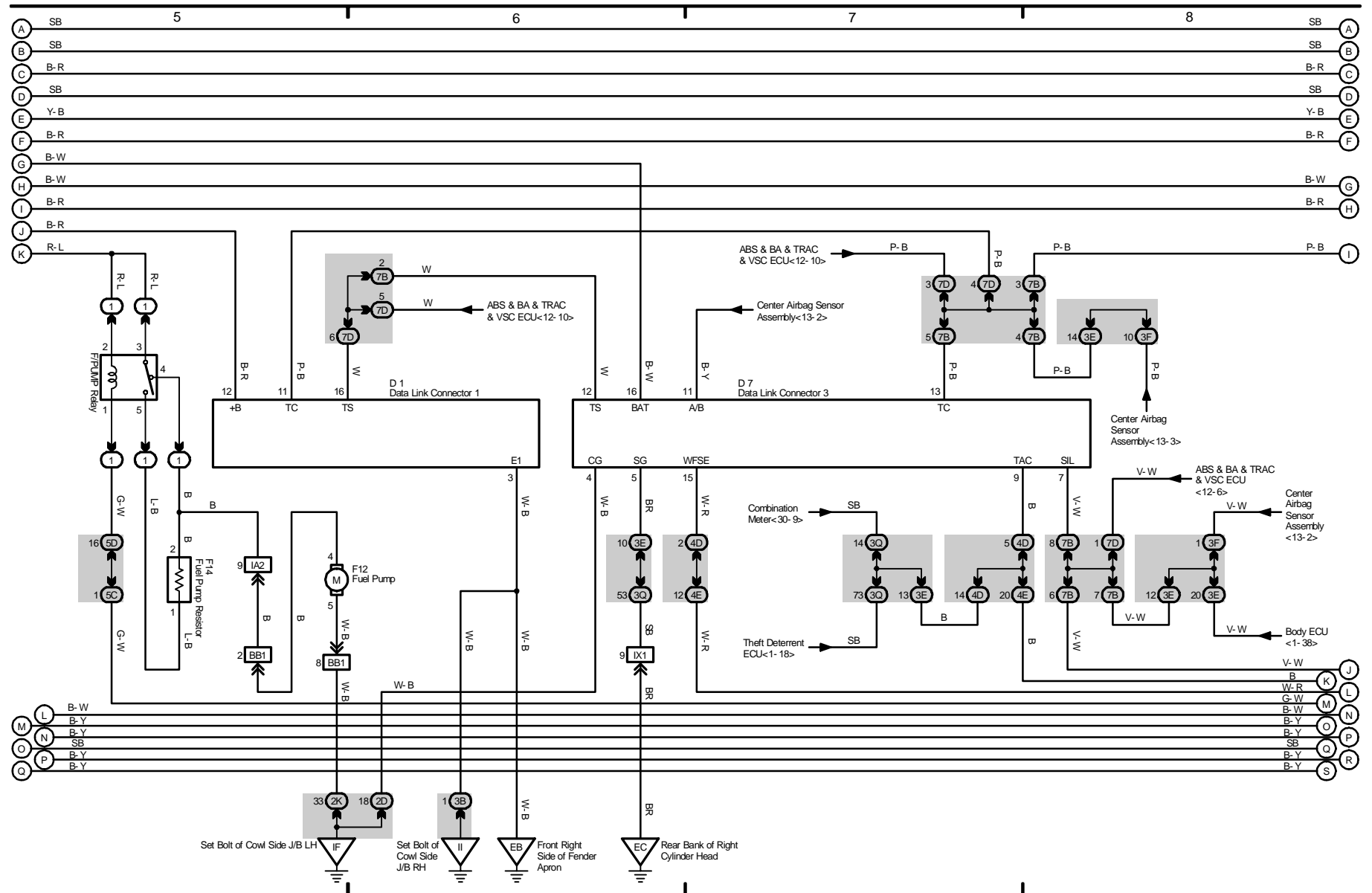
M OVERALL ELECTRICAL WIRING DIAGRAM

4 LAND CRUISER

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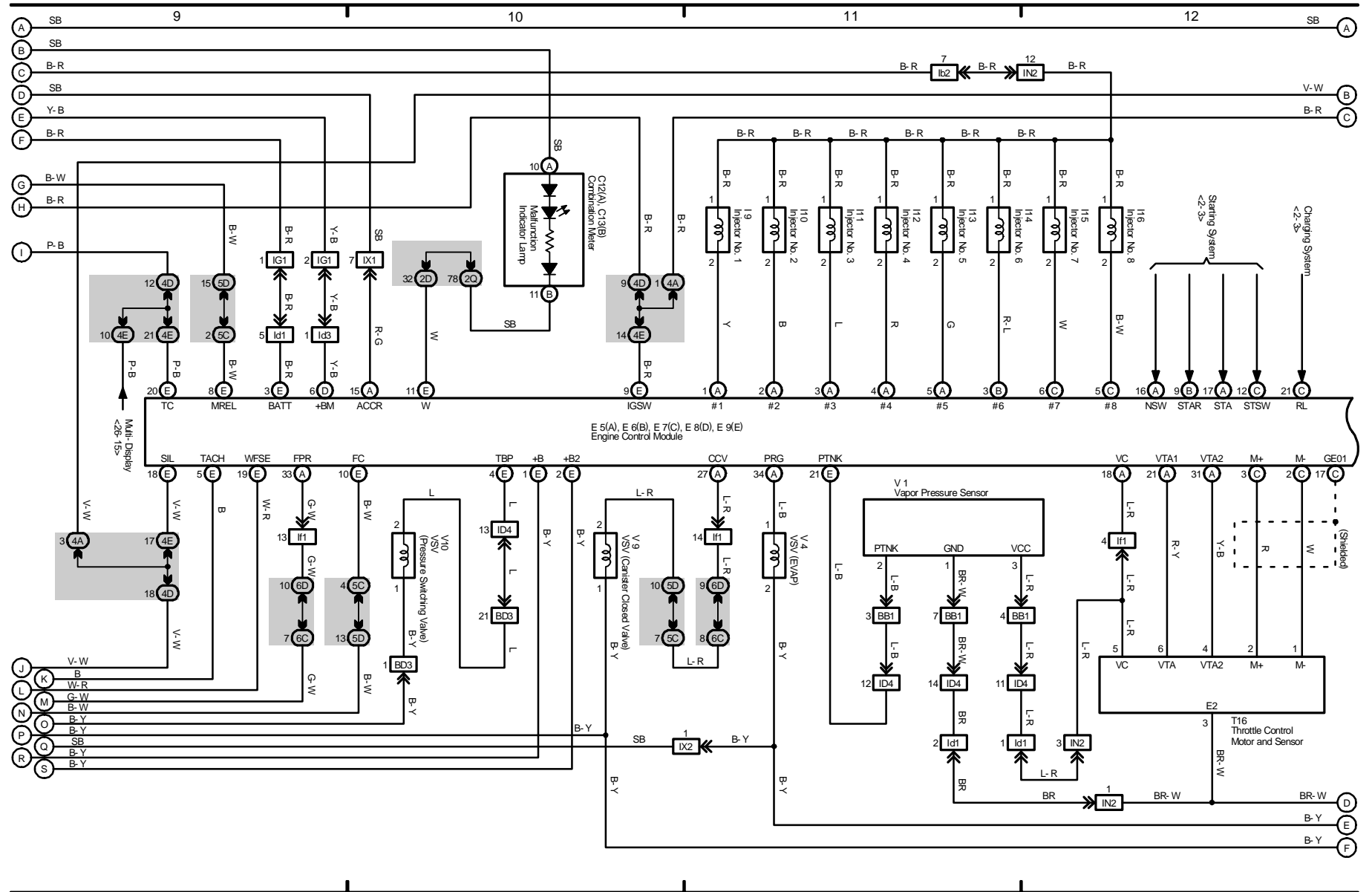


Engine Control

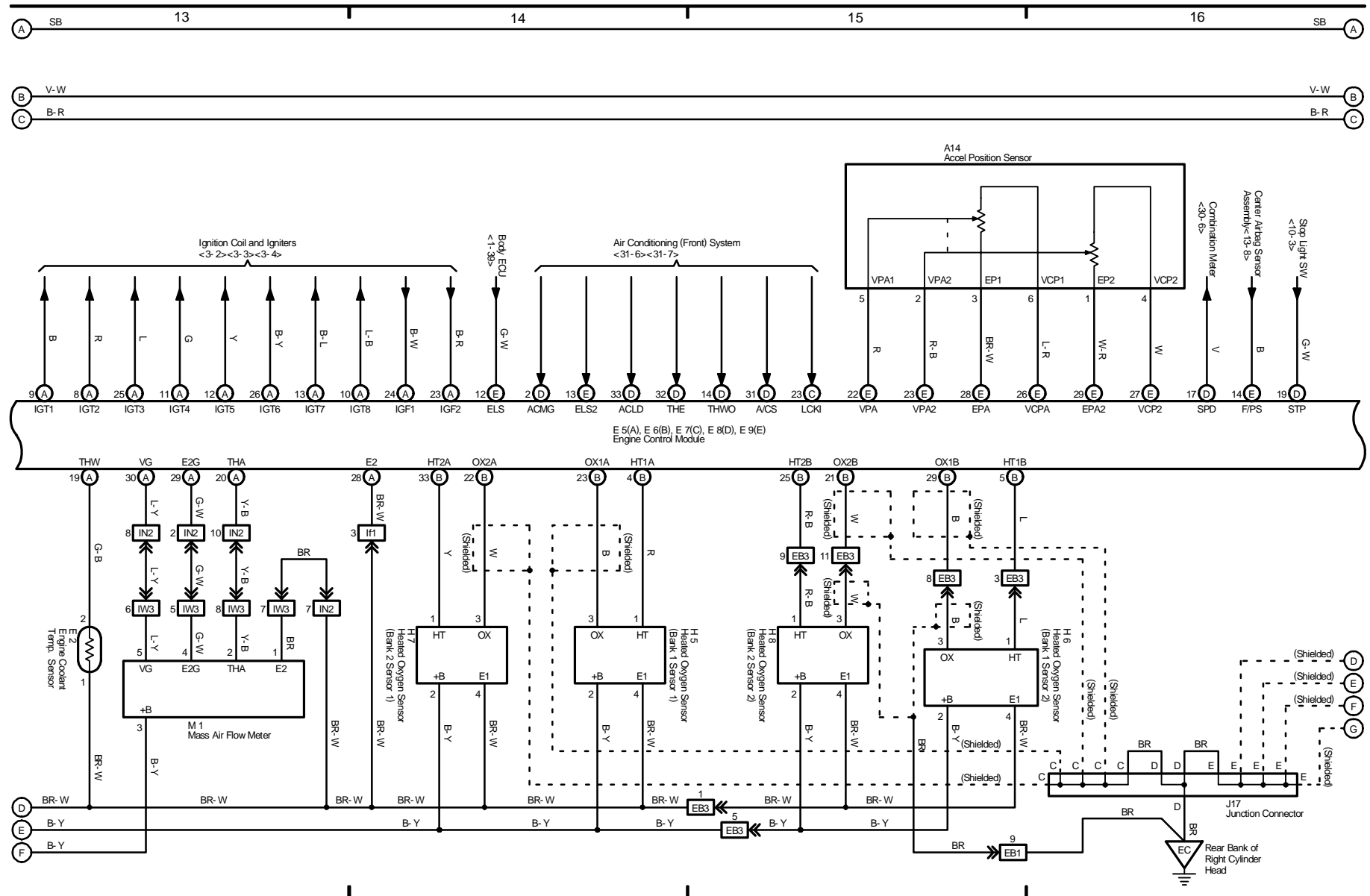


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Engine Control



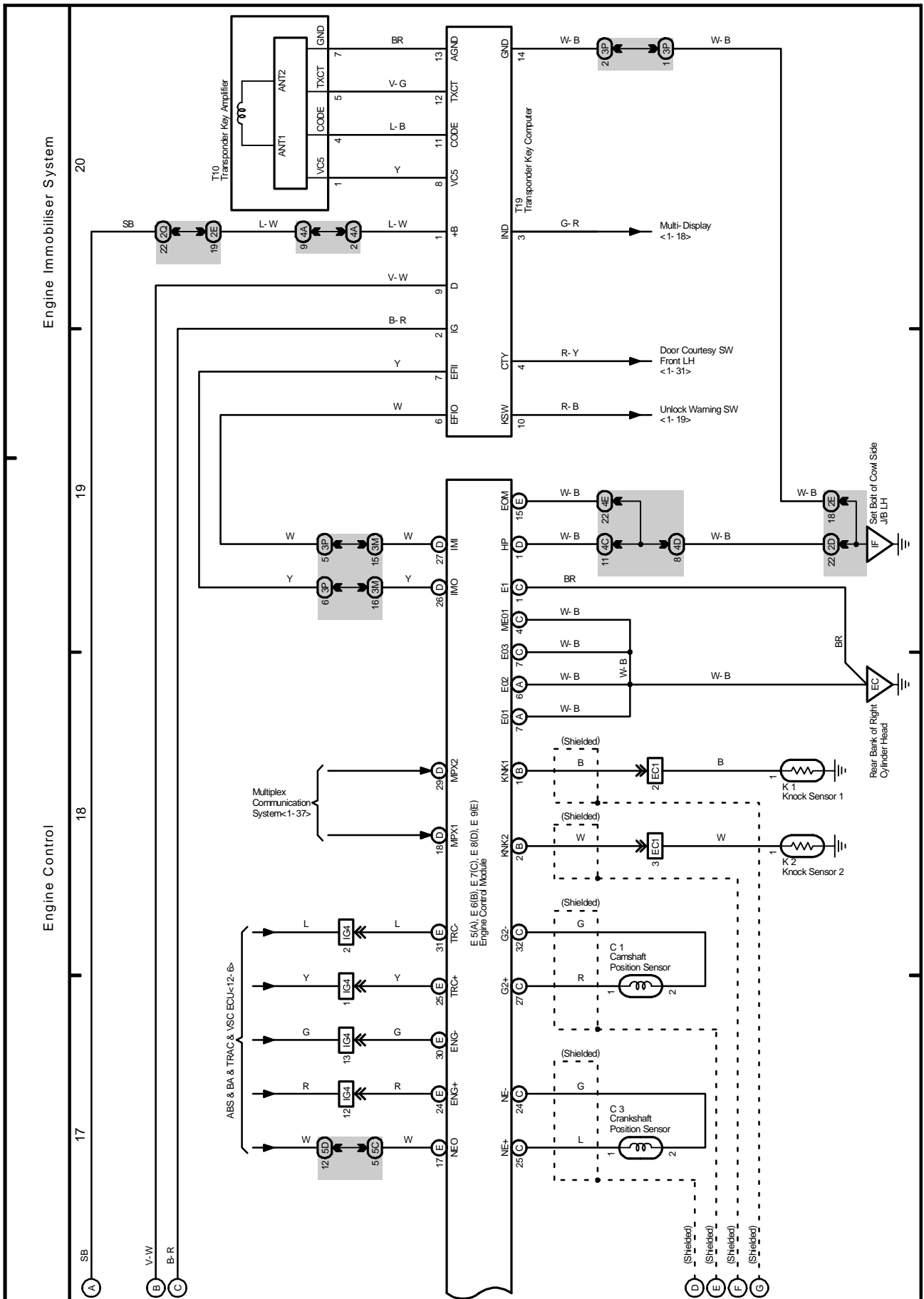
Engine Control



2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM

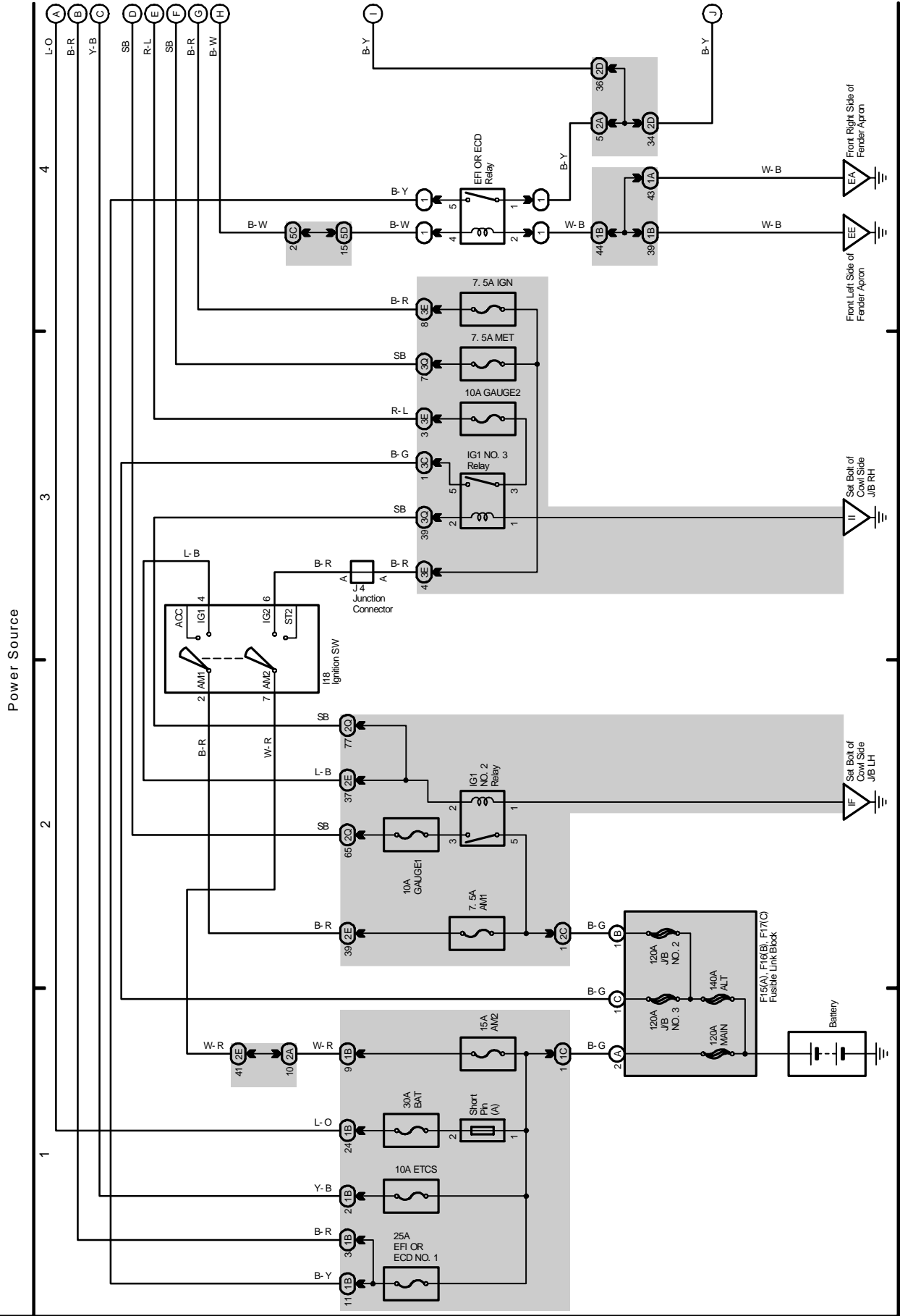
4 LAND CRUISER (Cont' d)



M OVERALL ELECTRICAL WIRING DIAGRAM

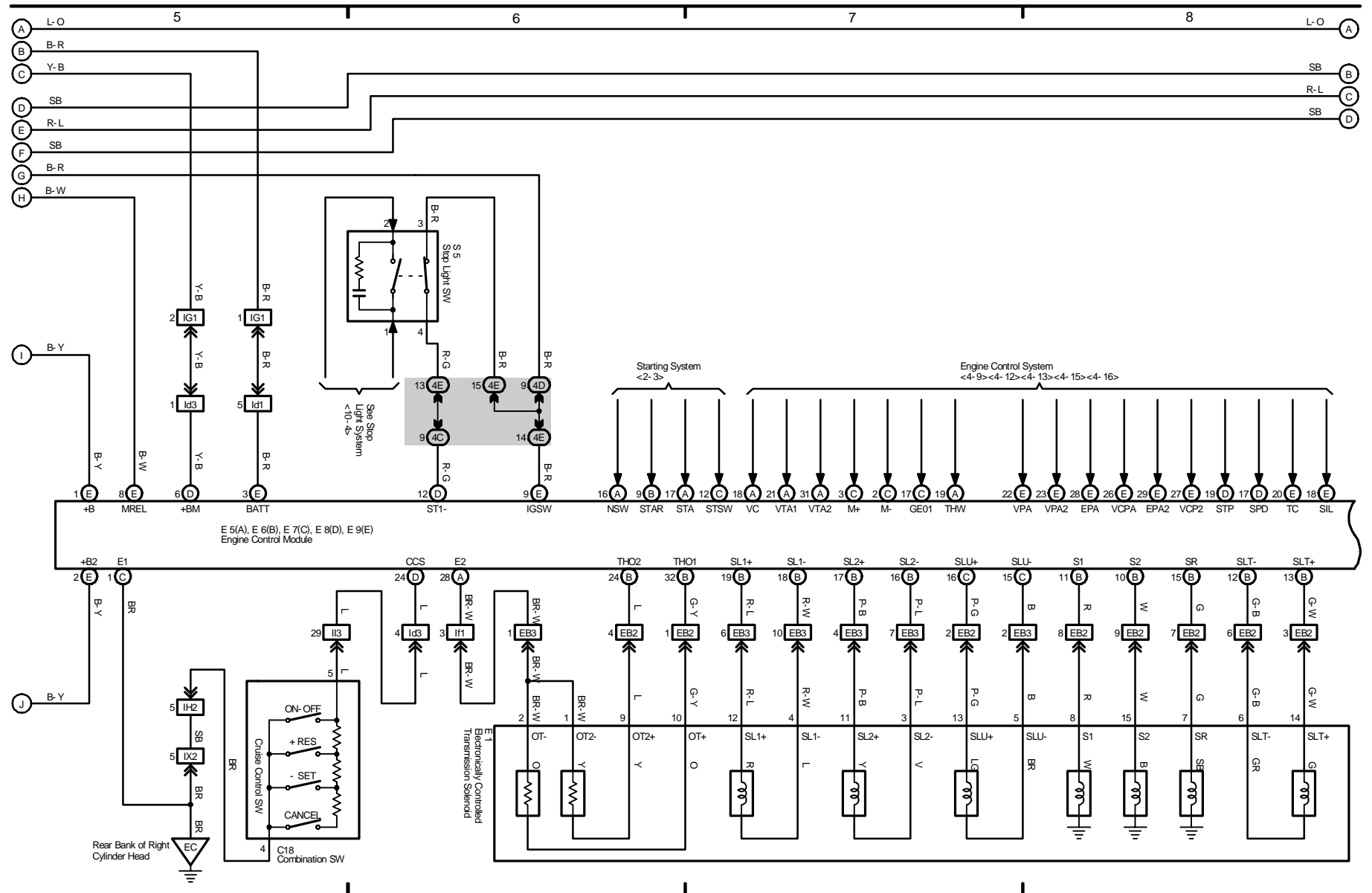
5 LAND CRUISER

(Cont. next page)



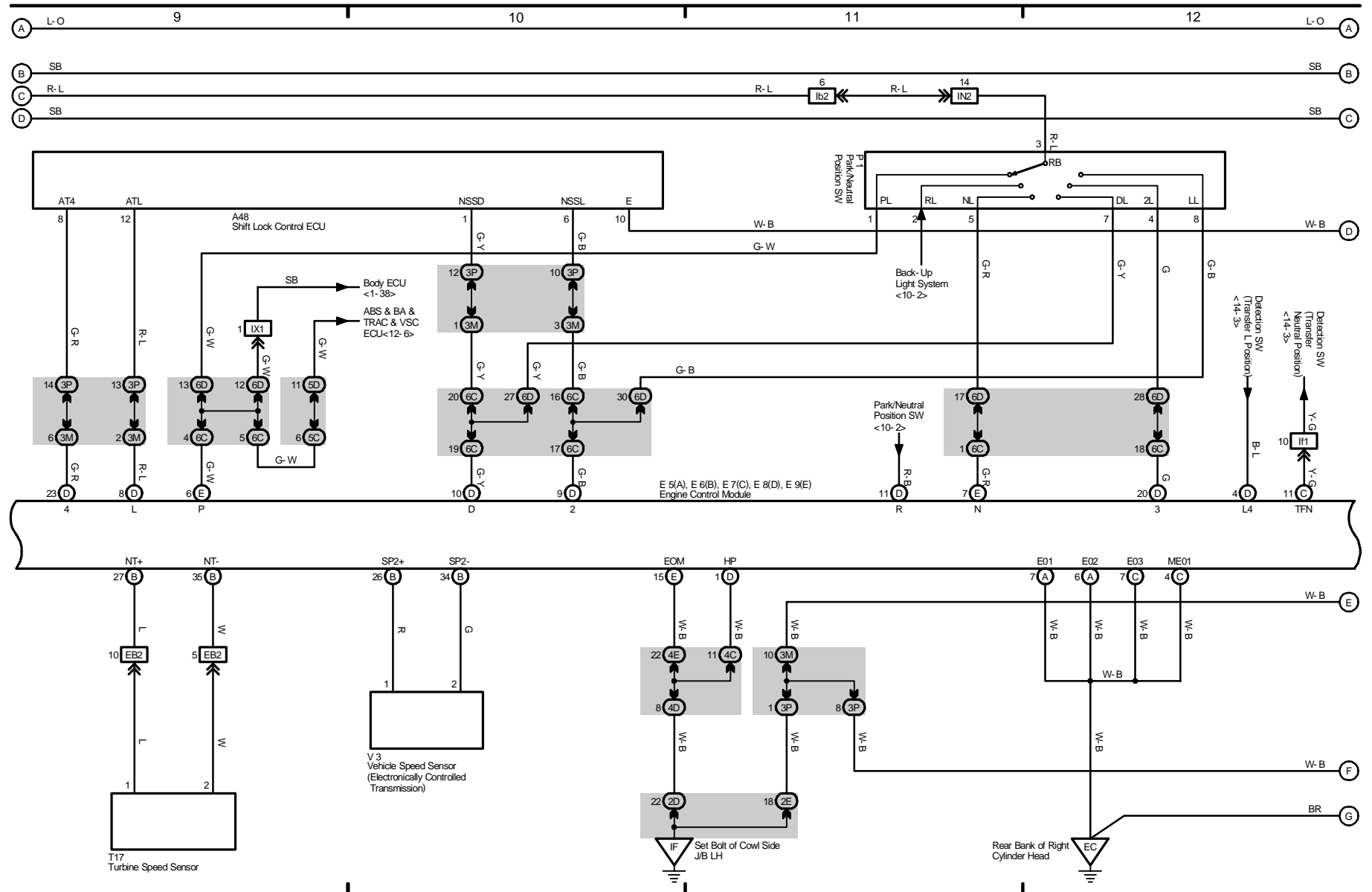
Cruise Control

Electronically Controlled Transmission and A/T Indicator



2004 LAND CRUISER (EWD548U)

Electronically Controlled Transmission and A/T Indicator

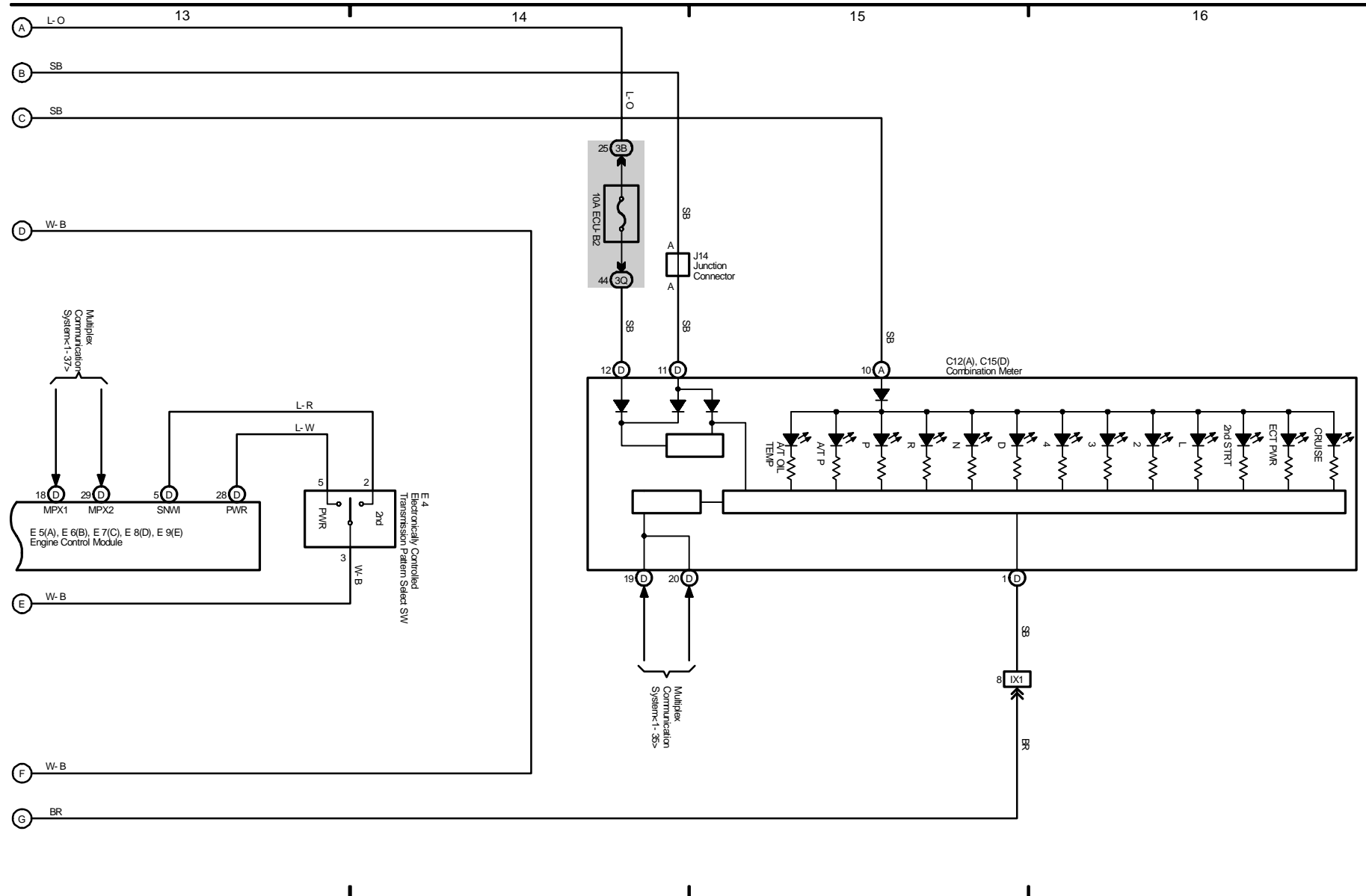


2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM

5 LAND CRUISER (Cont' d)

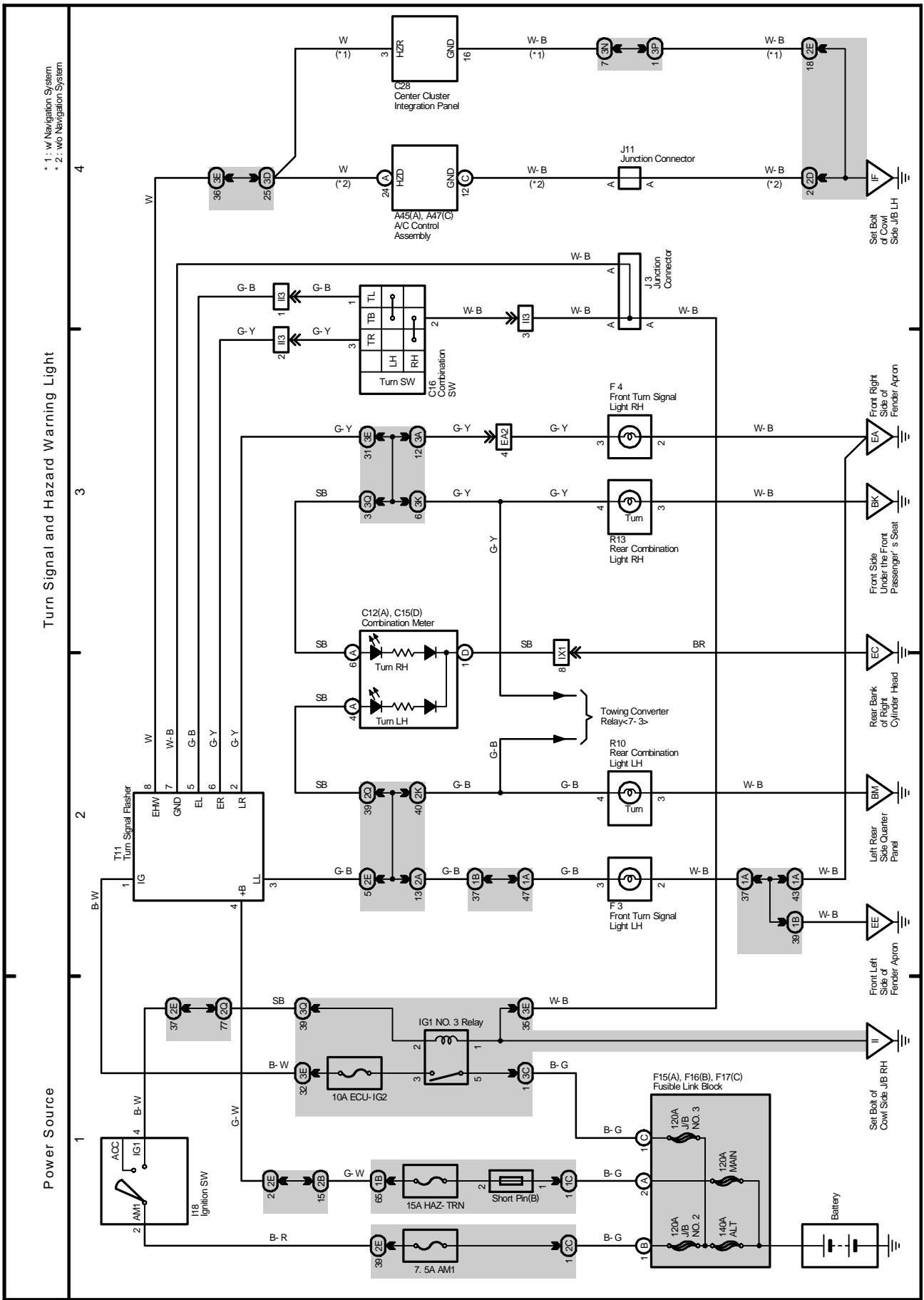
Electronically Controlled Transmission and A/T Indicator



2004 LAND CRUISER (EWD548U)

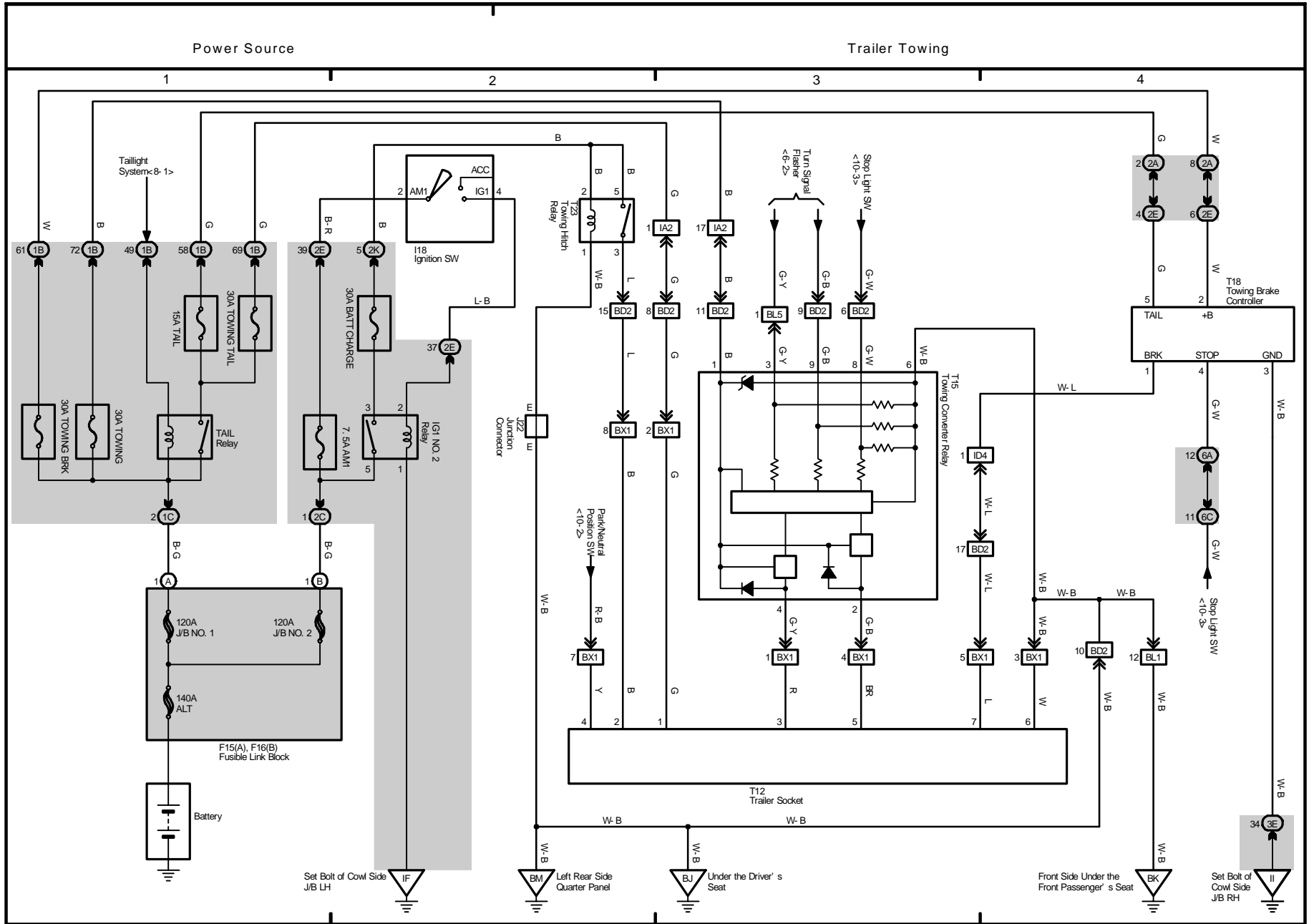
M OVERALL ELECTRICAL WIRING DIAGRAM

6 LAND CRUISER



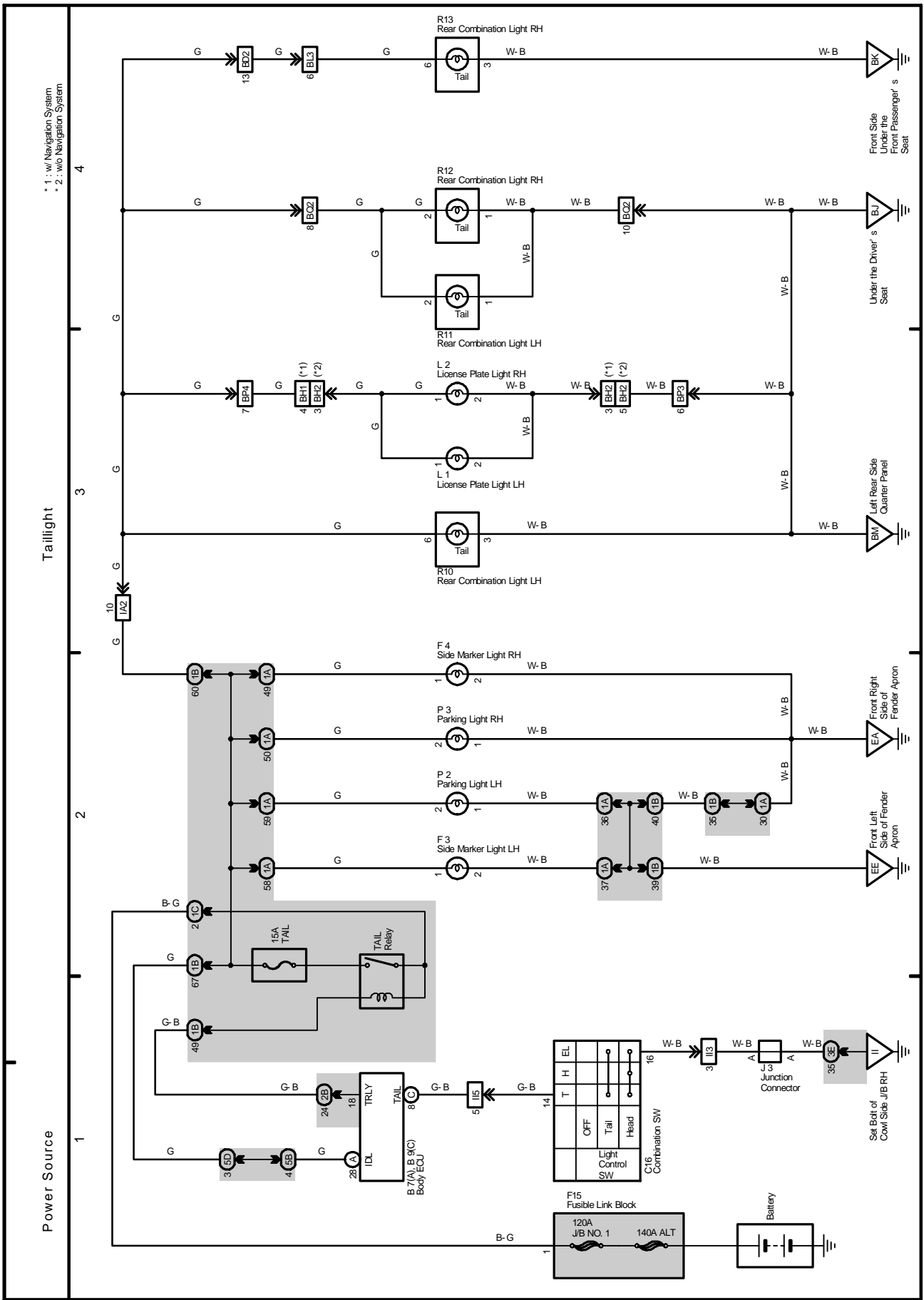
7 LAND CRUISER

2004 LAND CRUISER (EWD548U)



M OVERALL ELECTRICAL WIRING DIAGRAM

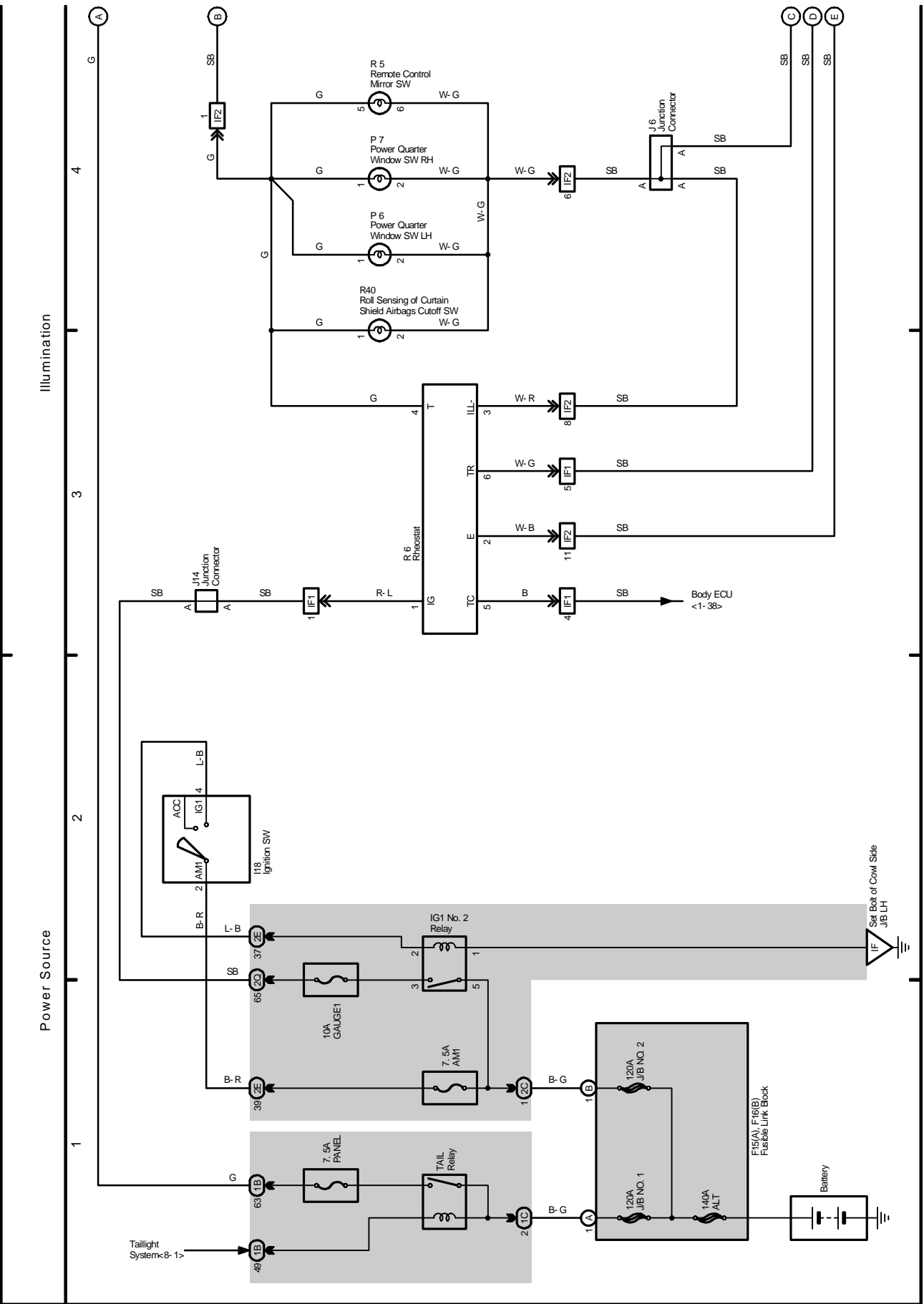
8 LAND CRUISER



M OVERALL ELECTRICAL WIRING DIAGRAM

(Cont. next page)

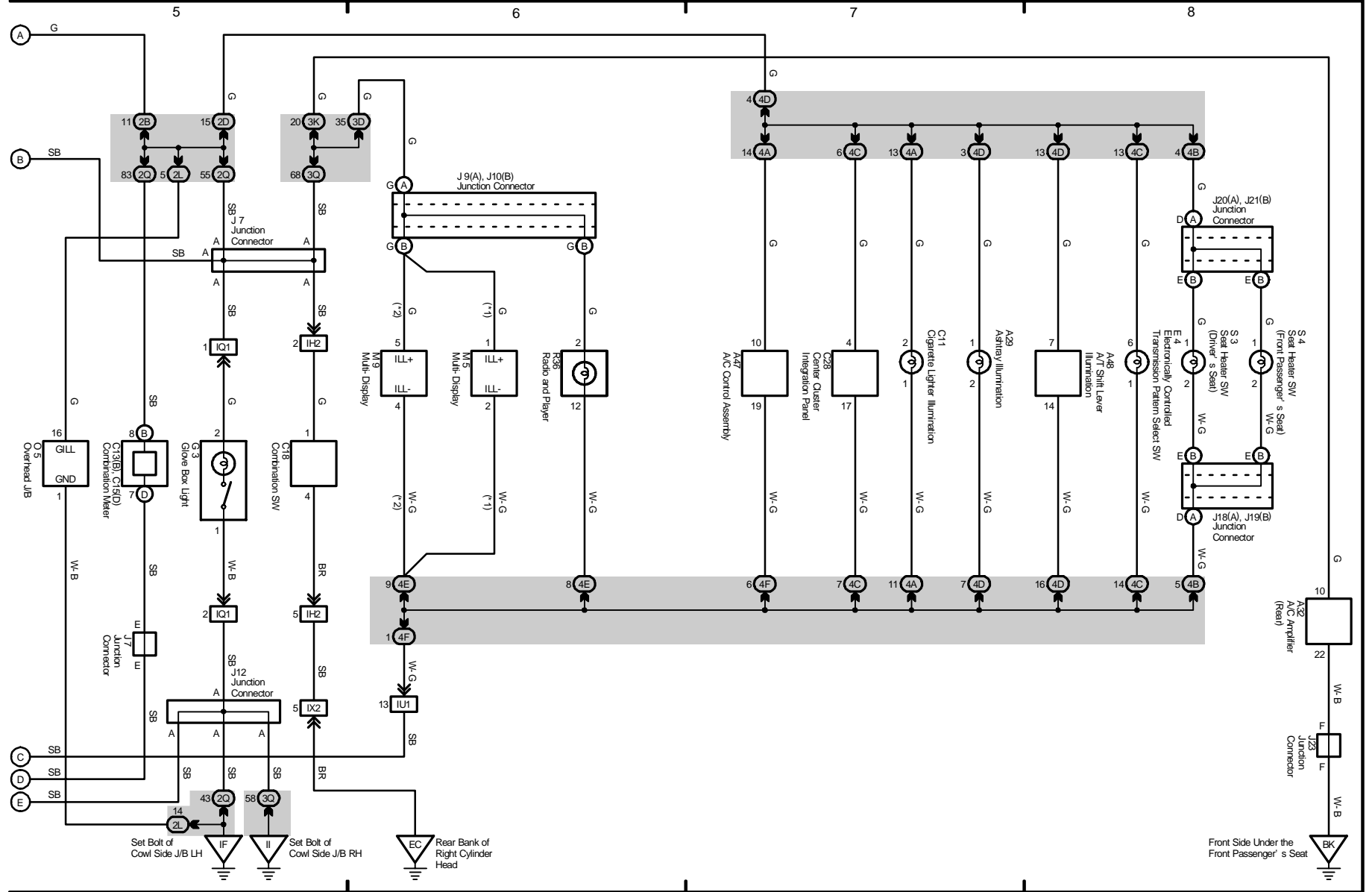
9 LAND CRUISER



9 LAND CRUISER (Cont' d)

Illumination

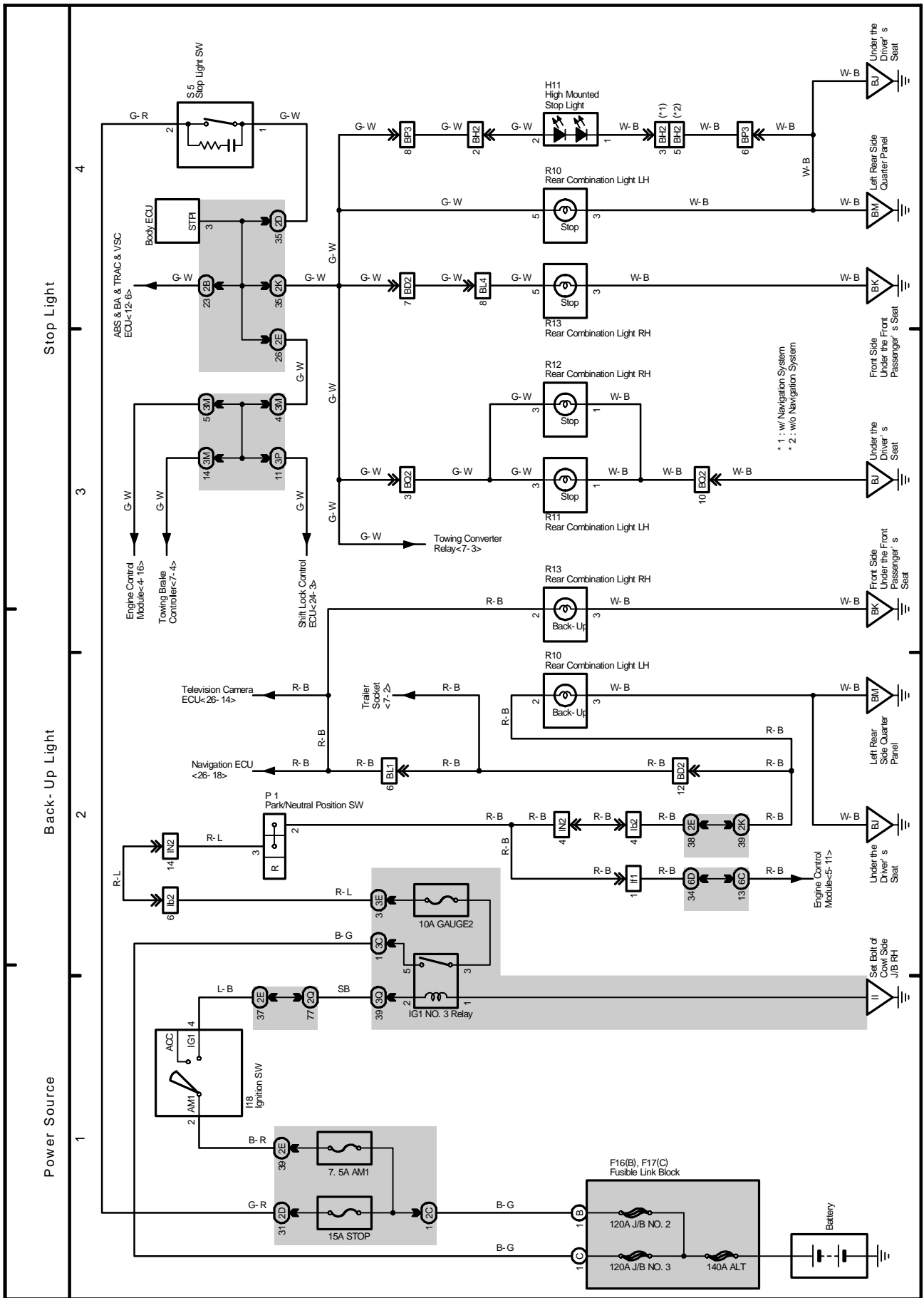
- * 1 : w/ Navigation System
- * 2 : w/o Navigation System



2004 LAND CRUISER (EWD548U)

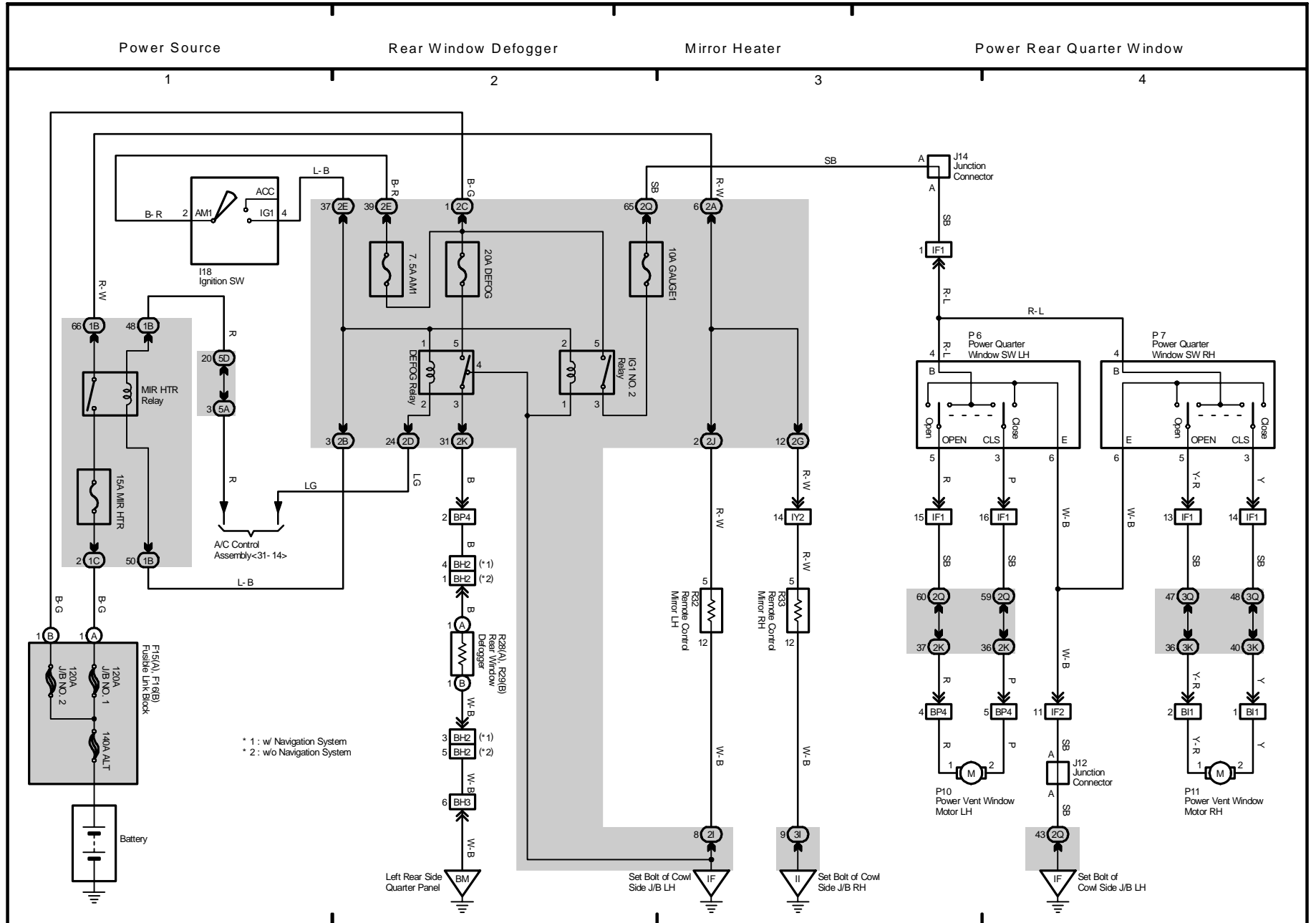
M OVERALL ELECTRICAL WIRING DIAGRAM

10 LAND CRUISER



11 LAND CRUISER

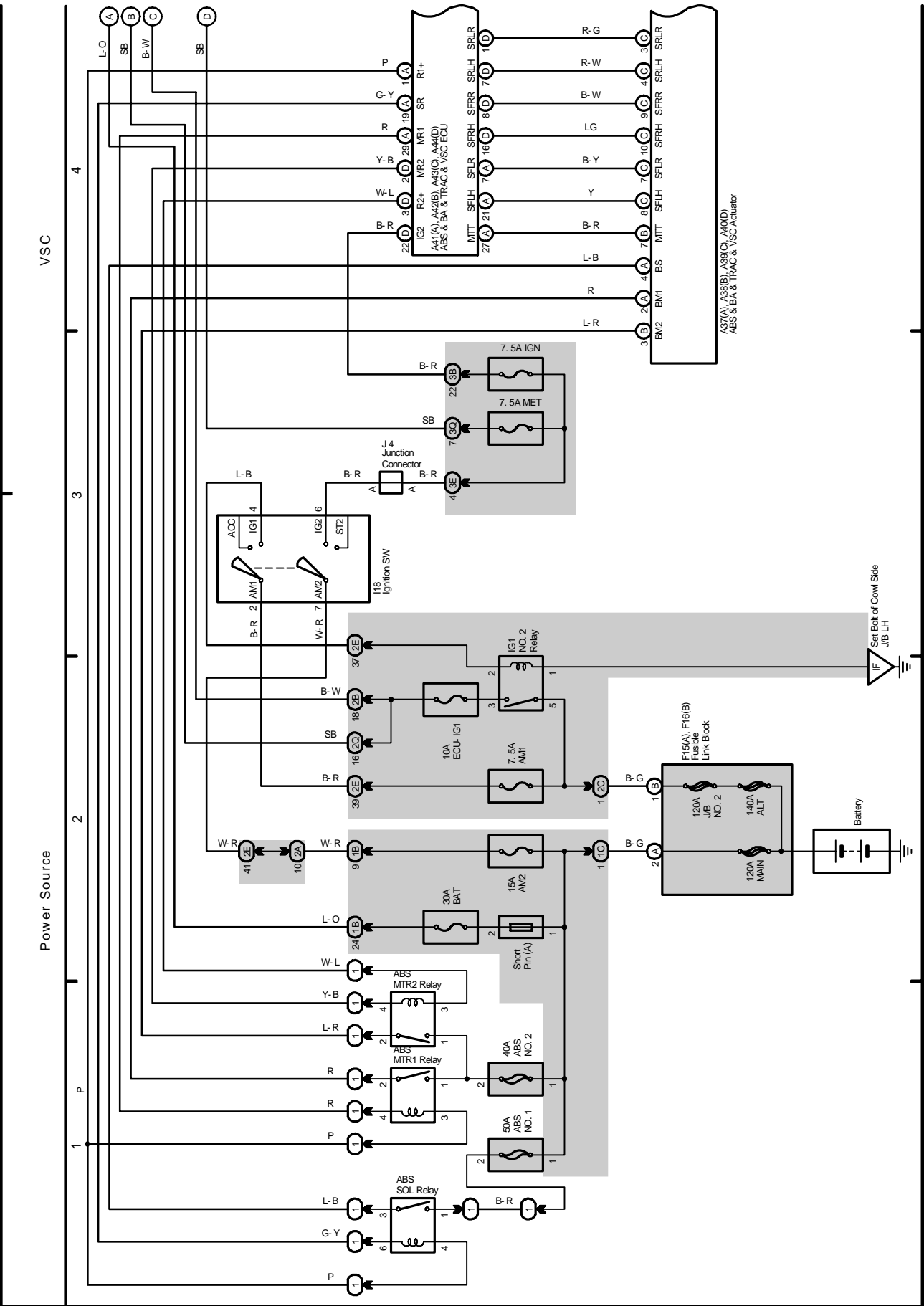
2004 LAND CRUISER (EWD548U)



M OVERALL ELECTRICAL WIRING DIAGRAM

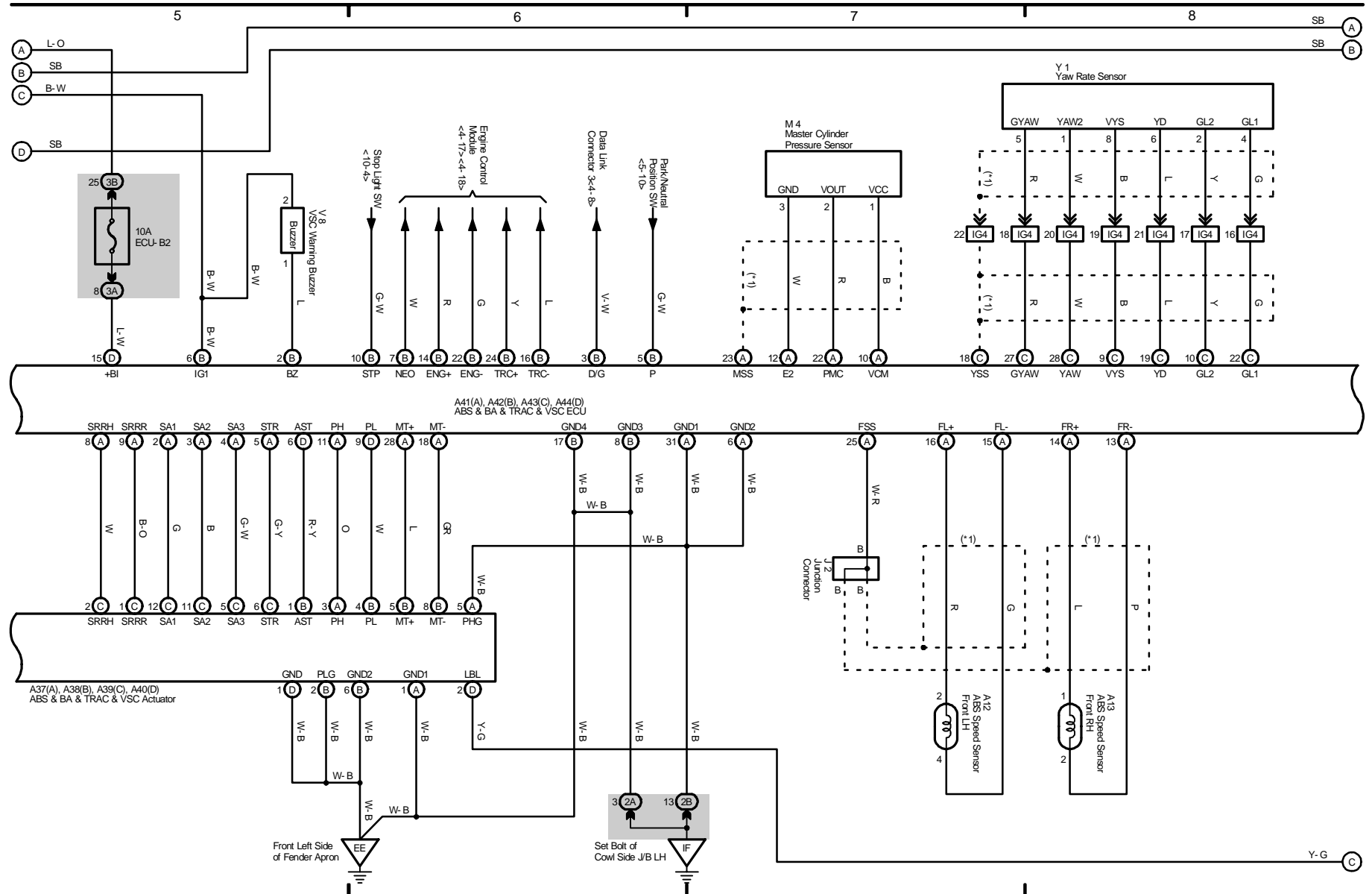
12 LAND CRUISER

(Cont. next page)



VSC

* 1: Shielded

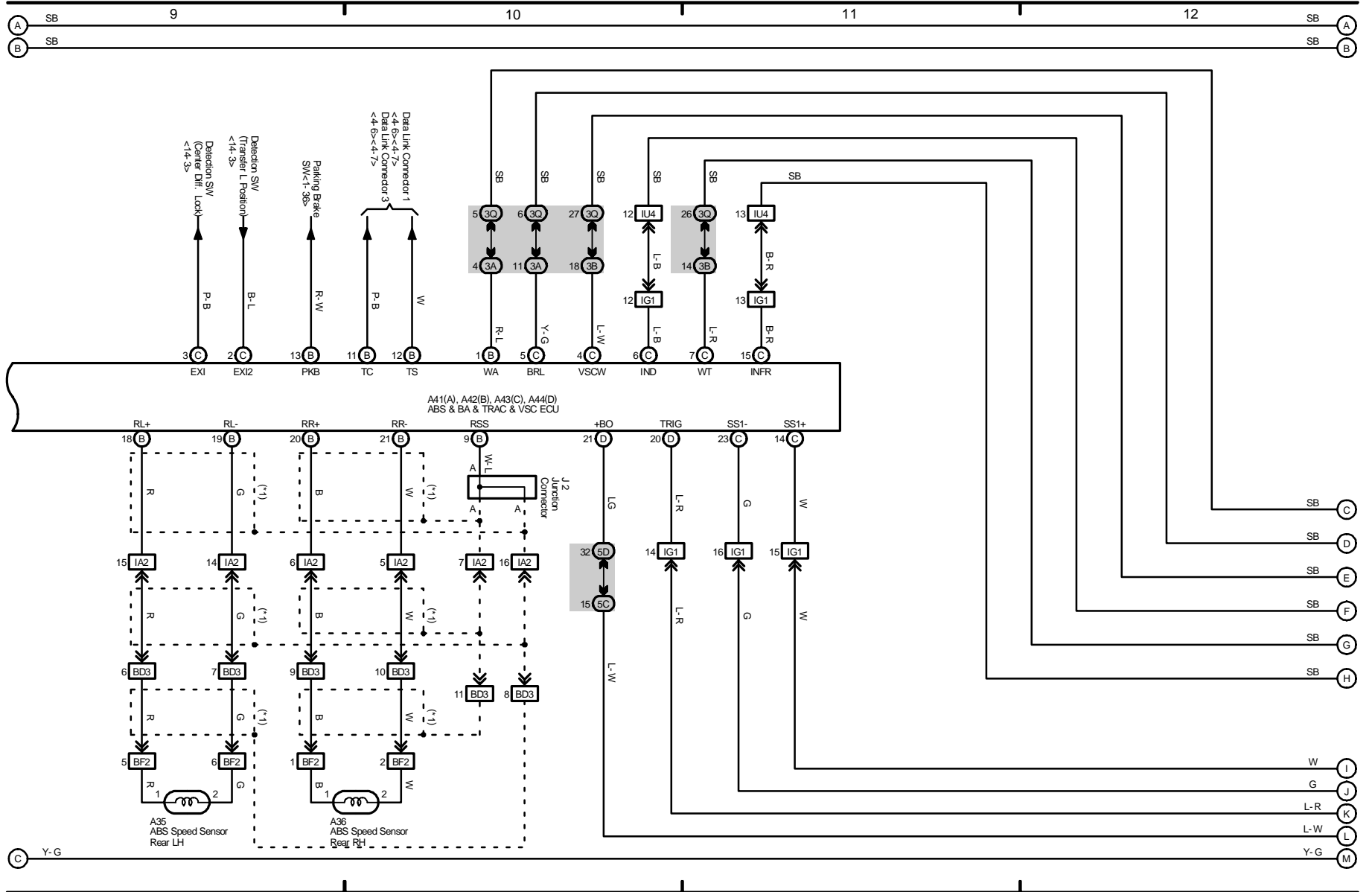


2004 LAND CRUISER (EWD548U)



VSC

* 1 : shielded

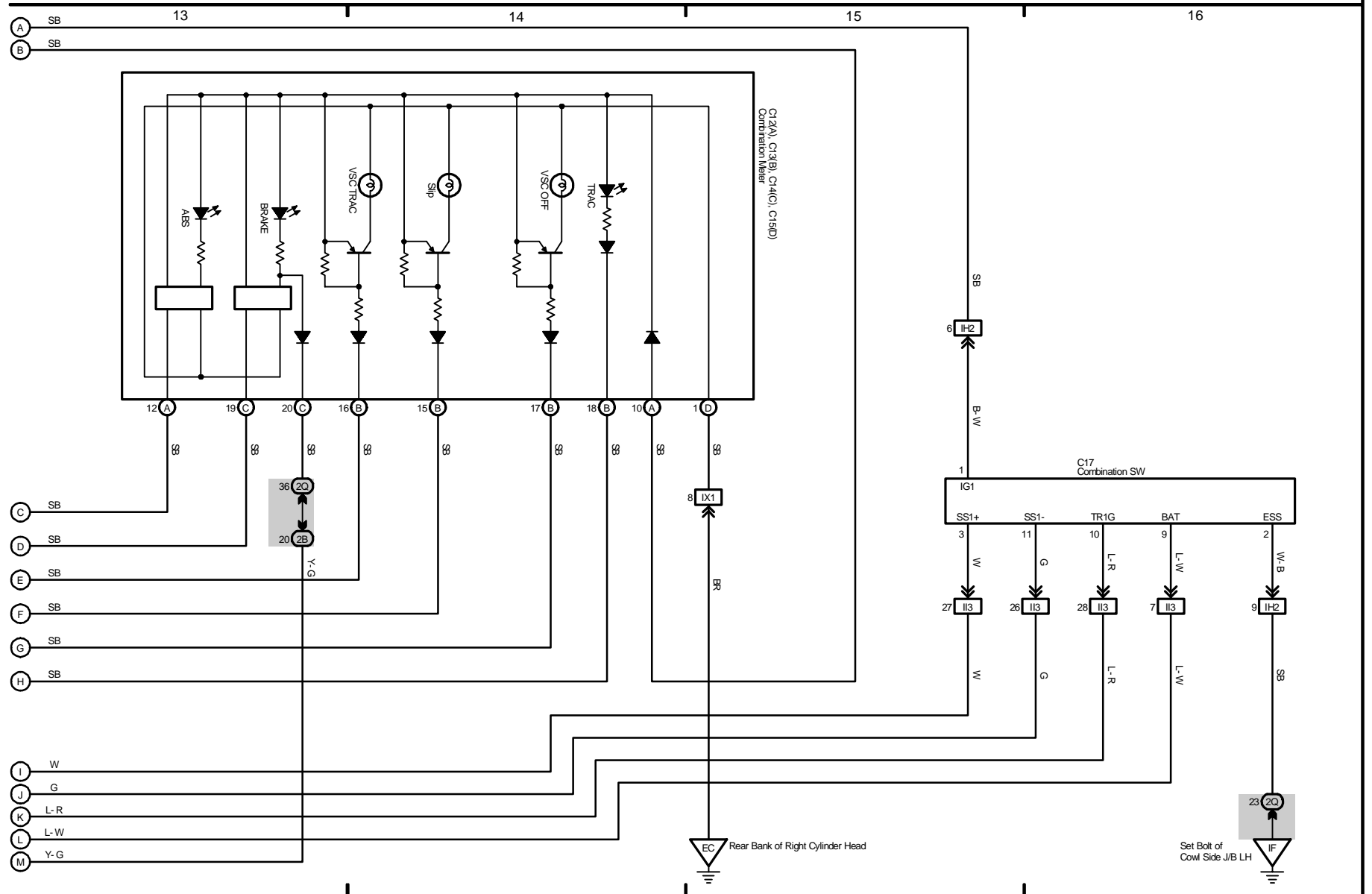


2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM

12 LAND CRUISER (Cont' d)

VSC

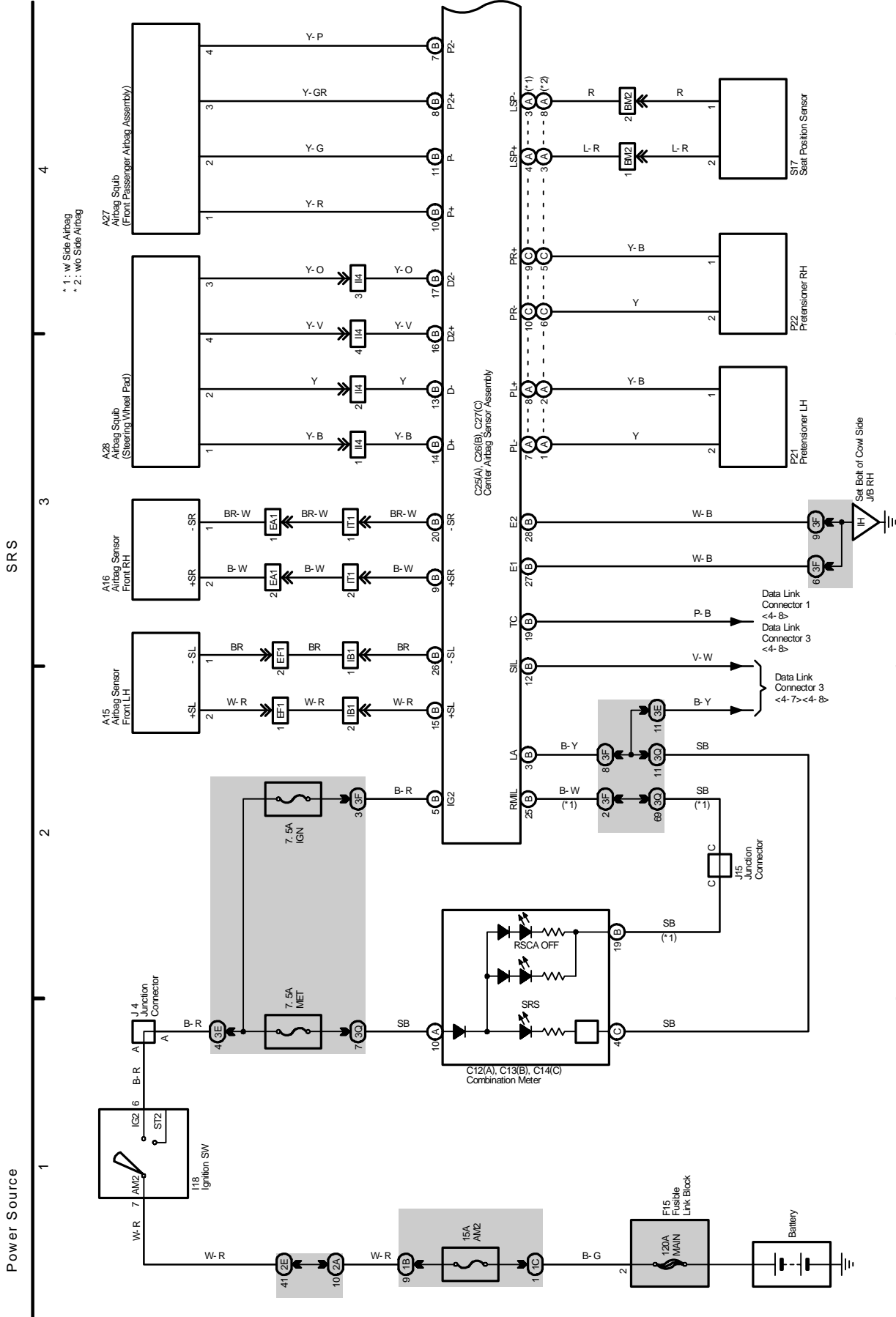


2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM

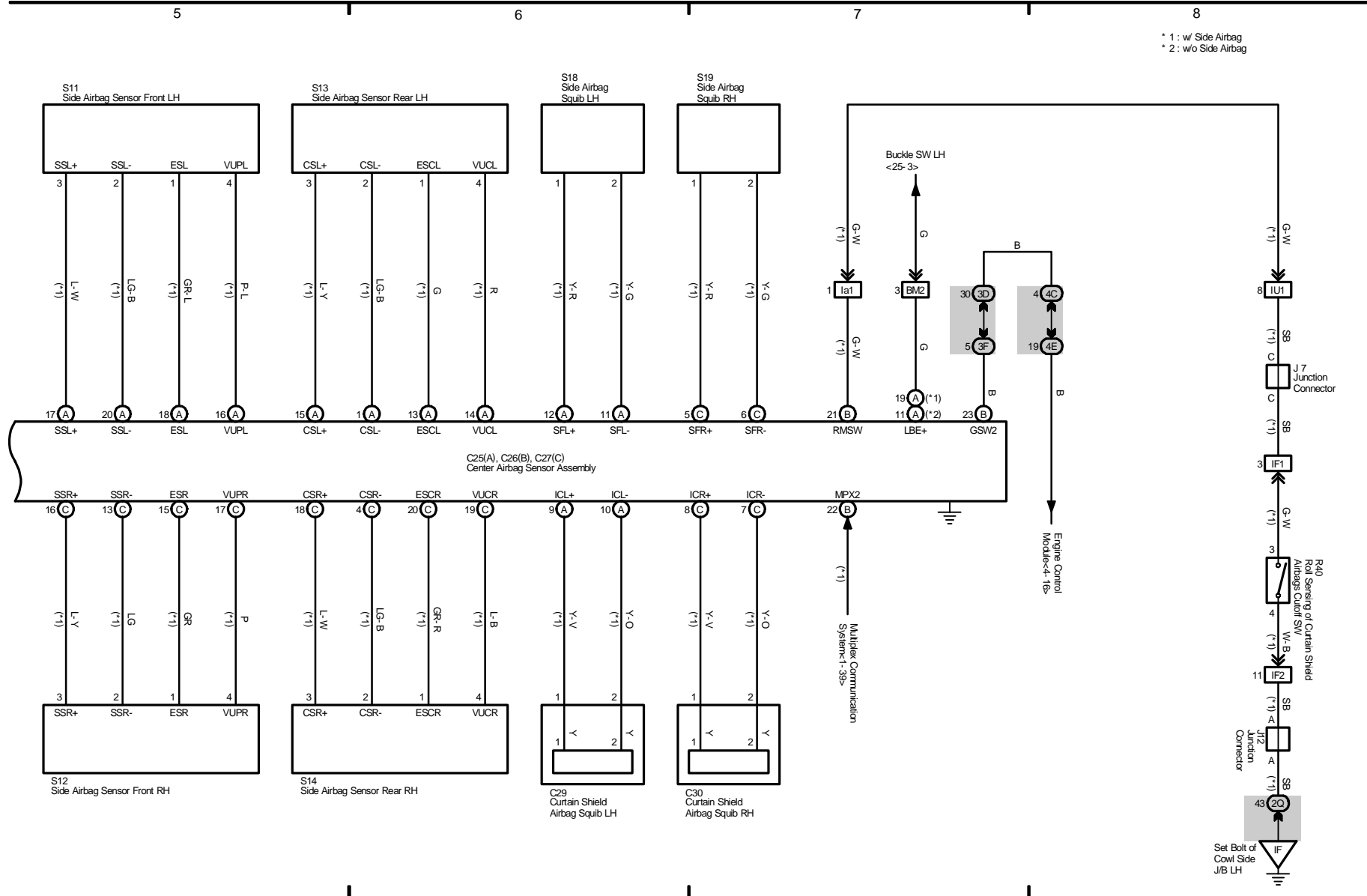
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13 LAND CRUISER



13 LAND CRUISER (Cont' d)

SRS

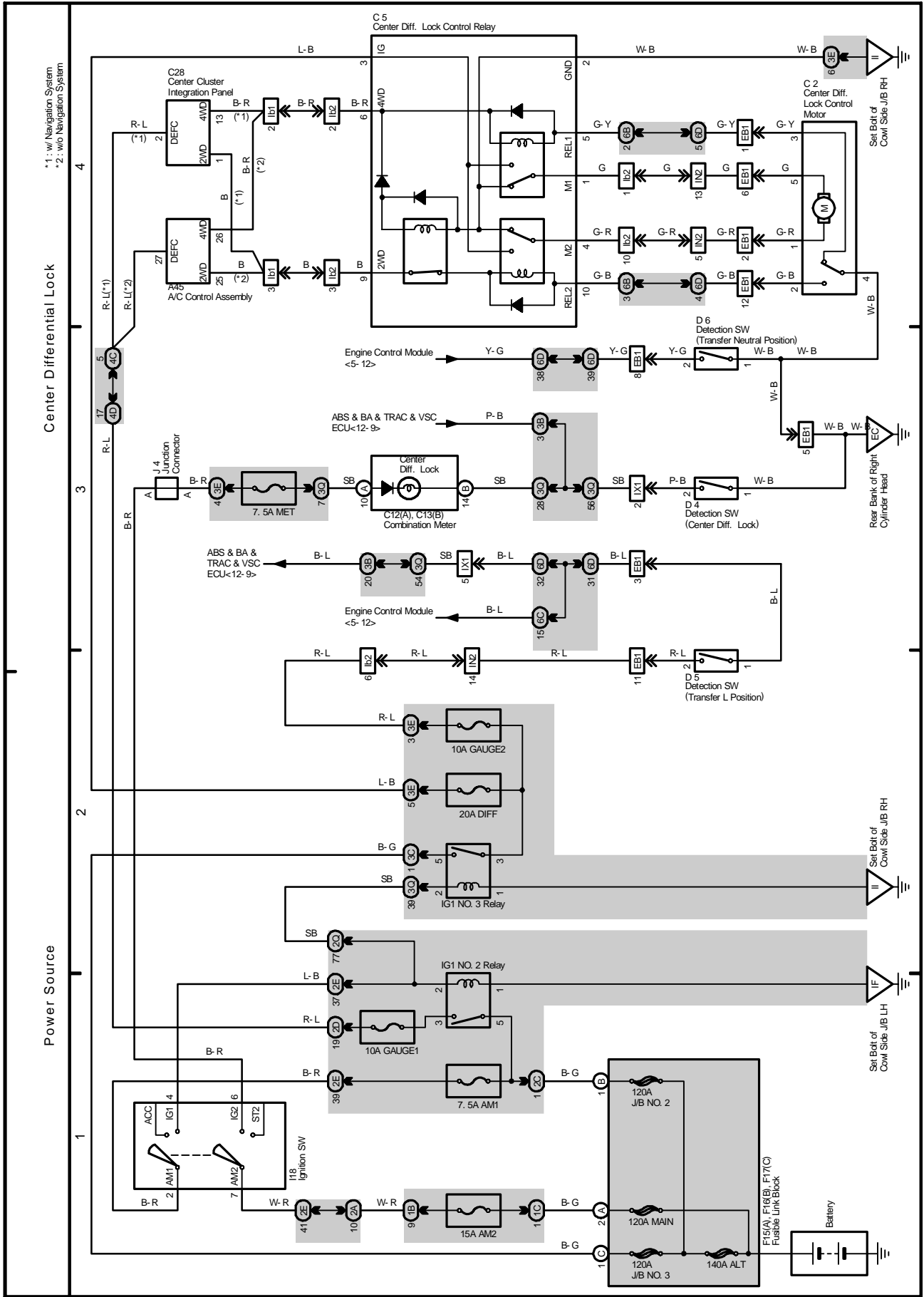


* 1 : w/ Side Airbag
 * 2 : w/o Side Airbag

2004 LAND CRUISER (EWD548U)

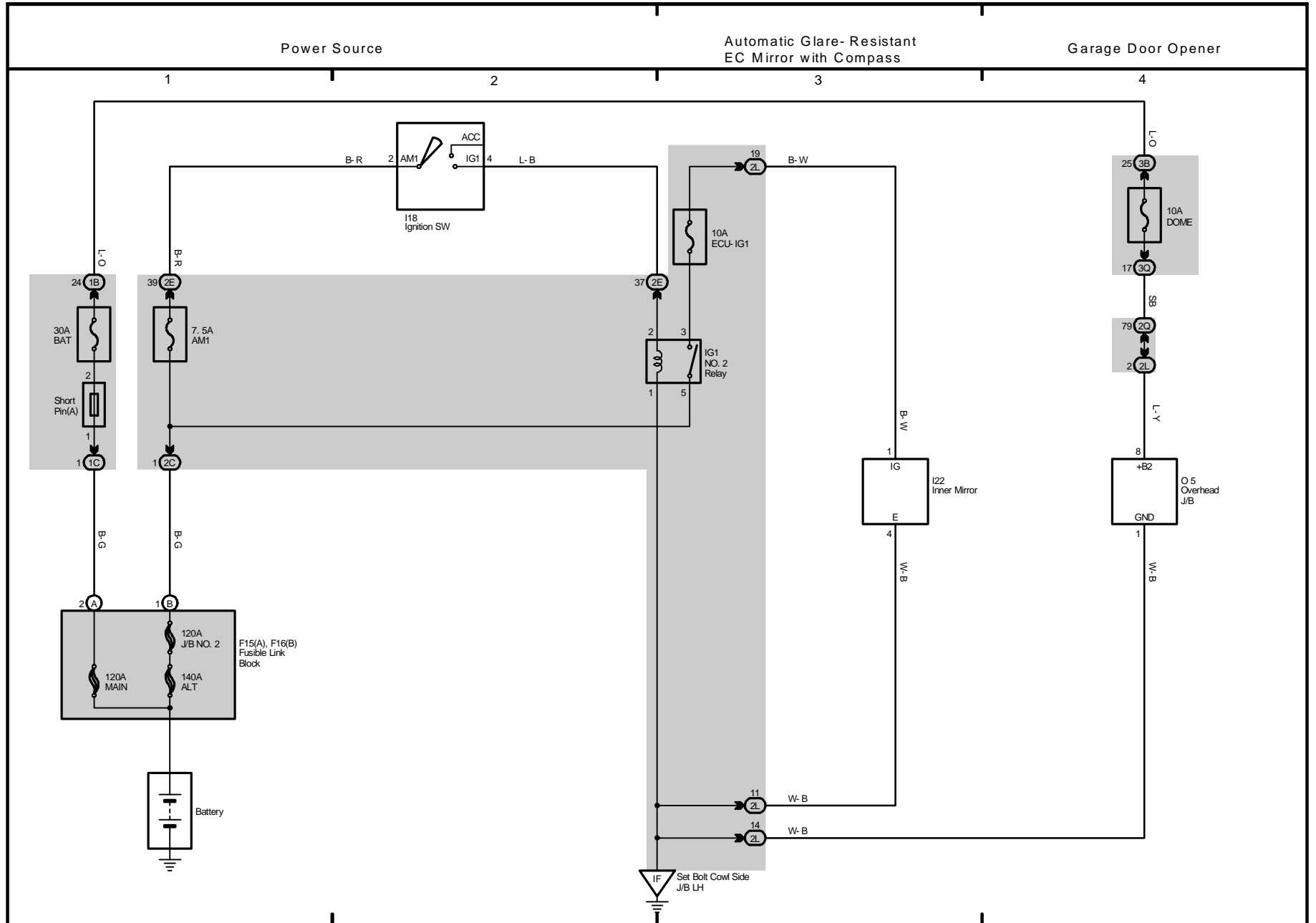
M OVERALL ELECTRICAL WIRING DIAGRAM

14 LAND CRUISER



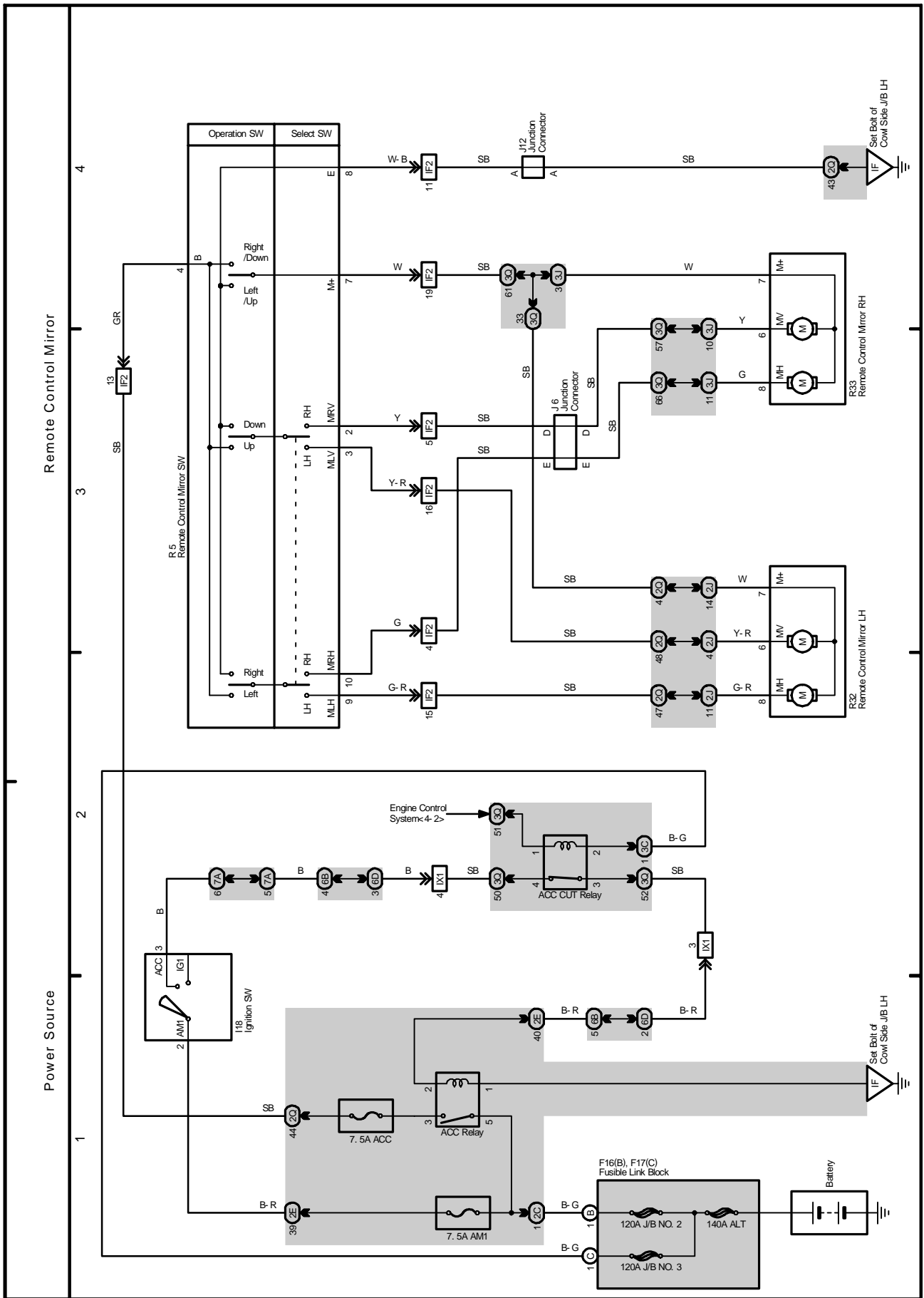
15 LAND CRUISER

2004 LAND CRUISER (EWD548U)



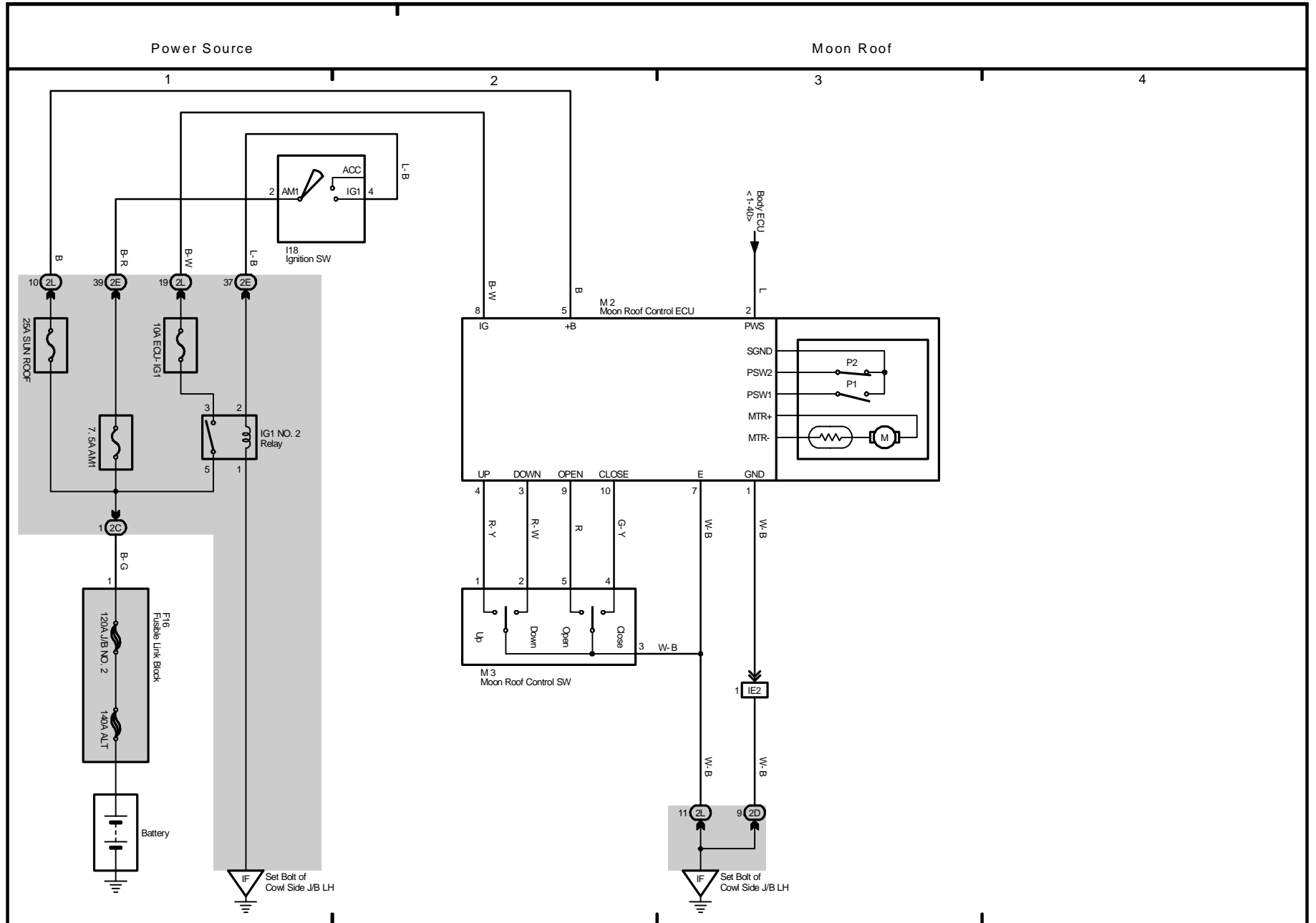
M OVERALL ELECTRICAL WIRING DIAGRAM

16 LAND CRUISER



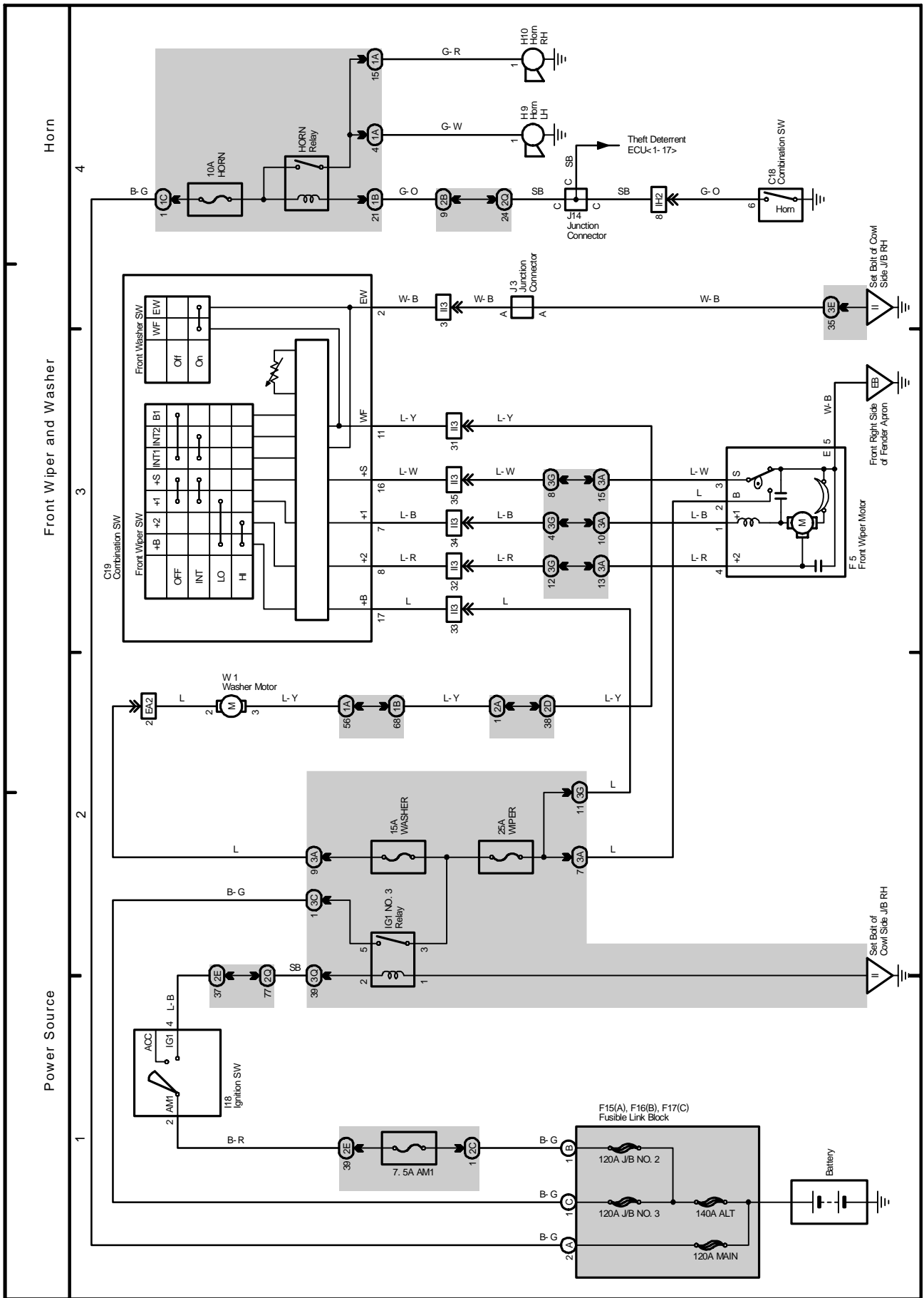
17 LAND CRUISER

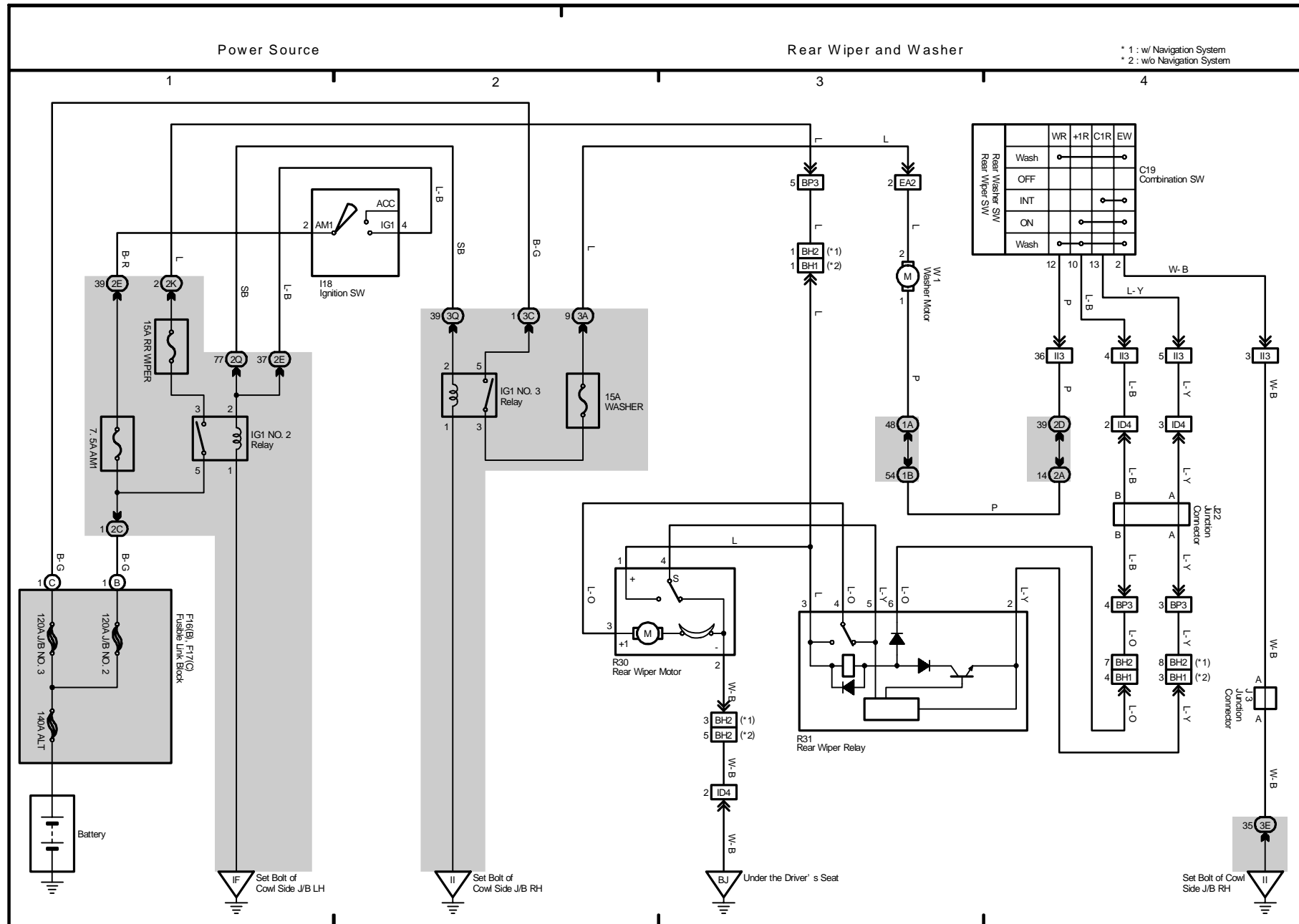
2004 LAND CRUISER (EWD548U)



M OVERALL ELECTRICAL WIRING DIAGRAM

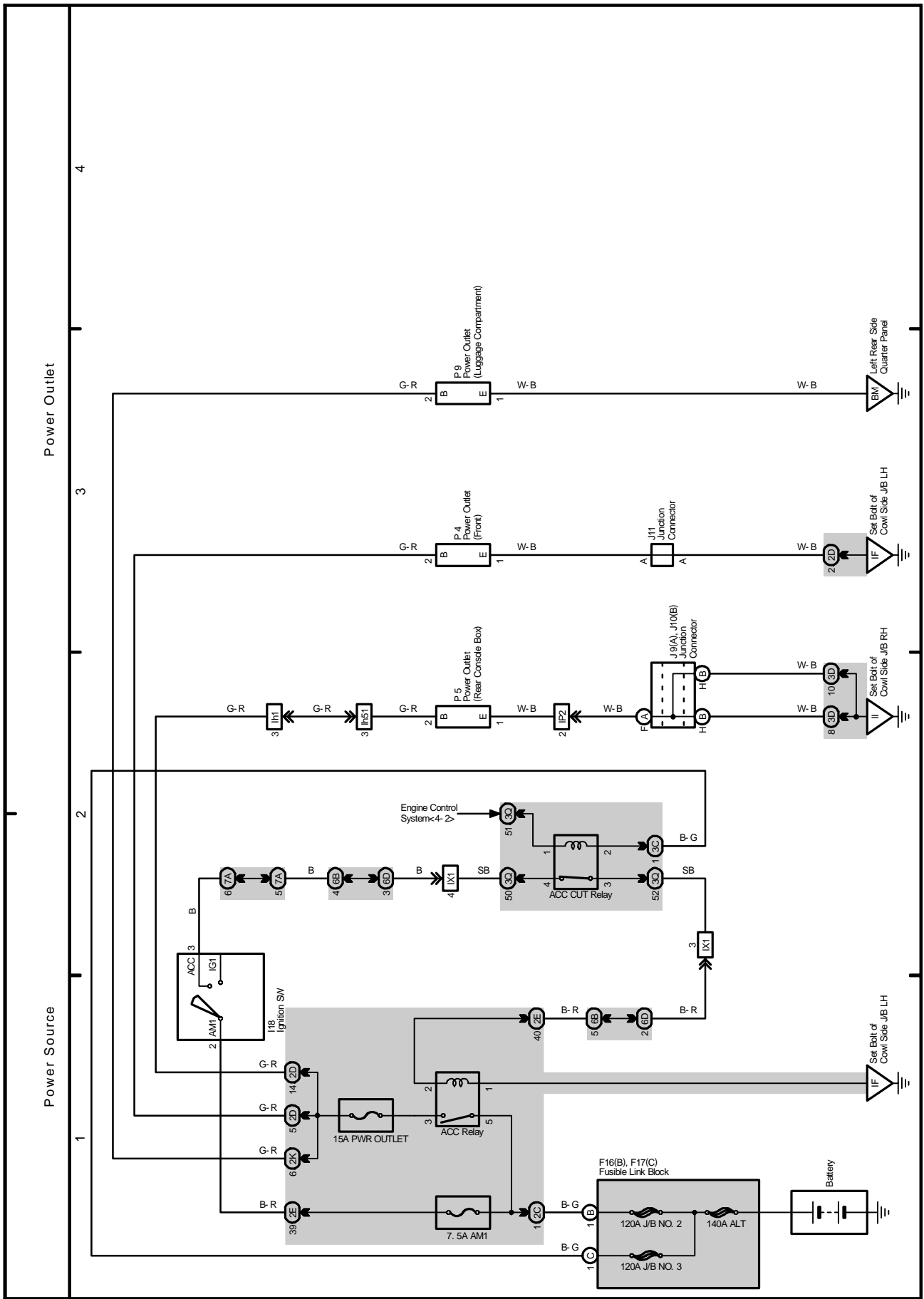
18 LAND CRUISER

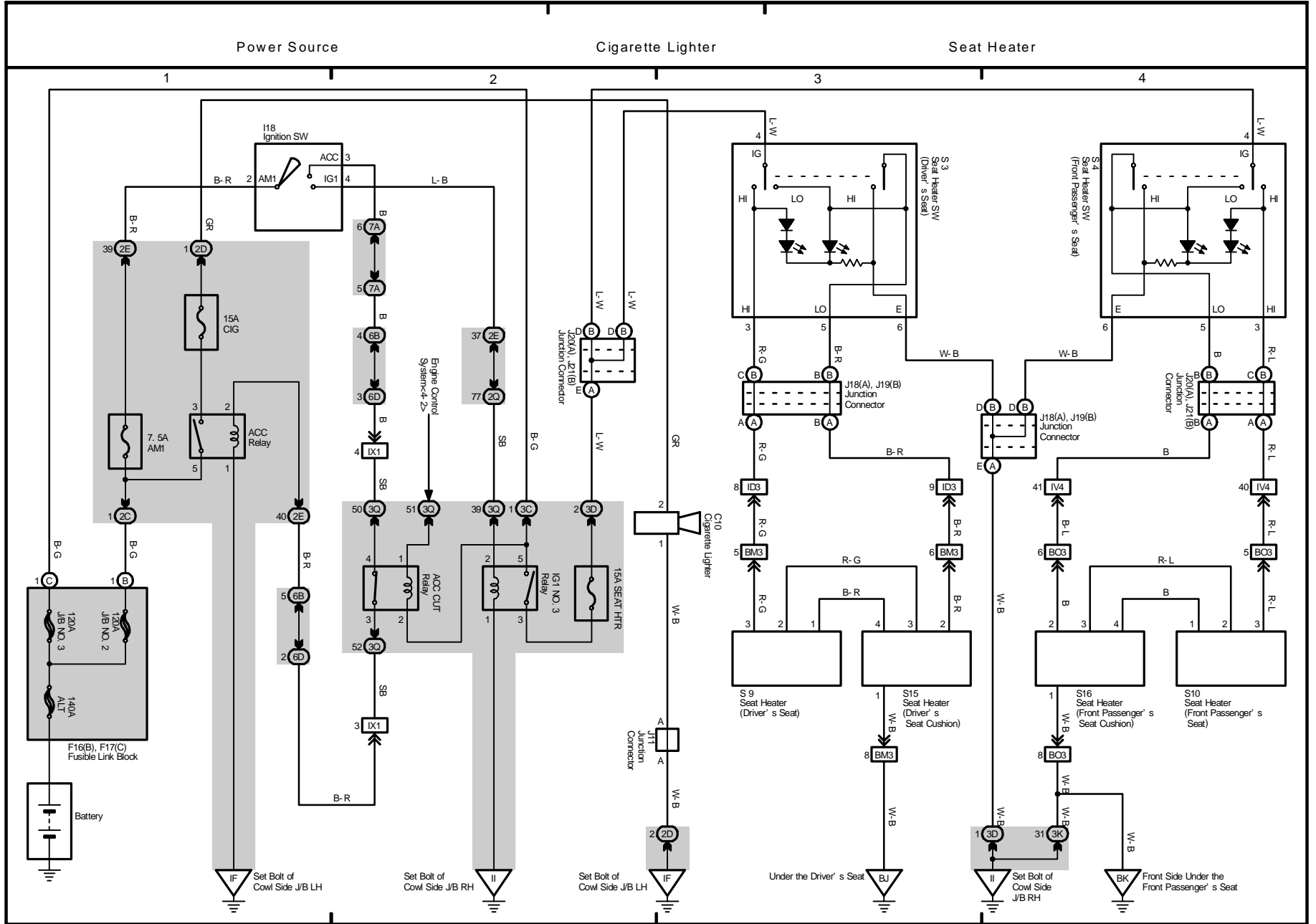




M OVERALL ELECTRICAL WIRING DIAGRAM

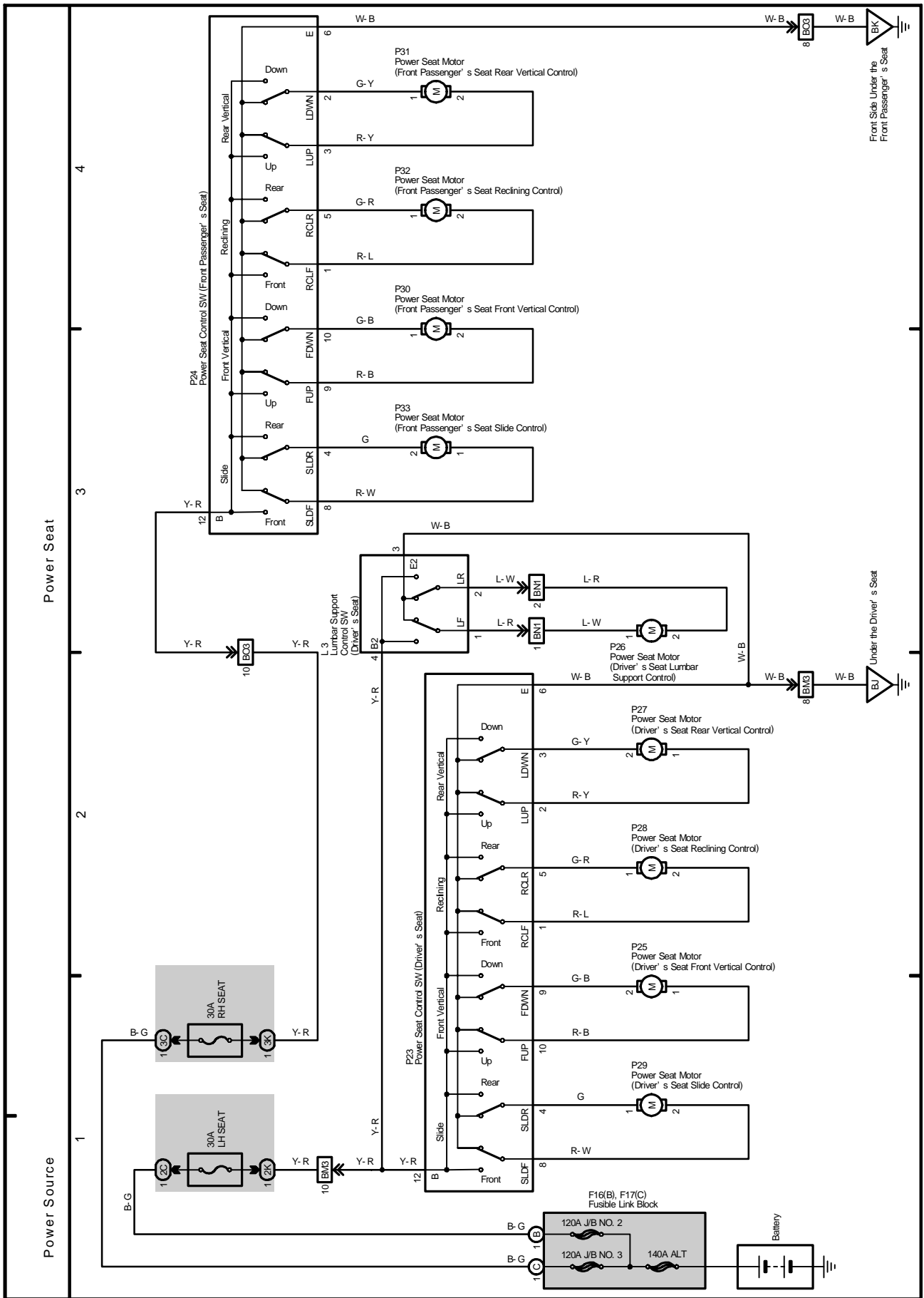
20 LAND CRUISER





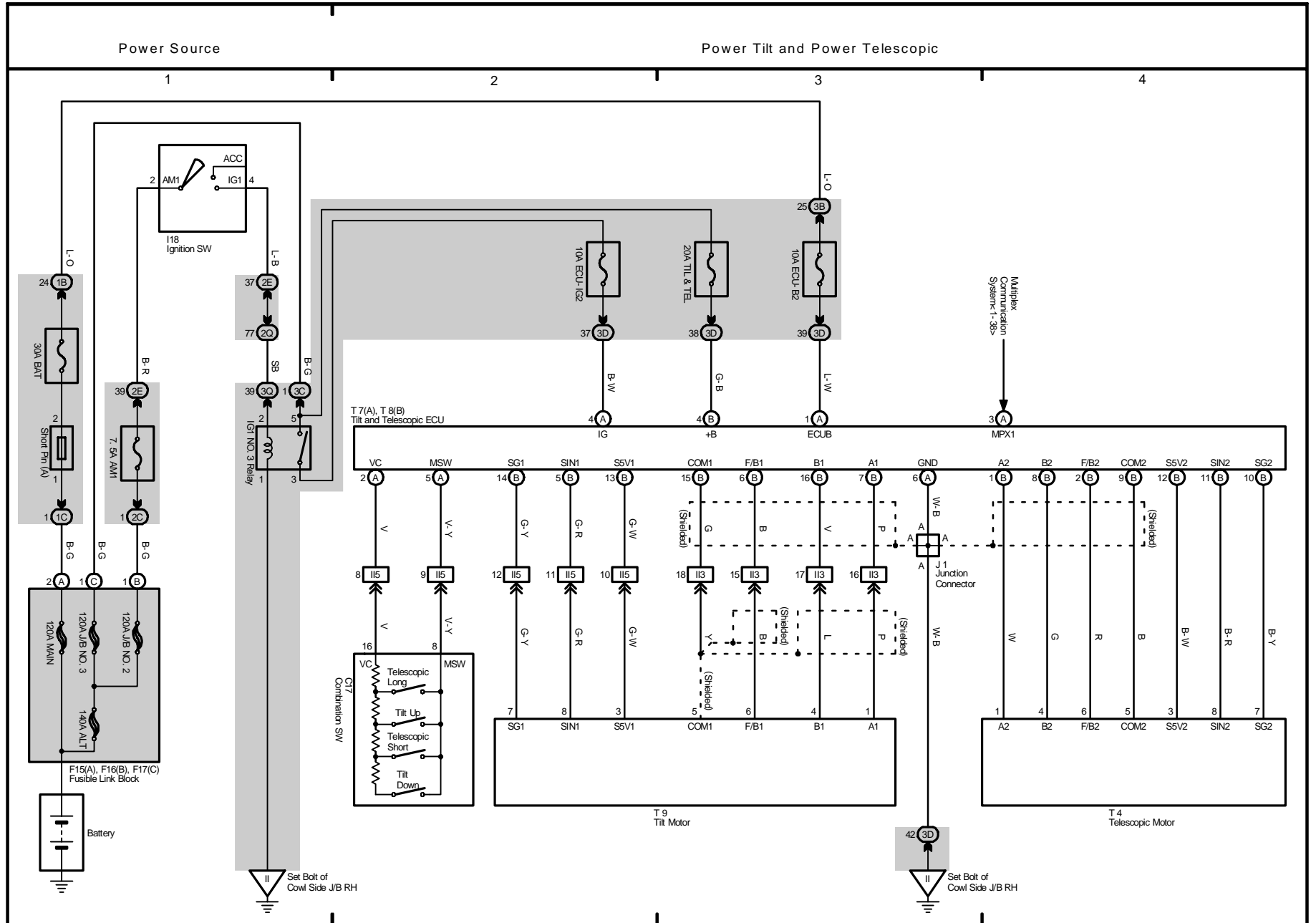
M OVERALL ELECTRICAL WIRING DIAGRAM

22 LAND CRUISER



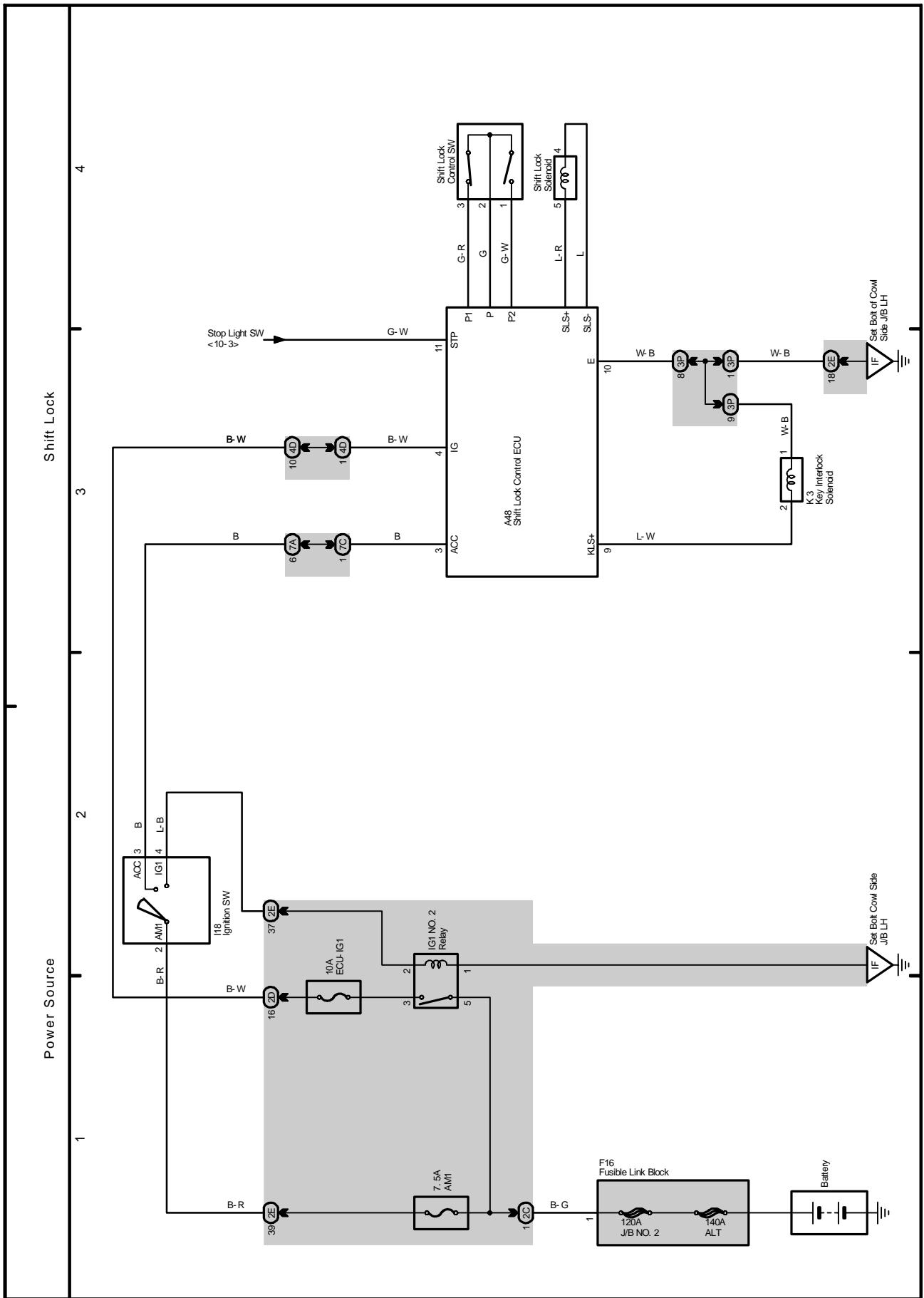
23 LAND CRUISER

2004 LAND CRUISER (EWD548U)



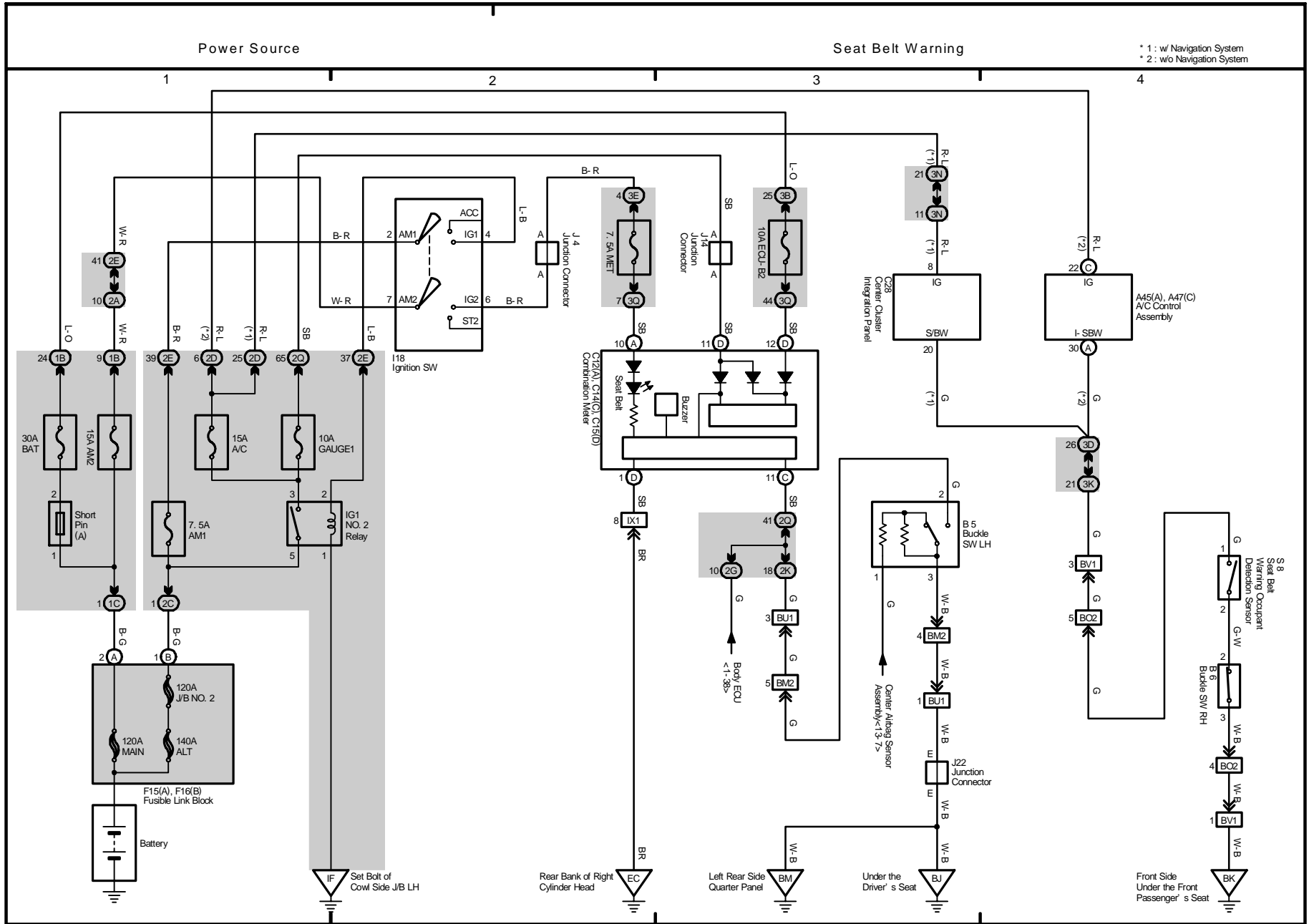
M OVERALL ELECTRICAL WIRING DIAGRAM

24 LAND CRUISER



25 LAND CRUISER

2004 LAND CRUISER (EWD548U)

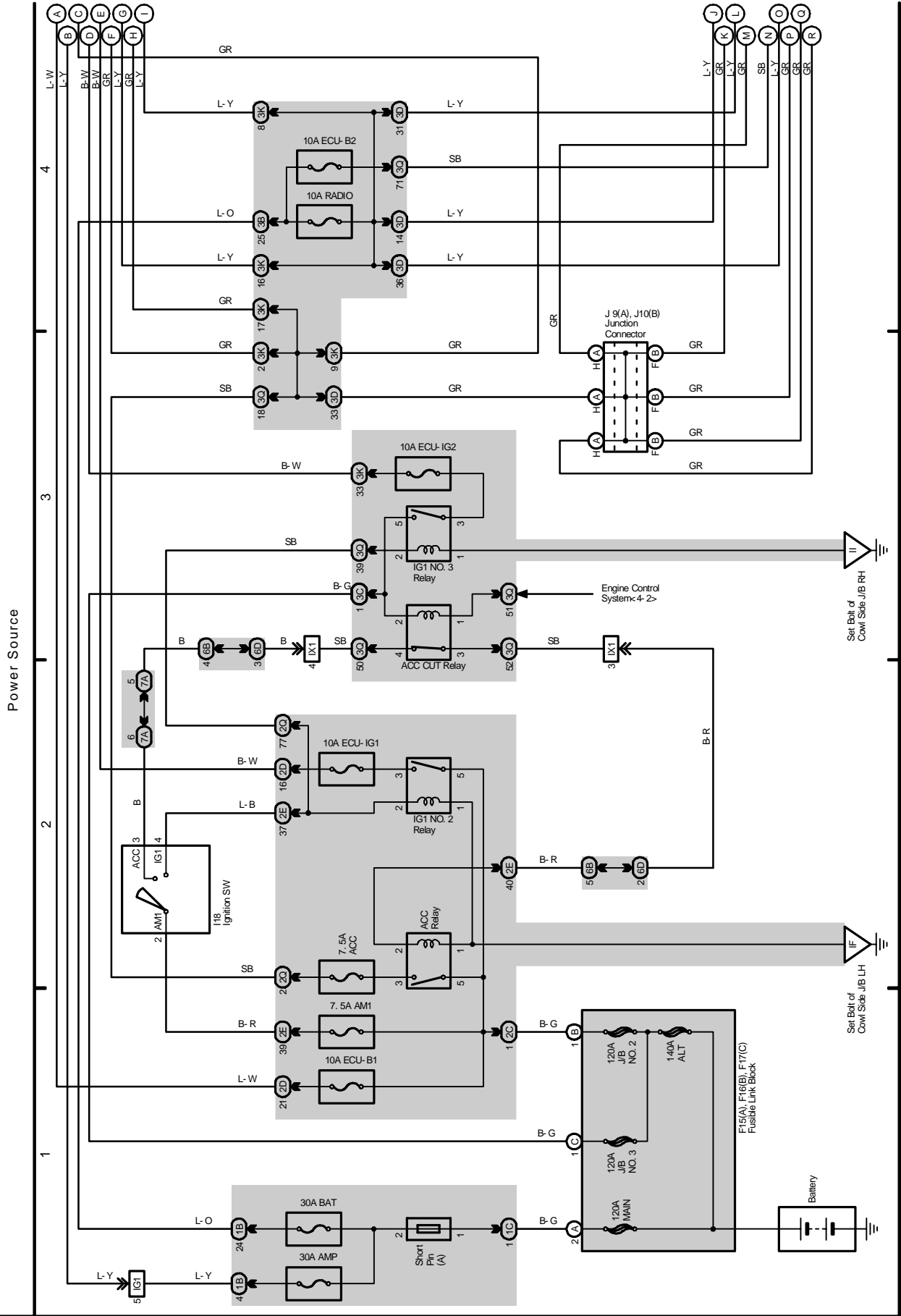


* 1 : w/ Navigation System
* 2 : w/o Navigation System

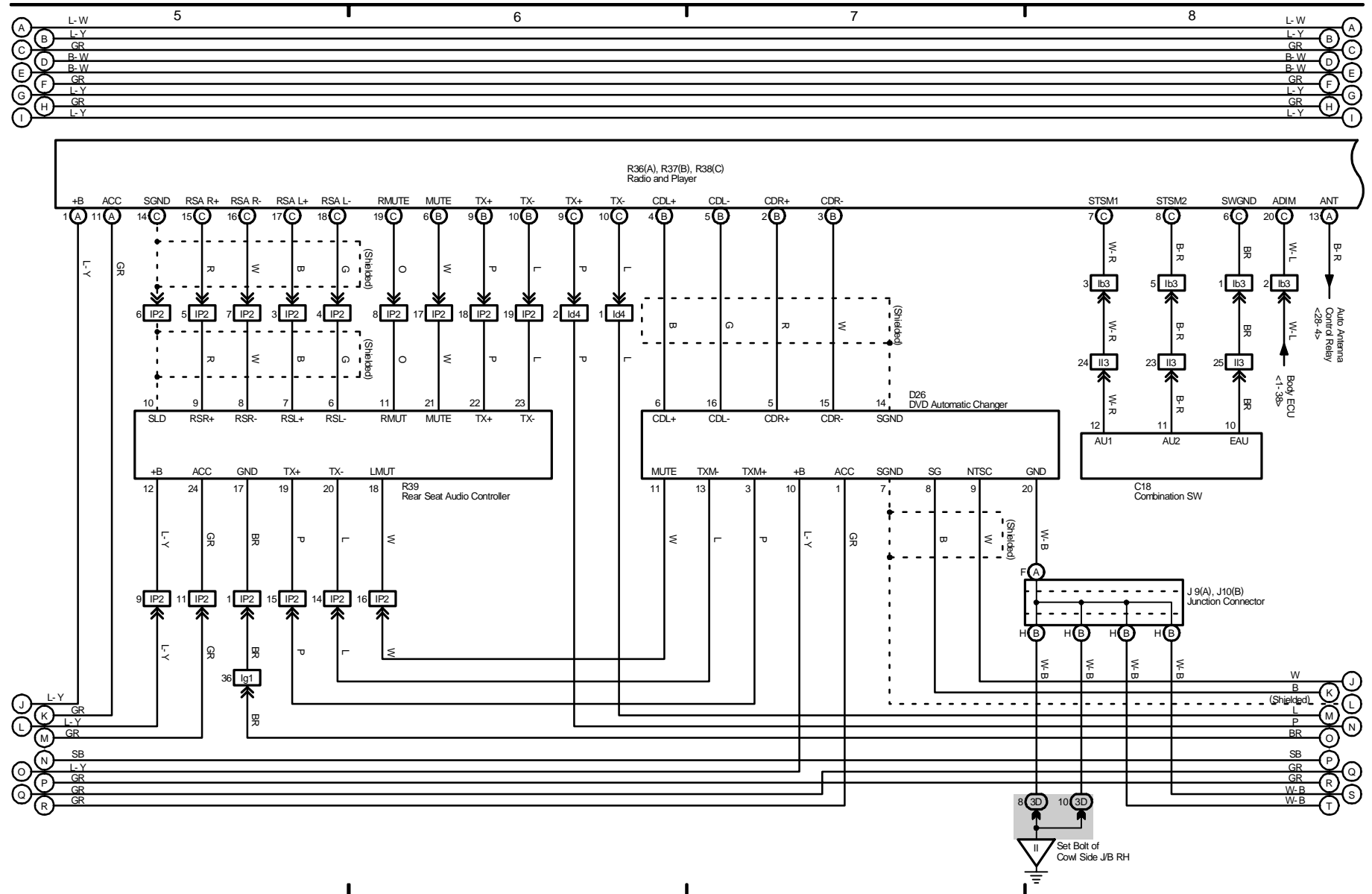
M OVERALL ELECTRICAL WIRING DIAGRAM

26 LAND CRUISER

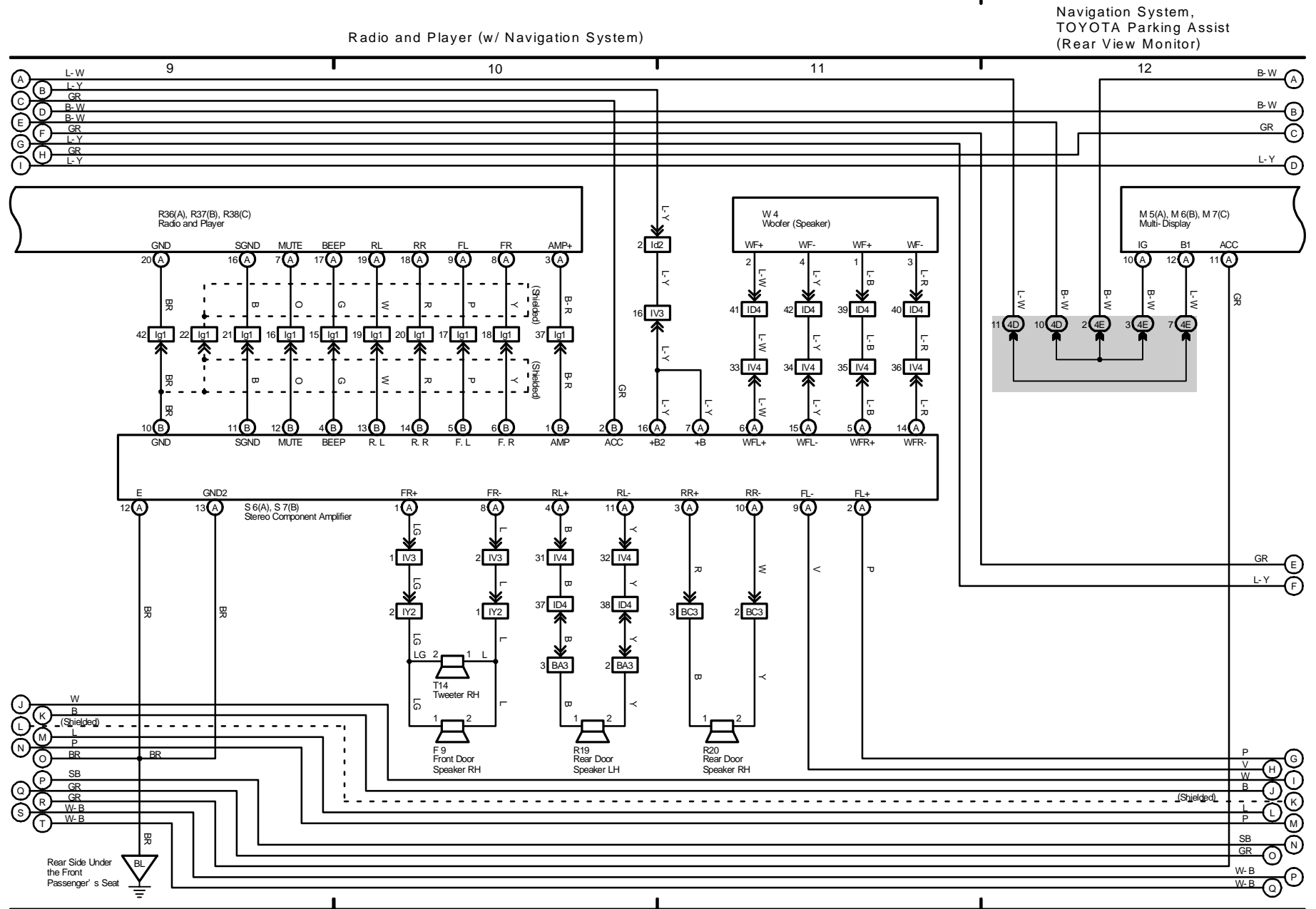
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Radio and Player (w/ Navigation System)

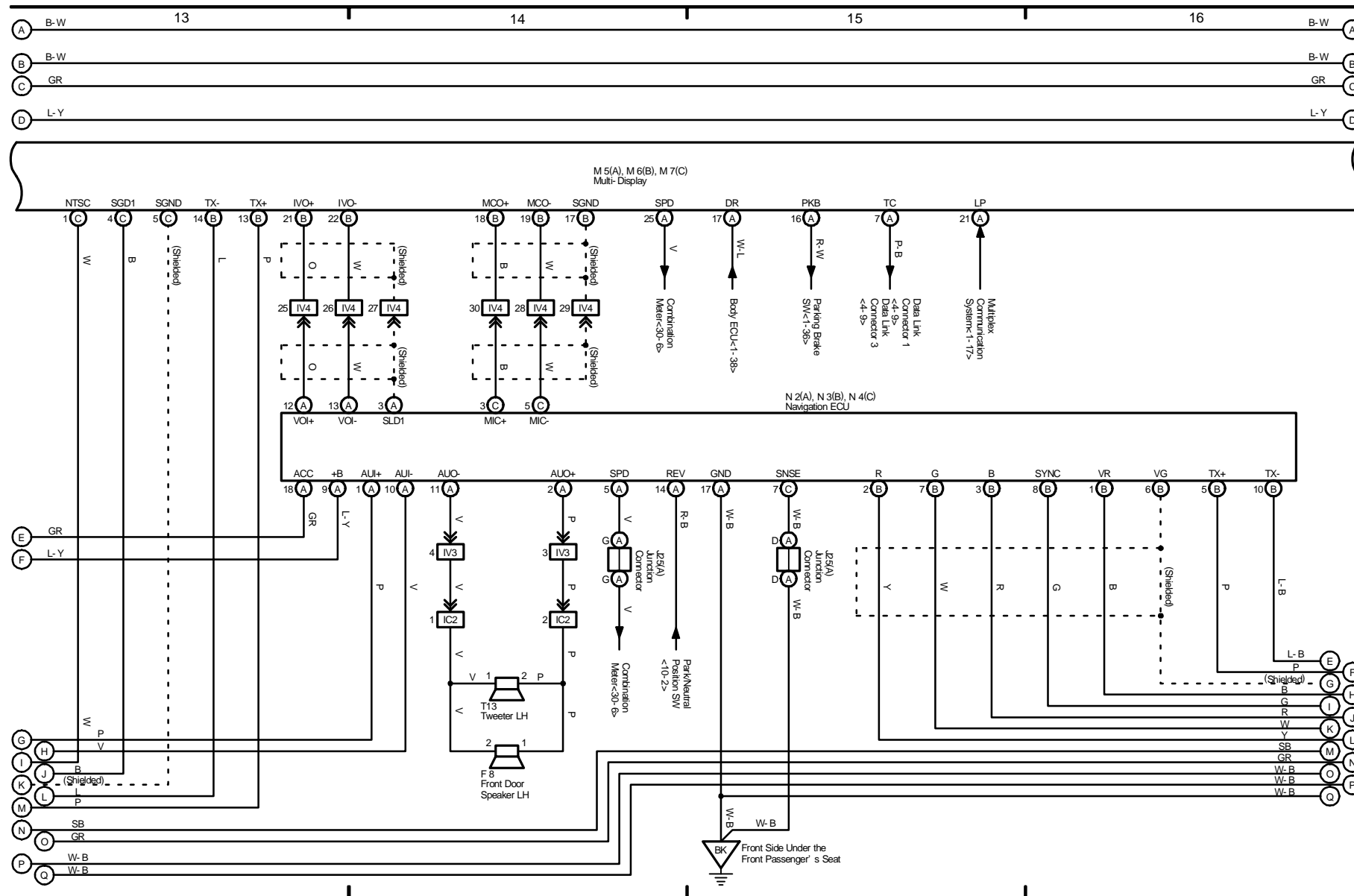


2004 LAND CRUISER (EWD548U)



2004 LAND CRUISER (EWD548U)

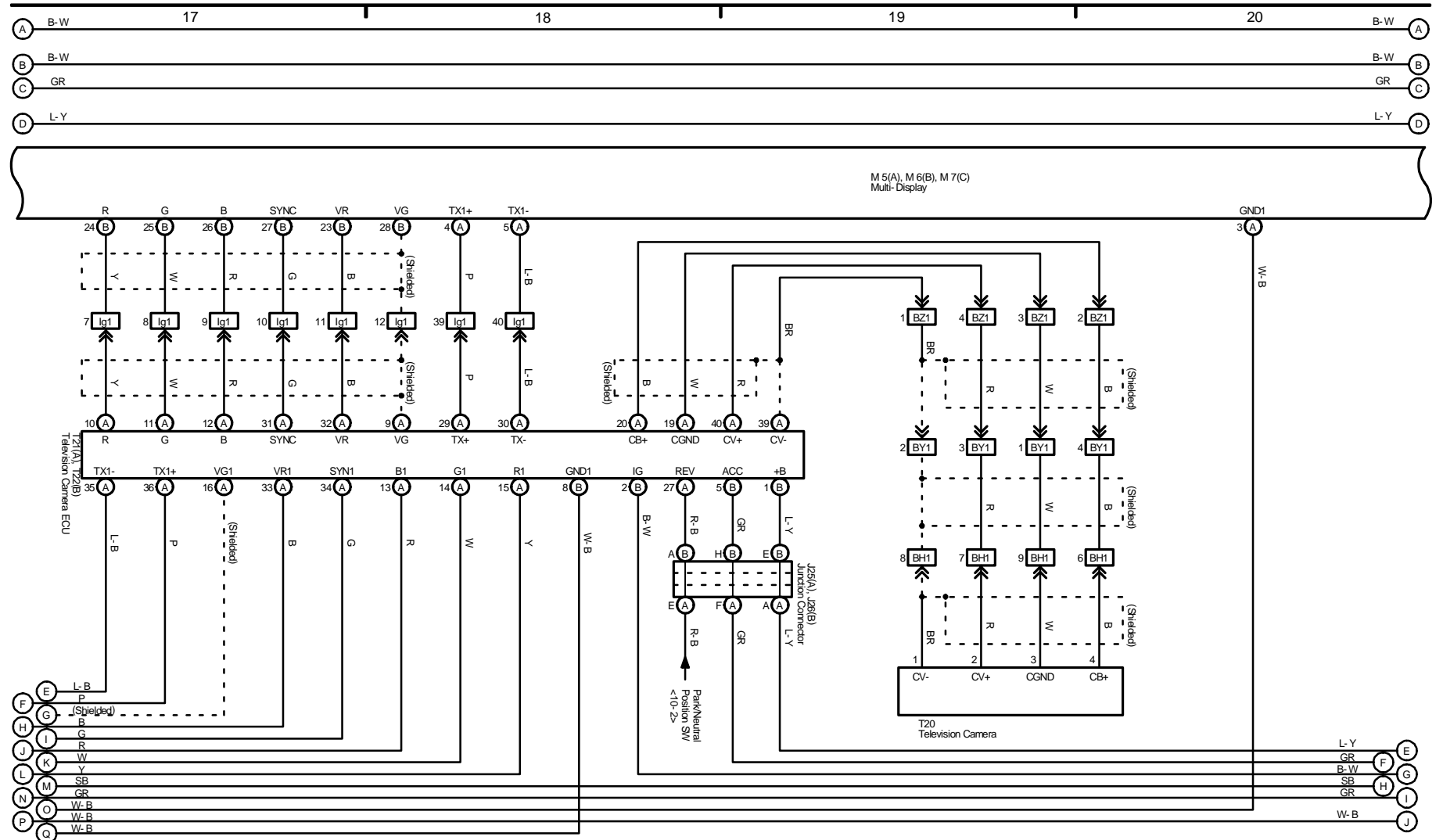
Navigation System, TOYOTA Parking Assist (Rear View Monitor)



2004 LAND CRUISER (EWD548U)

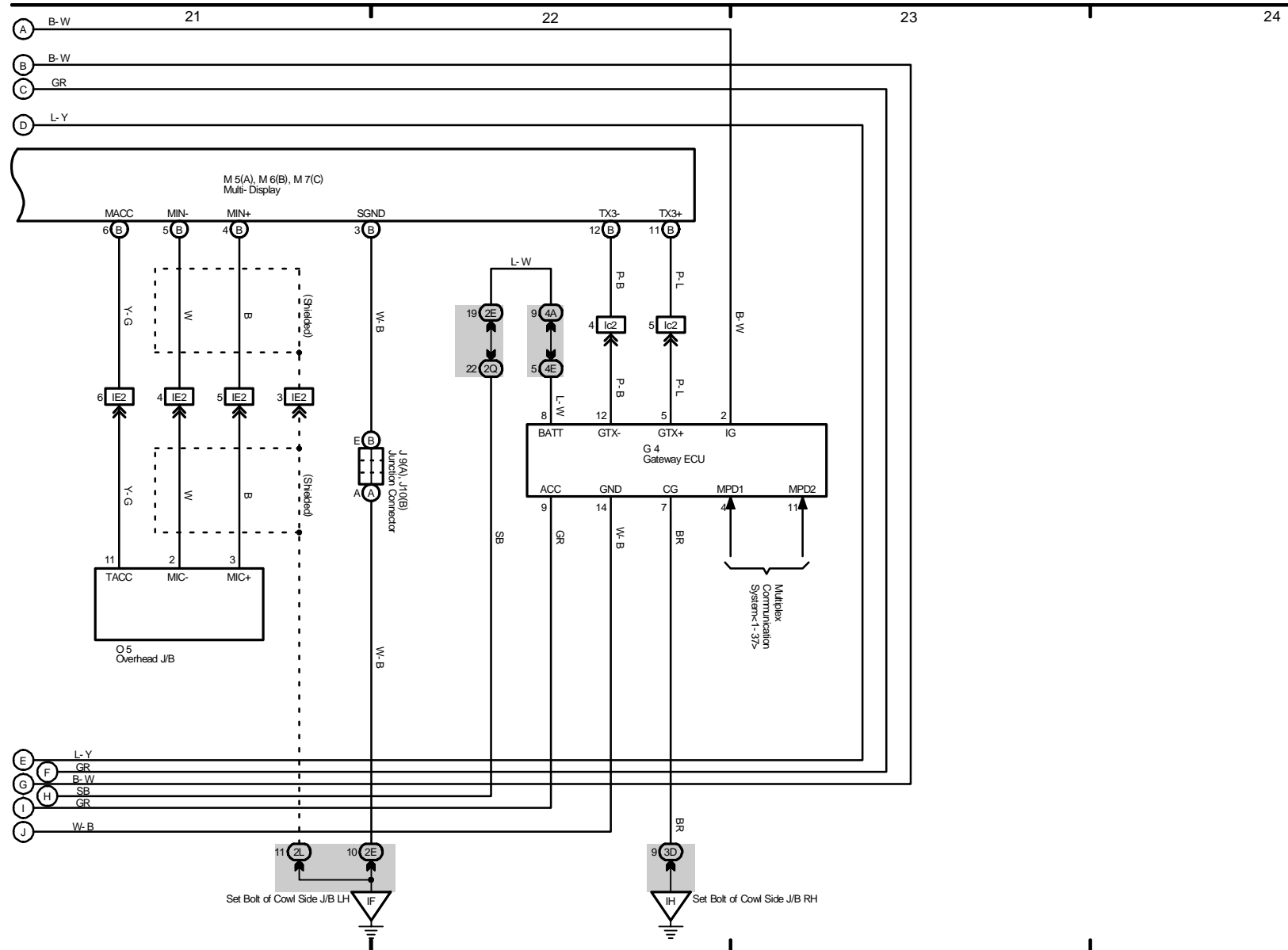


Navigation System, TOYOTA Parking Assist (Rear View Monitor)



2004 LAND CRUISER (EWDS48U)

Navigation System, TOYOTA Parking Assist (Rear View Monitor)

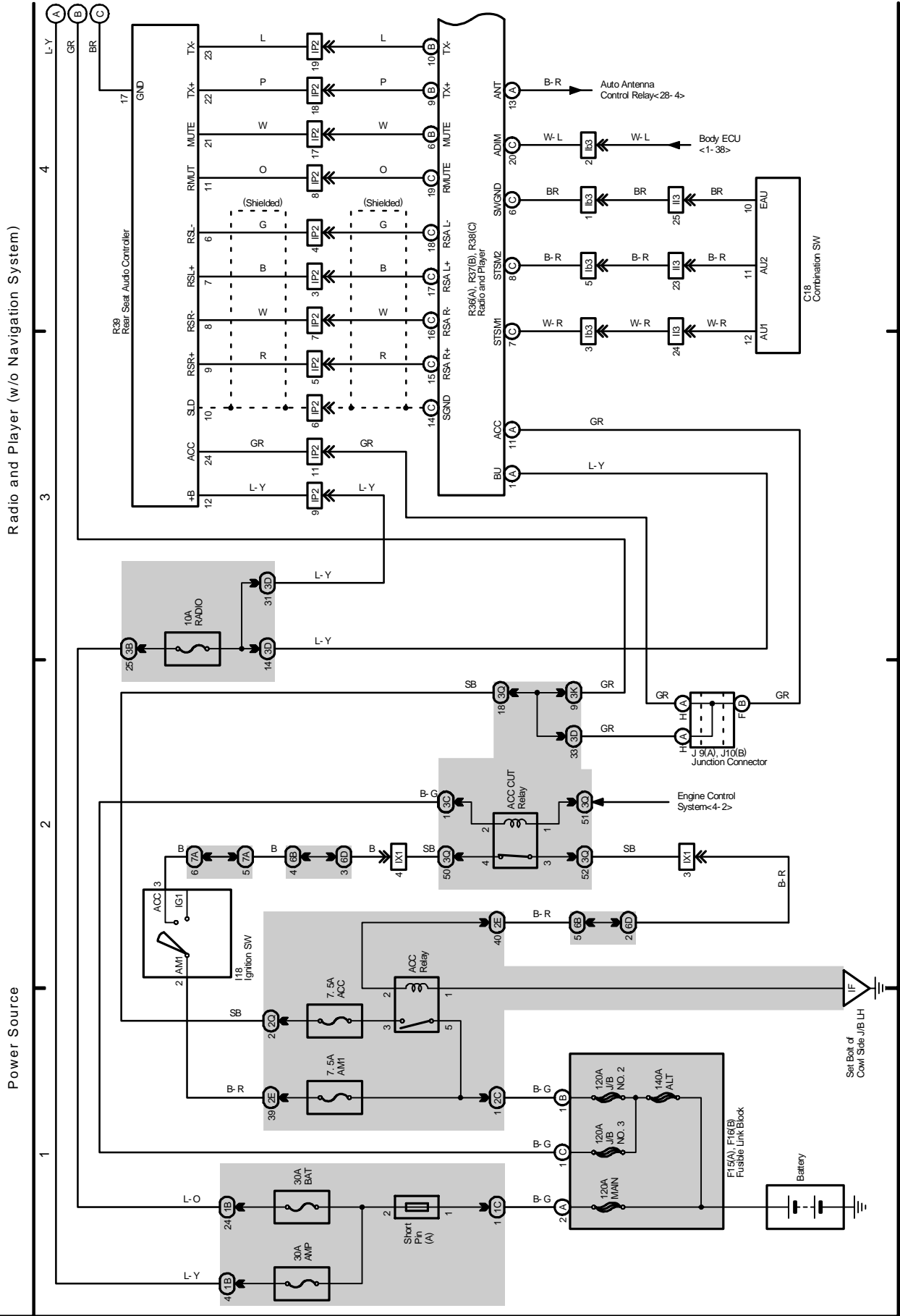


2004 LAND CRUISER (EWD548U)

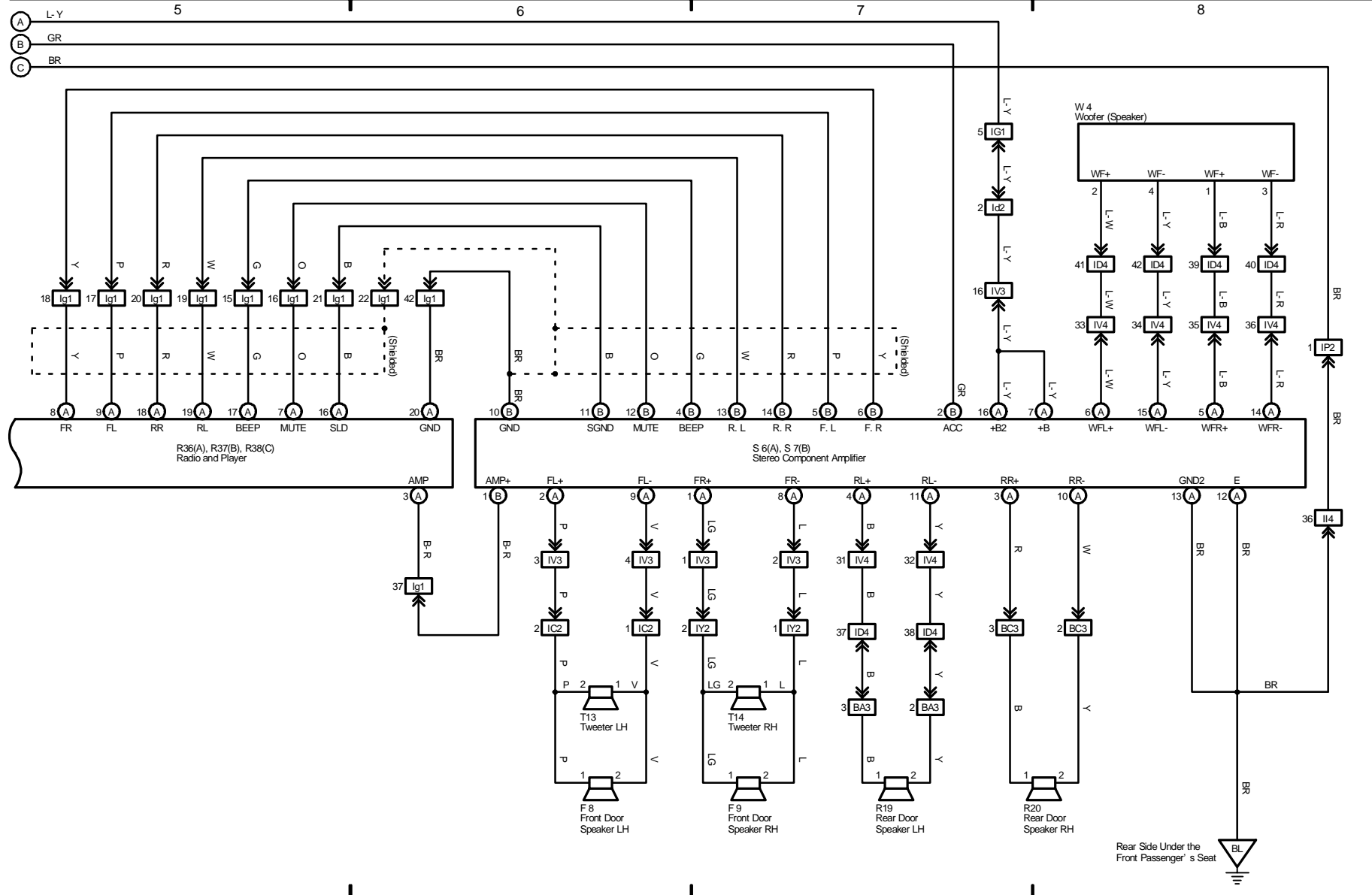
M OVERALL ELECTRICAL WIRING DIAGRAM

27 LAND CRUISER

(Cont. next page)



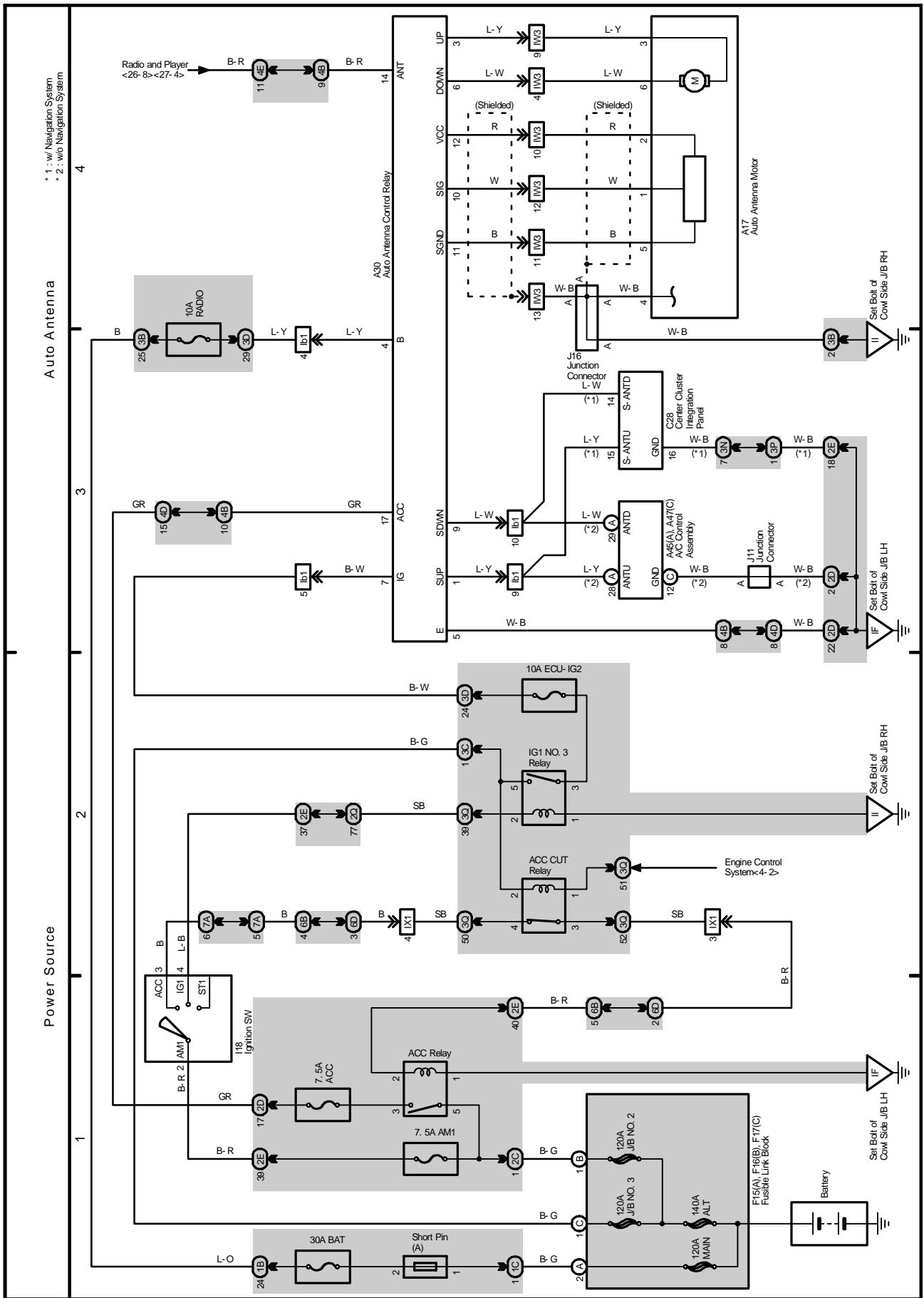
Radio and Player (w/o Navigation System)



2004 LAND CRUISER (EWD548U)

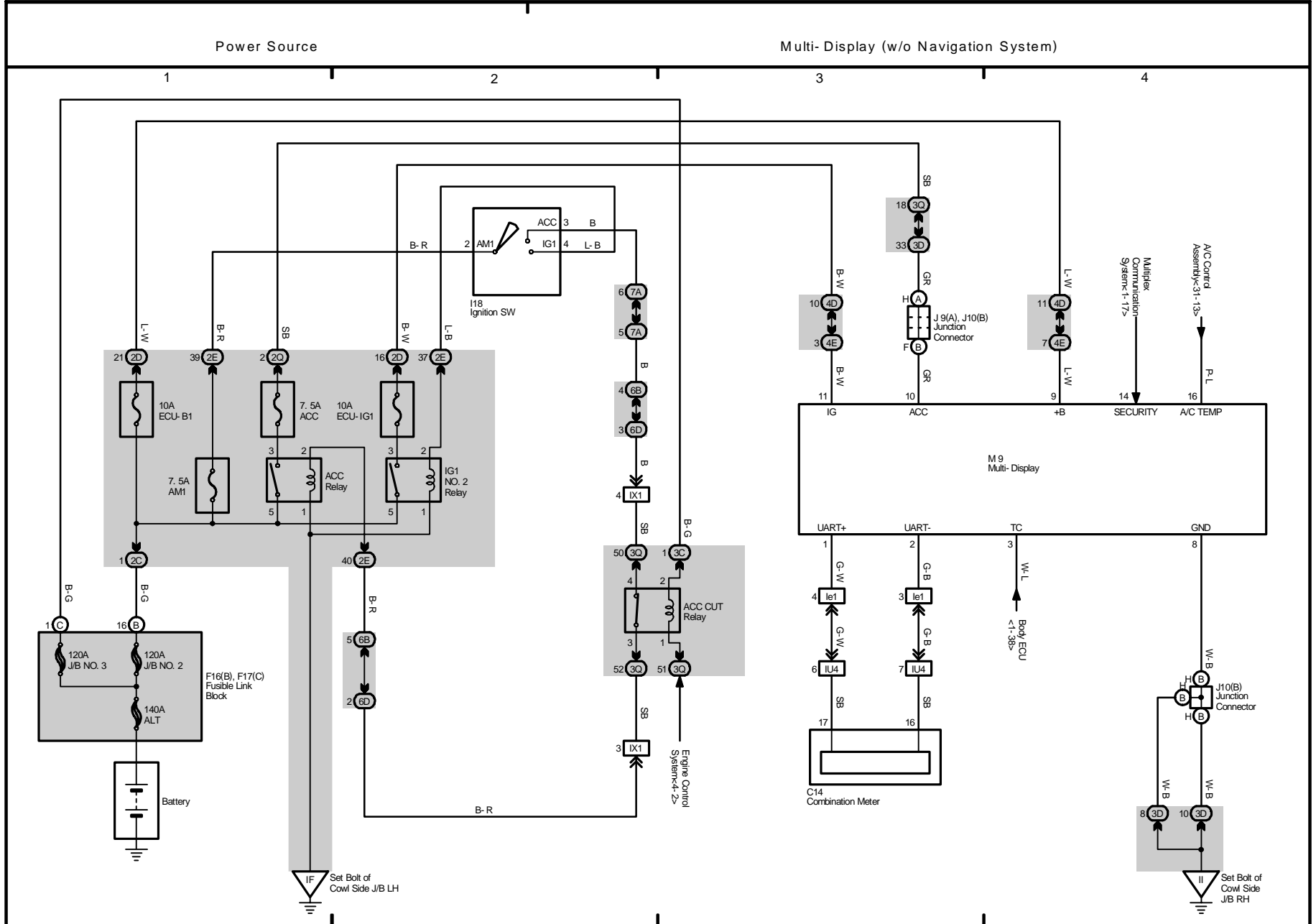
M OVERALL ELECTRICAL WIRING DIAGRAM

28 LAND CRUISER



29 LAND CRUISER

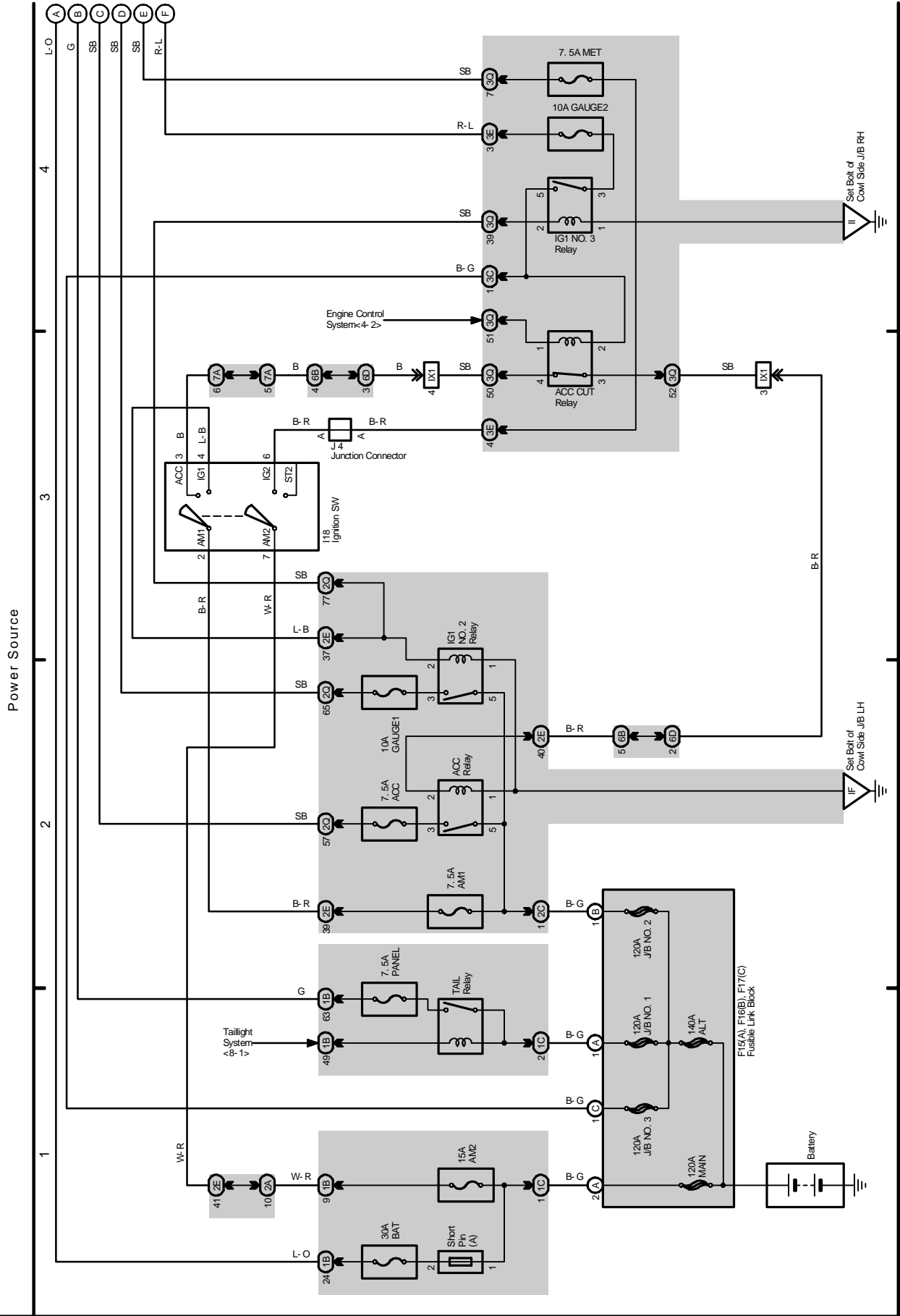
2004 LAND CRUISER (EWD548U)



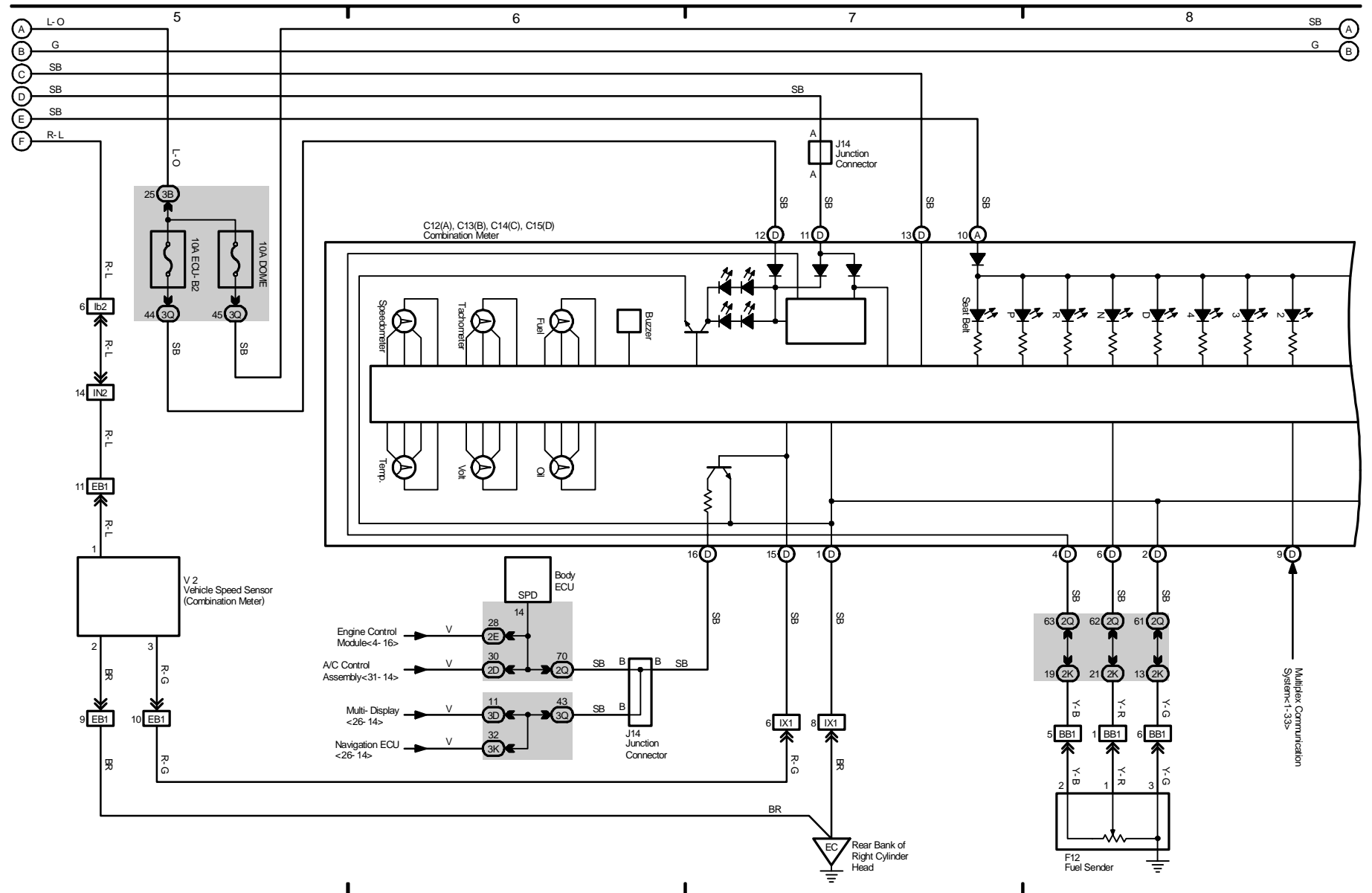
M OVERALL ELECTRICAL WIRING DIAGRAM

30 LAND CRUISER

(Cont. next page)

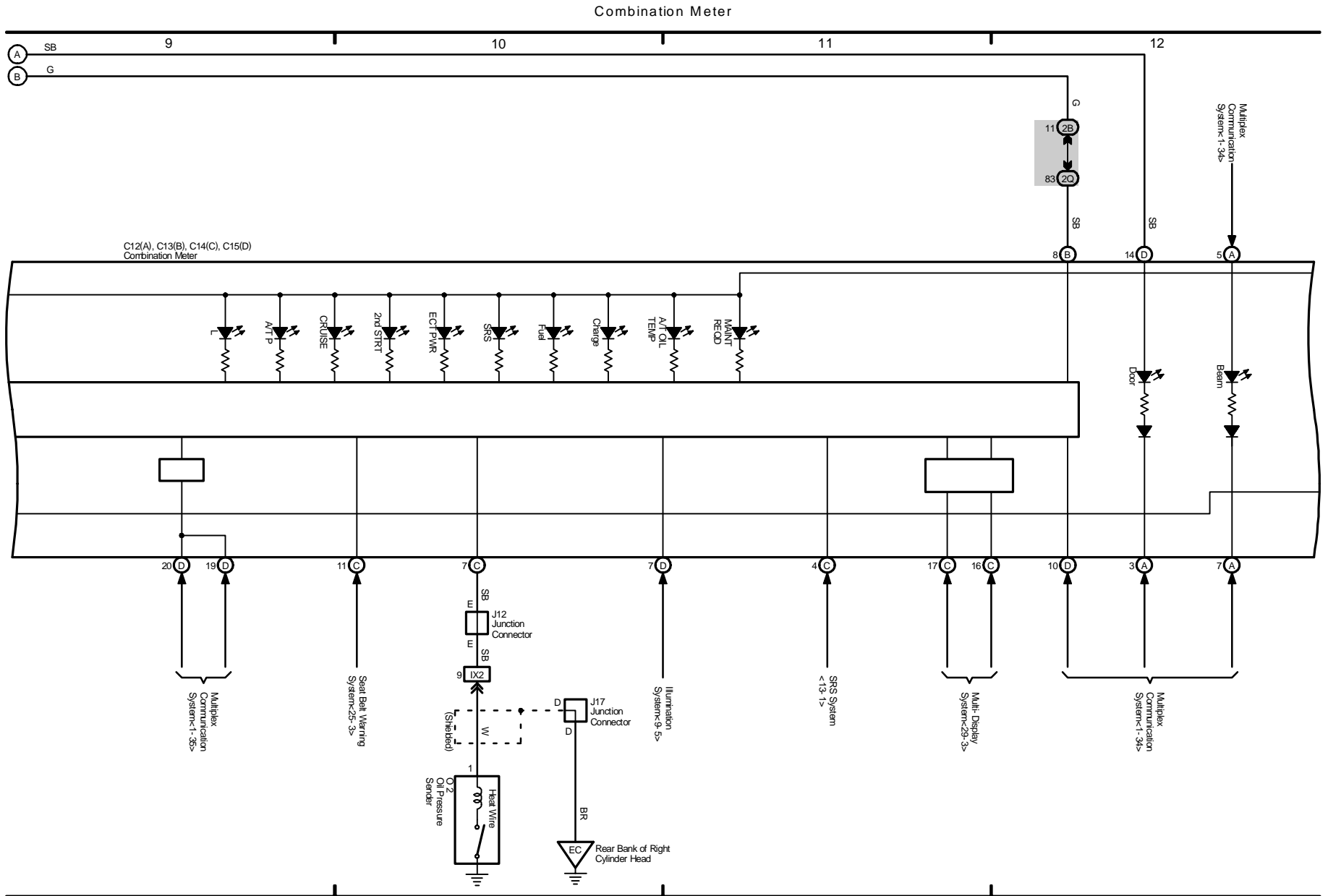


Combination Meter



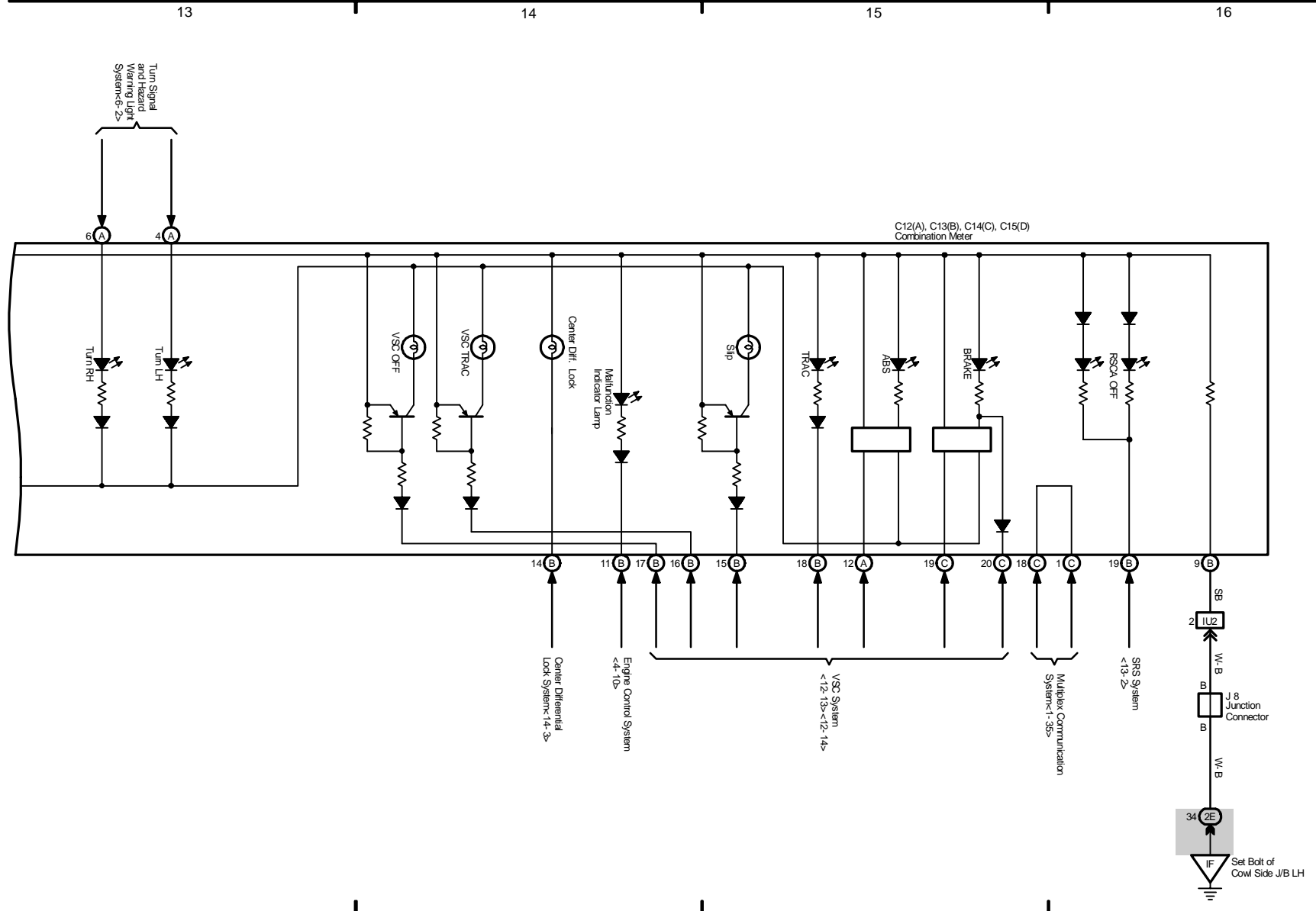
2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM



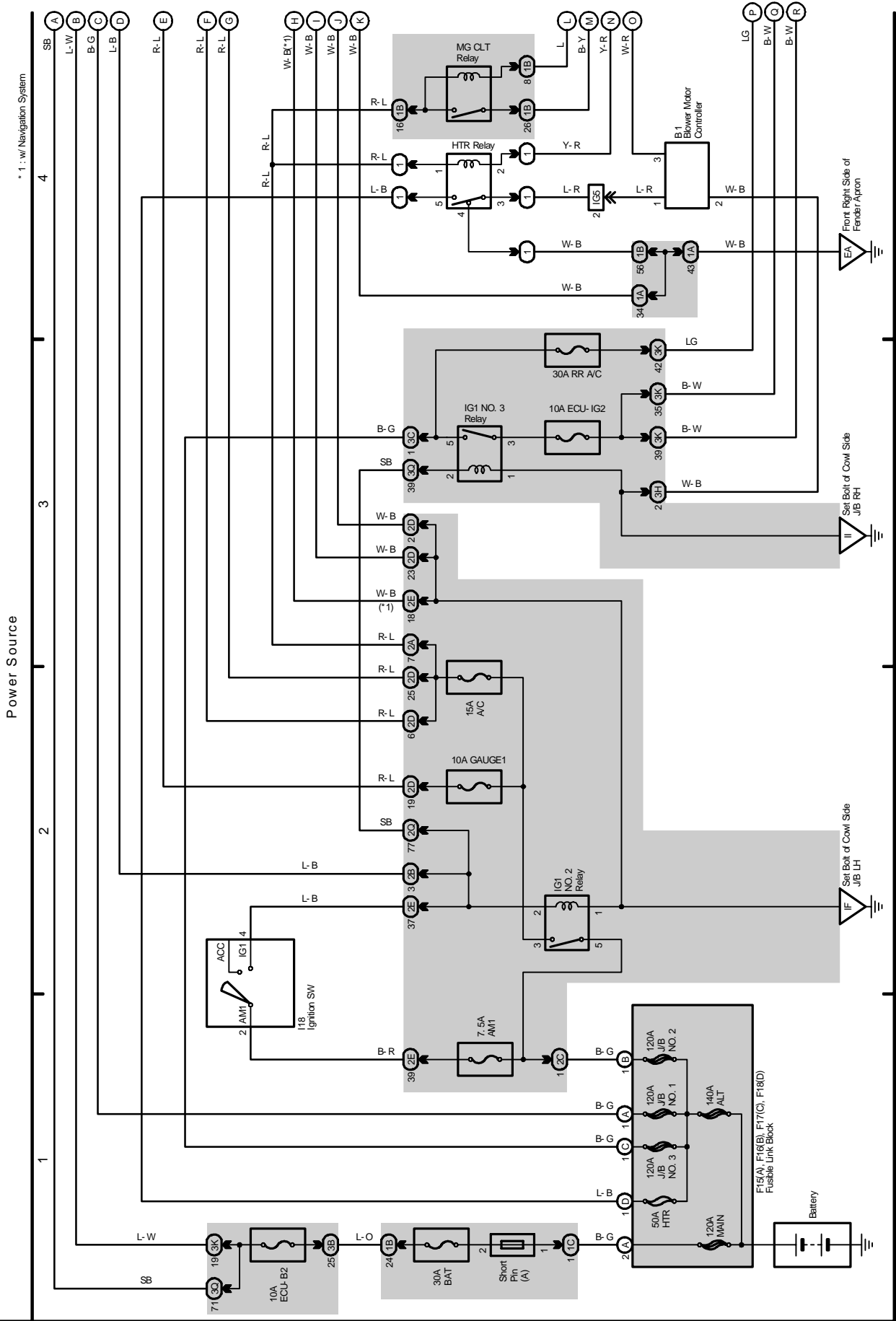
2004 LAND CRUISER (EWD548U)

Combination Meter



2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM

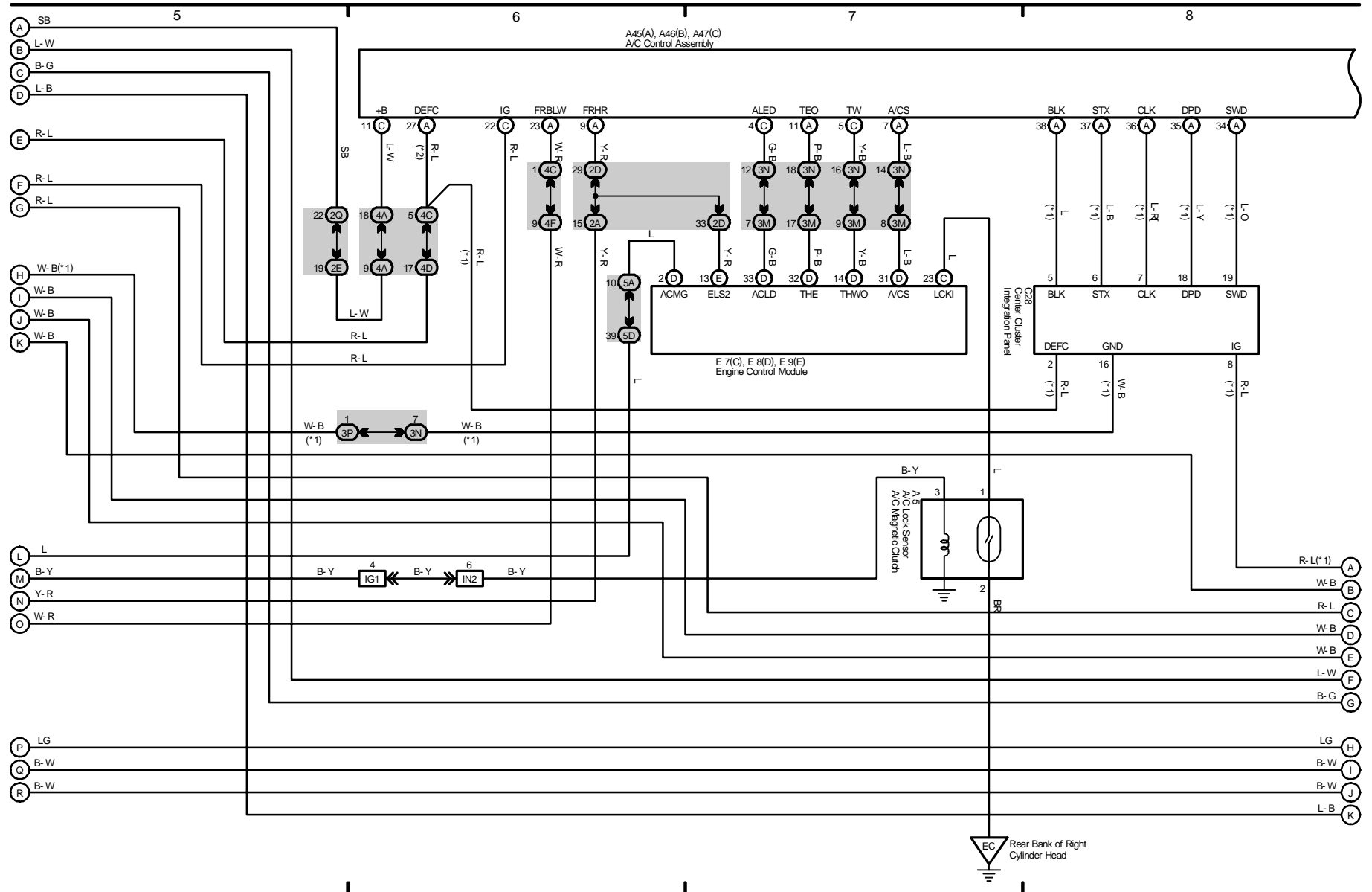


Power Source

* 1 : w/Navigation System

Air Conditioning (Front)

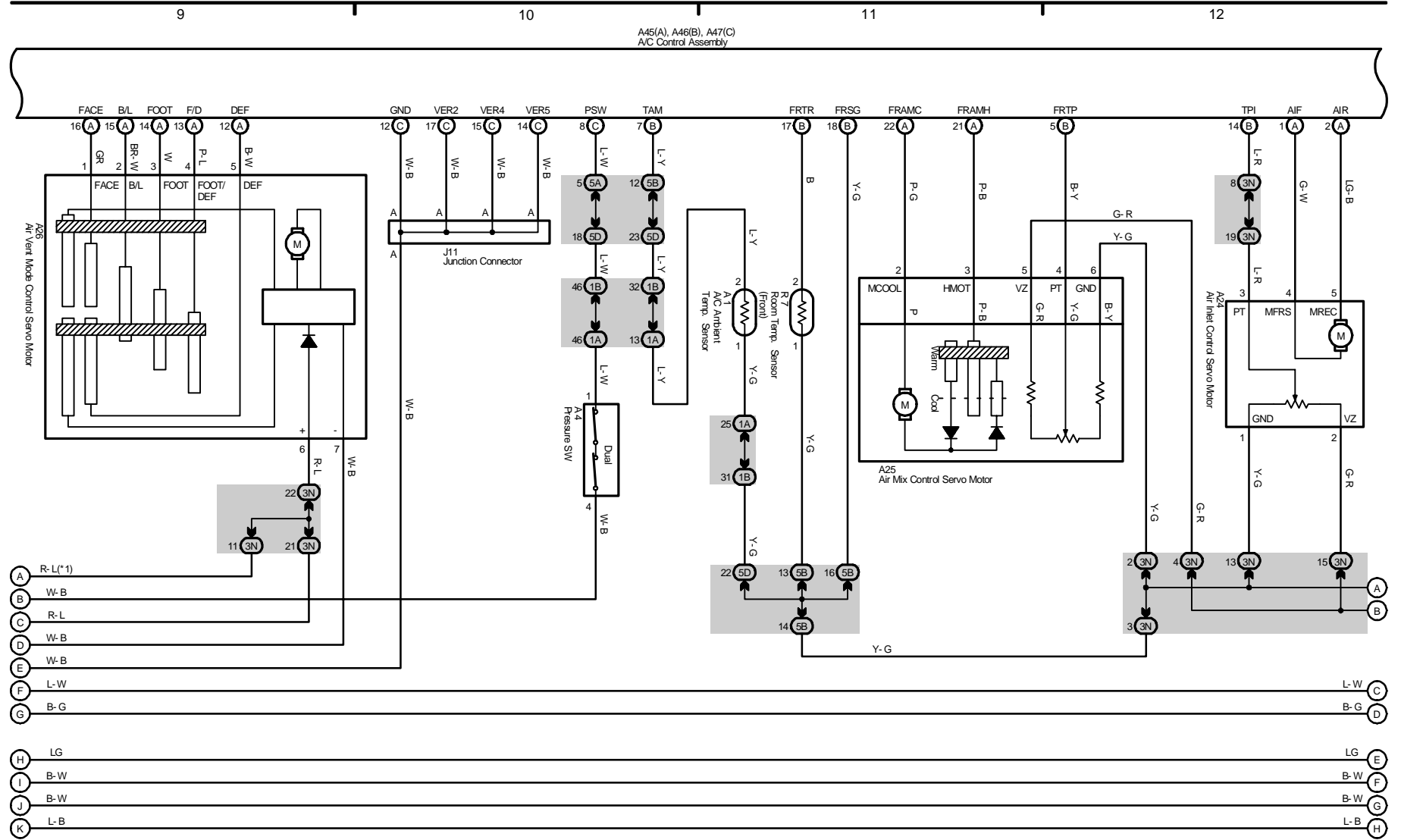
* 1: w/ Navigation System
 * 2: w/o Navigation System



2004 LAND CRUISER (EWD548U)

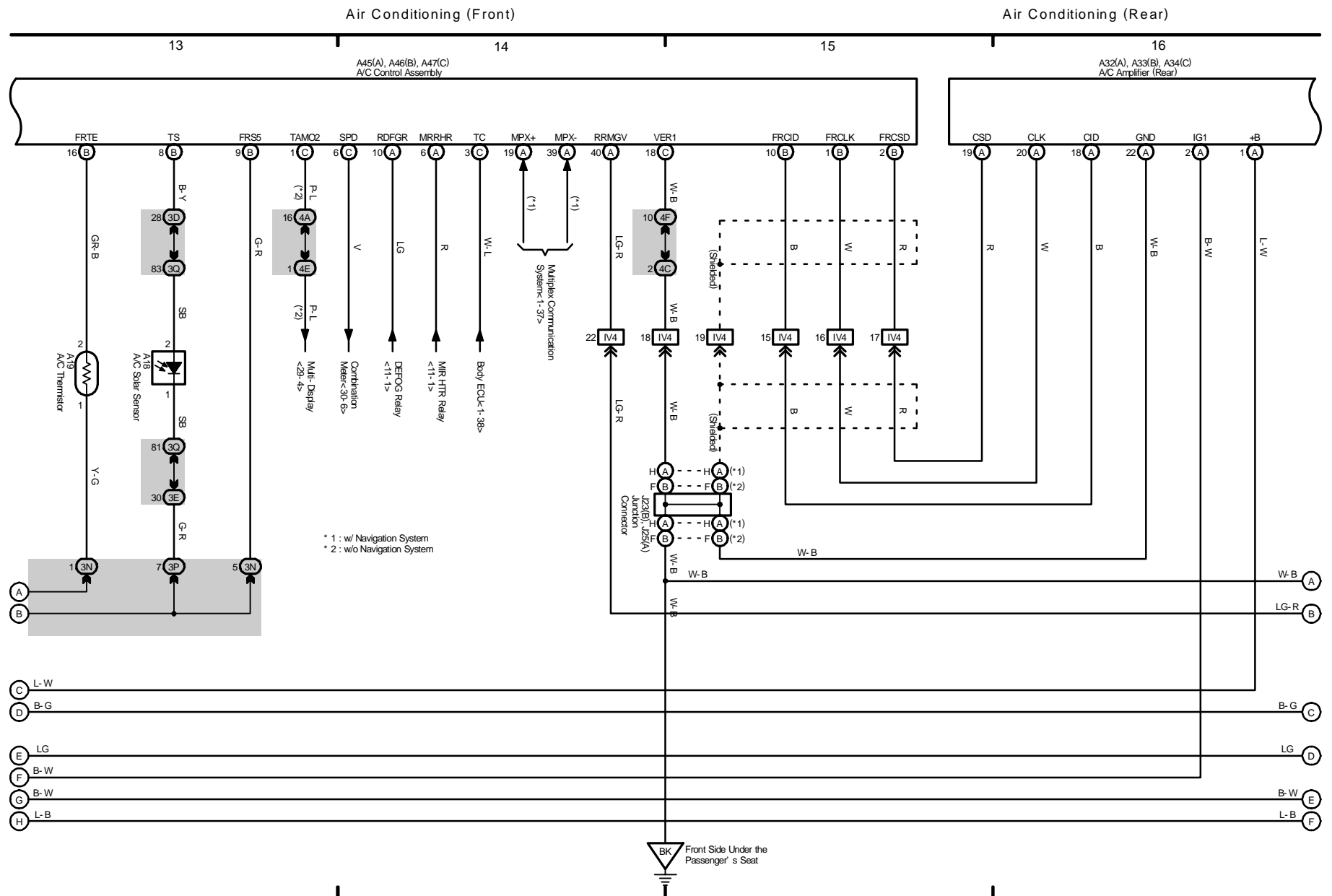
Air Conditioning (Front)

* 1 : w/ Navigation System



2004 LAND CRUISER (EWDS48U)

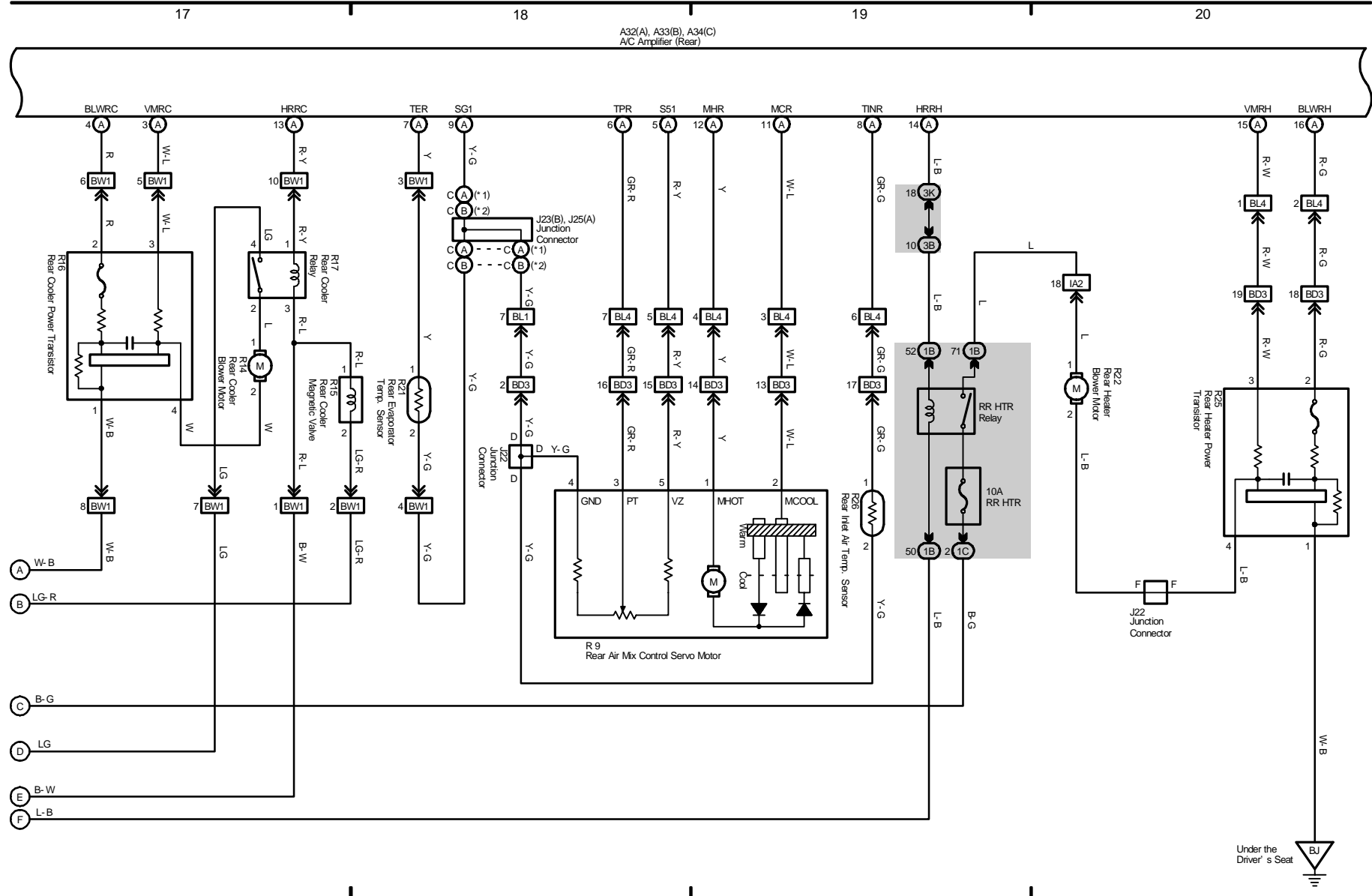
M OVERALL ELECTRICAL WIRING DIAGRAM



2004 LAND CRUISER (EWD548U)

Air Conditioning (Rear)

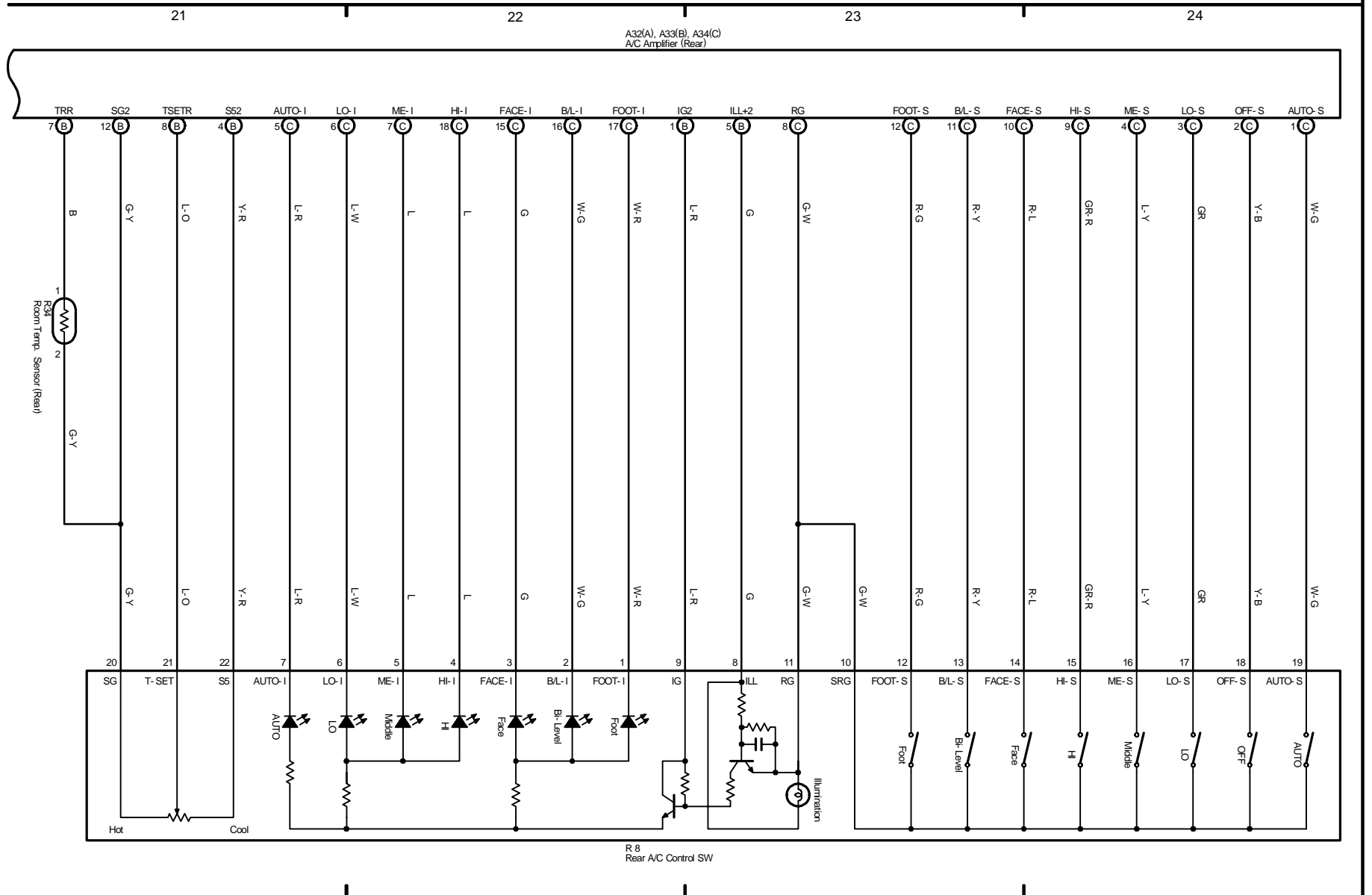
* 1 : w/ Navigation System
 * 2 : w/o Navigation System



2004 LAND CRUISER (EWDS48U)

Under the Driver's Seat

Air Conditioning (Rear)

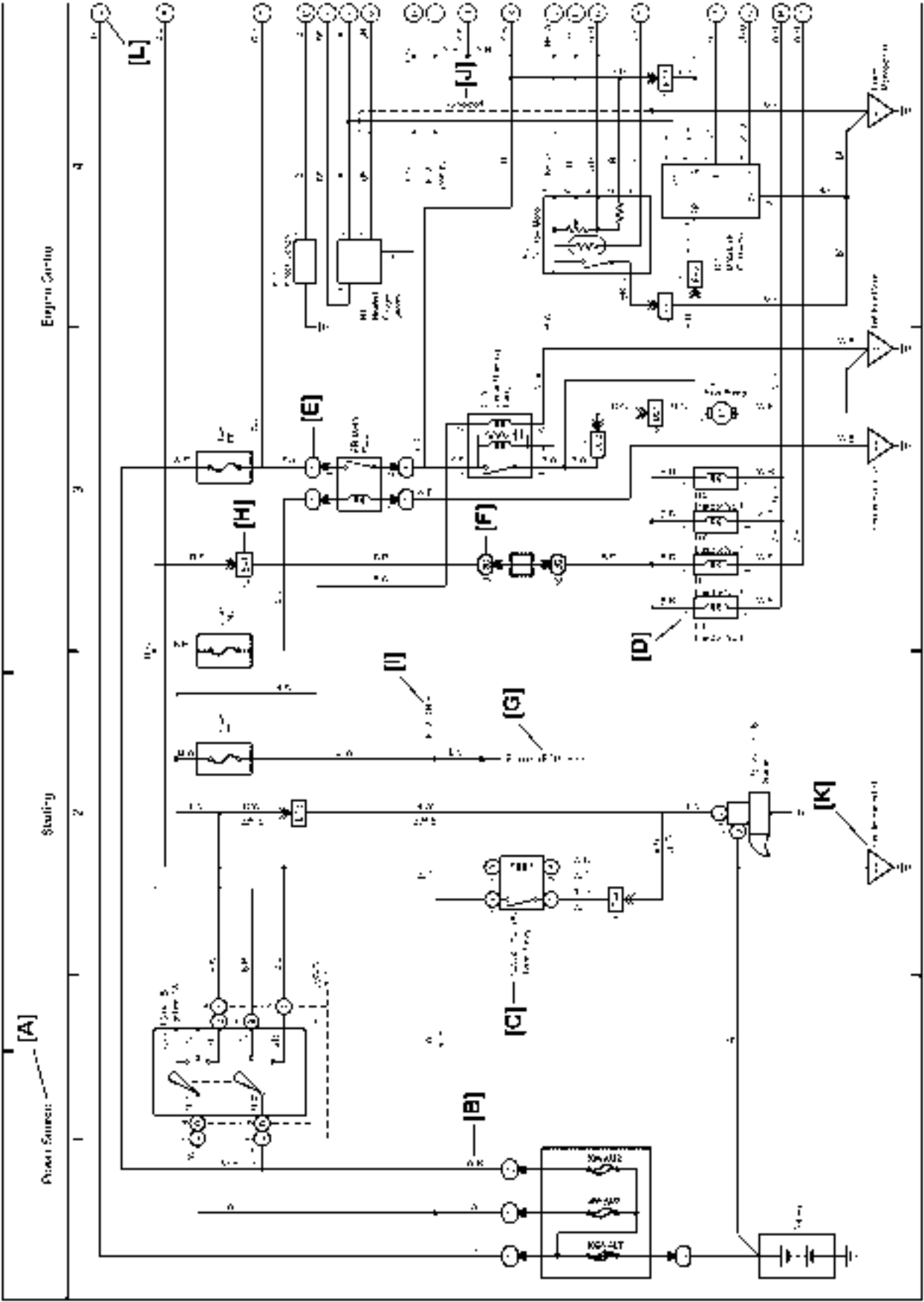


2004 LAND CRUISER (EWD548U)

M OVERALL ELECTRICAL WIRING DIAGRAM

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

HOW TO READ THIS SECTION



[A] : System Title

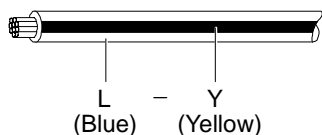
[B] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

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

Example: L - Y

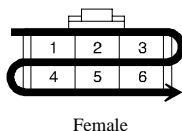


[C] : The position of the parts is the same as shown in the wiring diagram and wire routing.

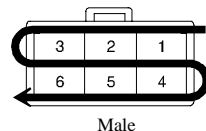
[D] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example : Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

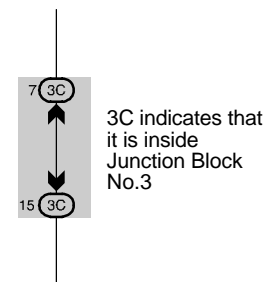
The numbering system for the overall wiring diagram is the same as above

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

Example : ① Indicates Relay Block No.1

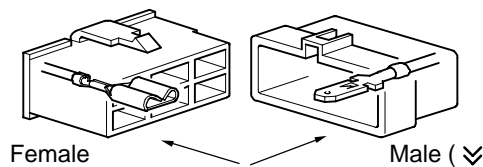
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



[G] : Indicates related system.

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



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

[J] : Indicates a shielded cable.



[K] : Indicates and located on ground point.

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

SYSTEM INDEX

SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioning (Front)	31-5	* Light Auto Turn Off	
Air Conditioning (Rear)	31-15	* Power Window	
Auto Antenna	28-3	* Theft Deterrent	
Automatic Glare-Resistant EC Mirror with Compass	15-3	* Wireless Door Lock Control	
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Charging	2-4	Power Rear Quarter Window	11-4
Cigarette Lighter	21-2	Power Seat	22-2
Combination Meter	30-5	Power Source	1~31-1
Cruise Control	5-5	Power Tilt and Power Telescopic	23-2
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Illumination	9-3	Shift Lock	24-3
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Multiplex Communication System	1-5	Taillight	8-2
* Automatic Light Control		TOYOTA Parking Assist (Rear View Monitor)	26-12
* Door Lock Control		Trailer Towing	7-2
* Front Fog Light		Turn Signal and Hazard Warning Light	6-2
* Headlight		VSC	12-4
* Interior Light			
* Key Reminder			

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	B 7	Body ECU	90980-12151
A 4	Pressure SW	90980-10943	B 8	Body ECU	90980-12149
A 5	A/C Lock Sensor	90980-11016	B 9	Body ECU	90980-12150
	A/C Magnetic Clutch		C 1	Camshaft Position Sensor	90980-10947
A12	ABS Speed Sensor Front LH	90980-10941	C 2	Center Diff. Lock Control Motor	90980-11024
A13	ABS Speed Sensor Front RH	90980-11002	C 3	Crankshaft Position Sensor	90980-11162
A14	Accel Position Sensor	90980-11144	C 5	Center Diff. Lock Control Relay	90980-10801
A15	Airbag Sensor Front LH	90980-11856	C10	Cigarette Lighter	90980-10760
A16	Airbag Sensor Front RH		C11	Cigarette Lighter Illumination	90980-11148
A17	Auto Antenna Motor	90980-11194	C12	Combination Meter	82824-60060
A18	A/C Solar Sensor	90980-11919	C13	Combination Meter	82824-60050
A19	A/C Thermistor	90980-11918	C14	Combination Meter	82824-60060
A24	Air Inlet Control Servo Motor	90980-11909	C15	Combination Meter	82824-60050
A25	Air Mix Control Servo Motor	90980-10797	C16	Combination SW	90980-11672
A26	Air Vent Mode Control Servo Motor	90980-11165	C17	Combination SW	90980-12155
A27	Airbag Squib (Front Passenger Airbag Assembly)	90980-12160	C18	Combination SW	90980-12183
	Airbag Squib (Steering Wheel Pad)		C19	Combination SW	90980-11594
A28	Airbag Squib (Steering Wheel Pad)		C25	Center Airbag Sensor Assembly (w/ Side Airbag)	82824-50160
A29	Ashtray Illumination	90980-10825		Center Airbag Sensor Assembly (w/o Side Airbag)	90980-11873
A30	Auto Antenna Control Relay	90980-10819	C26	Center Airbag Sensor Assembly	90980-11872
A31	Automatic Light Control Sensor	90980-12056	C27	Center Airbag Sensor Assembly (w/ Side Airbag)	82824-50150
A32	A/C Amplifier (Rear)	90980-11502		Center Airbag Sensor Assembly (w/o Side Airbag)	90980-11871
A33	A/C Amplifier (Rear)	90980-11475	C28	Center Cluster Integration Panel	90980-12200
A34	A/C Amplifier (Rear)	90980-11497	C29	Curtain Shield Airbag Squib LH	90980-11864
A35	ABS Speed Sensor Rear LH	90980-11073	C30	Curtain Shield Airbag Squib RH	
A36	ABS Speed Sensor Rear RH			D 1	Data Link Connector 1
A37	ABS & BA & TRAC & VSC Actuator	90980-11413	D 2	Daytime Running Light Relay No.3	90980-10939
A38	ABS & BA & TRAC & VSC Actuator	90980-10895	D 3	Daytime Running Light Relay No.3	90980-10940
A39	ABS & BA & TRAC & VSC Actuator	90980-11151	D 4	Detection SW (Center Diff. Lock)	90980-11250
A40	ABS & BA & TRAC & VSC Actuator	90980-11009	D 5	Detection SW (Transfer L Position)	
A41	ABS & BA & TRAC & VSC ECU	90980-11935	D 6	Detection SW (Transfer Neutral Position)	90980-11025
A42	ABS & BA & TRAC & VSC ECU	90980-11476	D 7	Data Link Connector 3	90980-11665
A43	ABS & BA & TRAC & VSC ECU	90980-11637	D10	Door Courtesy Light Front LH	90980-11148
A44	ABS & BA & TRAC & VSC ECU	90980-11638	D11	Door Courtesy Light Front RH	
A45	A/C Control Assembly	90980-12170	D12	Door Courtesy Light Rear LH	
A46	A/C Control Assembly	90980-11913	D13	Door Courtesy Light Rear RH	90980-10871
A47	A/C Control Assembly	90980-11927	D14	Door Courtesy SW Front LH	
A48	A/T Shift Lever Illumination	90980-11911	D15	Door Courtesy SW Front RH	
	Shift Lock Control ECU		D16	Door Courtesy SW Rear LH	
B 1	Blower Motor Controller	90980-10910	D17	Door Courtesy SW Rear RH	90980-11170
B 2	Back Door Courtesy SW	90980-10039	D18	Door Key Lock and Unlock SW LH	
B 3	Back Door Key Lock and Unlock SW	90980-11490	D19	Door Key Lock and Unlock SW RH	
B 4	Back Door Lock Motor	90980-11150	D20	Door Lock Control SW RH	90980-11950
	Back Door Unlock Detection SW				
B 5	Buckle SW LH	90980-11169			
B 6	Buckle SW RH				

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

Code	Part Name	Part Number	Code	Part Name	Part Number	
D21	Door Lock Motor Front LH	90980-11150	H 1	Headlight LH (High)	90980-11659	
	Door Unlock Detection SW Front LH		H 2	Headlight LH (Low)	90980-11660	
D22	Door Lock Motor Front RH		H 3	Headlight RH (High)	90980-11659	
	Door Unlock Detection SW Front RH		H 4	Headlight RH (Low)	90980-11660	
D23	Door Lock Motor Rear LH		H 5	Heated Oxygen Sensor (Bank 1 Sensor 1)	90980-10869	
	Door Unlock Detection SW Rear LH		H 6	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028	
D24	Door Lock Motor Rear RH		H 7	Heated Oxygen Sensor (Bank 2 Sensor 1)	90980-10869	
	Door Unlock Detection SW Rear RH		H 8	Heated Oxygen Sensor (Bank 2 Sensor 2)	90980-11028	
D26	DVD Automatic Changer		90980-11971	H 9	Horn LH	90980-10619
D27	Door Control Receiver		90980-11909	H10	Horn RH	
E 1	Electronically Controlled Transmission Solenoid		90980-12293	H11	High Mounted Stop Light	90980-11211
E 2	Engine Coolant Temp. Sensor		90980-10736	I 1	Ignition Coil and Igniter No.1	90980-11885
E 3	Engine Hood Courtesy SW	90980-11003	I 2	Ignition Coil and Igniter No.2		
E 4	Electronically Controlled Transmission Pattern Select SW	90980-10933	I 3	Ignition Coil and Igniter No.3		
E 5	Engine Control Module	90980-12144	I 4	Ignition Coil and Igniter No.4		
E 6	Engine Control Module	90980-12145	I 5	Ignition Coil and Igniter No.5		
E 7	Engine Control Module	90980-12143	I 6	Ignition Coil and Igniter No.6		
E 8	Engine Control Module	90980-12146	I 7	Ignition Coil and Igniter No.7		
E 9	Engine Control Module	90980-12142	I 8	Ignition Coil and Igniter No.8		
F 1	Front Fog Light LH	90980-11660	I 9	Injector No.1	90980-11153	
F 2	Front Fog Light RH		I10	Injector No.2		
F 3	Front Turn Signal Light LH	90980-11020	I11	Injector No.3		
	Side Marker Light LH		I12	Injector No.4		
F 4	Front Turn Signal Light RH		I13	Injector No.5		
	Side Marker Light RH		I14	Injector No.6		
F 5	Front Wiper Motor	90980-11599	I15	Injector No.7		
F 8	Front Door Speaker LH	90980-10935	I16	Injector No.8		
F 9	Front Door Speaker RH		I18	Ignition SW	90980-11615	
F10	Front Interior Light	90980-12211	I22	Inner Mirror	90980-11186	
	Rear Personal Light		J 1	Junction Connector	90980-11398	
F11	Front Personal Light	90980-10825	J 2	Junction Connector	90980-11915	
F12	Fuel Pump	90980-11077	J 3	Junction Connector	90980-11398	
	Fuel Sender		J 4	Junction Connector		
F14	Fuel Pump Resistor	90980-11156	J 5	Junction Connector	90980-11925	
F15	Fusible Link Block	90980-11996	J 6	Junction Connector	90980-11927	
F16	Fusible Link Block	90980-11881	J 7	Junction Connector		
F17	Fusible Link Block	90980-11775	J 8	Junction Connector	90980-10803	
F18	Fusible Link Block	90980-10995	J 9	Junction Connector	90980-11927	
F19	Fusible Link Block	82675-60050	J10	Junction Connector		
G 1	Generator	90980-11964	J11	Junction Connector	90980-10803	
G 2	Generator	90980-09212	J12	Junction Connector	90980-11927	
G 3	Glove Box Light	90980-11098	J13	Junction Connector	90980-11925	
G 4	Gateway ECU	90980-11911	J14	Junction Connector	90980-11927	
			J15	Junction Connector	90980-11925	

L PART NUMBER OF CONNECTORS

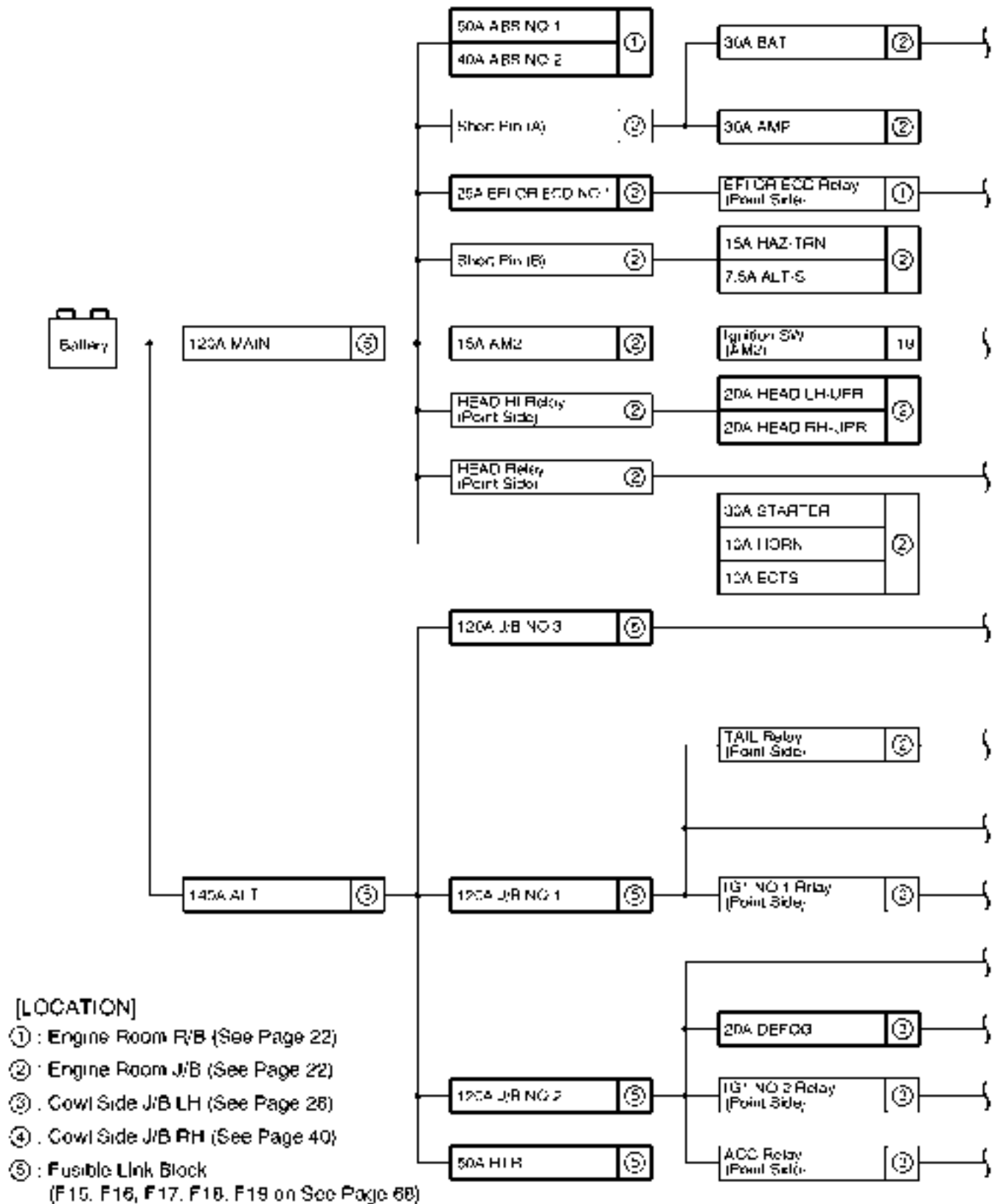
Code	Part Name	Part Number	Code	Part Name	Part Number
J16	Junction Connector	90980-11915	P18	Power Window Control SW Front RH	90980-11947
J17	Junction Connector		P19	Power Window Control SW Rear LH	
J18	Junction Connector	90980-11661	P20	Power Window Control SW Rear RH	
J19	Junction Connector		P21	Pretensioner LH	90980-11862
J20	Junction Connector		P22	Pretensioner RH	
J21	Junction Connector		P23	Power Seat Control SW (Driver's Seat)	90980-10803
J22	Junction Connector	90980-11915	P24	Power Seat Control SW (Front Passenger's Seat)	
J23	Junction Connector		P25	Power Seat Motor (Driver's Seat Front Vertical Control)	
J25	Junction Connector		P26	Power Seat Motor (Driver's Seat Lumbar Support Control)	
J26	Junction Connector		P27	Power Seat Motor (Driver's Seat Rear Vertical Control)	
K 1	Knock Sensor 1	90980-11166	P28	Power Seat Motor (Driver's Seat Reclining Control)	
K 2	Knock Sensor 2		P29	Power Seat Motor (Driver's Seat Slide Control)	
K 3	Key Interlock Solenoid	90980-10825	P30	Power Seat Motor (Front Passenger's Seat Front Vertical Control)	
L 1	License Plate Light LH	90980-11148	P31	Power Seat Motor (Front Passenger's Seat Rear Vertical Control)	
L 2	License Plate Light RH		P32	Power Seat Motor (Front Passenger's Seat Reclining Control)	
L 3	Lumbar Support Control SW (Driver's Seat)	90980-10601	P33	Power Seat Motor (Front Passenger's Seat Slide Control)	
M 1	Mass Air Flow Meter	90980-11317	R 5	Remote Control Mirror SW	90980-11657
M 2	Moon Roof Control ECU	90980-10997	R 6	Rheostat	90980-10799
M 3	Moon Roof Control SW	90980-10789	R 7	Room Temp. Sensor (Front)	90980-11918
M 4	Master Cylinder Pressure Sensor	90980-11451	R 8	Rear A/C Control SW	90980-11503
M 5	Multi-Display	90980-12203	R 9	Rear Air Mix Control Servo Motor	90980-11319
M 6	Multi-Display	90980-12410	R10	Rear Combination Light LH	90980-11587
M 7	Multi-Display	90980-12012	R11	Rear Combination Light LH	
M 9	Multi-Display	90980-12094	R12	Rear Combination Light RH	90980-10908
N 1	Noise Filter (Ignition)	90980-10843	R13	Rear Combination Light RH	
N 2	Navigation ECU	90980-11973	R14	Rear Cooler Blower Motor	90980-10214
N 3	Navigation ECU	90980-11923	R15	Rear Cooler Magnetic Valve	90980-10860
N 4	Navigation ECU	90980-12221	R16	Rear Cooler Power Transistor	90980-10171
O 2	Oil Pressure Sender	90980-11363	R17	Rear Cooler Relay	
O 5	Overhead J/B	90980-12155	R19	Rear Door Speaker LH	90980-10935
P 1	Park/Neutral Position SW	90980-11784	R20	Rear Door Speaker RH	
P 2	Parking Light LH	90980-11156	R21	Rear Evaporator Temp. Sensor	90980-11918
P 3	Parking Light RH		R22	Rear Heater Blower Motor	90980-10860
P 4	Power Outlet (Front)	90980-10760	R25	Rear Heater Power Transistor	90980-10171
P 5	Power Outlet (Rear Console Box)	90980-10860	R26	Rear Inlet Air Temp. Sensor	90980-11369
P 6	Power Quarter Window SW LH	90980-10797	R27	Rear Interior Light	90980-10935
P 7	Power Quarter Window SW RH	90980-10996	R28	Rear Window Defogger	90980-11097
P 8	Parking Brake SW	90980-10871	R29	Rear Window Defogger	
P 9	Power Outlet (Luggage Compartment)	90980-10860	R30	Rear Wiper Motor	90980-10795
P10	Power Vent Window Motor LH				
P11	Power Vent Window Motor RH				
P12	Power Window Master SW	90980-12166			
P14	Power Window Motor Front LH	90980-11599			
P15	Power Window Motor Front RH				
P16	Power Window Motor Rear LH				
P17	Power Window Motor Rear RH				

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

Code	Part Name	Part Number	Code	Part Name	Part Number
R31	Rear Wiper Relay	90980-10797	T 7	Tilt and Telescopic ECU	90980-10799
R32	Remote Control Mirror LH	90980-11573	T 8	Tilt and Telescopic ECU	90980-10848
R33	Remote Control Mirror RH		T 9	Tilt Motor	90980-10799
R34	Room Temp. Sensor (Rear)	90980-11918	T10	Ignition Key Cylinder Light	90980-12092
R36	Radio and Player	90980-12038		Transponder Key Amplifier	
R37	Radio and Player	90980-12183	T11	Turn Signal Flasher	90980-10799
R38	Radio and Player	90980-12259	T12	Trailer Socket	82824-34030
R39	Rear Seat Audio Controller	90980-12200	T13	Tweeter LH	90980-11300
R40	Roll Sensing of Curtain Shield Airbags Cutoff SW	90980-10957	T14	Tweeter RH	
			T15	Towing Converter Relay	90980-11535
S 1	Starter	90980-11400	T16	Throttle Control Motor and Sensor	90980-11858
S 2	Starter	90980-09585	T17	Turbine Speed Sensor	90980-11156
S 3	Seat Heater SW (Driver's Seat)	90980-10797	T18	Towing Brake Controller	90980-11603
S 4	Seat Heater SW (Front Passenger's Seat)	90980-10996	T19	Transponder Key Computer	90980-11911
S 5	Stop Light SW	90980-11118	T20	Television Camera	90980-12381
S 6	Stereo Component Amplifier	90980-10848	T21	Television Camera ECU	90980-12169
S 7	Stereo Component Amplifier	90980-10807	T22	Television Camera ECU	90980-10997
S 8	Seat Belt Warning Occupant Detection Sensor	90980-10860	T23	Towing Hitch Relay	82660-20340
			U 1	Unlock Warning SW	90980-10860
S 9	Seat Heater (Driver's Seat)	90980-10907	V 1	Vapor Pressure Sensor	90980-11143
S10	Seat Heater (Front Passenger's Seat)		V 2	Vehicle Speed Sensor (Combination Meter)	
S11	Side Airbag Sensor Front LH	90980-12225	V 3	Vehicle Speed Sensor (Electronically Controlled Transmission)	90980-11156
S12	Side Airbag Sensor Front RH				
S13	Side Airbag Sensor Rear LH				
S14	Side Airbag Sensor Rear RH				
S15	Seat Heater (Driver's Seat Cushion)	90980-10794	V 4	VSV (EVAP)	90980-11918
S16	Seat Heater (Front Passenger's Seat Cushion)		V 6	Vanity Light LH	
S17	Seat Position Sensor	90980-12195	V 7	Vanity Light RH	90980-10906
S18	Side Airbag Squib LH	90980-11864	V 8	VSC Warning Buzzer	90980-11162
S19	Side Airbag Squib RH		V 9	VSV (Canister Closed Valve)	90980-11859
T 1	Theft Deterrent Horn	90980-10619	V10	VSV (Pressure Switching Valve)	90980-11294
T 4	Telescopic Motor	90980-10799	W 1	Washer Motor	90980-10795
T 5	Theft Deterrent ECU	90980-12169	W 4	Woofer (Speaker)	90980-12080
			Y 1	Yaw Rate Sensor	90980-10825
			Z 1	Option Connector (Glass Breakage Sensor)	

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.



10A RADIO	④
10A ECU-32	
10A DOME	

15A EFI CR ECU NO.2	③
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7.5A IGA	④
7.5A MET	

10A HEAD LH-LWR	③
10A HEAD RH-LWR	

15A TAIL	③
7.5A PANEL	
30A TOWING TAIL	

10A FR-IG	②
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DEFCS Relay (Front Side)	③
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15A FWR OUTLET	③
15A CIG	
7.5A ACC	

7.5A SECURITY	④
20A TIL & TEL	
30A RR SEAT	
30A RR A/C	
20A FW (RR)	
20A FW (RL)	
20A FW (FR)	
20A FW (FL)	

131 NO.3 Relay (Front Side)	④
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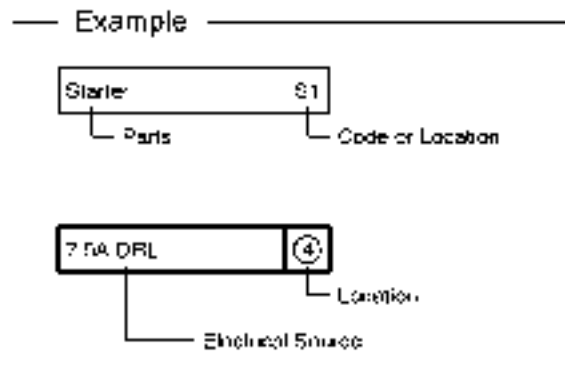
15A MH HTR	②
10A RR HTR	
30A TOWING BRK	
30A TOWING	
15A FR FOG	

7.5A IDLE UP	③
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20A DEF	④
10A ECU-IG2	
15A WASHER	
25A WIPER	
10A GAUGE2	
15A SEAT HTR	

7.5A AM1	③
30A LH SEAT	
15A STOP	
10A ECU B1	
25A SUN ROOF	
7.5A OBC-3	
25A DOOR	

15A RR WIPER	③
10A ECU IG1	
10A GAUGE1	
30A BATT CHARGE	
15A A/C	



J POWER SOURCE (Current Flow Chart)

Engine Room R/B (See Page 22)

Fuse		System	Page
40A	ABS NO.2	VSC	228
50A	ABS NO.1	VSC	228

Engine Room J/B (See Page 22)

Fuse		System	Page
7.5A	ALT-S	Charging	104
7.5A	PANEL	Combination Meter	350
		Illumination	142
		Multiplex Communication System	172
10A	ETCS	Cruise Control	222
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
10A	FR-IG	Charging	104
10A	HEAD LH-LWR	Front Fog Light	132
		Headlight	128
		Multiplex Communication System	172
10A	HEAD RH-LWR	Headlight	128
		Multiplex Communication System	172
10A	HORN	Horn	208
		Multiplex Communication System	172
		Theft Deterrent	282
10A	RR HTR	Air Conditioning (Rear)	366
15A	AM2	Automatic Light Control	164
		Engine Control	108
		Headlight	128
		Ignition	100
		Light Auto Turn Off	166
		Starting	98
		Theft Deterrent	282
15A	FR FOG	Front Fog Light	132
		Multiplex Communication System	172
15A	HAZ-TRN	Turn Signal and Hazard Warning Light	134
15A	MIR HTR	Mirror Heater	314
15A	TAIL	Automatic Light Control	164
		Light Auto Turn Off	166
		Multiplex Communication System	172
		Taillight	138
		Theft Deterrent	282
		Trailer Towing	158
20A	HEAD LH-UPR	Headlight	128
		Multiplex Communication System	172

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

Fuse		System	Page
20A	HEAD RH-UPR	Headlight	128
		Multiplex Communication System	172
25A	EFI OR ECD NO.1	Cruise Control	222
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
30A	AMP	Radio and Player (w/ Navigation System)	324
		Radio and Player (w/o Navigation System)	330
30A	STARTER	Engine Control	108
		Starting	98
30A	TOWING	Trailer Towing	158
30A	TOWING BRK	Trailer Towing	158
30A	TOWING TAIL	Trailer Towing	158

Cowl Side J/B LH (See Page 28)

Fuse		System	Page
7.5A	ACC	Auto Antenna	322
		Automatic Light Control	164
		Combination Meter	350
		Door Lock Control	260
		Engine Control	108
		Headlight	128
		Interior Light	148
		Key Reminder	316
		Light Auto Turn Off	166
		Multi-Display (w/o Navigation System)	348
		Multiplex Communication System	172
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Power Window	250
		Radio and Player (w/ Navigation System)	324
		Radio and Player (w/o Navigation System)	330
Remote Control Mirror	302		
Theft Deterrent	282		
Wireless Door Lock Control	270		
7.5A	AM1	Air Conditioning (Rear)	366
		Engine Control	108
		Mirror Heater	314
		Rear Window Defogger	312
		Shift Lock	244
7.5A	IDLE UP	Multiplex Communication System	172
		Rear Window Defogger	312
7.5A	OBD-2	Engine Control	108

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

J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
10A	ECU-B1	Multi-Display (w/o Navigation System)	348
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
10A	ECU-IG1	Automatic Glare-Resistant EC Mirror with Compass	304
		Automatic Light Control	164
		Door Lock Control	260
		Headlight	128
		Interior Light	148
		Key Reminder	316
		Light Auto Turn Off	166
		Moon Roof	256
		Multi-Display (w/o Navigation System)	348
		Multiplex Communication System	172
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Power Window	250
		Shift Lock	244
Theft Deterrent	282		
VSC	228		
Wireless Door Lock Control	270		
10A	EFI OR ECD NO.2	Engine Control	108
10A	GAUGE1	Air Conditioning (Front)	356
		Center Differential Lock	246
		Combination Meter	350
		Cruise Control	222
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
		Illumination	142
		Key Reminder	316
		Multiplex Communication System	172
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Power Rear Quarter Window	306
Seat Belt Warning	320		
15A	A/C	Air Conditioning (Front)	356
		Air Conditioning (Rear)	366
		Seat Belt Warning	320
15A	CIG	Cigarette Lighter	204
15A	PWR OUTLET	Power Outlet	206
15A	RR WIPER	Rear Wiper and Washer	200
15A	STOP	Cruise Control	222
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
		Multiplex Communication System	172

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

Fuse		System	Page
15A	STOP	Shift Lock	244
		Stop Light	156
		Trailer Towing	158
		VSC	228
20A	DEFOG	Rear Window Defogger	312
25A	DOOR	Automatic Light Control	164
		Door Lock Control	260
		Headlight	128
		Interior Light	148
		Key Reminder	316
		Light Auto Turn Off	166
		Moon Roof	256
		Multiplex Communication System	172
		Power Window	250
		Theft Deterrent	282
Wireless Door Lock Control	270		
25A	SUN ROOF	Moon Roof	256
30A	BATT CHARGE	Trailer Towing	158
30A	LH SEAT	Power Seat	294

Cowl Side J/B RH (See Page 40)

Fuse		System	Page
7.5A	IGN	Cruise Control	222
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
		Engine Immobiliser System	124
		SRS	237
		VSC	228
7.5A	MET	Center Differential Lock	246
		Charging	104
		Combination Meter	350
		Cruise Control	222
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
		Multiplex Communication System	172
		Seat Belt Warning	320
		SRS	237
VSC	228		
7.5A	SECURITY	Multiplex Communication System	172
		Theft Deterrent	282
10A	DOME	Combination Meter	350
		Garage Door Opener	210
		Interior Light	148
		Multiplex Communication System	172

* 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	DOME	Theft Deterrent	282
		Wireless Door Lock Control	270
10A	ECU-B2	Air Conditioning (Front)	356
		Air Conditioning (Rear)	366
		Automatic Light Control	164
		Center Differential Lock	246
		Combination Meter	350
		Cruise Control	222
		Door Lock Control	260
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
		Engine Immobiliser System	124
		Headlight	128
		Interior Light	148
		Key Reminder	316
		Light Auto Turn Off	166
		Multiplex Communication System	172
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Power Tilt and Power Telescopic	298
		Power Window	250
Seat Belt Warning	320		
Theft Deterrent	282		
VSC	228		
Wireless Door Lock Control	270		
10A	ECU-IG2	Air Conditioning (Front)	356
		Air Conditioning (Rear)	366
		Auto Antenna	322
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Power Tilt and Power Telescopic	298
		Turn Signal and Hazard Warning Light	134
10A	GAUGE2	Back-Up Light	162
		Center Differential Lock	246
		Combination Meter	350
		Cruise Control	222
		Door Lock Control	260
		Electronically Controlled Transmission and A/T Indicator	212
		Engine Control	108
		Multiplex Communication System	172
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Trailer Towing	158
		VSC	228
		Wireless Door Lock Control	270

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

Fuse		System	Page
10A	RADIO	Auto Antenna	322
		Navigation System and TOYOTA Parking Assist (Rear View Monitor)	336
		Radio and Player (w/ Navigation System)	324
		Radio and Player (w/o Navigation System)	330
15A	SEAT HTR	Seat Heater	308
15A	WASHER	Front Wiper and Washer	196
		Rear Wiper and Washer	200
20A	DIFF	Center Differential Lock	246
20A	P/W (FL)	Door Lock Control	260
		Interior Light	148
		Multiplex Communication System	172
		Power Window	250
		Theft Deterrent	282
		Wireless Door Lock Control	270
20A	P/W (FR)	Multiplex Communication System	172
		Power Window	250
20A	P/W (RL)	Multiplex Communication System	172
		Power Window	250
20A	P/W (RR)	Multiplex Communication System	172
		Power Window	250
20A	TIL & TEL	Power Tilt and Power Telescopic	298
25A	WIPER	Front Wiper and Washer	196
30A	RH SEAT	Power Seat	294
30A	RR A/C	Air Conditioning (Rear)	366

Fusible Link Block (F15, F16, F17, F18, F19 on See Page 68)

Fuse		System	Page
50A	HTR	Air Conditioning (Front)	356
120A	J/B NO.1	Automatic Light Control	164
		Illumination	142
		Light Auto Turn Off	166
		Multiplex Communication System	172
		Taillight	138
		Theft Deterrent	282
120A	J/B NO.2	Air Conditioning (Rear)	366
		Engine Control	108
		Mirror Heater	314
		Rear Window Defogger	312
		Shift Lock	244
120A	J/B NO.3	Engine Control	108
120A	MAIN	Ignition	100
		Multiplex Communication System	172
		Starting	98

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

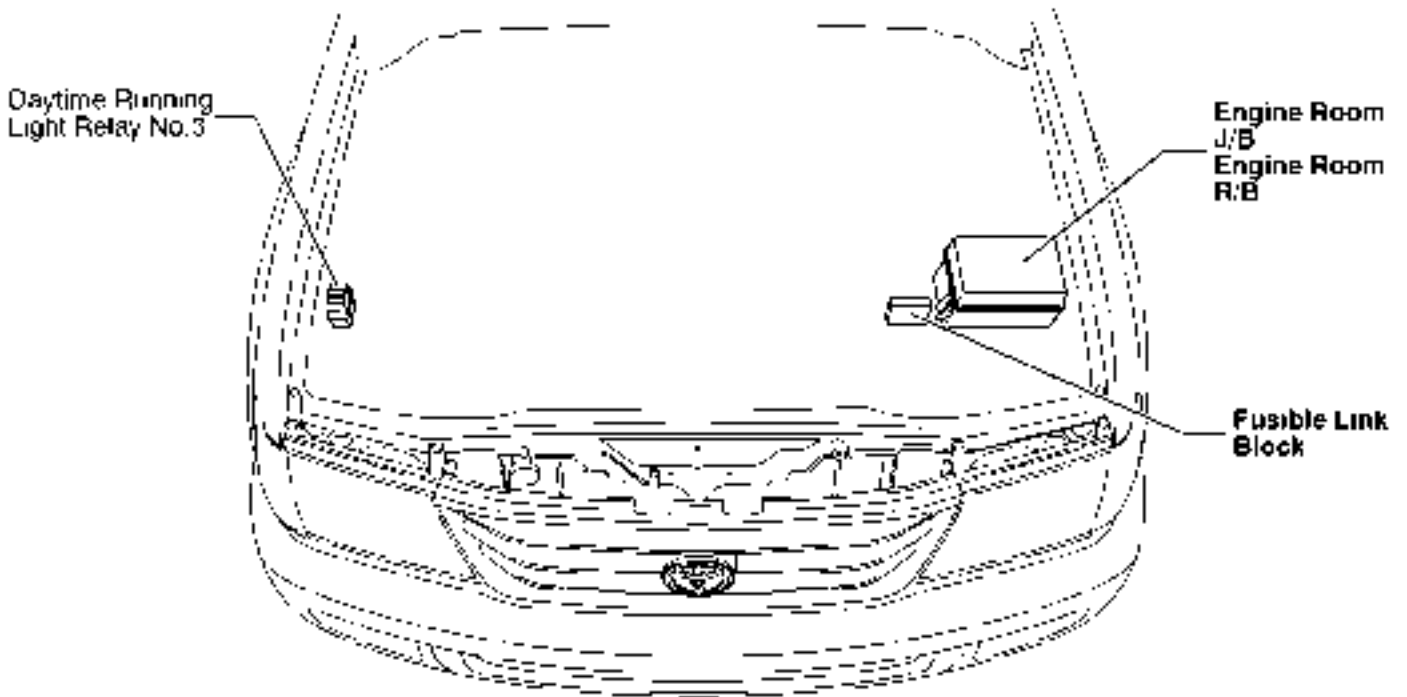
J POWER SOURCE (Current Flow Chart)

Fuse		System	Page
140A	ALT	Air Conditioning (Front)	356
		Air Conditioning (Rear)	366
		Automatic Light Control	164
		Charging	104
		Engine Control	108
		Illumination	142
		Light Auto Turn Off	166
		Mirror Heater	314
		Multiplex Communication System	172
		Rear Window Defogger	312
		Shift Lock	244
		Taillight	138
		Theft Deterrent	282

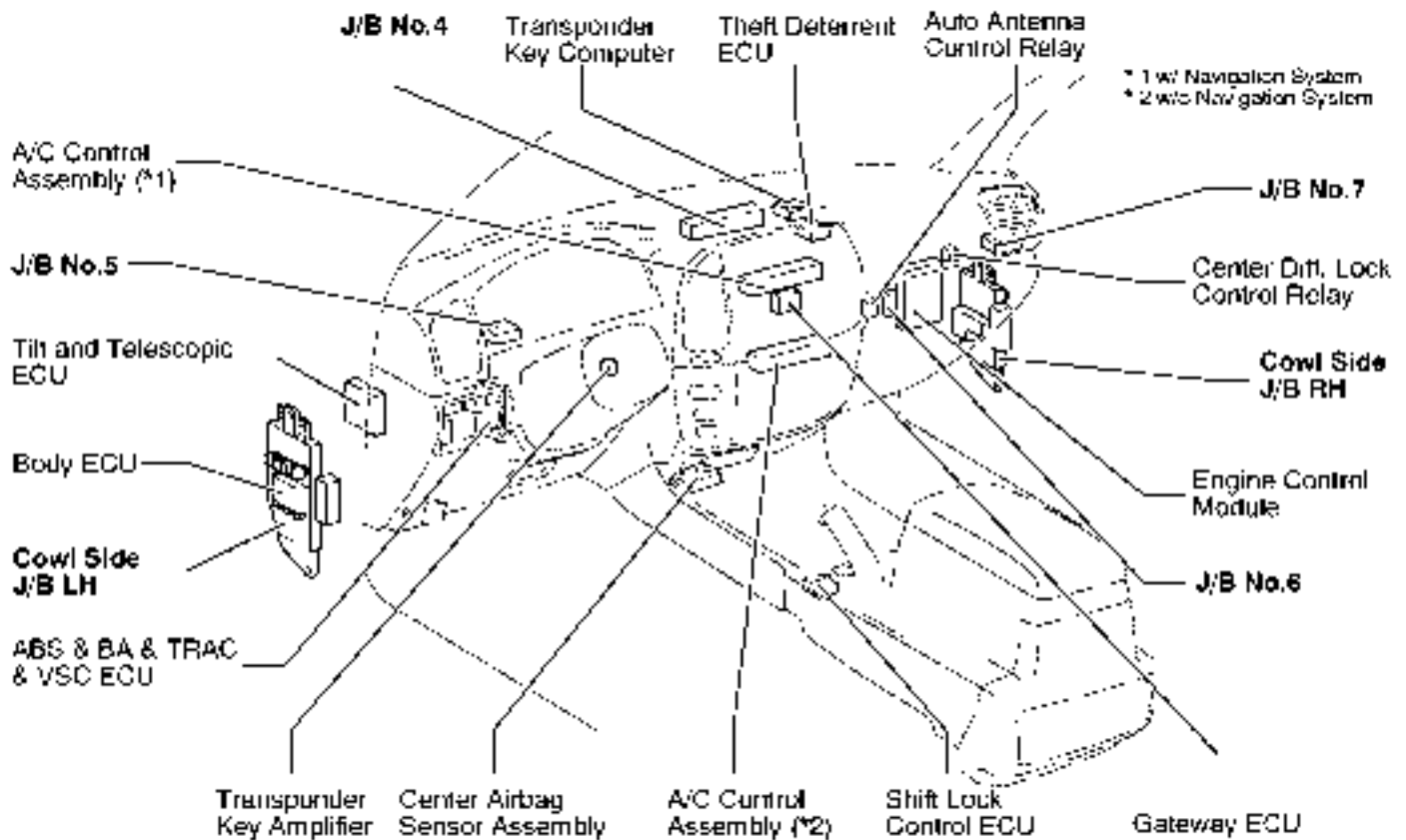
* These are the page numbers of the first page on which the related system is shown.

F RELAY LOCATIONS

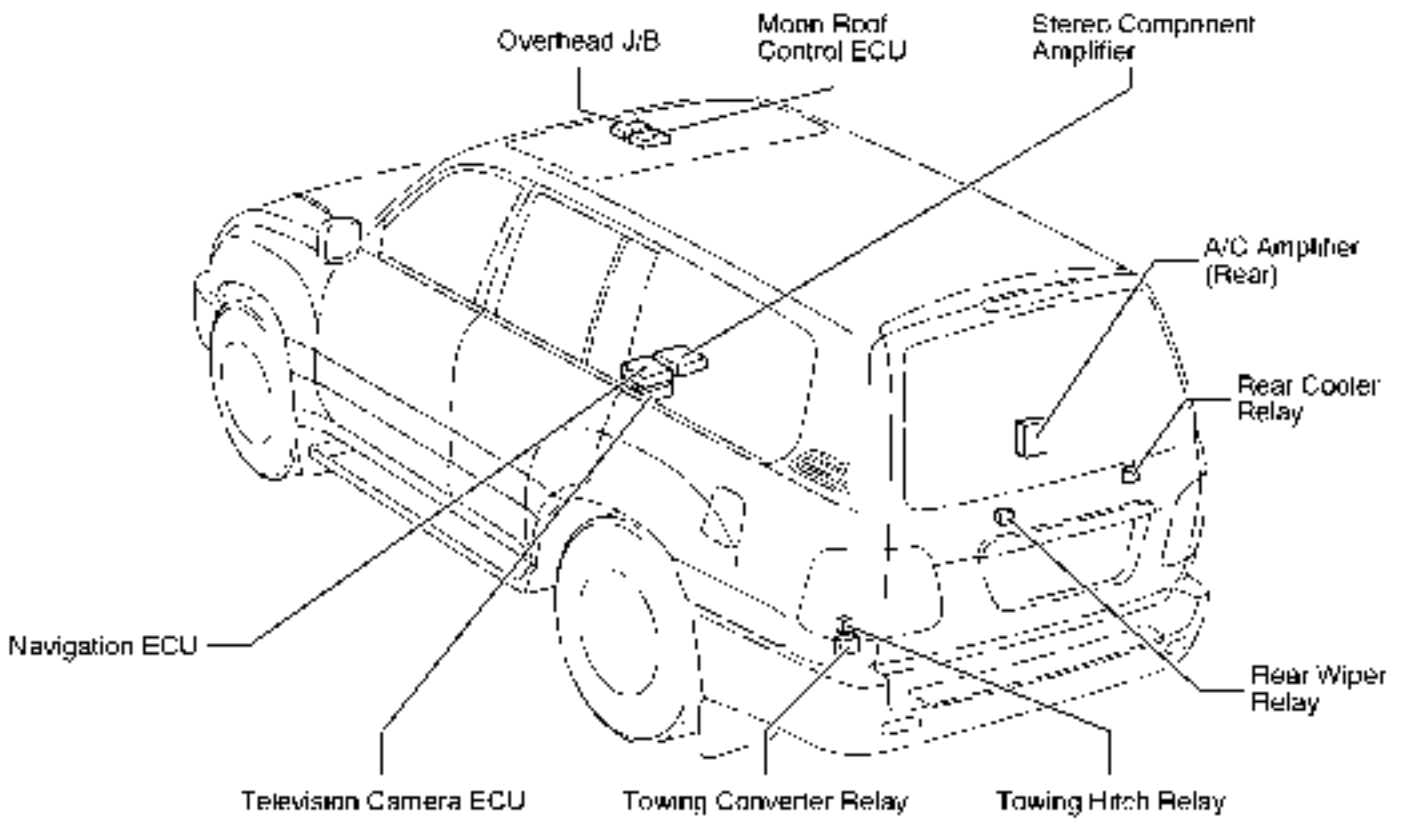
[Engine Compartment]



[Instrument Panel]



[Body]



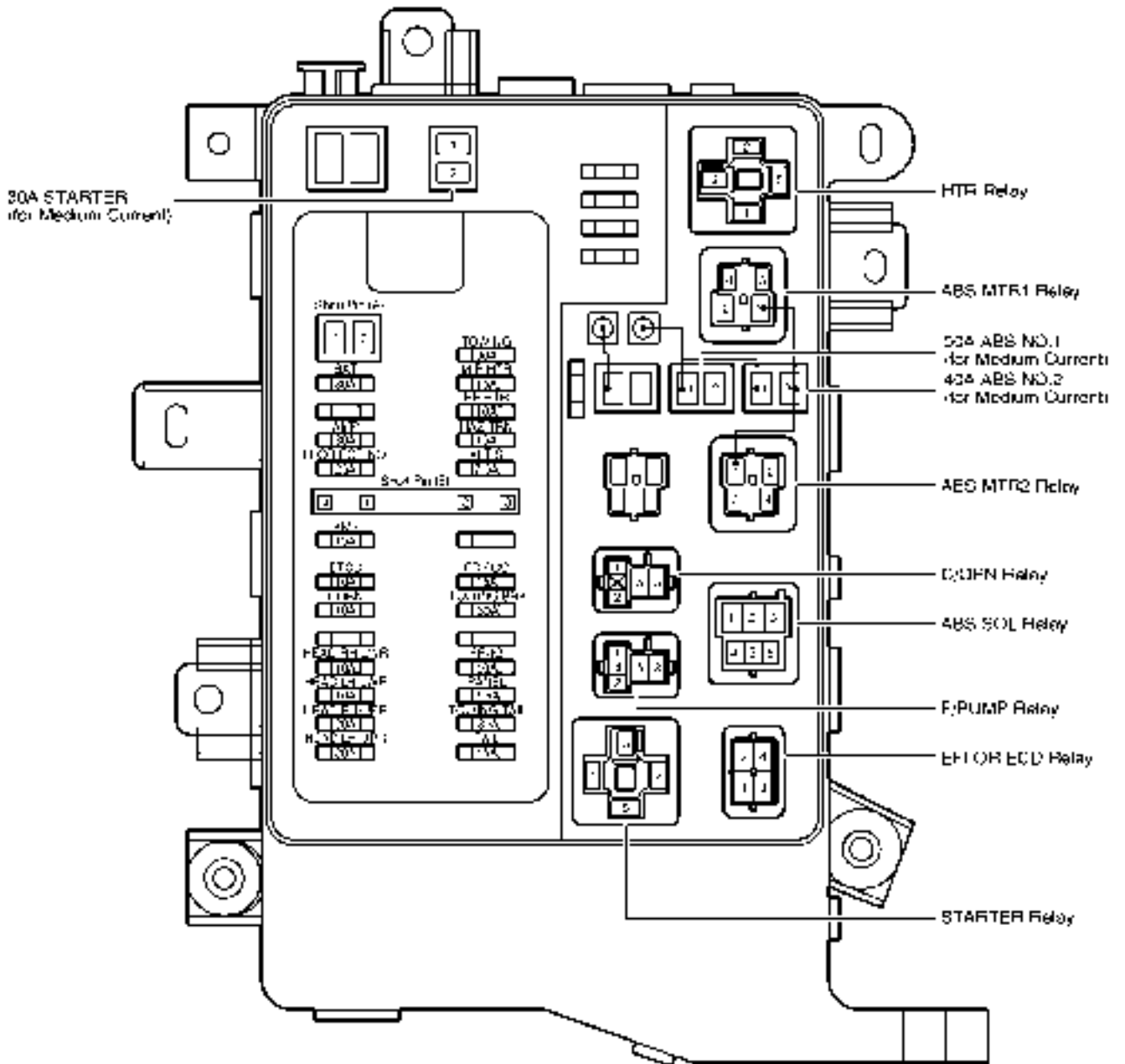
F RELAY LOCATIONS

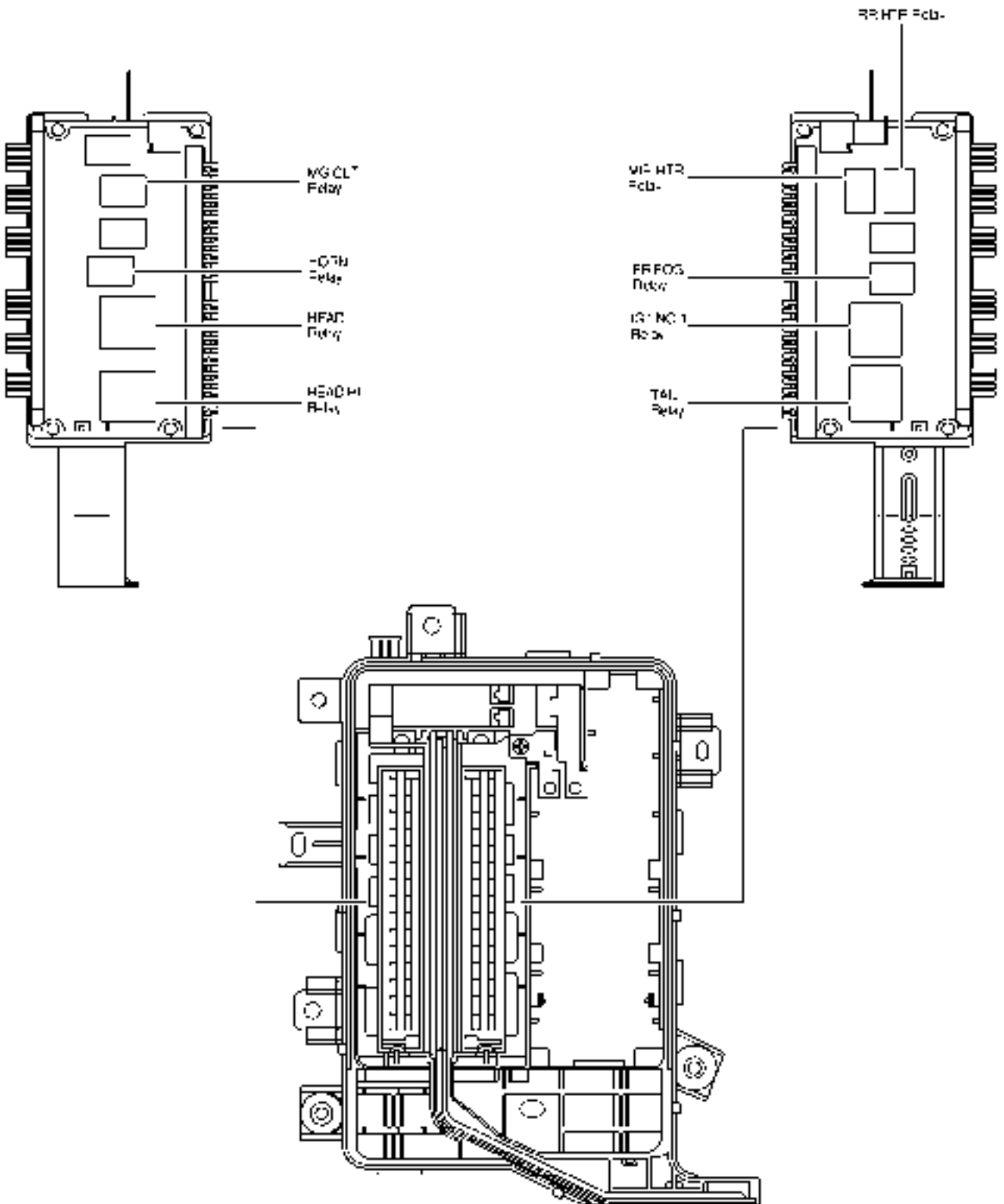
○ : Engine Room J/B

① : Engine Room R/B

Engine Compartment Left (See Page 20)

(Inner Circuit : See Page 26)



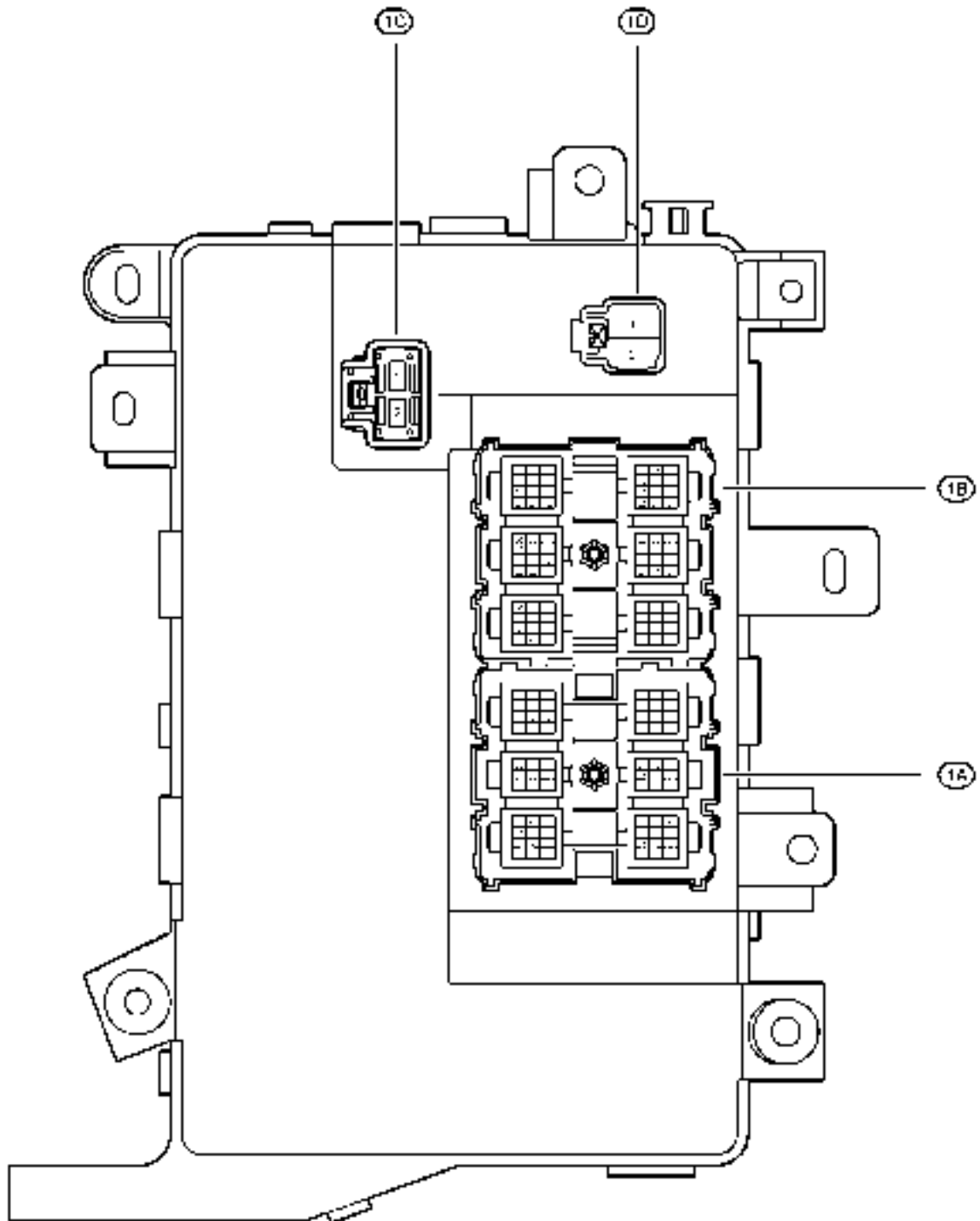


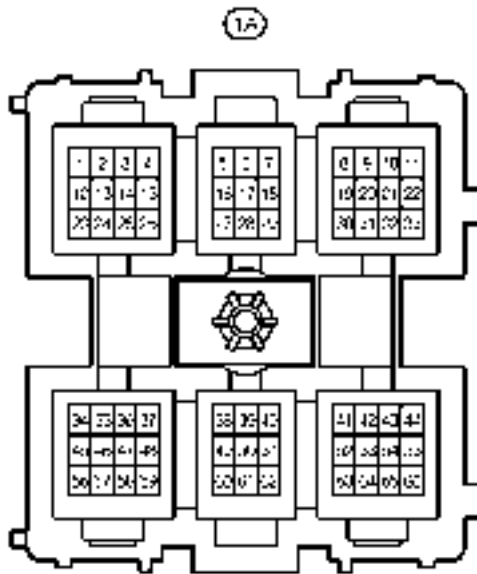
F RELAY LOCATIONS

○ : Engine Room J/B

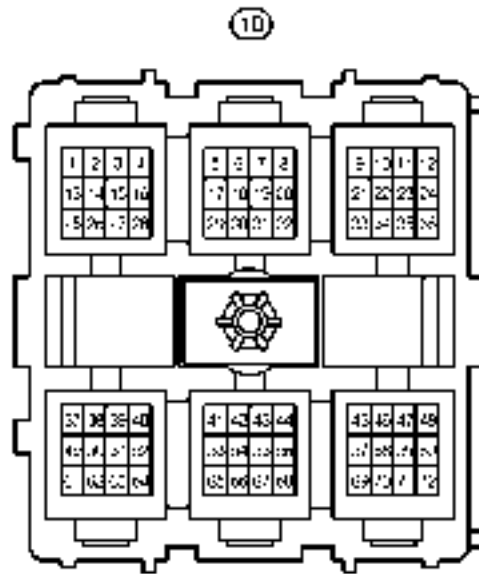
Engine Compartment Left (See Page 20)

(Inner Circuit : See Page 26)

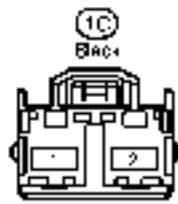




From Engine Room Main Wire



From Engine Room No.2 Wire



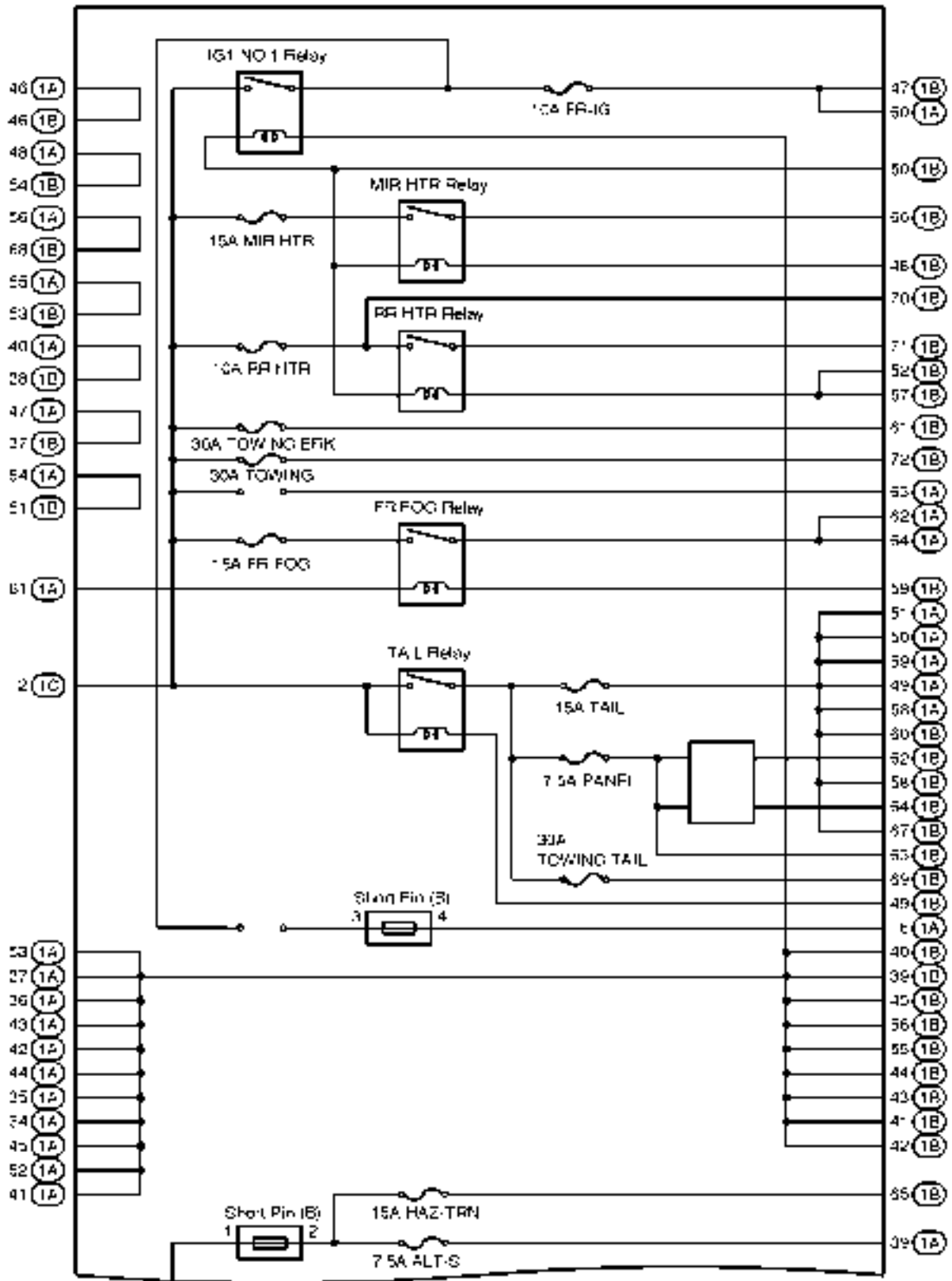
From Engine Room No.2 Wire



From Engine Room No.2 Wire

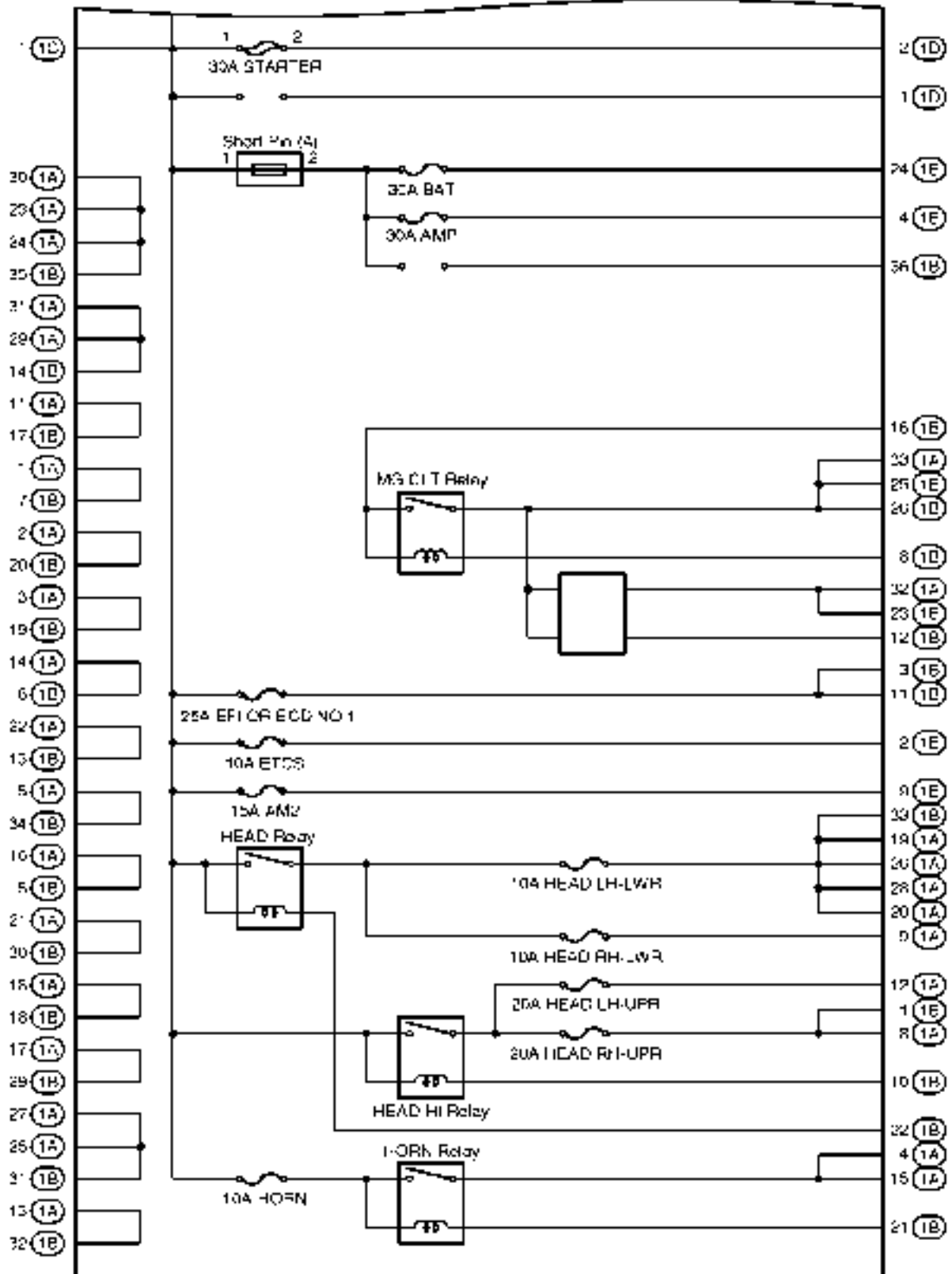
F RELAY LOCATIONS

[Engine Room J/B Inner Circuit]



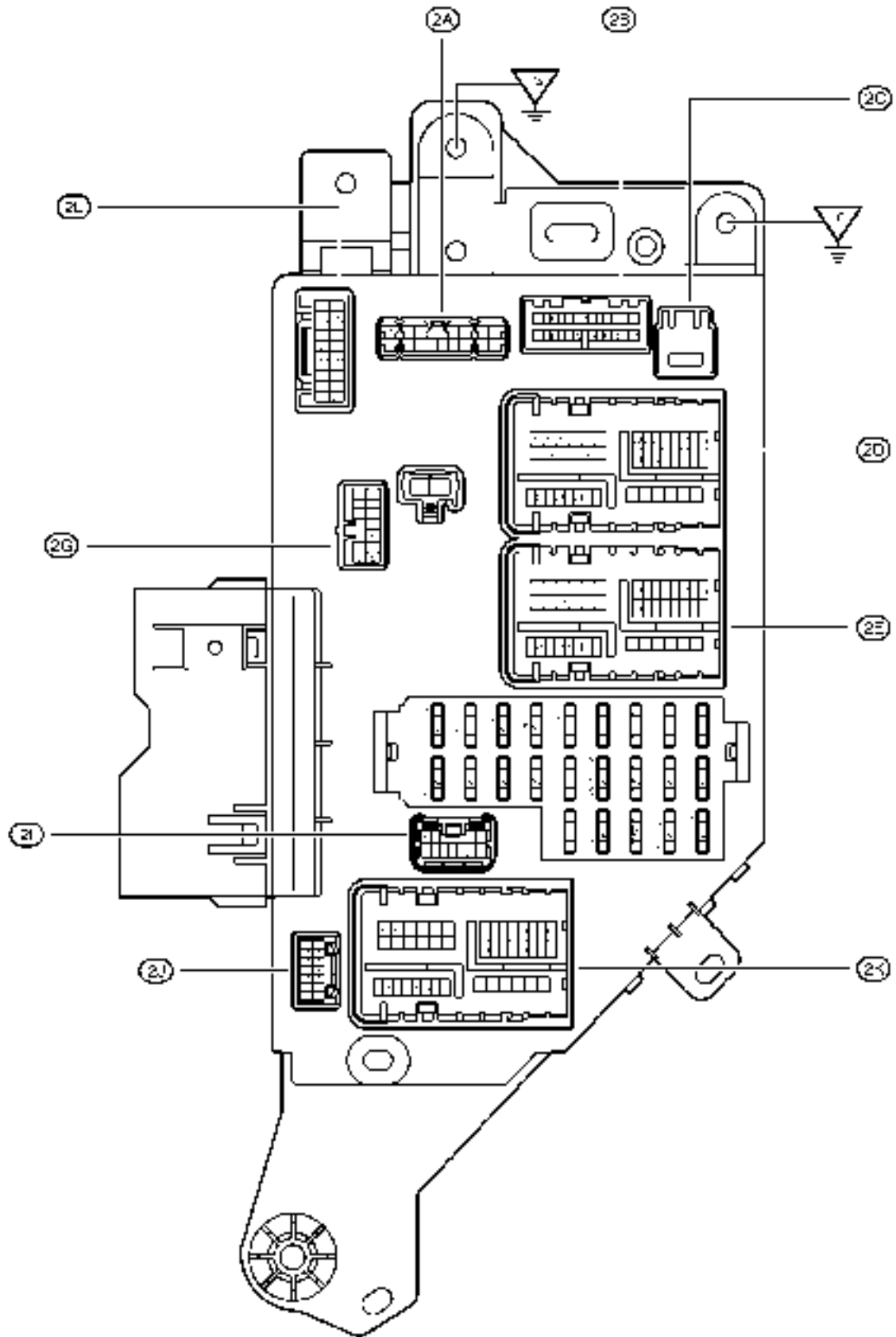
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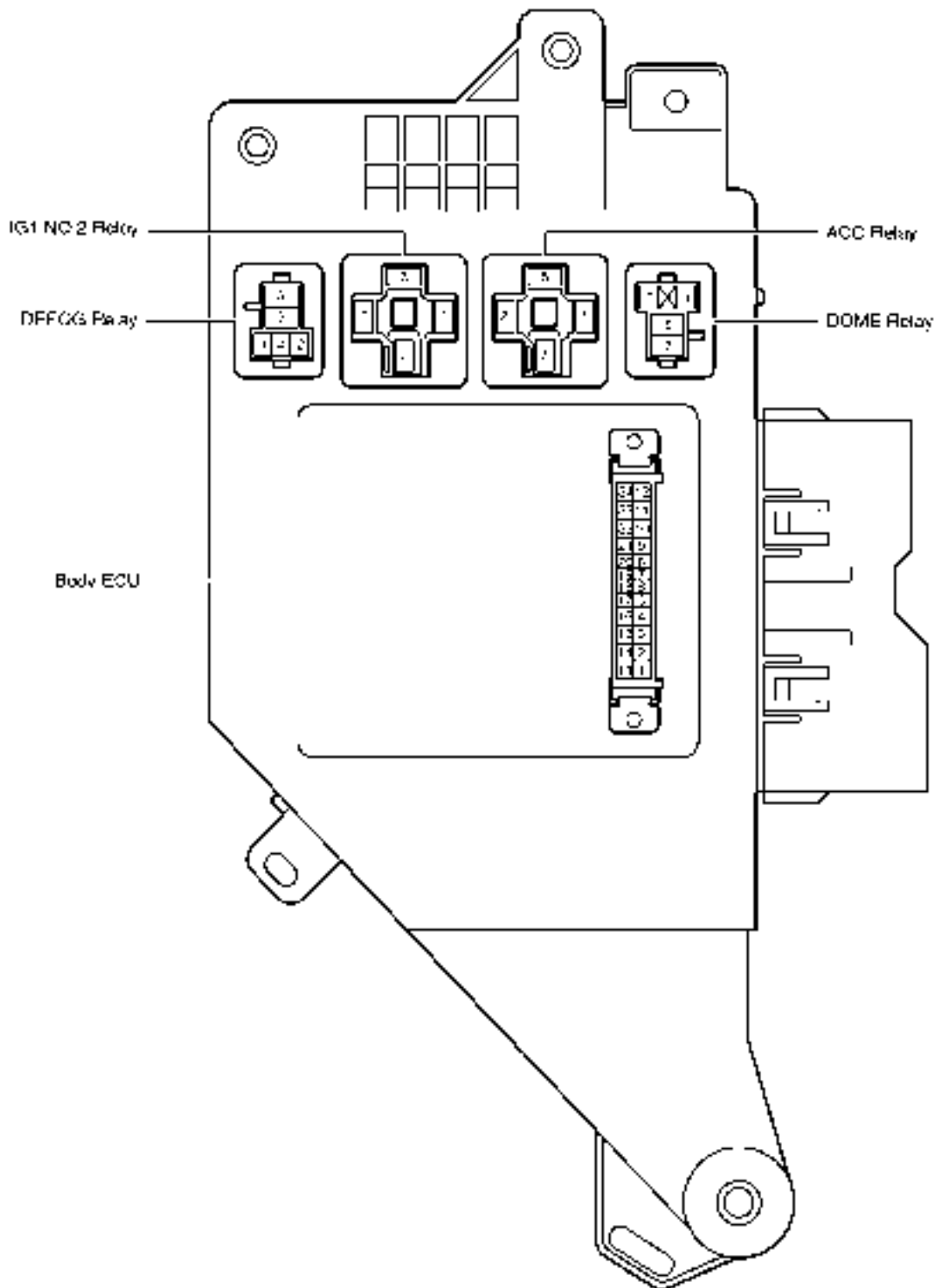
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F RELAY LOCATIONS

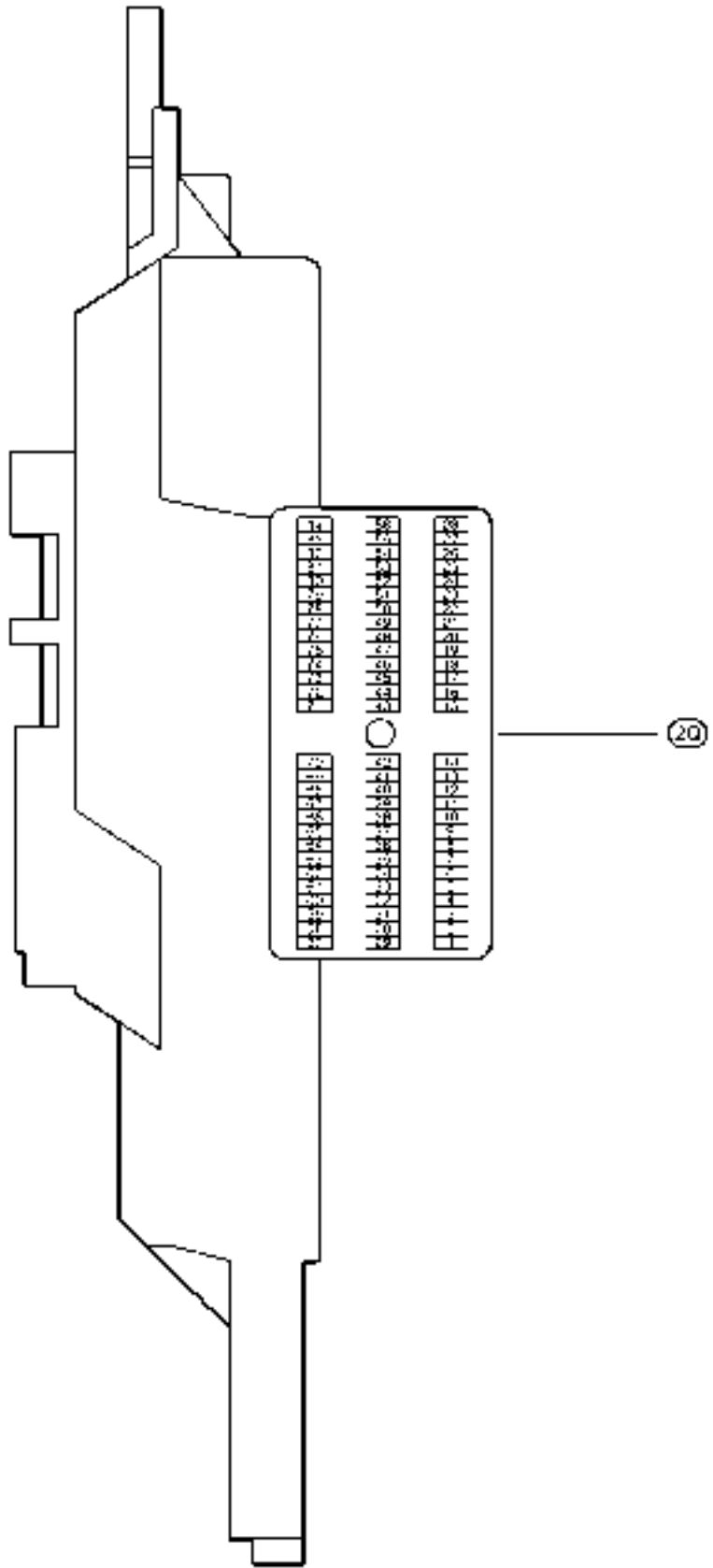
○ : Cowl Side J/B LH Left Kick Panel (See Page 20)
(Inner Circuit : See Page 34)





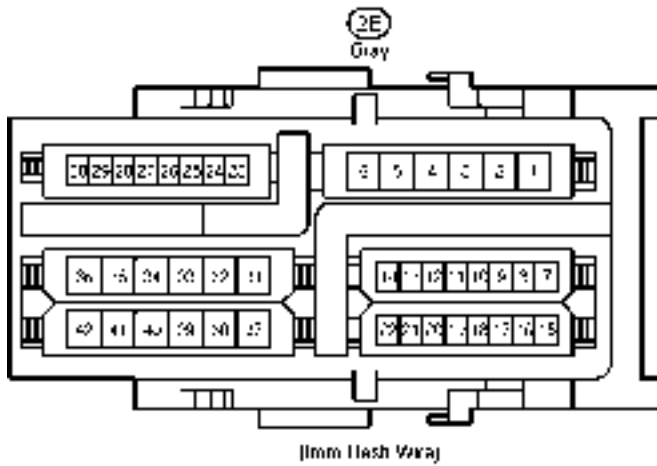
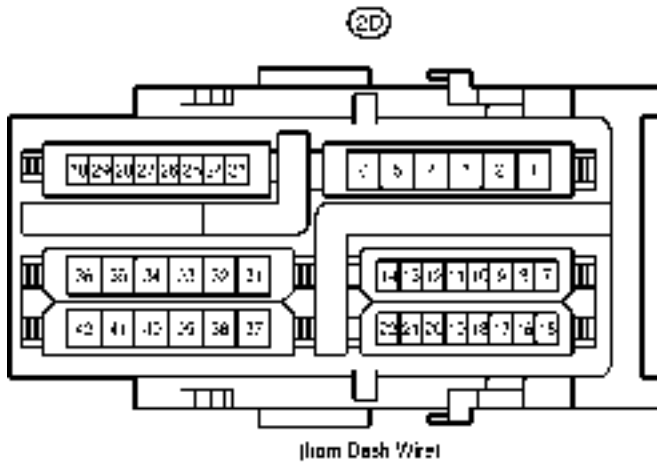
F RELAY LOCATIONS

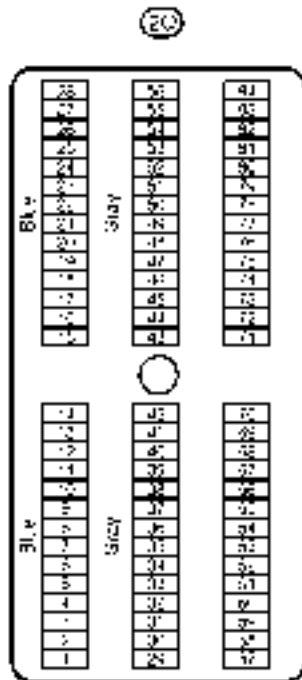
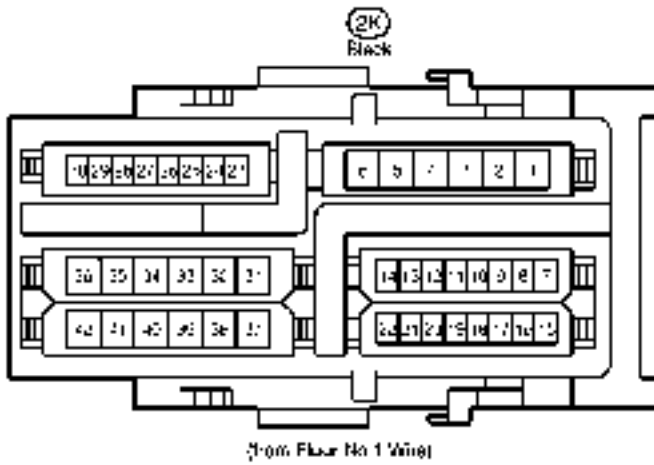
○ : Cowl Side J/B LH **Left Kick Panel (See Page 20)**
(Inner Circuit : See Page 34)



F RELAY LOCATIONS

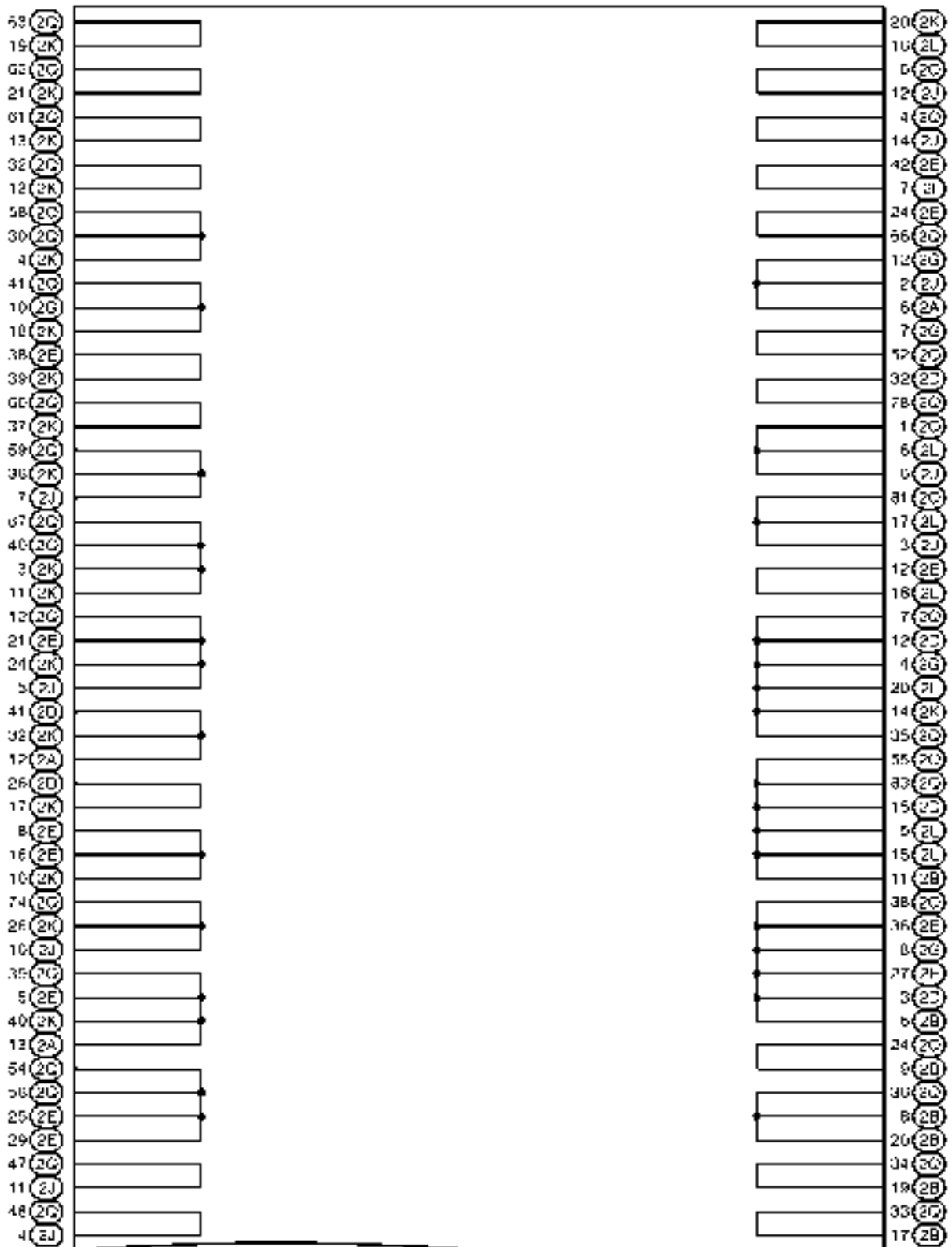
○ : Cowl Side J/B LH **Left Kick Panel (See Page 20)**
(Inner Circuit : See Page 34)





F RELAY LOCATIONS

[Cowl Side J/B LH Inner Circuit]



(Cont. next page)

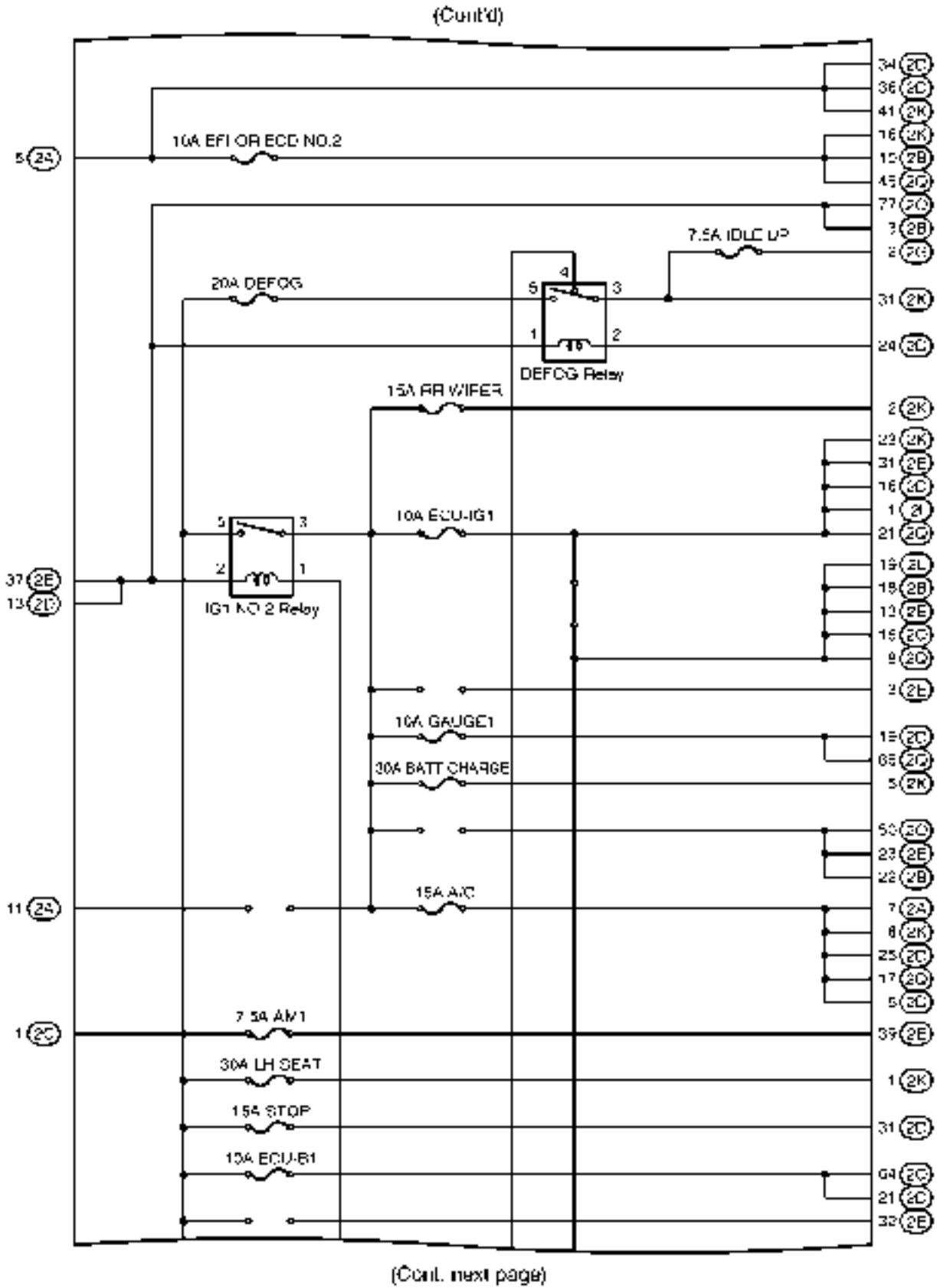
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53	(2Q)
16	(2A)
42	(2Q)
34	(2J)
2	(2E)
42	(2D)
21	(2E)
40	(2D)
14	(2E)
36	(2D)
1	(2A)
33	(2E)
1	(2E)
8	(2D)
10	(2D)
9	(2A)
6	(2E)
16	(2E)
41	(2E)
10	(2A)
9	(2E)
4	(2D)
7	(2E)
30	(2D)
14	(2A)
34	(2K)
49	(2Q)
1	(2E)
4	(2A)
6	(2E)
8	(2A)
2	(2E)
15	(2E)
4	(2E)
2	(2A)
24	(2D)
33	(2D)
15	(2A)
20	(2Q)
31	(2Q)
4	(2E)
27	(2K)
14	(2E)
37	(2Q)
28	(2J)
54	(2Q)
20	(2K)
1	(2J)
72	(2J)
26	(2K)
8	(2J)

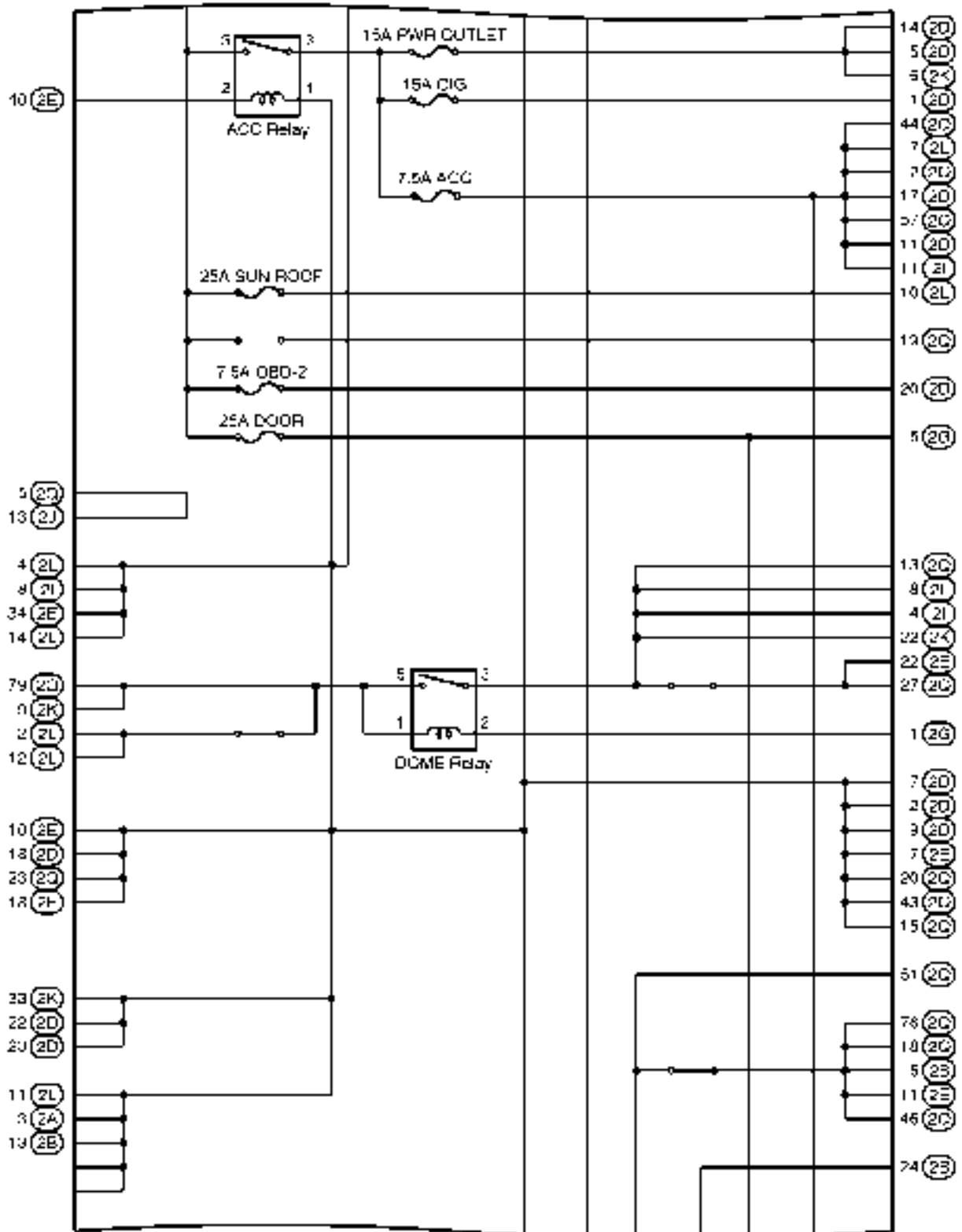
(Cont. next page)

F RELAY LOCATIONS

[Cowl Side J/B LH Inner Circuit]



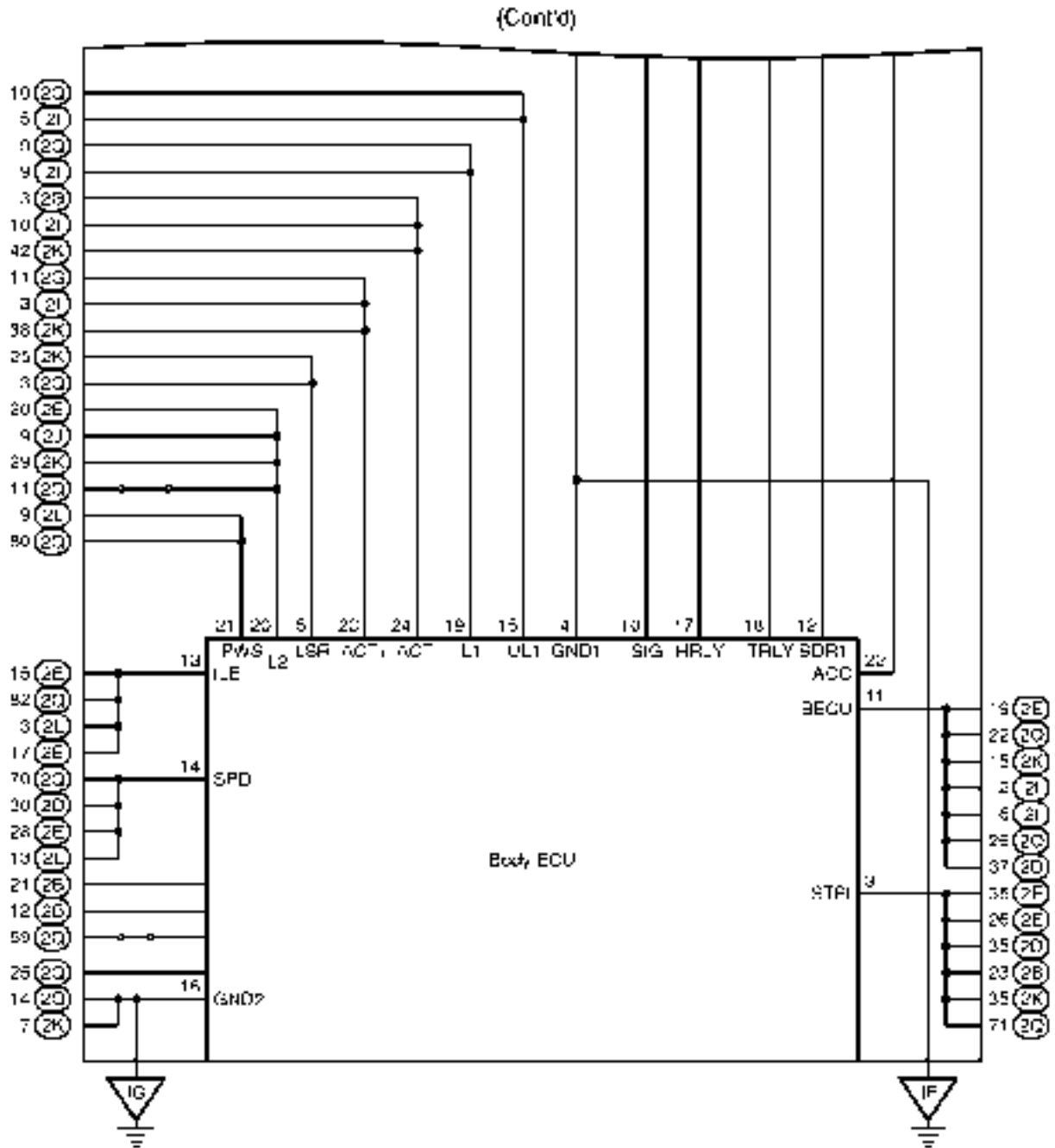
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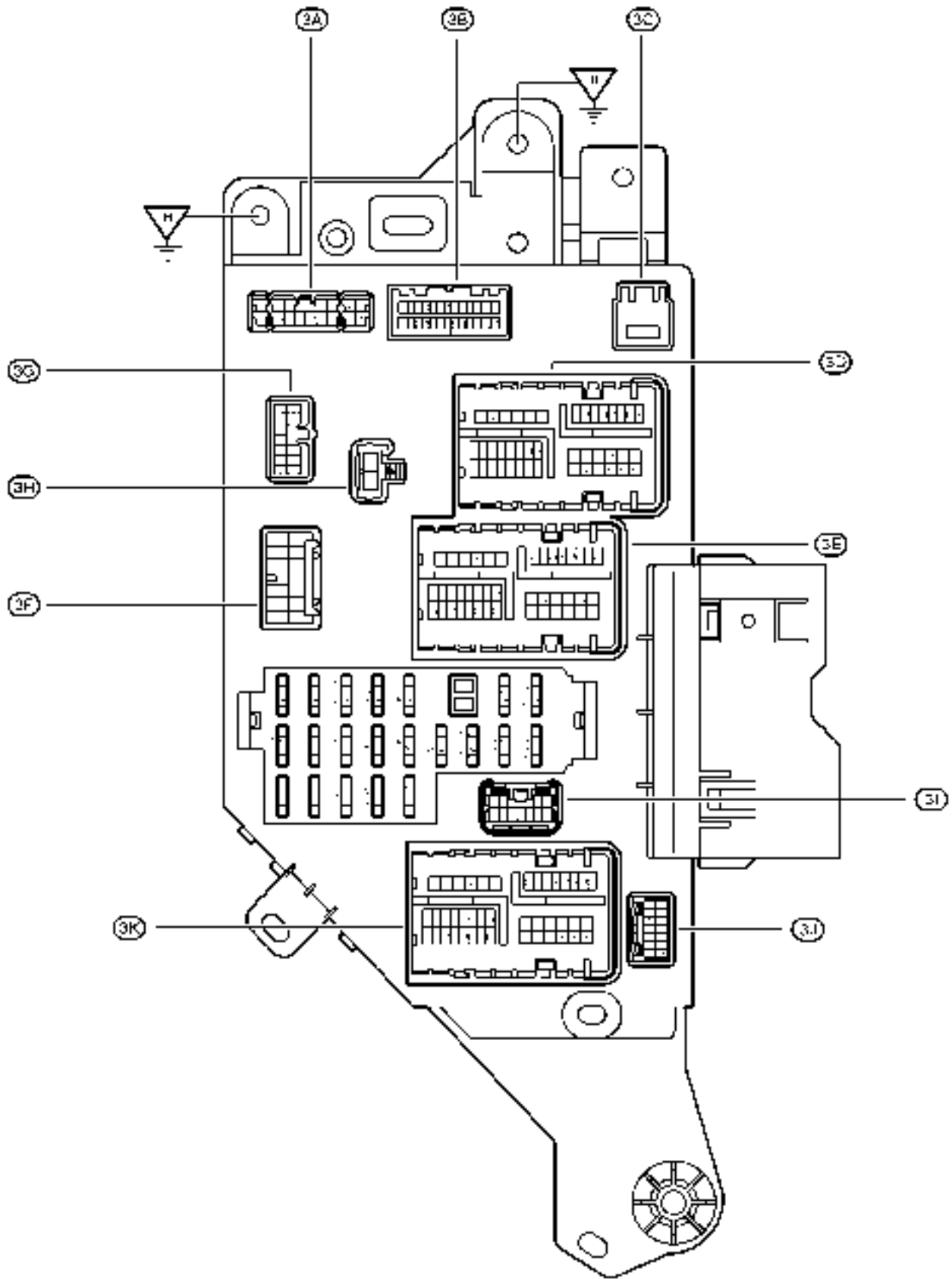
F RELAY LOCATIONS

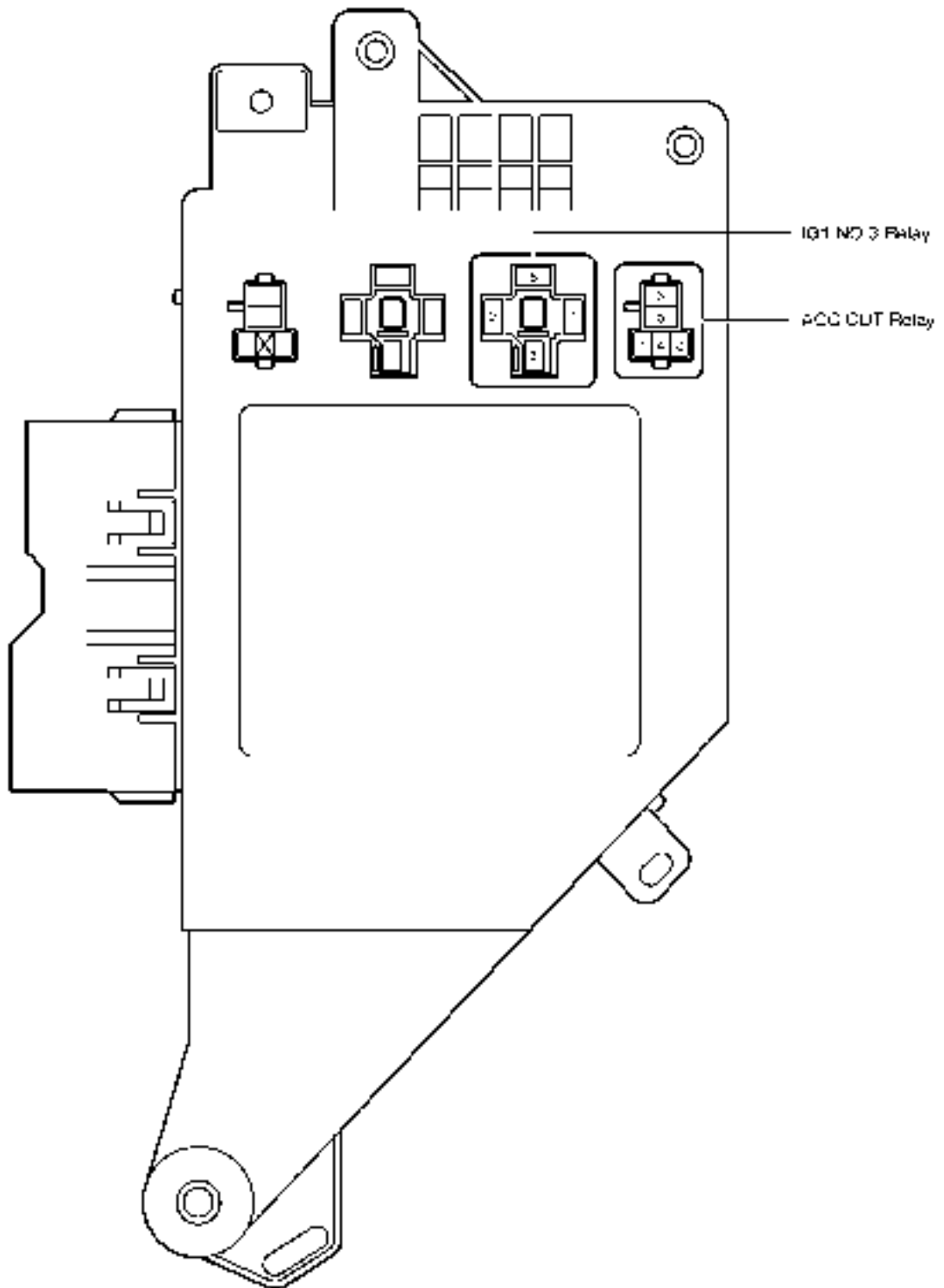
[Cowl Side J/B LH Inner Circuit]



F RELAY LOCATIONS

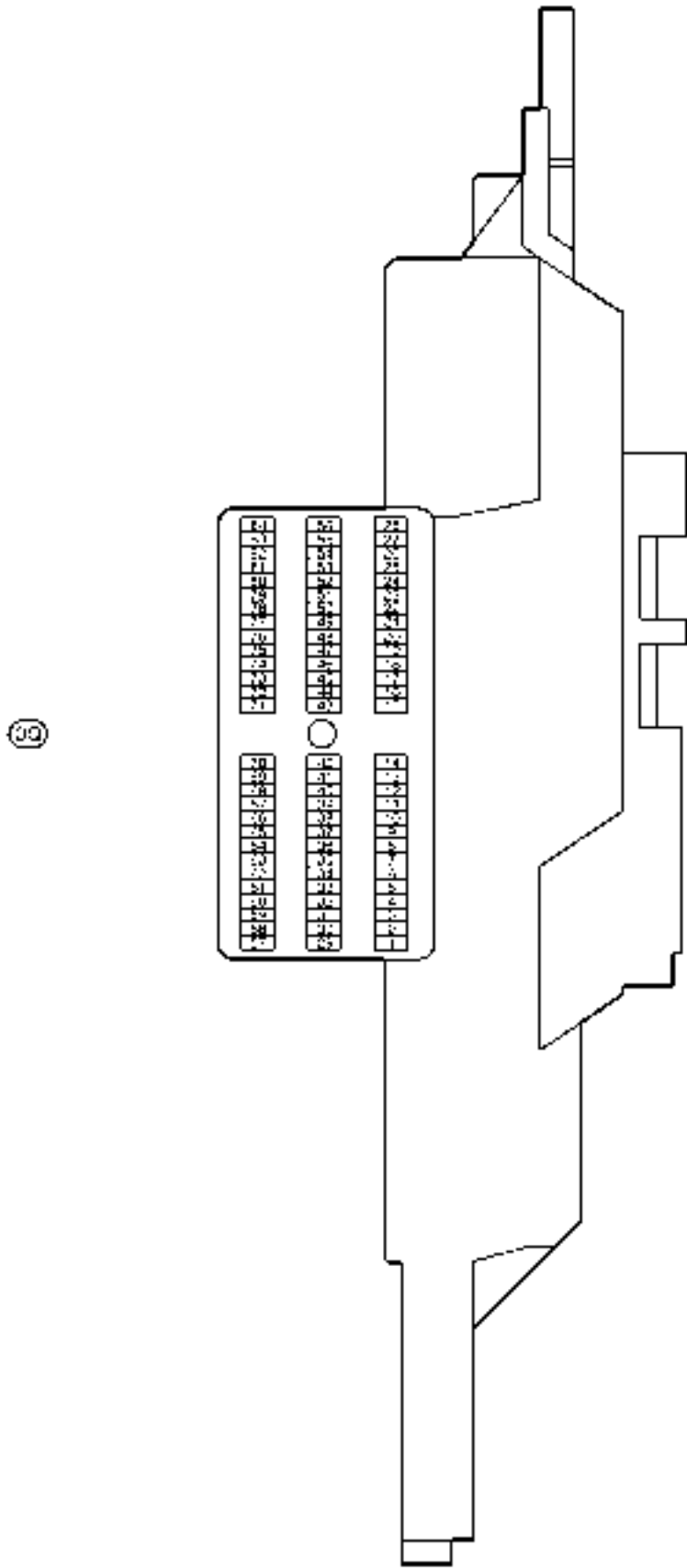
○ : Cowl Side J/B RH **Right Kick Panel (See Page 20)**
(Inner Circuit : See Page 46)

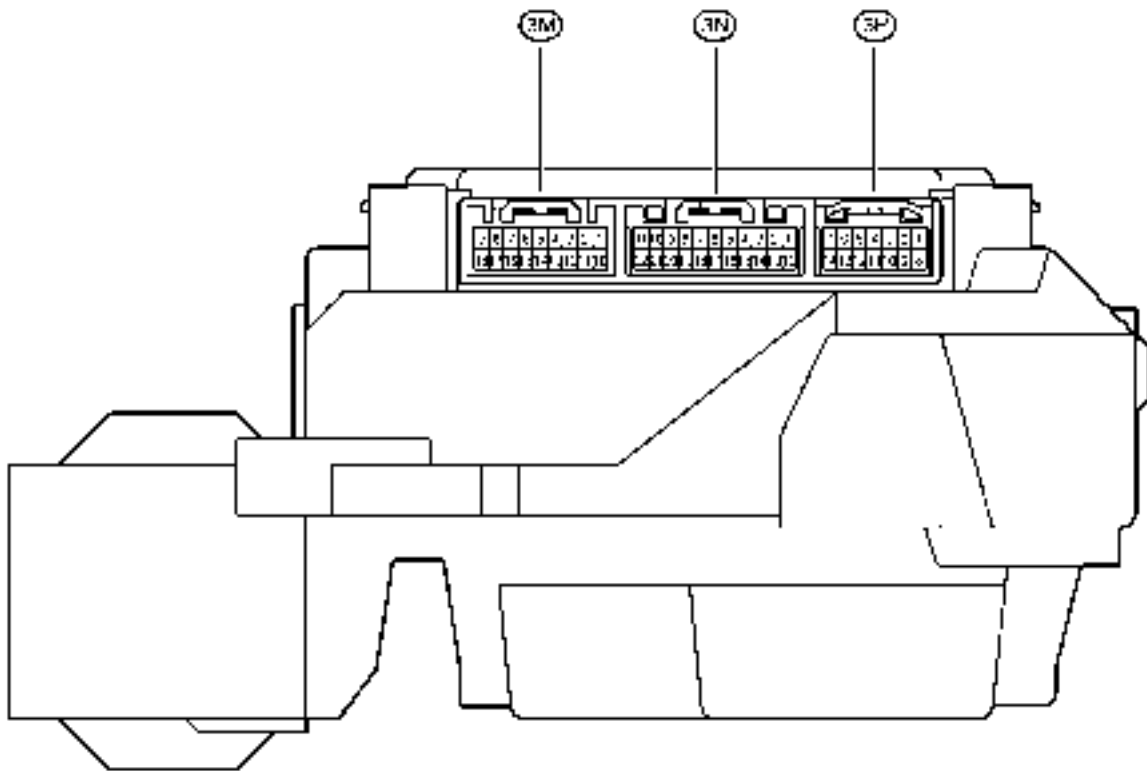




F RELAY LOCATIONS

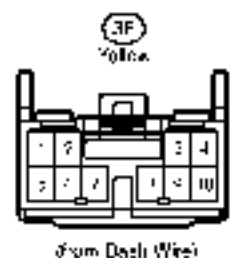
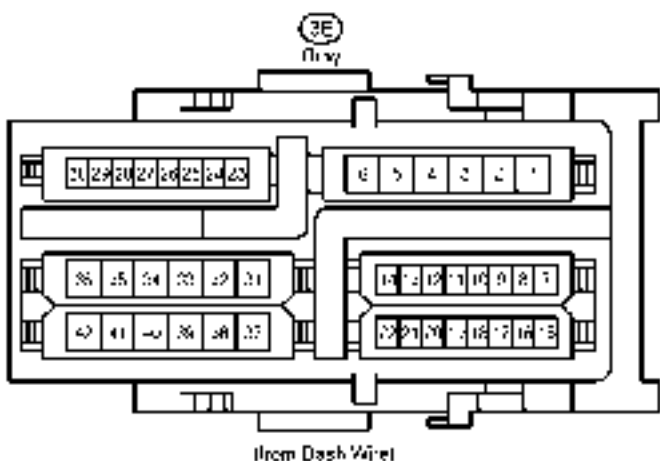
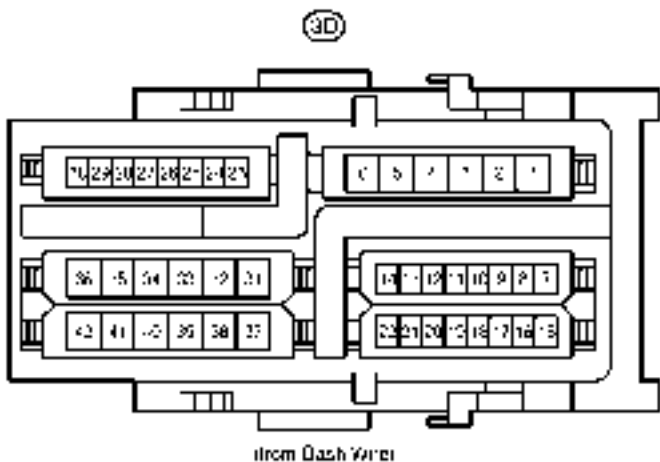
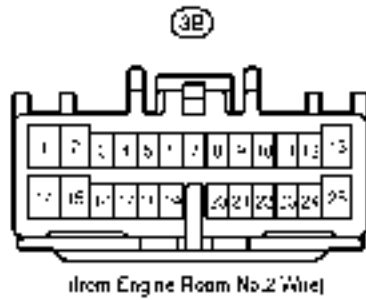
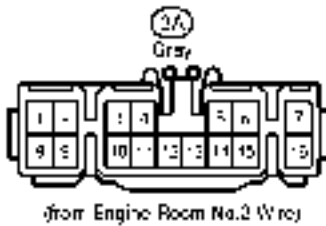
○ : Cowl Side J/B RH **Right Kick Panel (See Page 20)**
(Inner Circuit : See Page 46)

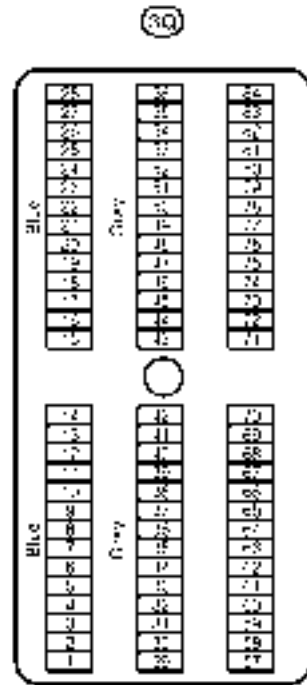
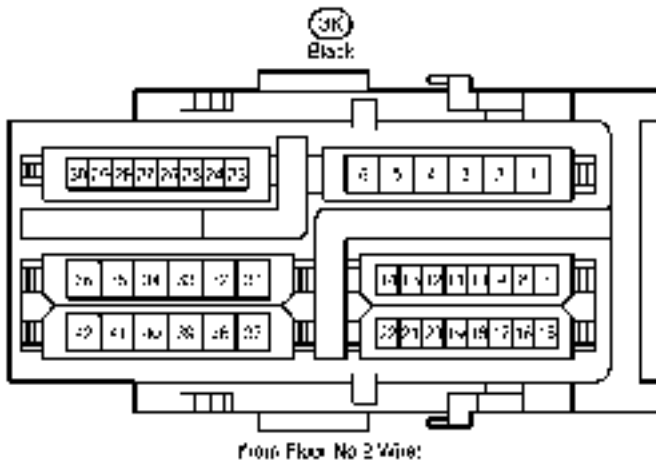




F RELAY LOCATIONS

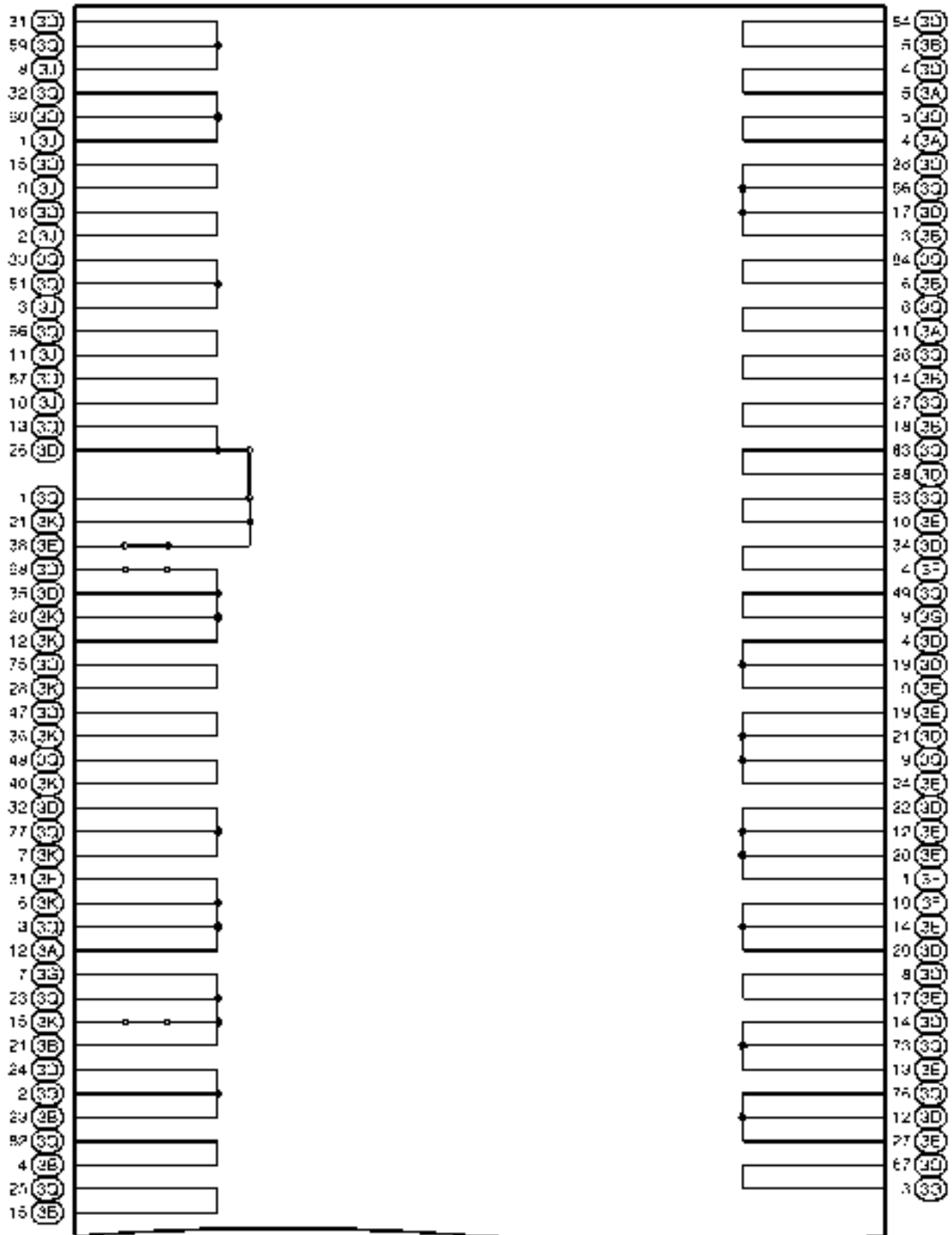
○ : Cowl Side J/B RH **Right Kick Panel (See Page 20)**
(Inner Circuit : See Page 46)





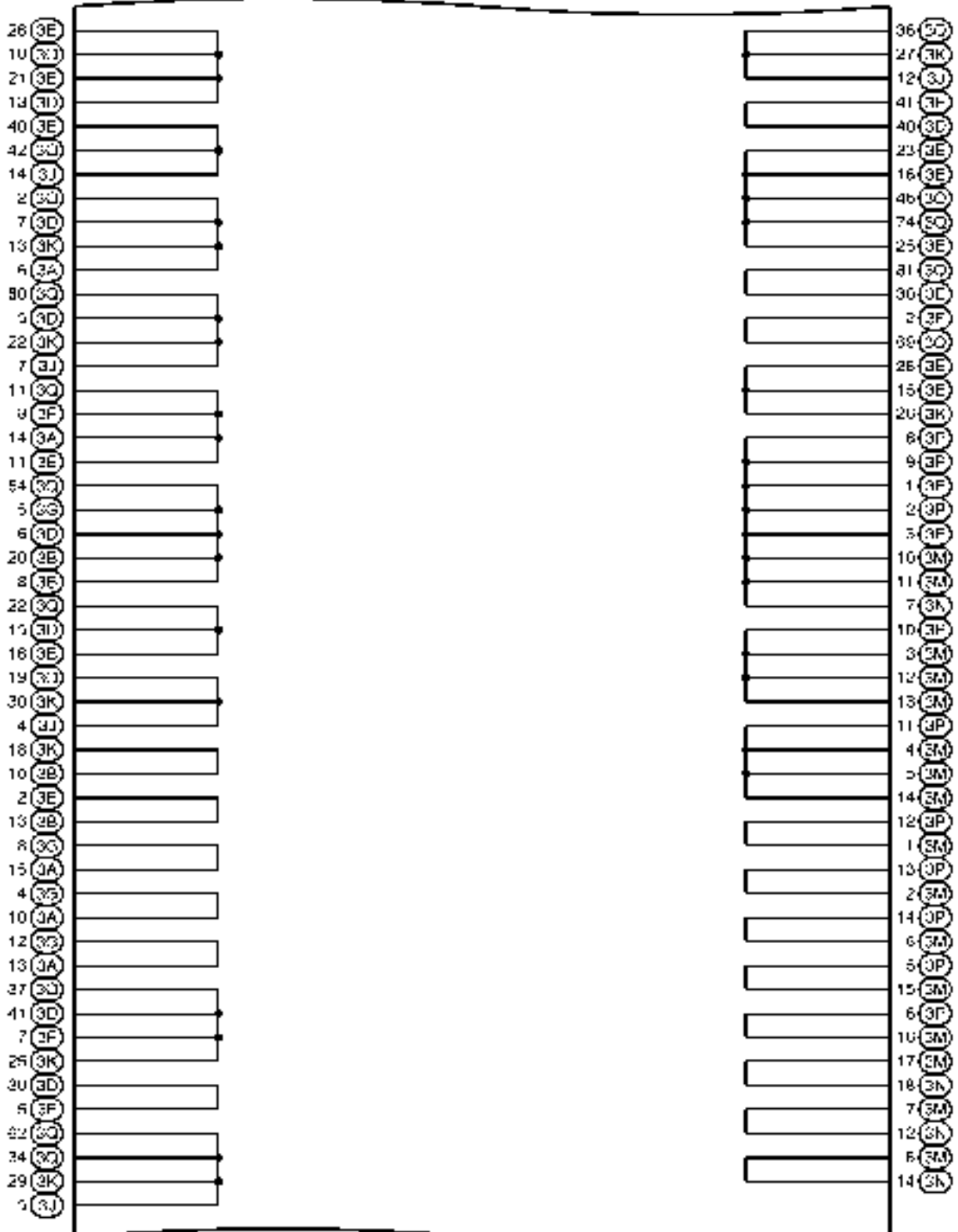
F RELAY LOCATIONS

[Cowl Side J/B RH Inner Circuit]



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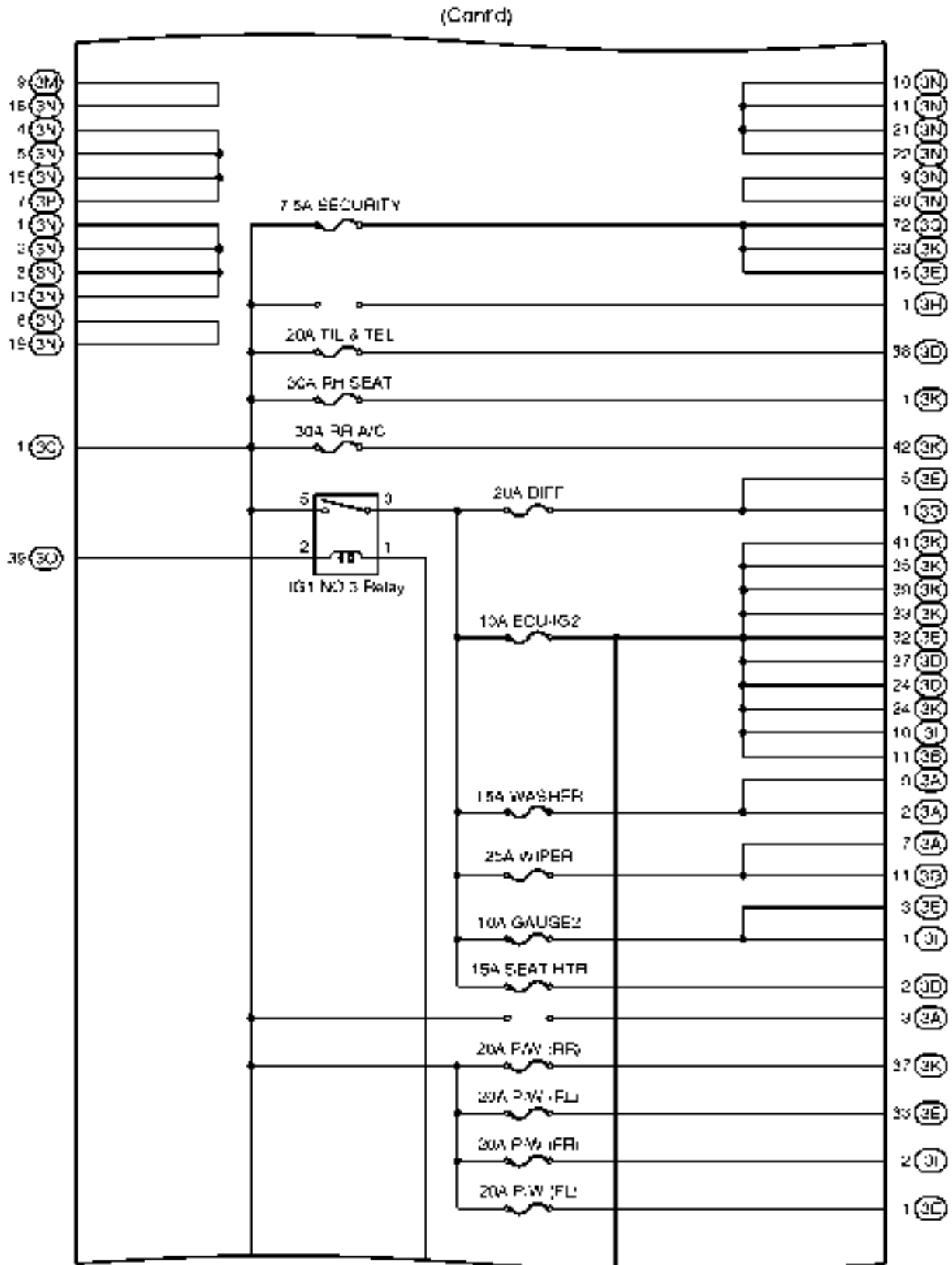
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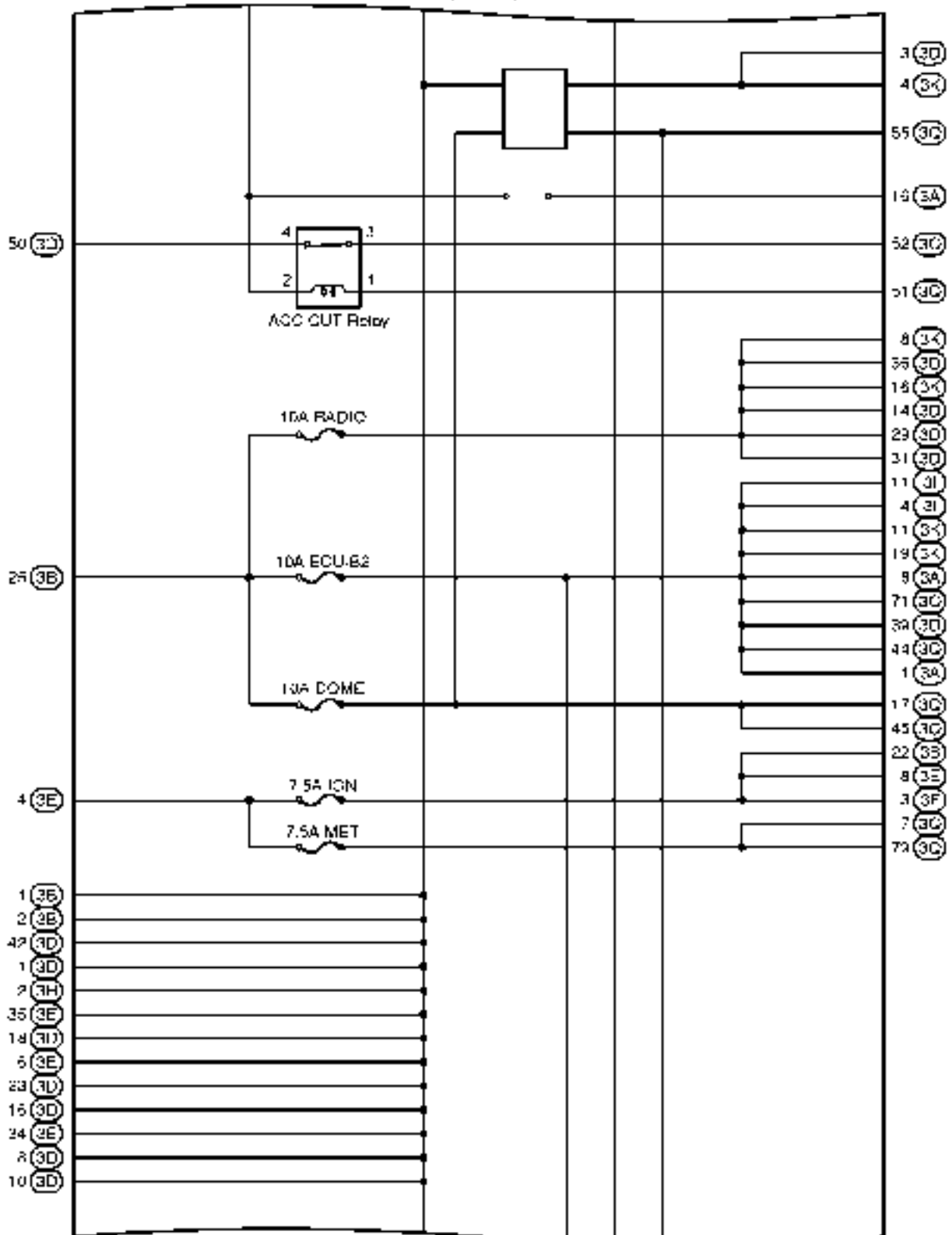
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F RELAY LOCATIONS

[Cowl Side J/B RH Inner Circuit]



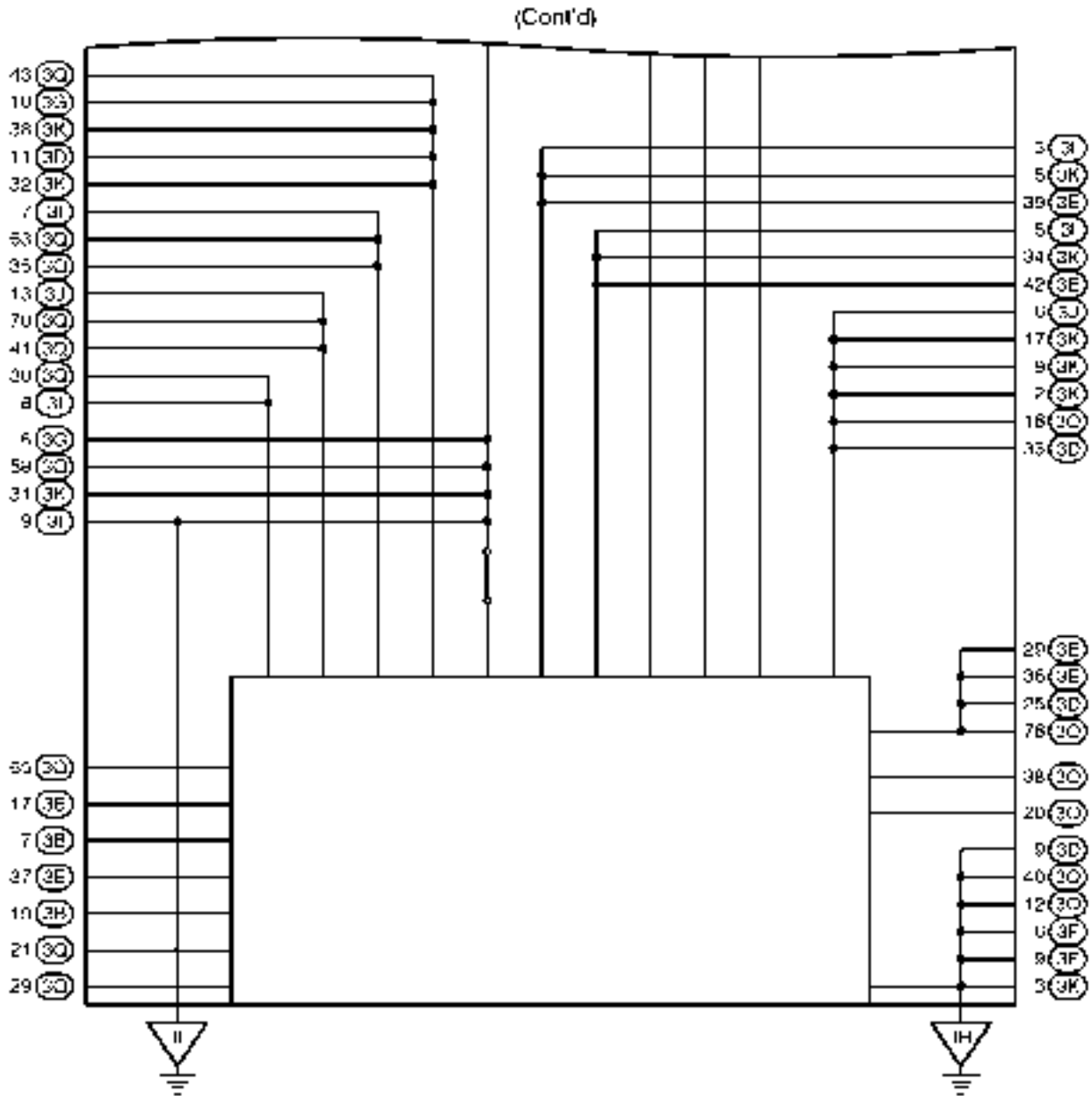
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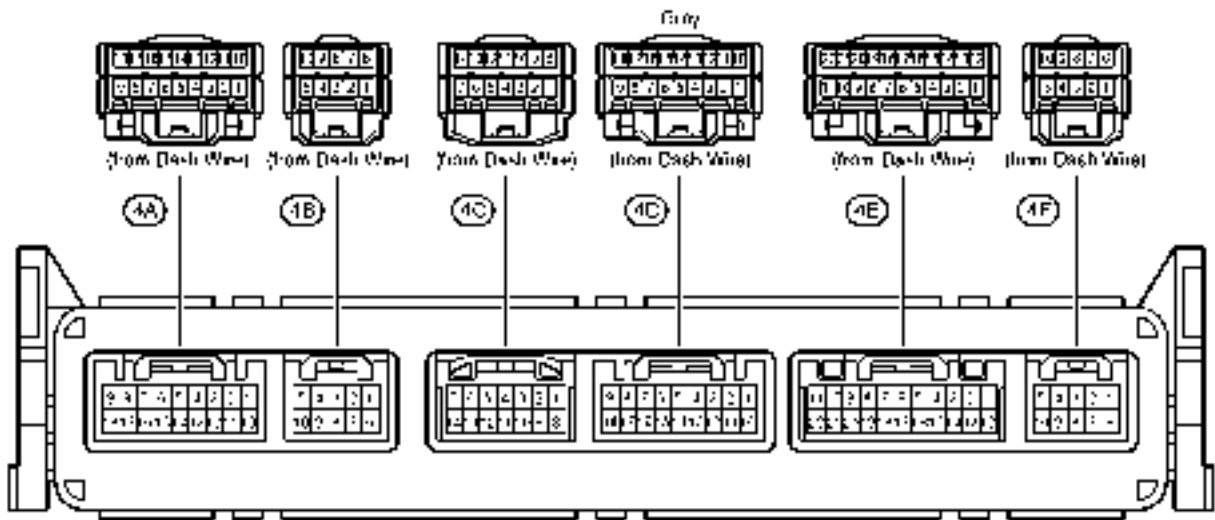
F RELAY LOCATIONS

[Cowl Side J/B RH Inner Circuit]



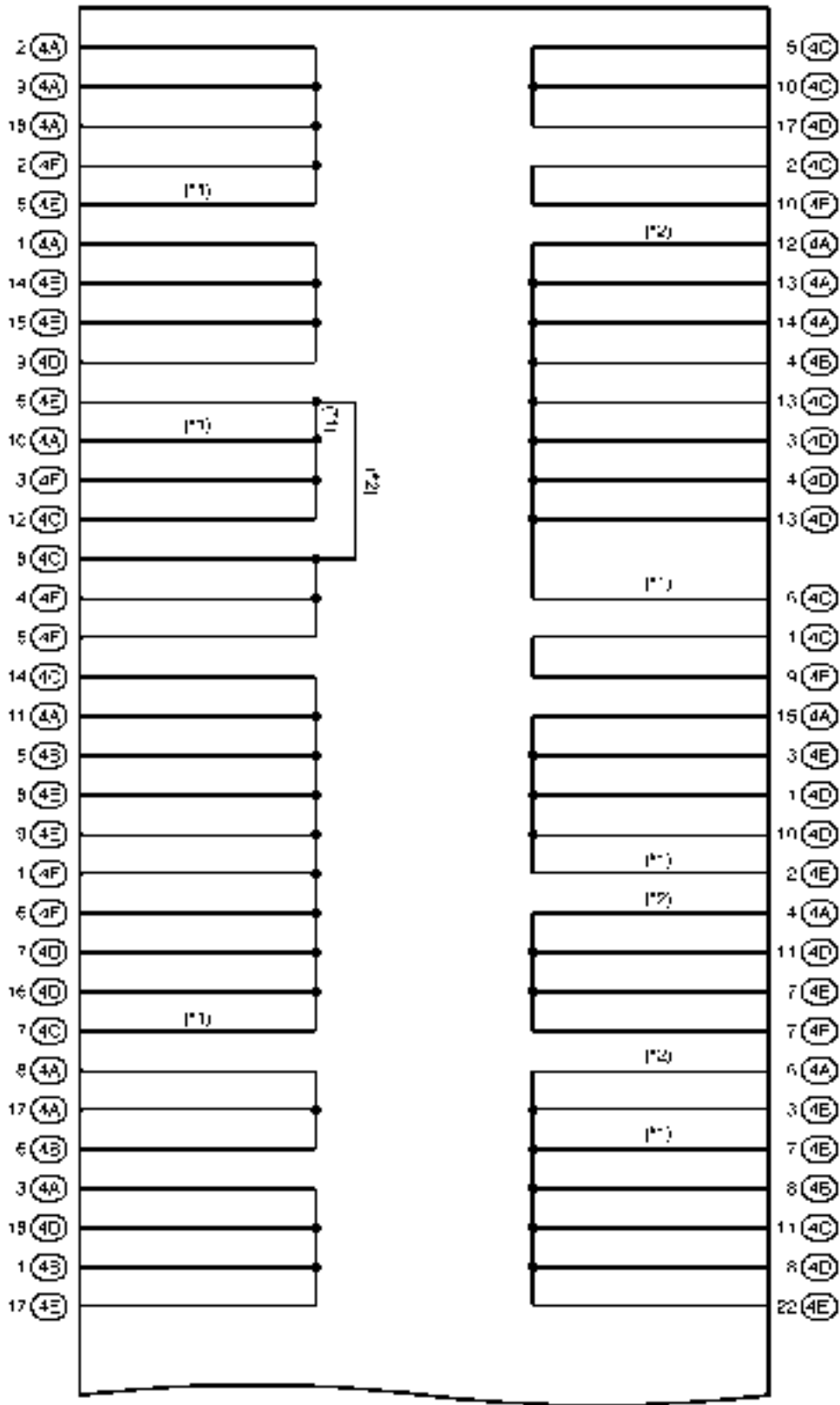
F RELAY LOCATIONS

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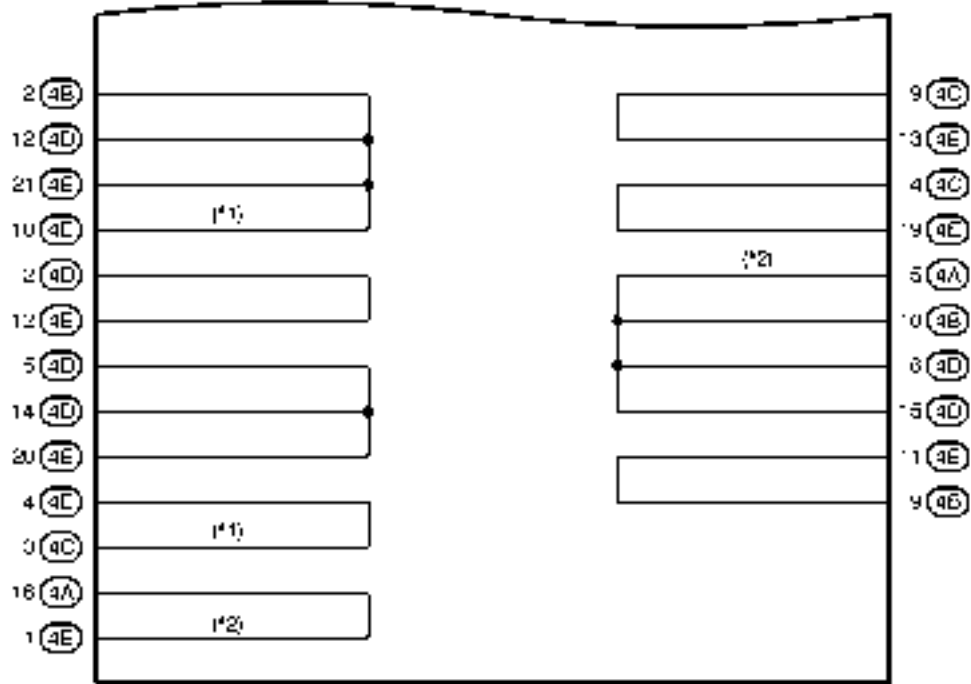
F RELAY LOCATIONS

[J/B No.4 Inner Circuit]



(Cont next page)

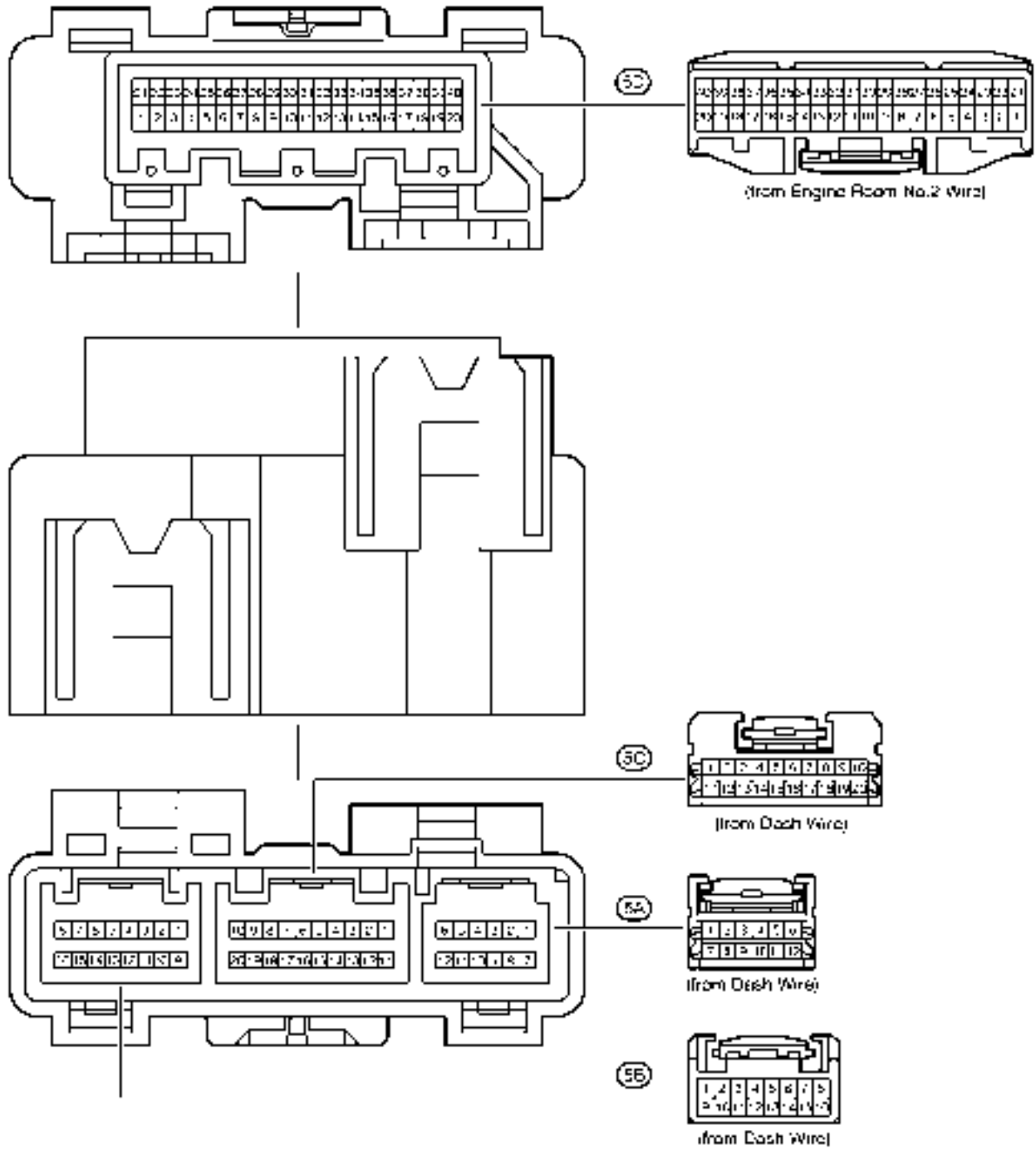
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* 1:w/ Navigation System
 * 2:w/o Navigation System

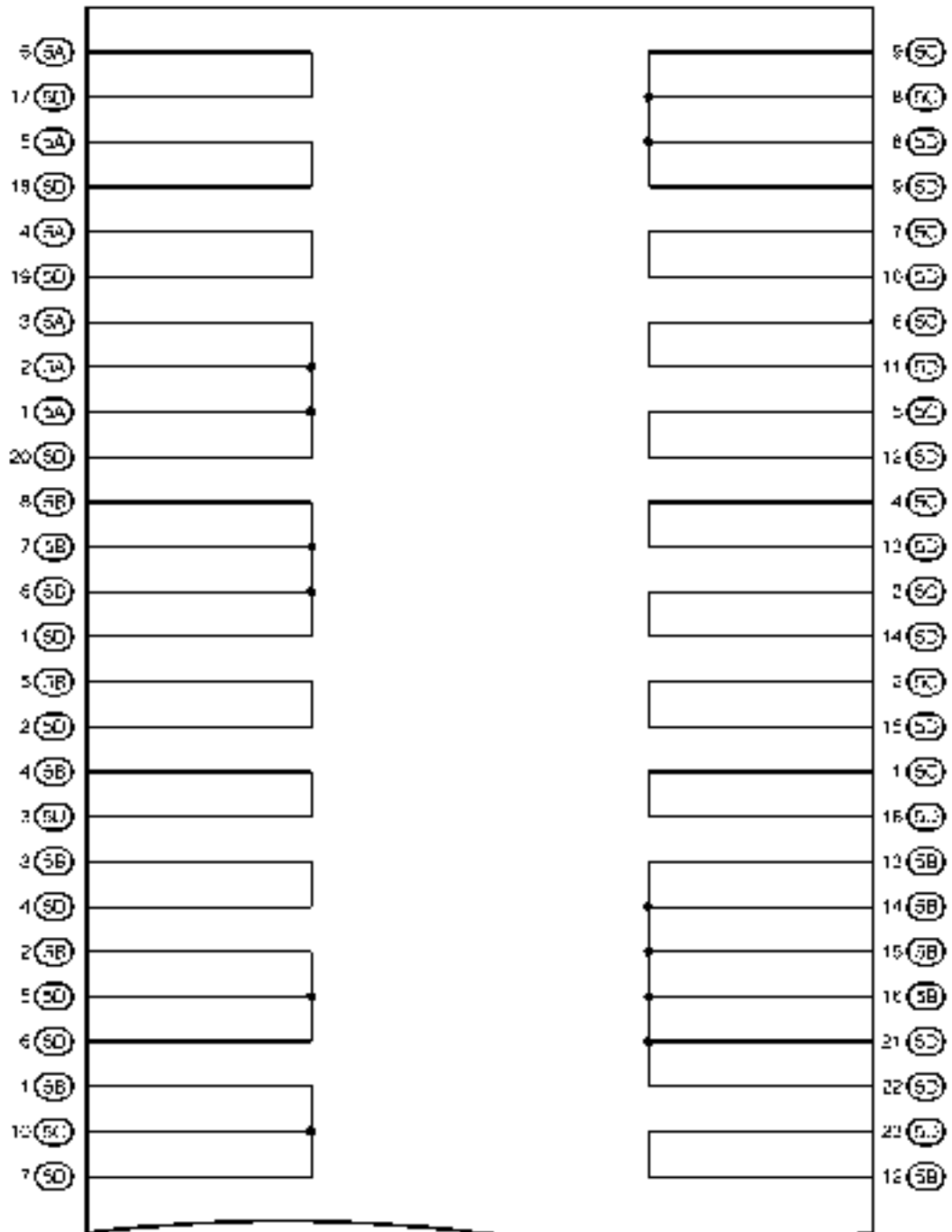
F RELAY LOCATIONS

○ : J/B No.5 Behind the Combination Meter (See Page 20)



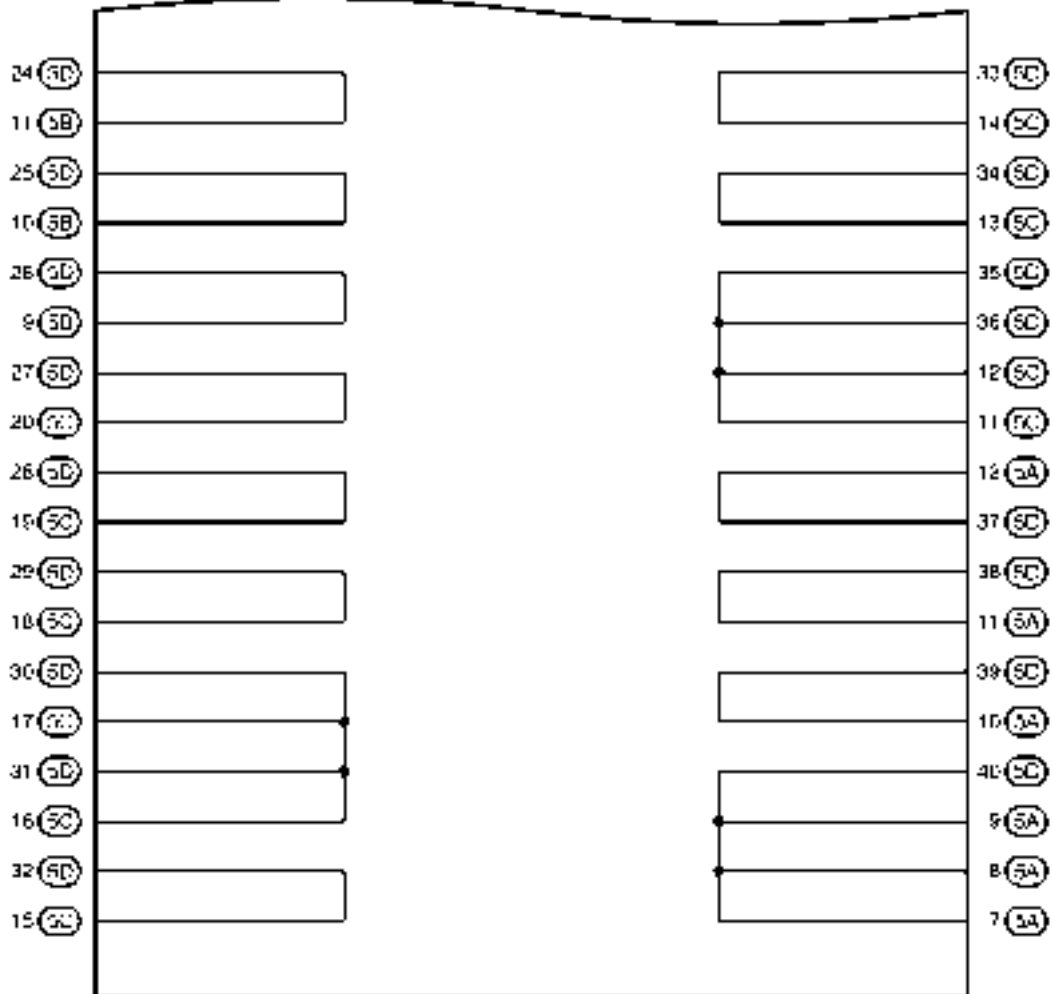
F RELAY LOCATIONS

[J/B No.5 Inner Circuit]



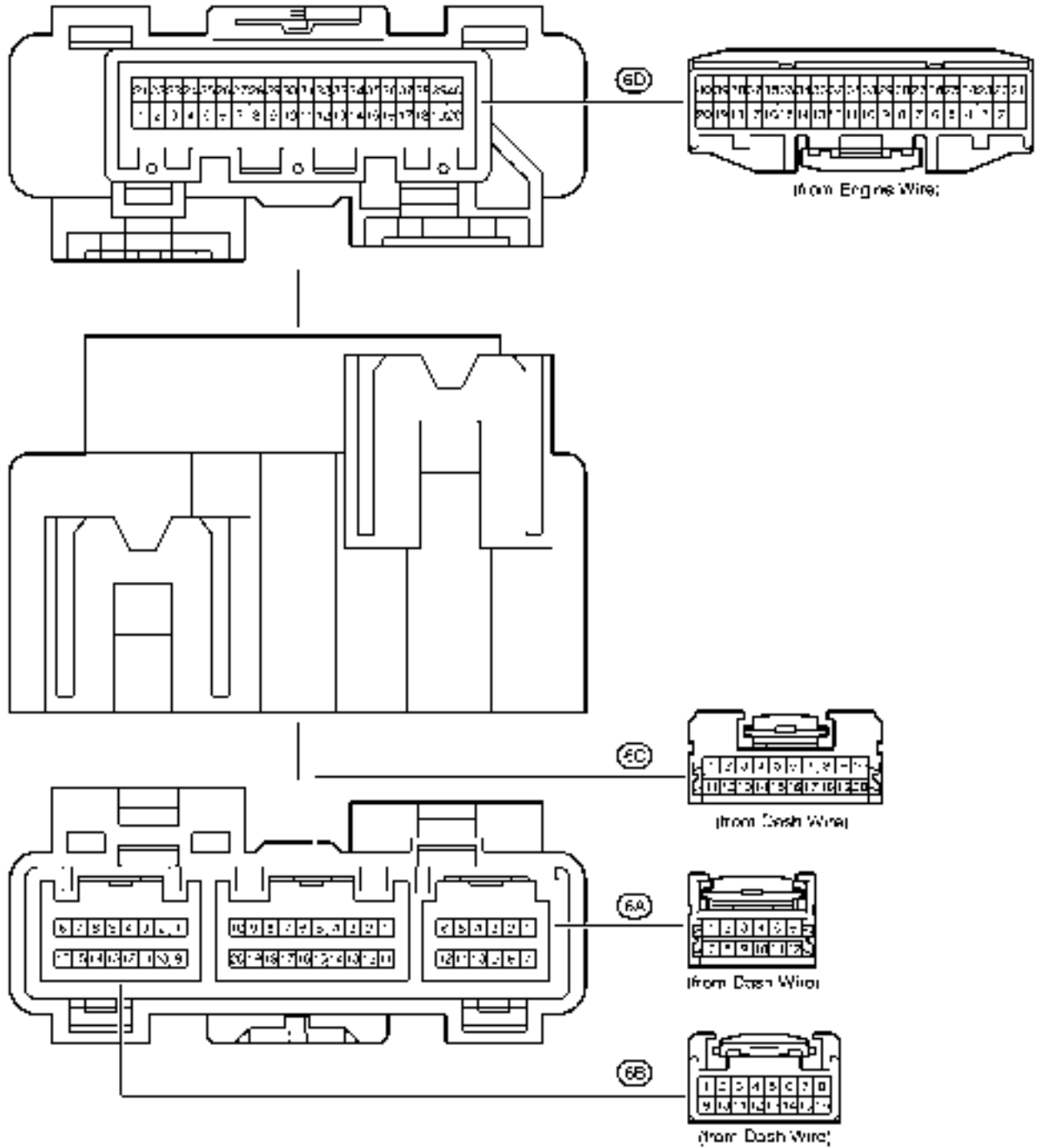
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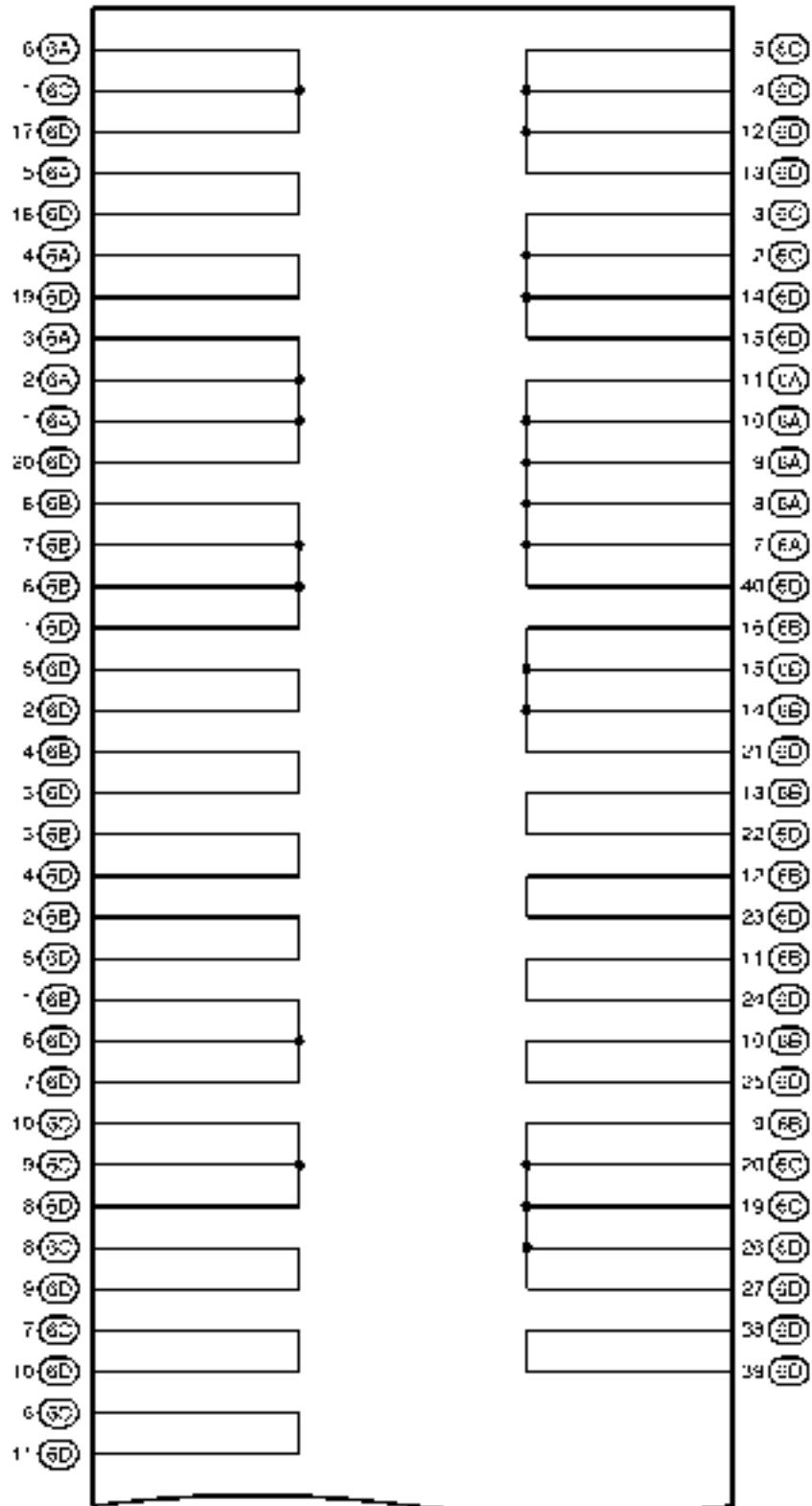
F RELAY LOCATIONS

○ : J/B No.6 Behind the Glove Box (See Page 20)



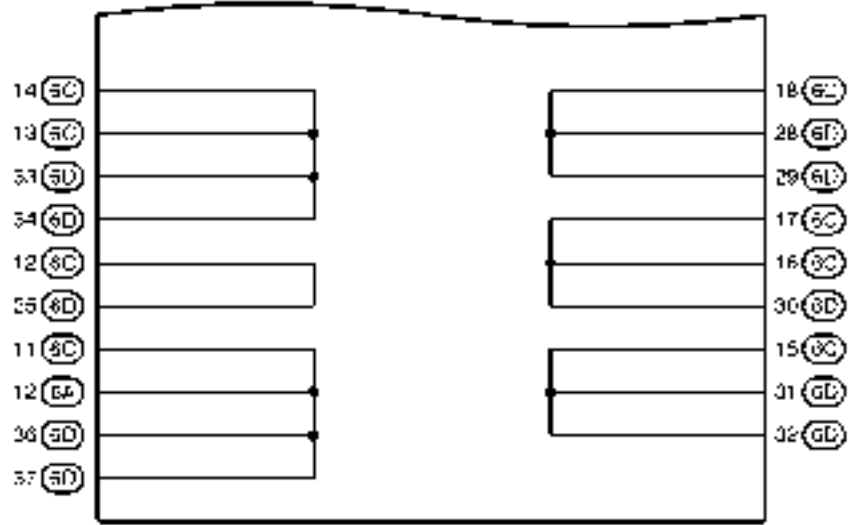
F RELAY LOCATIONS

[J/B No.6 Inner Circuit]



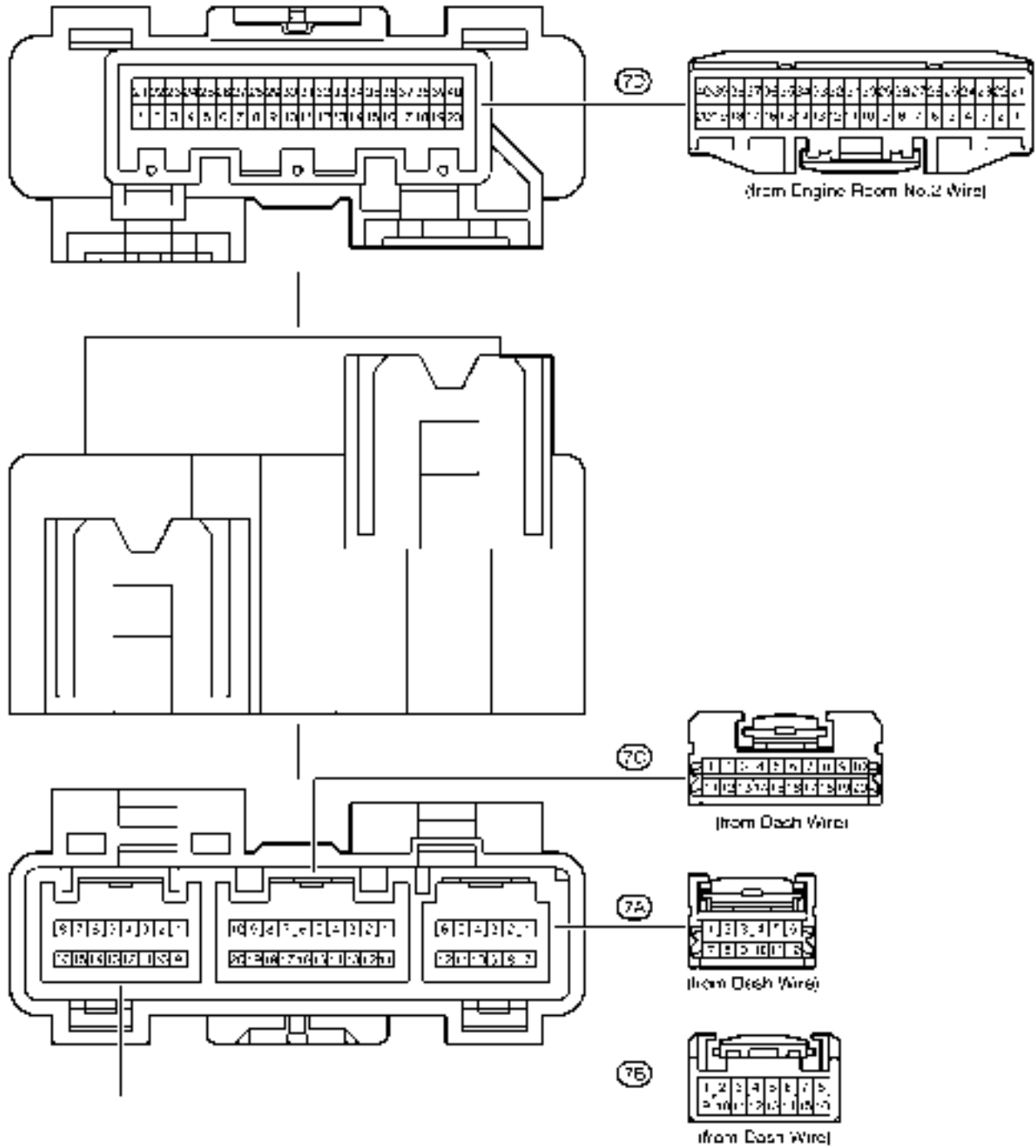
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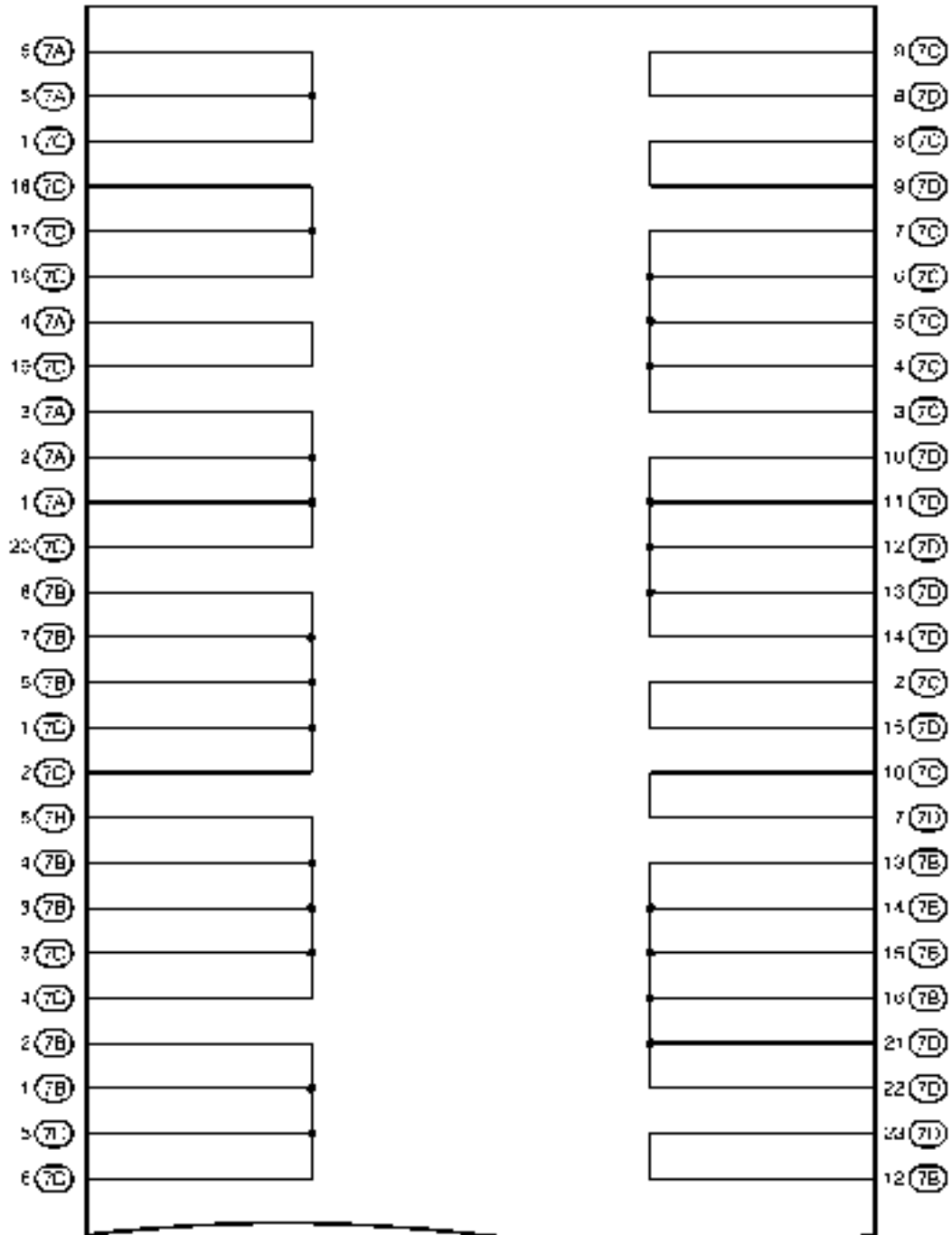
F RELAY LOCATIONS

○ : J/B No.7 Behind the Glove Box (See Page 20)



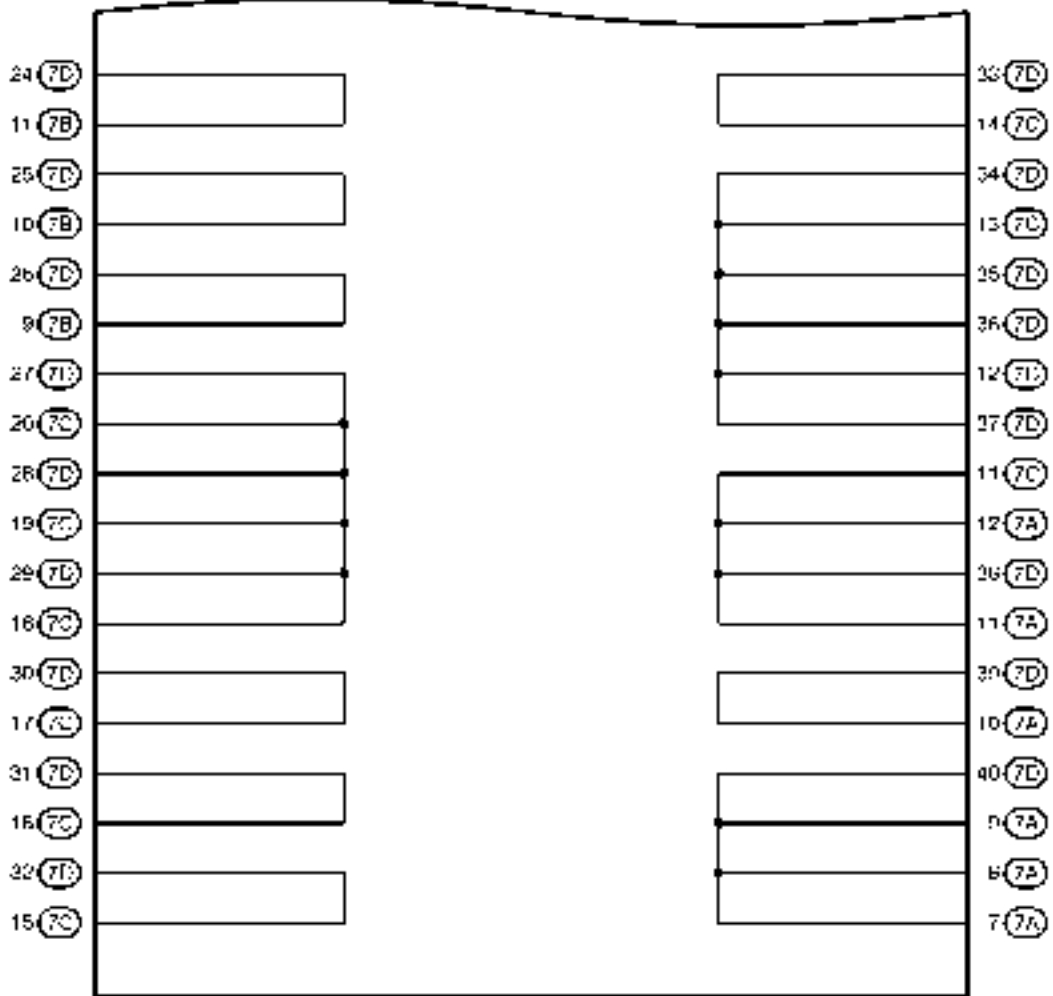
F RELAY LOCATIONS

[J/B No.7 Inner Circuit]

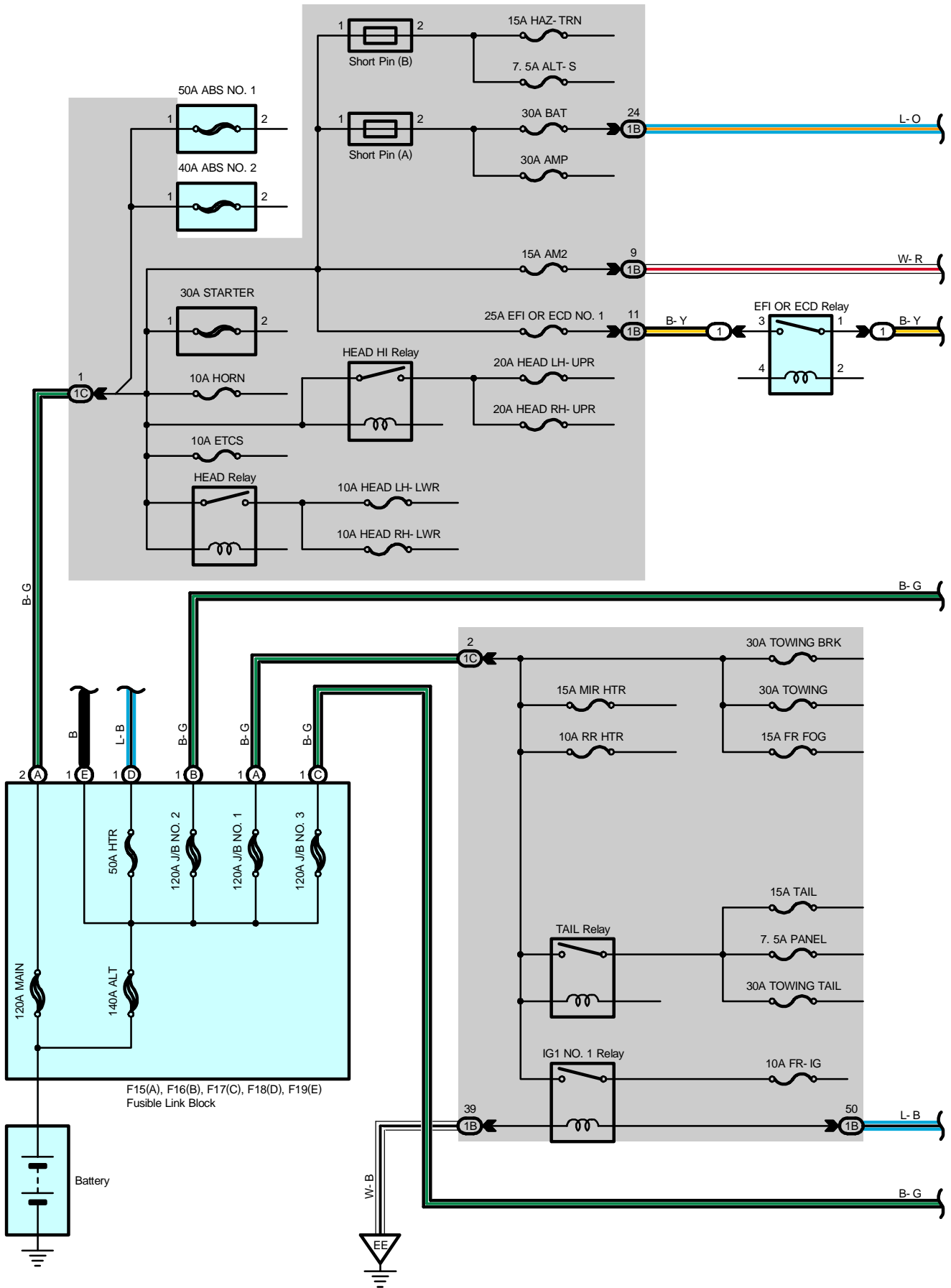


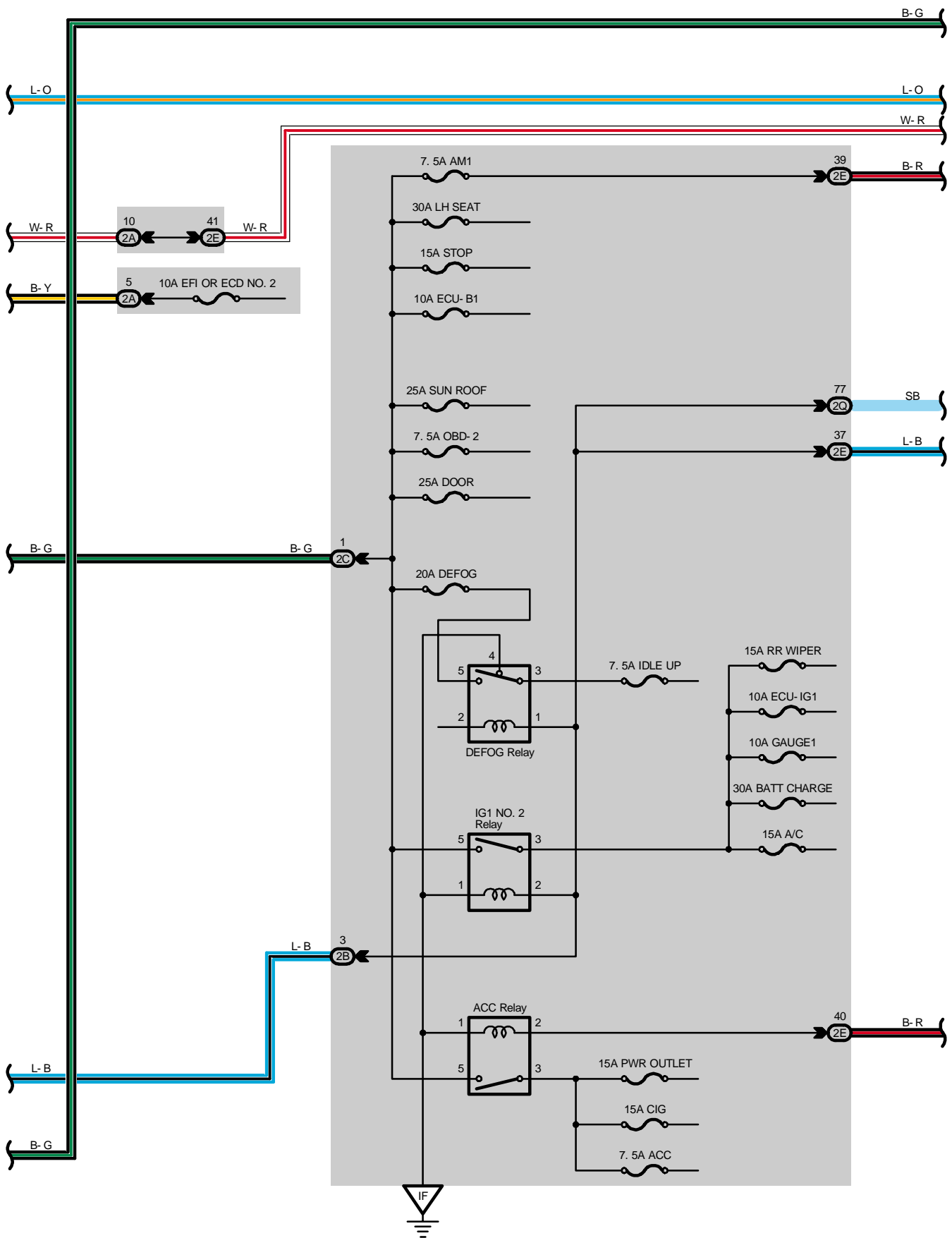
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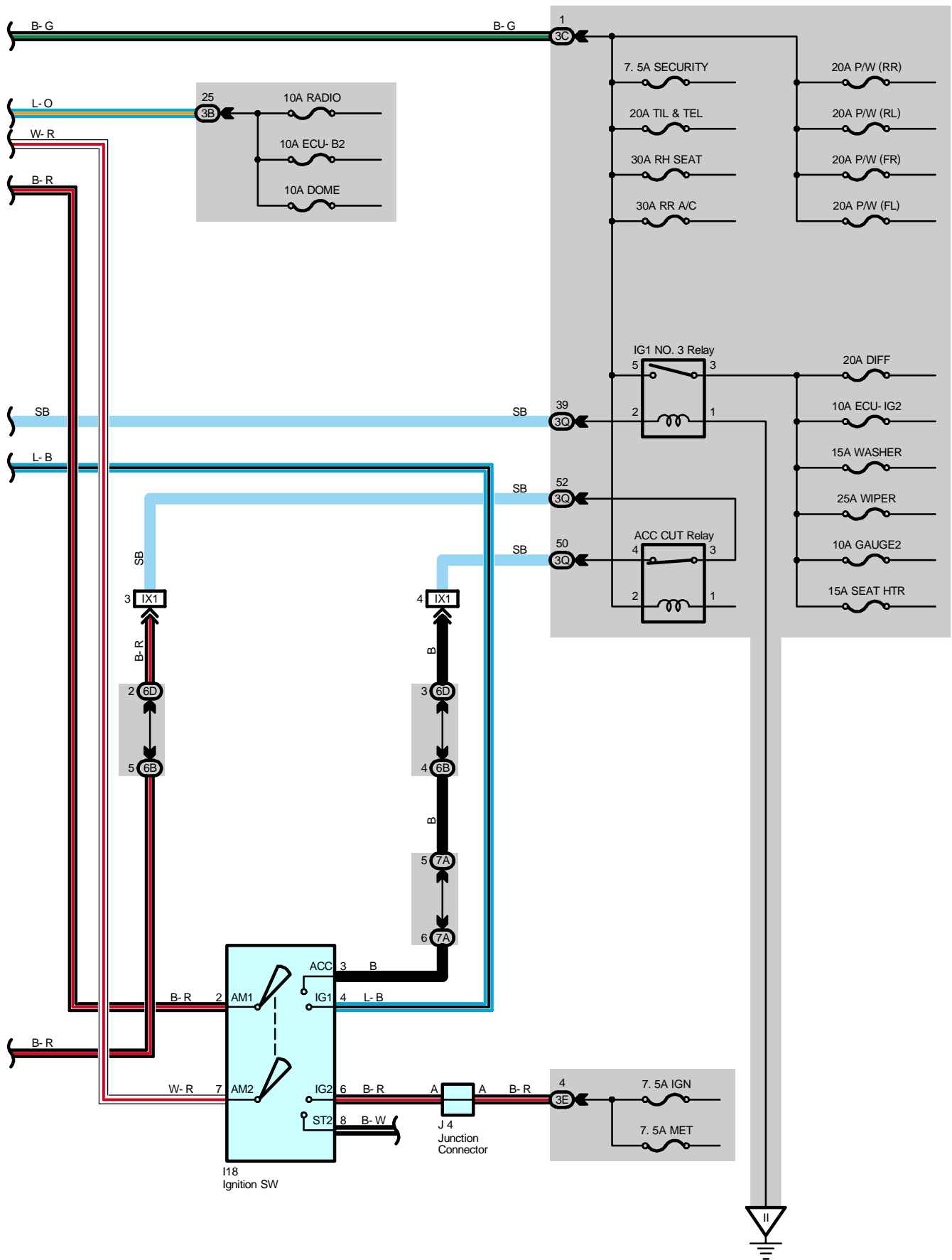


Power Source





Power Source



Service Hints**I18 Ignition SW**

2-3 : Closed with ignition SW at ACC or ON position

2-4 : Closed with ignition SW at ON or ST position

7-6 : Closed with ignition SW at ON or ST position

7-8 : Closed with ignition SW at ST position

 : **Parts Location**

Code		See Page	Code		See Page	Code		See Page
F15	A	68	F18	D	68	J4	71	
F16	B	68	F19	E	68			
F17	C	68	I18		70			

 : **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	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2C		
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3C		
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
6B	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)
7A	64	Dash Wire and J/B No.7 (Behind the Grove Box)

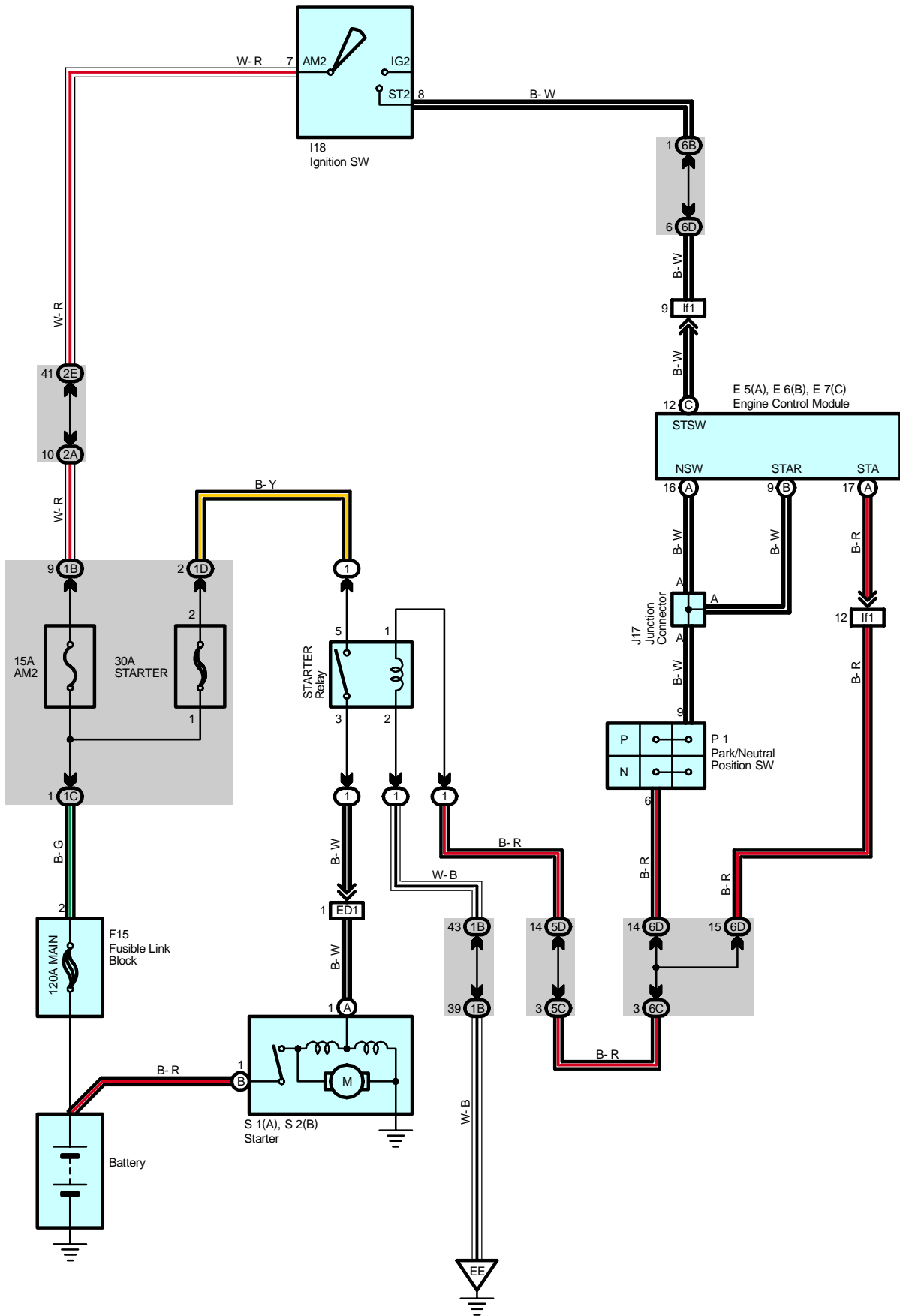
 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)

 : **Ground Points**

Code	See Page	Ground Points Location
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH

Starting



Service Hints

I18 Ignition SW

7-8 : Closed with ignition SW at ST position

P1 Park/Neutral Position SW

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

S1 (A), S2 (B) Starter

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

: Parts Location

Code		See Page	Code		See Page	Code		See Page
E5	A	70	F15	68	P1		69	
E6	B	70	I18	70	S1	A	69	
E7	C	70	J17	71	S2	B	69	

: 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	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
1D		
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
5C	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
6B	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6C		
6D		

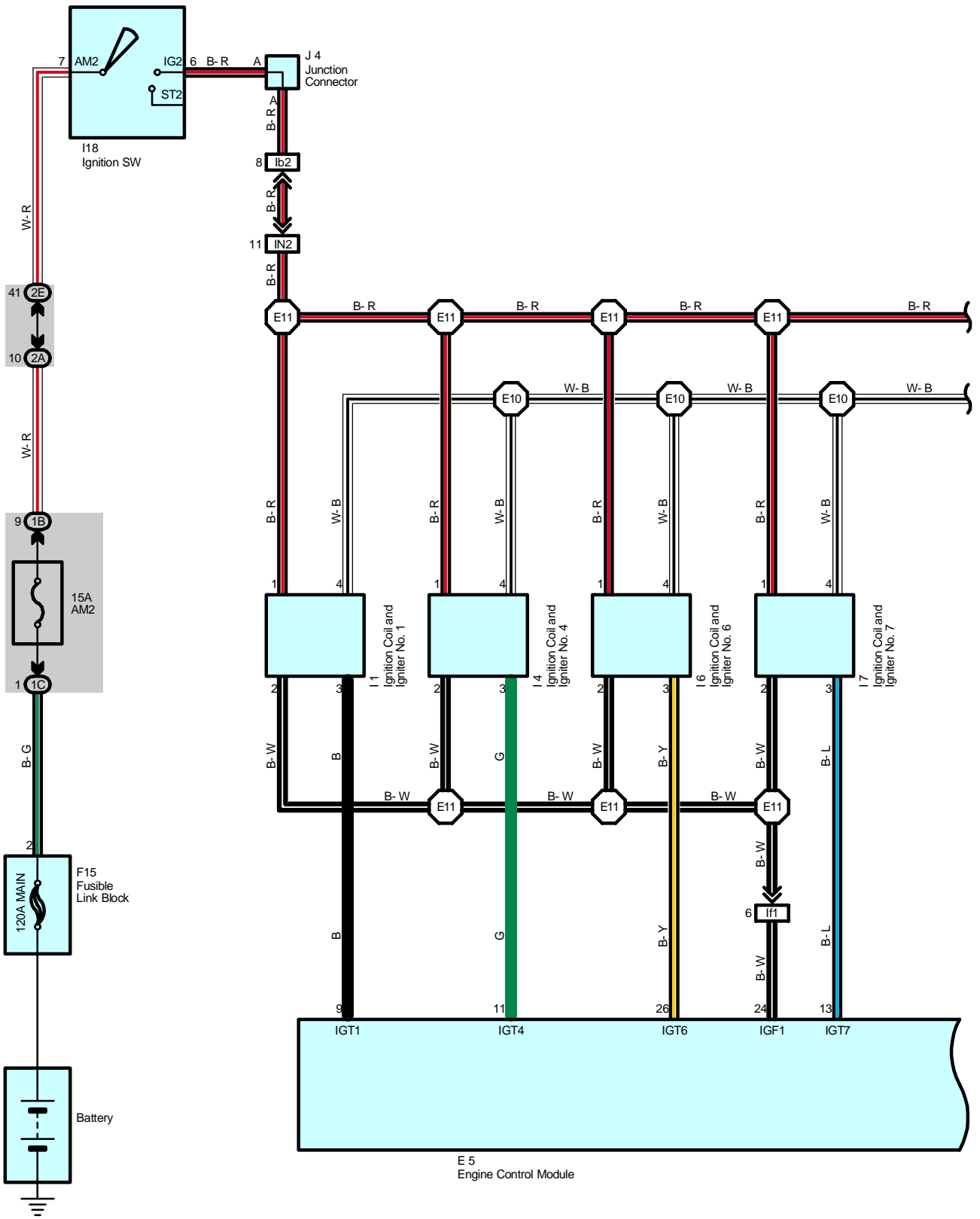
: Connector Joining Wire Harness and Wire Harness

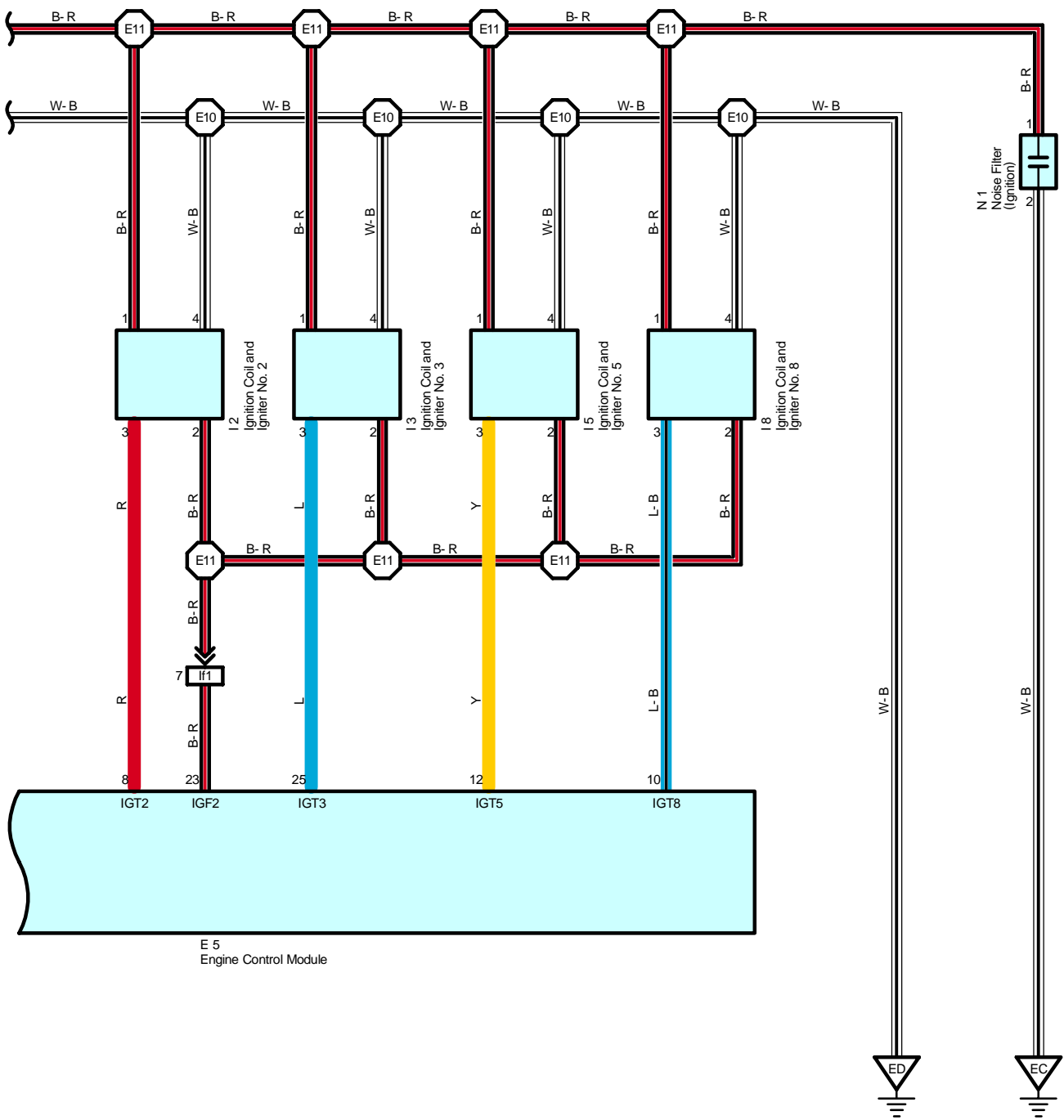
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ED1	76	Engine No.2 Wire and Engine Room No.2 Wire (Near the Engine Room J/B)
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)

: Ground Points

Code	See Page	Ground Points Location
EE	76	Front Left Side of Fender Apron

Ignition





Ignition

Service Hints

I18 Ignition SW

7-6 : Closed with ignition SW at ON or ST position

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
E5	70	I4	69	I18	70
F15	68	I5	69	J4	71
I1	69	I6	69	N1	69
I2	69	I7	69		
I3	69	I8	69		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)

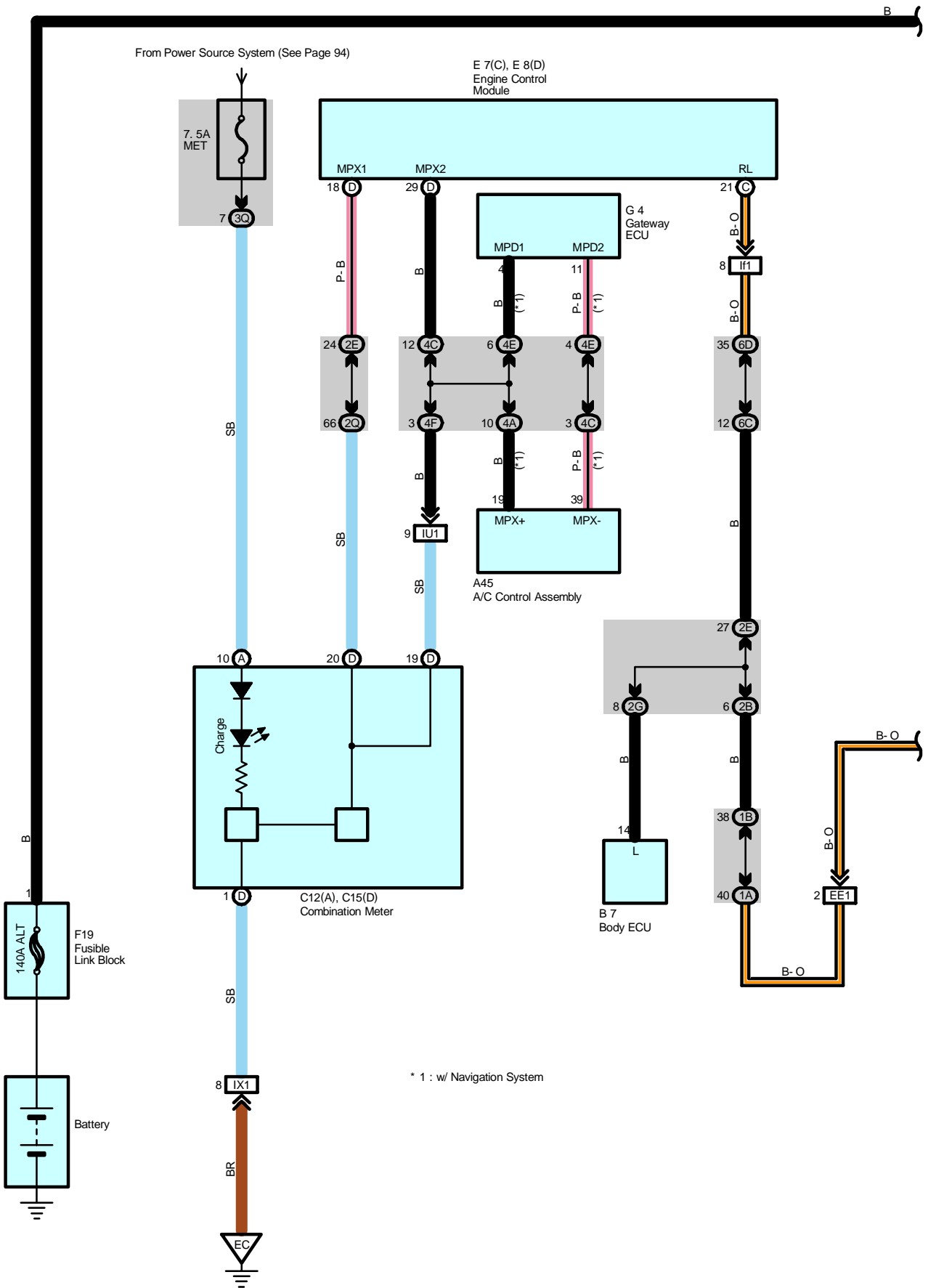
▽ : Ground Points

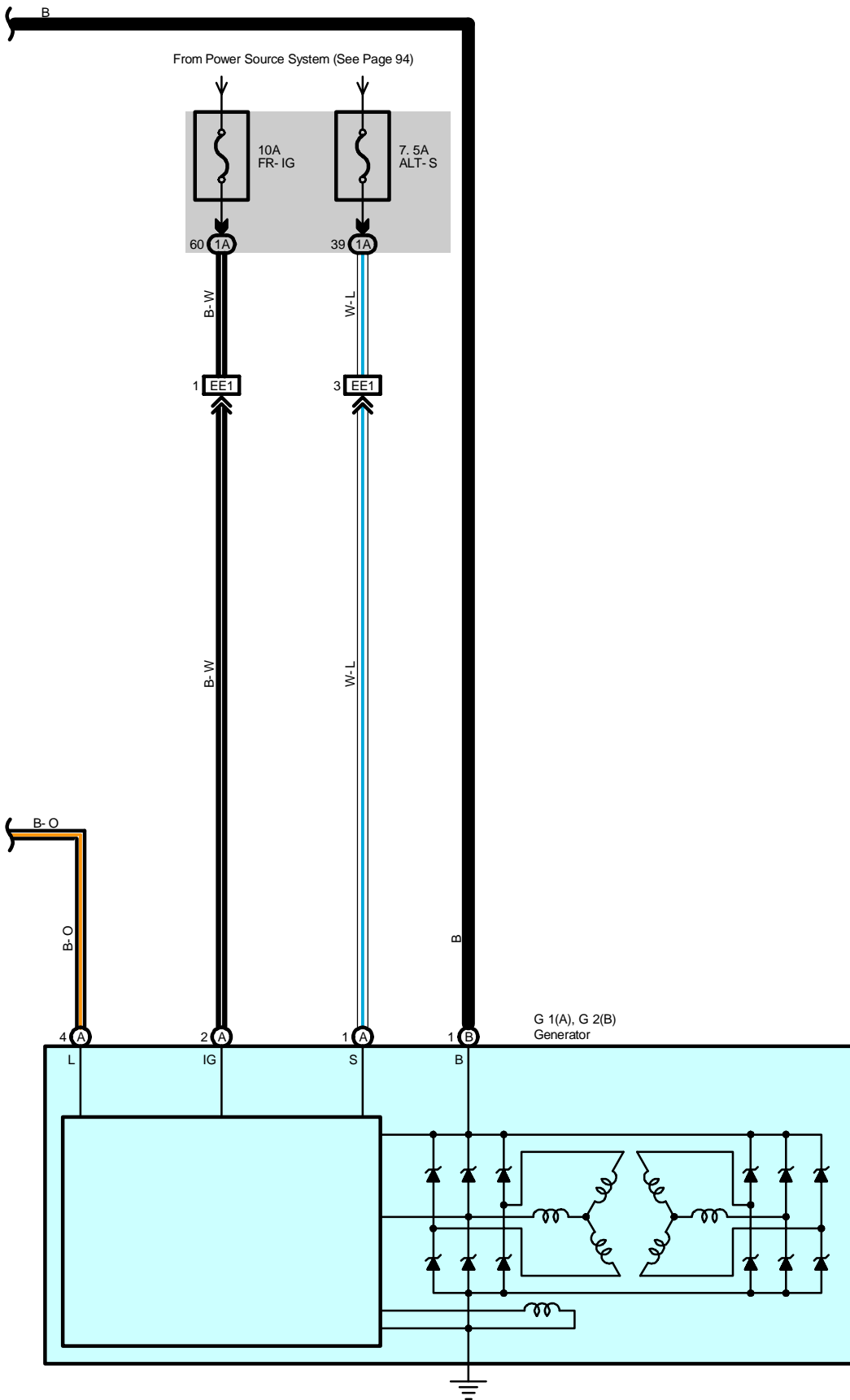
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
ED	76	Rear Bank of Left Cylinder Head

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E10	76	Engine Wire	E11	76	Engine Wire

Charging





Charging

Service Hints

G2 Generator

1-Ground : 13.2-14.0 volts with engine running at 5000 rpm and 115°C (239°F)

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page		
A45	70	E7	C	70	G2	B	68
B7	70	E8	D	70	G4		70
C12	A		F19	68			
C15	D	G1	A	68			

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4E		
4F		
6C	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)

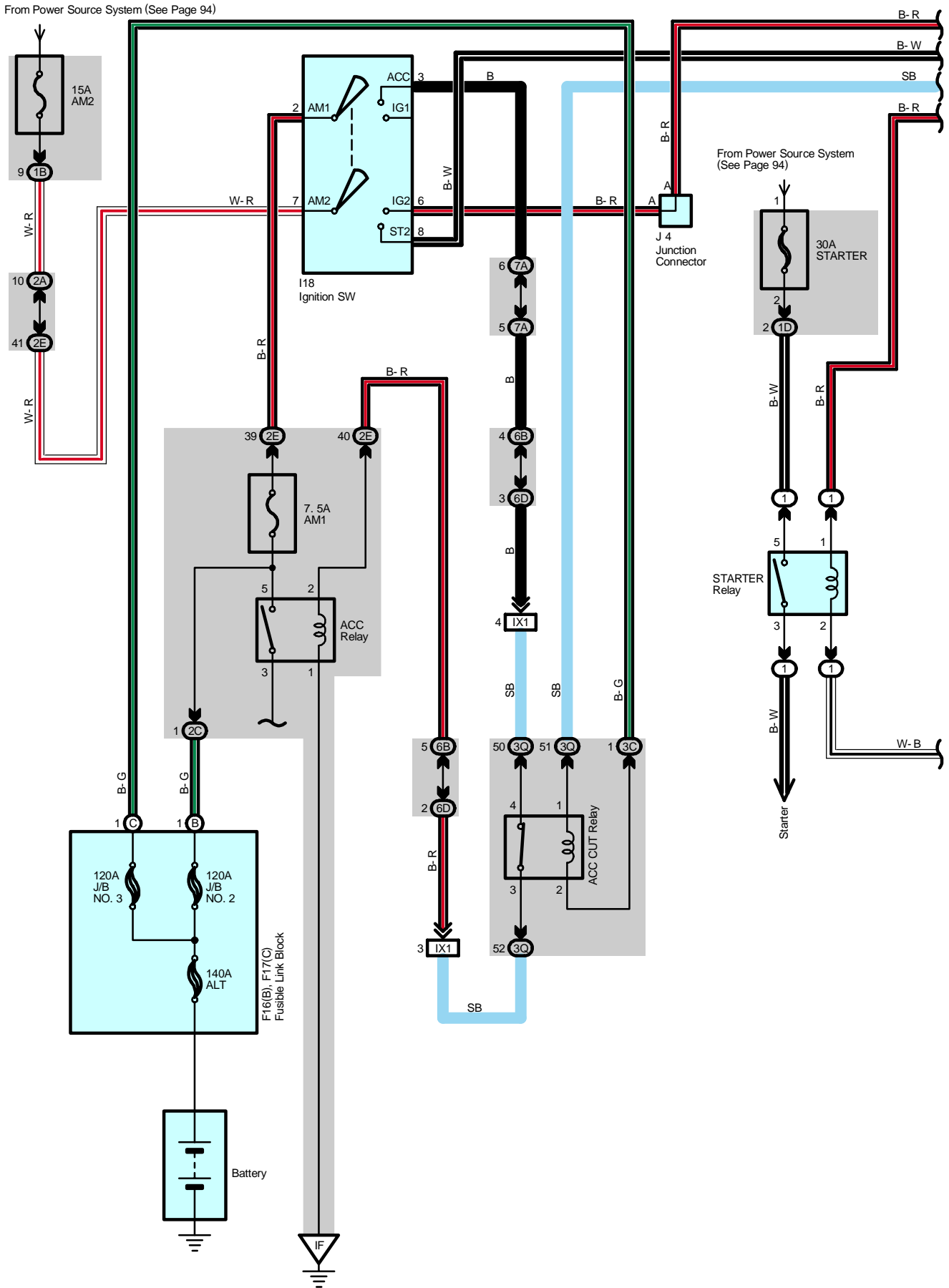
□ : Connector Joining Wire Harness and Wire Harness

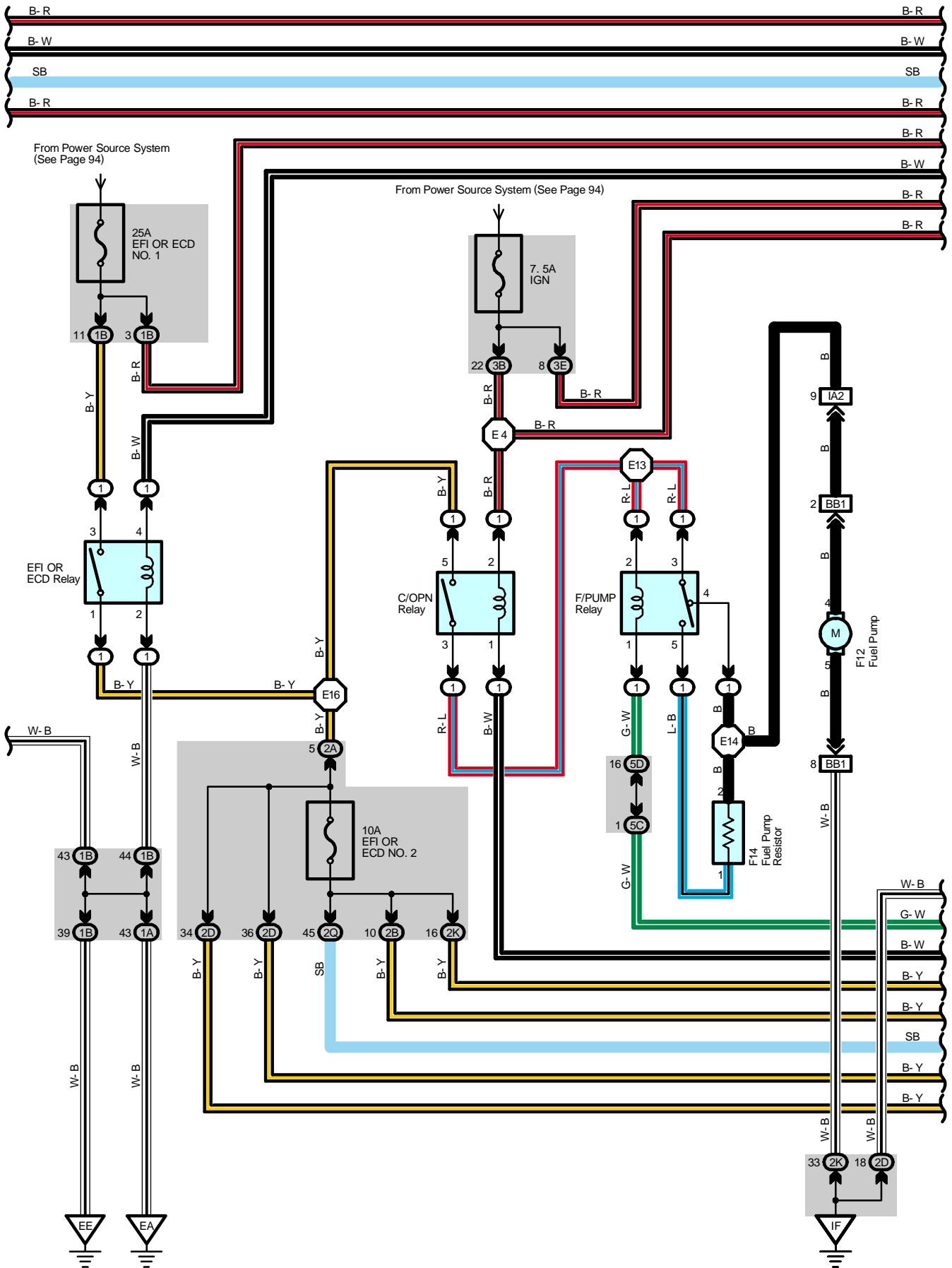
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	76	Engine Room Main Wire and Alternator Wire (Near the Battery)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)

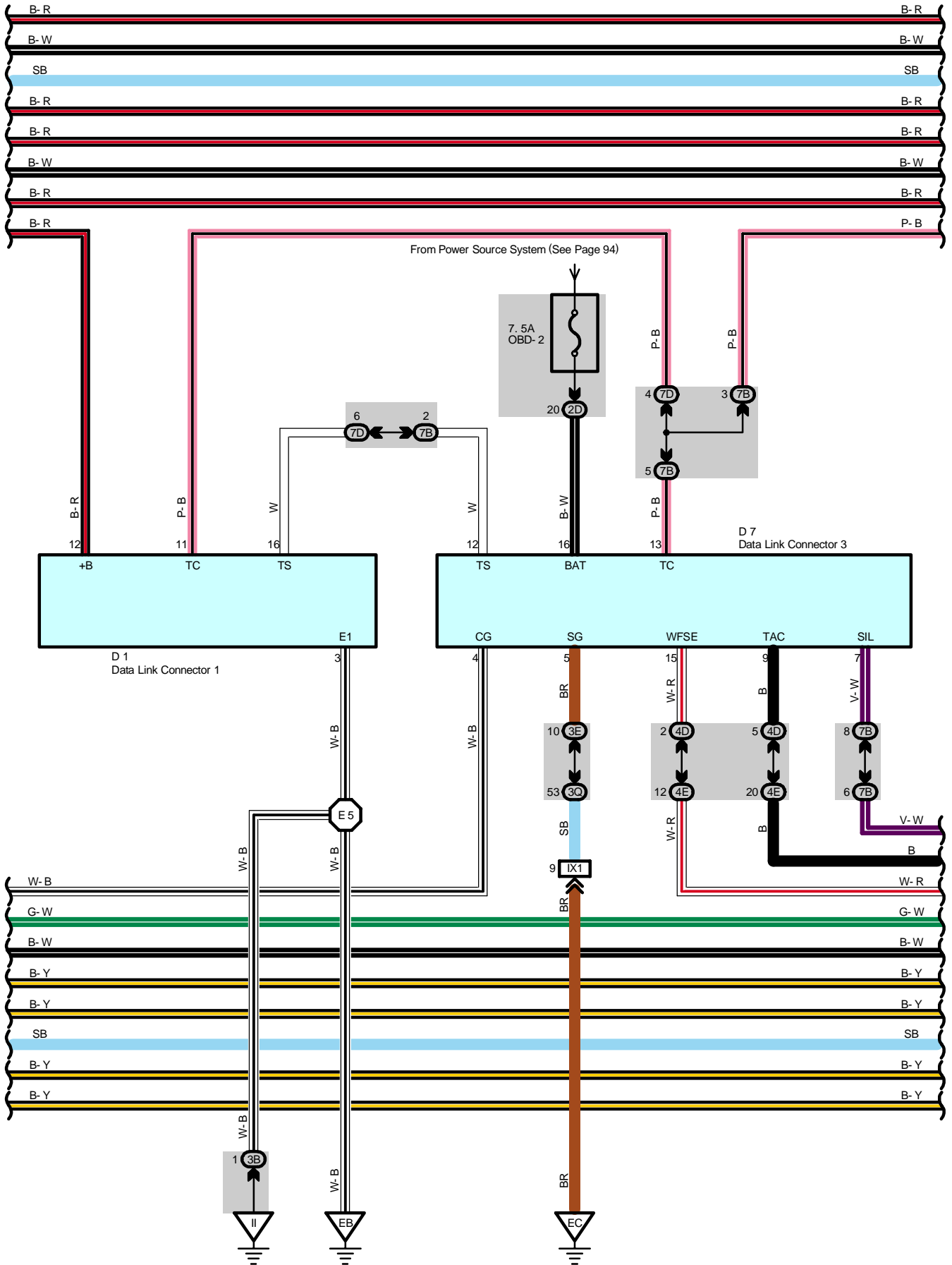
▽ : Ground Points

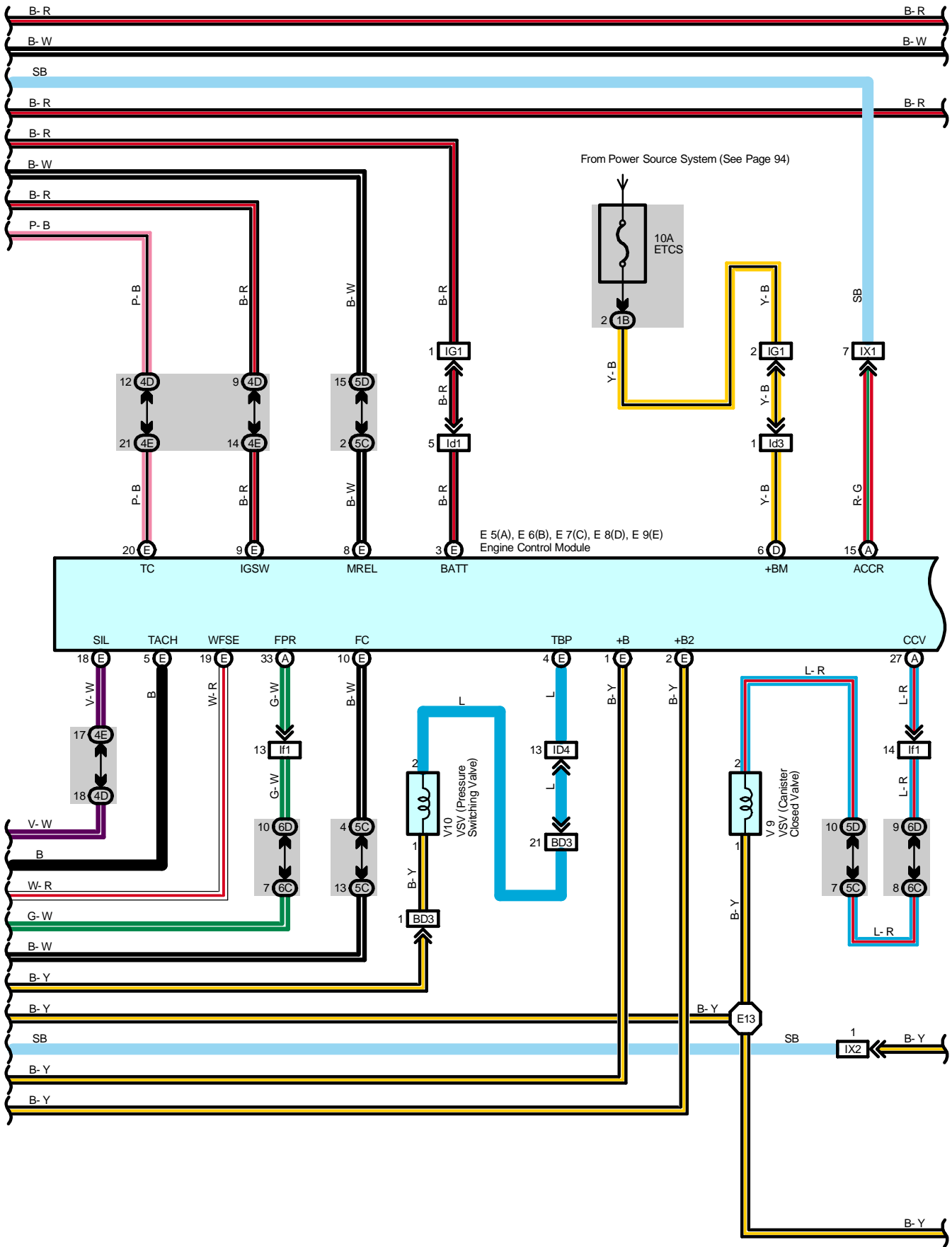
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head

Engine Control

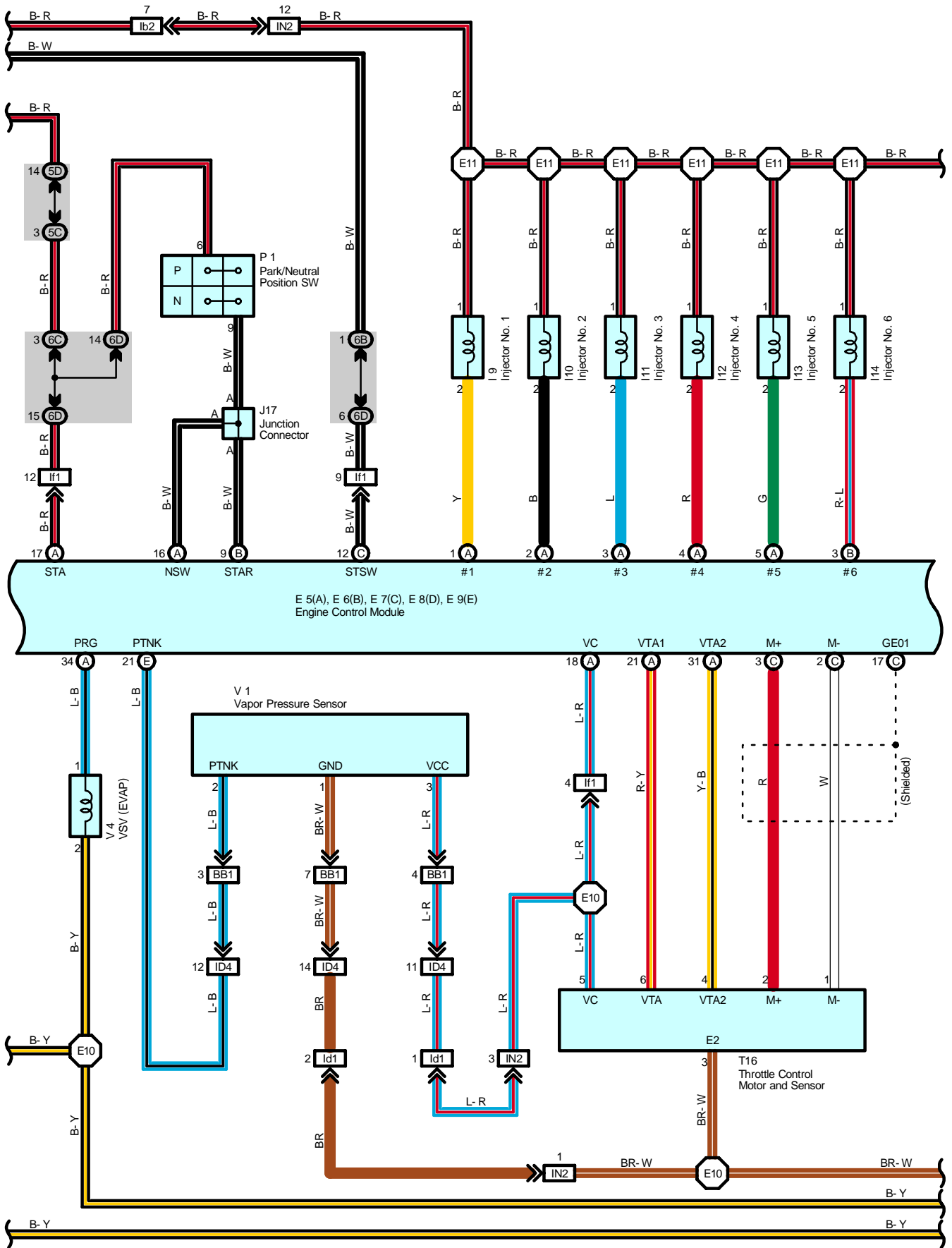


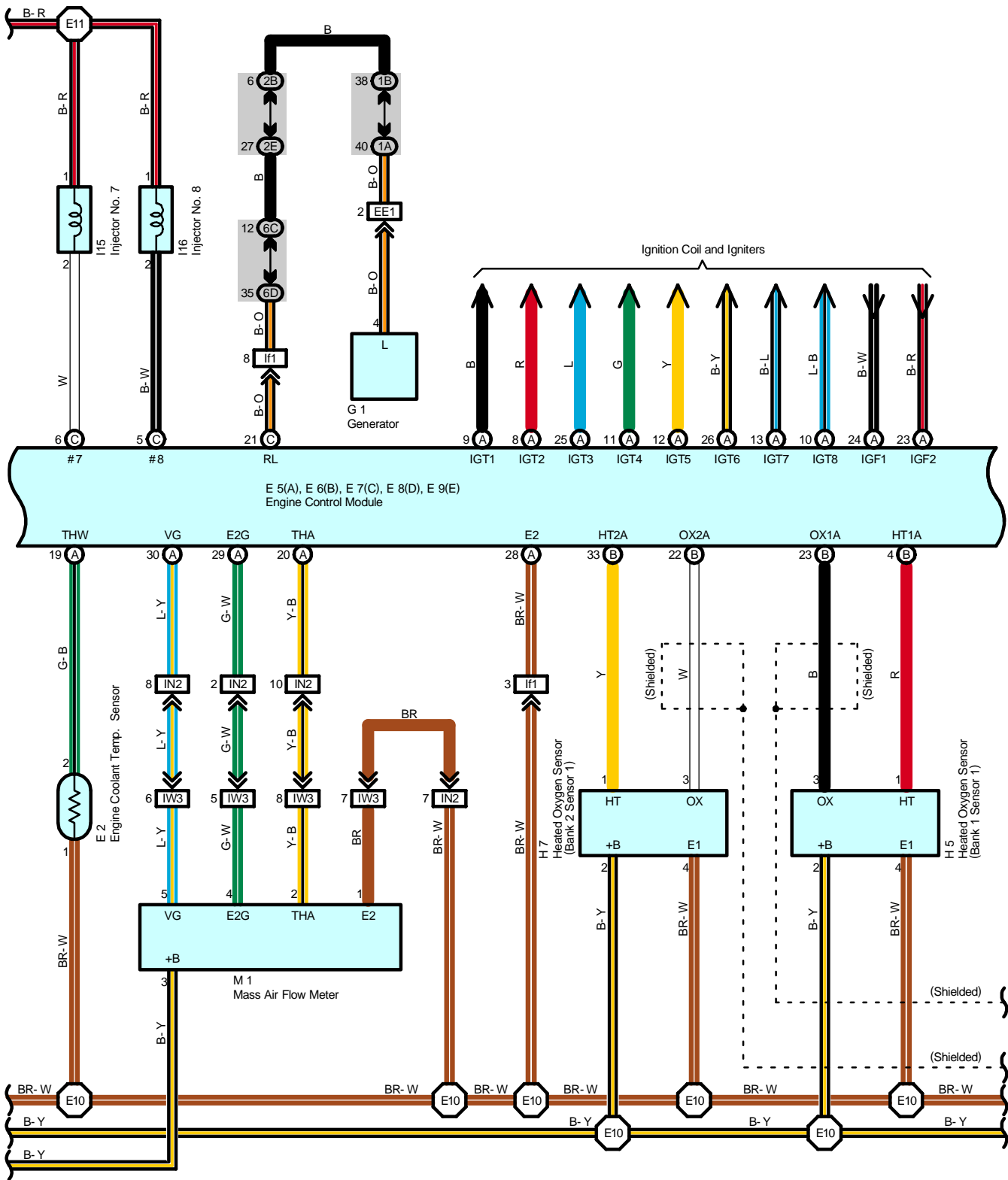




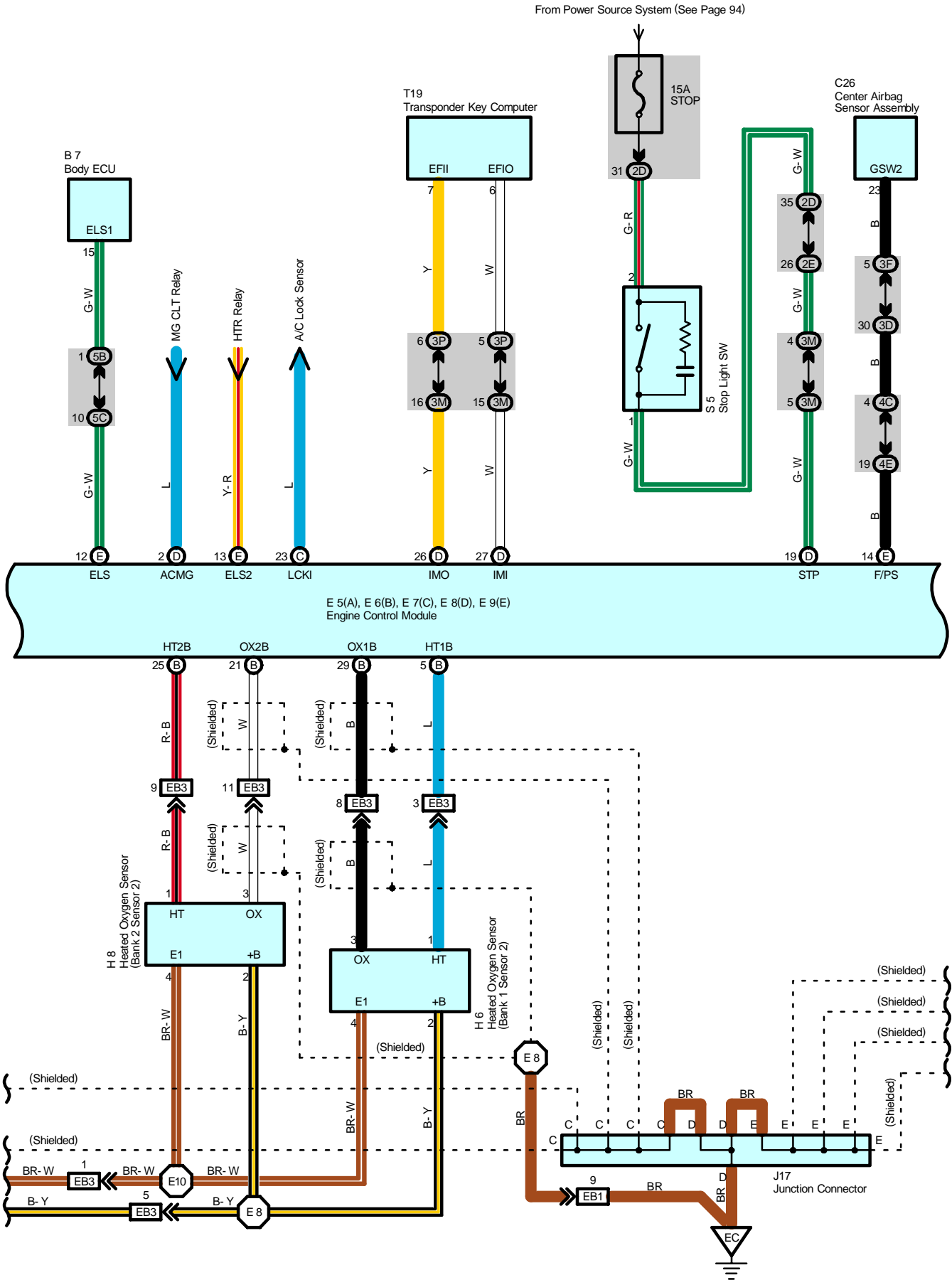


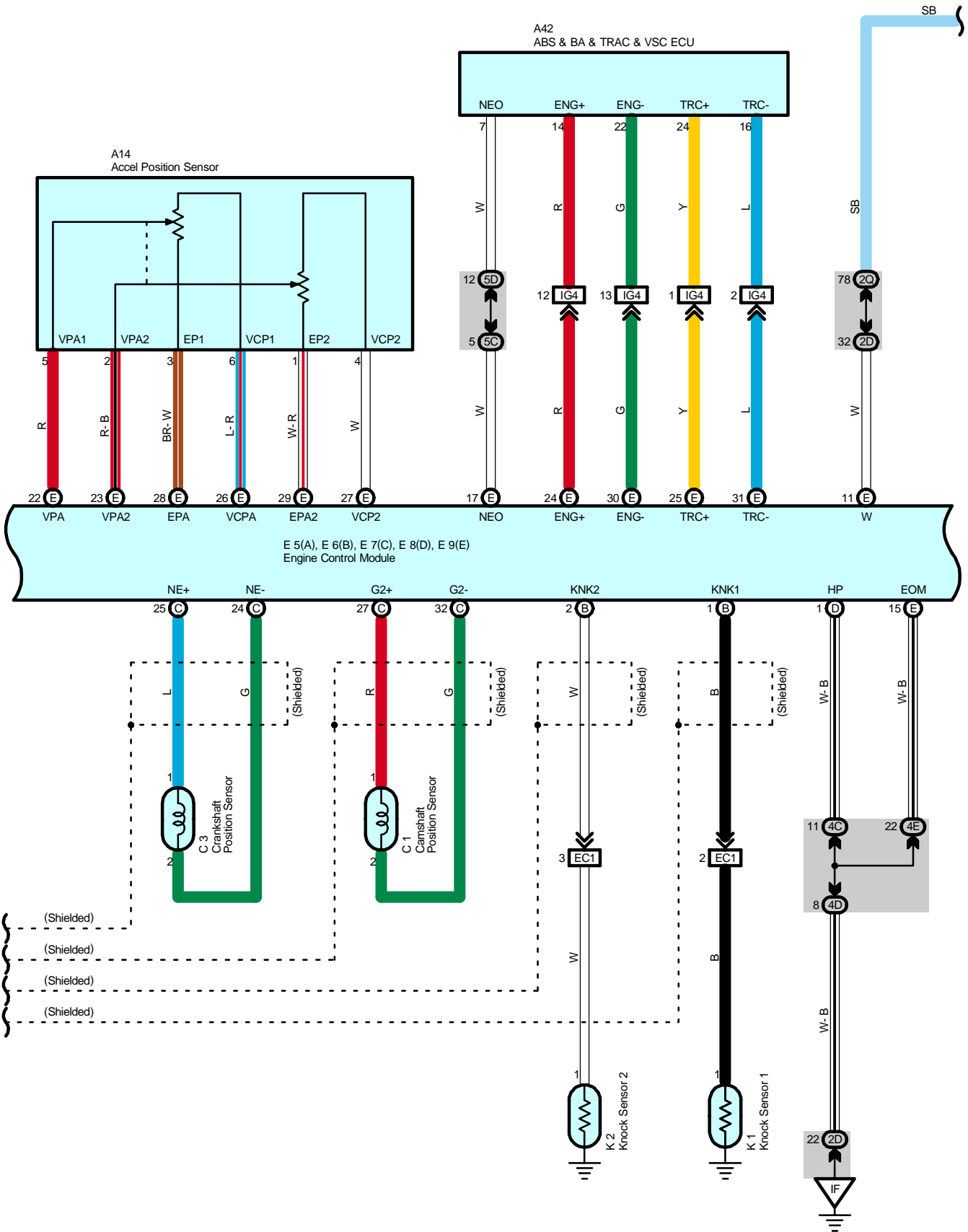
Engine Control





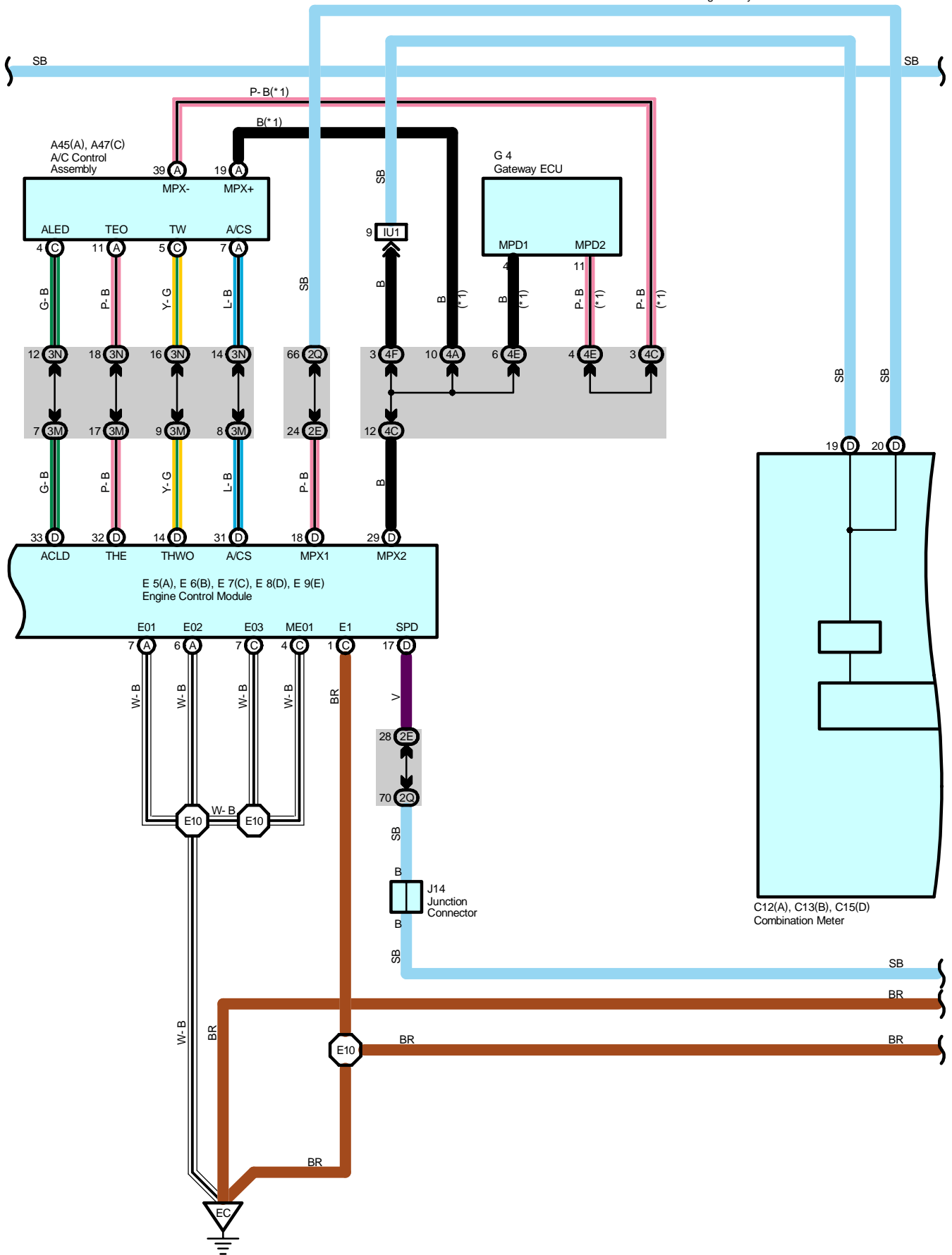
Engine Control

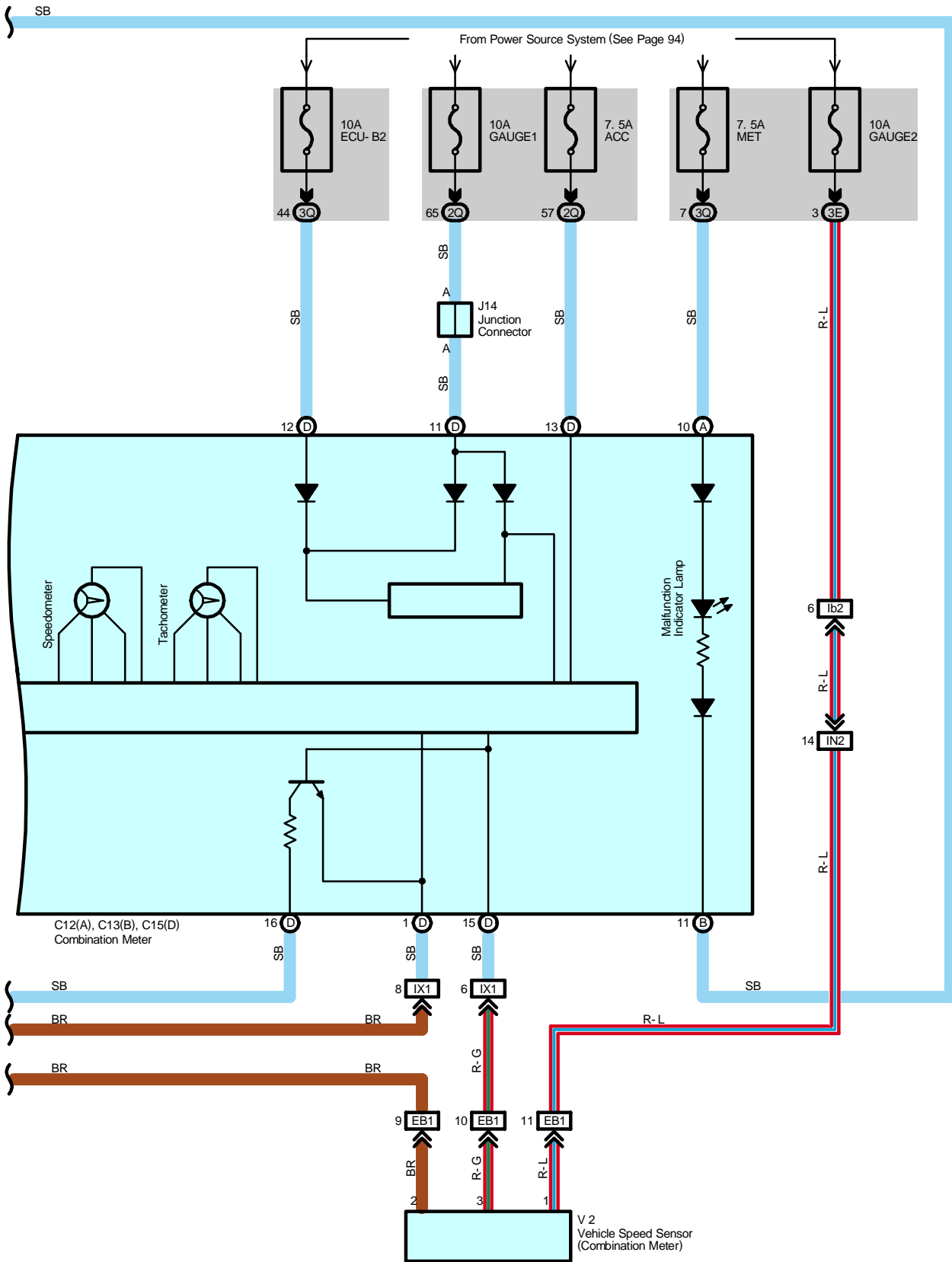




Engine Control

* 1 : w/ Navigation System





System Outline

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

1. Input Signals

(1) Engine coolant temp. signal circuit

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

(2) Intake air temp. signal circuit

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

(3) Oxygen sensor signal circuit

The oxygen density in the exhaust emission is detected and is input as a control signal from the heated oxygen sensors to TERMINALS OX1A, OX1B, OX2A, OX2B of the engine control module.

(4) RPM signal circuit

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

(5) Throttle position sensor signal circuit

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

(6) Vehicle speed circuit

The vehicle speed sensor (Combination meter) detects the vehicle speed, and the signal is input into TERMINAL SPD of the engine control module via the combination meter.

(7) Battery signal circuit

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

(8) Intake air volume signal circuit

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

(9) Stop light SW signal circuit

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

(10) Starter signal circuit

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

(11) Engine knock signal circuit

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

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 #1, #2, #3, #4, #5, #6, #7, #8 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, IGT6, IGT7, IGT8, 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 HT1A, HT1B, HT2A, HT2B to control the heater.

* Fuel pump control system

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

* ACIS

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

* ETCS-i

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

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.

Service Hints

E2 Engine Coolant Temp. Sensor

- 1-2 : Approx. 15.0 k Ω (-20°C, -4°F)
- : Approx. 2.45 k Ω (20°C, 68°F)
- : Approx. 0.32 k Ω (80°C, 176°F)

E5 (A), E7 (C), E8 (D), E9 (E) Engine Control Module

- BATT-E1 : Always 9.0-14.0 volts
- +BM-E1 : Always 9.0-14.0 volts
- IGSW-E1 : 9.0-14.0 volts with ignition SW at ON or ST position
- +B, +B2-E1 : 9.0-14.0 volts with ignition SW at ON or ST position
- VC-E2 : 4.5-5.5 volts with ignition SW on
- VTA2-E2 : 2.0-2.9 volts with ignition SW on and accelerator pedal released
- : 4.6-5.1 volts with ignition SW on and accelerator pedal depressed
- VTA1-E2 : 0.4-1.0 volts with ignition SW on and accelerator pedal released
- : 3.2-4.8 volts with ignition SW on and accelerator pedal depressed
- THA-E2 : 0.5-3.4 volts with idling, intake air temp. 20°C (68°F)
- THW-E2 : 0.2-1.0 volts with idling, engine coolant temp. 80°C (176°F)
- W-E1 : 9.0-14.0 volts with idling
- : Below 3.0 volts with ignition SW on

Engine Control

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A14	70	E9 E	70	I16	69
A42	70	F12	72	I18	70
A45 A	70	F14	68	J4	71
A47 C	70	F16 B	68	J14	71
B7	70	F17 C	68	J17	71
C1	68	G1	68	K1	69
C3	68	G4	70	K2	69
C12 A	70	H5	69	M1	69
C13 B	70	H6	69	P1	69
C15 D	70	H7	69	S5	71
C26	70	H8	69	T16	69
D1	68	I9	69	T19	71
D7	70	I10	69	V1	73
E2	68	I11	69	V2	69
E5 A	70	I12	69	V4	69
E6 B	70	I13	69	V9	69
E7 C	70	I14	69	V10	73
E8 D	70	I15	69		

○ : 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	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1D		
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2C		
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3C		
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3F		
3M		
3N	43	
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5C		
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
6B	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6C		
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)
7A	64	Dash Wire and J/B No.7 (Behind the Grove Box)
7B		
7D	64	Engine Room No.2 Wire and J/B No.7 (Behind the Grove Box)

Engine Control

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
EB3		
EC1	76	Engine No.2 Wire and Engine Wire (On the Transmission)
EE1	76	Engine Room Main Wire and Alternator Wire (Near the Battery)
IA2	78	Engine Room No.2 Wire and Floor No.1 Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG4		
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IW3	82	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IX2		
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Id1	84	Dash Wire and Dash Wire (Instrument Panel Center)
Id3		
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)
BB1	86	Floor No.1 Wire and Fuel Tank Wire (Near the Fuel Tank)
BD3	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)

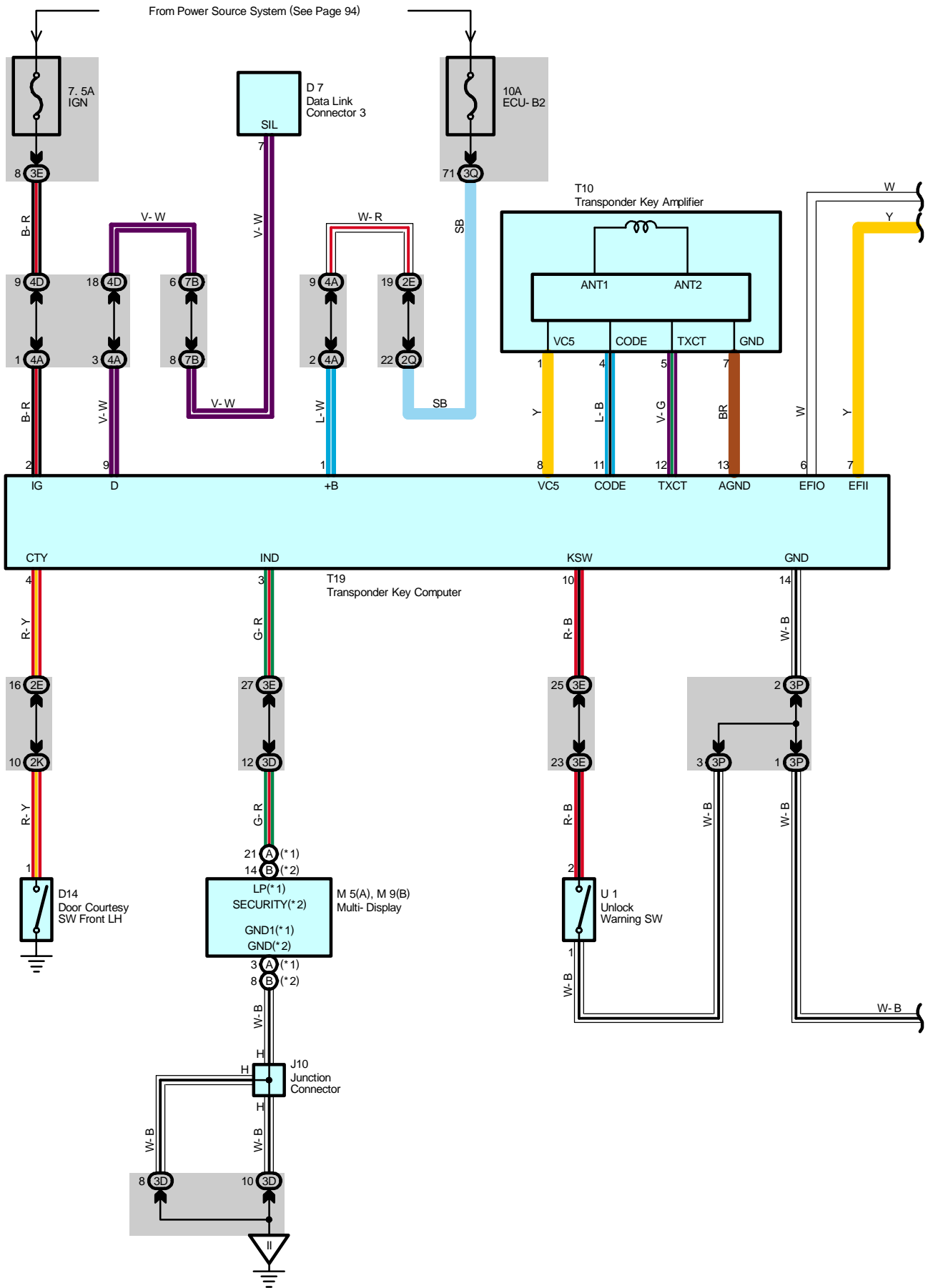
: Ground Points

Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EB		
EC	76	Rear Bank of Right Cylinder Head
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH

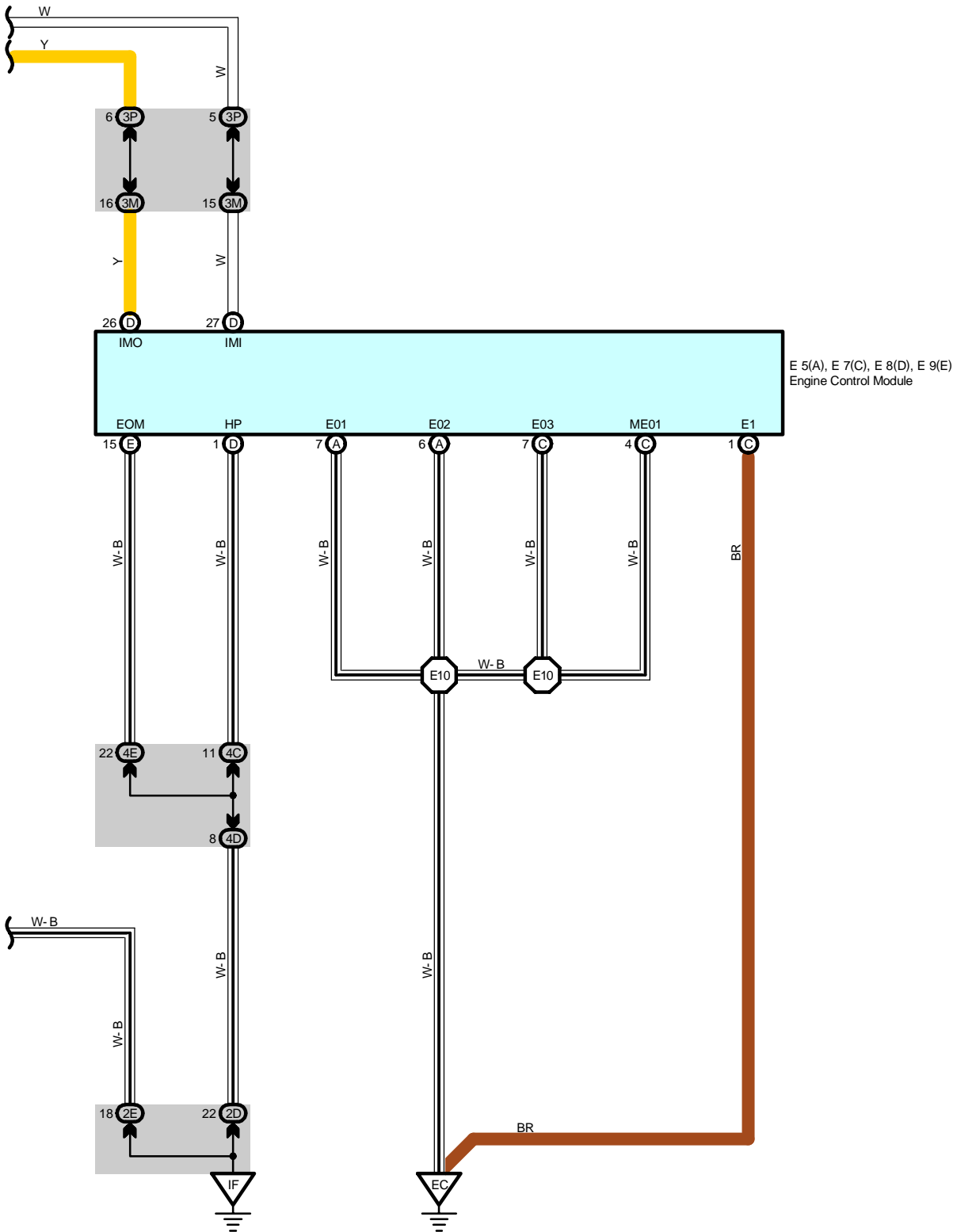
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	76	Engine Room No.2 Wire	E11	76	Engine Wire
E5			E13		
E8	76	Transmission Wire	E14	76	Engine Room No.2 Wire
E10	76	Engine Wire	E16		

Engine Immobiliser System



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



Engine Immobiliser System

Service Hints

T19 Transponder Key Computer

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page		
D7	70	E8	D	70	M9	B	71
D14	72	E9	E	70	T10		71
E5	A	70	J10	71	T19		71
E7	C	70	M5	A	71	U1	71

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)

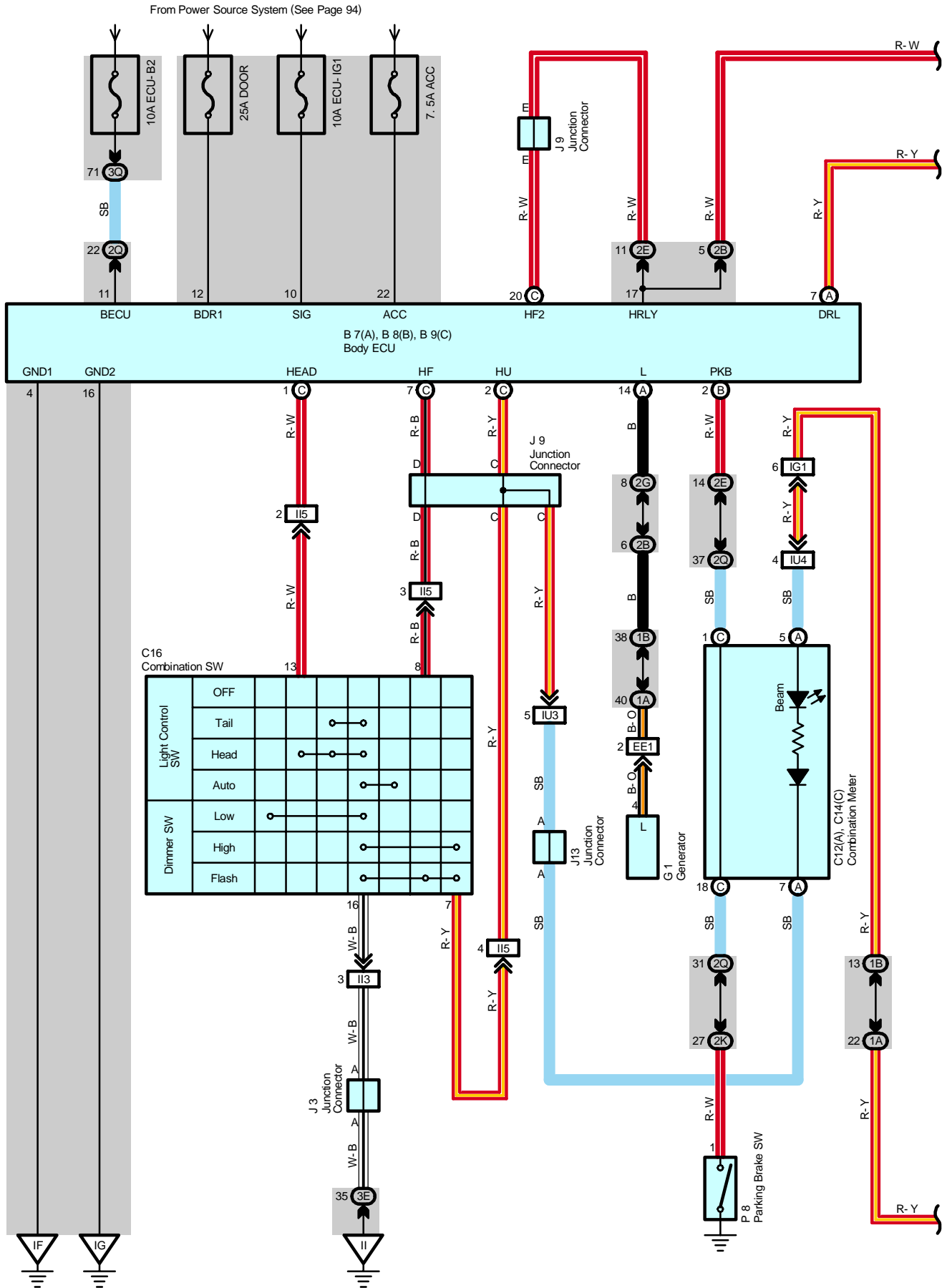
: Ground Points

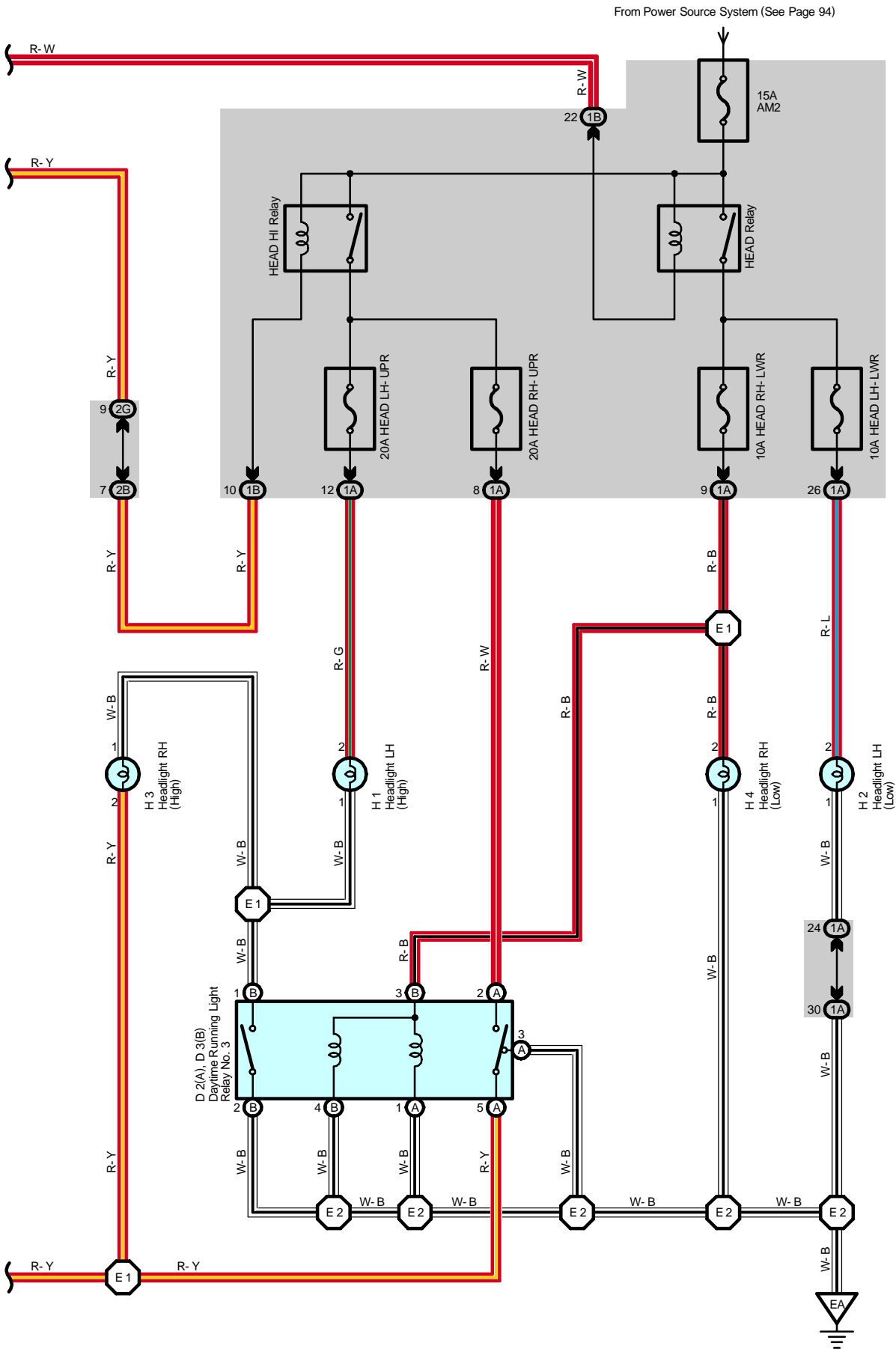
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E10	76	Engine Wire			

Headlight





Headlight

System Outline

Daytime Running Light Operation

When the engine is started, a signal from the generator is input into TERMINAL (A) 14 of the body ECU. 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 (B) 2 of the body ECU. This activates the body ECU and the headlight turns on.

Service Hints

C16 Combination SW

13-16 : Closed with light control SW at HEAD position

8-16 : Closed with dimmer SW at FLASH position

7-16 : Closed with dimmer SW at HIGH or FLASH position

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B7	A 70	D2	A 68	H4	69
B8	B 70	D3	B 68	J3	71
B9	C 70	G1	68	J9	71
C12	A 70	H1	69	J13	71
C14	C 70	H2	69	P8	73
C16	70	H3	69		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	76	Engine Room Main Wire and Alternator Wire (Near the Battery)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II5		
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU4		

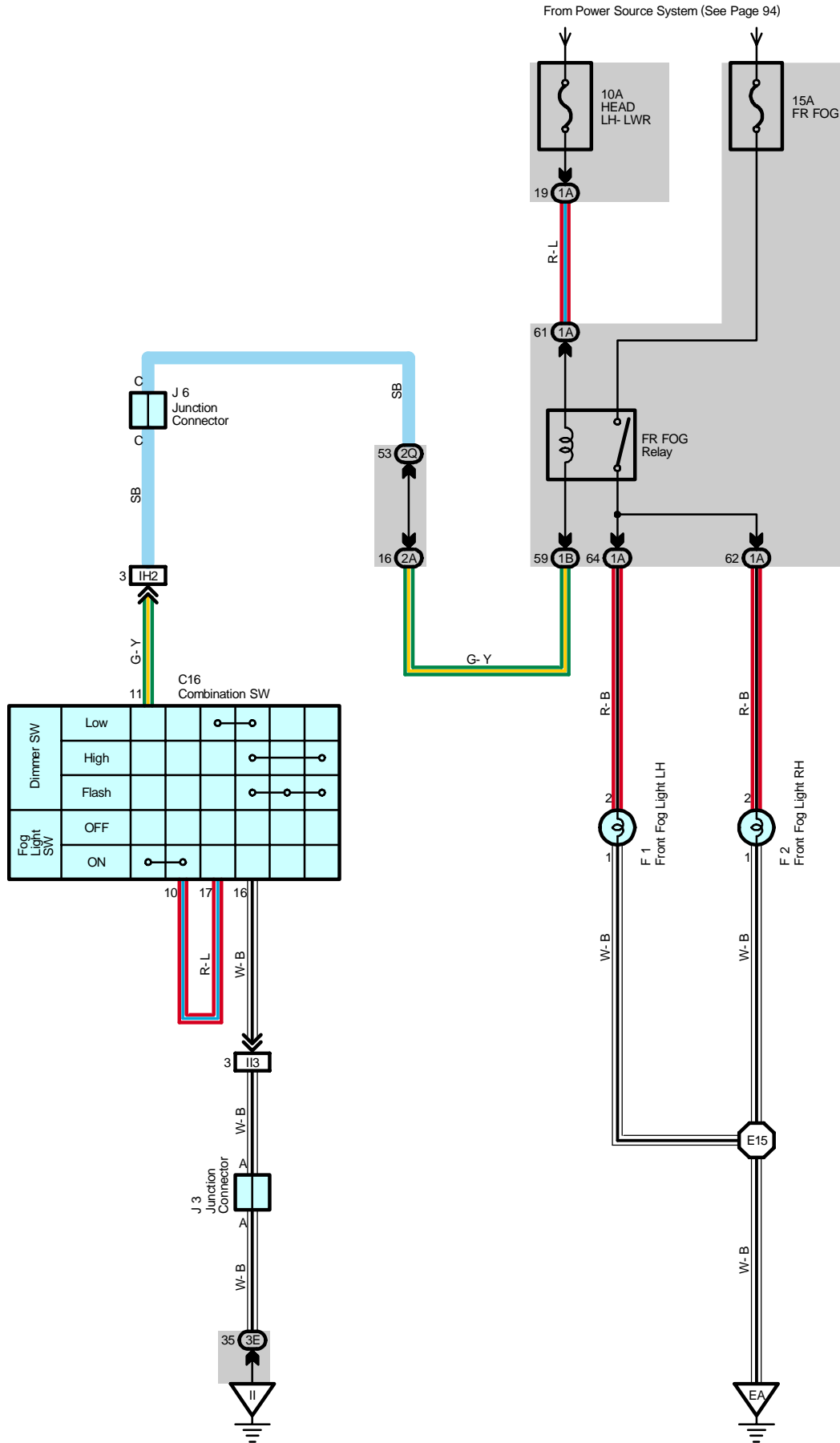
▽ : Ground Points

Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	76	Engine Room Main Wire	E2	76	Engine Room Main Wire

Front Fog Light



Service Hints

C16 Combination SW

11-Ground : Continuity with light control SW at HEAD position, dimmer SW at LOW position and fog light SW at ON position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
C16	70	F2	68	J6	71
F1	68	J3	71		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)

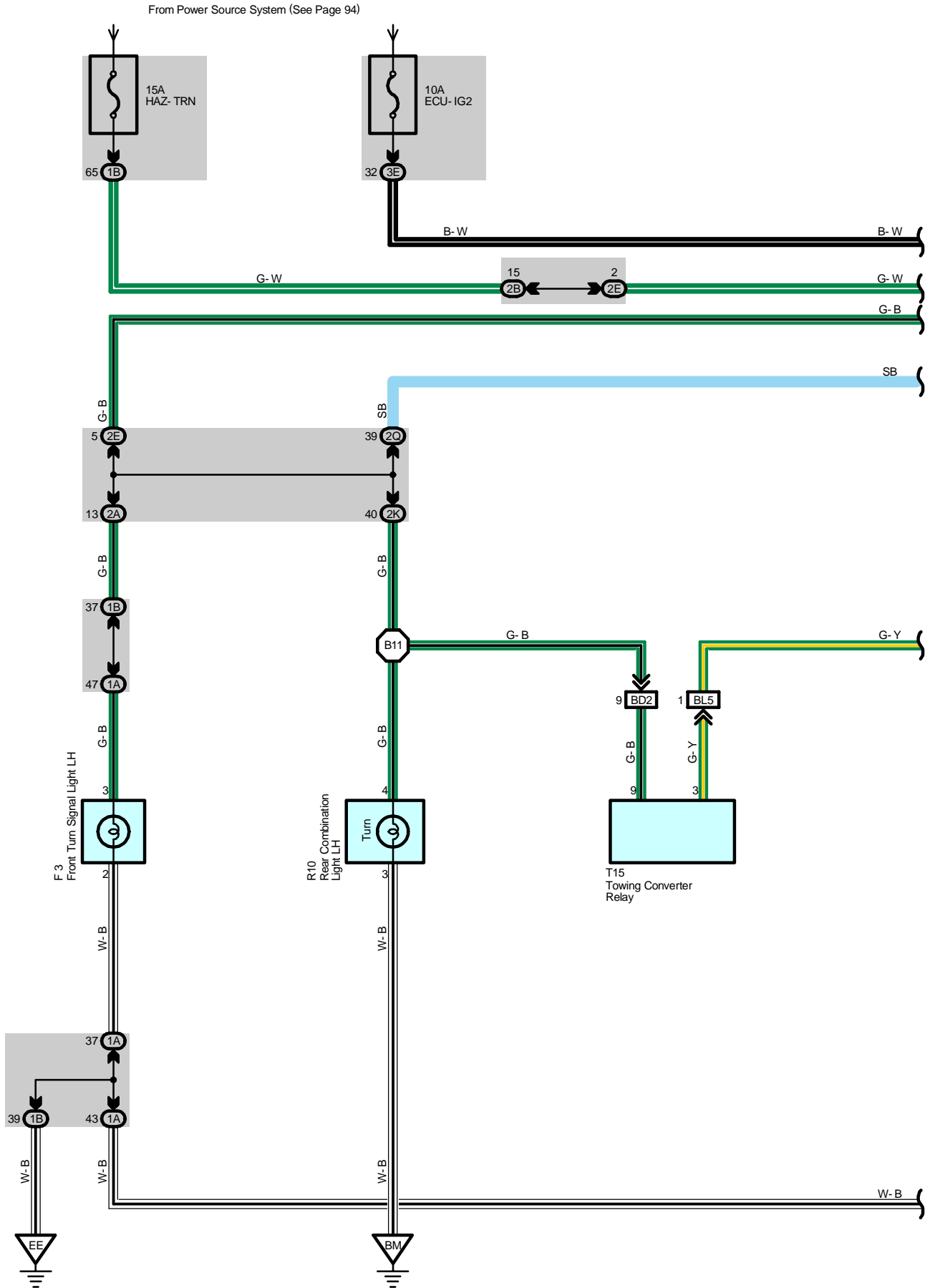
: Ground Points

Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
II	78	Set Bolt of Cowl Side J/B RH

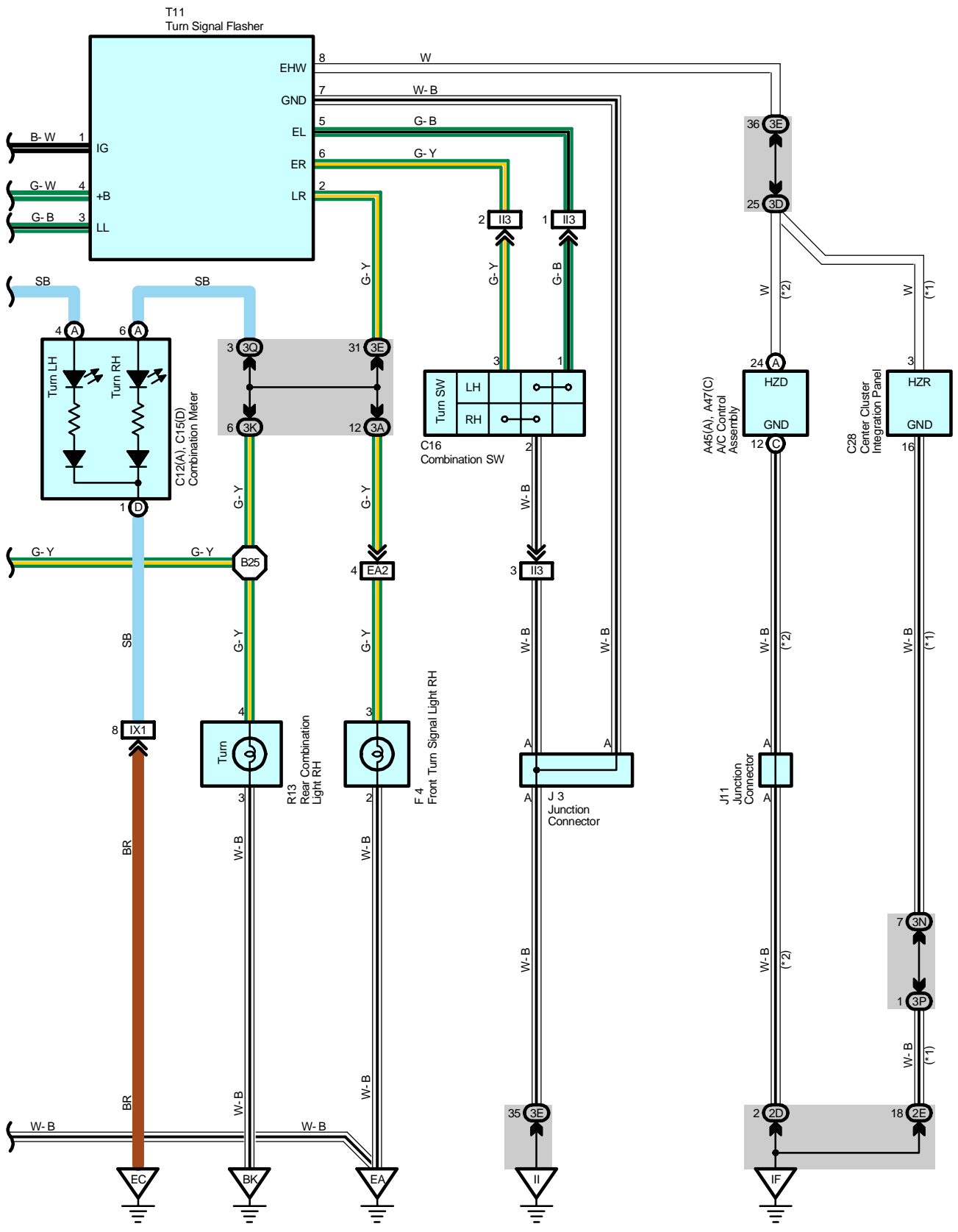
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E15	76	Engine Room Main Wire			

Turn Signal and Hazard Warning Light



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



2004 LAND CRUISER (EWD548U)

Turn Signal and Hazard Warning Light

Service Hints

T11 Turn Signal Flasher

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page	
A45	A	70	C28	70	R10	73
A47	C	70	F3	68	R13	73
C12	A	70	F4	68	T11	71
C15	D	70	J3	71	T15	73
C16		70	J11	71		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3N	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	76	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BL5	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)

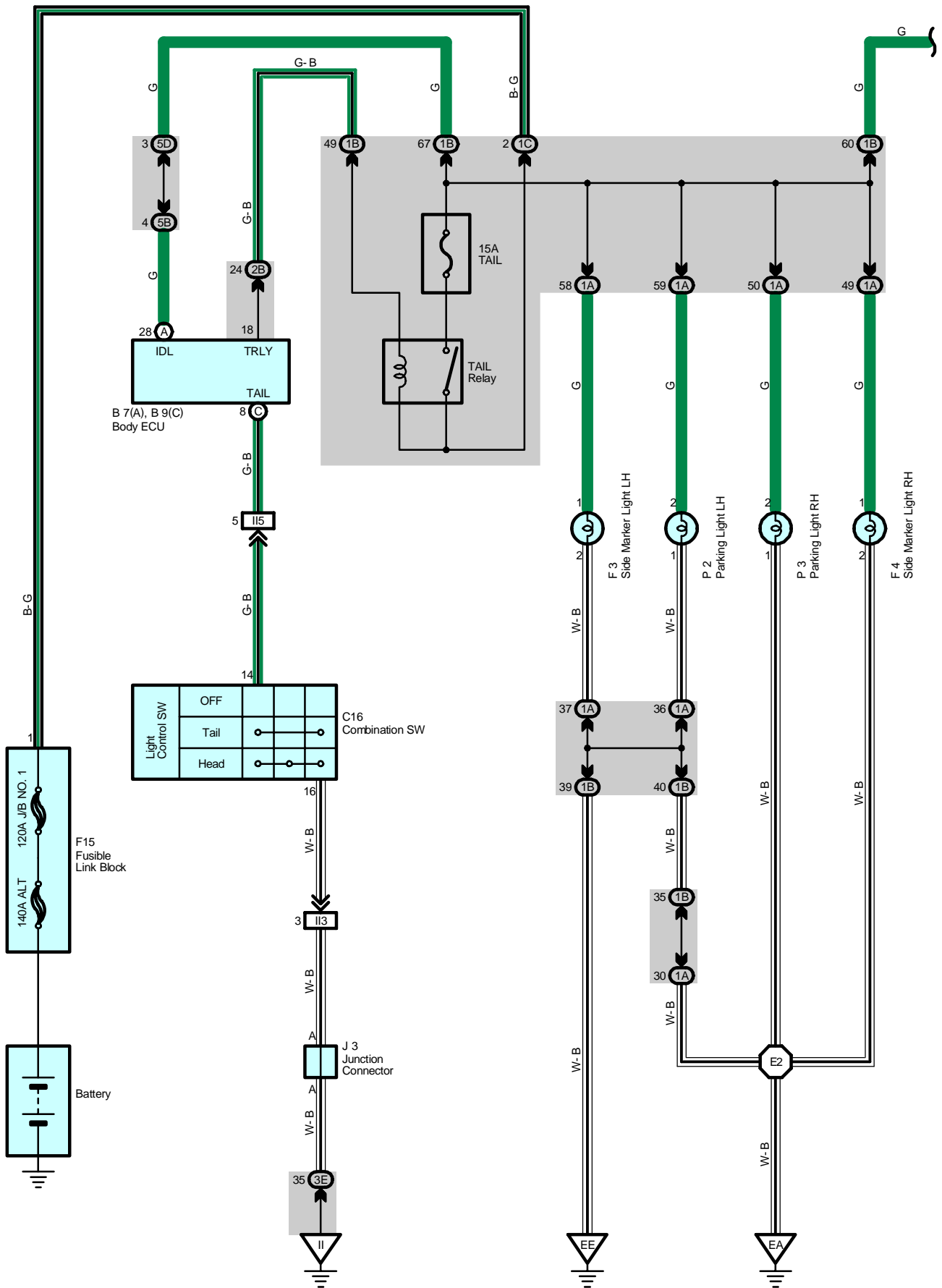
▽ : Ground Points

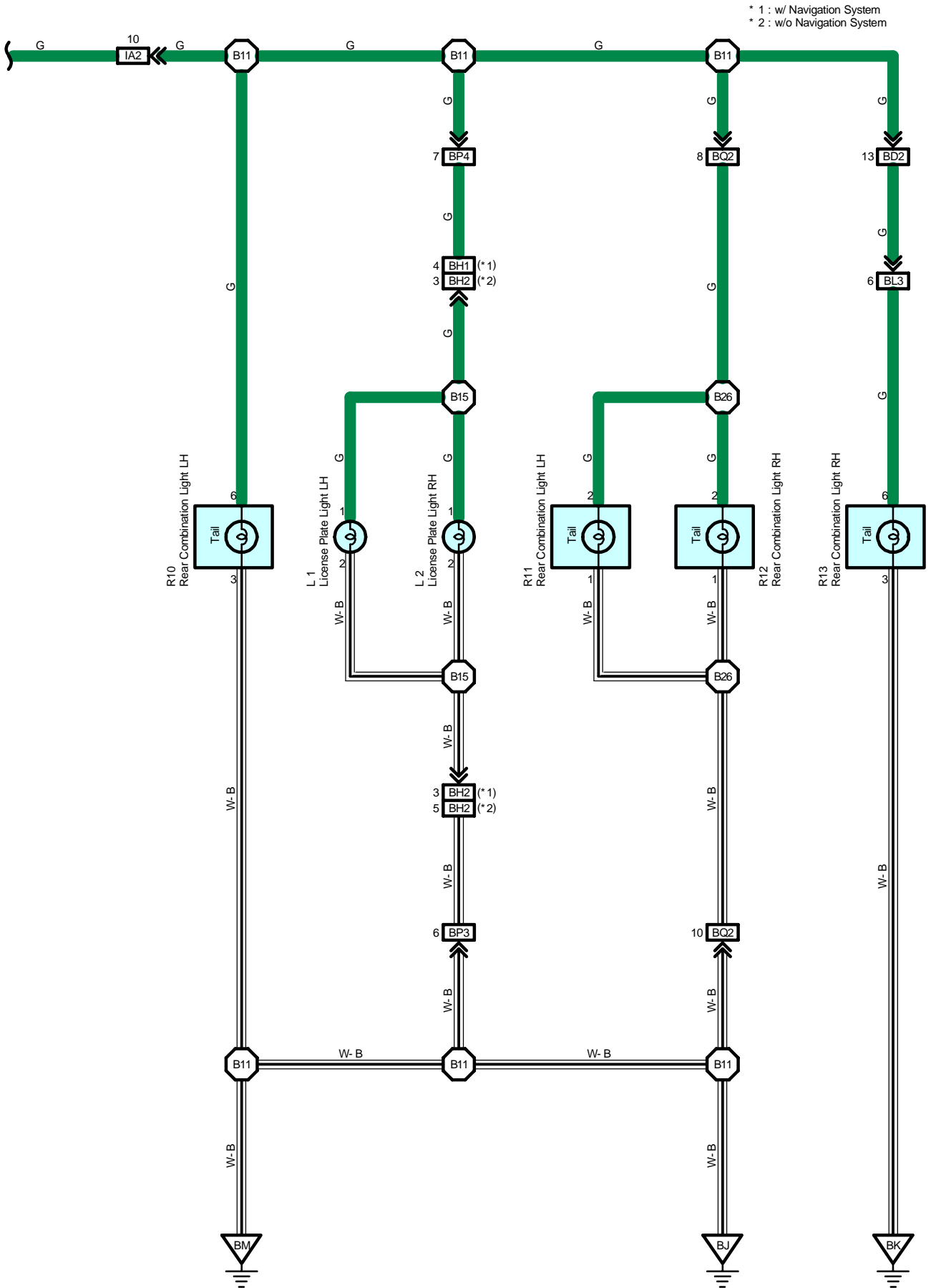
Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EC	76	Rear Bank of Right Cylinder Head
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	88	Floor No.1 Wire	B25	88	Floor No.2 Wire

Taillight





Taillight

Service Hints

C16 Combination SW

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page	
B7	A	70	F15	68	P3	69
B9	C	70	J3	71	R10	73
C16	70	L1	72	R11	73	
F3	68	L2	72	R12	73	
F4	68	P2	69	R13	73	

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	78	Engine Room No.2 Wire and Floor No.1 Wire (Left Kick Panel)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II5		
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL3	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)

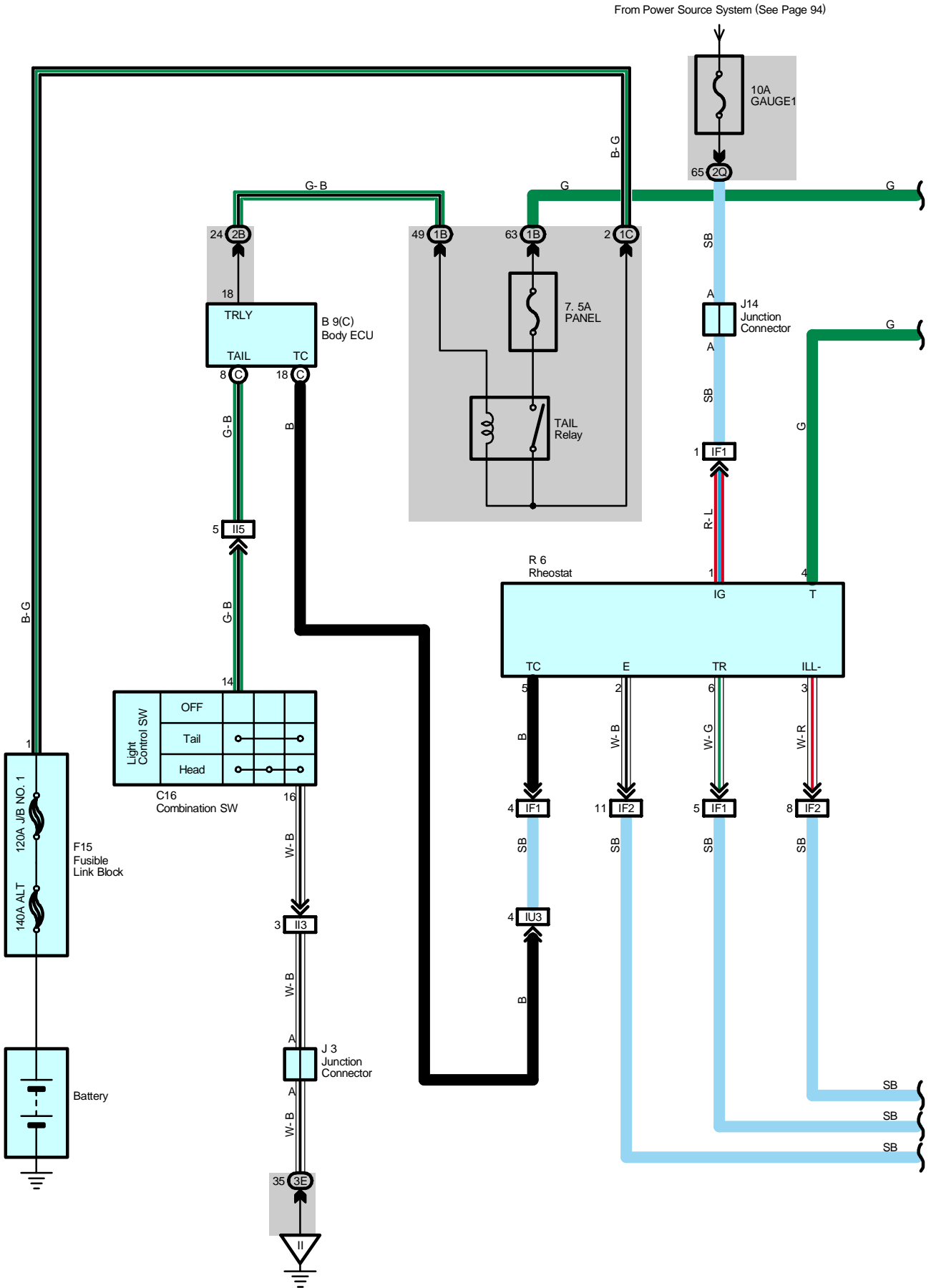
▽ : Ground Points

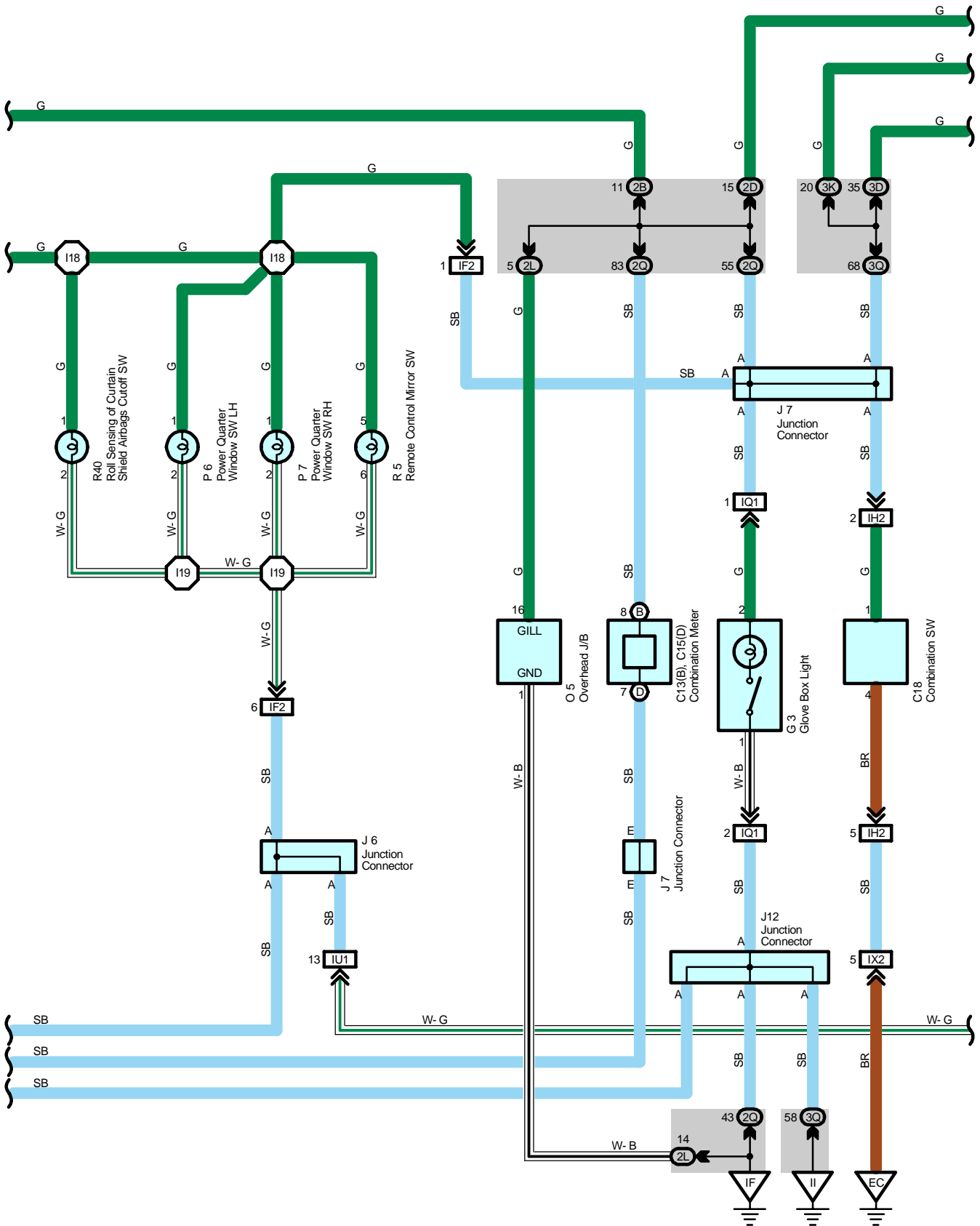
Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EE	76	Front Left Side of Fender Apron
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

○ : Splice Points

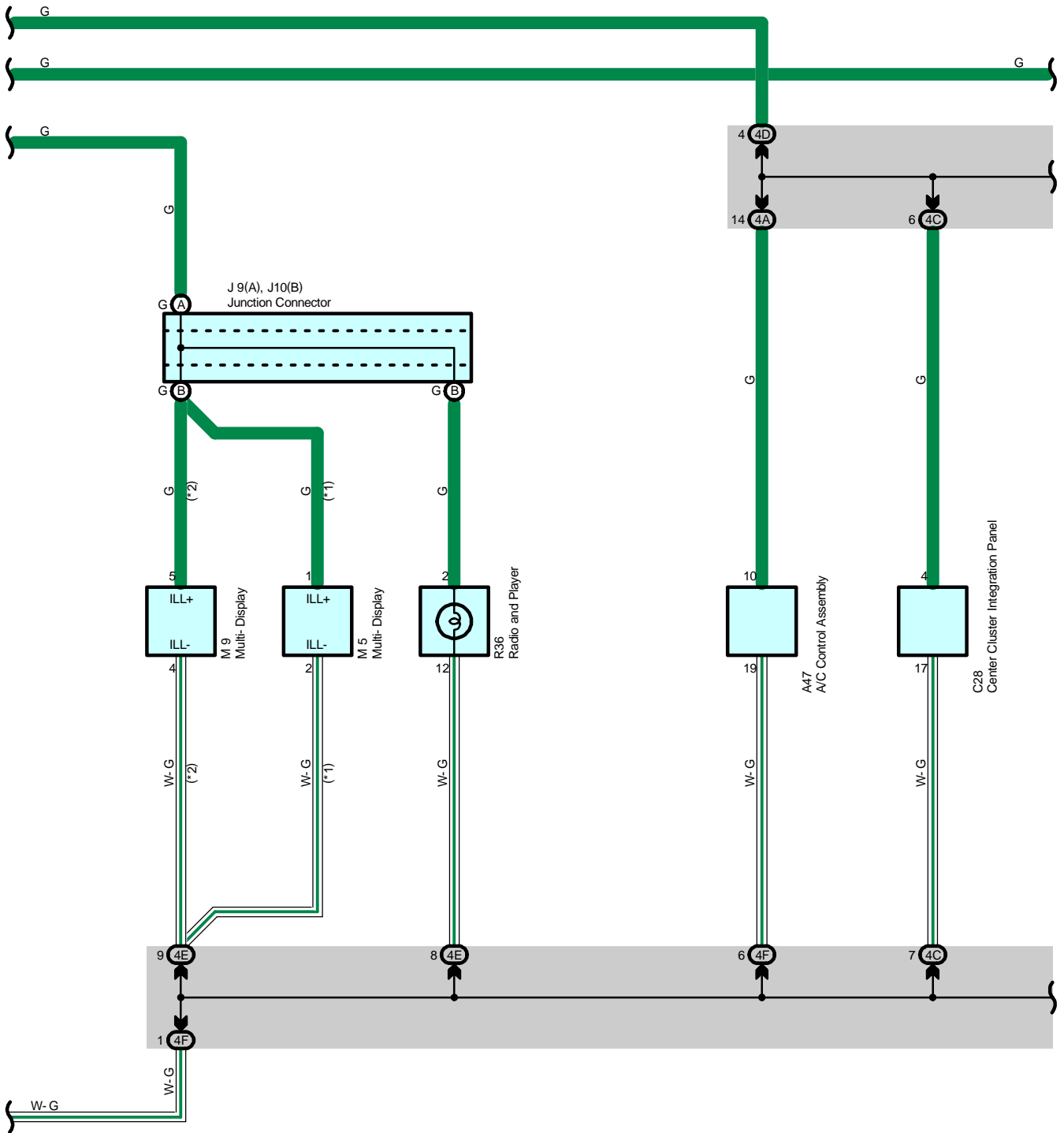
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E2	76	Engine Room Main Wire	B15	88	Back Door Upper Wire
B11	88	Floor No.1 Wire	B26	88	Back Door Lower Wire

Illumination

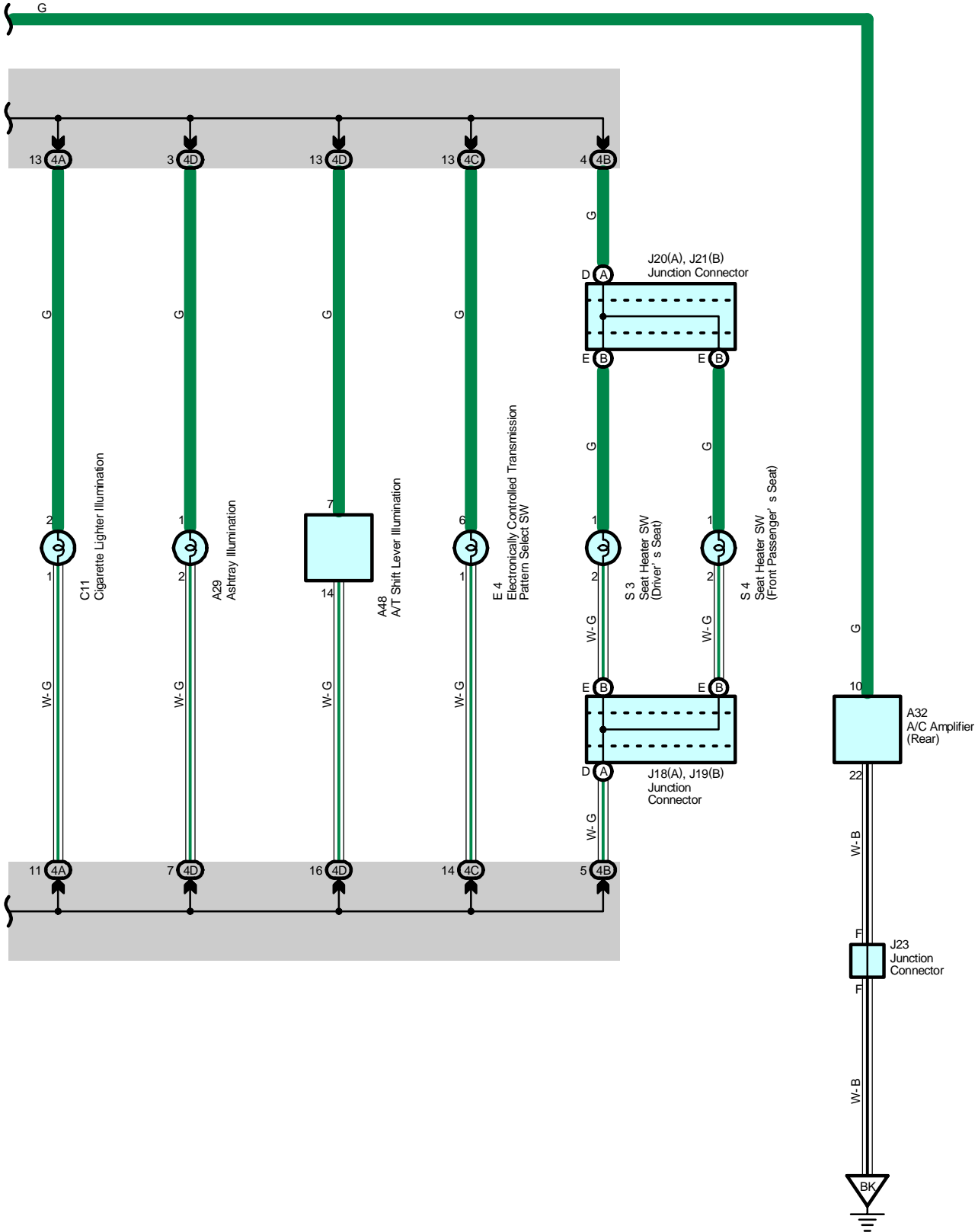




ILLUMINATION



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



Illumination

Service Hints

C16 Combination SW

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A29	70	G3	70	M5	71
A32	72	J3	71	M9	71
A47	70	J6	71	O5	72
A48	70	J7	71	P6	71
B9	C	J9	A	P7	71
C11	70	J10	B	R5	71
C13	B	J12		R6	71
C15	D	J14		R36	71
C16	70	J18	A	R40	71
C18	70	J19	B	S3	71
C28	70	J20	A	S4	71
E4	70	J21	B		
F15	68	J23	72		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4B		
4C		
4D		
4E		
4F		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2		
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II5		
IQ1	80	Instrument Panel Integration Wire and Lamp Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU3		
IX2	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)



: Ground Points

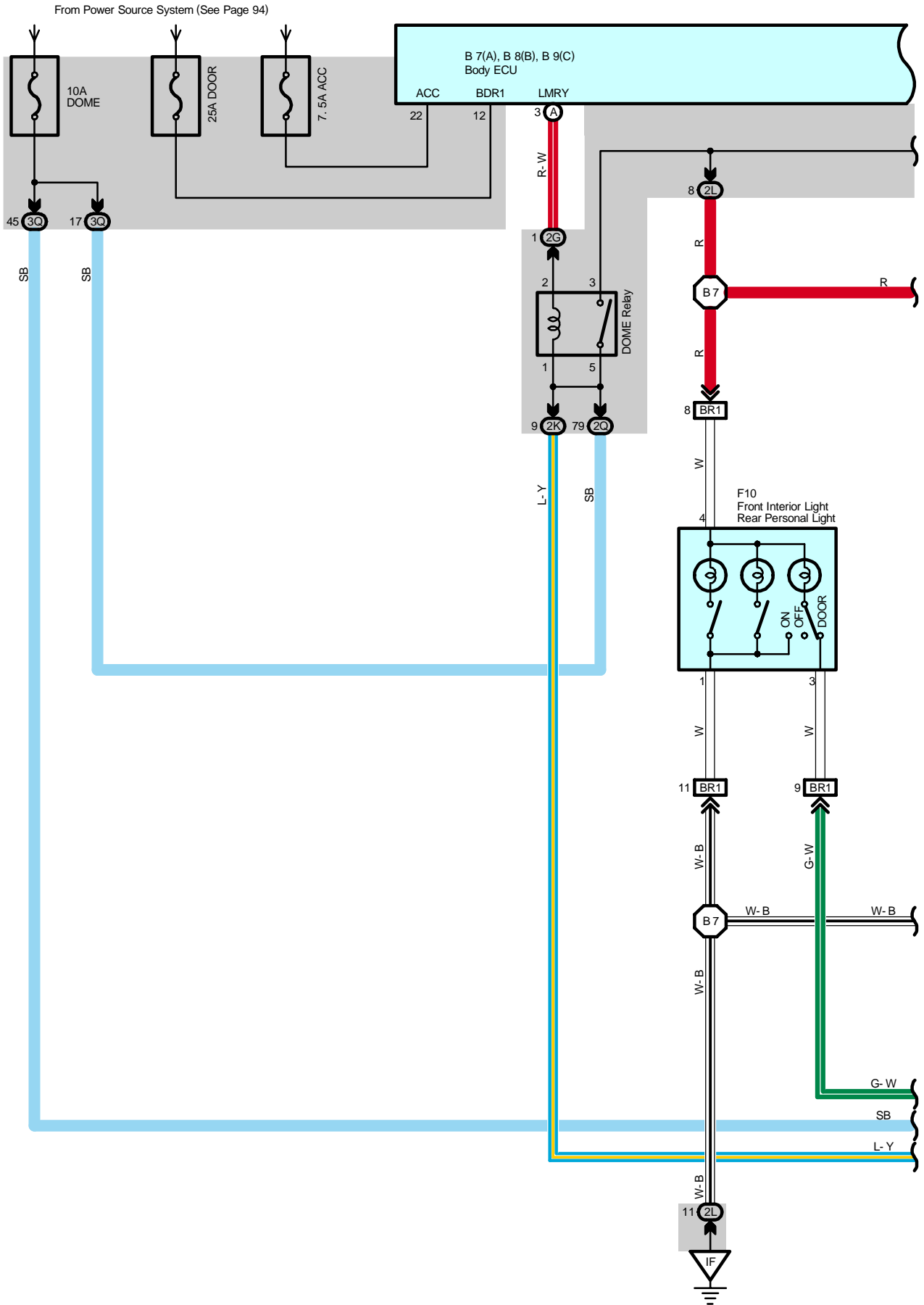
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH
BK	86	Front Side Under the Front Passenger's Seat

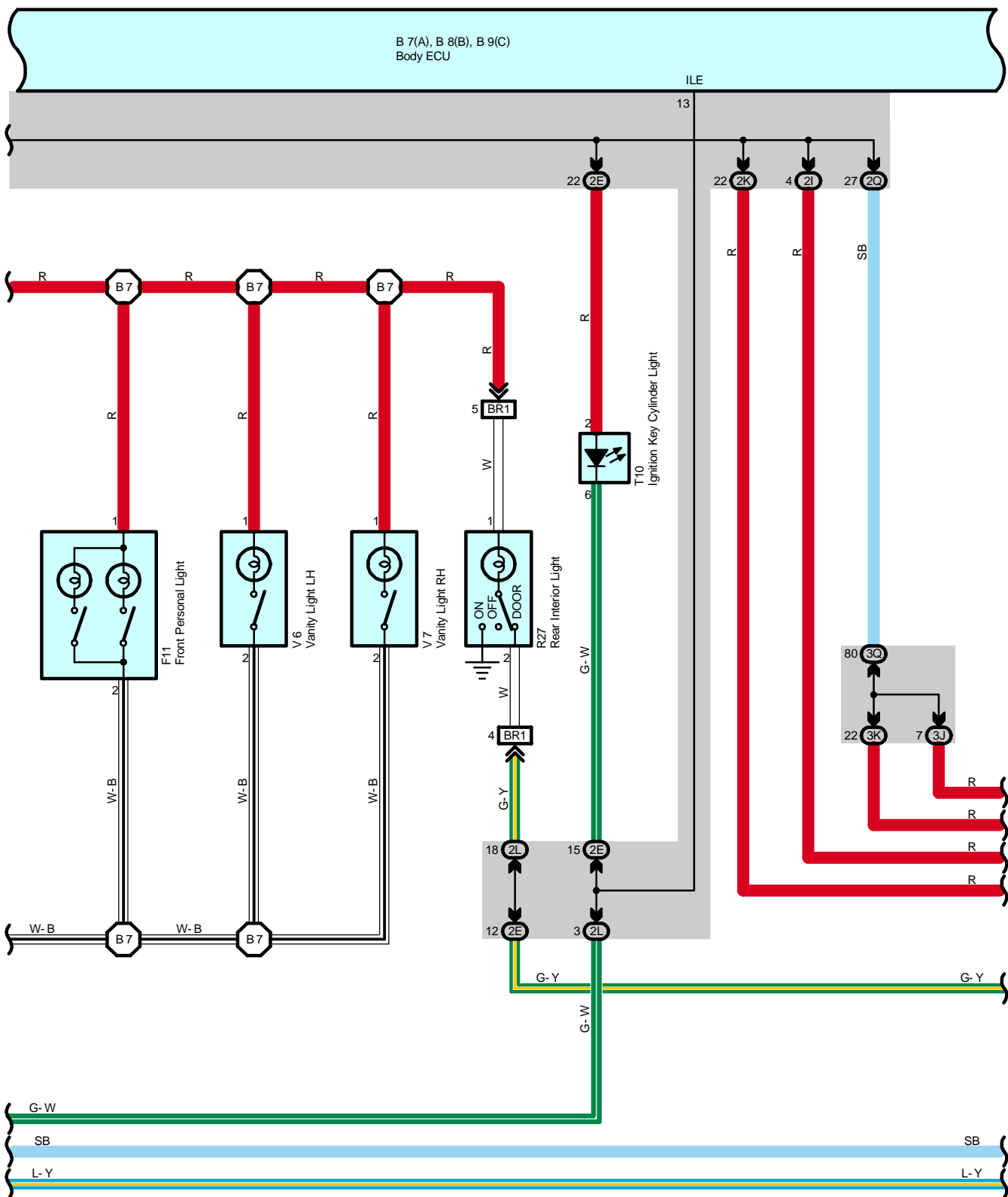


: Splice Points

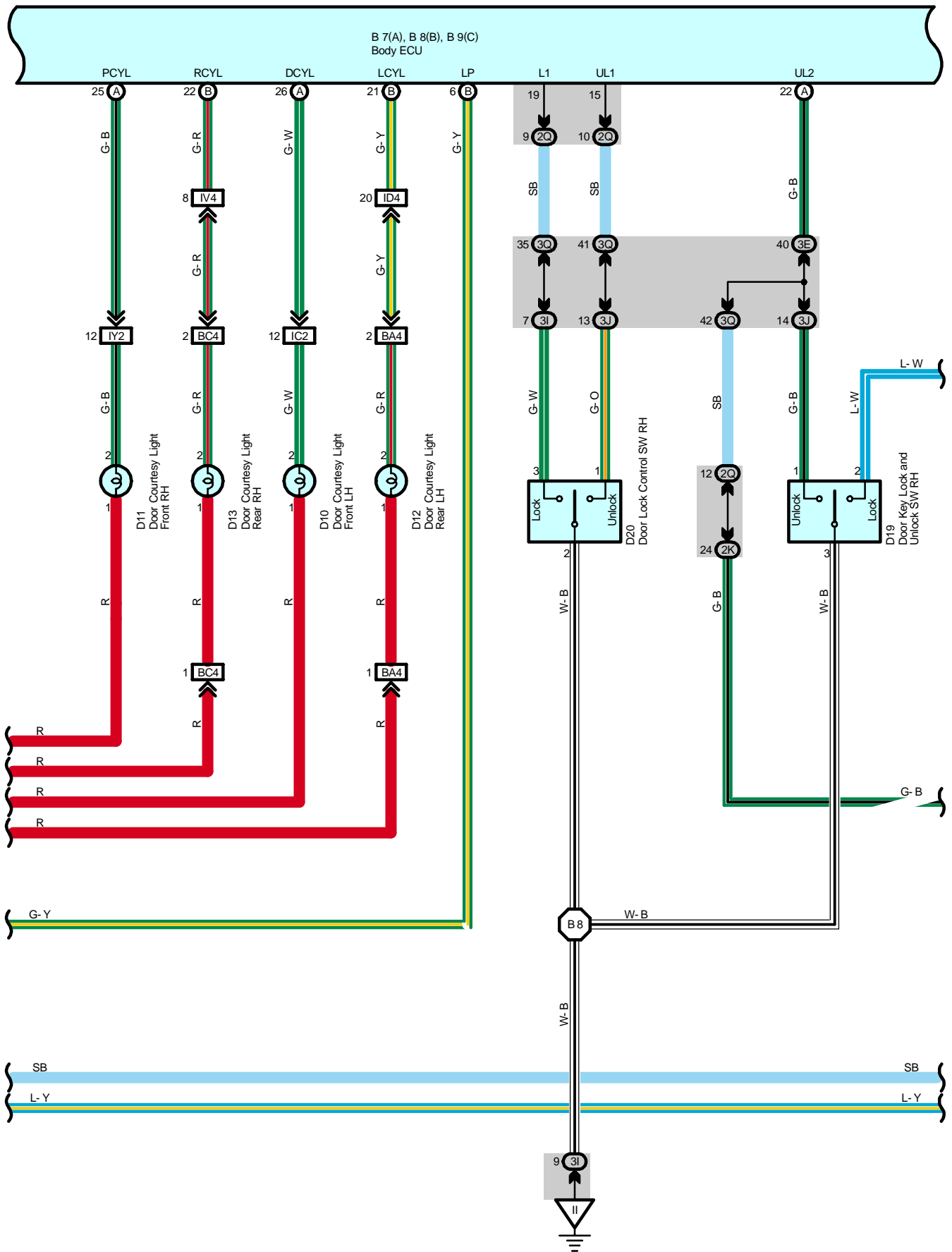
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I18	80	Instrument Panel Wire	I19	80	Instrument Panel Wire

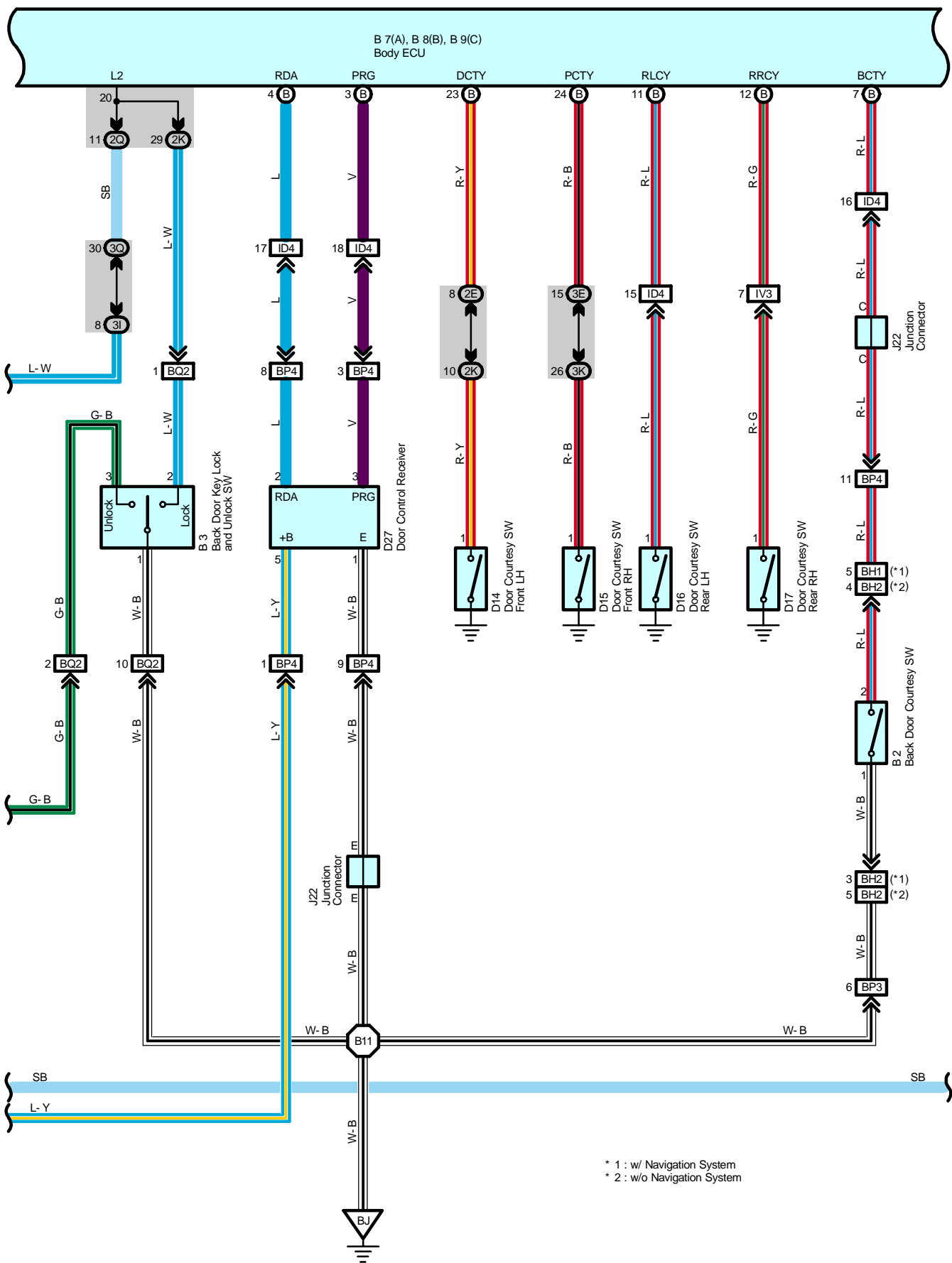
Interior Light



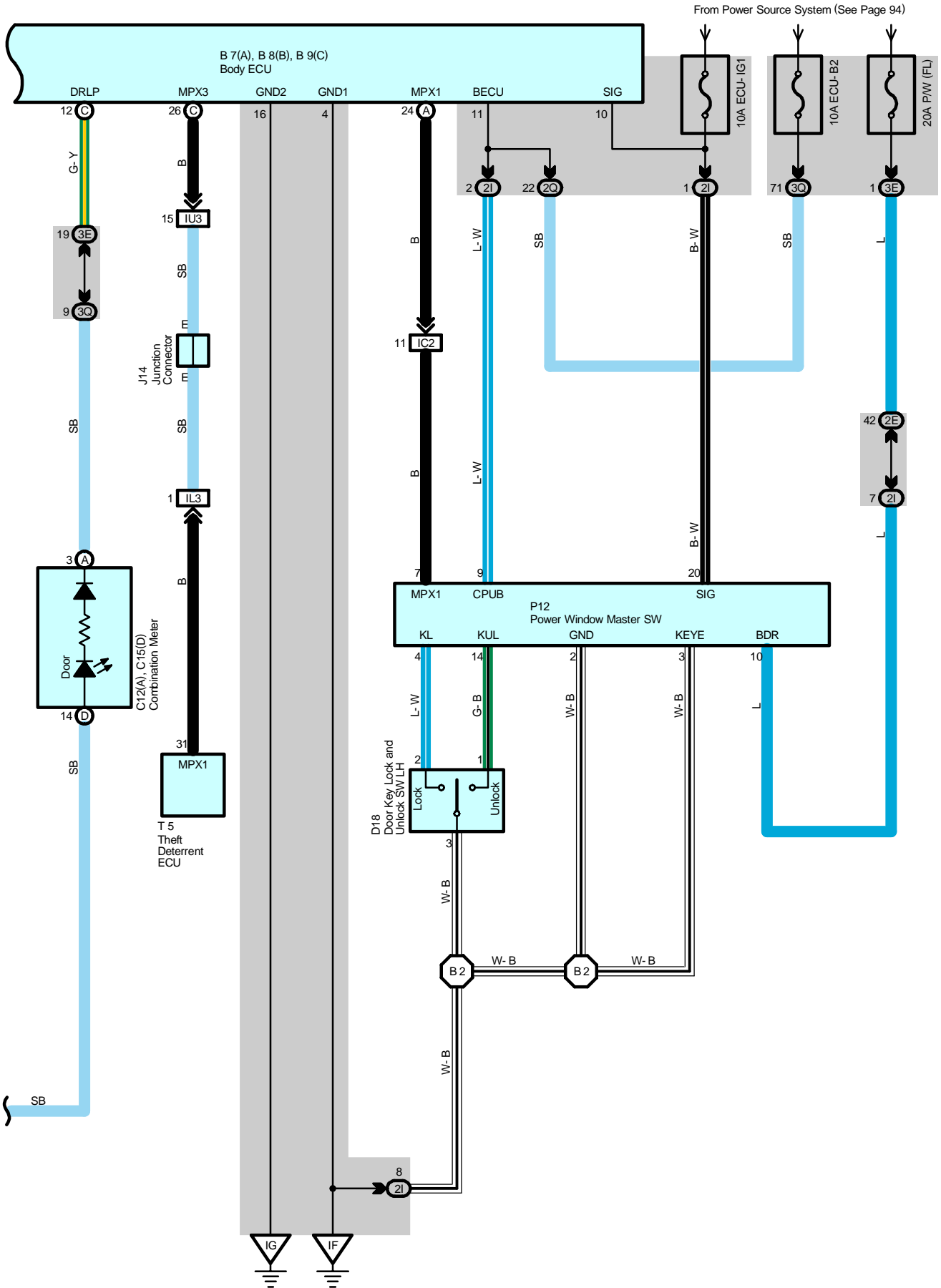


Interior Light





Interior Light



System Outline

Normal Operation

- * When the front Door LH or RH is opened, the door courtesy light front LH, RH and open door warning light is turned on. When the front door LH and RH are closed, the door courtesy light front LH, RH is turned off.
- * When the rear door LH, RH or the back door is opened, door courtesy light rear LH, RH, rear interior light and the open door warning light is turned on. When the rear door LH, RH and back door are closed, the door courtesy light rear LH, RH is turned off.
- * When all the doors are closed, the open door warning light is turned off.

Turn Off Function

When the ignition SW turned off and there is no change in the door courtesy SW for approx. 30 minute, the DOME relay is turned off. The DOME relay is turned on again when any of the following conditions are met.

- * Ignition SW is turned from OFF position to ACC or ON position
- * Change to any door courtesy SW
- * Driver or front passenger door is unlocked by the key or transmitter

Immediate Turn Off Function at Door Lock

When all the doors are closed, and the driver or front passenger door is locked by the key or transmitter, the DOME relay is turned off, after approx. 80 seconds. However, when the illuminated entry system is operating, the DOME relay is turned off after the operation is completed. the DOME relay is turned on again when any of the following conditions are met.

- * Ignition SW is turned from OFF position to ACC or ON position
- * Change to any door courtesy SW
- * Driver or front passenger door is unlocked by the key or transmitter

Illuminated Entry System

- * When any door is opened, each light is turned on.
- * The light remains on for approx. 15 seconds after all doors are closed, and fades out.
- * With the ignition SW is at ACC or ON position, and any door open, when all the doors are closed, each light fades out immediately.
- * When the ignition SW is turned to ACC or ON position during timer lighting, each light fades out immediately.
- * When the doors are locked during timer lighting, each light fades out immediately.
- * The lights include, the front interior light, ignition key cylinder light, and front door courtesy light LH, RH.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B2	72	D13	72	F11	72
B3	72	D14	72	J14	71
B7	A 70	D15	72	J22	72
B8	B 70	D16	72	P12	73
B9	C 70	D17	72	R27	73
C12	A 70	D18	72	T5	71
C15	D 70	D19	72	T10	71
D10	72	D20	72	V6	73
D11	72	D27	72	V7	73
D12	72	F10	72		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3J		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

Interior Light

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IV4		
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
BA4	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BC4	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BR1	88	Roof No.3 Wire and Roof No.1 Wire (Front Side of Roof)

: Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat

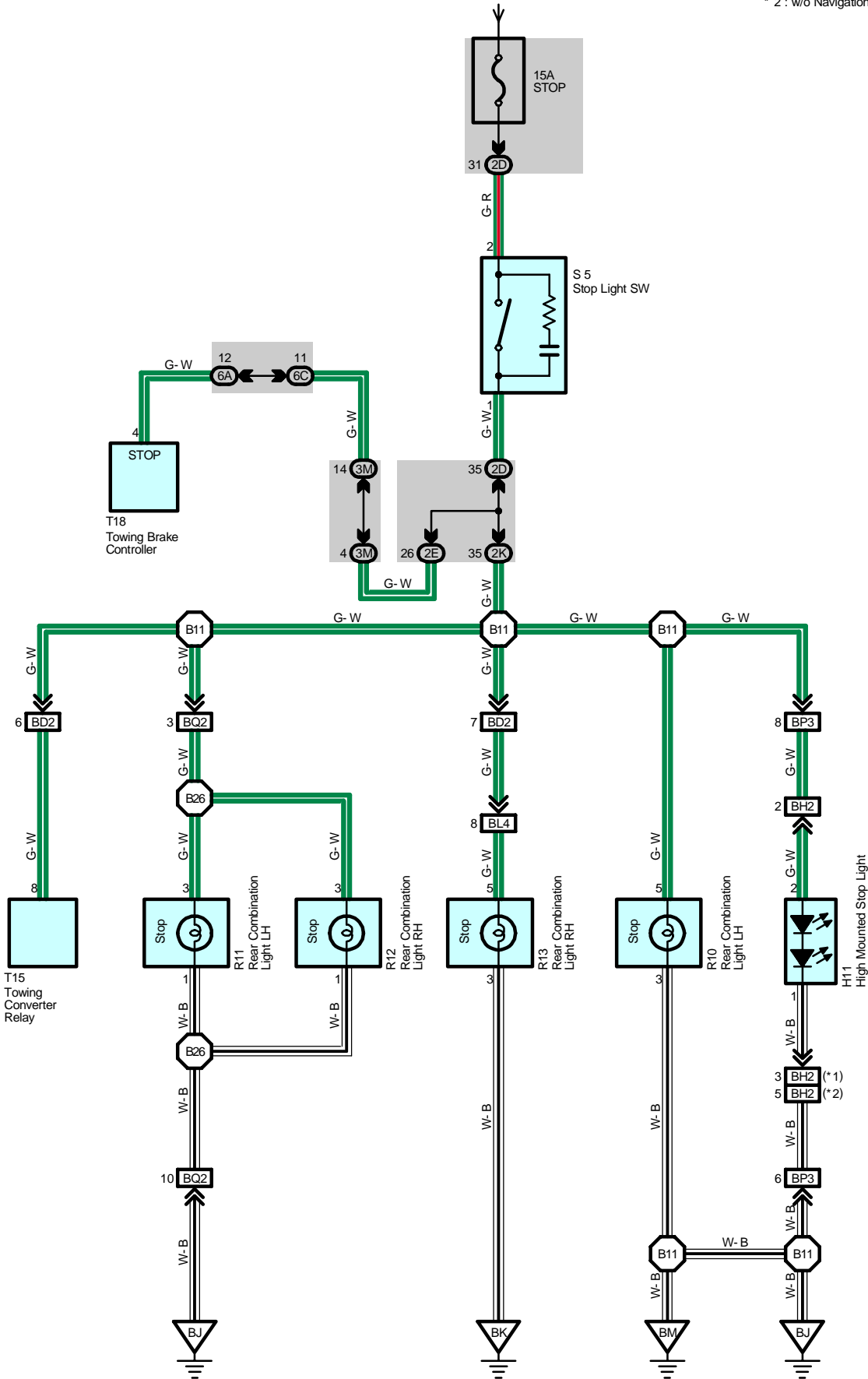
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B8	88	Front Door RH Wire
B7	88	Roof No.1 Wire	B11	88	Floor No.1 Wire

Stop Light

From Power Source System (See Page 94)

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



Service Hints**S5 Stop Light SW**

2-1 : Closed with brake pedal depressed

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
H11	72	R12	73	T15	73
R10	73	R13	73	T18	71
R11	73	S5	71		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
6A	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6C		

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH2	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BL4	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)

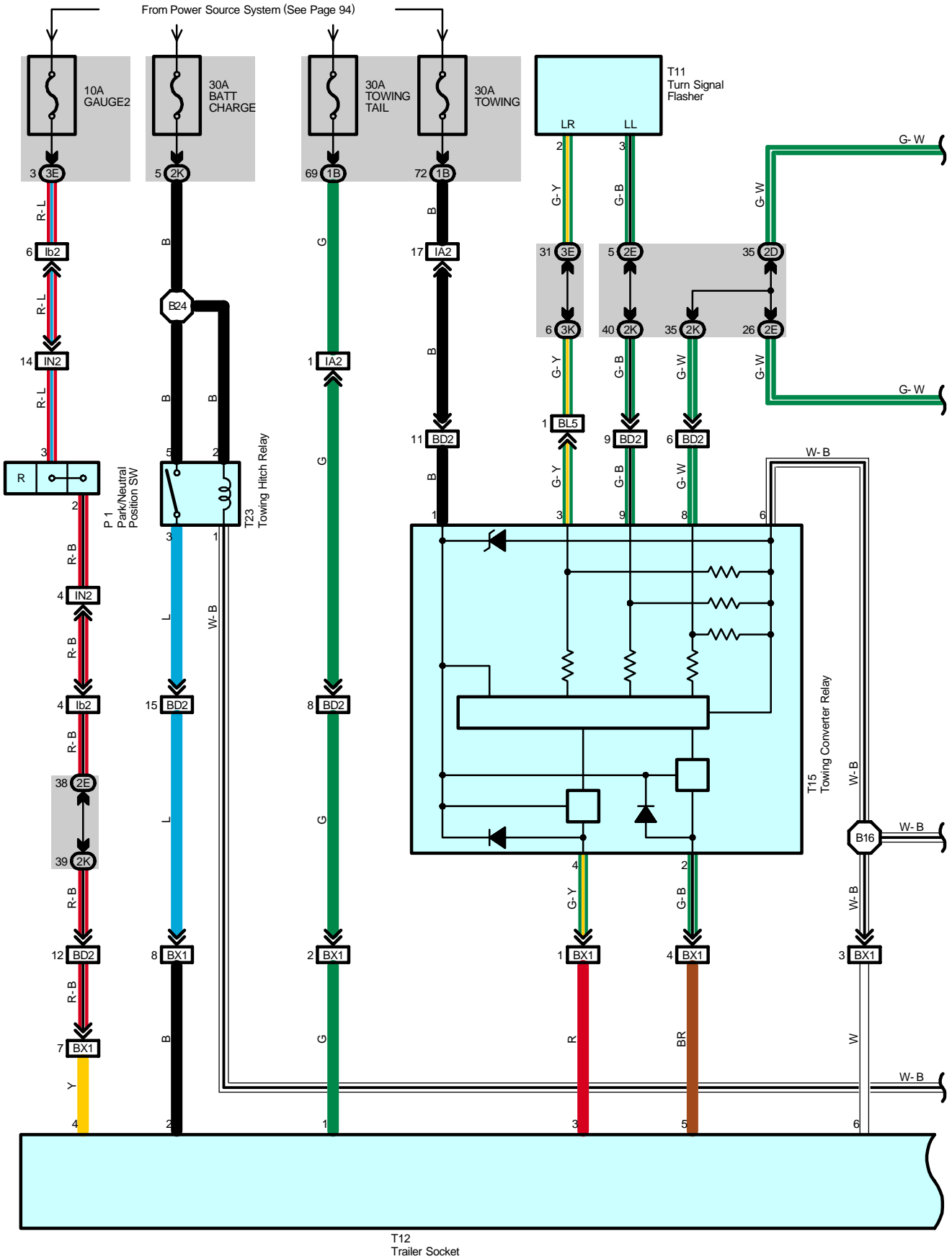
 : **Ground Points**

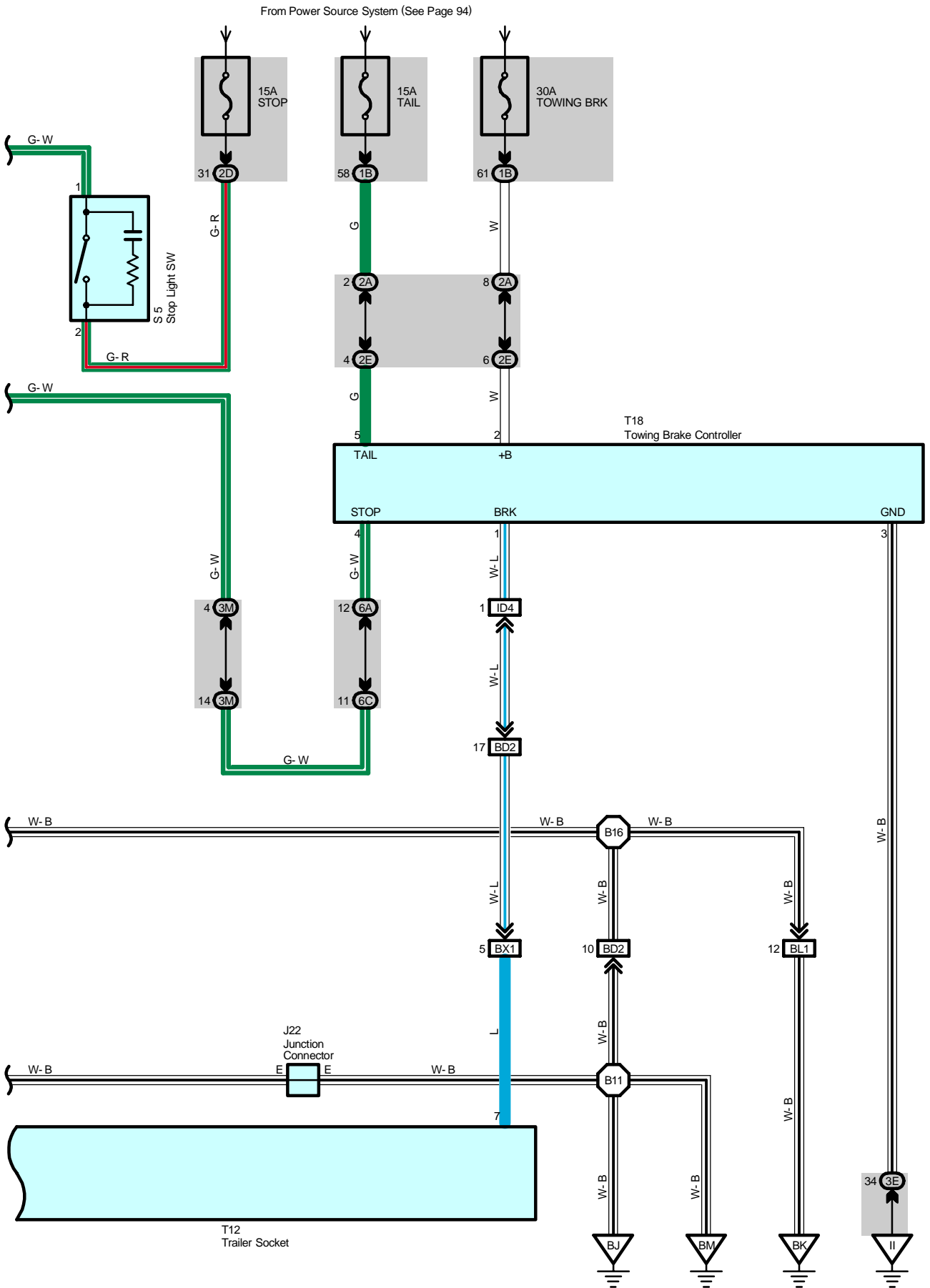
Code	See Page	Ground Points Location
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	88	Floor No.1 Wire	B26	88	Back Door Lower Wire

Trailer Towing





Trailer Towing

Service Hints

T15 Towing Converter Relay

1-Ground : Always approx. 12 volts

6-Ground : Always continuity

S5 Stop Light SW

2-1 : Closed with brake pedal depressed

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
J22	72	T11	71	T18	71
P1	69	T12	73	T23	73
S5	71	T15	73		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
6A	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6C		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	78	Engine Room No.2 Wire and Floor No.1 Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
lb2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BL1	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL5		
BX1	88	Frame No.4 Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

▽ : Ground Points

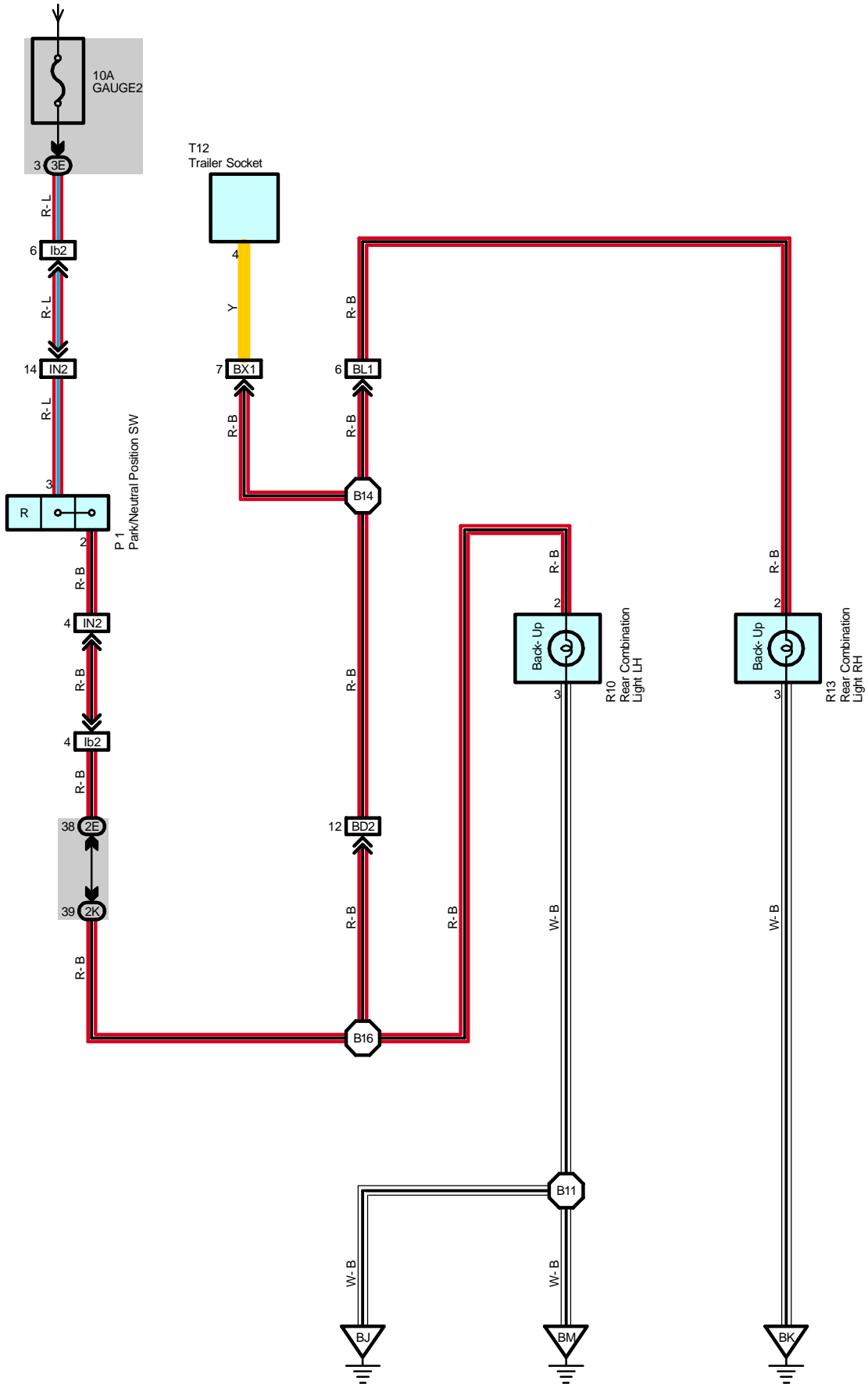
Code	See Page	Ground Points Location
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	88	Floor No.1 Wire	B24	88	Floor No.1 Wire
B16	88	Floor No.3 Wire			

Back-Up Light

From Power Source System (See Page 94)



Service Hints

P1 Park/Neutral Position SW

3-2 : Closed with shift lever at R position

: Parts Location

Code	See Page	Code	See Page	Code	See Page
P1	69	R13	73		
R10	73	T12	73		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BL1	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BX1	88	Frame No.4 Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

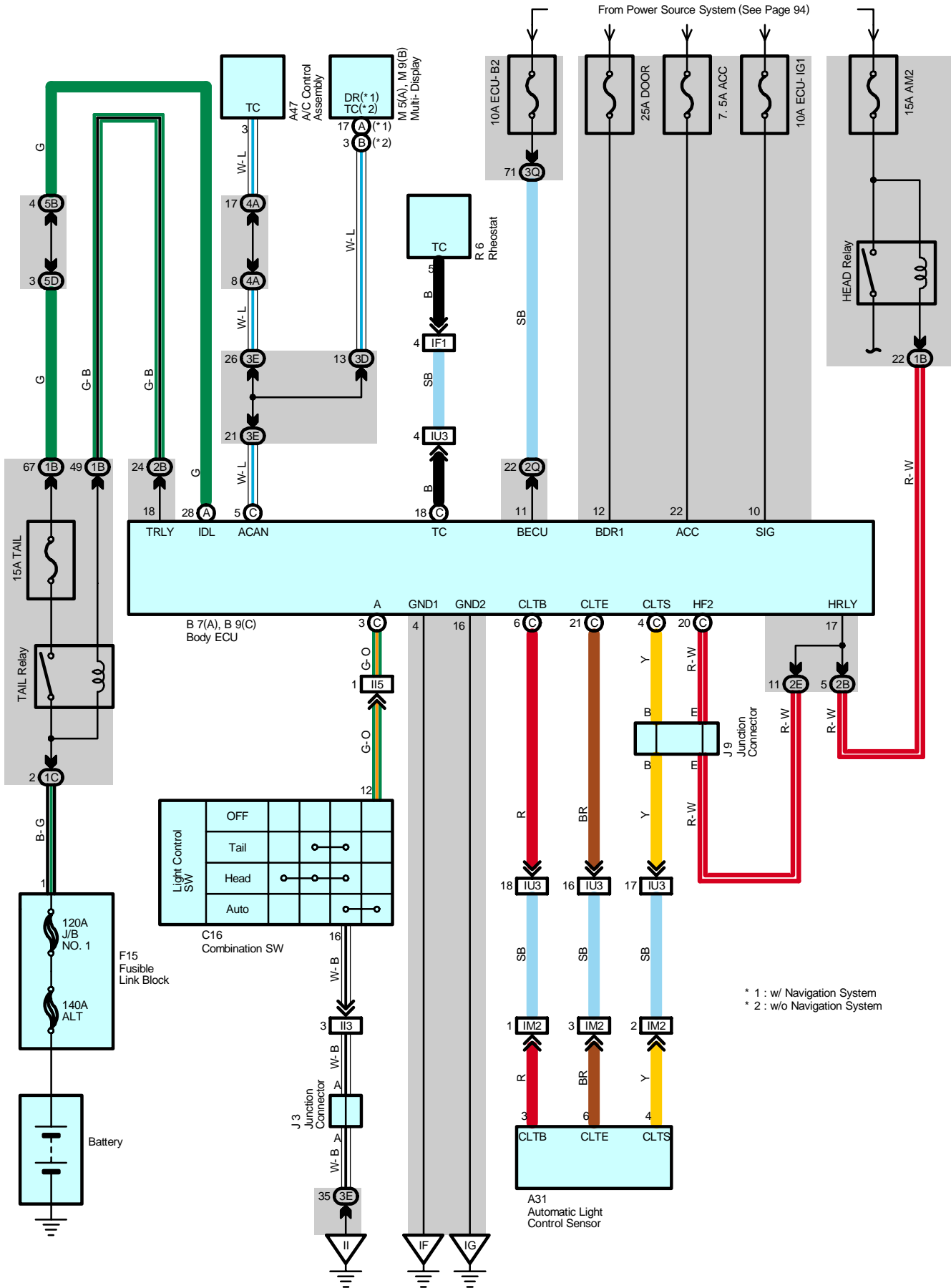
: Ground Points

Code	See Page	Ground Points Location
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	88	Floor No.1 Wire	B16	88	Floor No.3 Wire
B14	88	Floor No.2 Wire			

Automatic Light Control



System Outline

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

Service Hints

Body ECU

- 11, 12-Ground : Always approx. 12 volts
- 22-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- 10-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 4, 16-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A31	70	C16	70	M5 A	71
A47	70	F15	68	M9 B	71
B7 A	70	J3	71	R6	71
B9 C	70	J9	71		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B 1C	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D 3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)

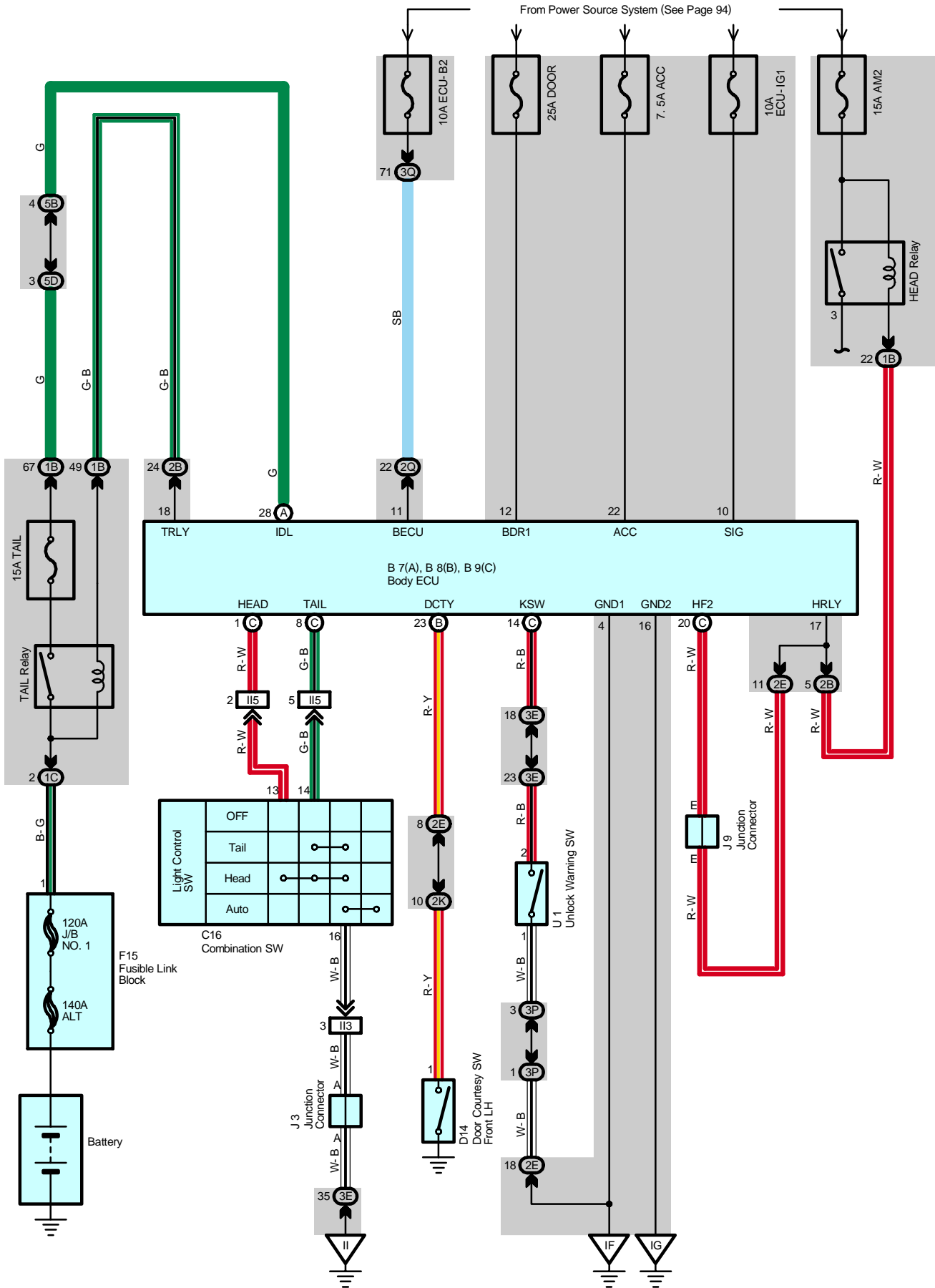
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
II3 II5	80	Dash Wire and Column Wire (Near the Ignition SW)
IM2	80	Instrument Panel Integration Wire and Instrument Panel No.3 Wire (Right Side of Instrument Panel)
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)

▽ : Ground Points

Code	See Page	Ground Points Location
IF IG	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH

Light Auto Turn Off



System Outline

The light auto turn off system automatically turns the taillight or headlight off according to the door open or close on the driver's side, and prevent failing to turn off the lights.

If the ignition switch is turned to OFF from ON with the headlight or taillight is on, the signal is input in the TERMINAL SIG of the body ECU. If the driver's side door is opened at that time, the signal from the door courtesy SW front LH is sent to the TERMINAL DCTY of the body ECU. The signal turns the headlight or taillight off.

Delayed turn off control

In the case of that some doors are opened, the headlight or taillight is left on for about 30 seconds after the all the doors was closed. However, if the doors are locked using the wireless door lock, the headlight or taillight is immediately turn off.

Service Hints

Body ECU

11, 12-Ground : Always approx. 12 volts

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

4, 16-Ground : Always continuity

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
B7	A	70	C16	70		J3		71
B8	B	70	D14	72		J9		71
B9	C	70	F15	68		U1		71

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)

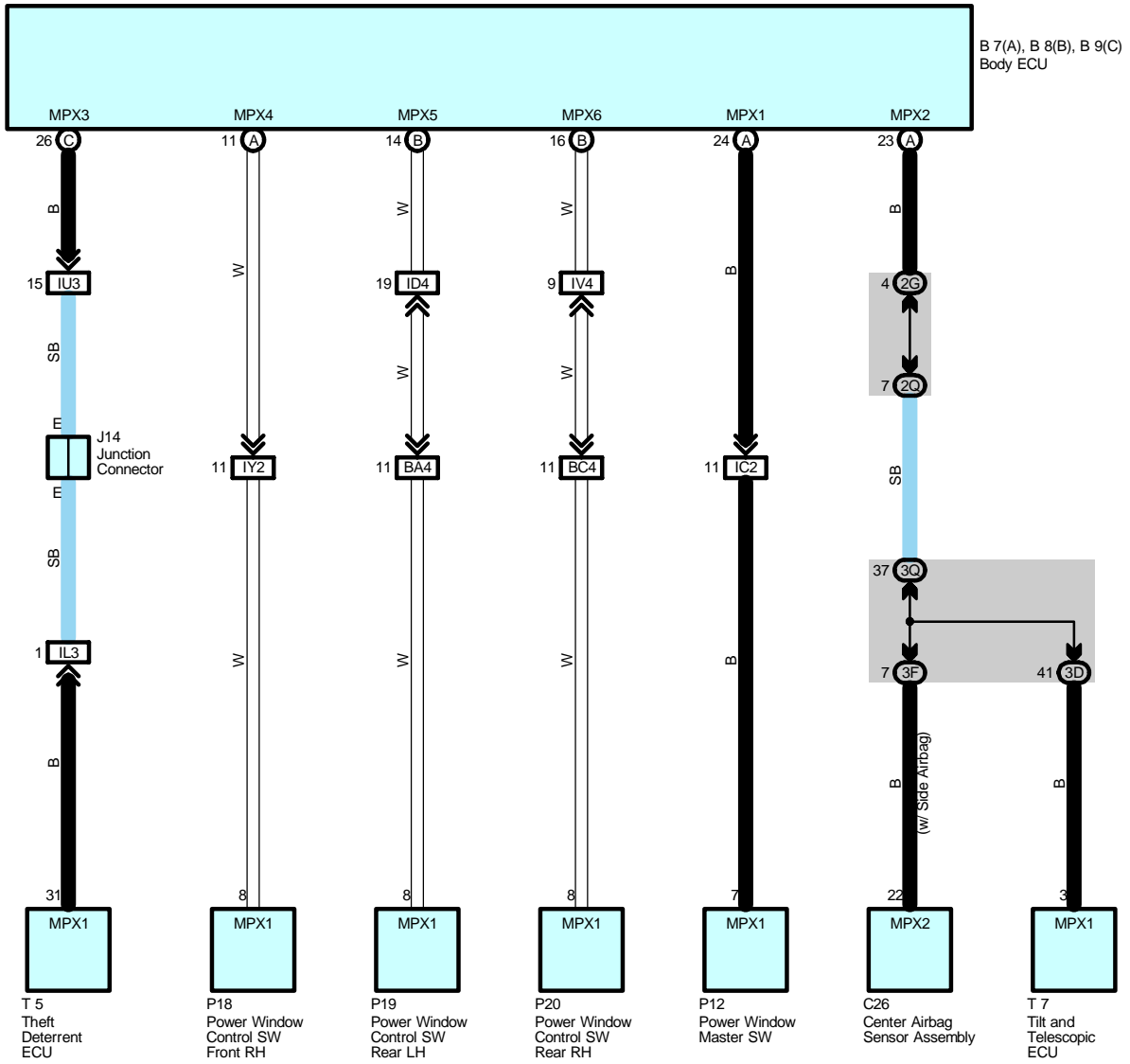
□ : Connector Joining Wire Harness and Wire Harness

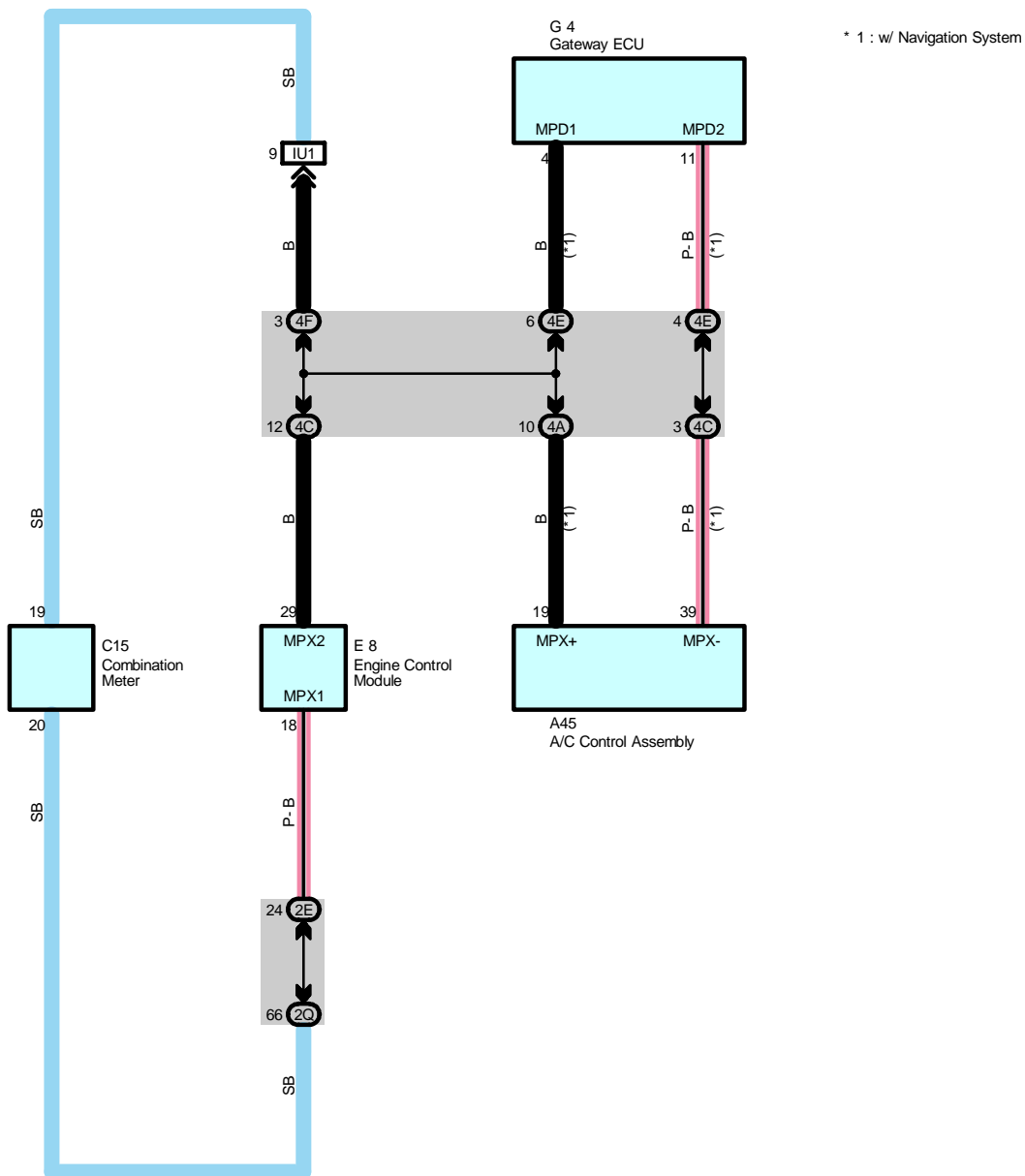
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II5		

▽ : Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH

Multiplex Communication System (Communication Bus)



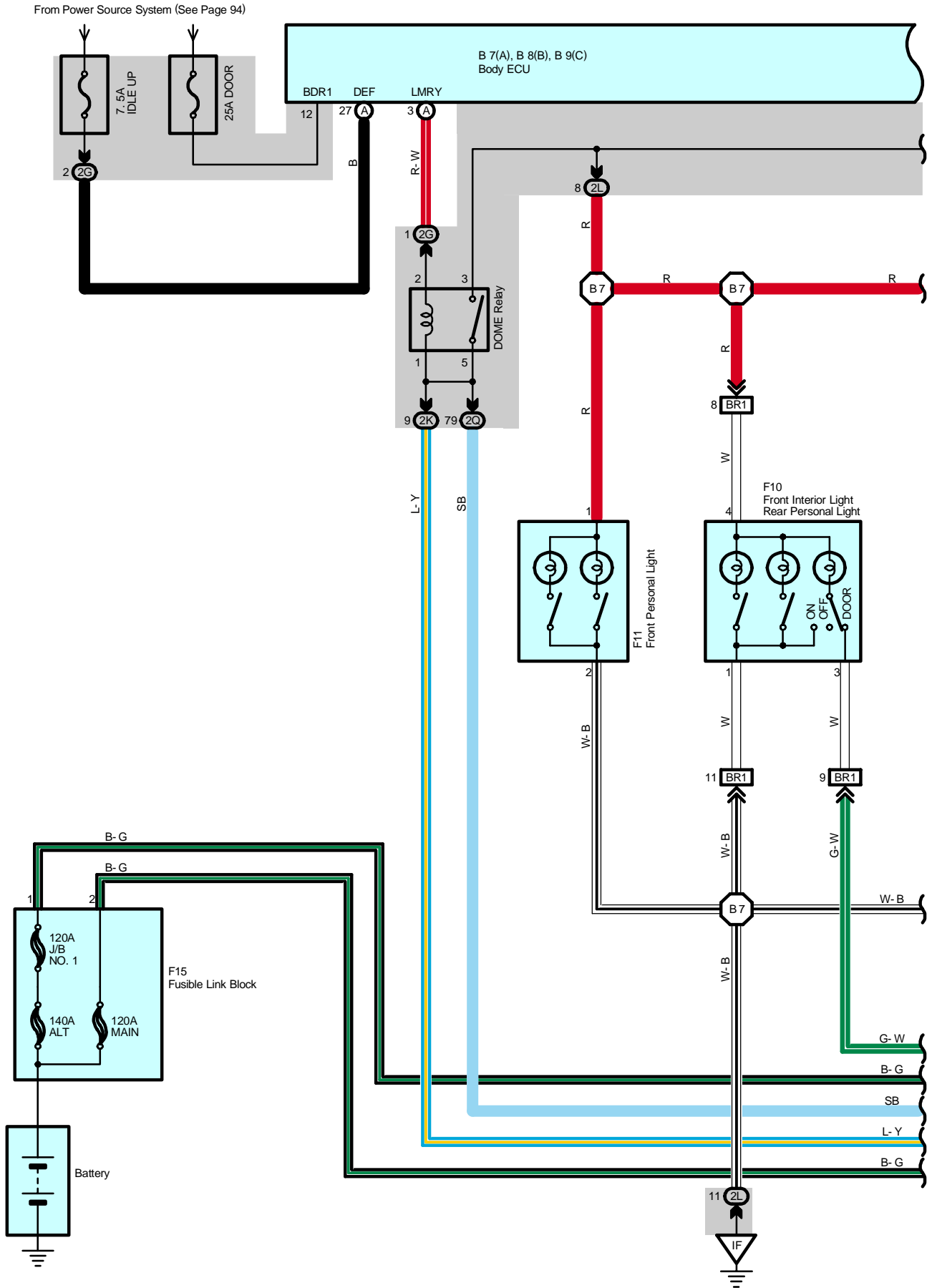


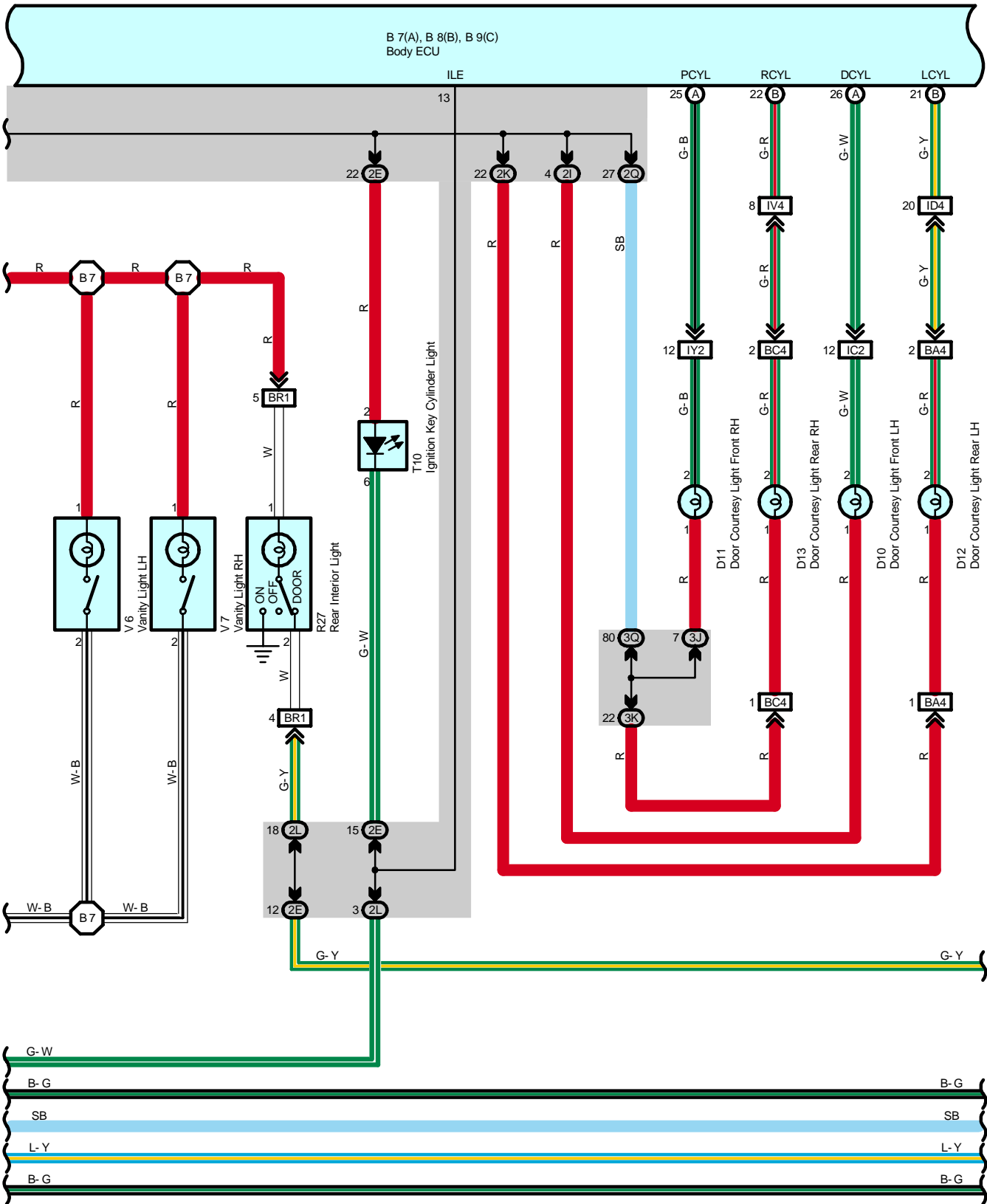
Multiplex Communication System (Communication Bus)

Multiplex Communication System Includes Following Systems

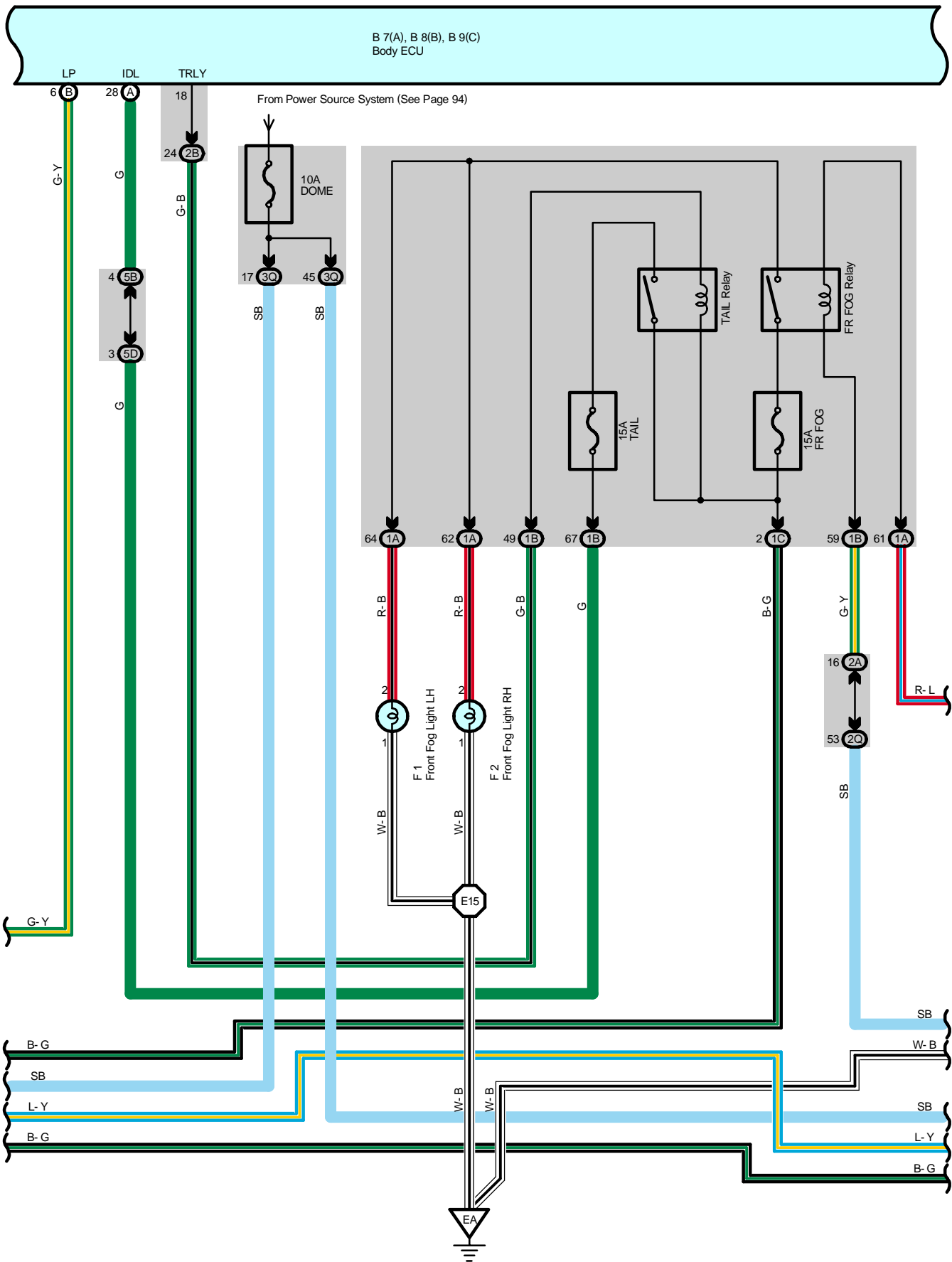
- * Automatic Light Control
- * Door Lock Control
- * Front Fog Light
- * Headlight
- * Interior Light
- * Key Reminder
- * Light Auto Turn Off
- * Power Window
- * Theft Deterrent
- * Wireless Door Lock Control

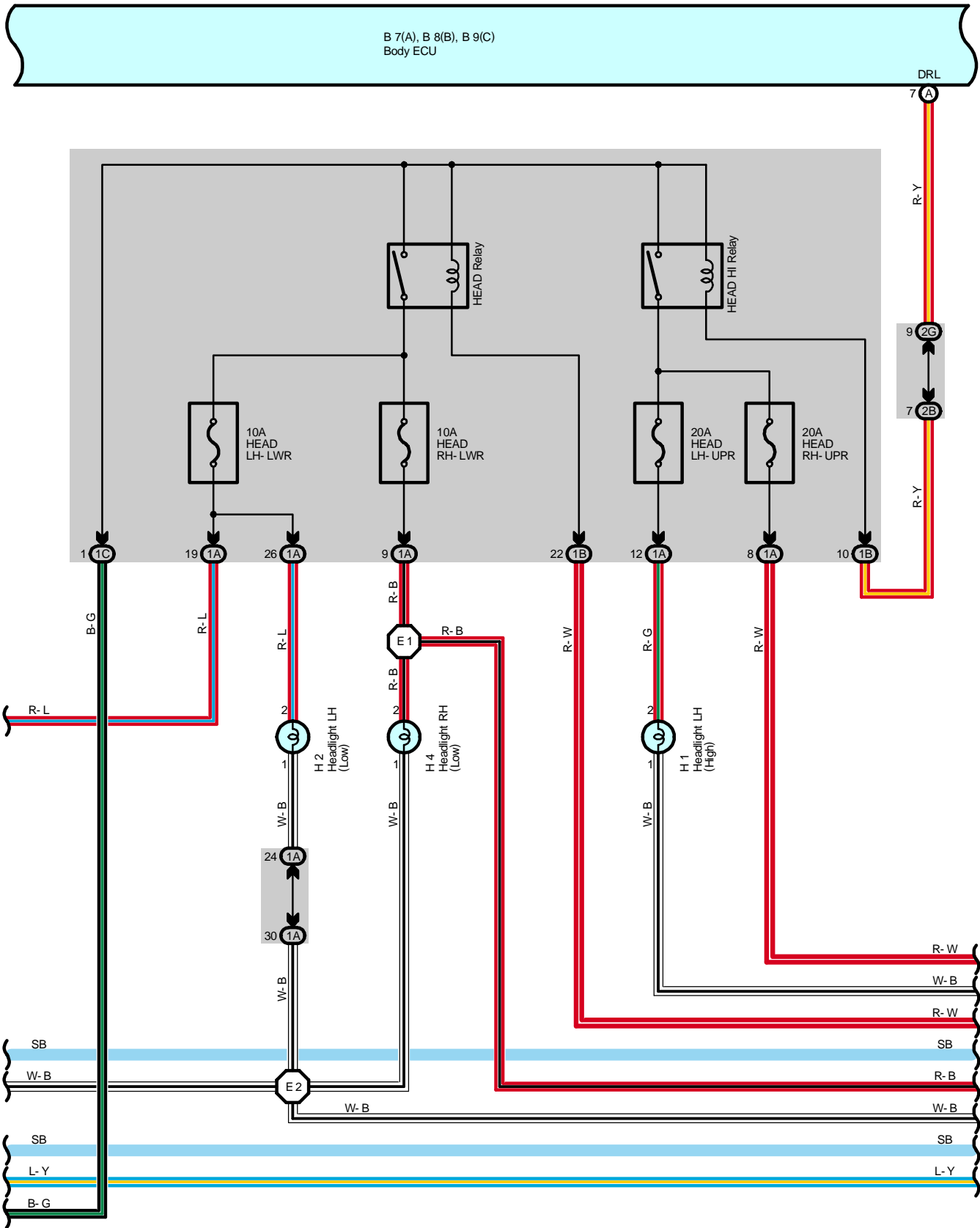
Multiplex Communication System



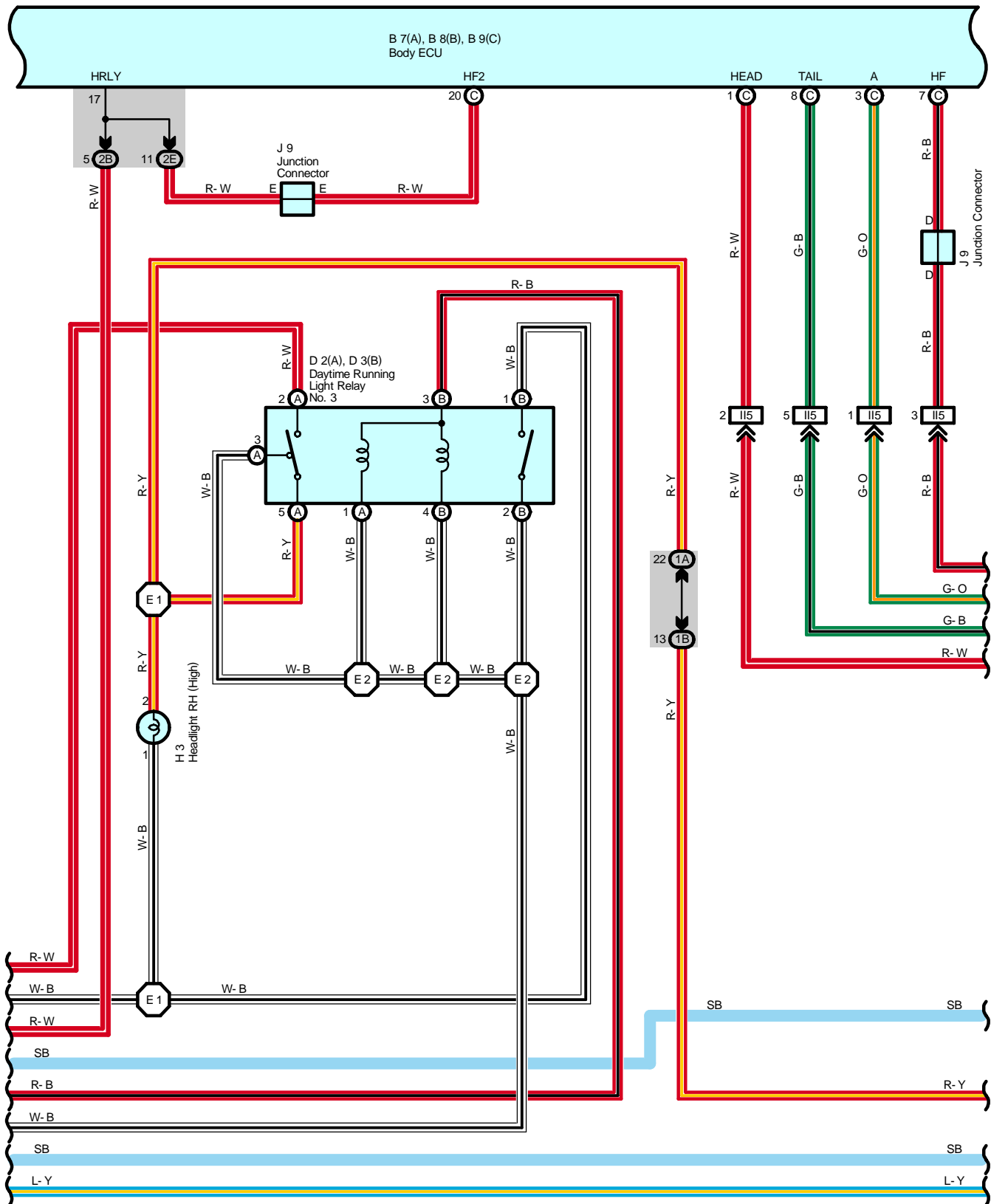


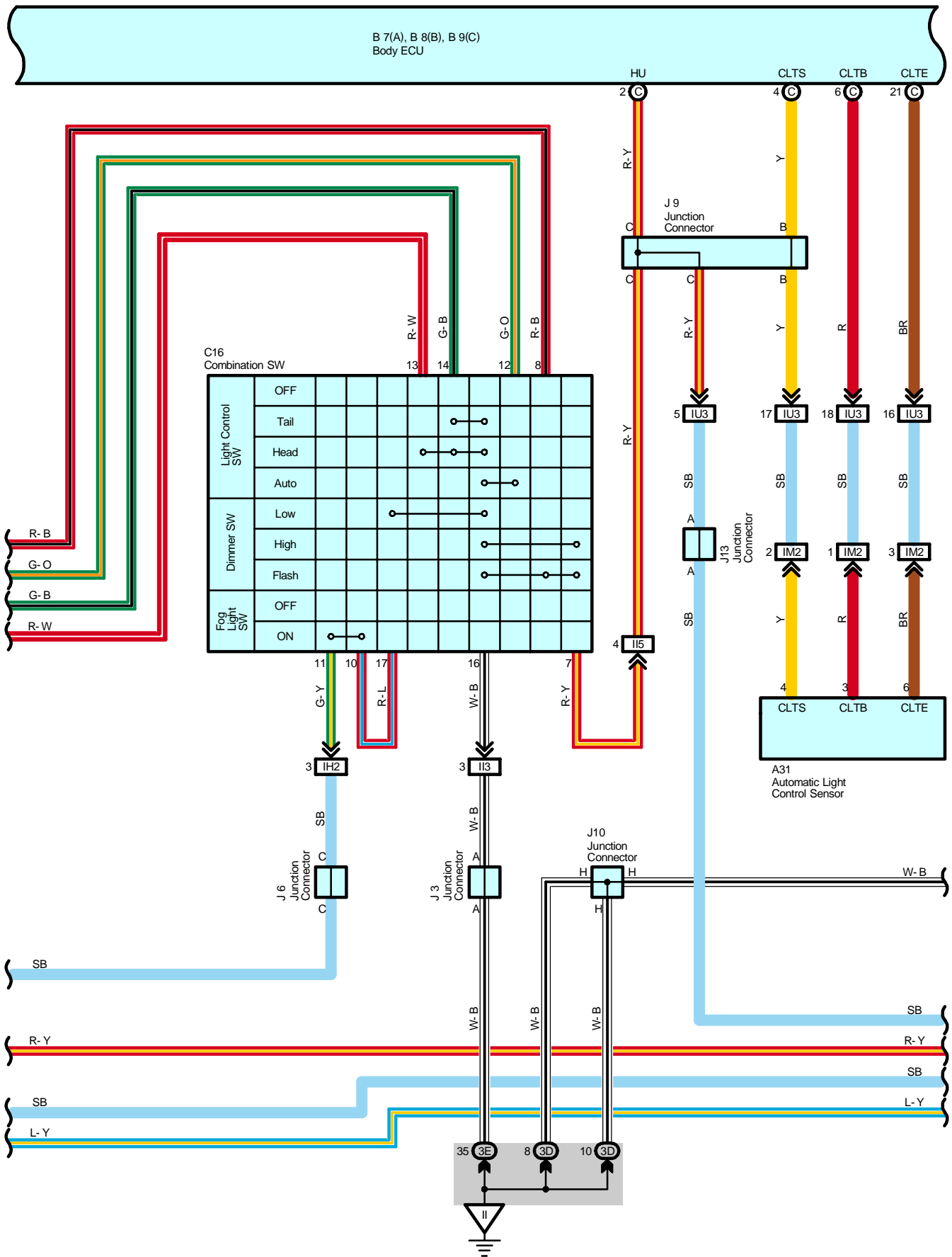
Multiplex Communication System



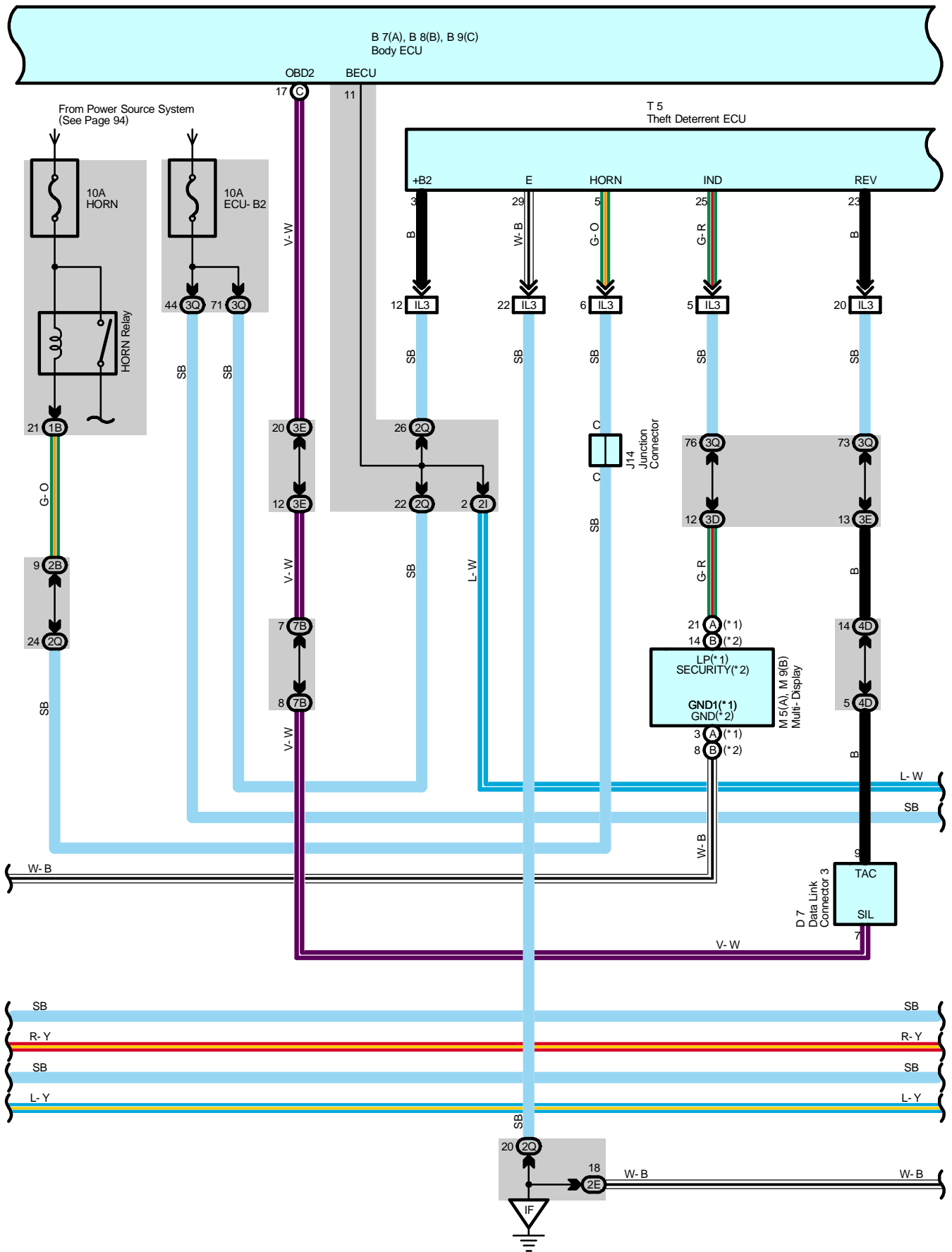


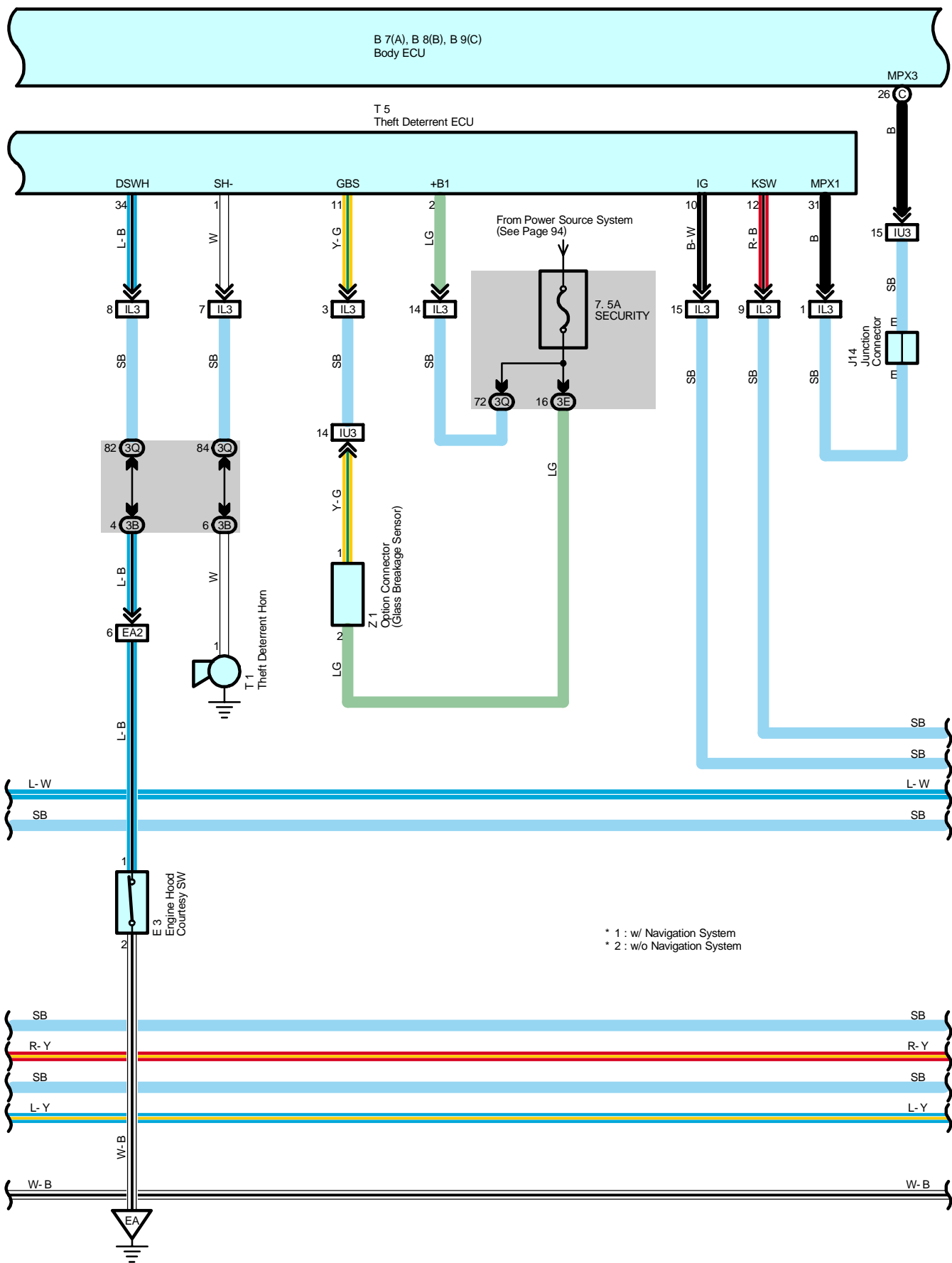
Multiplex Communication System



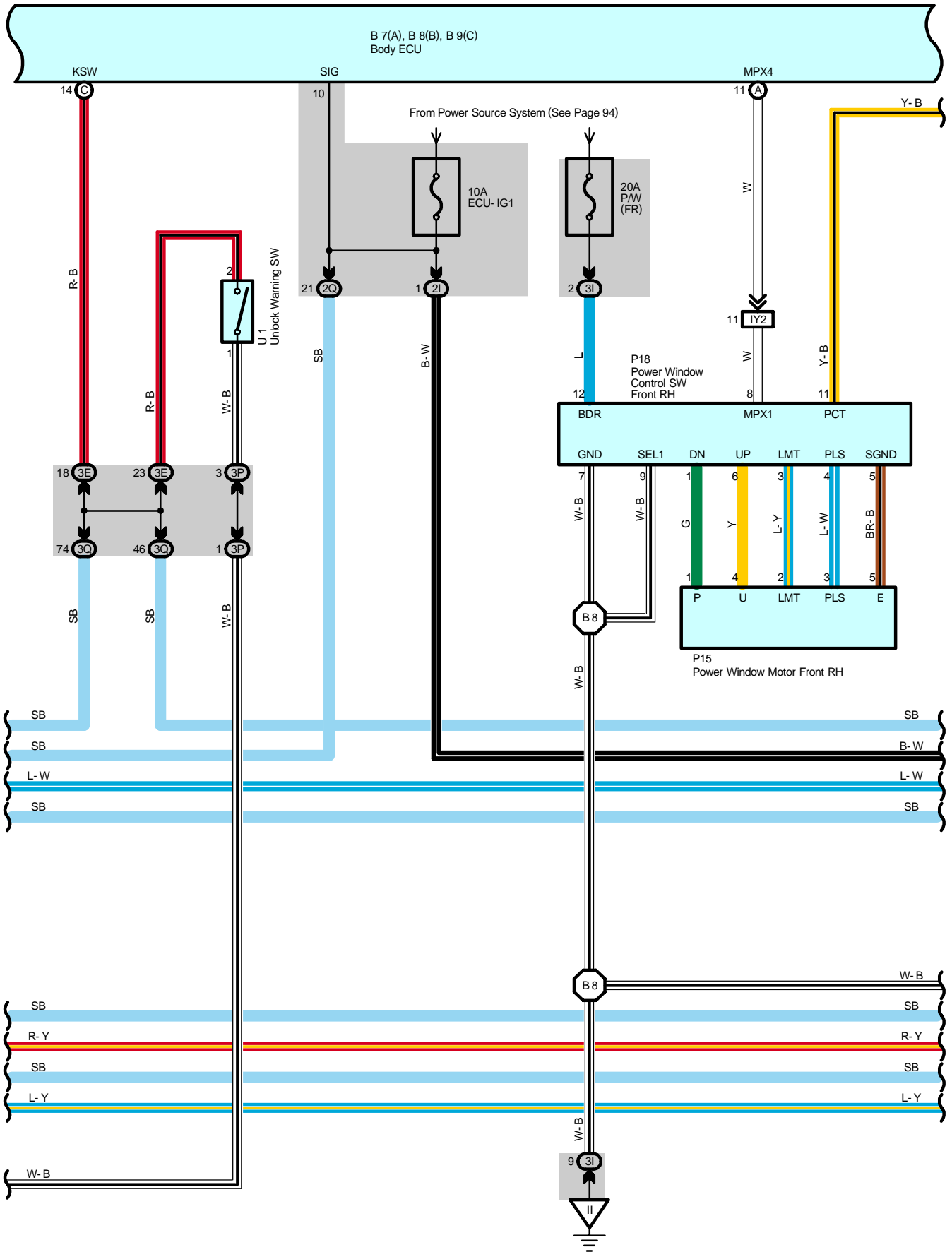


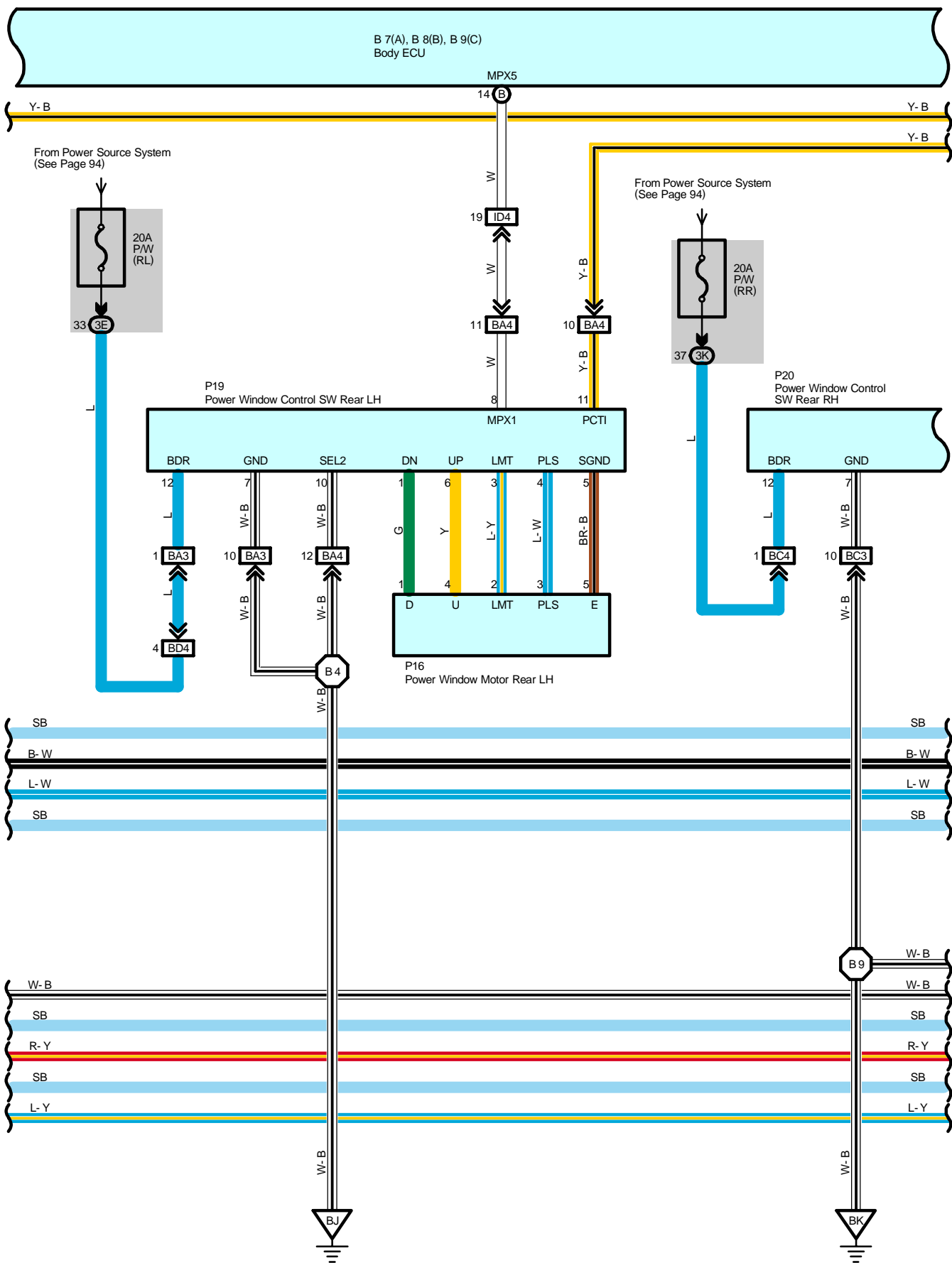
Multiplex Communication System



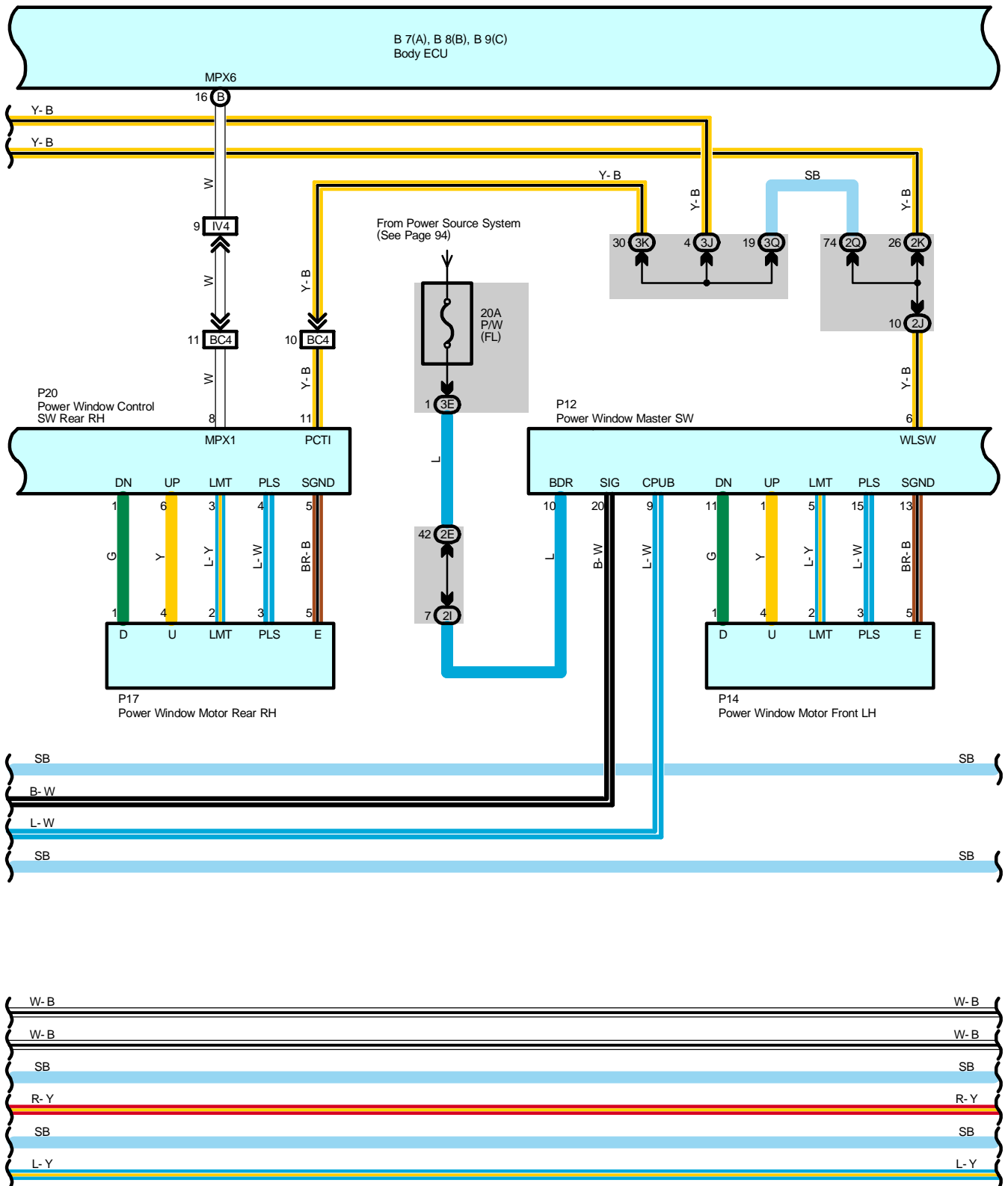


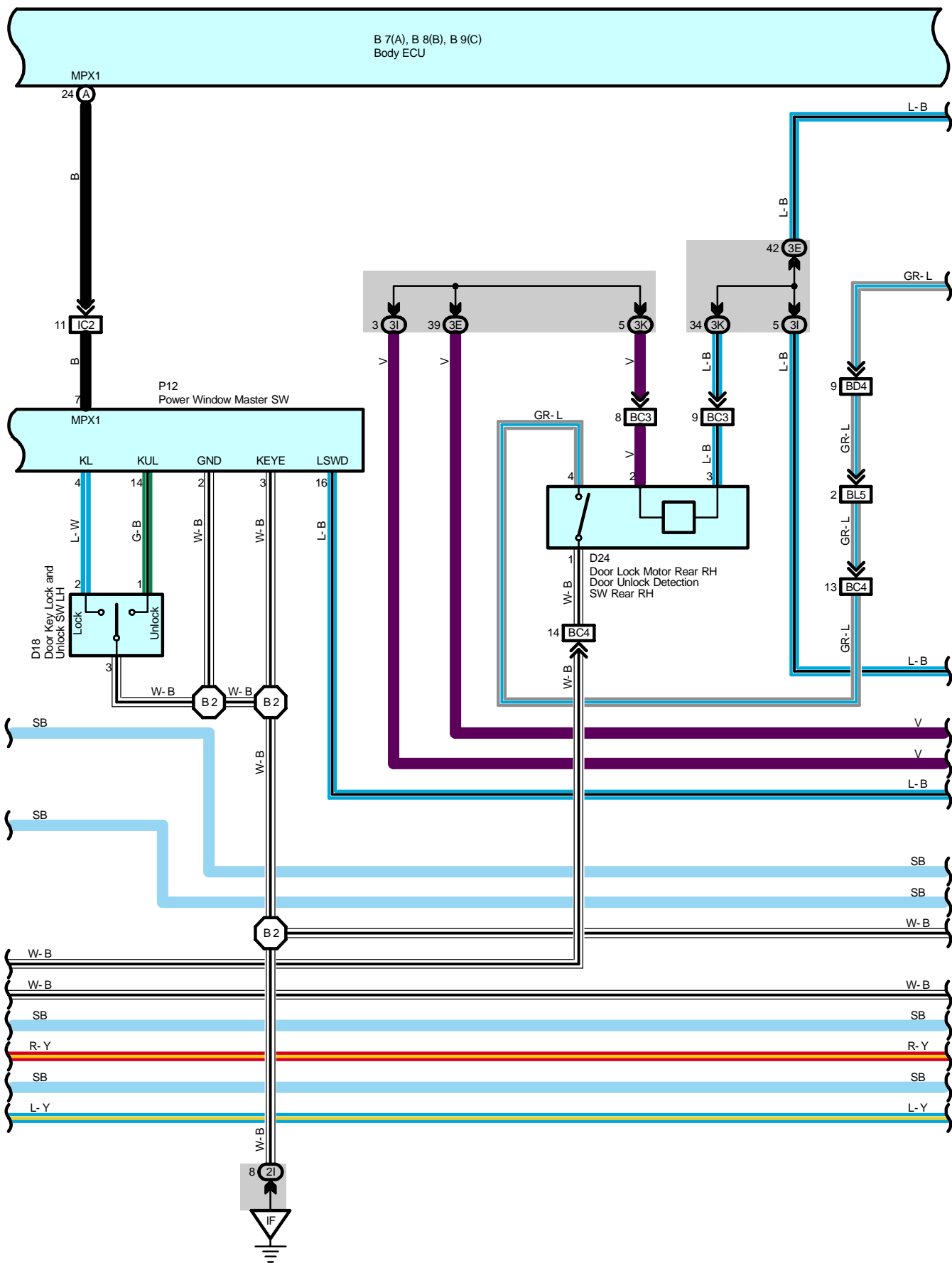
Multiplex Communication System



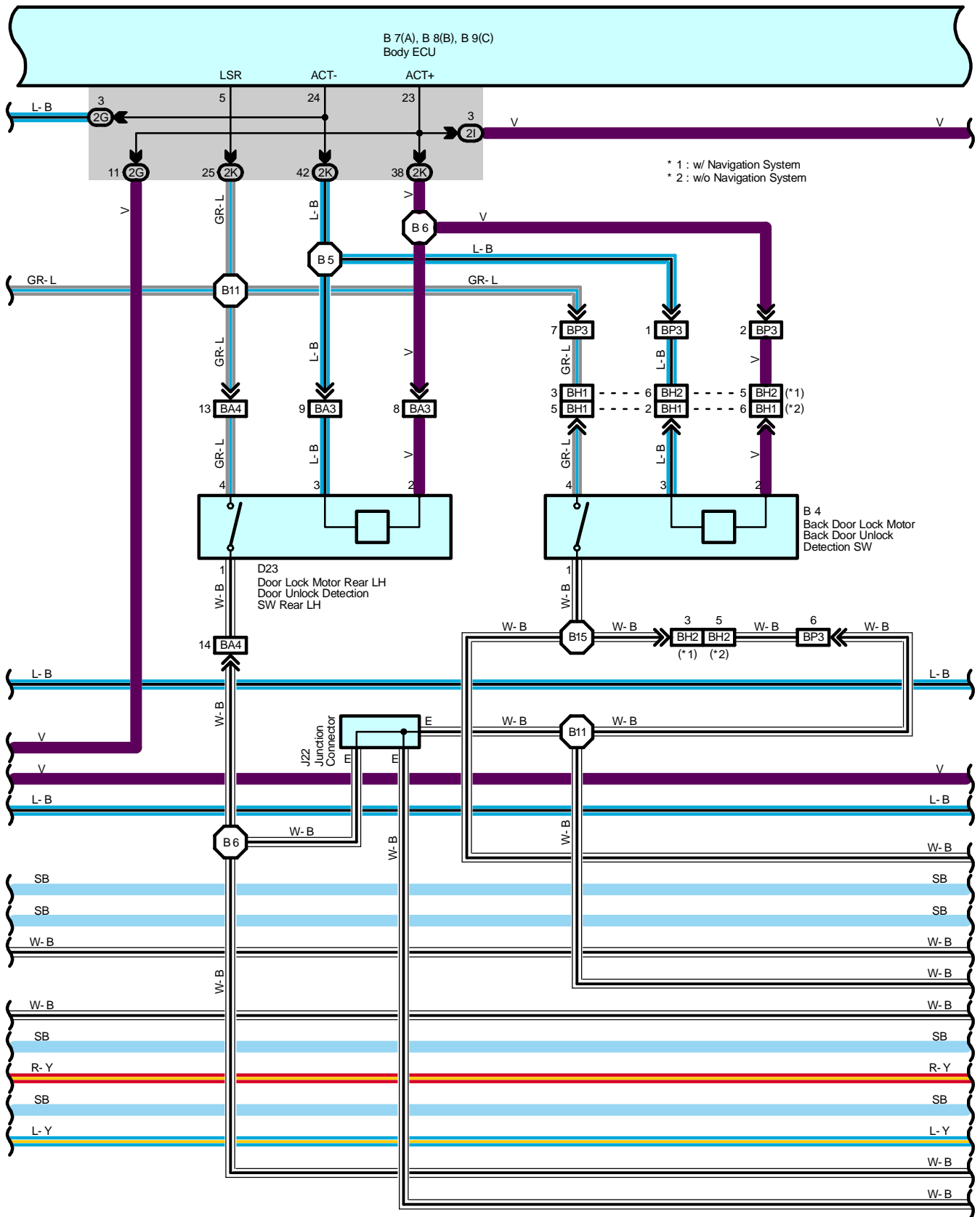


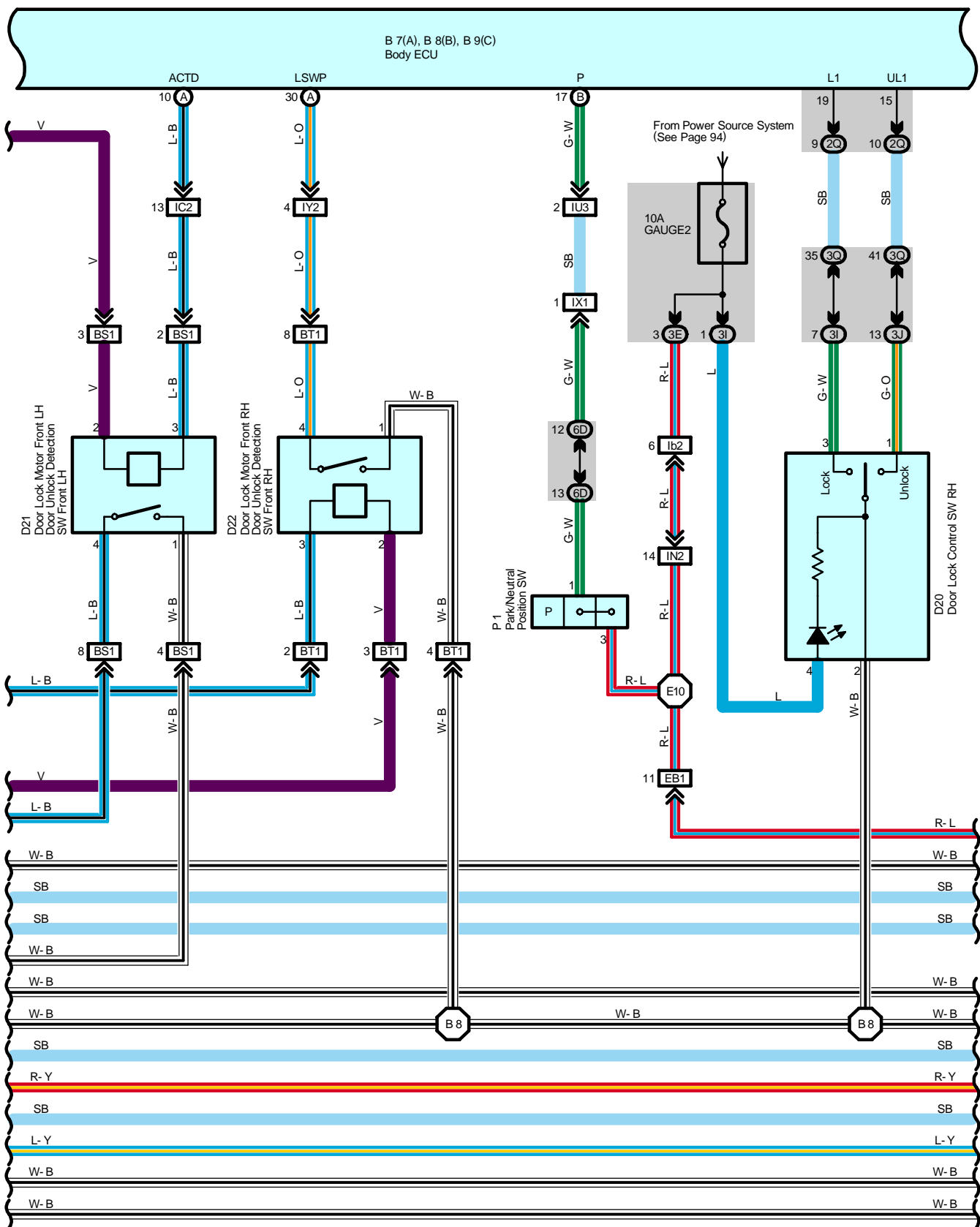
Multiplex Communication System



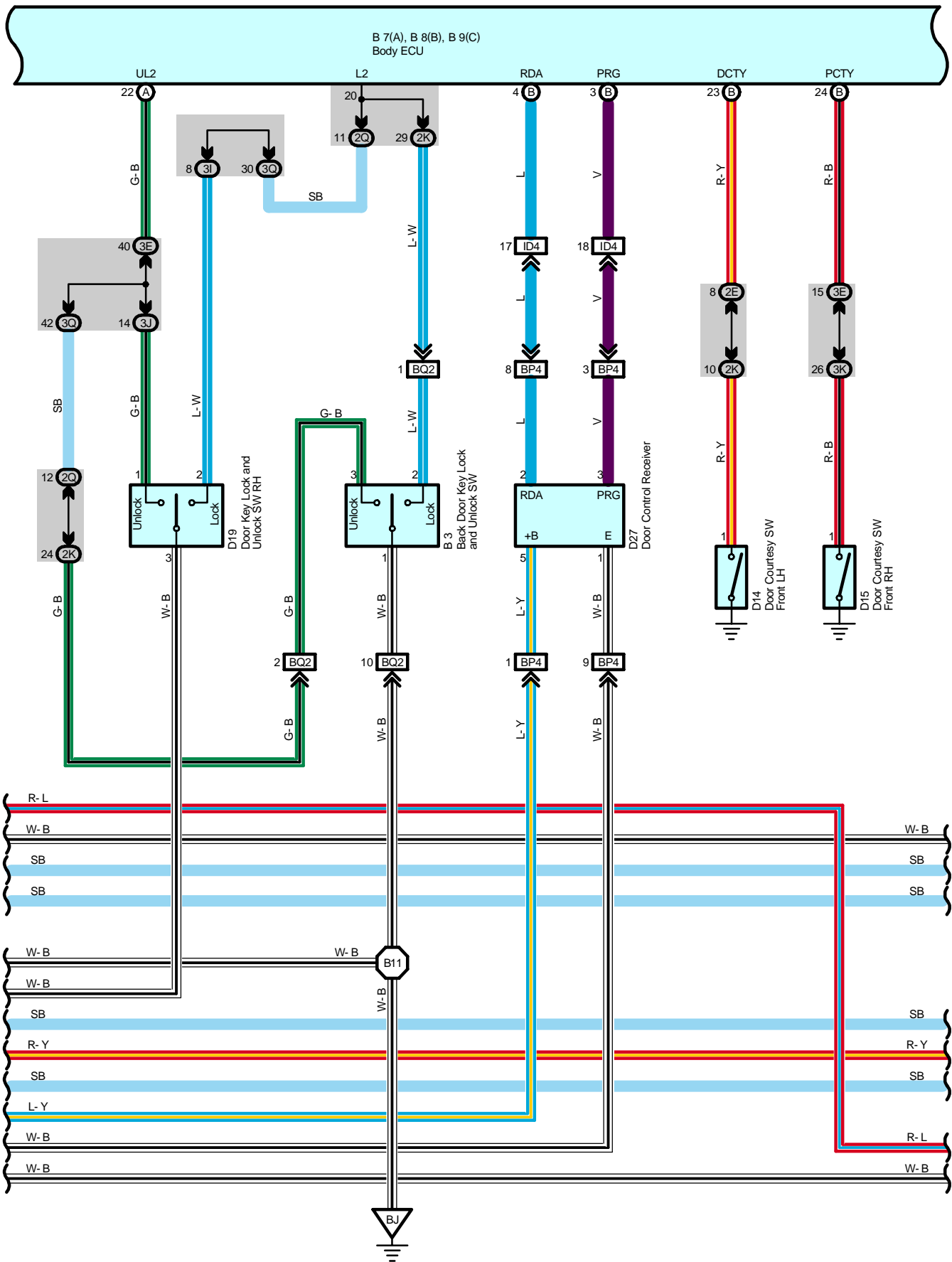


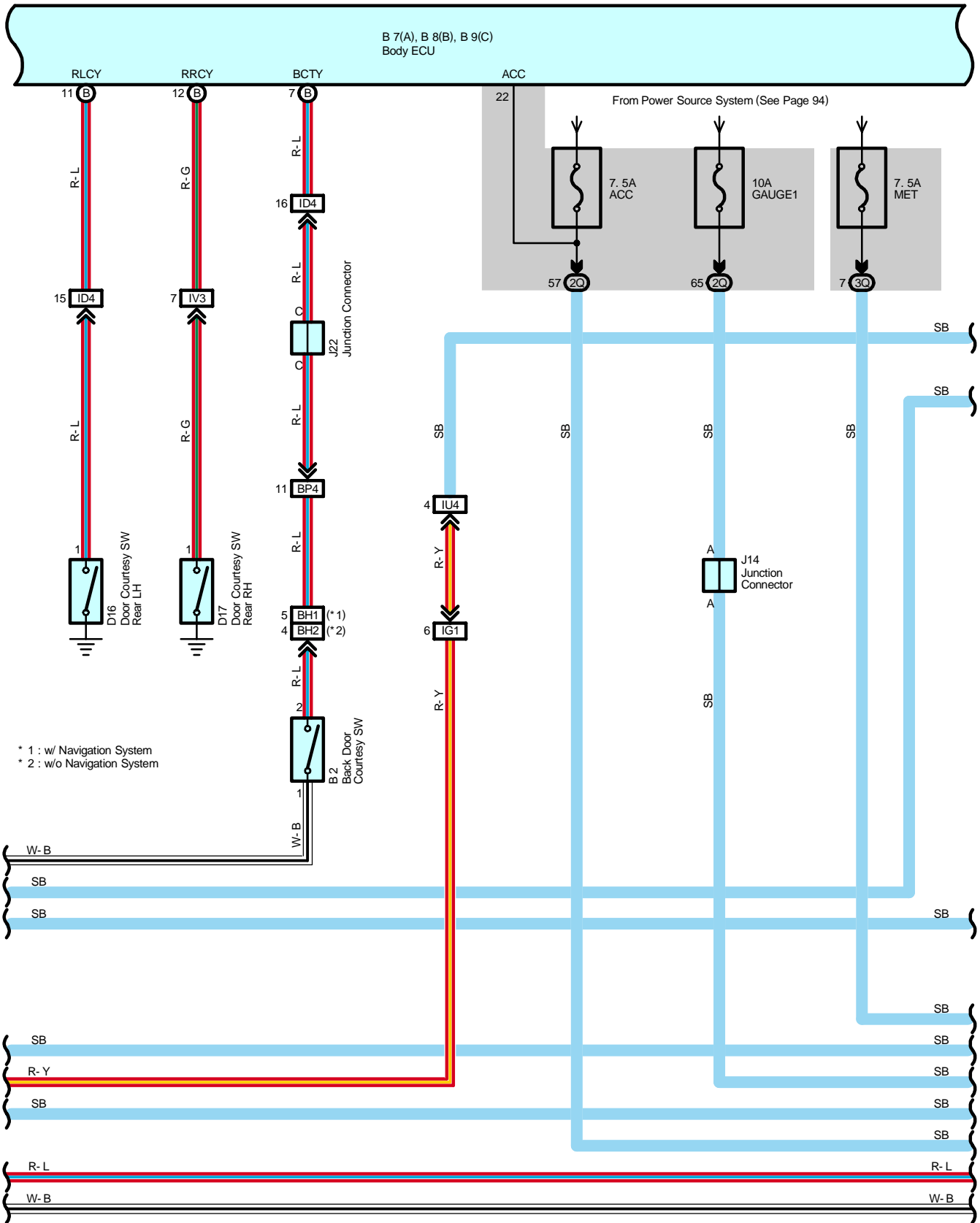
Multiplex Communication System



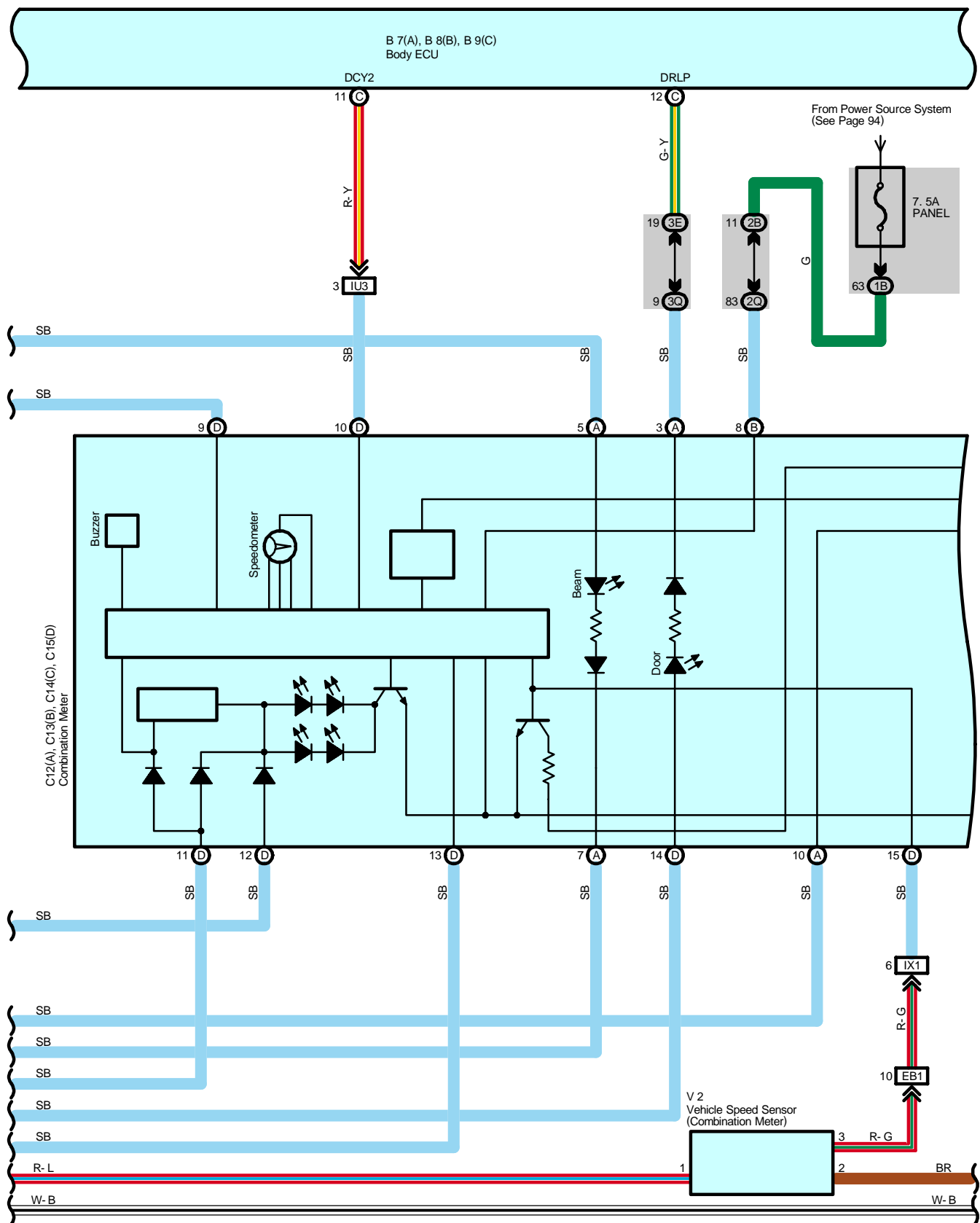


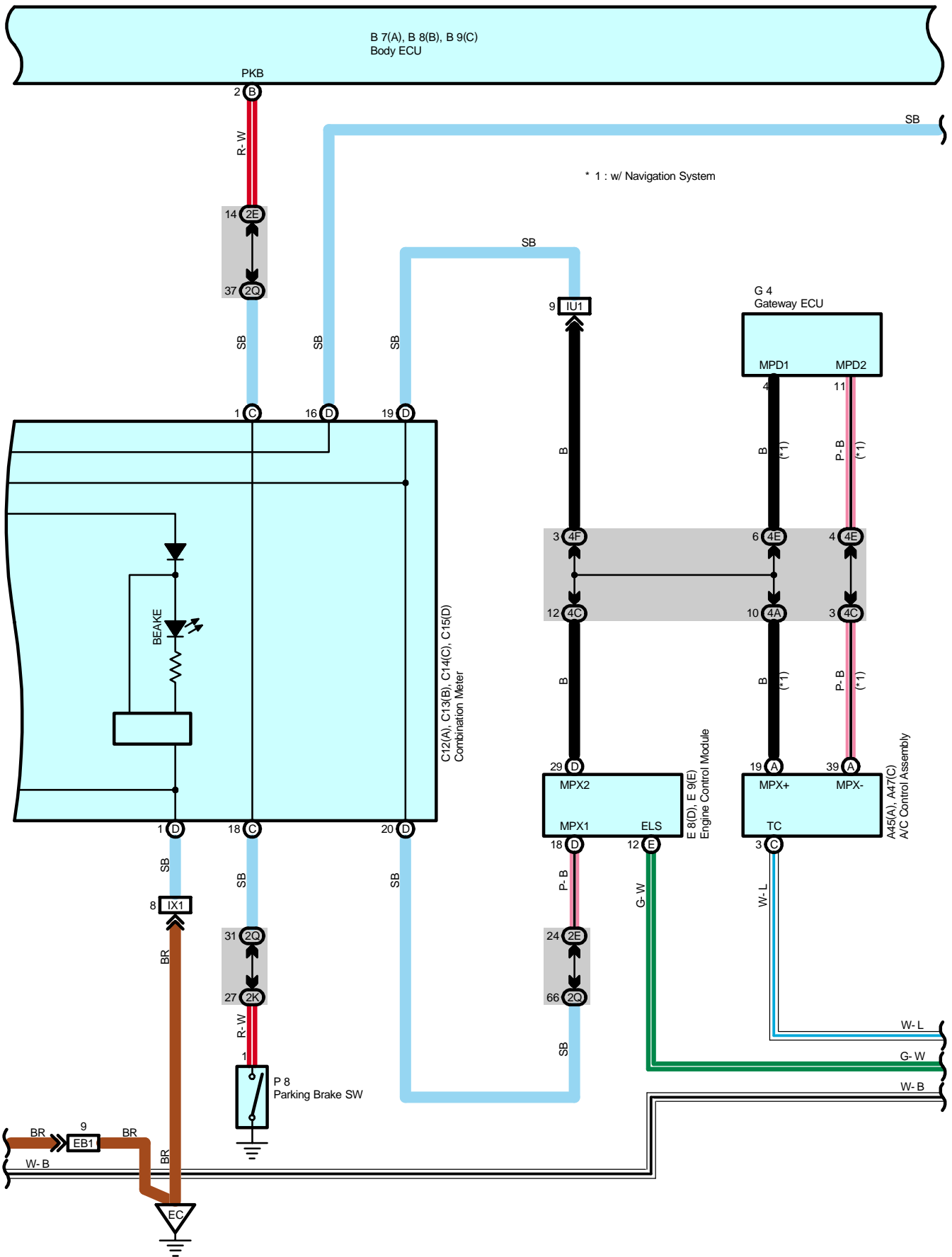
Multiplex Communication System



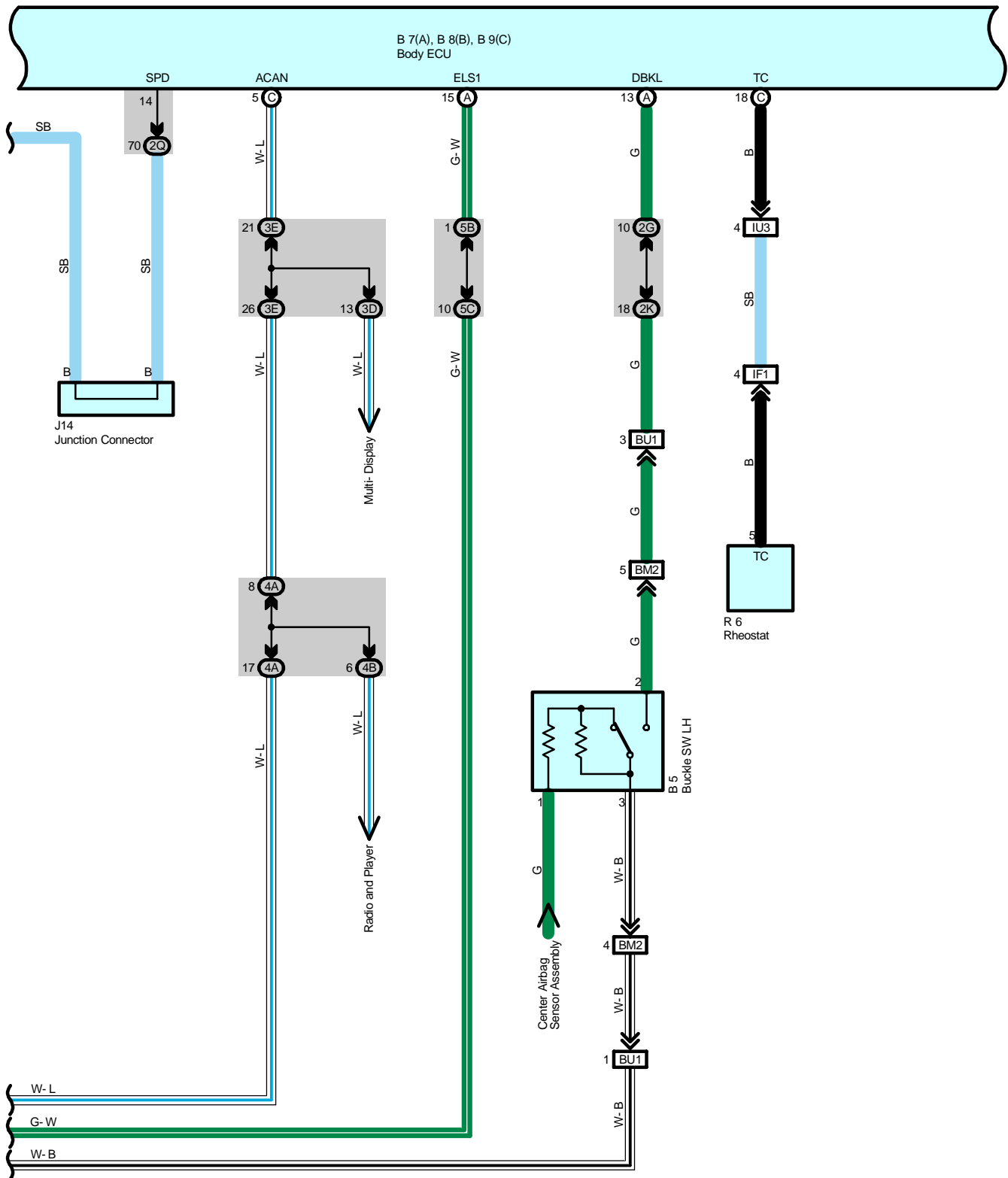


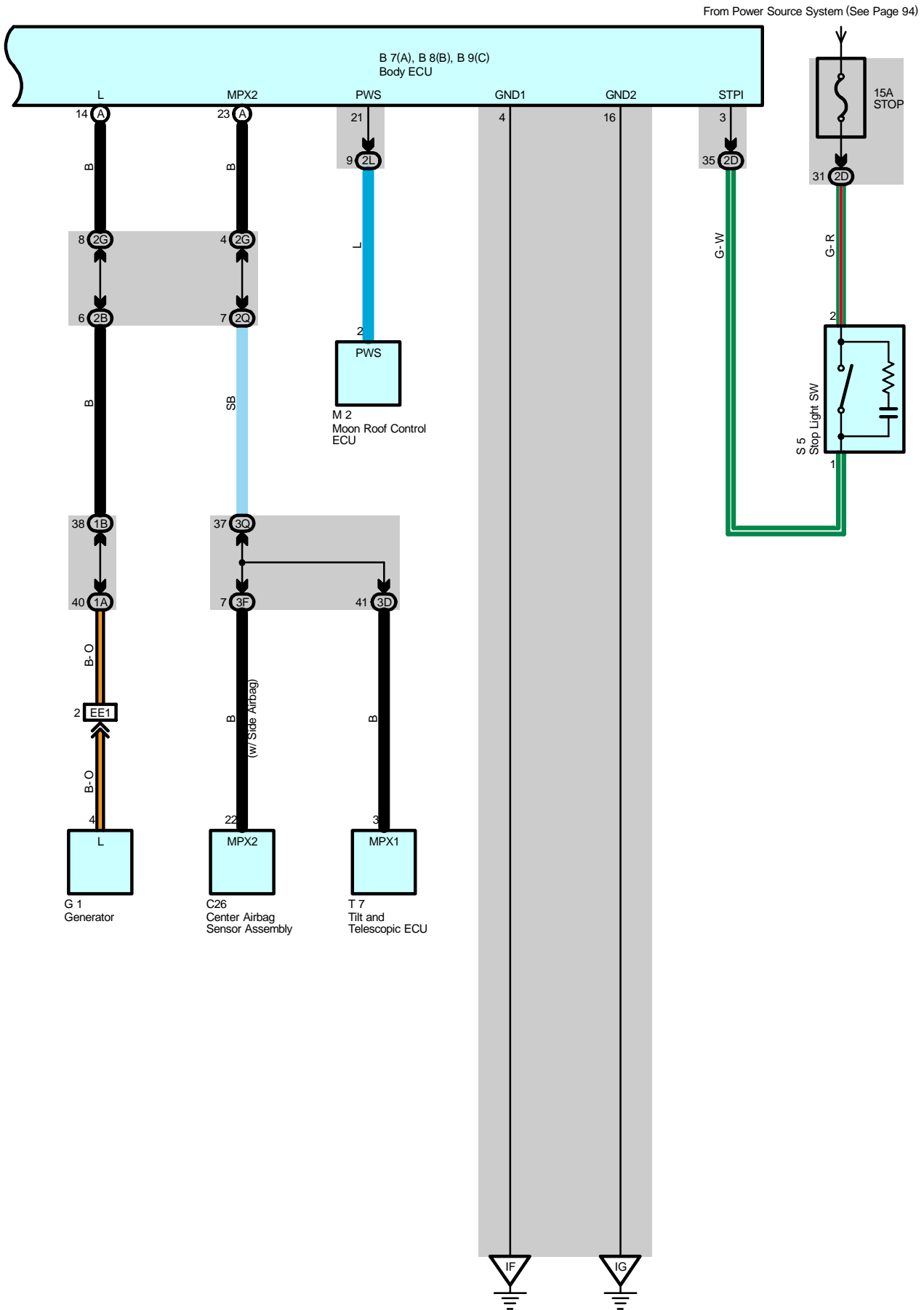
Multiplex Communication System





Multiplex Communication System





Multiplex Communication System

System Outline

The multiplex communication system communicates among the body ECU, theft deterrent ECU, power window master SW, power window control SW front RH, power window control SW rear LH, power window control SW rear RH, center airbag sensor assembly and tilt and telescopic ECU, among the combination meter, engine control module, A/C control assembly and gateway ECU and controls the following systems according to the signals from respective sensors or switches. For details, please refer to the new car features and/or the repair manual.

Service Hints

Body ECU

- 11, 12-Ground : Always approx. 12 volts
- 22-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- 10-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 4, 16-Ground : Always continuity

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A31		70	D18		72	J14		71
A45	A	70	D19		72	J22		72
A47	C	70	D20		72	M2		72
B2		72	D21		72	M5	A	71
B3		72	D22		72	M9	B	71
B4		72	D23		72	P1		69
B5		74	D24		72	P8		73
B7	A	70	D27		72	P12		73
B8	B	70	E3		68	P14		73
B9	C	70	E8	D	70	P15		73
C12	A	70	E9	E	70	P16		73
C13	B	70	F1		68	P17		73
C14	C	70	F2		68	P18		73
C15	D	70	F10		72	P19		73
C16		70	F11		72	P20		73
C26		70	F15		68	R6		71
D2	A	68	G1		68	R27		73
D3	B	68	G4		70	S5		71
D7		70	H1		69	T1		69
D10		72	H2		69	T5		71
D11		72	H3		69	T7		71
D12		72	H4		69	T10		71
D13		72	J3		71	U1		71
D14		72	J6		71	V2		69
D15		72	J9		71	V6		73
D16		72	J10		71	V7		73
D17		72	J13		71	Z1		71

**: Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2J		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3F		
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3J		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4B		
4C		
4D		
4E		
4F		
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5C		
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)

Multiplex Communication System

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	76	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
EE1	76	Engine Room Main Wire and Alternator Wire (Near the Battery)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IF1	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II5		
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IM2	80	Instrument Panel Integration Wire and Instrument Panel No.3 Wire (Right Side of Instrument Panel)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU3		
IU4		
IV3		
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BA4		
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC4		
BD4	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL5	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BM2	90	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BR1	88	Roof No.3 Wire and Roof No.1 Wire (Front Side of Roof)
BS1	88	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)
BT1	88	Door Lock RH Sub Wire and Front Door RH Wire (Front Door RH)
BU1	88	Floor No.1 Wire and Floor No.1 Wire (Near the Left Rear Suspension Support)

: Ground Points

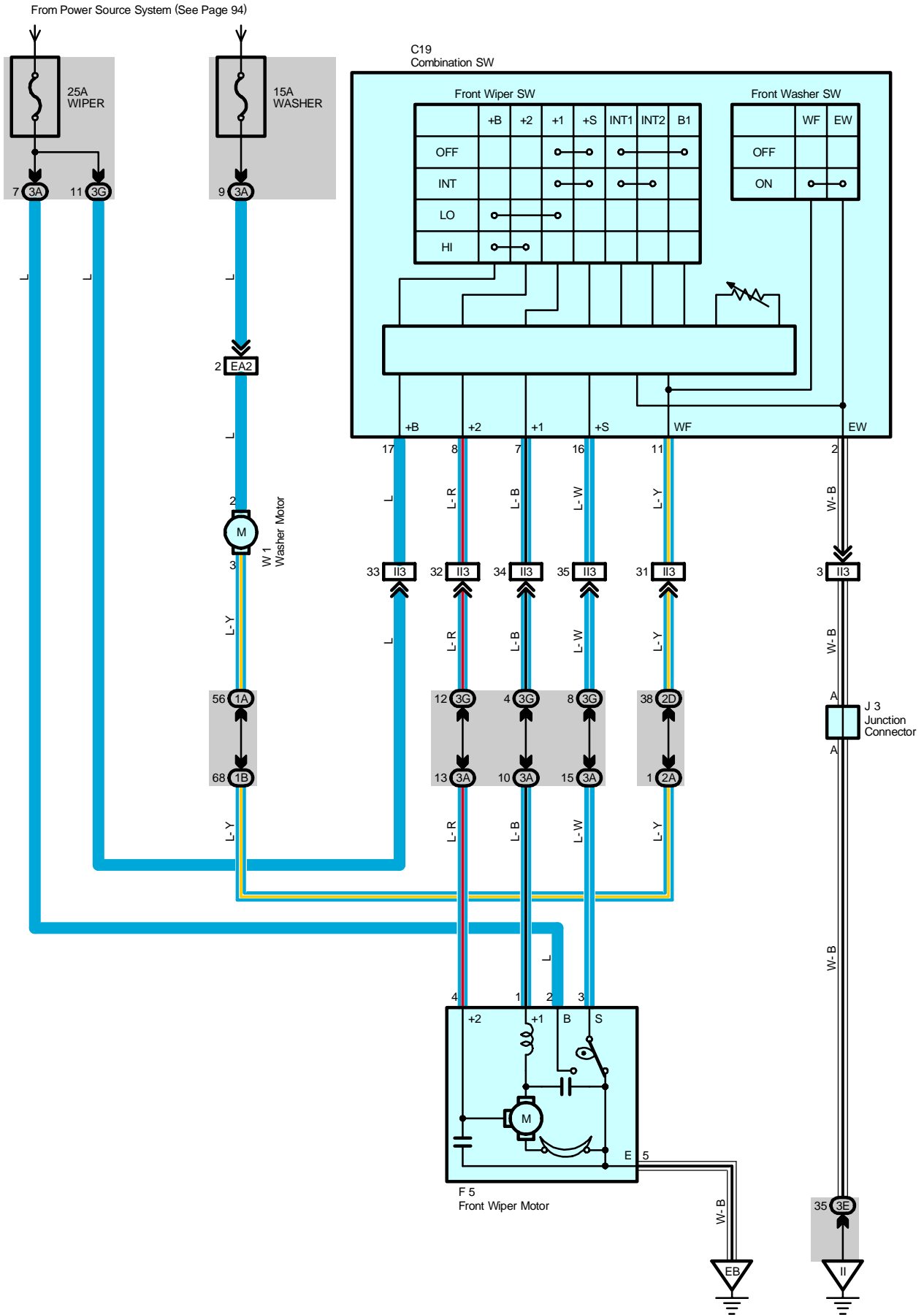
Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat



: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	76	Engine Room Main Wire	B6	88	Floor No.1 Wire
E2			B7	88	Roof No.1 Wire
E10	76	Engine Wire	B8	88	Front Door RH Wire
E15	76	Engine Room Main Wire	B9	88	Floor No.2 Wire
B2	88	Front Door LH Wire	B11	88	Floor No.1 Wire
B4	88	Floor No.1 Wire	B15	88	Back Door Upper Wire
B5					

Front Wiper and Washer



System Outline

When the ignition SW turned on, the current from the WIPER fuse flows to the front wiper and washer SW TERMINAL 17, and the front wiper motor TERMINAL 2.

1. Low Position

When the front wiper SW is turned to LO position, the current flows from the front wiper and washer SW TERMINAL 17 to TERMINAL 7 to the front wiper motor TERMINAL 1 to TERMINAL 5 to GROUND, and operates the front wiper motor at low speed.

2. High Position

When the front wiper SW is turned to HI position, the current flows from the front wiper and washer SW TERMINAL 17 to TERMINAL 8 to the front wiper motor TERMINAL 4 to TERMINAL 5 to GROUND, and operates the front wiper motor at high speed.

3. INT Position

When the front wiper SW is turned to INT position, the relay operates and the current which is connected by the relay function flows from the front wiper and washer SW TERMINAL 17 to TERMINAL 2 to GROUND, and operates the wiper.

The intermittent operation is controlled by the charge/discharge function of the condenser installed in the relay, and the intermittent time is controlled by a time control SW to change the charging time of the condenser.

4. Washer Interlocking Operation

When the front washer SW is pulled up, the current flows from the washer motor TERMINAL 2 to TERMINAL 3 to the front wiper and washer SW TERMINAL 11 to TERMINAL 2 to GROUND, operates the washer motor and the window washer emits a water spray. This causes the current to flow to the washer continuous operation circuit in the front wiper and washer SW TERMINAL 11 to TERMINAL 7 to front wiper motor TERMINAL 1 to TERMINAL 5 to GROUND, and operates the wiper.

Service Hints

C19 Combination SW

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

7-Ground : Approx. 12 volts with front wiper and washer SW at LO position

: Approx. 12 volts 1.6 to 10.7 seconds intermittently with the front wiper and washer SW at INT position

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

8-Ground : Approx. 12 volts with front wiper and washer SW at HI position

2-Ground : Always continuity

F5 Front Wiper Motor

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

5-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C19	70	J3	71		
F5	68	W1	69		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
3A	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3G		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	76	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)

Front Wiper and Washer

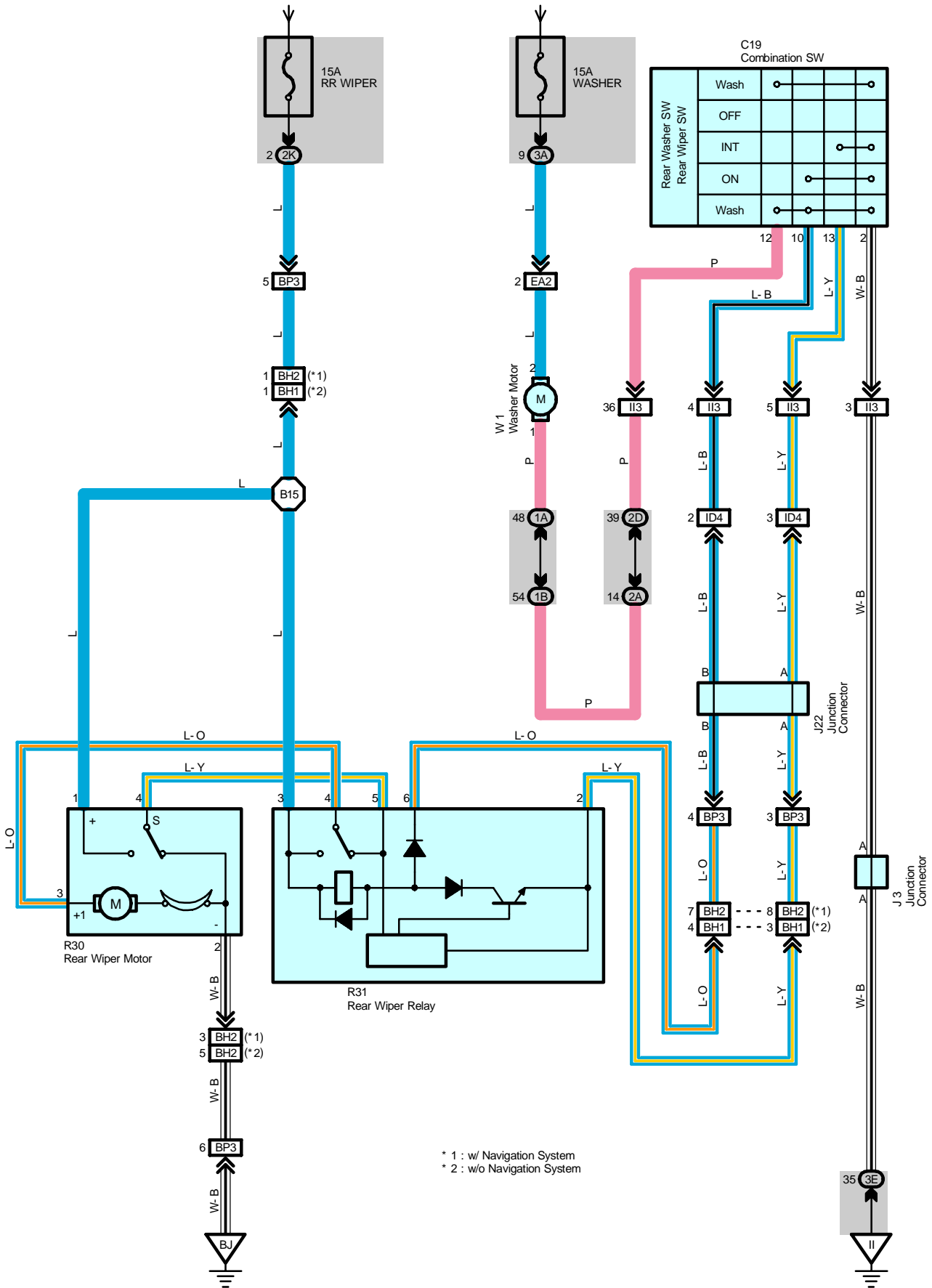


: Ground Points

Code	See Page	Ground Points Location
EB	76	Front Right Side of Fender Apron
II	78	Set Bolt of Cowl Side J/B RH

Rear Wiper and Washer

From Power Source System (See Page 94)



System Outline

When the ignition SW is turned on, the current flows from the WASHER fuse to washer motor TERMINAL 2, and the current flows from the RR WIPER fuse to rear wiper relay TERMINAL 3, and the rear wiper motor TERMINAL 1 respectively.

1. Rear Wiper Normal Operation

When the ignition SW is turned on, and the rear wiper and washer SW is turned to ON position, the current flows from the rear wiper relay TERMINAL 3 to TERMINAL 6 to the rear wiper and washer SW TERMINAL 10 to TERMINAL 2 to GROUND, and turns on the rear wiper relay. As a result, the current flows from the rear wiper relay TERMINAL 3 to TERMINAL 4 to the rear wiper motor TERMINAL 3 to TERMINAL 2 to GROUND, and operates the rear wiper.

2. Rear Wiper Intermittent Operation

When the ignition SW is turned on, and the rear wiper and washer SW is turned to INT position, the current flows from the rear wiper relay TERMINAL 3 to TERMINAL 2 to the rear wiper and washer SW TERMINAL 13 to TERMINAL 2 to GROUND, and the intermittent circuit in the rear wiper relay is controlled to operate the wiper intermittently.

3. Washer Operation

When the ignition SW is turned on, and the rear wiper and washer SW is turned from OFF to WASH position, the current flows from the WASHER fuse to the washer motor TERMINAL 2 to TERMINAL 1 to the rear wiper and washer SW TERMINAL 12 to TERMINAL 2 to GROUND. This activates the washer motor, and the window washer emits a water spray. When the rear wiper and washer SW is turned to ON position, the window washer emits a water spray during rear wiper normal operation.

Service Hints

W1 Washer Motor

- 2-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 1-Ground : Continuity with rear wiper and washer SW at WASH position

R30 Rear Wiper Motor

- 1-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 2-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C19	70	J22	72	R31	73
J3	71	R30	73	W1	69

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3A	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	76	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)

Rear Wiper and Washer



: Ground Points

Code	See Page	Ground Points Location
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat

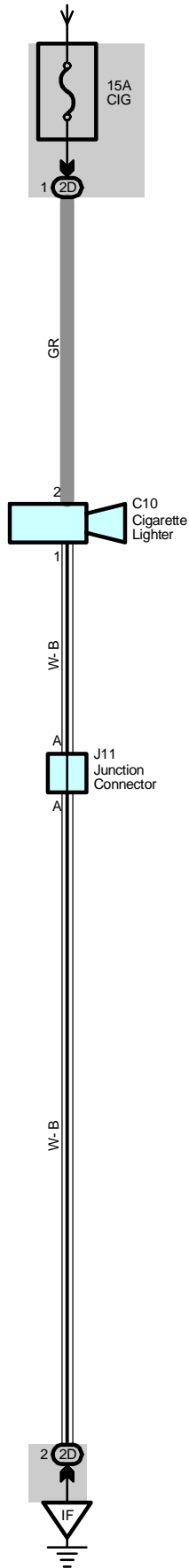


: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B15	88	Back Door Upper Wire			

Cigarette Lighter

From Power Source System (See Page 94)



Service Hints**C10 Cigarette Lighter**

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

1-Ground : Always continuity

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
C10	70	J11	71		

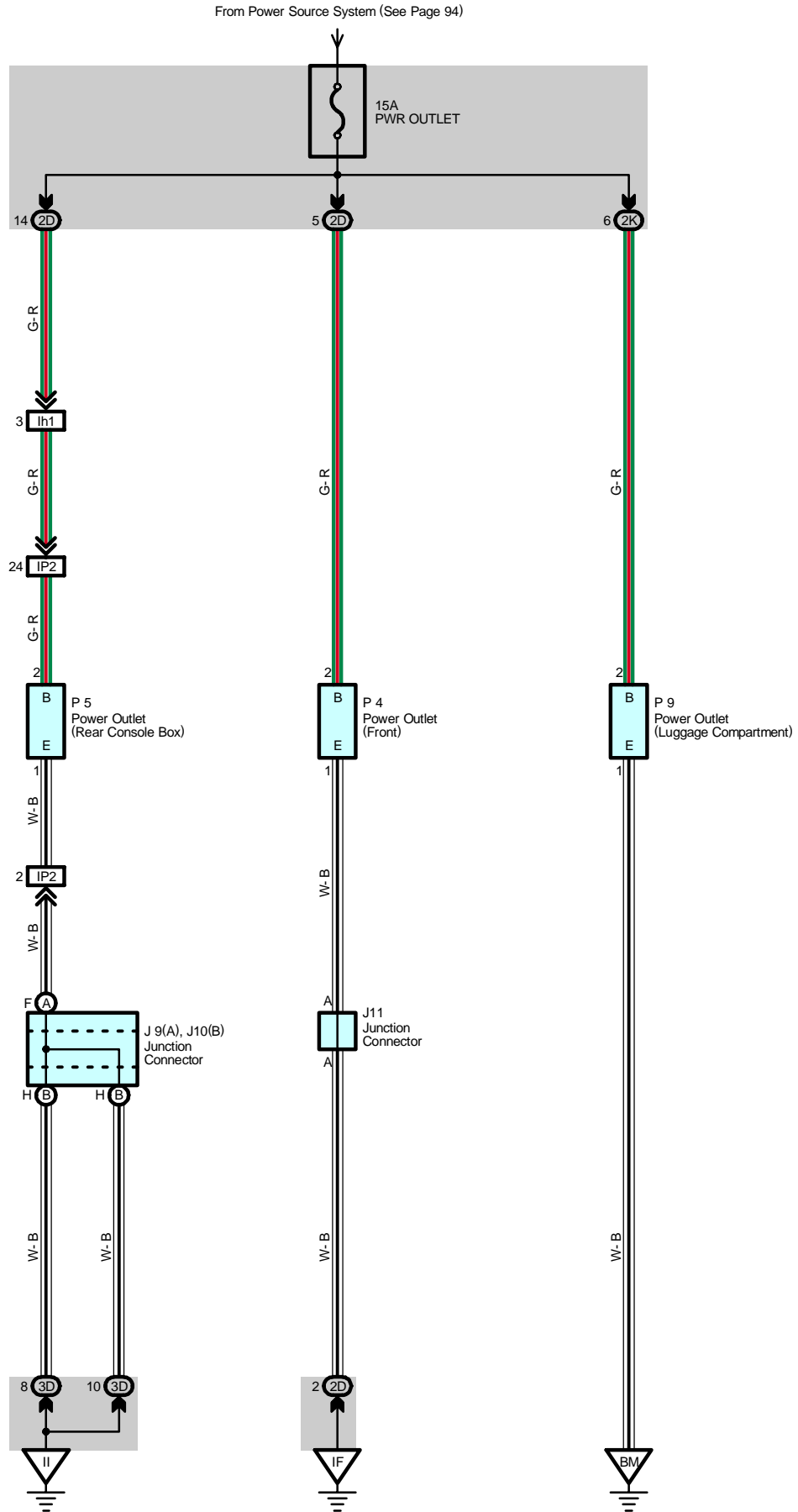
 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH

Power Outlet



Service Hints

P4 Power Outlet (Front)

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

P5 Power Outlet (Rear Console Box)

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

P9 Power Outlet (Luggage Compartment)

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

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
J9	A	71	J11	71	P5	71
J10	B	71	P4	71	P9	73

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)

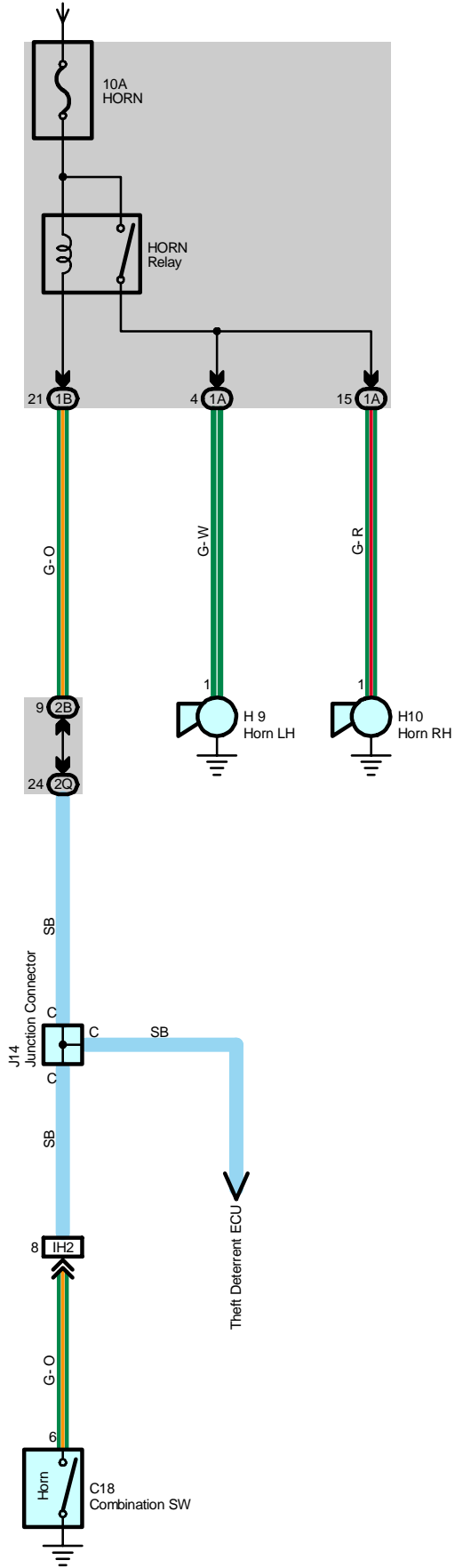
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IP2	80	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
Ih1	84	Dash Wire and Dash Wire (Center Side of Front Console)

▽ : Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH
BM	86	Left Rear Side Quarter Panel

From Power Source System (See Page 94)



Service Hints**C18 Combination SW**

6-Ground :Continuity with horn SW on

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
C18	70	H10	69		
H9	69	J14	71		

 : **Junction Block and Wire Harness Connector**

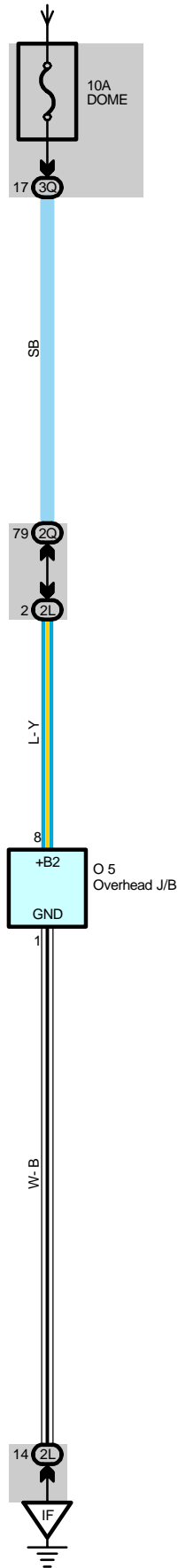
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)

Garage Door Opener

From Power Source System (See Page 94)



Service Hints**O5 Overhead J/B**

8-Ground : Always approx. 12 volts

1-Ground : Always continuity

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
O5	72				

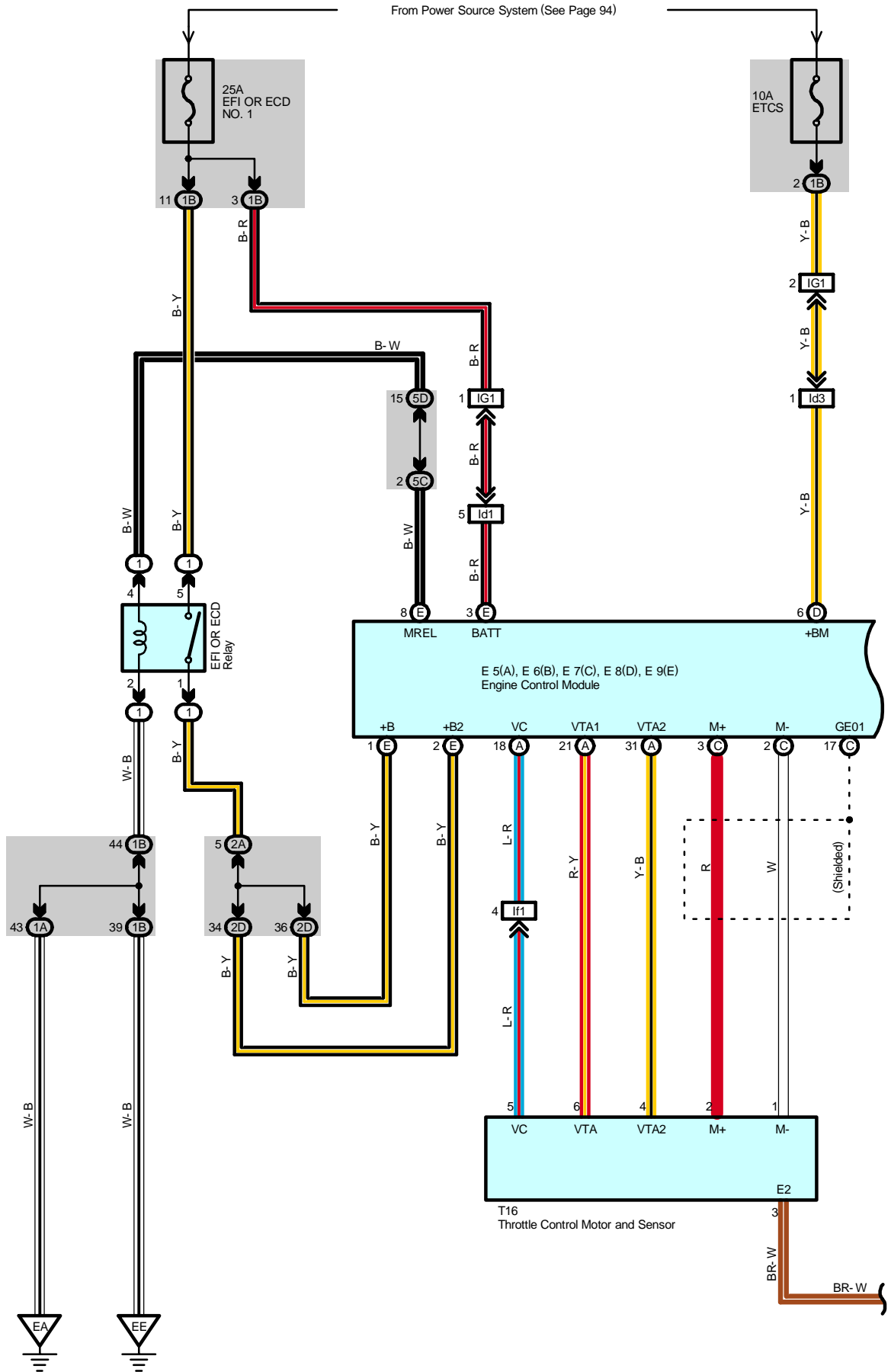
 : **Junction Block and Wire Harness Connector**

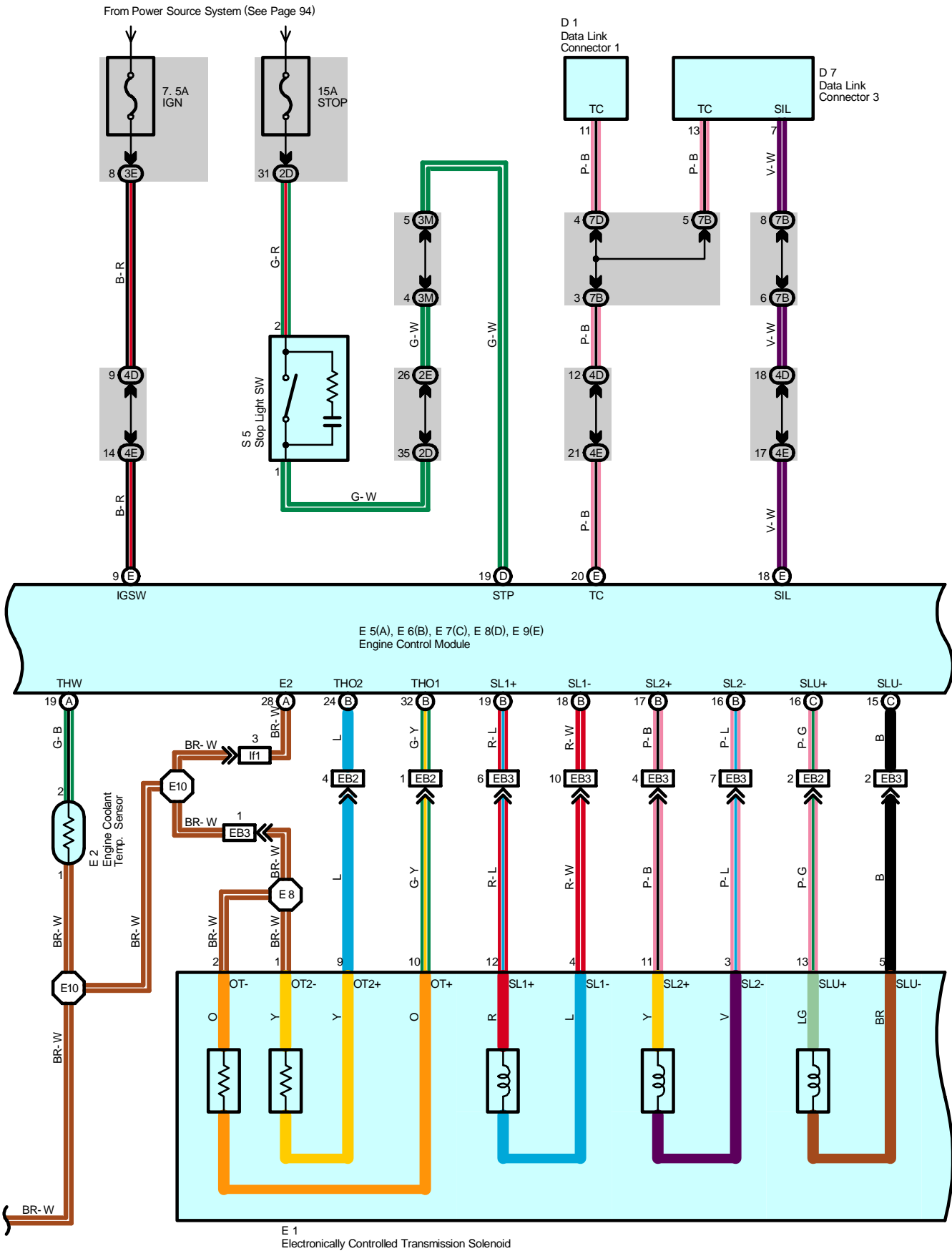
Code	See Page	Junction Block and Wire Harness (Connector Location)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : **Ground Points**

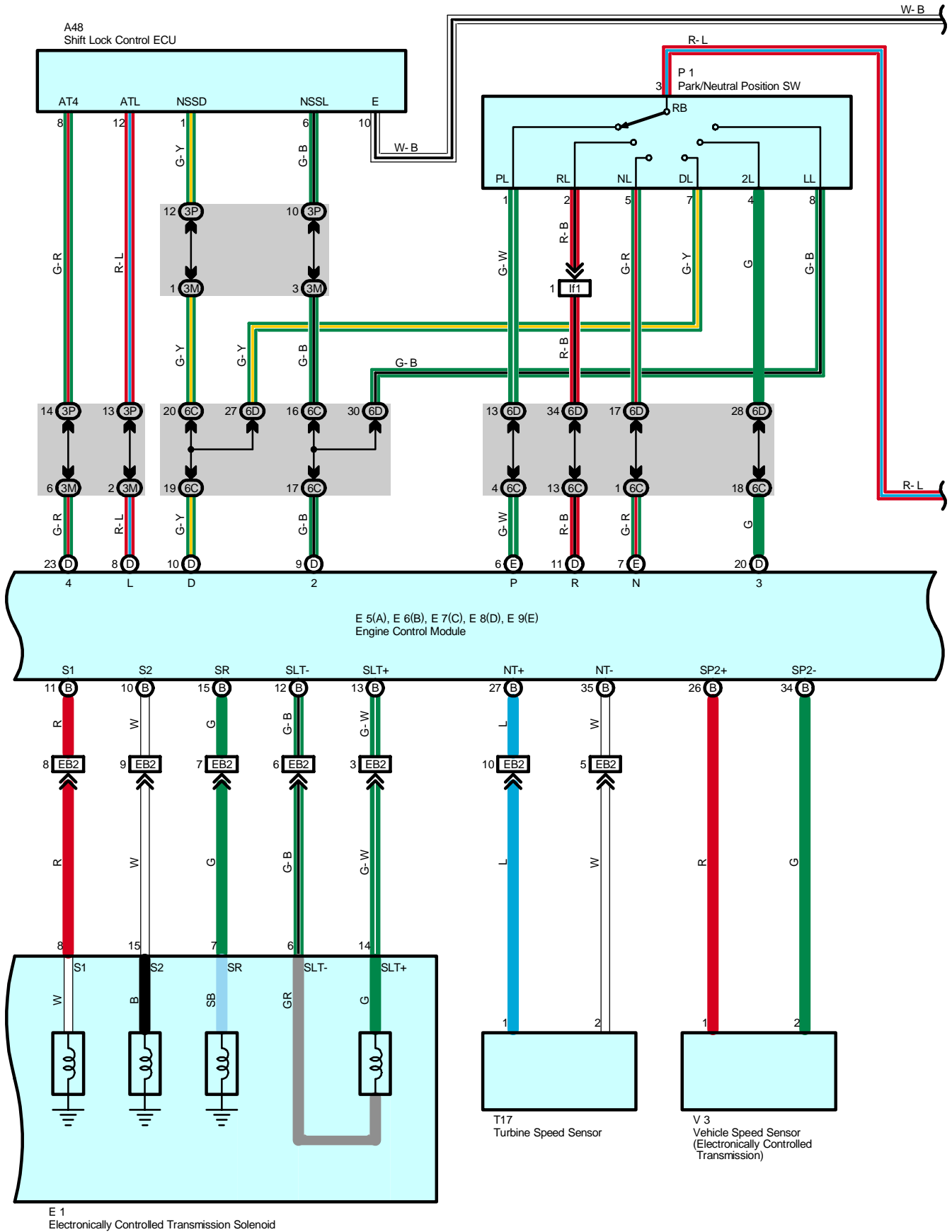
Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH

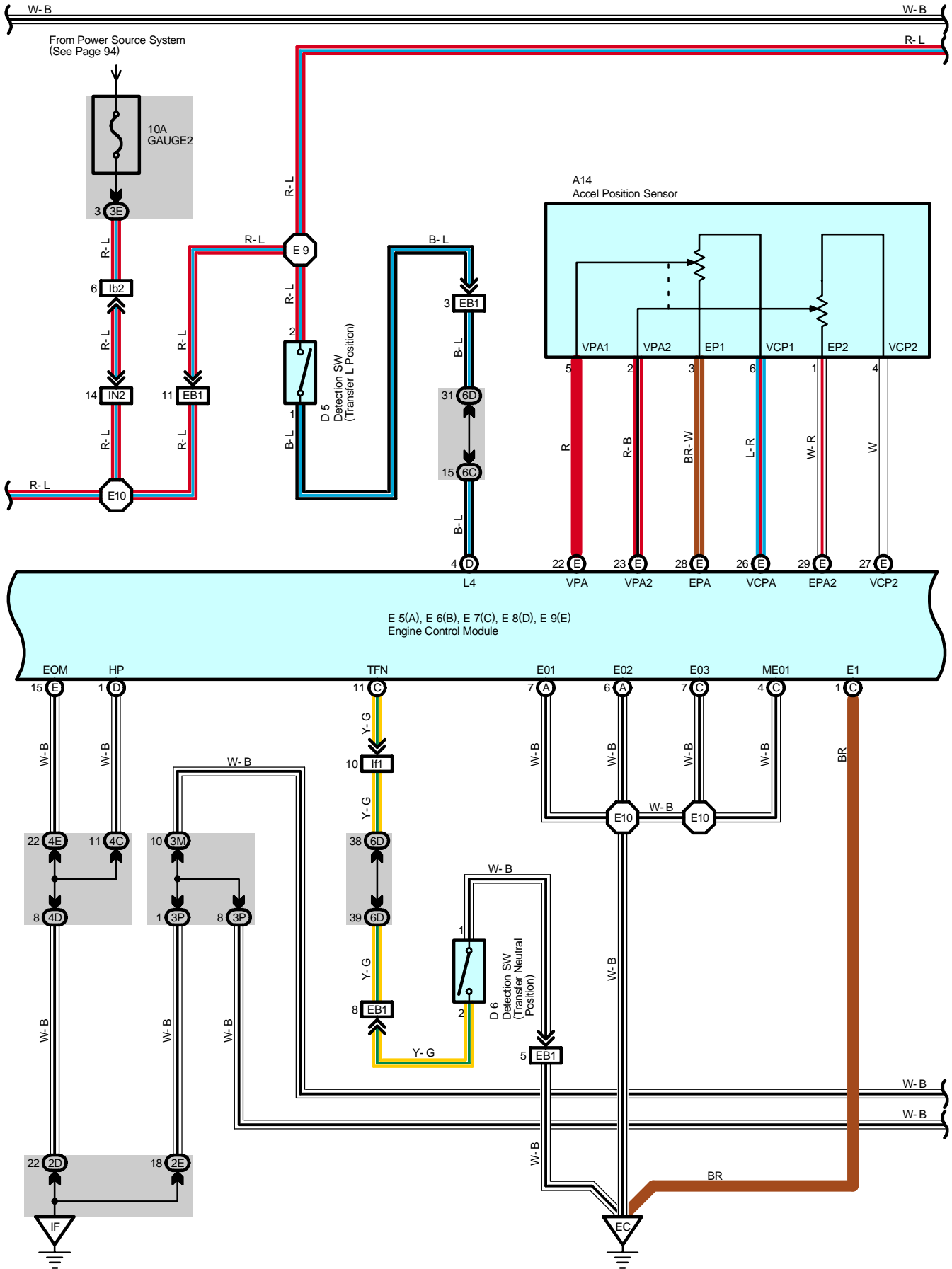
Electronically Controlled Transmission and A/T Indicator



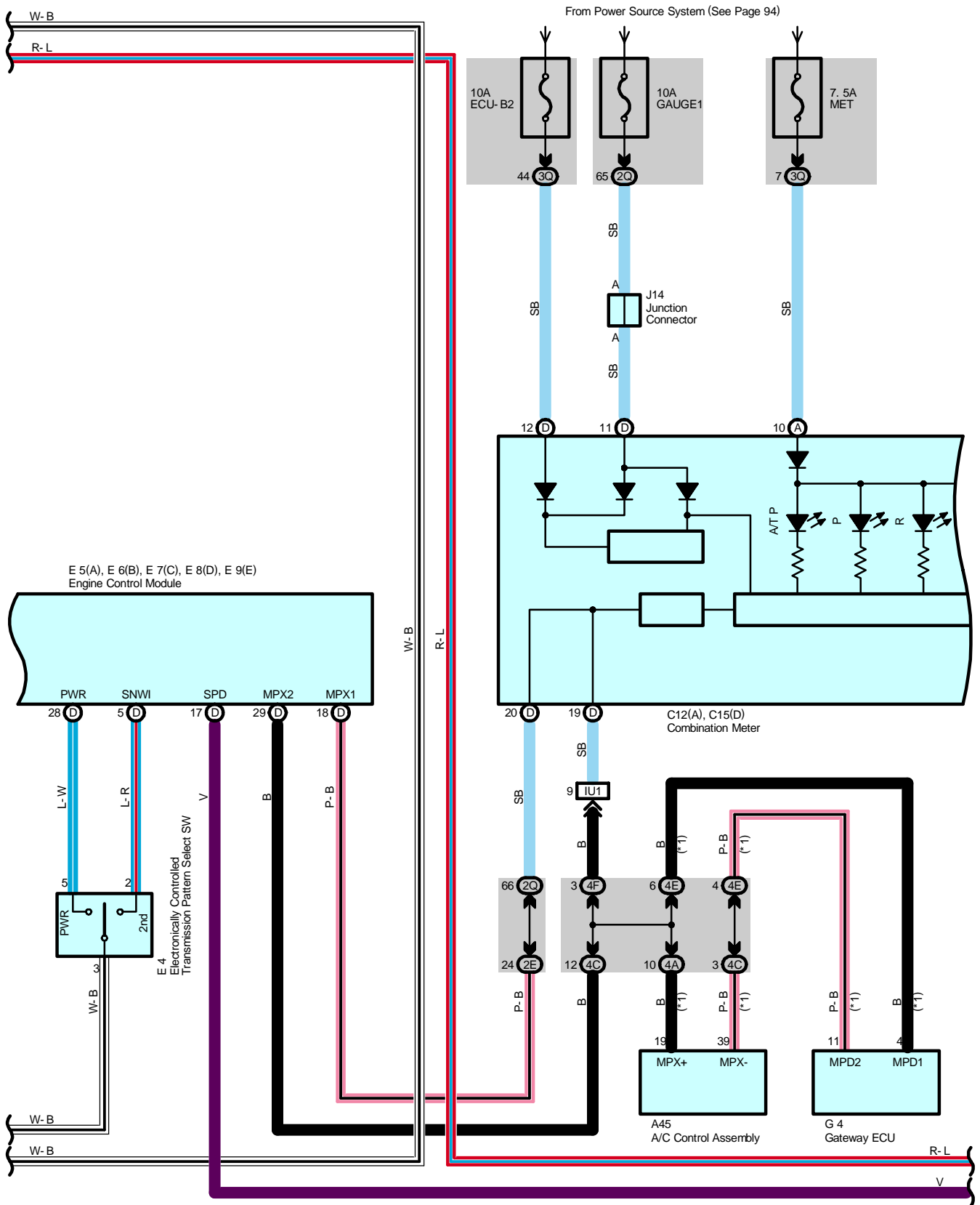


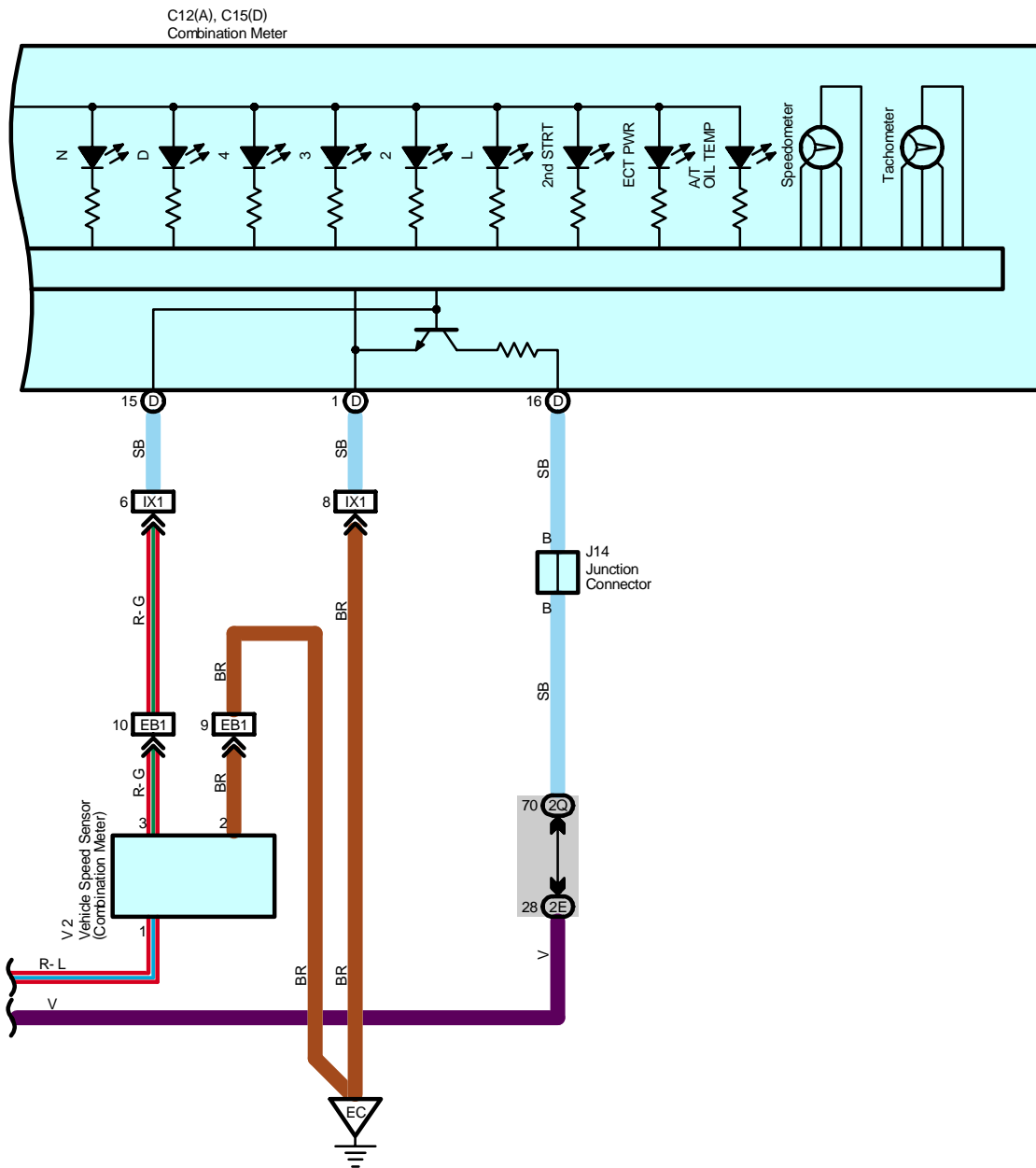
Electronically Controlled Transmission and A/T Indicator





Electronically Controlled Transmission and A/T Indicator





Electronically Controlled Transmission and A/T Indicator

System Outline

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

1. Gear Shift Operation

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

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

2. Line Hydraulic Pressure Control

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

3. High Response Gear Shifting Control

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

4. Clutch Hydraulic Pressure Control

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

5. Lock-Up and Flexible Lock-Up Control

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

6. Stop Light SW Circuit

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

7. Ai-Shift Control

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

8. Electronically Controlled Transmission Pattern Select SW Circuit

When the electronically controlled transmission pattern select SW is switched to PWR, a signal is input to TERMINAL PWR of the engine control module. This enables shift-up and shift-down at a higher speed range.

9. Transfer Shift Operation

When the transfer shift lever is moved to L position, a signal is input into TERMINAL L4 of the engine control module. In addition when the transfer shift lever is moved to N position a signal is input to engine control module TERMINAL TFN. The engine control module detects the transfer condition through this.

Service Hints

E4 Electronically Controlled Transmission Pattern Select SW

5-3 : Closed with select SW at PWR position

2-3 : Closed with select SW at 2nd position

E7 (C), E9 (E) Engine Control Module

BATT-E1 : Always 9.0-14.0 volts

+B-E1 : 9.0-14.0 volts with ignition SW at ON or ST position

+B2-E1 : 9.0-14.0 volts with ignition SW at ON or ST position

IGSW-E1 : 9.0-14.0 volts with ignition SW at ON or ST position

P1 Park/Neutral Position SW

3-1 : Closed with shift lever in P position

3-2 : Closed with shift lever in R position

3-5 : Closed with shift lever in N position

3-7 : Closed with shift lever in D position

3-4 : Closed with shift lever in 2 position

3-8 : Closed with shift lever in L position

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A14	70	E1	68	J14	71
A45	70	E2	68	P1	69
A48	70	E4	70	S5	71
C12	A 70	E5	A 70	T16	69
C15	D 70	E6	B 70	T17	69
D1	68	E7	C 70	V2	69
D5	68	E8	D 70	V3	69
D6	68	E9	E 70		
D7	70	G4	70		

○ : Relay Blocks

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

Electronically Controlled Transmission and A/T Indicator

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3M	43	
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
5C	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
6C	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)
7D	64	Engine Room No.2 Wire and J/B No.7 (Behind the Grove Box)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
EB2		
EB3		
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Id1	84	Dash Wire and Dash Wire (Instrument Panel Center)
Id3		
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)

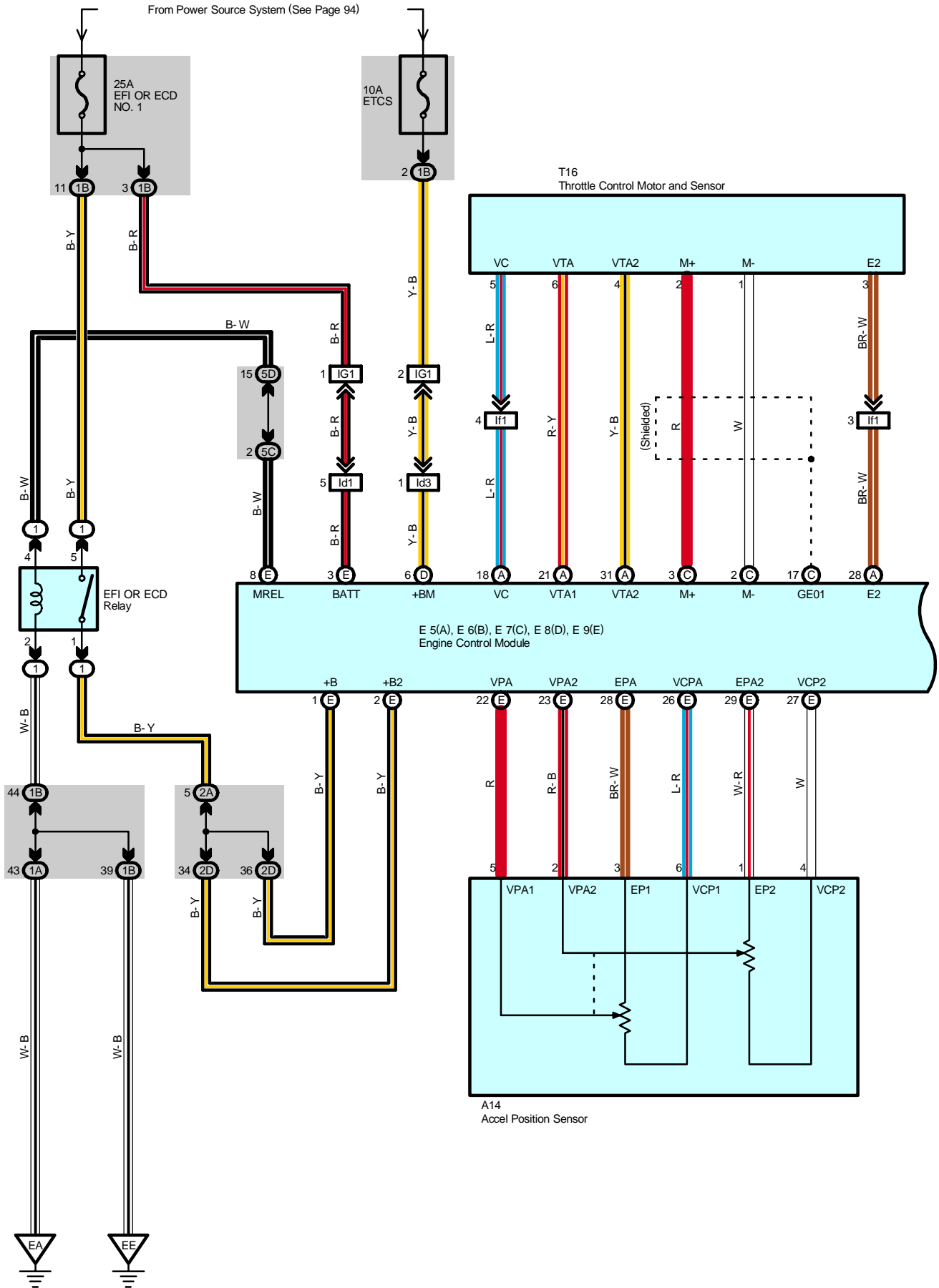
: Ground Points

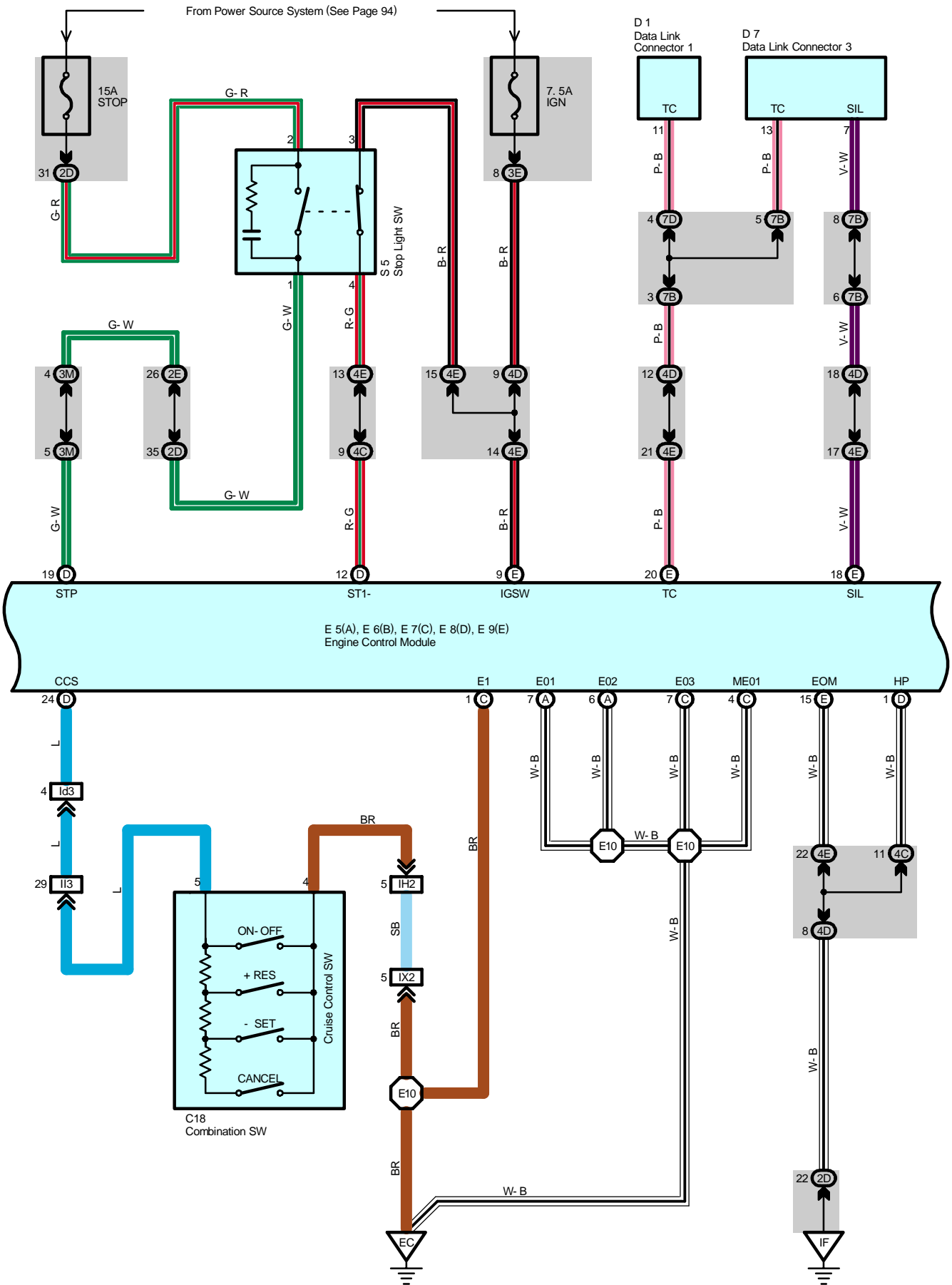
Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EC	76	Rear Bank of Right Cylinder Head
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH

: Splice Points

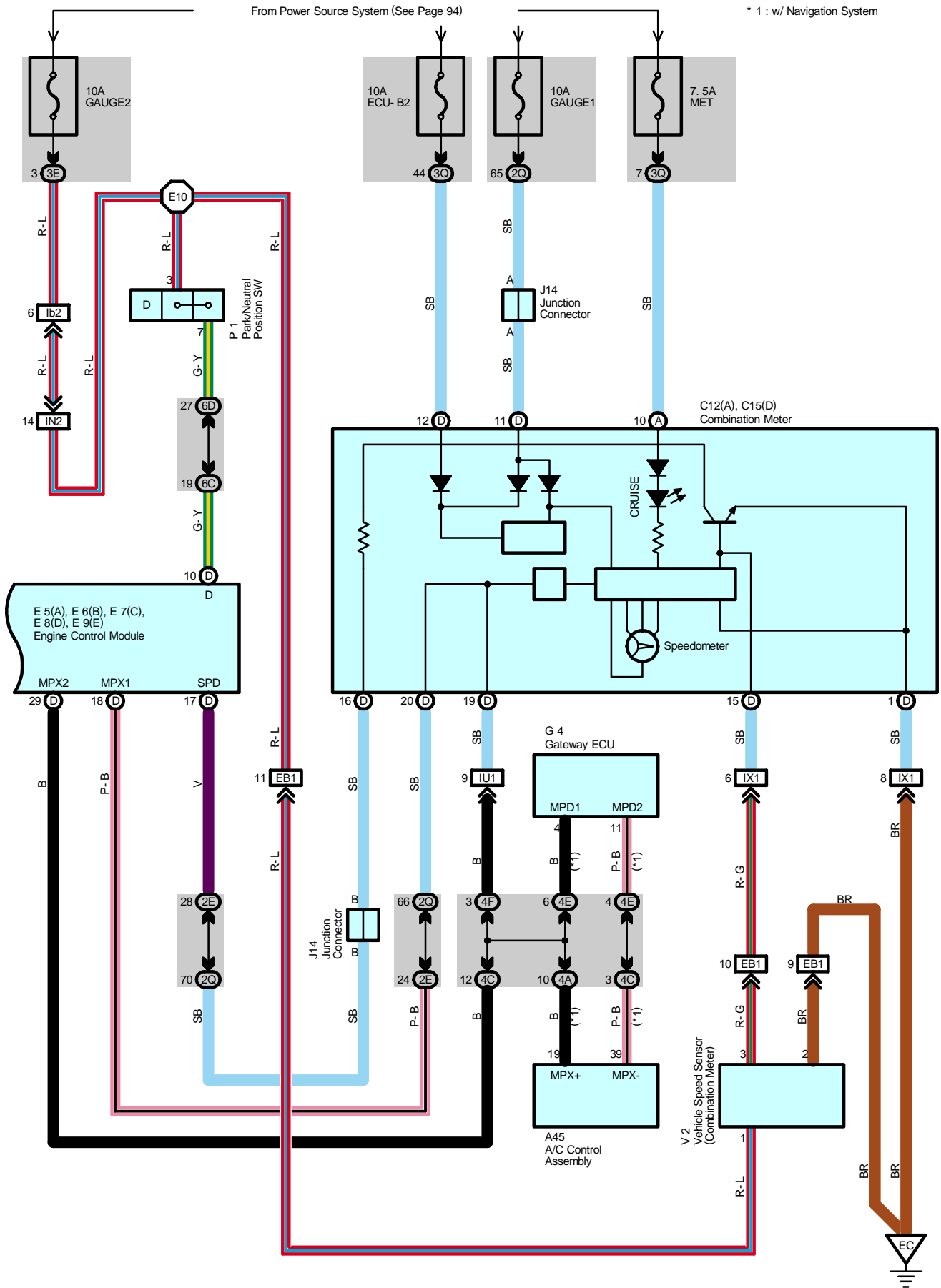
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E8	76	Transmission Wire	E10	76	Engine Wire
E9					

Cruise Control





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 approx. 1.5 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 approx. 1.5 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 of the following signals are 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

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

Overdrive Function

The overdrive may be canceled if the vehicle travels on a upward slope during cruise control driving. After the overdrive is canceled, if the vehicle speed exceeds the overdrive return speed (Set speed (2 km/h, 1.2 mph)) and it is determined that the slope has finished, and the vehicle returns to overdrive mode again.

Service Hints

E7 (C), E8 (D), E9 (E) Engine Control Module

BATT-E1 : Always 9.0-14.0 volts

IGSW-E1 : 9.0-14.0 volts with ignition SW at ON or ST position

STP-E1 : 7.5-14 volts with brake pedal is depressed
: Below 1.5 volts with brake pedal is released

C18 Combination SW

5-4 : Approx. 1540 Ω with CANCEL SW on

: Approx. 240 Ω with + RES SW on

: Approx. 630 Ω with - SET SW on

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A14	70	D7	70	G4	70
A45	70	E5	A 70	J14	71
C12	A 70	E6	B 70	P1	69
C15	D 70	E7	C 70	S5	71
C18	70	E8	D 70	T16	69
D1	68	E9	E 70	V2	69

Cruise Control

: 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	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3M	43	
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
5C	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
6C	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)
7D	64	Engine Room No.2 Wire and J/B No.7 (Behind the Grove Box)

: Connector Joining Wire Harness and Wire Harness

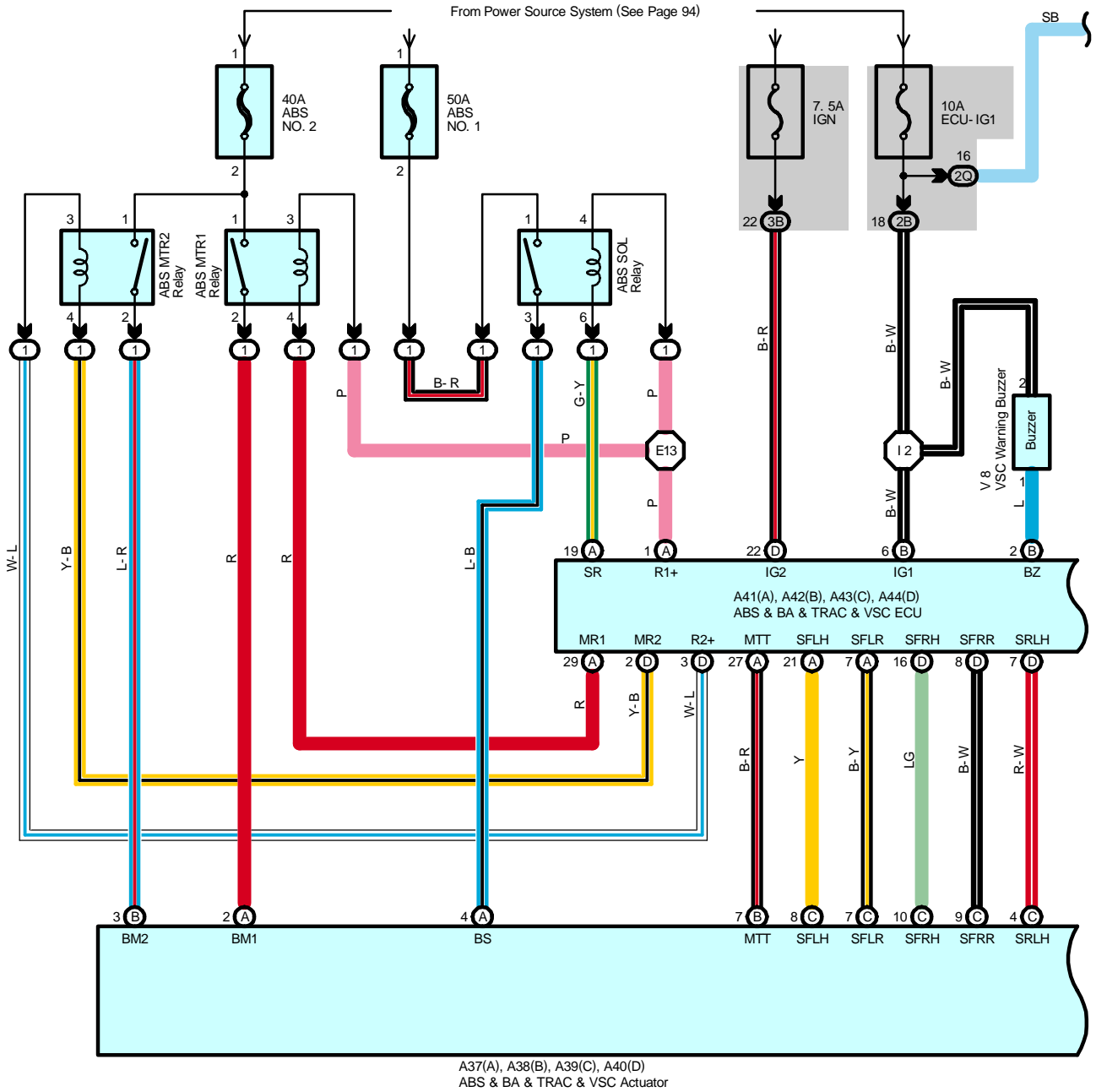
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IX2		
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Id1	84	Dash Wire and Dash Wire (Instrument Panel Center)
Id3		
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)

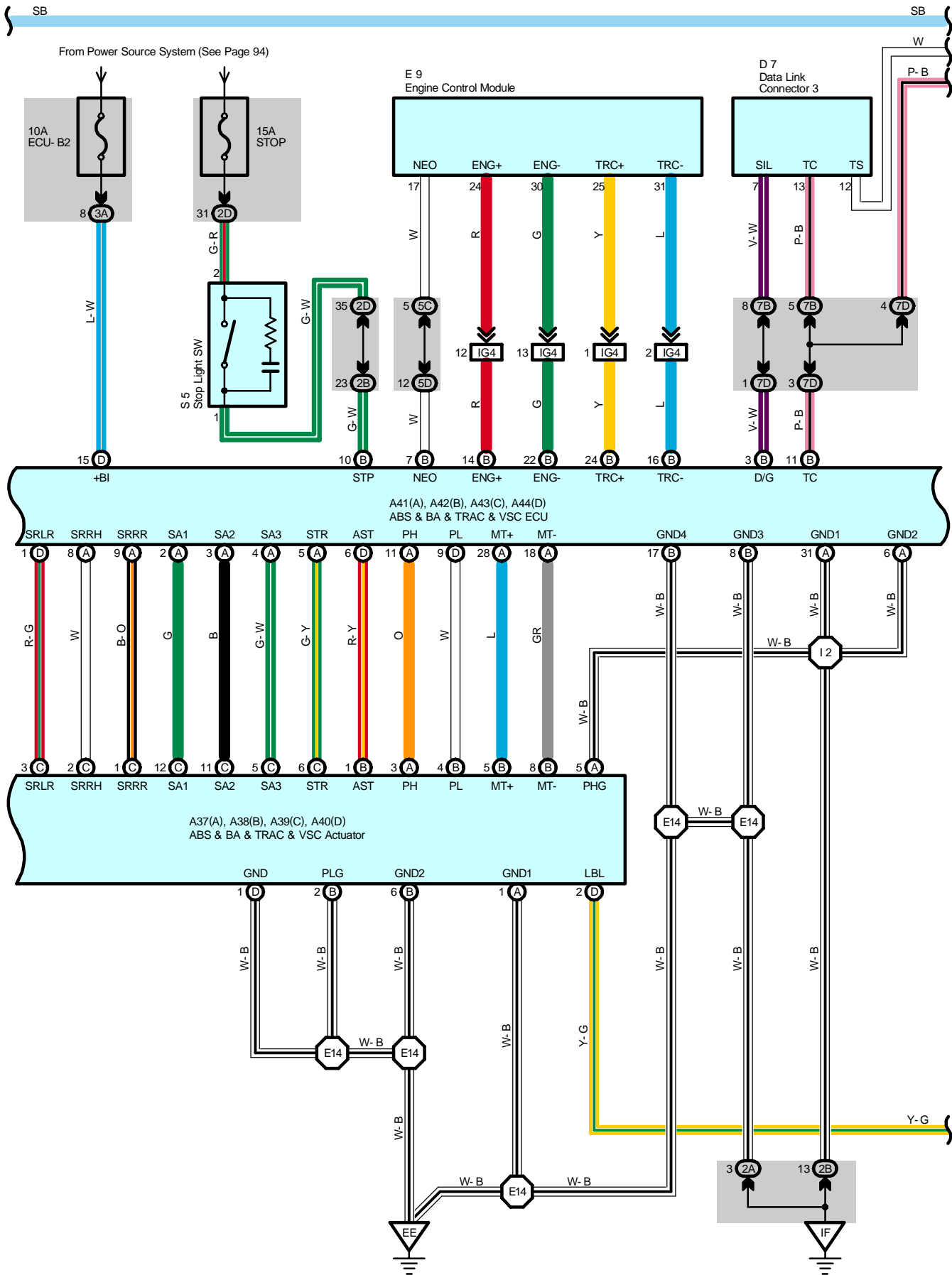
: Ground Points

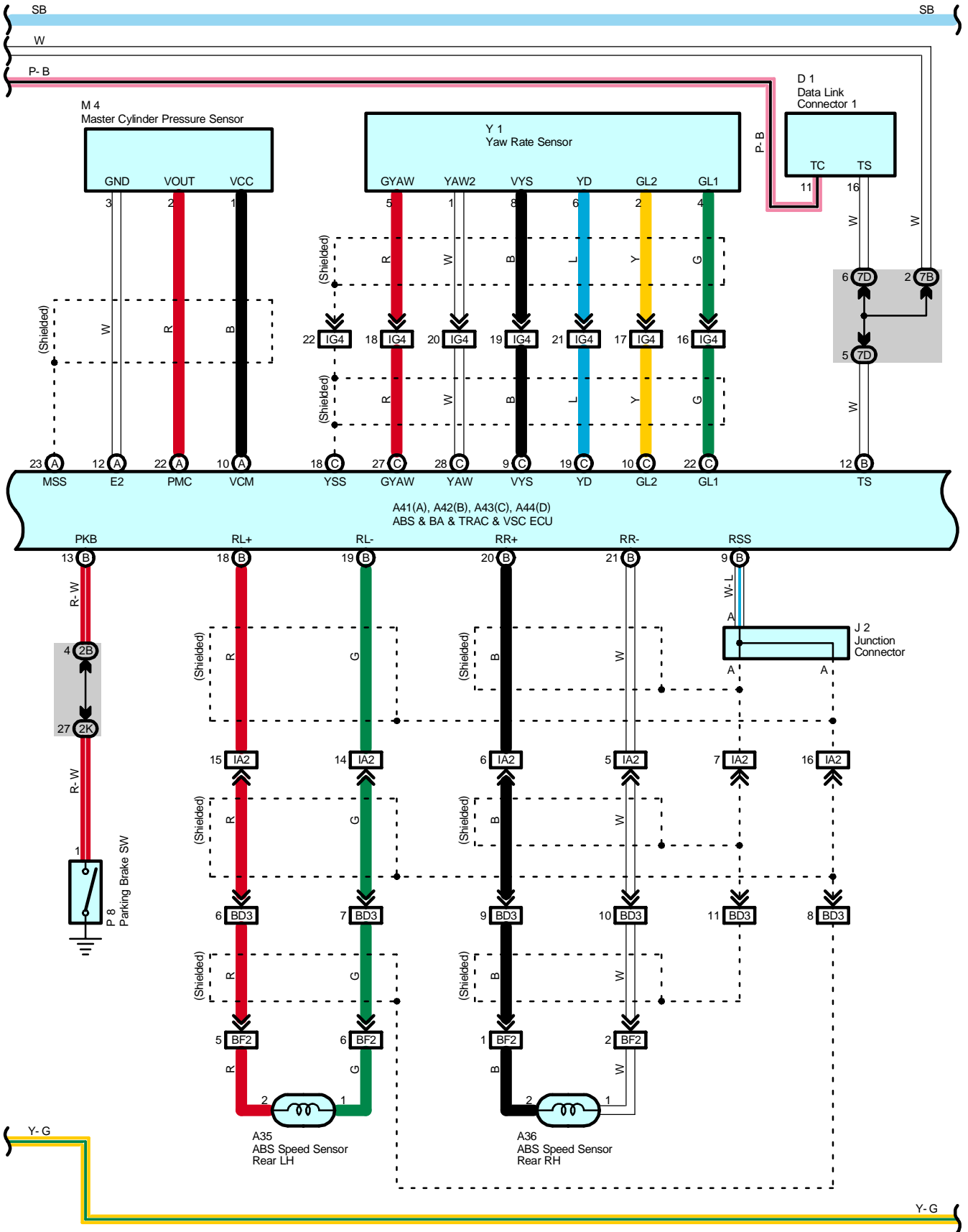
Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EC	76	Rear Bank of Right Cylinder Head
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH

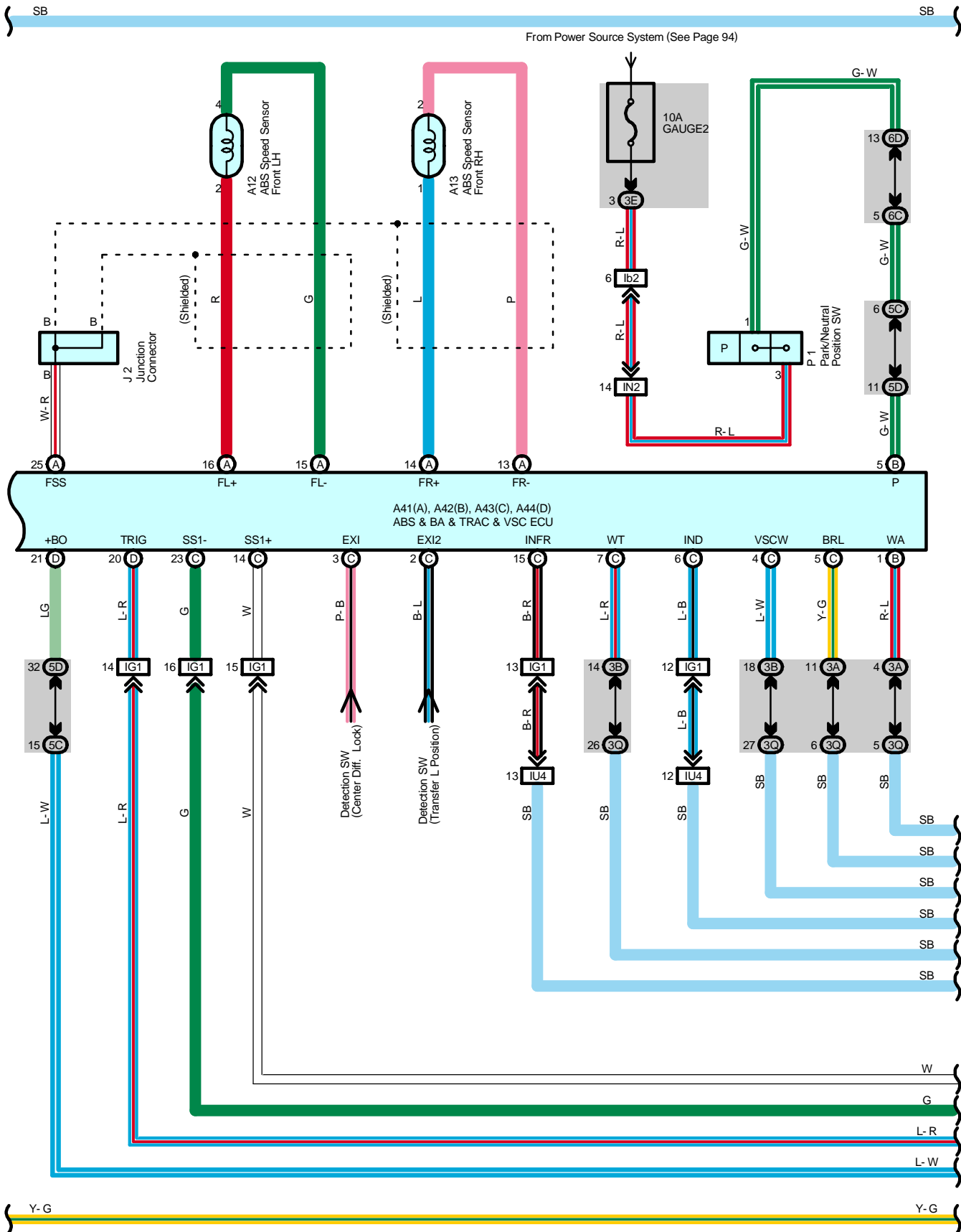
: Splice Points

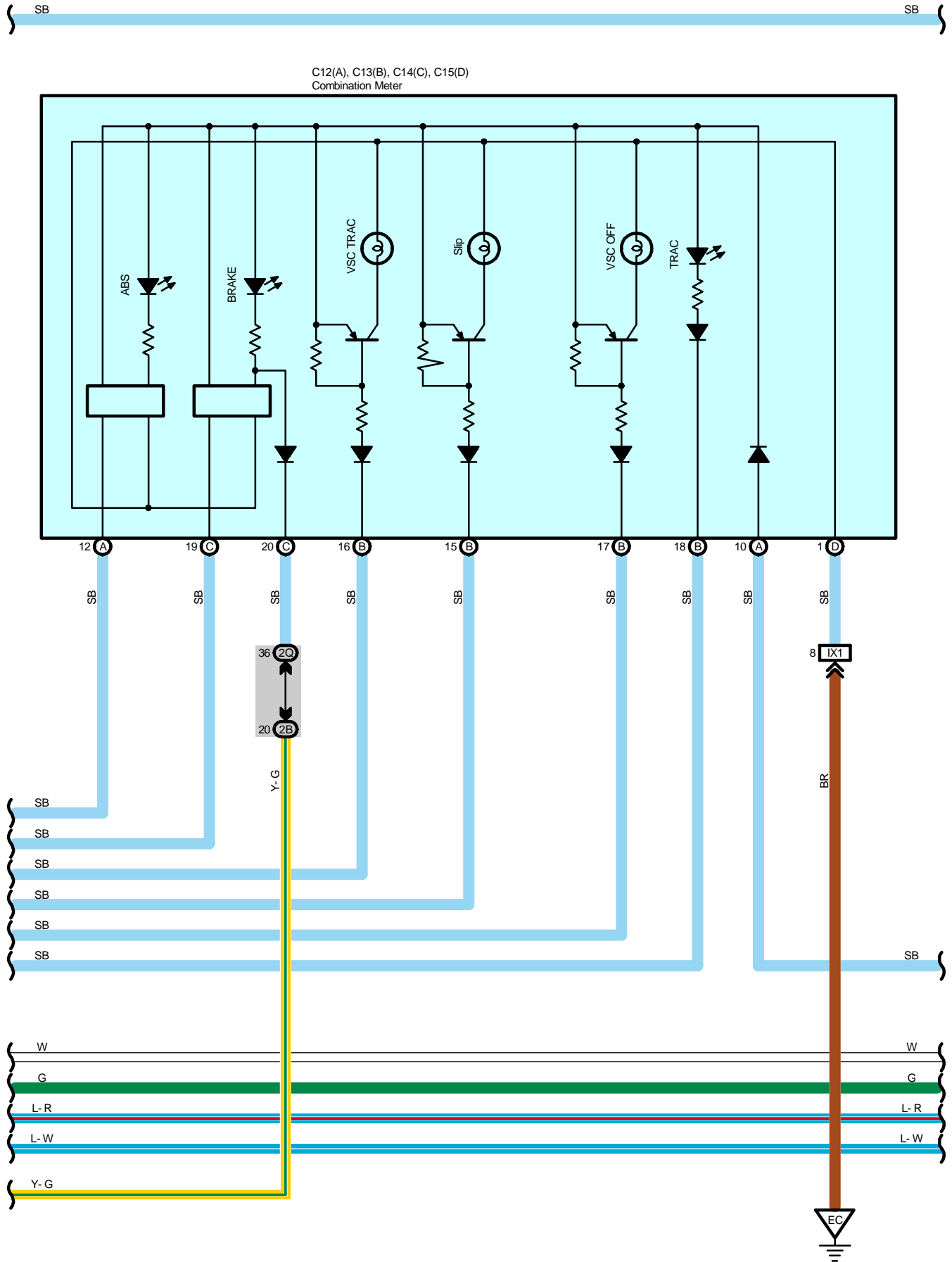
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E10	76	Engine Wire			

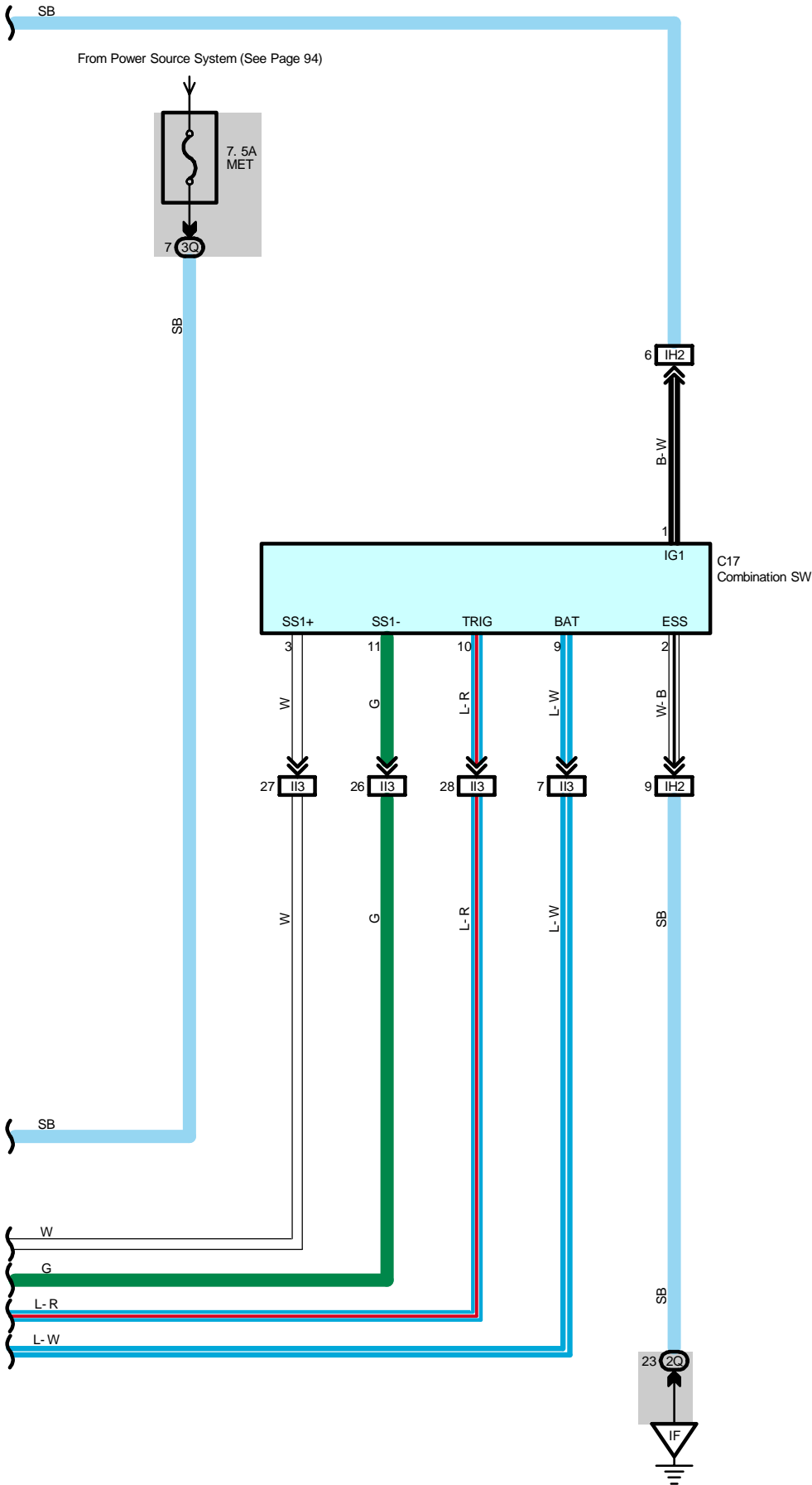












System Outline

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 ABS & BA & TRAC & VSC 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 ABS & BA & TRAC & VSC 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.

VSC indicator light

If an error occurs in the VSC system, the VSC indicator lights up to warn the driver.

4. Traction Mode and VSC Function

When the center differential of the transfer is locked, the VSC function is turned off. At this time, the VSC OFF indicator light in the combination meter will come on, and informs the driver that the VSC function is OFF.

5. Mutual System Control

To efficiently operate the VSC system at its optimal level, the VSC system and other control systems are mutually controlled while the VSC system is being operated.

Engine throttle control

The engine power does not interfere with the VSC brake control by controlling the opening of the throttle and reducing the engine output.

Engine control and electronically controlled transmission control

The strong braking force does not interfere with the braking force control of the VSC system by turning off the accel. and reducing changes in the driving torque at shift-down.

VSC system operation indication

The slip indicator light flashes and the buzzer sounds intermittently to warn the driver that the current road is slippery, while the VSC system is being operated.

6. Fail Safe Function

If an error occurs in the ABS & BA & TRAC & VSC ECU, sensor signals, and/or actuators, the ABS & BA & TRAC & VSC 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 without the ABS, BA, TRAC, and VSC systems.

Service Hints

A41 (A), A42 (B), A44 (D) ABS & BA & TRAC & VSC ECU

- (D)15-Ground : Always approx. 12 volts
- (B) 6-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (D)22-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (B)10-Ground : Approx. 12 volts with brake pedal depressed
- (A) 6, (A) 31, (B) 8, (B) 17-Ground : Always continuity

A12 ABS Speed Sensor Front LH

- 2-4 : Approx. 1.07 kΩ (20 °C, 68 °F)

A13 ABS Speed Sensor Front RH

- 1-2 : Approx. 1.07 kΩ (20 °C, 68 °F)

A35, A36 ABS Speed Sensor Rear LH, RH

- 1-2 : Approx. 1.2 kΩ (25 °C, 77 °F)

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A12	68	A42	B 70	D7	70
A13	68	A43	C 70	E9	70
A35	72	A44	D 70	J2	71
A36	72	C12	A 70	M4	69
A37	A 68	C13	B 70	P1	69
A38	B 68	C14	C 70	P8	73
A39	C 68	C15	D 70	S5	71
A40	D 68	C17	70	V8	71
A41	A 70	D1	68	Y1	71

○ : 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)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2D		
2K		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3A	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3B		
3E		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
5C	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
6C	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)
7D	64	Engine Room No.2 Wire and J/B No.7 (Behind the Grove Box)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	78	Engine Room No.2 Wire and Floor No.1 Wire (Left Kick Panel)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG4		
IH2	80	Instrument Panel Integration Wire and Column Wire (Near the Ignition SW)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU4	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BD3	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BF2	86	Frame Wire and Floor No.3 Wire (Left Side of Rear Floor Crossmember)

 : **Ground Points**

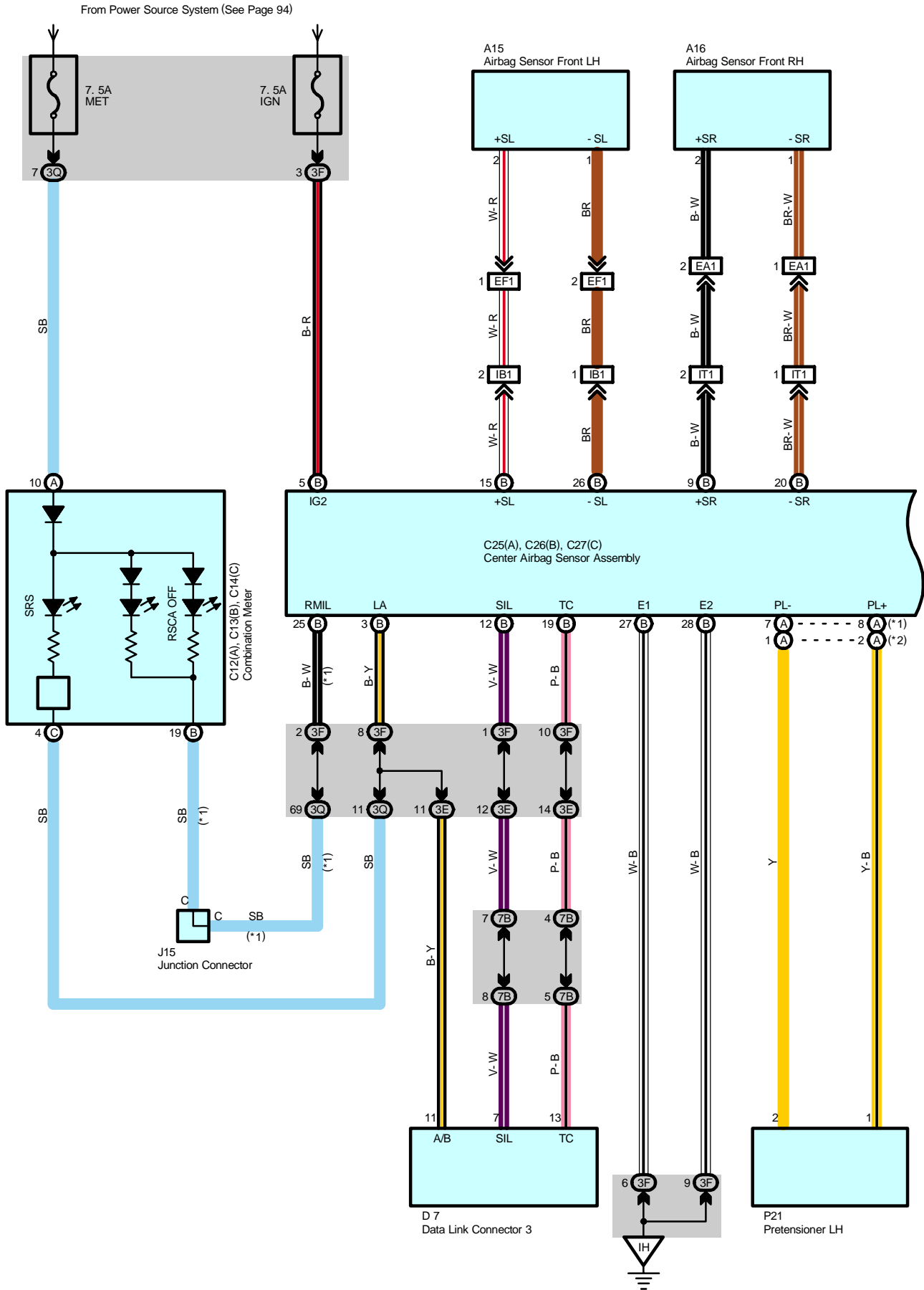
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
EE	76	Front Left Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH

 : **Splice Points**

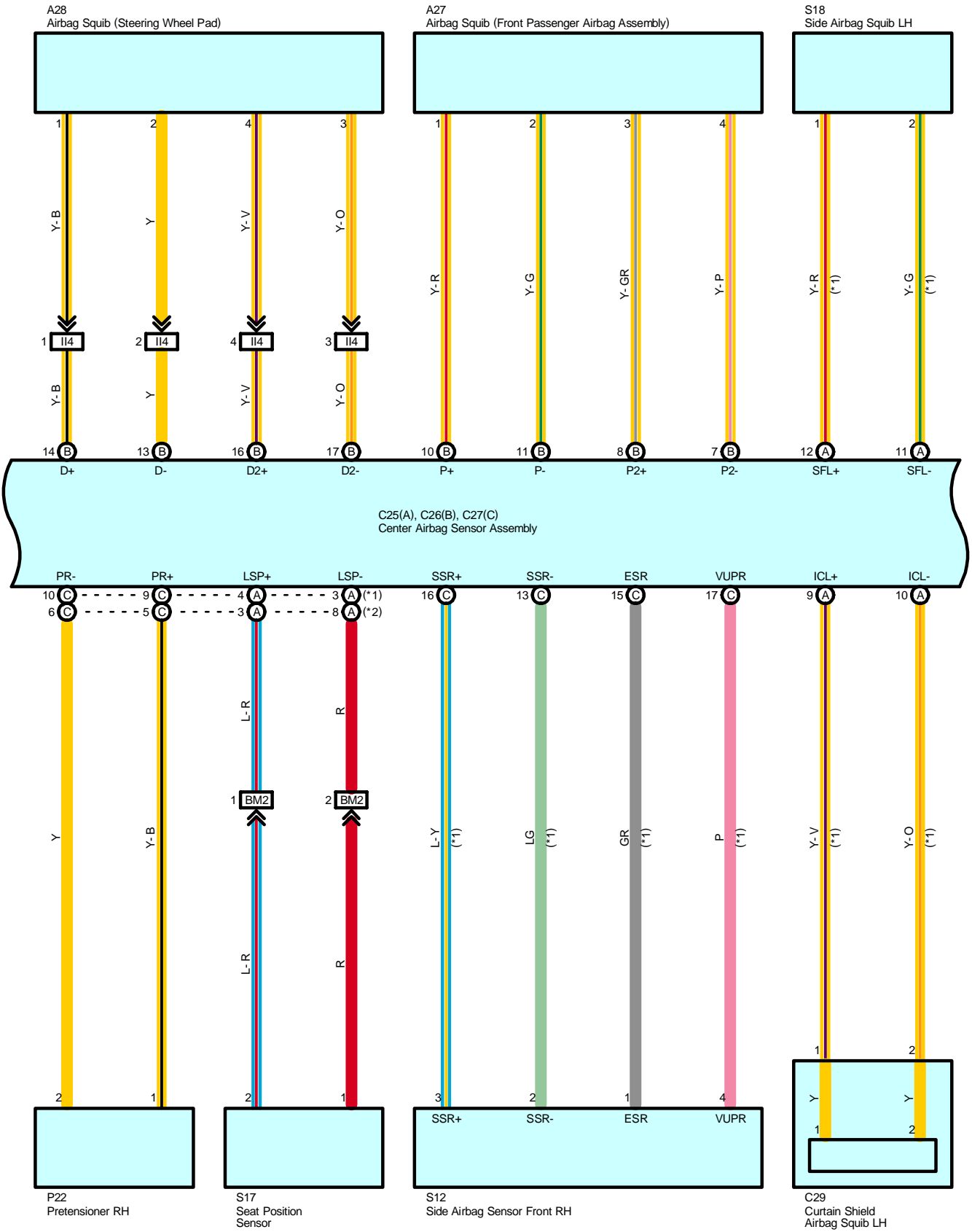
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E13	76	Engine Room No.2 Wire	I2	80	Engine Room No.2 Wire
E14					

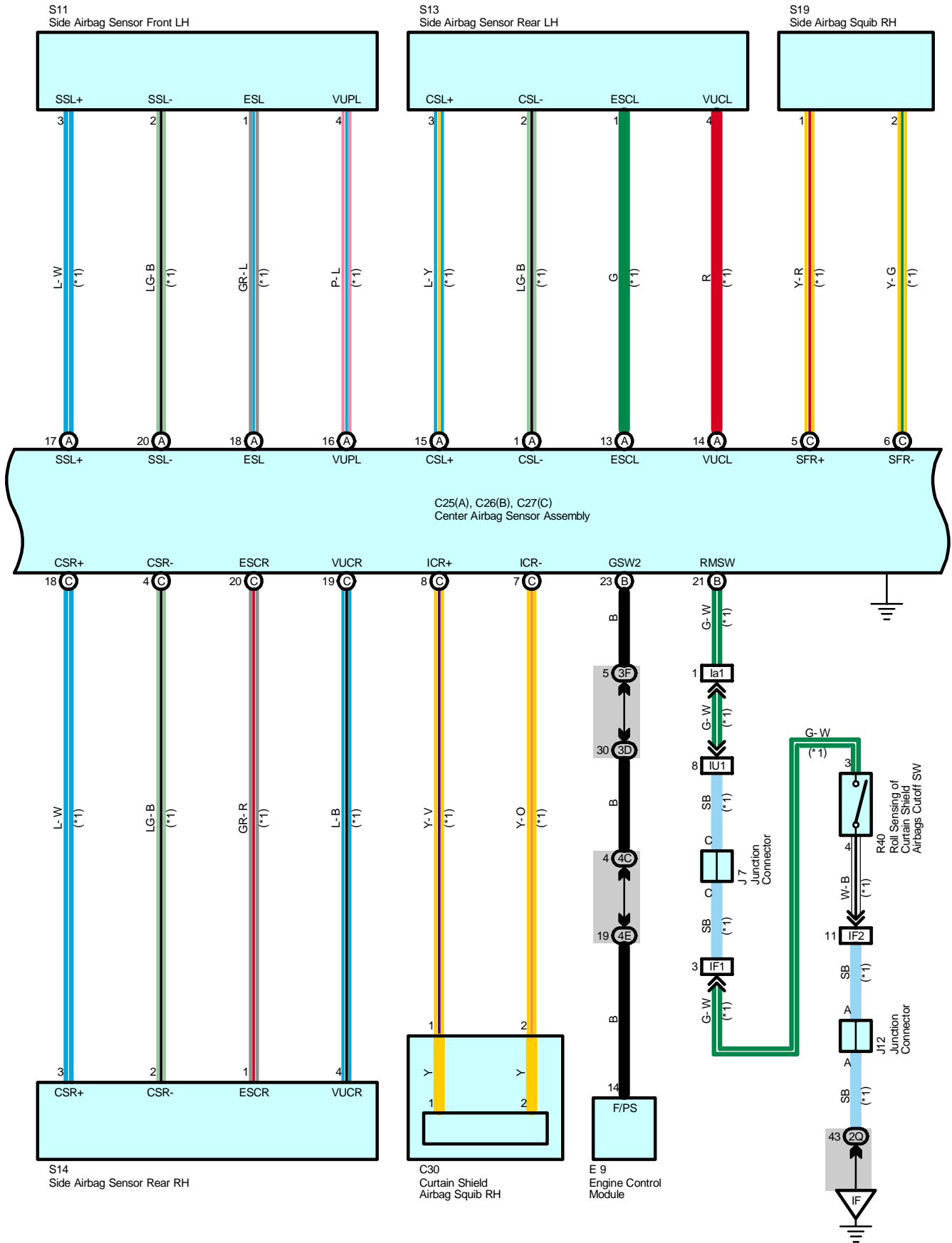
NOTICE: When inspecting or repairing the SRS, perform the operation in accordance with the following precautionary instructions and the procedure and precautions in the Repair Manual for the applicable model year.

- 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 after 90 seconds from when the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.**
(The SRS is equipped with a back-up power source so that if work is started within 90 seconds from disconnecting the negative (-) terminal cable of the battery, the SRS may be deployed.)
- When the negative (-) terminal cable is disconnected from the battery, the memory of the clock and audio system will be canceled. So before starting work, make a record of the contents memorized in the audio memory system. When work is finished, reset the audio systems as they were before and adjust the clock. This vehicle has power tilt and 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 the memory contents. So when the work is finished, it will be necessary to explain this fact to the customer, and ask the customer to adjust the features and reset the memory. To avoid erasing the memory in each memory system, never use a back-up power supply from outside the vehicle.
- Before repairs, remove the airbag sensor if shocks are likely to be applied to the sensor during repairs.
- Do not expose the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, center airbag sensor assembly, front airbag sensor assembly or side airbag sensor assembly directly to hot air or flames.
- Even in cases of a minor collision where the SRS does not deploy, the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, center airbag sensor assembly, front airbag sensor assembly and side airbag sensor assembly should be inspected.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- Never disassemble and repair the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, center airbag sensor assembly, front airbag sensor assembly or side airbag sensor assembly in order to reuse it.
- If the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, seat belt pretensioner, center airbag sensor assembly, front airbag sensor assembly or side airbag sensor assembly has been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
- Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting the system's electrical circuits.
- Information labels are attached to the periphery of the SRS components. Follow the instructions on the notices.
- After work on the SRS is completed, perform the SRS warning light check.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the IN section of the Repair Manual.

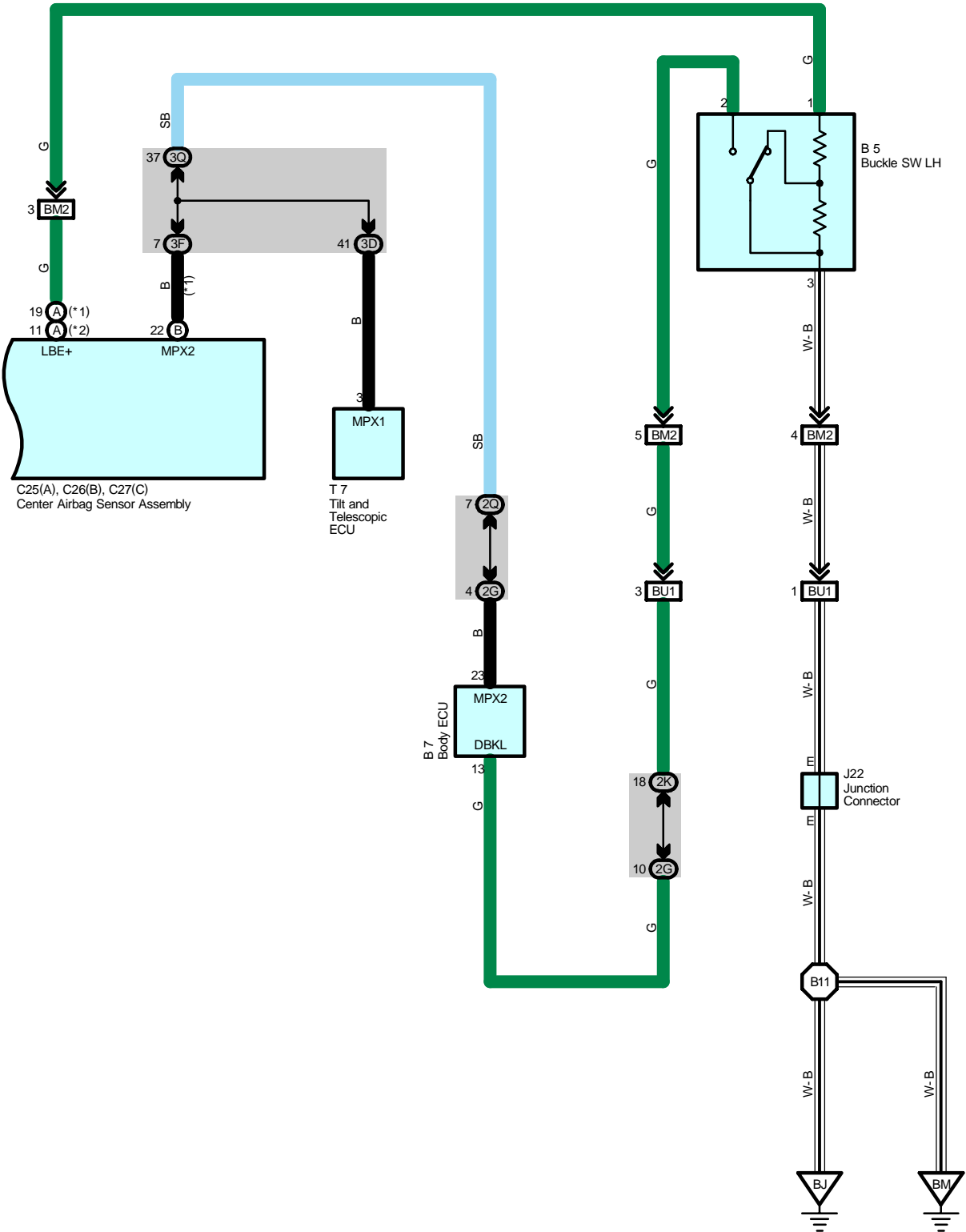


* 1 : w/ Side Airbag
 * 2 : w/o Side Airbag





* 1 : w/ Side Airbag
 * 2 : w/o Side Airbag



System Outline

- * The SRS airbag are provided for the driver and front passenger. The SRS airbags have been designed to help reducing the shocks to the heads and chests of the driver and front passenger in the event of a severe frontal impact collision as supplements to the seat belts.
This system is a 3-sensor type airbag system to detect the impact during a front collision using the center airbag sensor assembly and airbag sensor front LH, RH, and to make the airbag system and pretensioner operate as well.
- * In this system, a front side collision is detected by the side airbag sensor front LH, RH in order to simultaneously deploy the side and curtain shield airbags. A rear side collision is detected by the side airbag sensor rear LH, RH in order to deploy only the curtain shield airbag.
- * Roll sensing of curtain shield airbags control has been adopted in order to deploy the curtain shield airbags and the pretensioners for the driver and front passenger, in the event that the vehicle rolls over.
A roll sensing of curtain shield airbags cutoff SW is provided on the driver side of the instrument panel to enable the driver to disable this system.
- * Dual-stage SRS airbags system, that controls the airbag inflating output optimum by judging the extent of impact and seat position (Driver seat), has been used for the driver and front passenger airbags.
- * In accordance with the adoption of the dual-stage SRS airbag system, a seat position sensor has been established for the driver seat.
- * This system has adopted a fuel cut control that stops the fuel pump when the airbag is deployed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A15	68	C27 C	70	R40	71
A16	68	C29	72	S11	73
A27	70	C30	72	S12	73
A28	70	D7	70	S13	73
B5	74	E9	70	S14	73
B7	70	J7	71	S17	74
C12 A	70	J12	71	S18	74
C13 B	70	J15	71	S19	74
C14 C	70	J22	72	T7	71
C25 A	70	P21	73		
C26 B	70	P22	73		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2G	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3F		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4C	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4E		
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	76	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
EF1	76	Engine Room No.2 Wire and Engine Room Main Wire (Under the Engine Room J/B)
IB1	78	Engine Room No.2 Wire and Dash Wire (Left Kick Panel)
IF1	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2		
II4	80	Dash Wire and Column Wire (Near the Ignition SW)
IT1	80	Engine Room No.2 Wire and Dash Wire (Right Kick Panel)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
Ia1	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BM2	90	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BU1	88	Floor No.1 Wire and Floor No.1 Wire (Near the Left Rear Suspension Support)

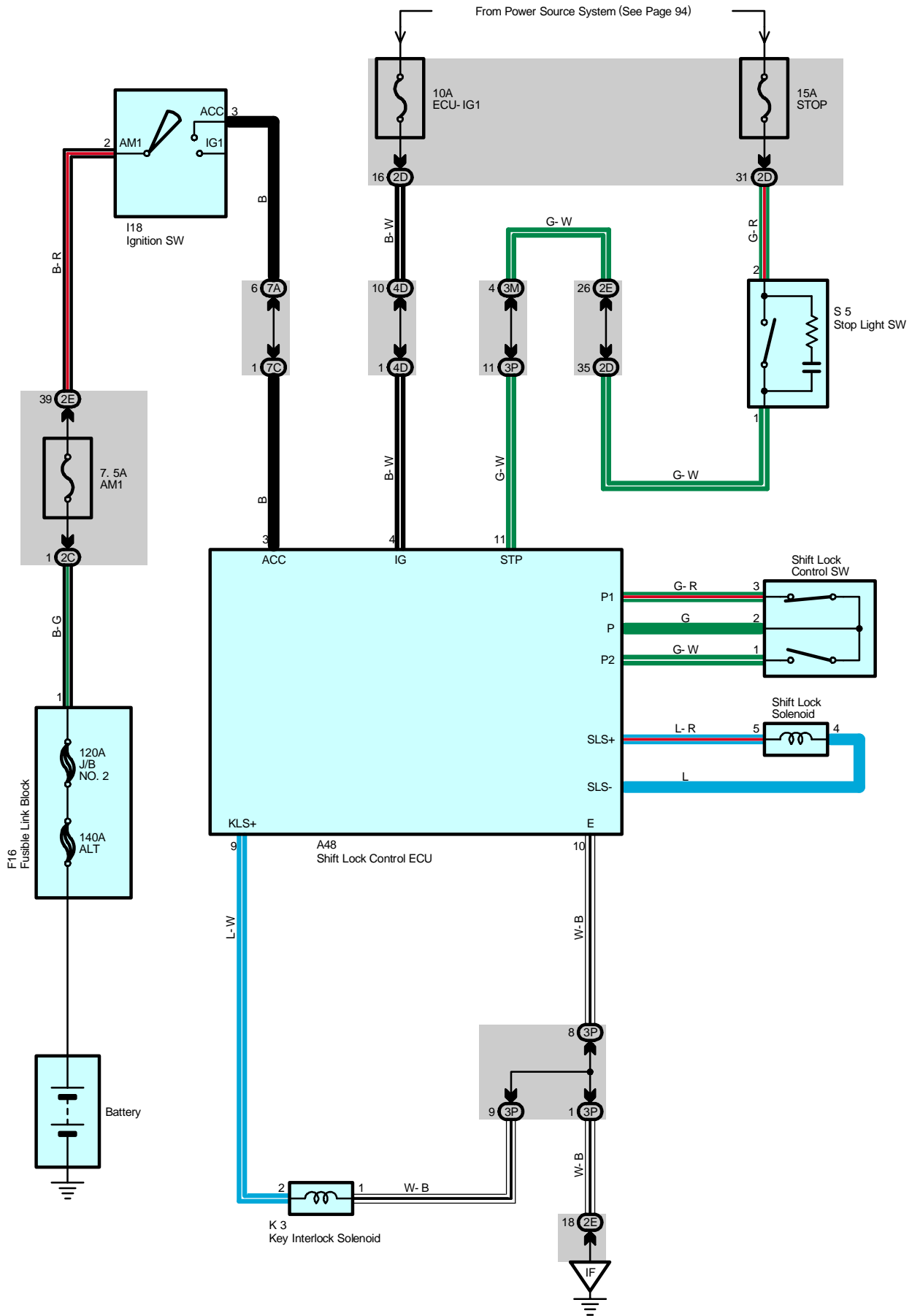
 : **Ground Points**

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IH	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BM	86	Left Rear Side Quarter Panel

 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	88	Floor No.1 Wire			

Shift Lock



System Outline

1. Shift Lock Mechanism

When the brake pedal is depressed with the ignition SW is turned on (Stop light SW on), the shift lock control ECU is activated and allows the driver to change the shift lever to a position other than P position.

2. Key Interlock Mechanism

When the ignition SW is turned on and the shift lever is at a position other than P position, shift lock control ECU is activated to flow current to the key interlock solenoid. This inhibits to turn the ignition SW from on to OFF position.

Service Hints

A48 Shift Lock Control ECU

- 3-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- 4-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 11-Ground : Approx. 12 volts with brake pedal depressed
- 10-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A48	70	I18	70	S5	71
F16	68	K3	71		

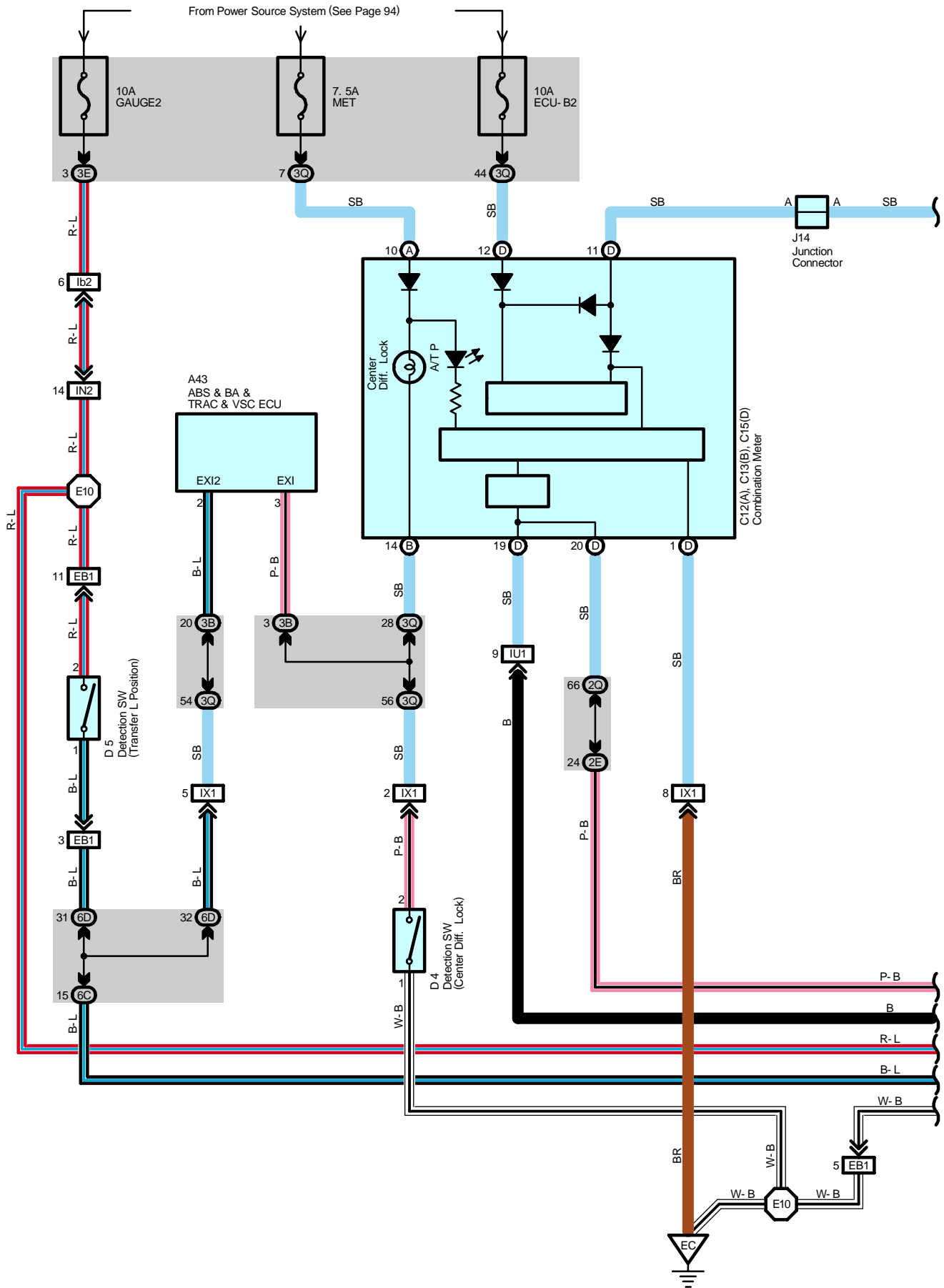
○ : Junction Block and Wire Harness Connector

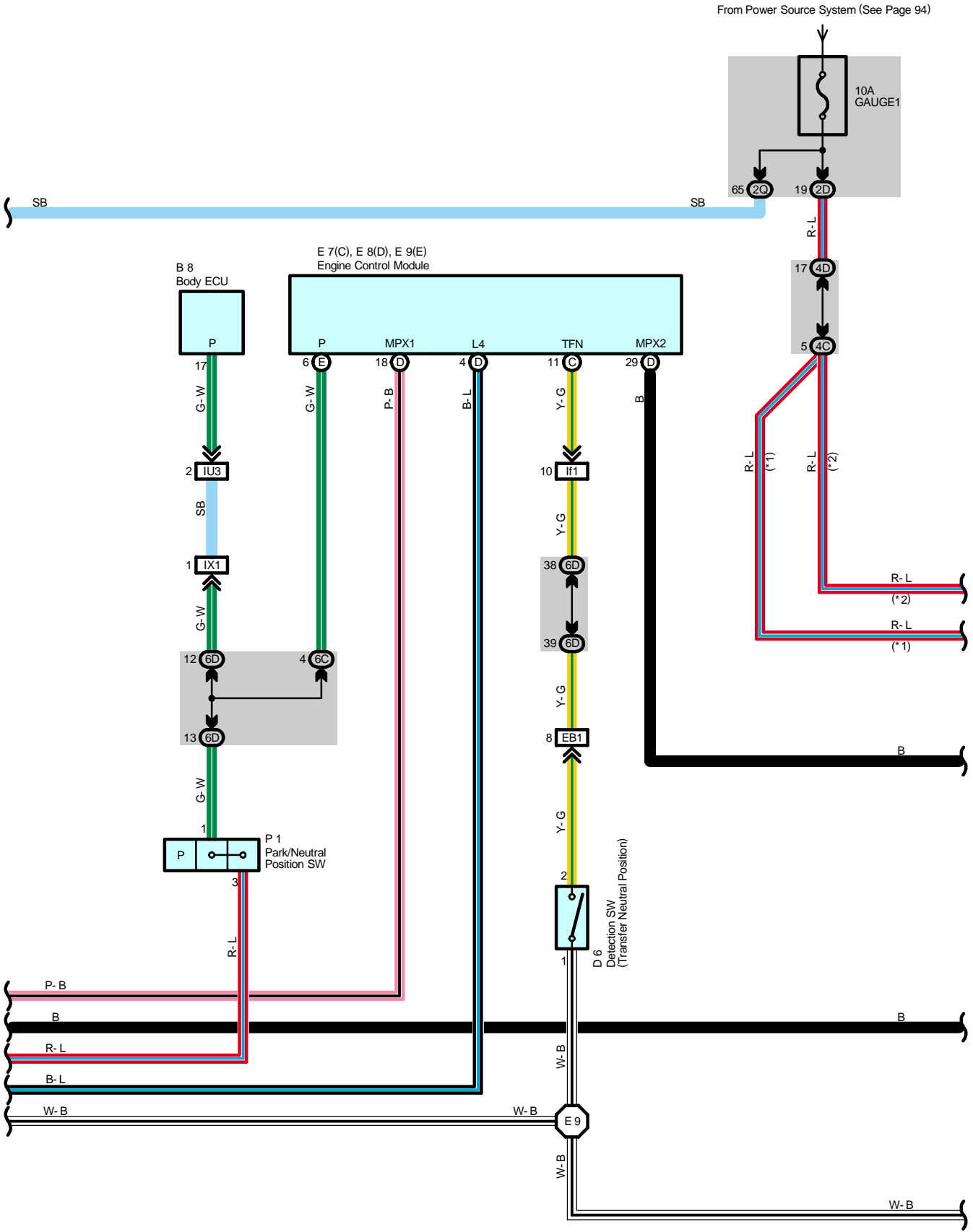
Code	See Page	Junction Block and Wire Harness (Connector Location)
2C	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2D		
2E		
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3P		
4D	52	Dash Wire and J/B No.4 (Instrument Panel Center)
7A	64	Dash Wire and J/B No.7 (Behind the Glove Box)
7C		

▽ : Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH

Center Differential Lock

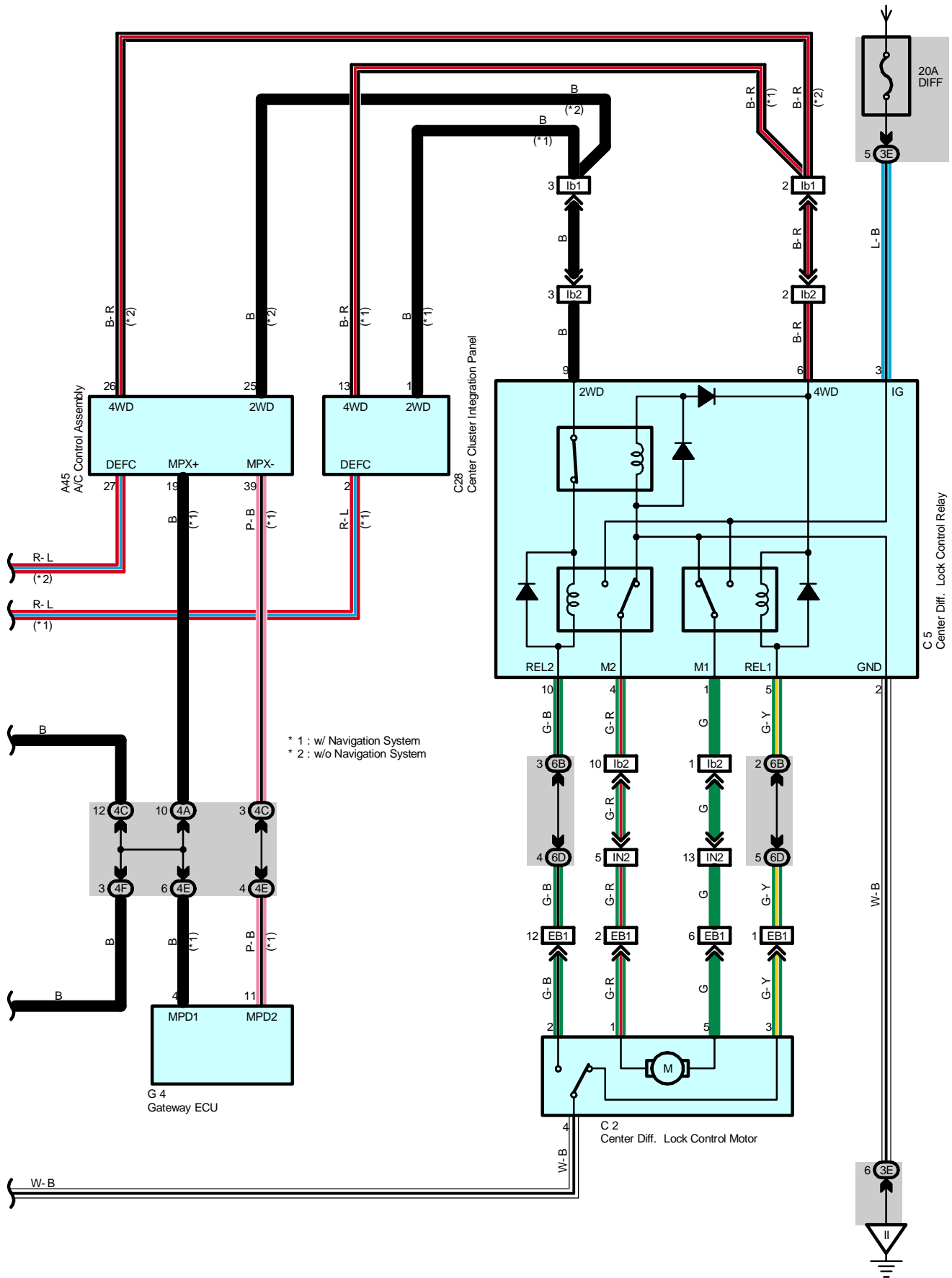




* 1 : w/ Navigation System
 * 2 : w/o Navigation System

Center Differential Lock

From Power Source System (See Page 94)



Service Hints

C5 Center Diff. Lock Control Relay

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

2-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page		
A43	70	C13	B	70	E7	C	70
A45	70	C15	D	70	E8	D	70
B8	70	C28		70	E9	E	70
C2	68	D4		68	G4		70
C5	70	D5		68	J14		71
C12	A	D6		68	P1		69

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
6B	60	Dash Wire and J/B No.6 (Behind the Grove Box)
6C		
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU3		
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
Ib1	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Ib2		
If1	84	Engine Wire and Engine Wire (Behind the Glove Box)

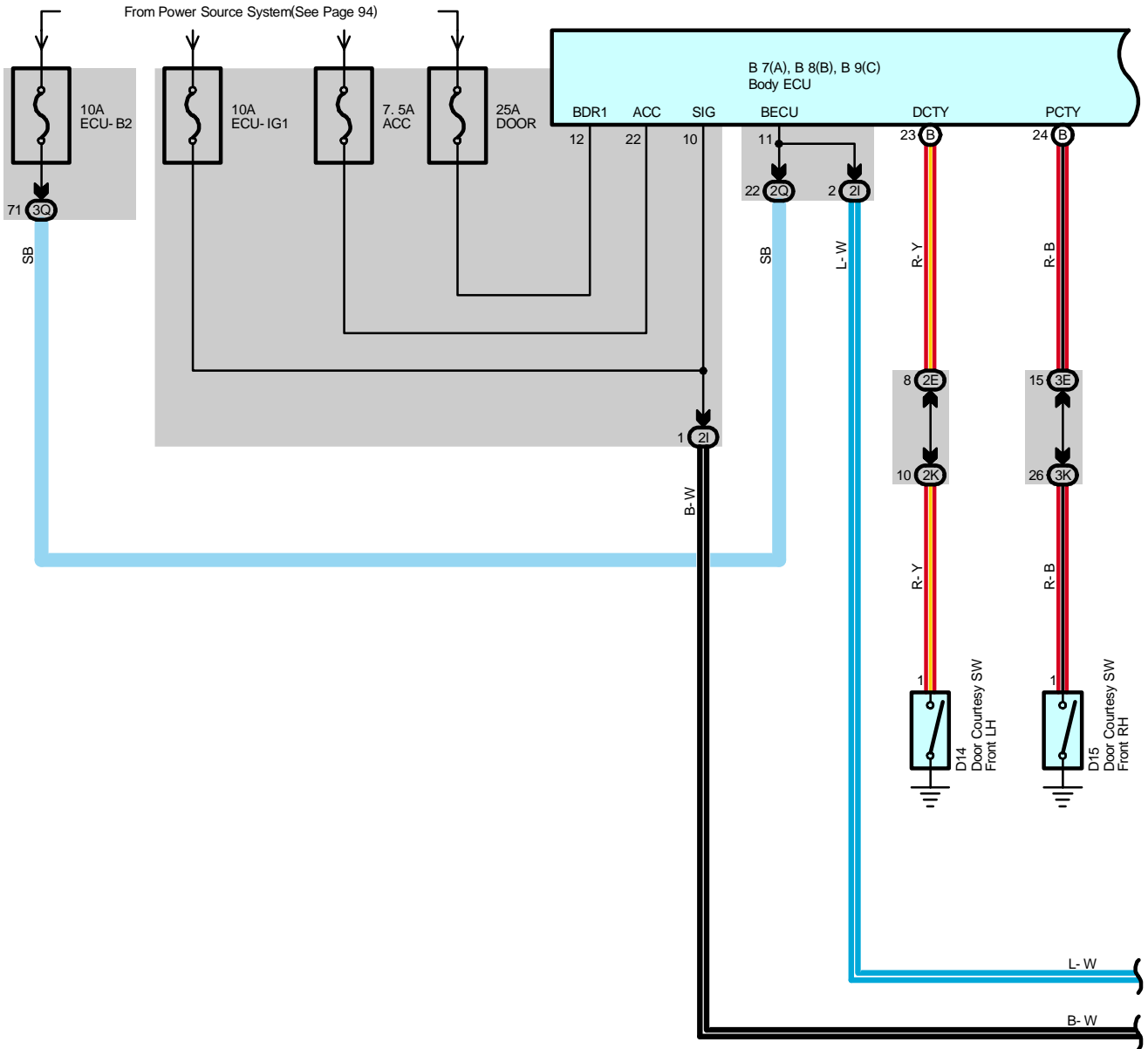
▽ : Ground Points

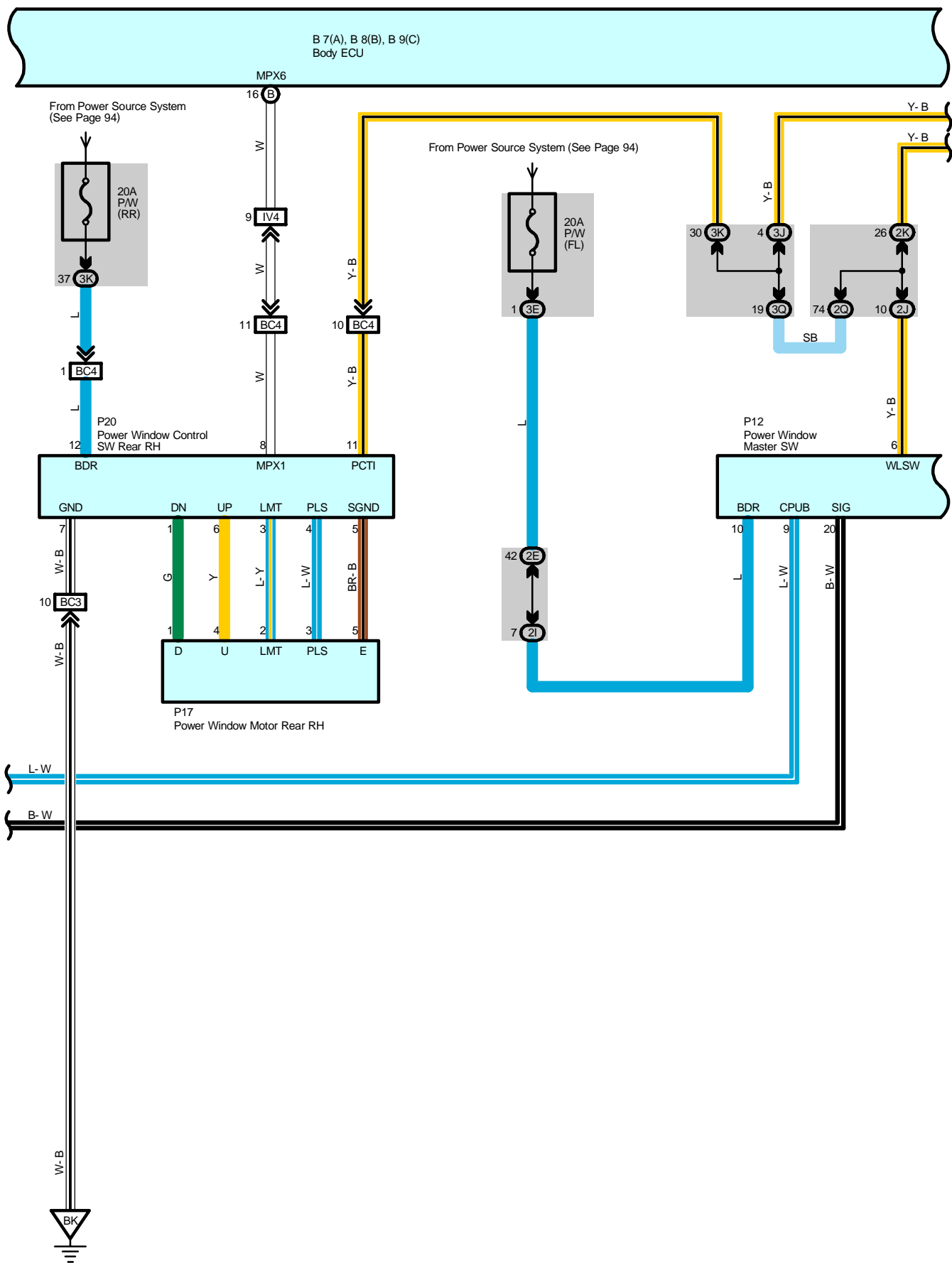
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
II	78	Set Bolt of Cowl Side J/B RH

○ : Splice Points

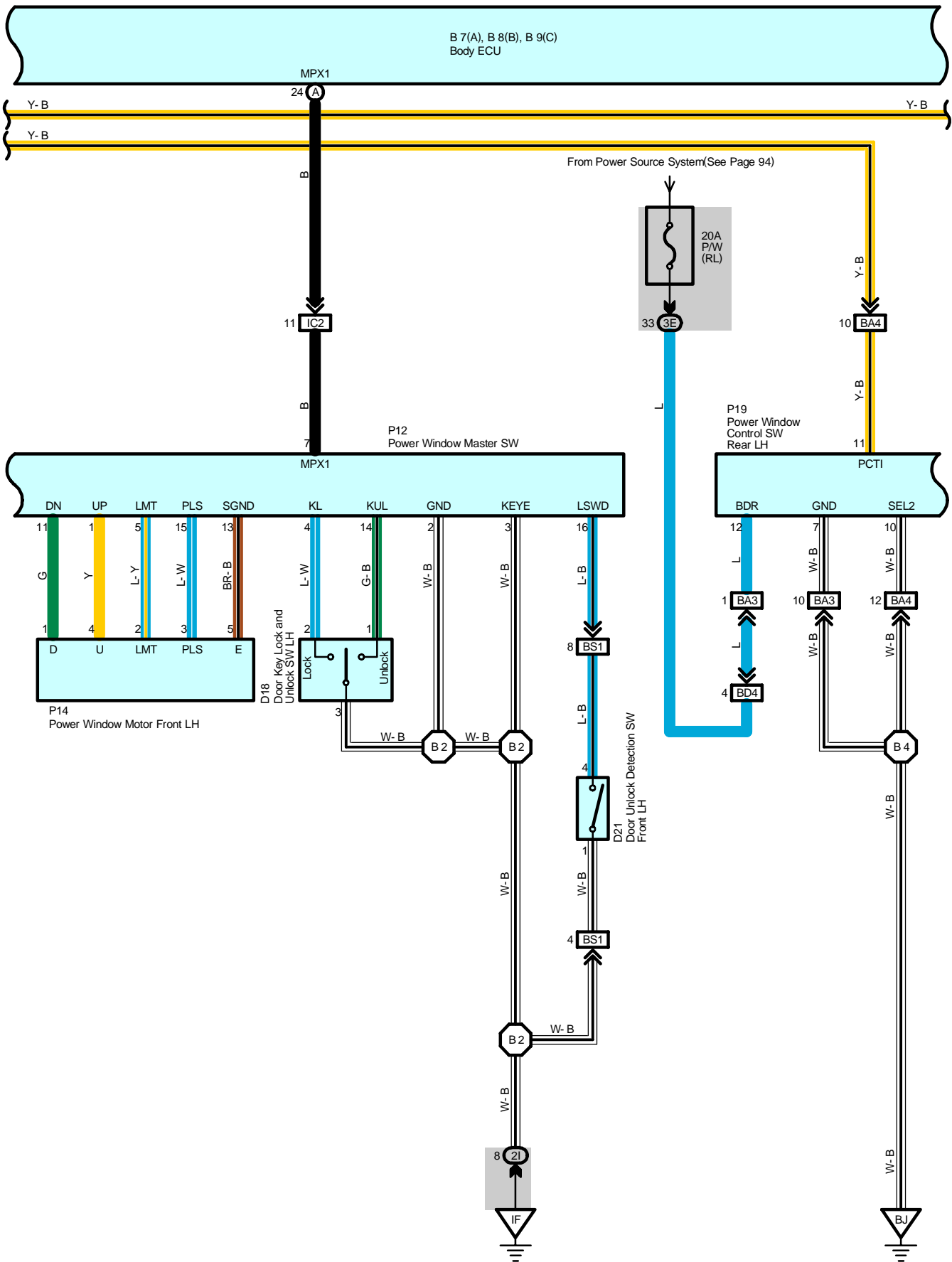
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E9	76	Transmission Wire	E10	76	Engine Wire

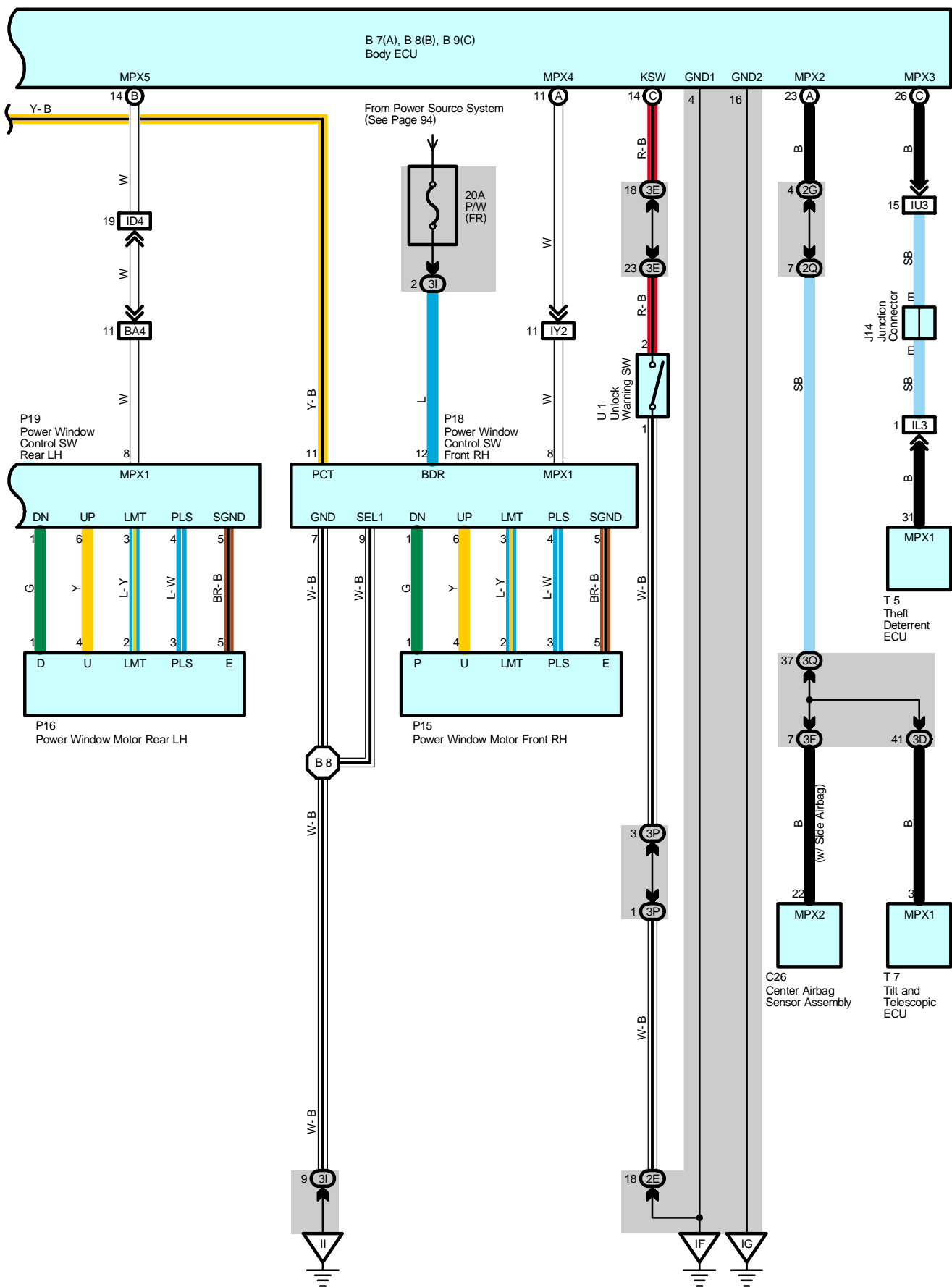
Power Window





Power Window





Power Window

System Outline

1. Manual Down or Up Operation

When the power window master SW is pressed one step, the current flows from the power window master SW TERMINAL DN to the power window motor front LH to the power window master SW TERMINAL UP to GROUND, and rotates the motor to open the window.

When the power window master SW is pulled one step, the current flows from the power window master SW TERMINAL UP to the power window motor front LH to the power window master SW TERMINAL DN to GROUND, and rotates the motor to close the window.

For the other windows, as the power window master SW and the power window SW is operated, the relevant door window is opened or closed.

2. Auto Down or Up Operation

When the power window master SW is pushed two steps, the power window master SW determines it is in auto mode and the current flows from the power window master SW TERMINAL DN to the power window motor front LH to the power window master SW TERMINAL UP to GROUND, and rotates the motor to open the window automatically.

When the power window master SW is pulled two steps, the power window master SW determines it is in auto mode and the current flows from the power window master SW TERMINAL UP to the power window motor front LH to the power window master SW TERMINAL DN to GROUND, and rotates the motor to close the window automatically.

Accordingly, when each window switch of the power window control SW is operated, the relevant door window is automatically opened/closed.

3. Catching Prevention Function

When any foreign matter is caught in the window during power window up operation, the pulse sensor in the power window motor detects the changes in the number of motor rotations and forcibly opens the door window 50 mm, or when the window opening is less than 200 mm, it opens the window until the opening is 200 mm.

4. Key Off Power Window Operation

It is possible to operate the power window for approx. 43 seconds after the ignition SW is turned from on to off. However, when the door is opened while the window is being operated, the power window operation is stopped even though 43 seconds have not elapsed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page	
B7	A	70	D21	72	P18	73
B8	B	70	J14	71	P19	73
B9	C	70	P12	73	P20	73
C26	70	P14	73	T5	71	
D14	72	P15	73	T7	71	
D15	72	P16	73	U1	71	
D18	72	P17	73			

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2J		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3F		
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3J		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BA4		
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC4		
BD4	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BS1	88	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)

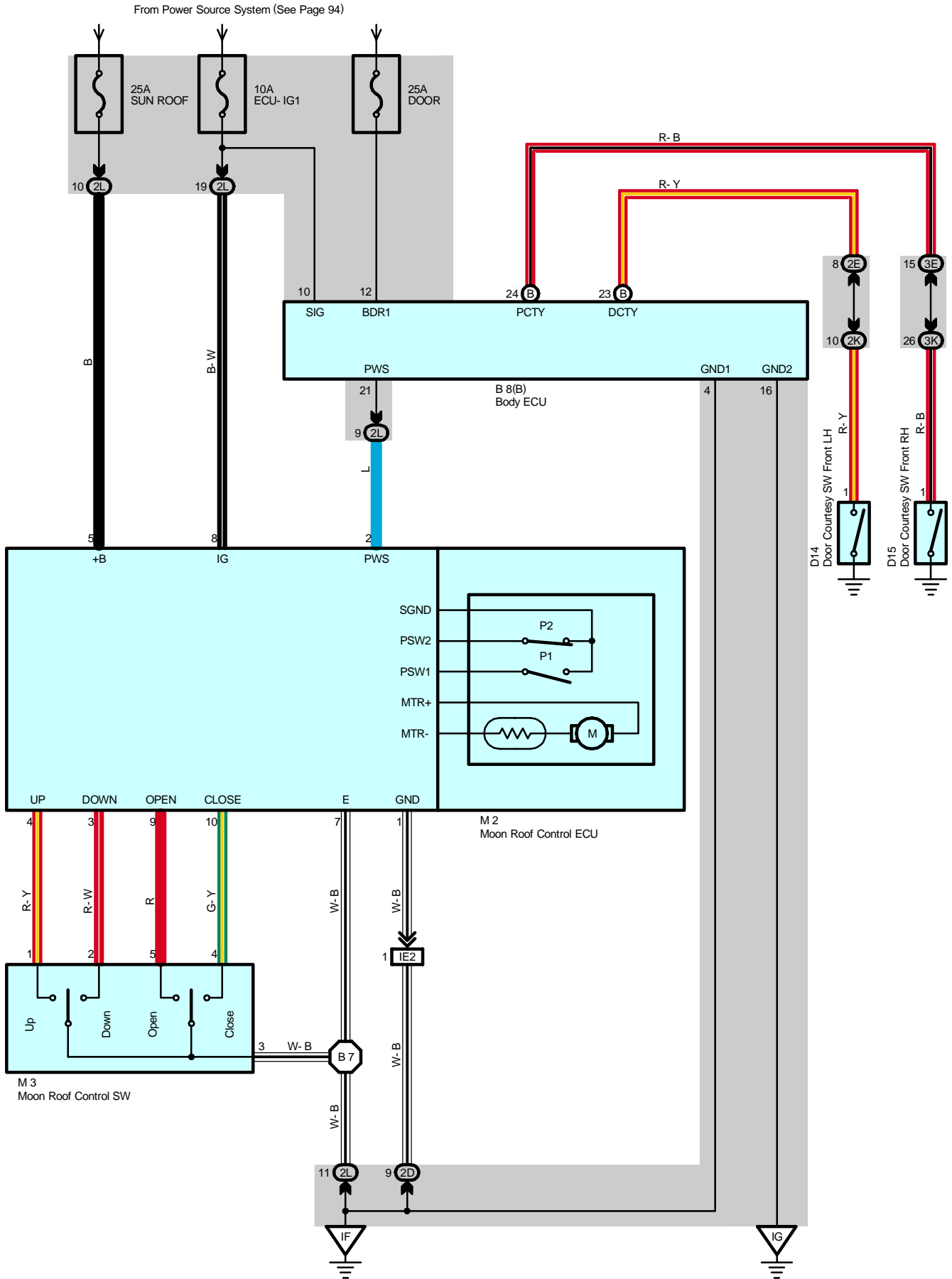
 : Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

 : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B8	88	Front Door RH Wire
B4	88	Floor No.1 Wire			

Moon Roof



System Outline

In this system, the HALL IC in the moon roof control ECU detects the changes in motor rotation, and allows opening/closing, tilting up/down of the moon roof by one touch operation.

In addition, catching prevention function during moon roof operation is also provided.

Voltage is constantly applied from the SUN ROOF fuse to the moon roof control ECU TERMINAL 5 of the moon roof control ECU.

When the ignition SW is turned on, the current flows from the ECU-IG1 fuse to TERMINAL 8 of the moon roof control ECU.

1. Slide Open Operation

When the moon roof control SW is kept pressed to OPEN position for approx. 0.3 seconds or longer (Limit SW No.1 off, limit SW No.2 on), a signal is input from the moon roof control SW TERMINAL 5 to the moon roof control ECU TERMINAL 9. This activates the moon roof control ECU and rotates the motor to open the moon roof automatically. However, in case of pressing the moon roof control SW for 0.3 seconds or less, the moon roof can be operated manually. Then, when the limit SW No.1 is turned on and then turned off again, the pulse signal sent from the HALL IC activates the moon roof control ECU, and determines that the moon roof is fully open, and stops the motor. If other operation SW or the open SW is operated while the moon roof is being opened, the moon roof control ECU is activated to stop the moon roof operation. In addition, when the moon roof is tilted up, the slide open operation does not function.

2. Slide Close Operation

When the moon roof control SW is kept pressed to CLOSE position for approx. 0.3 seconds or longer (Limit SW No.1 off, limit SW No.2 off), a signal is input from the moon roof control SW TERMINAL 4 to the moon roof control ECU TERMINAL 10. This activates the moon roof control ECU and rotates the motor to close the moon roof automatically. However, in case of pressing the moon roof control SW for 0.3 seconds or less, the moon roof can be operated manually. Then, when the limit SW No.2 is turned on, the pulse signal sent from the HALL IC activates the moon roof control ECU, and determines that the moon roof is closed fully, and stops the motor. If other operation SW or the close SW is operated while the moon roof is being closed, the moon roof control ECU is activated to stop the moon roof operation.

3. Tilt Up Operation

When the moon roof control SW is kept pressed to UP position for approx. 0.3 seconds or longer (Limit SW No.1 off, limit SW No.2 on), a signal is input from the moon roof control SW TERMINAL 1 to the moon roof control ECU TERMINAL 4. This activates the moon roof control ECU and rotates the motor to tilt up the moon roof automatically. If the pulse signal is not input from the HALL IC for 0.5 seconds or longer, it determines that the moon roof is fully tilted up, and stops the motor. If other operation SW or the tilt up SW is operated while the moon roof is being tilted up, the moon roof control ECU is activated to stop the moon roof operation. In addition, when the moon roof is opened, the tilt up operation does not function.

4. Tilt Down Operation

When the moon roof control SW is kept pressed to DOWN position for approx. 0.3 seconds or longer (Limit SW No.1 on, limit SW No.2 on), a signal is input from the moon roof control SW TERMINAL 2 to the moon roof control ECU TERMINAL 3. This activates the moon roof control ECU and rotates the motor to tilt down the moon roof automatically.

Then, when the limit SW No.1 is turned off, the pulse signal sent from the HALL IC activated the moon roof control ECU, and determines that the moon roof is closed fully, and stops the motor.

If other operation SW or the tilt down SW is operated while the moon roof is being tilted down, the moon roof control ECU is activated to stop the moon roof operation.

5. Catching Prevention Function

During slide close or tilt down operation, if the moon roof control ECU detects a catching load from the changes in the rotation of the motor, the operation is stopped, and the motor is rotated in the reverse direction.

* Slide close operation

The moon roof is moved approx. 200 mm in the reverse direction (Slide open) after a catching load has been detected.

However, if the full open position is detected before moving approx. 200 mm, the reverse movement is stopped.

* Tilt down operation

If a catching load is detected, the moon roof is moved in the reverse direction until fully tilted up.

6. Key Off Moon Roof Operation

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

7. Fail-Safe Function

If the moon roof is operated continuously in the same direction, the current flowing to the motor is cut off when the time shown below has elapsed after the motor operation has been started.

* Slide open/close operation by the moon roof SW approx. 20 seconds

* Tilt up/down operation by the moon roof SW approx. 2 second

* Slide open operation for reverse movement in case of catching prevention function approx. 20 seconds

* Tilt up operation for reverse movement in case of catching prevention function approx. 2 seconds

Moon Roof

: Parts Location

Code	See Page	Code	See Page	Code	See Page	
B8	B	70	D15	72	M3	72
D14	72	M2	72			

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE2	78	Dash Wire and Roof No.1 Wire (Left Kick Panel)

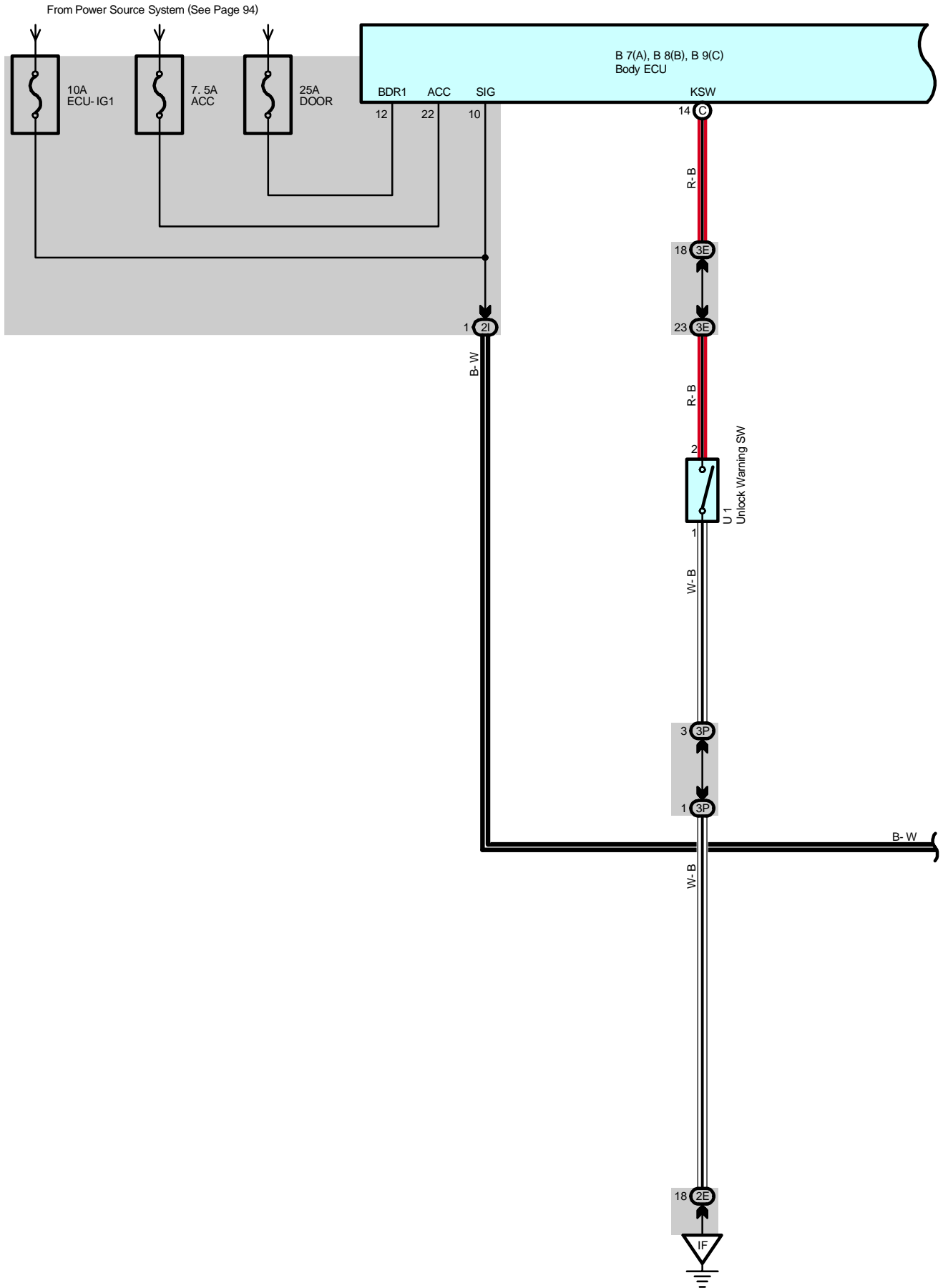
: Ground Points

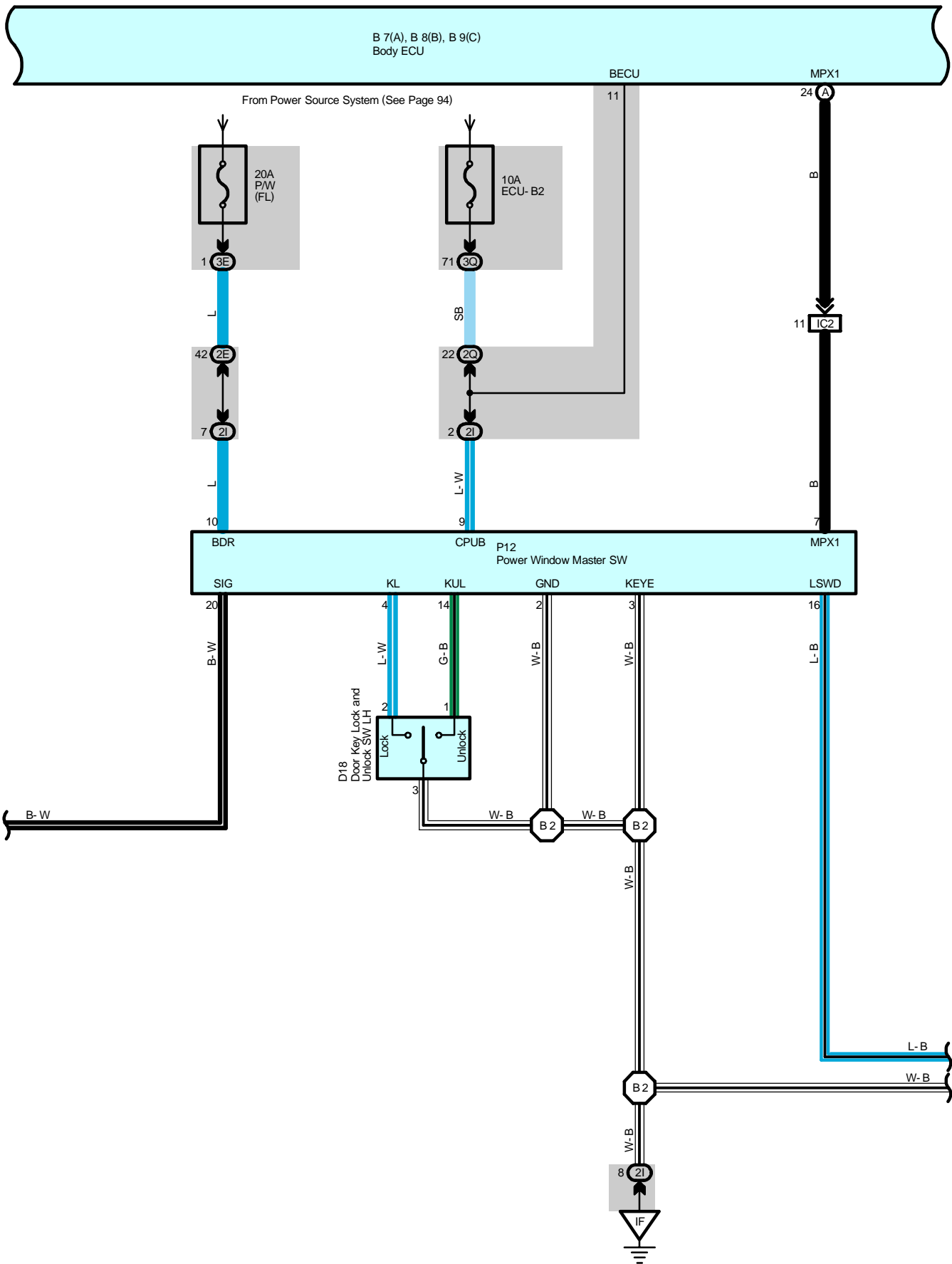
Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IG		

: Splice Points

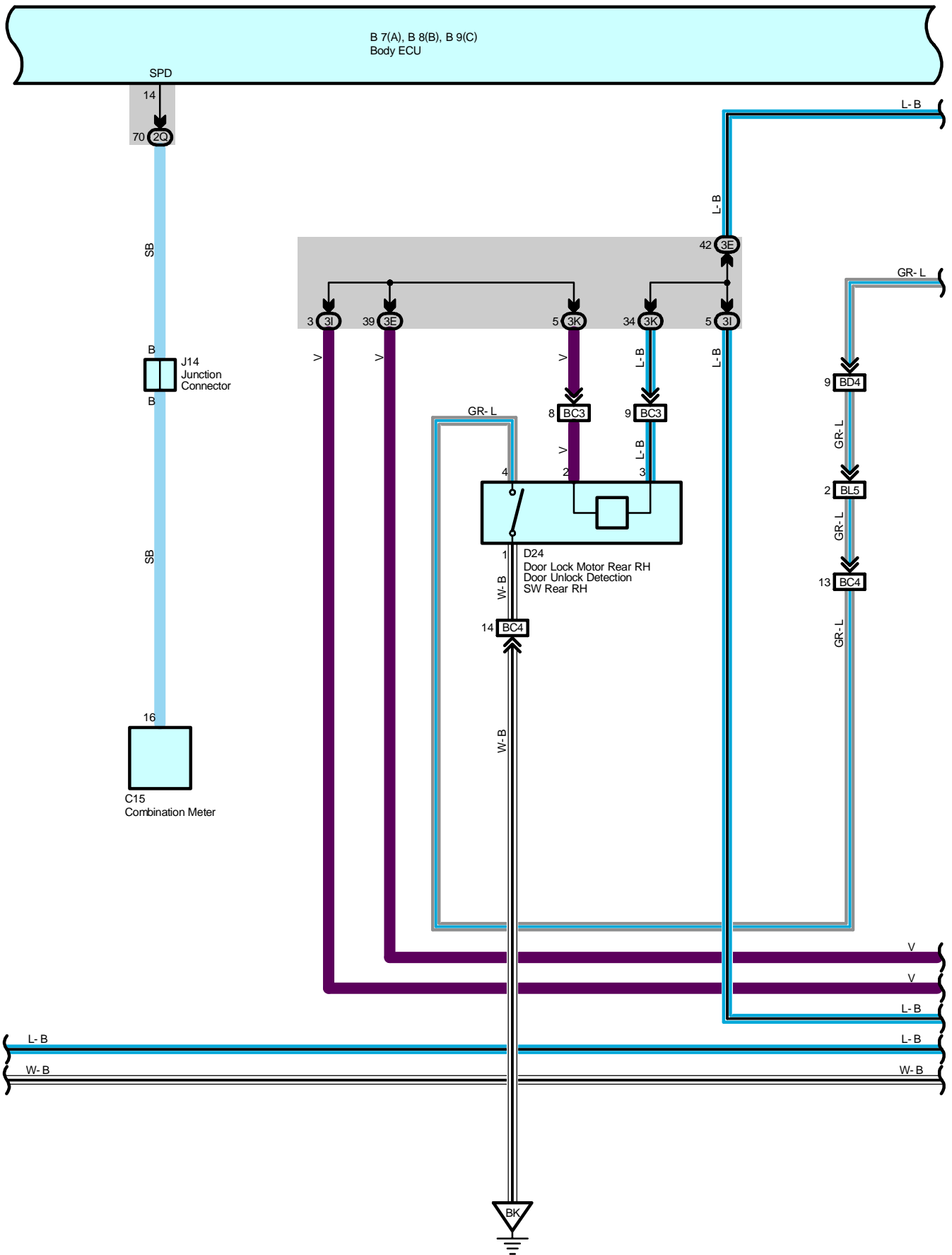
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B7	88	Roof No.1 Wire			

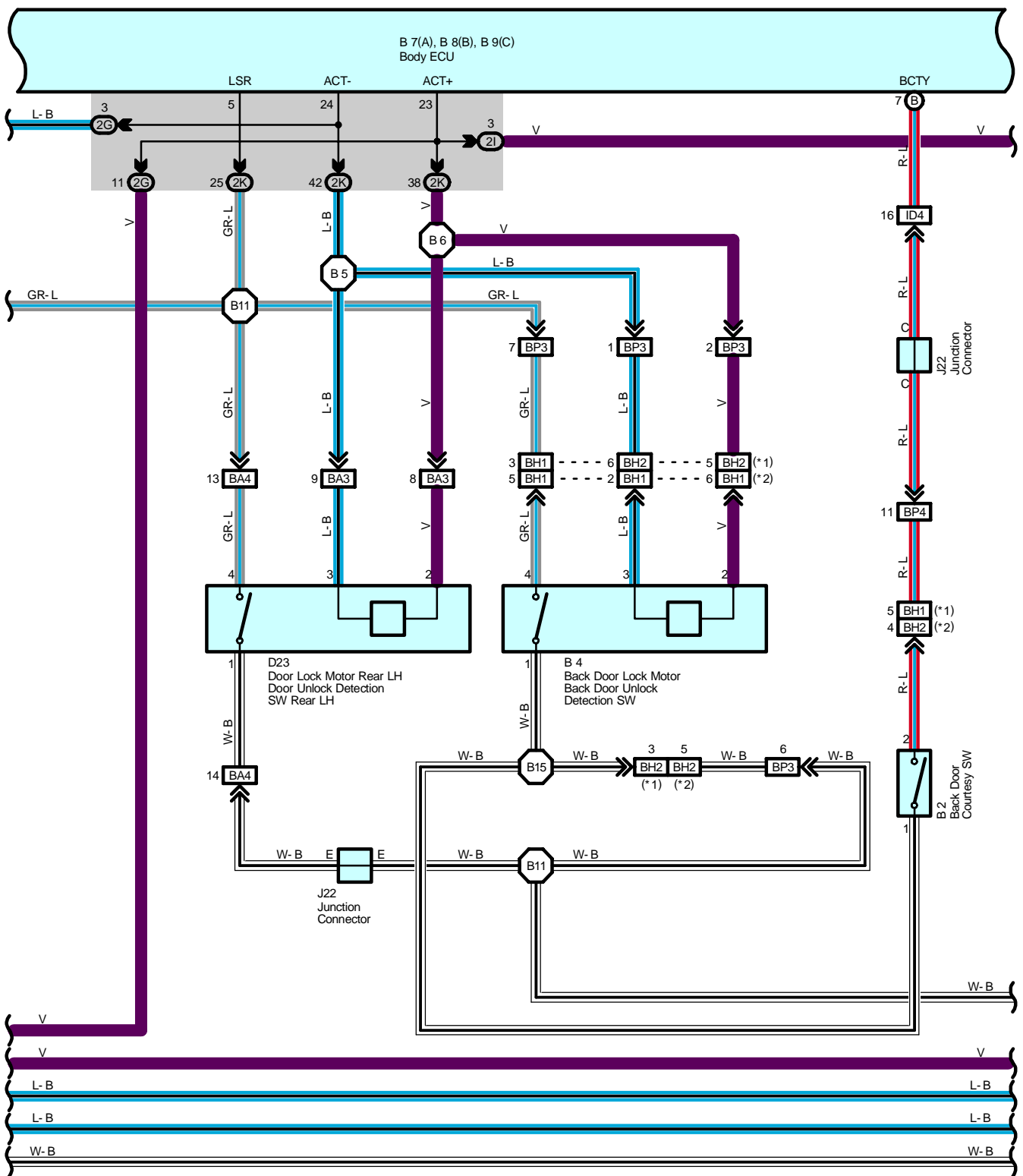
Door Lock Control





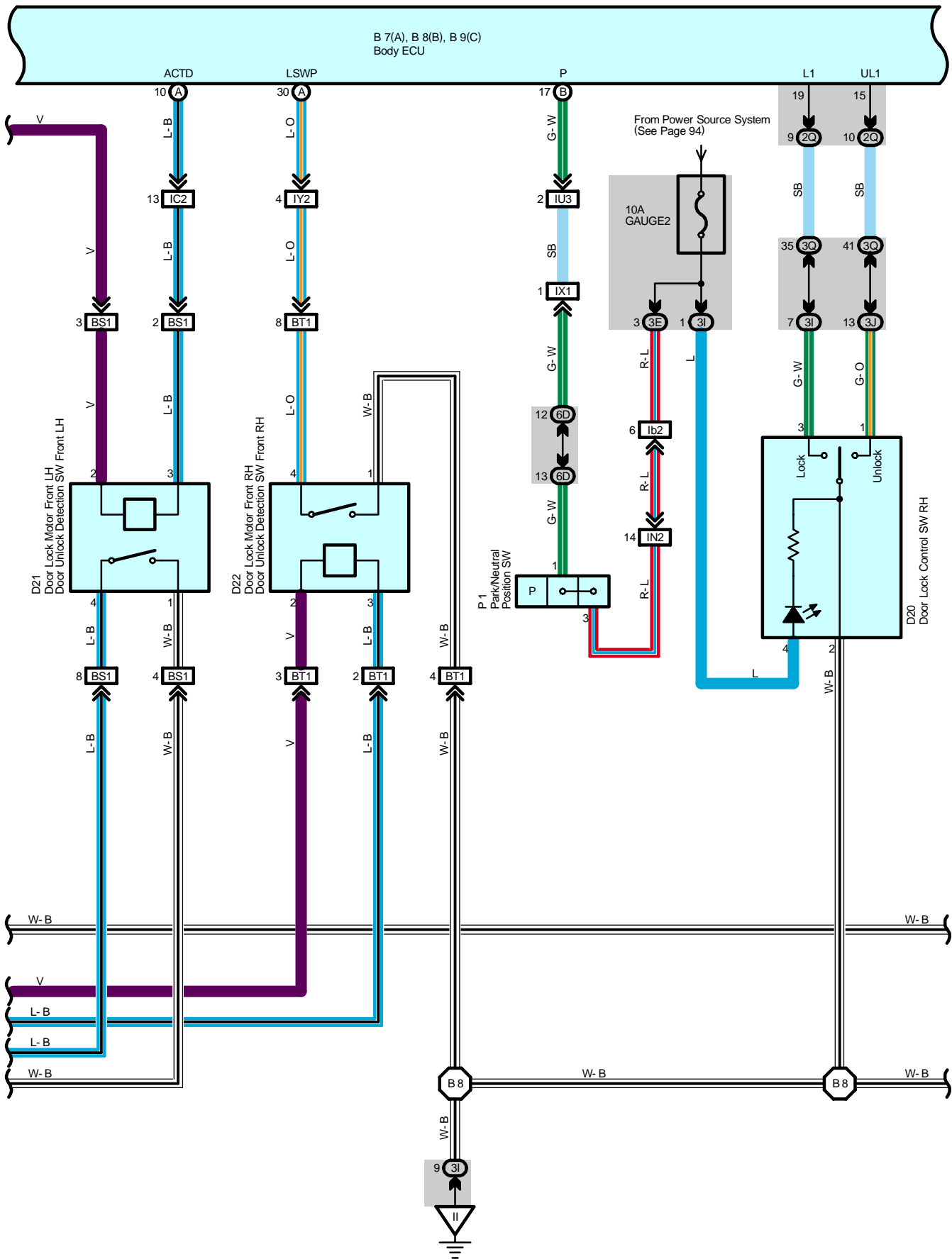
Door Lock Control

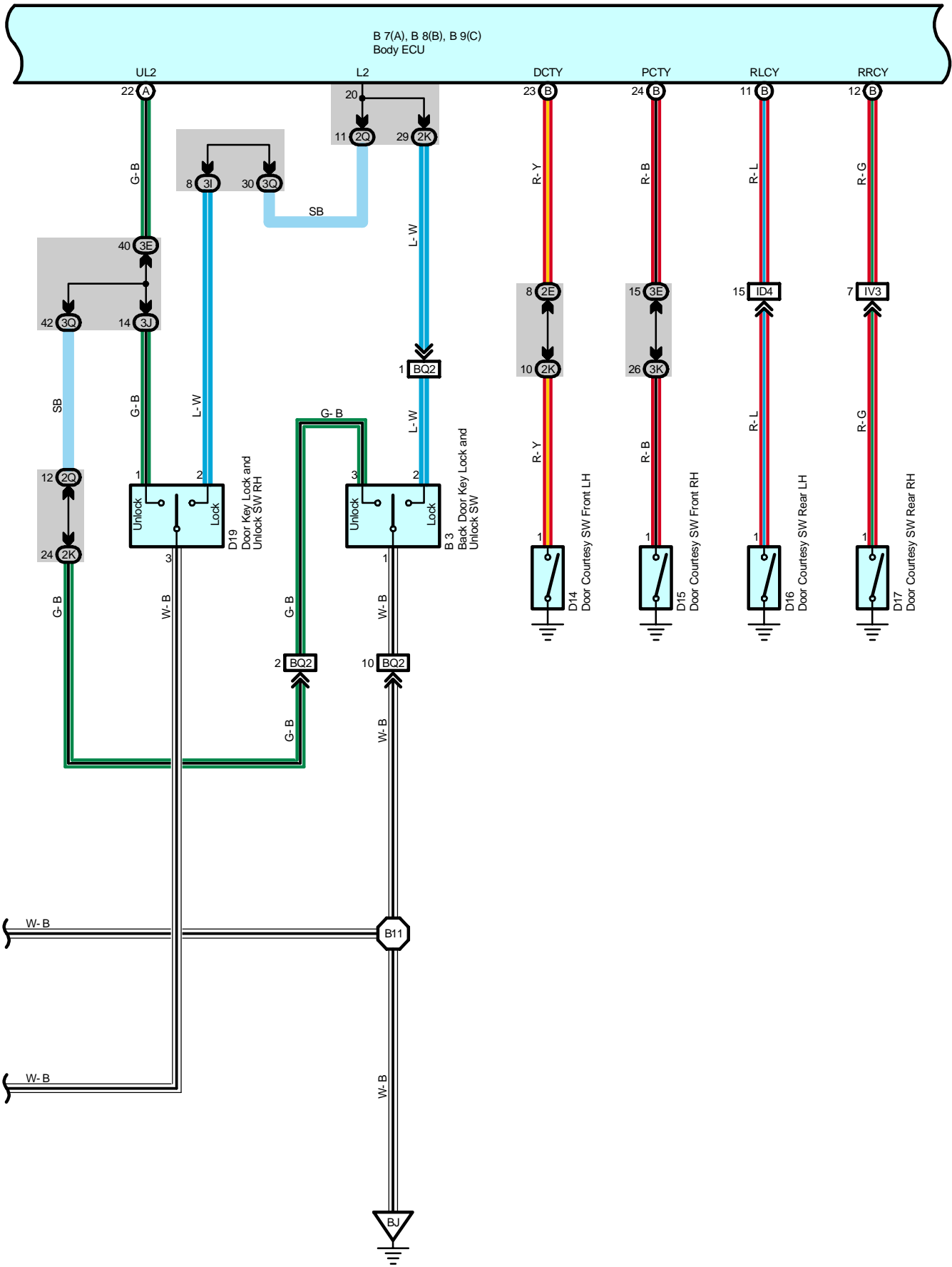




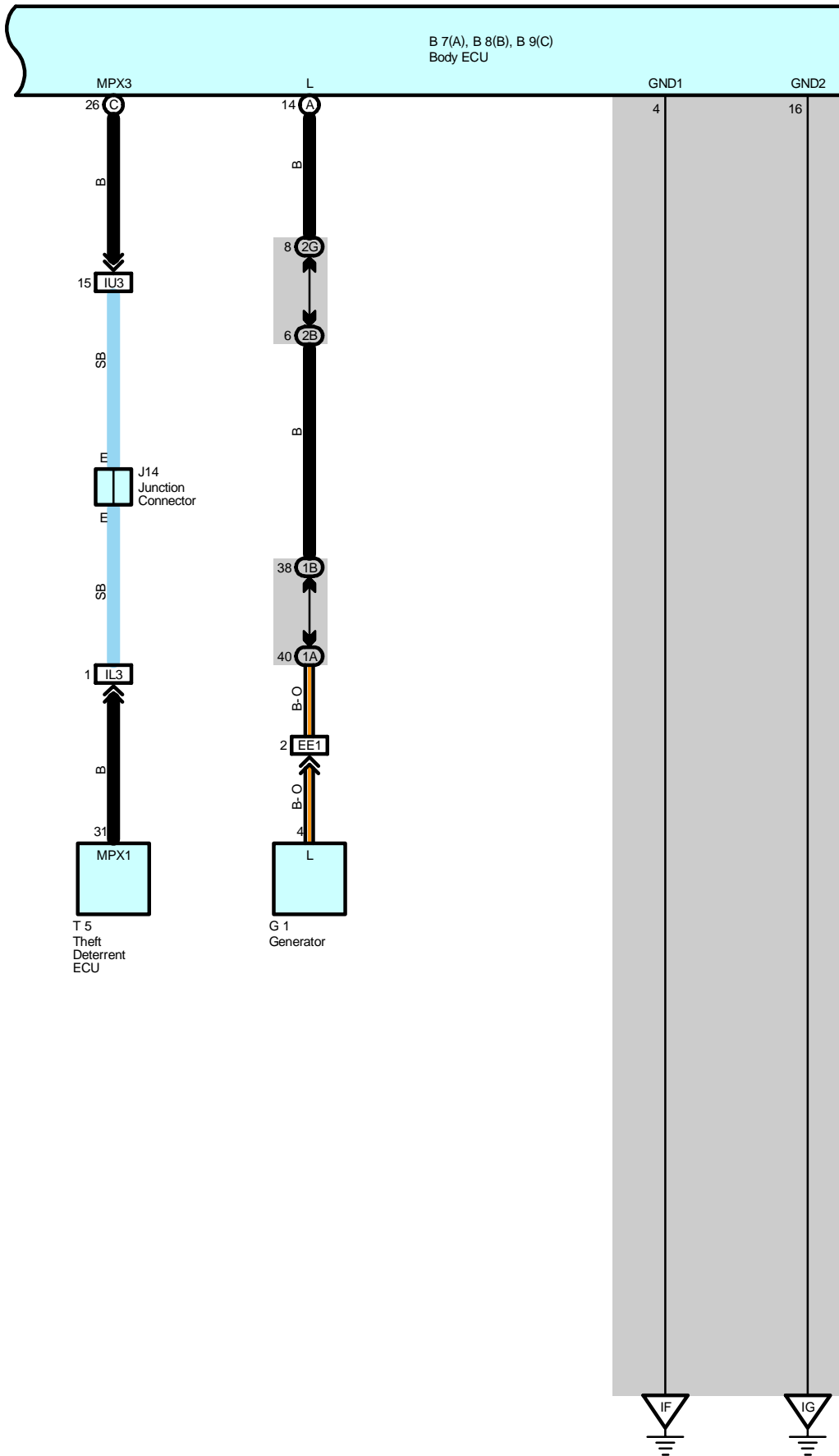
* 1 : w/ Navigation System
 * 2 : w/o Navigation System

Door Lock Control





Door Lock Control



System Outline

The door lock control system is controlled by the body ECU.

This system has following features. However, the adopted function differs depending on the establishment.

1. Manual Lock and Unlock Operation

Pressing the power door lock switch on the driver or front passenger door to the lock side will lock all the doors and pressing it to the unlock side will unlock all the doors.

2. Key-Linked Lock and Unlock Function

This function, which is linked with the key cylinder, can lock or unlock all the doors when a lock or unlock operation is effected.

3. Manual Unlock Prohibition Function

Performing the door lock operation with a transmitter or an ignition key will prohibit the unlock operation by the door lock control switch.

4. 2-Step Unlock Function

This function is provided to unlock the driver's door by turning the key cylinder first and unlock passenger's door by turning it the second time.

5. Key Confine Prevention Function

When the key is inserted in the ignition key cylinder and if you perform the door lock operation, all the doors will be unlocked.

6. Shift-Linked Automatic Door Lock

When the conditions listed below are met consecutively, this function causes all the doors to be automatically locked.

- * The ignition switch is turned from the OFF or ACC position to the ON position.
- * All doors are closed.
- * The shift lever is moved out of P position.
- * Either one of the doors is unlocked.

7. Theft Deterrent System-Linked Door Lock Function

When the body ECU receives the door lock signal from the theft deterrent system, "all doors lock" operation will be performed in spite of the current door lock condition.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
B2		72	D16		72	G1		68
B3		72	D17		72	J14		71
B4		72	D18		72	J22		72
B7	A	70	D19		72	P1		69
B8	B	70	D20		72	P12		73
B9	C	70	D21		72	T5		71
C15		70	D22		72	U1		71
D14		72	D23		72			
D15		72	D24		72			

Door Lock Control

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3J		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	76	Engine Room Main Wire and Alternator Wire (Near the Battery)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BA4		
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC4		
BD4	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL5	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BS1	88	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)
BT1	88	Door Lock RH Sub Wire and Front Door RH Wire (Front Door RH)

: Ground Points

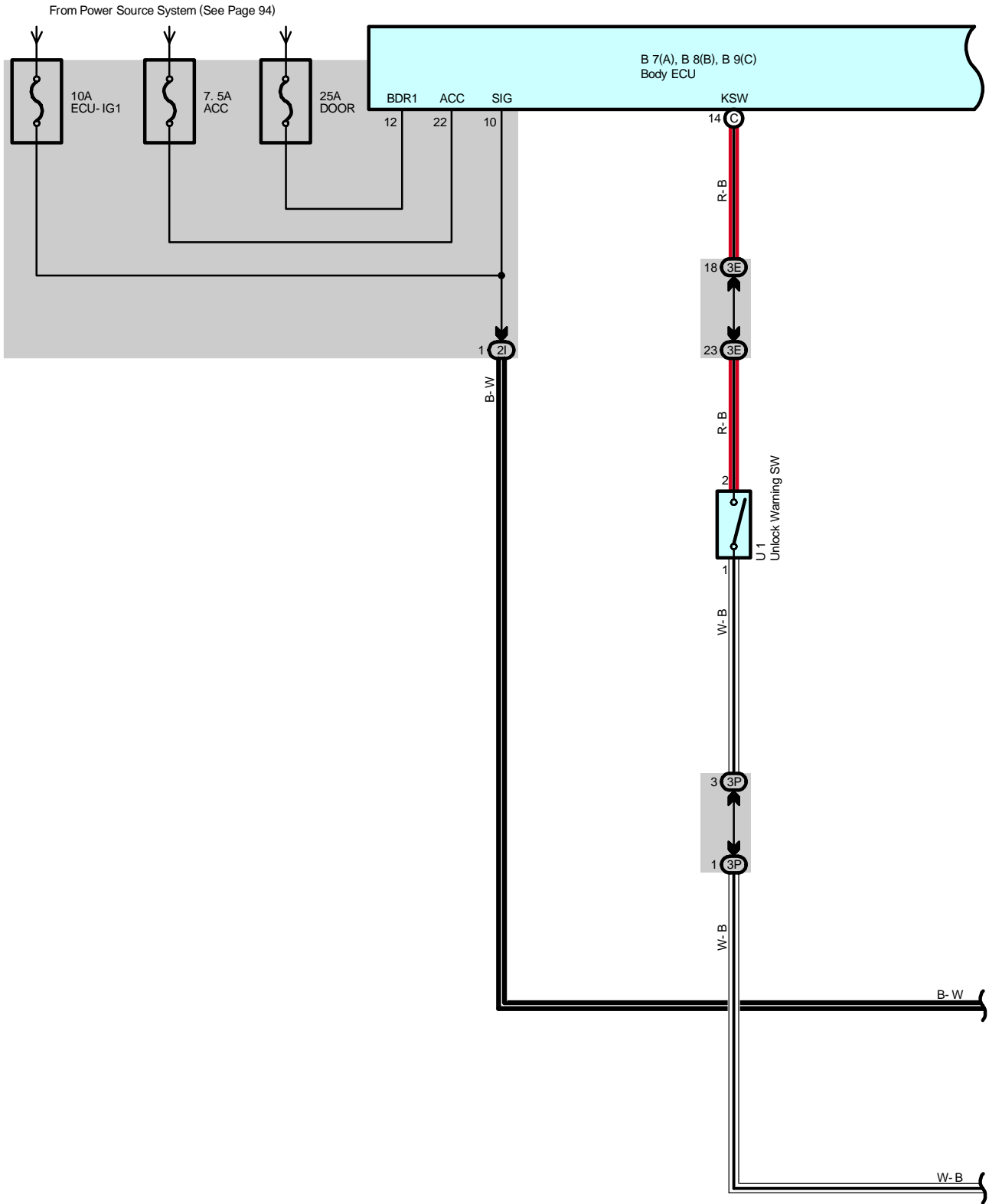
Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

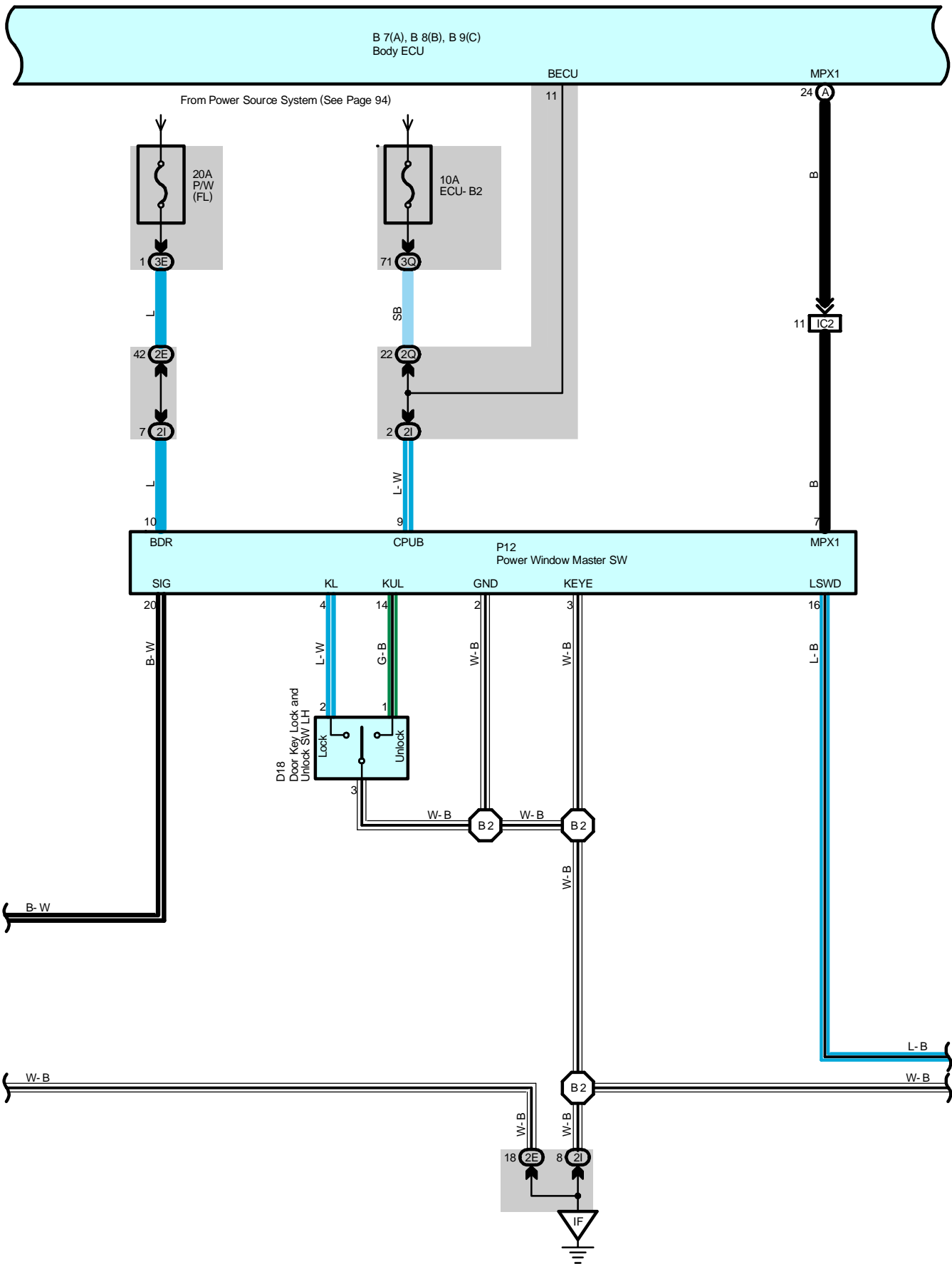


: Splice Points

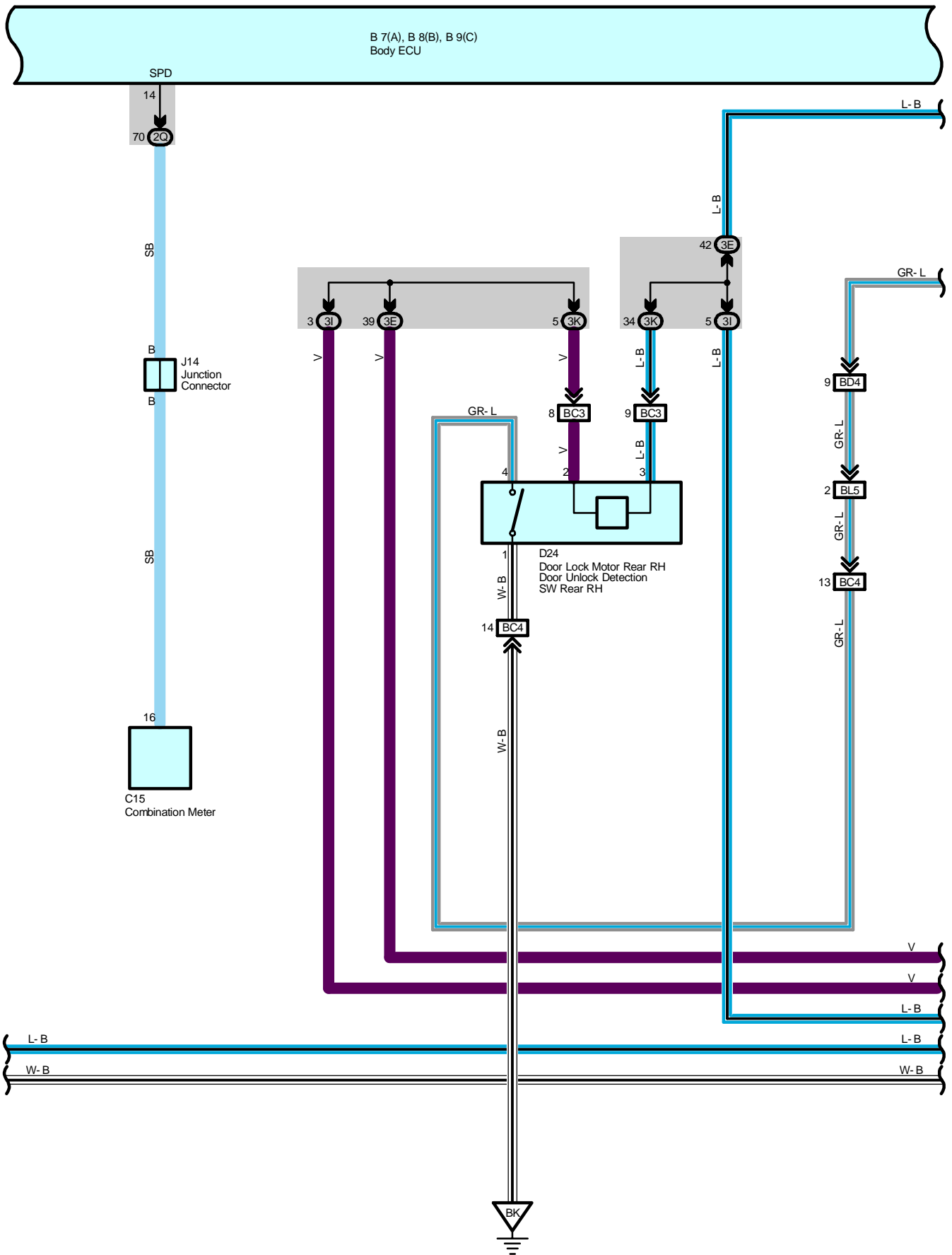
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B8	88	Front Door RH Wire
B5	88	Floor No.1 Wire	B11	88	Floor No.1 Wire
B6			B15	88	Back Door Upper Wire

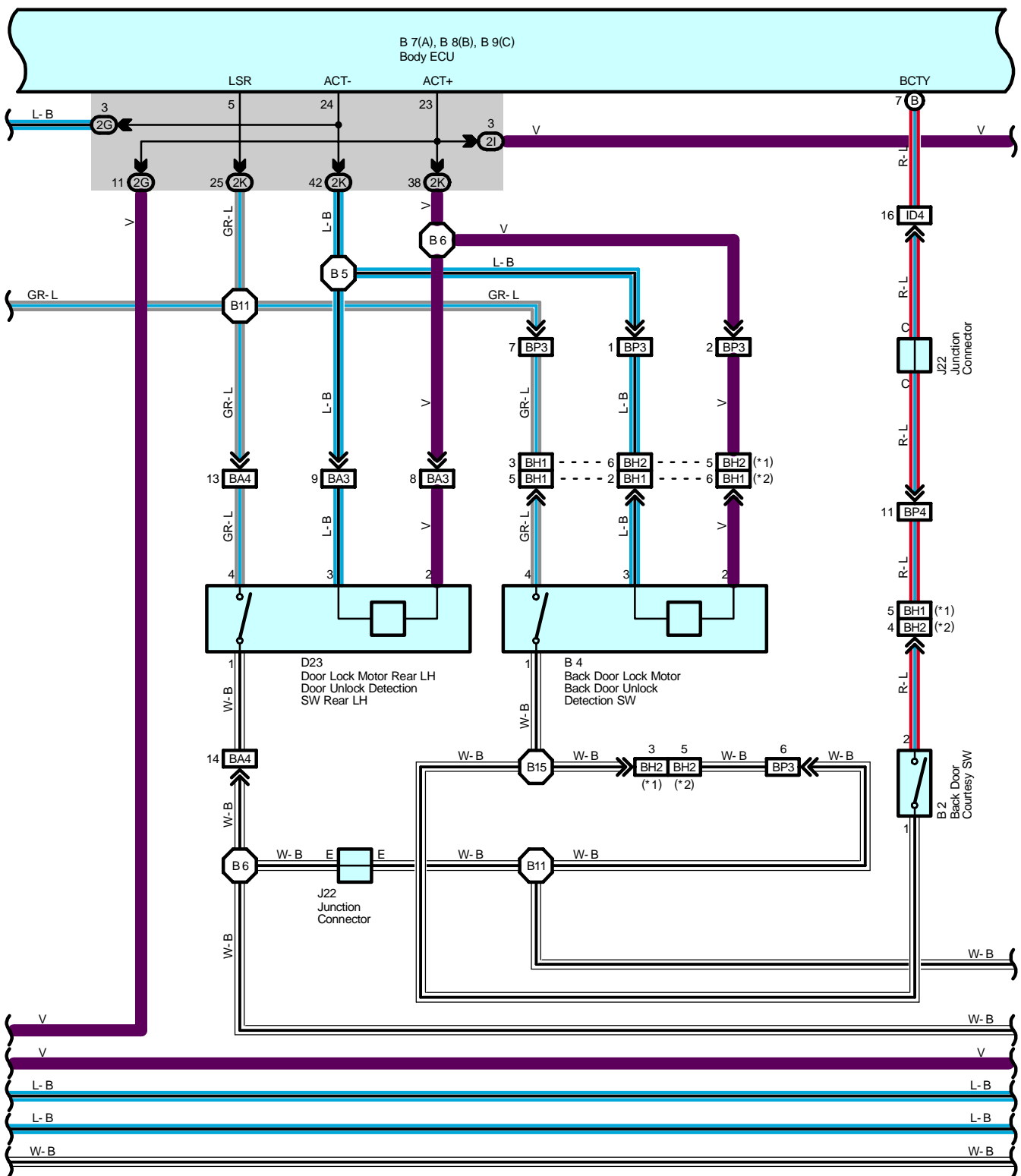
Wireless Door Lock Control





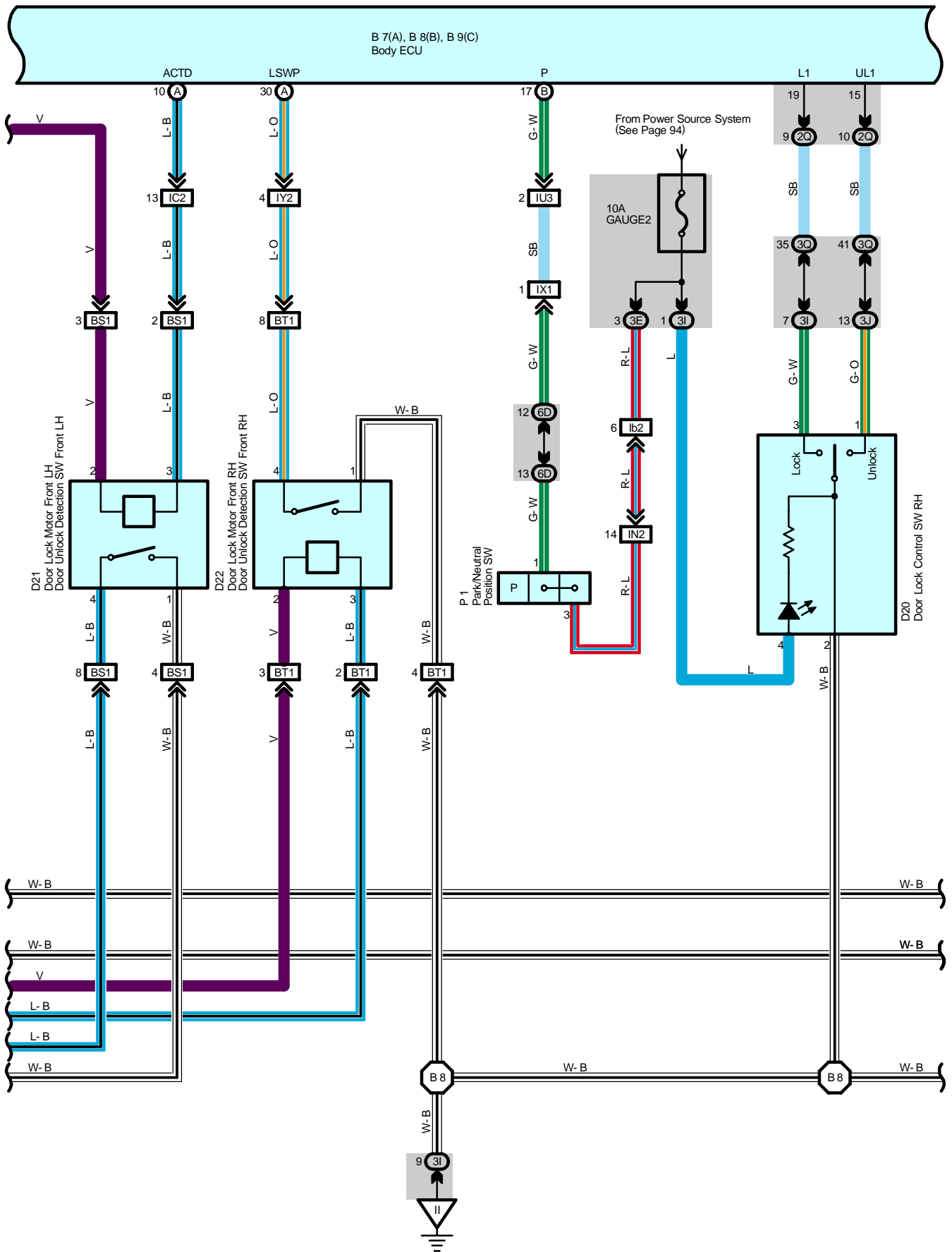
Wireless Door Lock Control

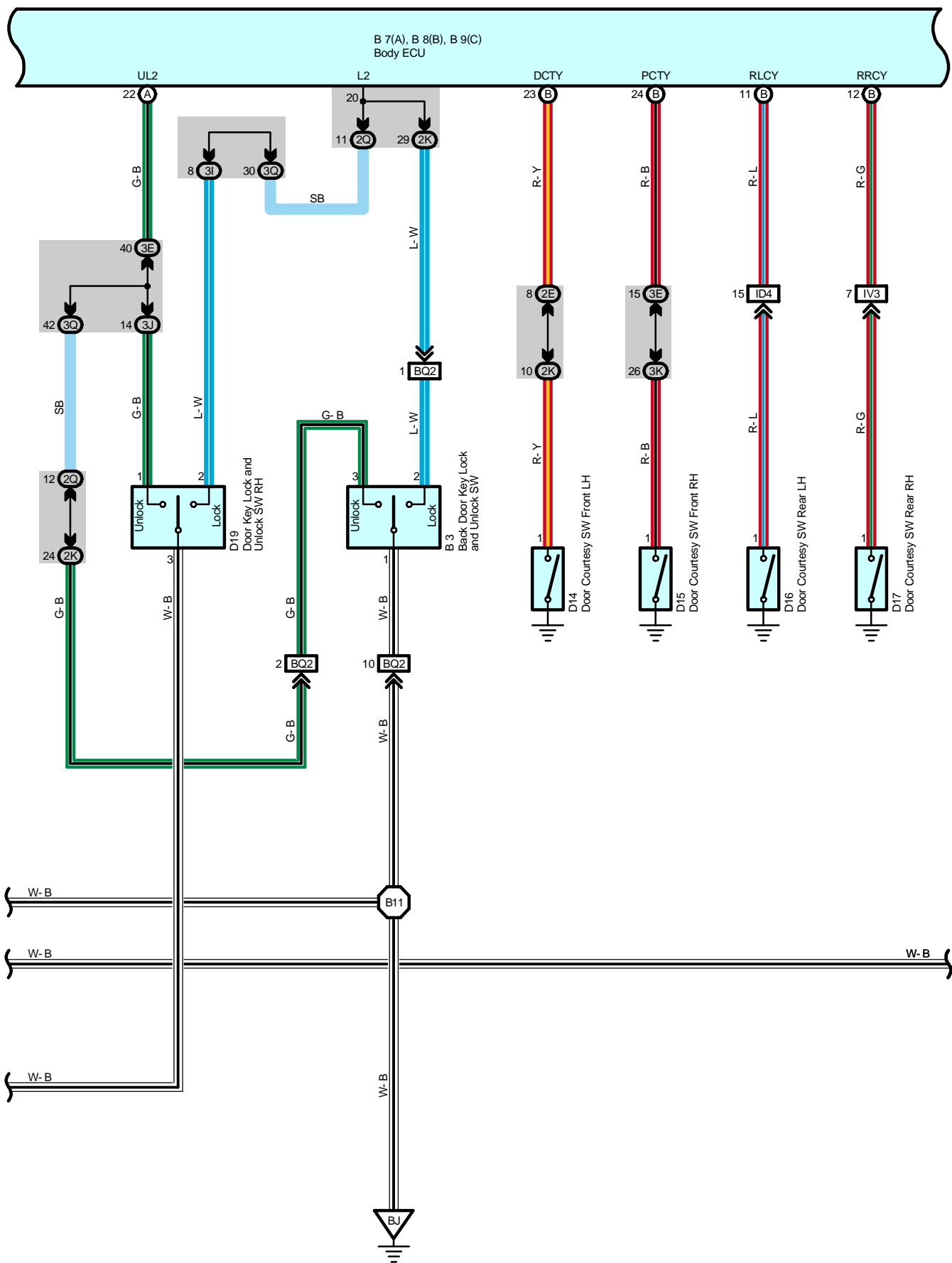




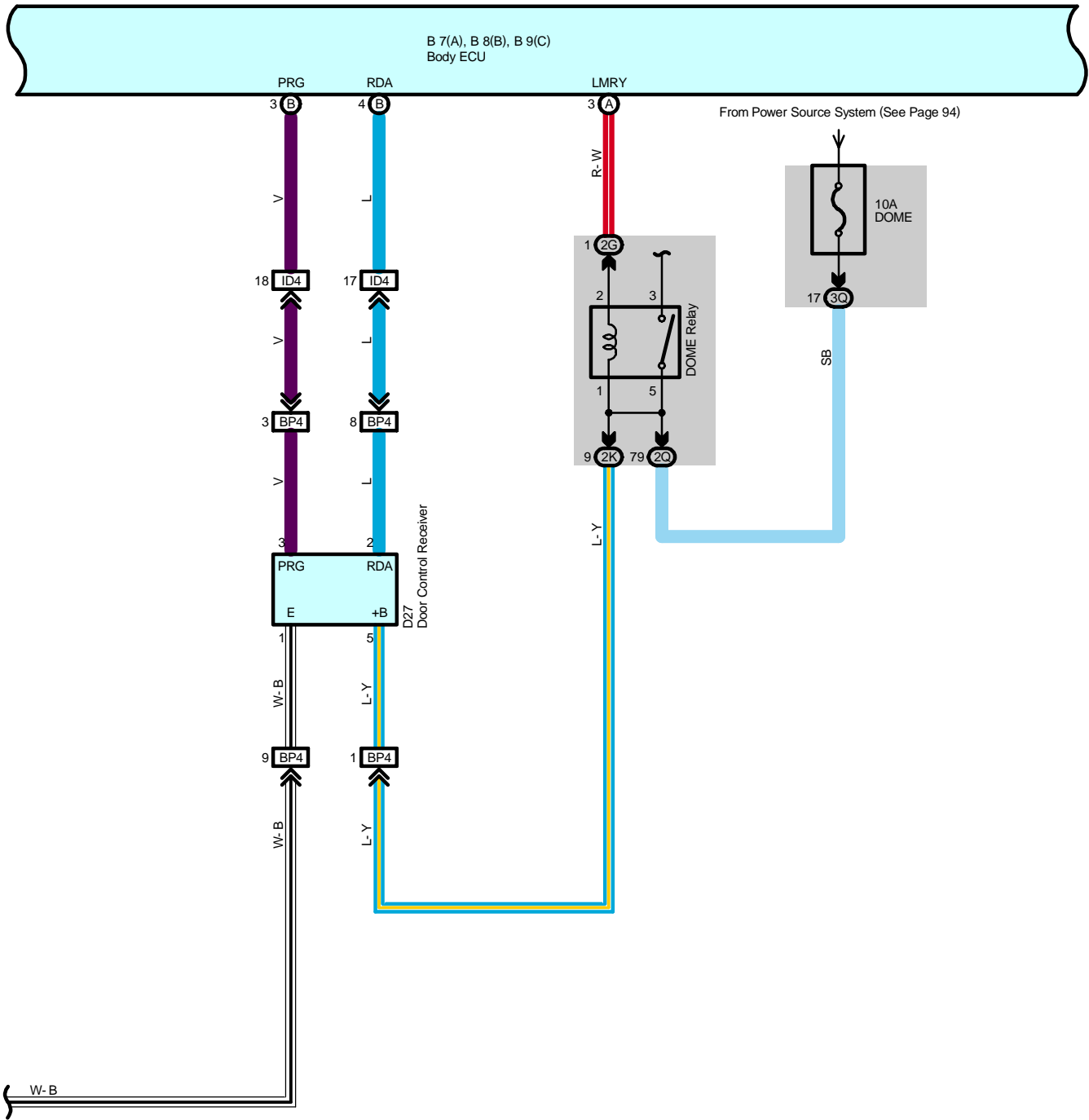
* 1 : w/ Navigation System
 * 2 : w/o Navigation System

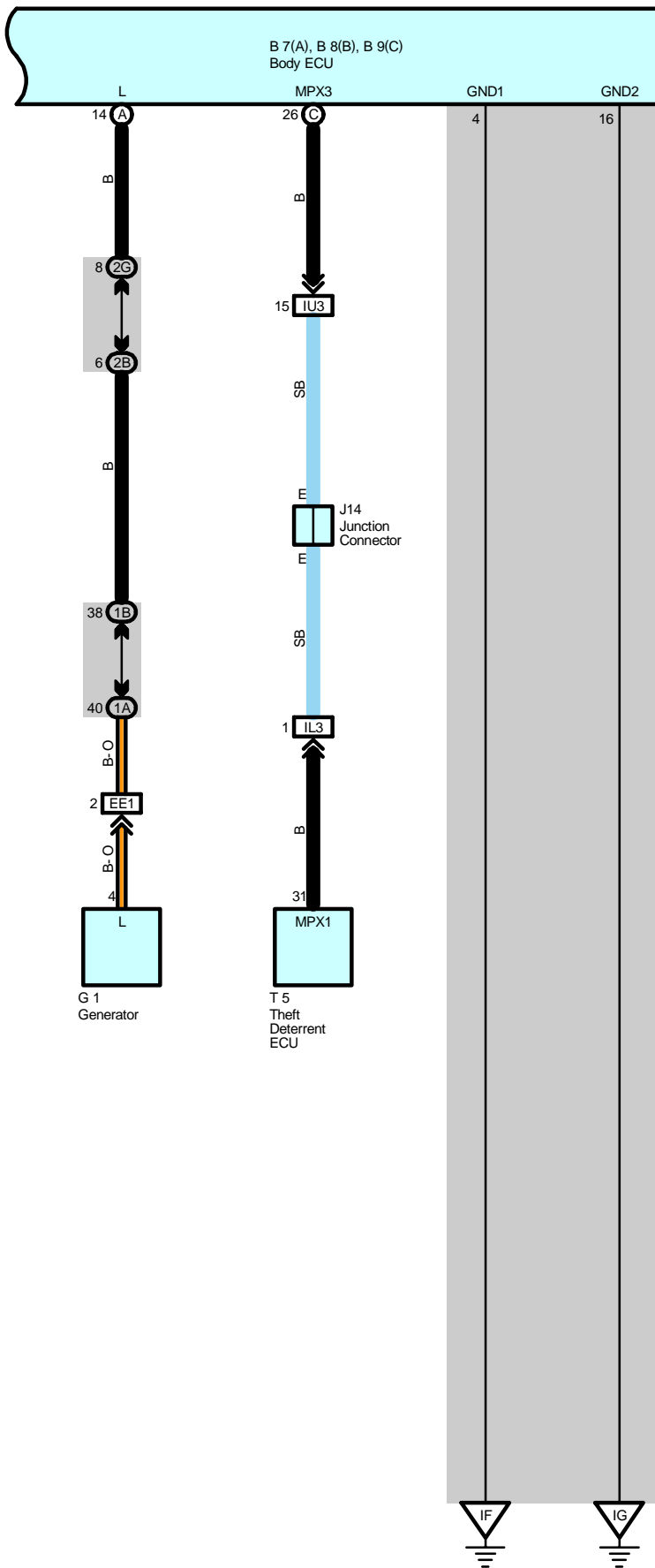
Wireless Door Lock Control





Wireless Door Lock Control





Wireless Door Lock Control

System Outline

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

1. Normal Operation

* Lock operation

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

* Unlock operation

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

2. Auto Lock Function

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

* Any door is opened.

* The ignition key is inserted into the ignition SW.

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

3. Wireless Door Lock Stop Function

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

Lock operation

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

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

* Ignition SW is on

Unlock operation

* Ignition SW is on

4. Visual Confirmation of Lock or Unlock

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

5. Panic Mode Function

When the panic SW on the transmitter is pressed, the door control receiver receives a signal and enters the panic mode. The signal input into the theft deterrent ECU from the body ECU turns on the theft deterrent horn, and flashes the taillight and headlight. When the panic SW or the unlock SW of the transmitter is pressed during the panic mode, the panic mode is canceled, and the theft deterrent horn stops, and the taillight and headlight are turned off.

6. Repeat Function

If the lock detection signal in response to the output signal is not received after the door control receiver has output the lock signal, the lock signal is output again.

Service Hints

D27 Door Control Receiver

5-Ground : Always approx. 12 volts

1-Ground : Always continuity

D21, D22, D23, D24 Door Unlock Detection SW Front LH, RH, Rear LH, RH

1-Ground : Always continuity

B4 Back Door Unlock Detection SW

1-Ground : Always continuity

 : Parts Location

Code	See Page	Code	See Page	Code	See Page
B2	72	D16	72	D27	72
B3	72	D17	72	G1	68
B4	72	D18	72	J14	71
B7	A 70	D19	72	J22	72
B8	B 70	D20	72	P1	69
B9	C 70	D21	72	P12	73
C15	70	D22	72	T5	71
D14	72	D23	72	U1	71
D15	72	D24	72		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3J		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
6D	60	Engine Wire and J/B No.6 (Behind the Grove Box)

Wireless Door Lock Control

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EE1	76	Engine Room Main Wire and Alternator Wire (Near the Battery)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BA4		
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BC4		
BD4	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL5	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BS1	88	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)
BT1	88	Door Lock RH Sub Wire and Front Door RH Wire (Front Door RH)

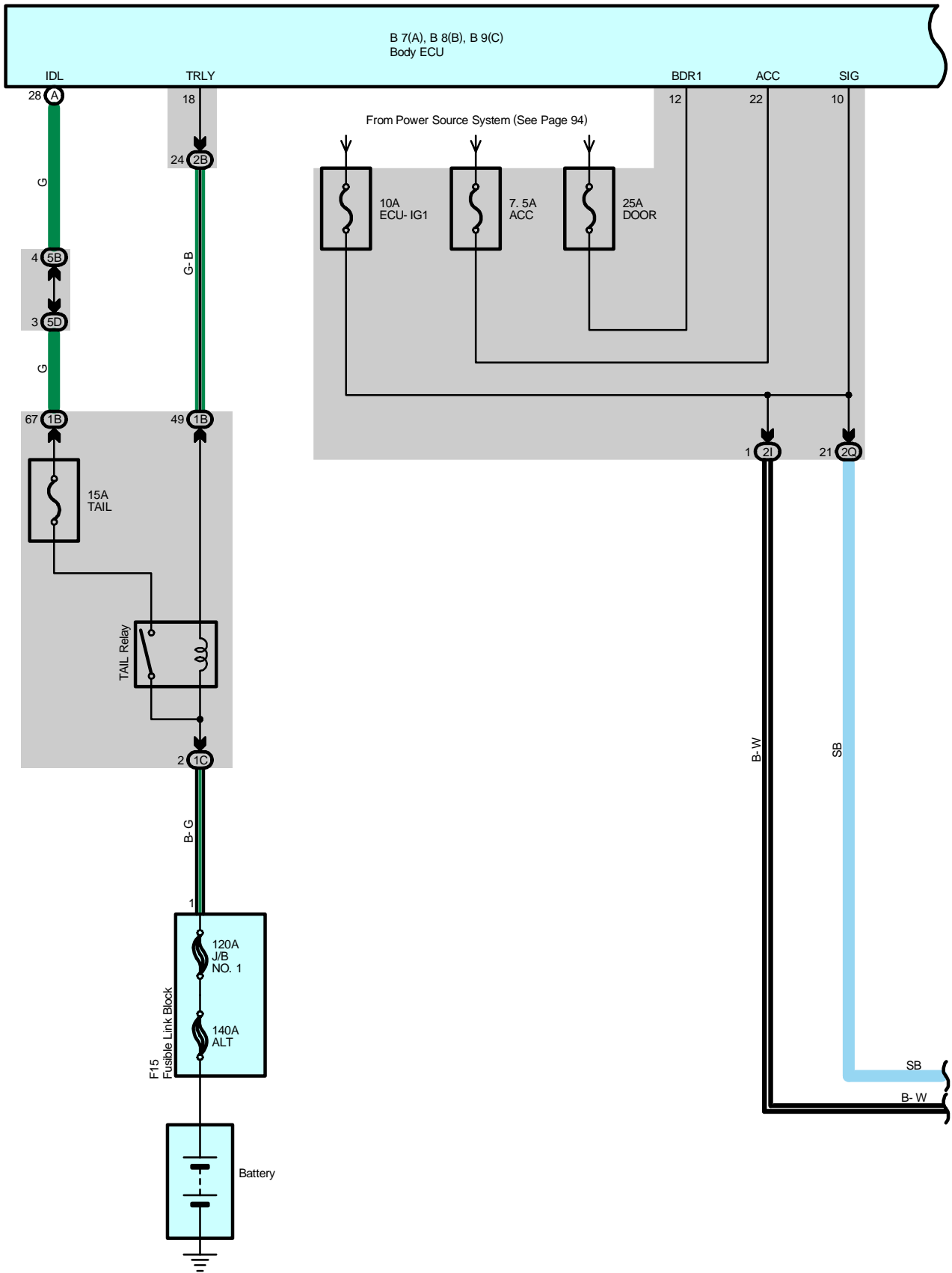
: Ground Points

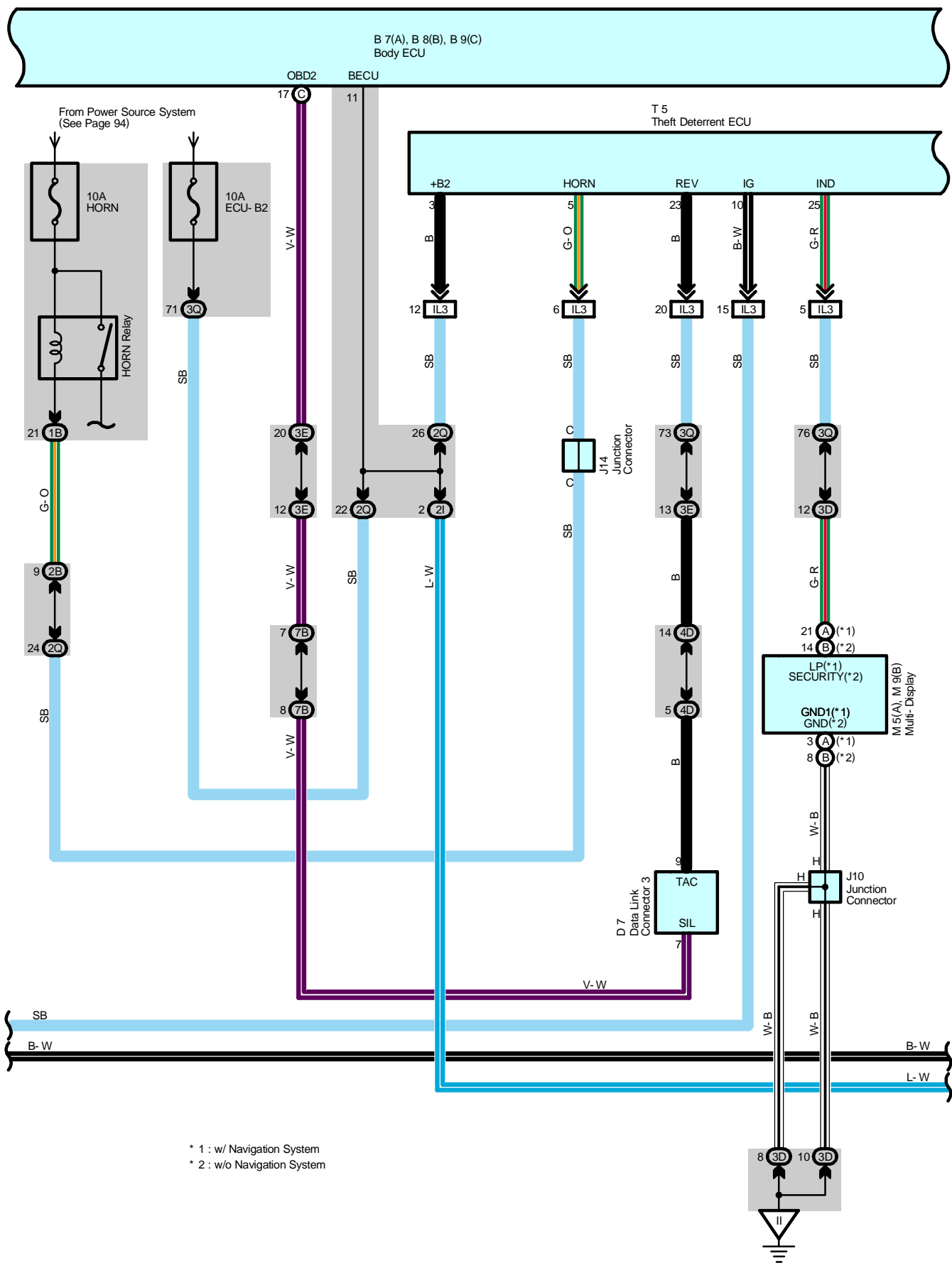
Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B8	88	Front Door RH Wire
B5	88	Floor No.1 Wire	B11	88	Floor No.1 Wire
B6			B15	88	Back Door Upper Wire

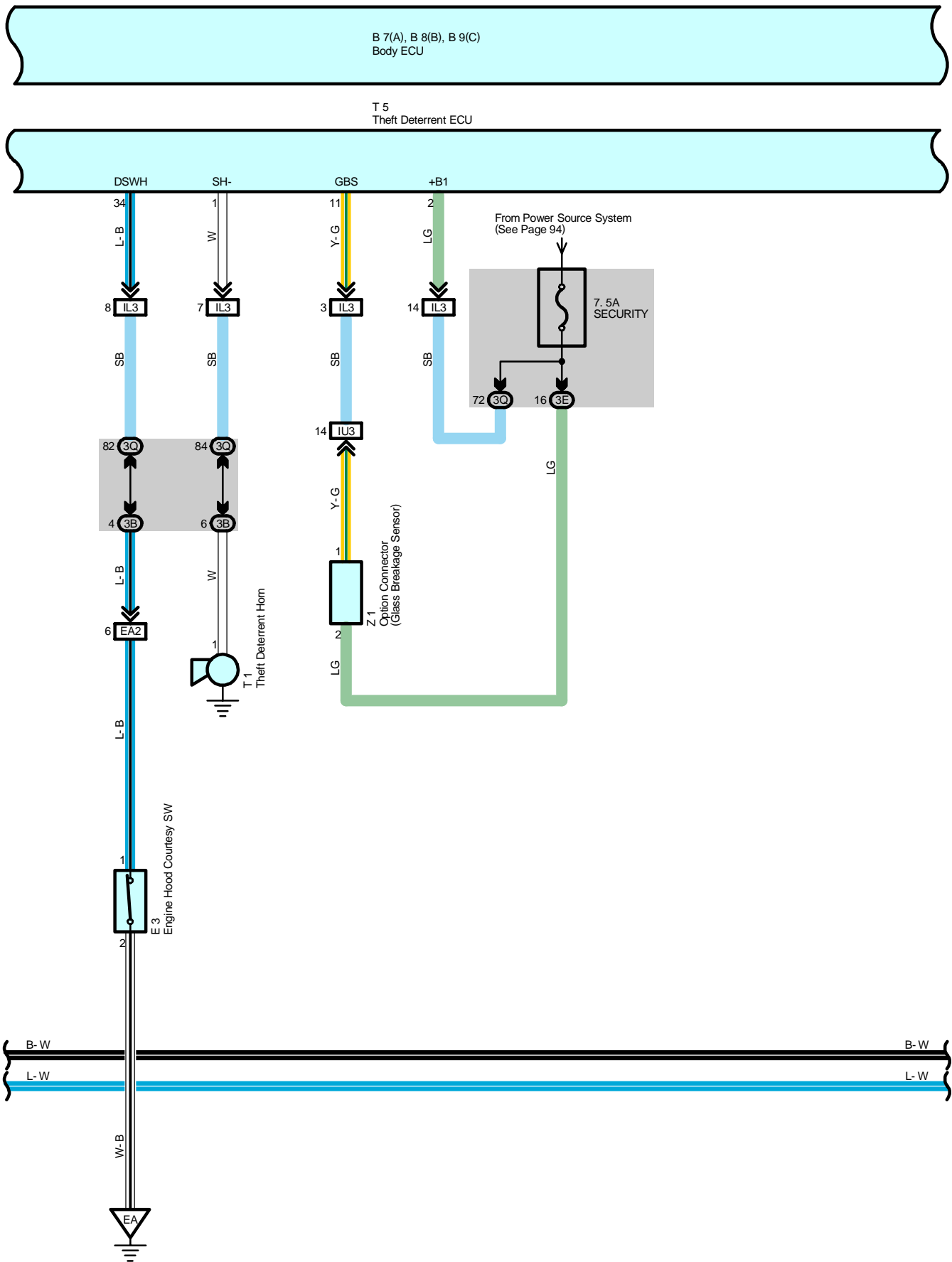
Theft Deterrent

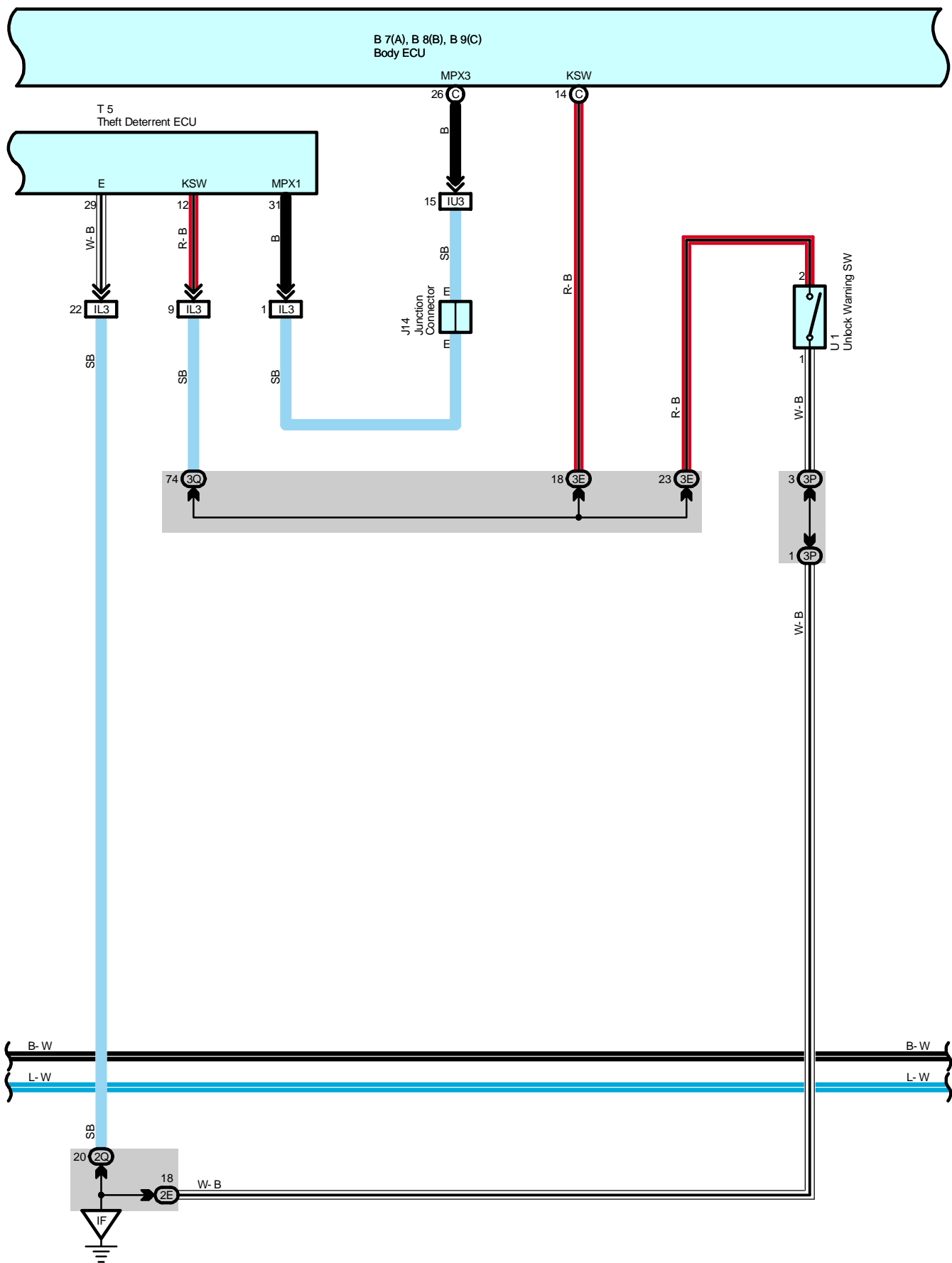




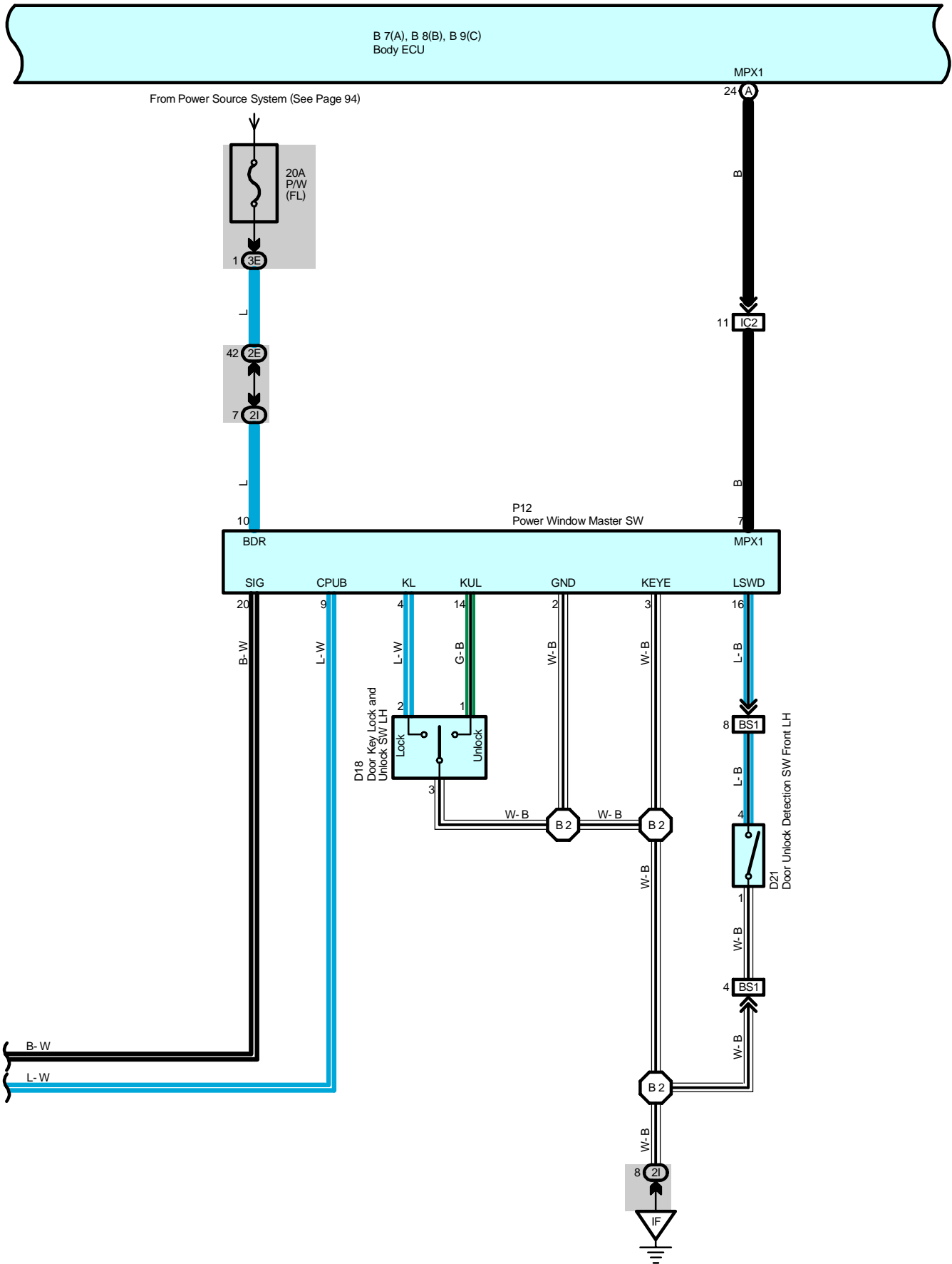
* 1 : w/ Navigation System
 * 2 : w/o Navigation System

Theft Deterrent

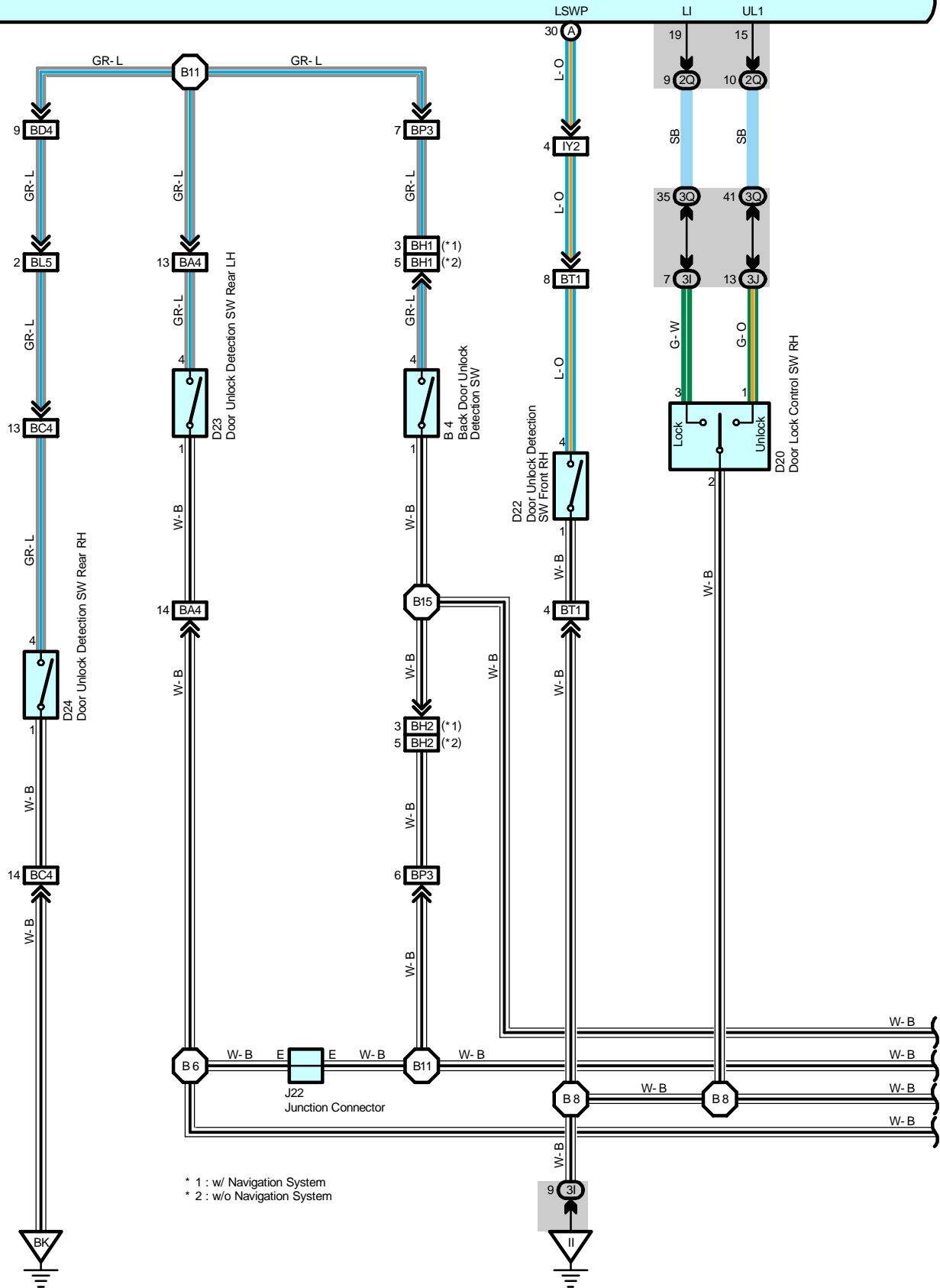




Theft Deterrent

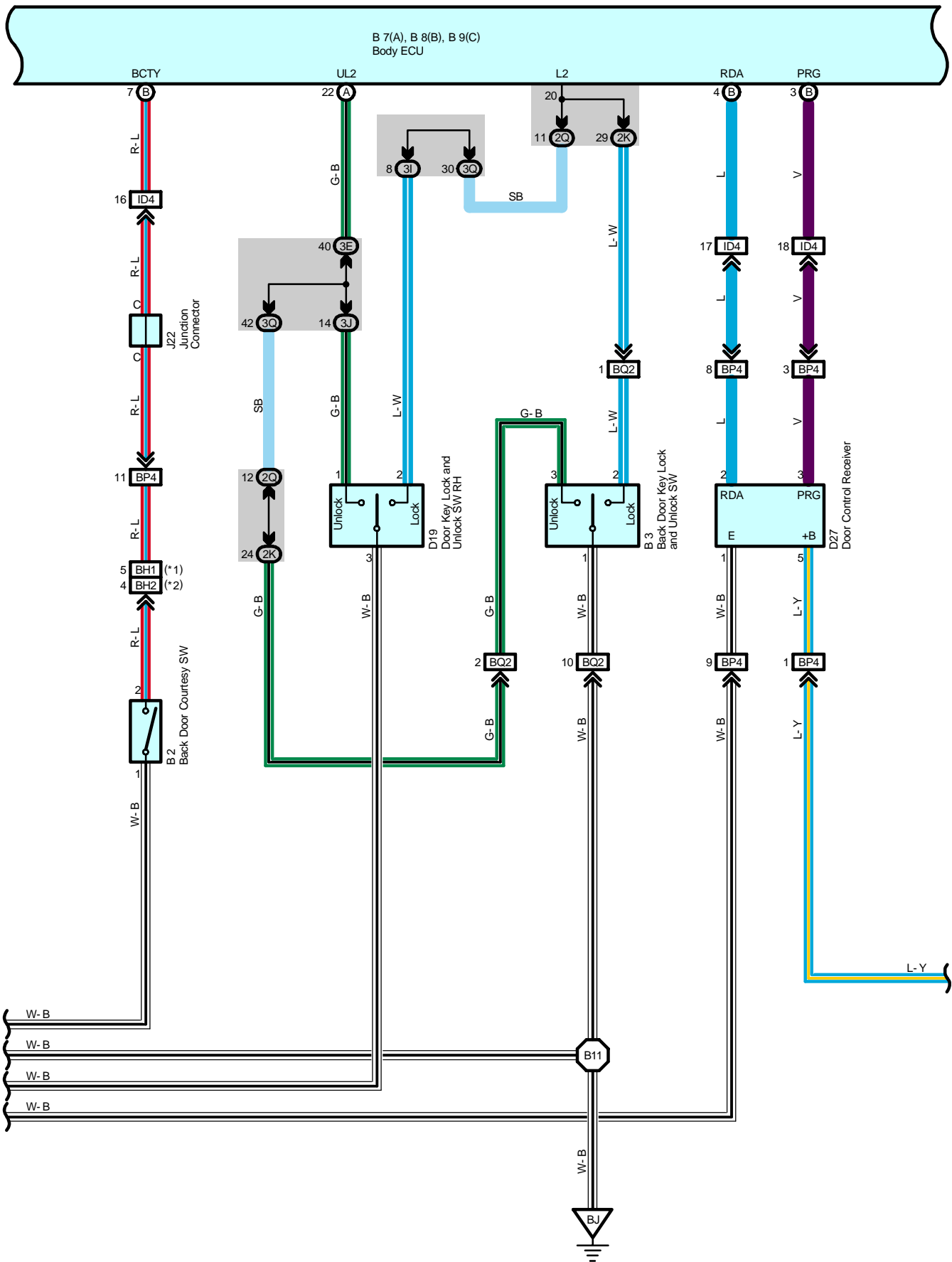


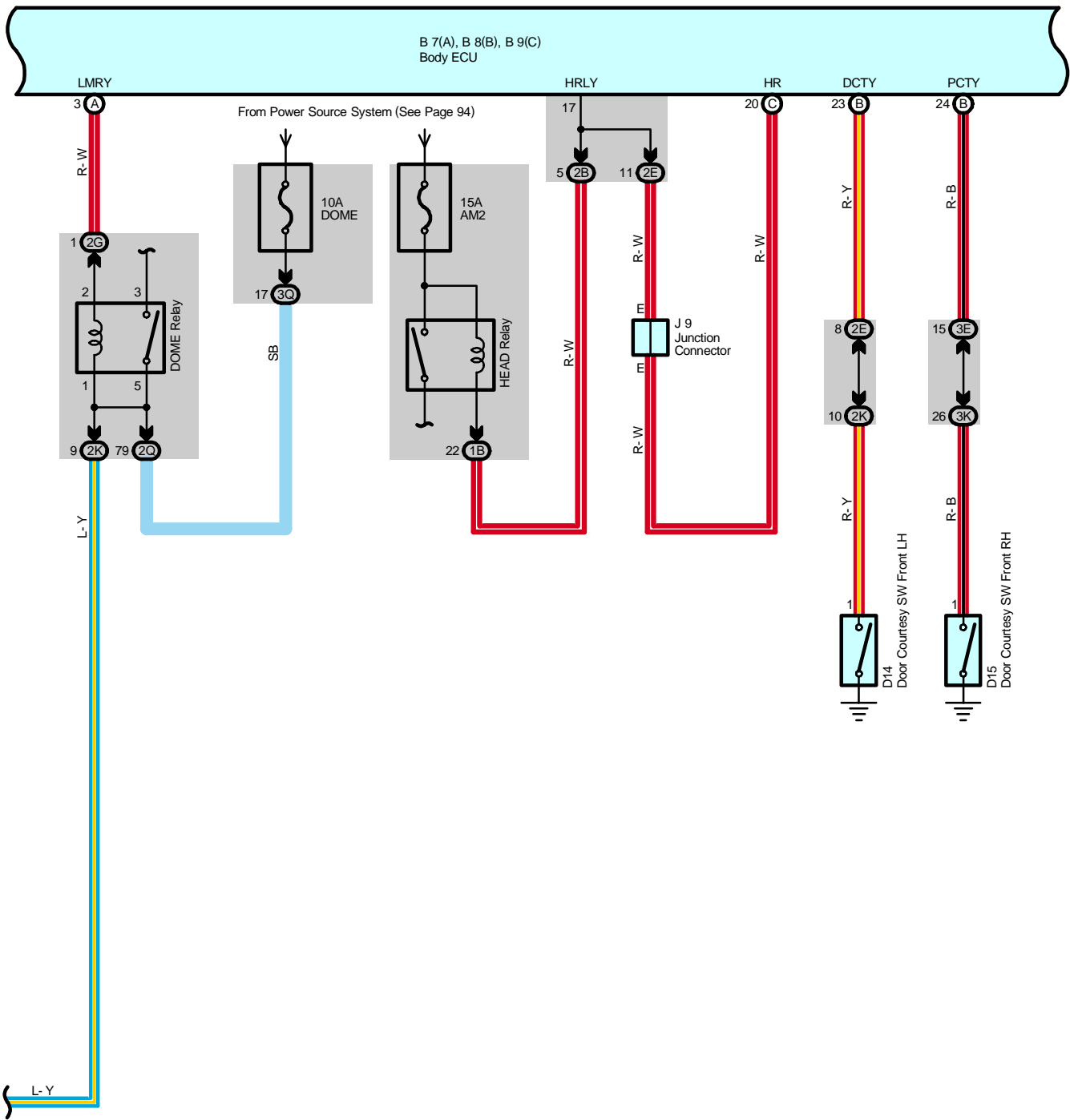
B 7(A), B 8(B), B 9(C)
Body ECU



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

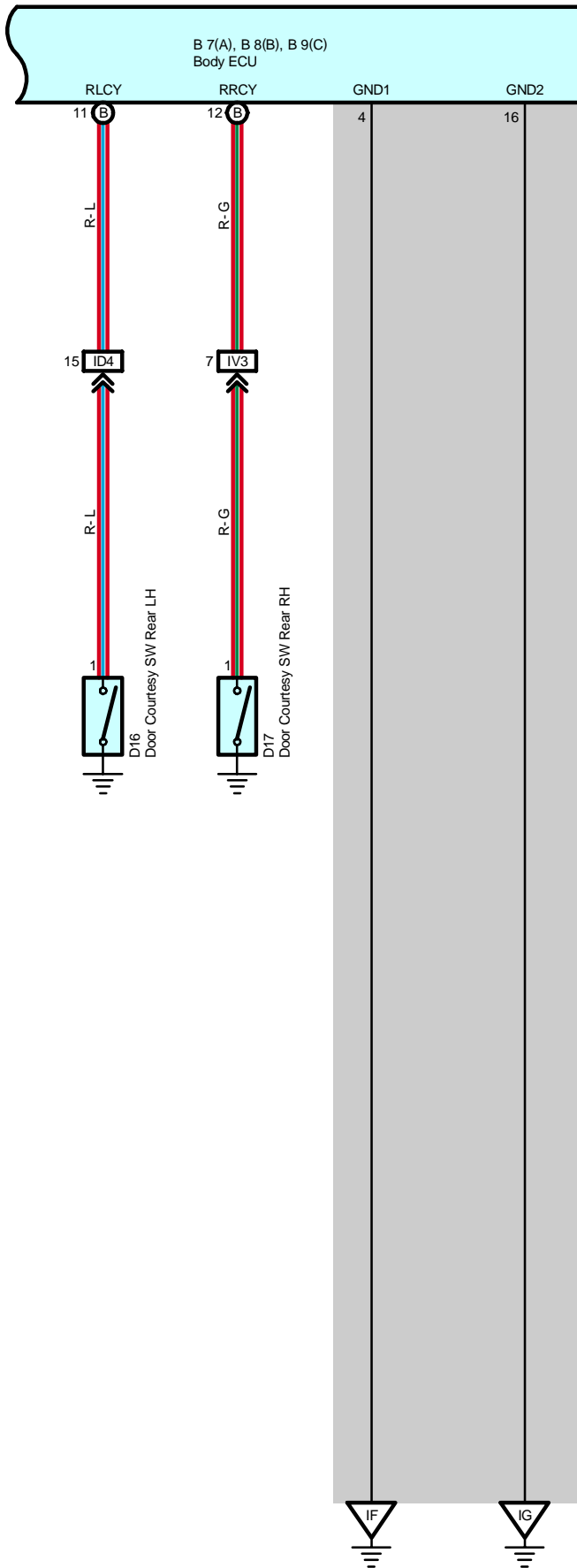
Theft Deterrent





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

Theft Deterrent



Service Hints

D18, D19 Door Key Lock and Unlock SW LH, RH

- 1-3 : Closed with door lock cylinder unlocked with key
- 2-3 : Closed with door lock cylinder locked with key

B3 Back Door Key Lock and Unlock SW

- 3-1 : Closed with door lock cylinder unlocked with key
- 2-1 : Closed with door lock cylinder locked with key

E3 Engine Hood Courtesy SW

- 1-2 : Opened with engine hood open

U1 Unlock Warning SW

- 2-1 : Closed with ignition key in cylinder

T5 Theft Deterrent ECU

- 2, 3-Ground : Always approx. 12 volts
- 10-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 29-Ground : Always continuity
- 12-Ground : Continuity with ignition key in cylinder
- 34-Ground : Continuity with engine hood close

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B2	72	D18	72	J10	71
B3	72	D19	72	J14	71
B4	72	D20	72	J22	72
B7	A	D21	72	M5	A
B8	B	D22	72	M9	B
B9	C	D23	72	P12	73
D7	70	D24	72	T1	69
D14	72	D27	72	T5	71
D15	72	E3	68	U1	71
D16	72	F15	68	Z1	71
D17	72	J9	71		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
1C		
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3J		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4D	52	Dash Wire and J/B No.4 (Instrument Panel Center)
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)

Theft Deterrent

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA2	76	Engine Room Main Wire and Engine Room No.2 Wire (Engine Compartment Right)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IU3	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
BA4	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BC4	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)
BD4	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BH2		
BL5	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		
BQ2	88	Back Door Lower Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BS1	88	Door Lock LH Sub Wire and Front Door LH Wire (Front Door LH)
BT1	88	Door Lock RH Sub Wire and Front Door RH Wire (Front Door RH)

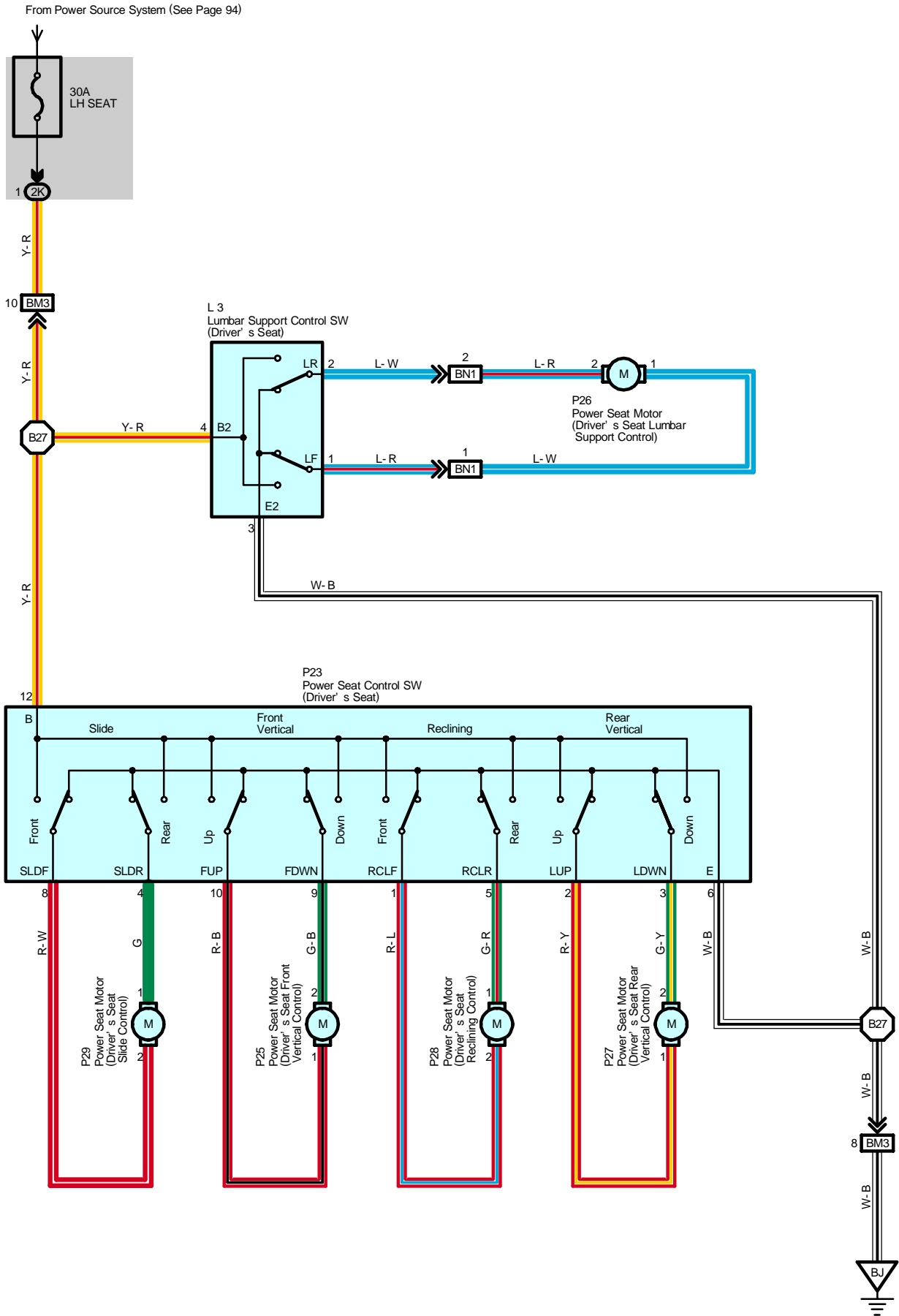
: Ground Points

Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
IF	78	Set Bolt of Cowl Side J/B LH
IG		
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

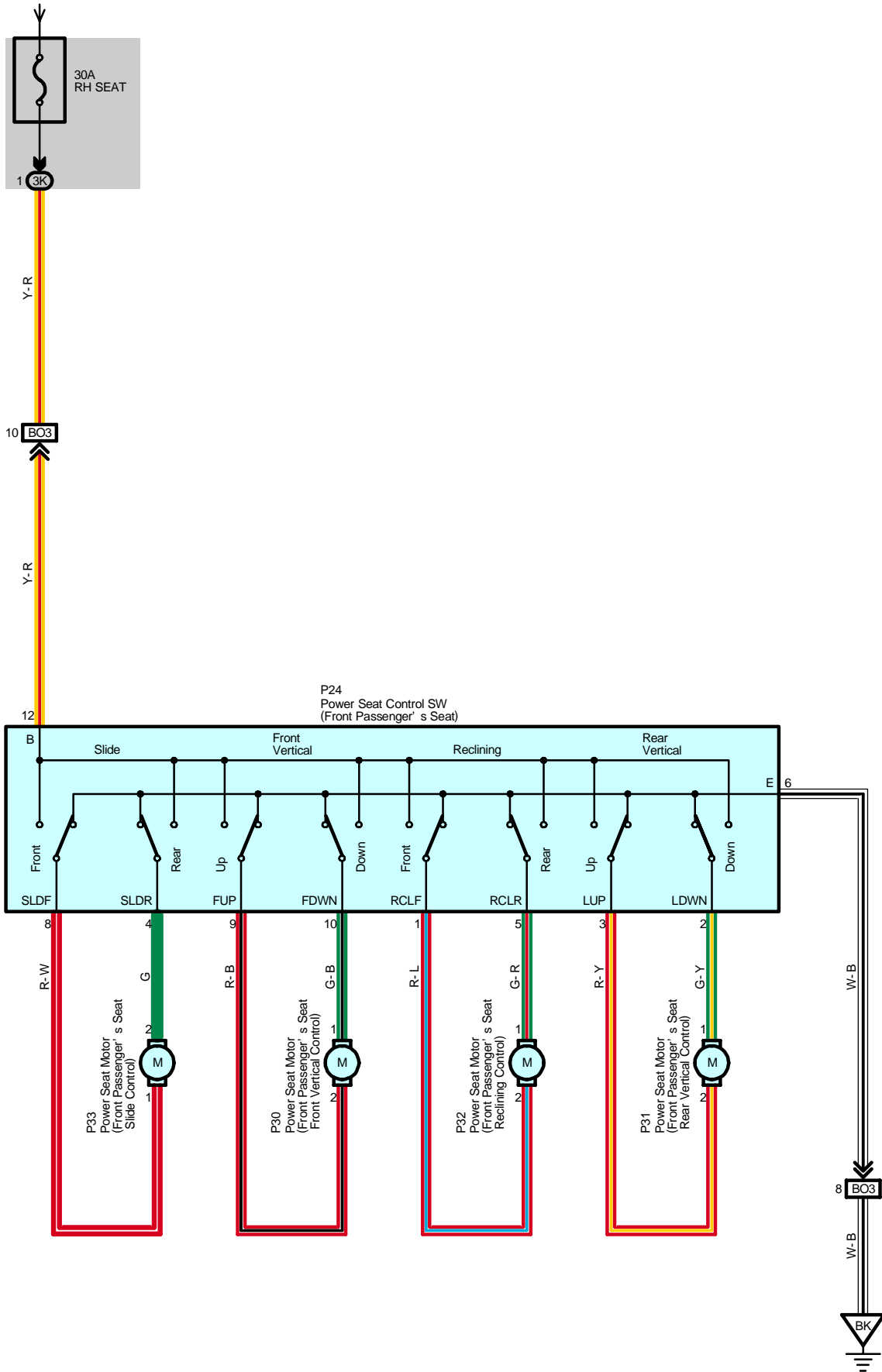
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B11	88	Floor No.1 Wire
B6	88	Floor No.1 Wire	B15	88	Back Door Upper Wire
B8	88	Front Door RH Wire			

Power Seat



From Power Source System (See Page 94)



Power Seat

Service Hints

P23 Power Seat Control SW (Driver's Seat)

- 12-1 : Closed with driver's seat at front reclining operation
- 12-5 : Closed with driver's seat at rear reclining operation
- 12-10 : Closed with driver's seat at front vertical up operation
- 12-9 : Closed with driver's seat at front vertical down operation
- 12-2 : Closed with driver's seat at rear vertical up operation
- 12-3 : Closed with driver's seat at rear vertical down operation
- 12-8 : Closed with driver's seat at front slide operation
- 12-4 : Closed with driver's seat at rear slide operation
- 6-Ground : Always continuity

P24 Power Seat Control SW (Front Passenger's Seat)

- 12-1 : Closed with front passenger's seat at front reclining operation
- 12-5 : Closed with front passenger's seat at rear reclining operation
- 12-9 : Closed with front passenger's seat at front vertical up operation
- 12-10 : Closed with front passenger's seat at front vertical down operation
- 12-3 : Closed with front passenger's seat at rear vertical up operation
- 12-2 : Closed with front passenger's seat at rear vertical down operation
- 12-8 : Closed with front passenger's seat at front slide operation
- 12-4 : Closed with front passenger's seat at rear slide operation
- 6-Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
L3	74	P26	74	P30	74
P23	74	P27	74	P31	74
P24	74	P28	74	P32	74
P25	74	P29	74	P33	74

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BM3	90	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BN1	90	Seat No.2 Wire and Front Seat LH Wire (Rear Side Under the Driver's Seat)
BO3	90	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)

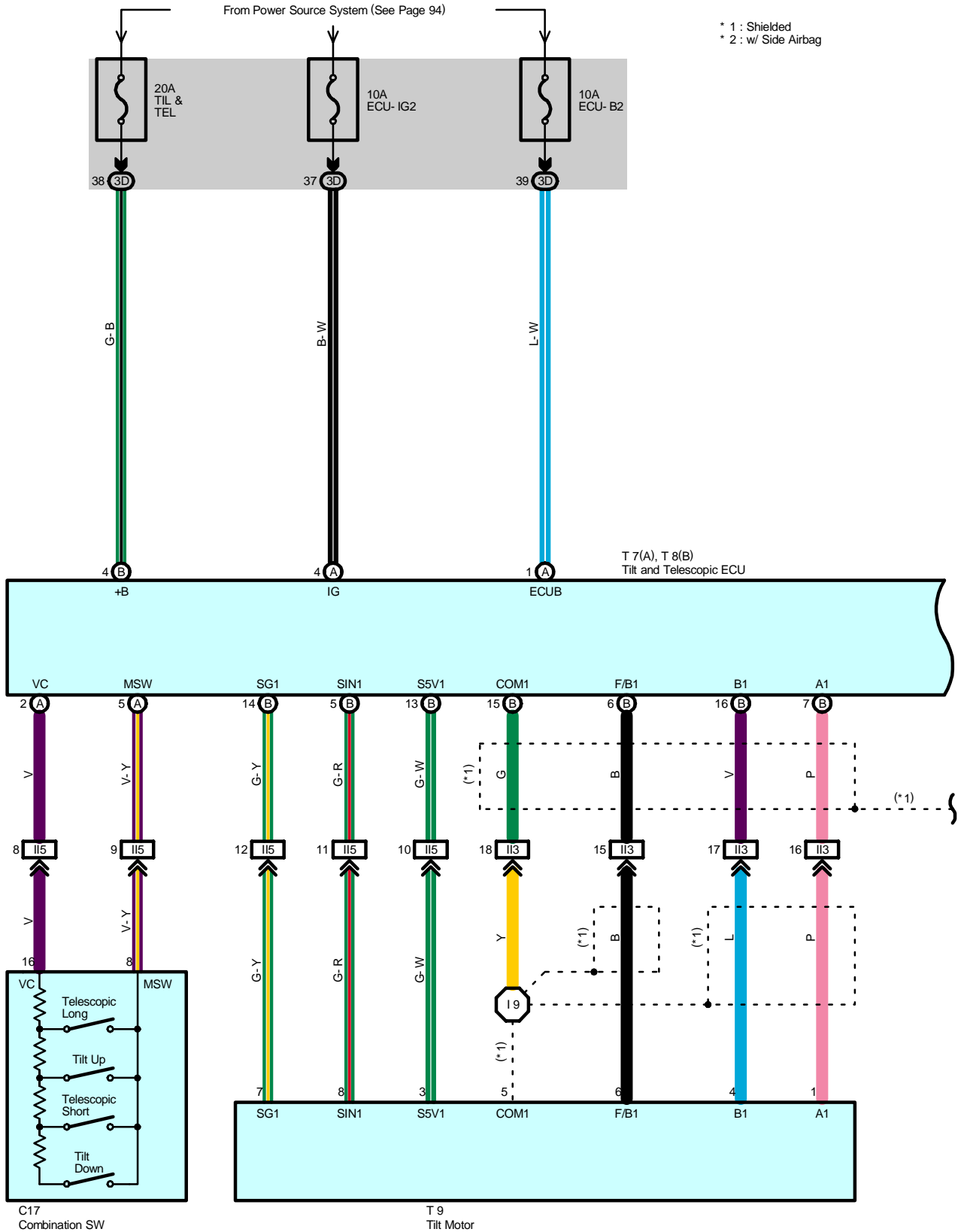
: Ground Points

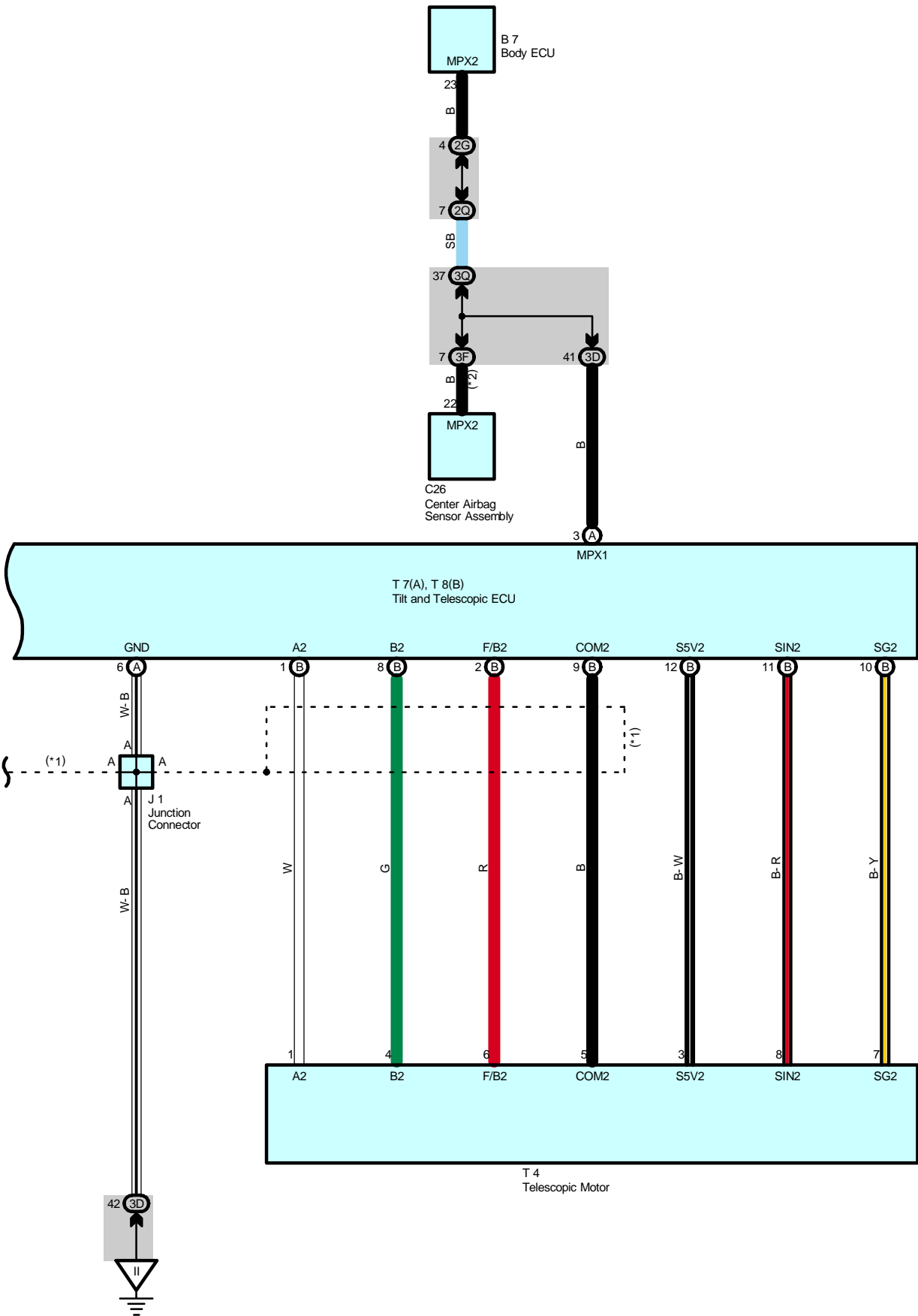
Code	See Page	Ground Points Location
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B27	90	Front Seat LH Wire			

Power Tilt and Power Telescopic





Power Tilt and Power Telescopic

System Outline

This system provides the automatic tilt and telescopic mechanisms using the motor drive, tilt and telescopic ECU control, allowing variable steering movement in the back and forth, and vertical directions. This makes it possible to set the steering to the desired steering position.

Service Hints

T7 (A), T8 (B) Tilt and Telescopic ECU

- (A) 1-Ground : Always approx. 12 volts
- (B) 4-Ground : Always approx. 12 volts
- (A) 4-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (A) 6-Ground : Always continuity

C17 Combination SW

- 16-8 : Approx. 160 Ω with telescopic long operation
- : Approx. 360 Ω with tilt up operation
- : Approx. 790 Ω with telescopic short operation
- : Approx. 1.99 kΩ with tilt down operation

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
B7	70	J1	71	T8 B	71
C17	70	T4	71	T9	71
C26	70	T7 A	71		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2G	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3F		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II5		

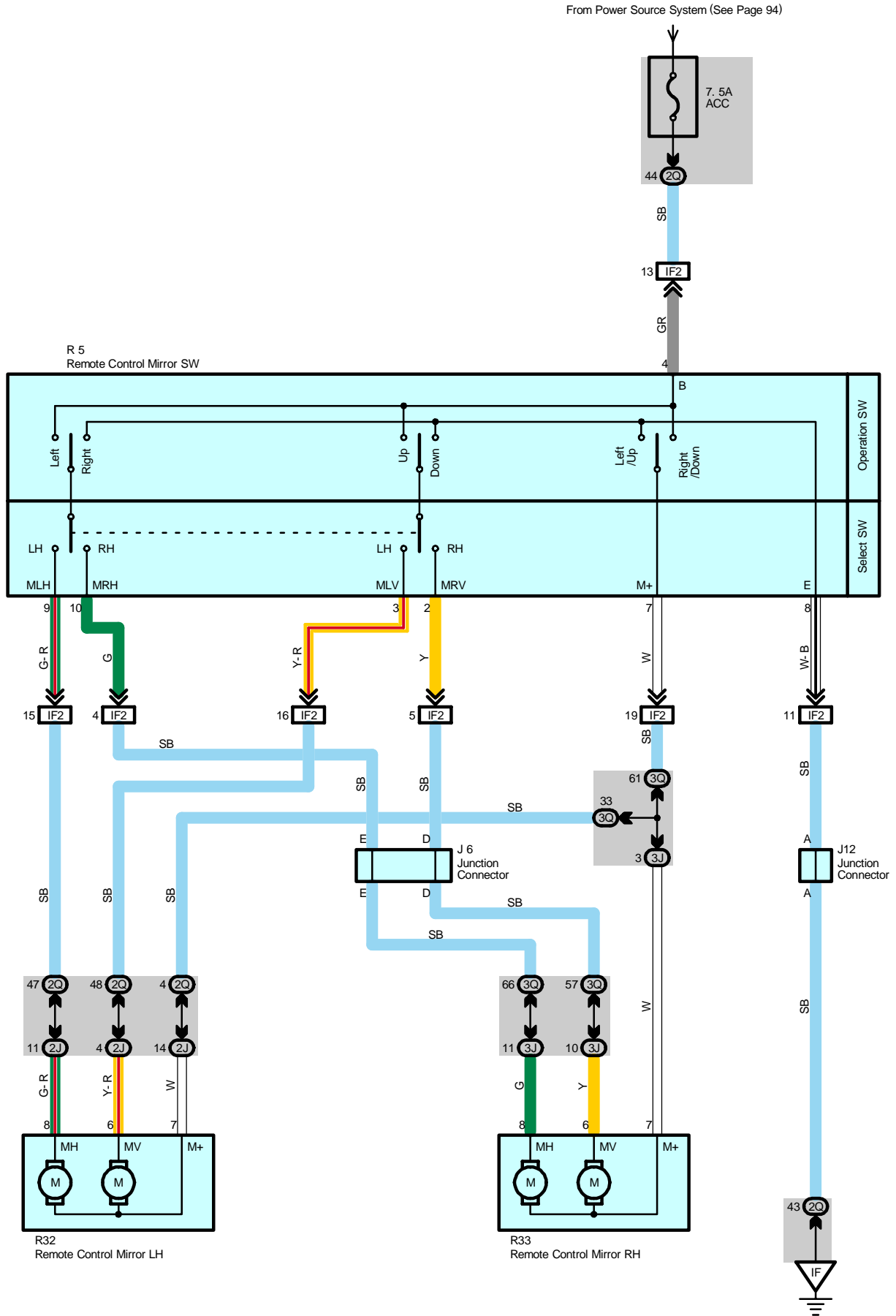
▽ : Ground Points

Code	See Page	Ground Points Location
II	78	Set Bolt of Cowl Side J/B RH

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I9	80	Column Wire			

Remote Control Mirror



Service Hints

R5 Remote Control Mirror SW

- 7-8 : Continuity with operation SW at LEFT or UP position
- 4-7 : Continuity with operation SW at RIGHT or DOWN position
- 4-9 : Continuity with operation SW at LEFT position and the select SW at LH position
- 4-3 : Continuity with operation SW at UP position and the select SW at LH position
- 8-10 : Continuity with operation SW at RIGHT position and the select SW at RH position
- 2-8 : Continuity with operation SW at DOWN position and the select SW at RH position
- 4-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- 8-Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
J6	71	R5	71	R33	73
J12	71	R32	73		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2J	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3J	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

: Connector Joining Wire Harness and Wire Harness

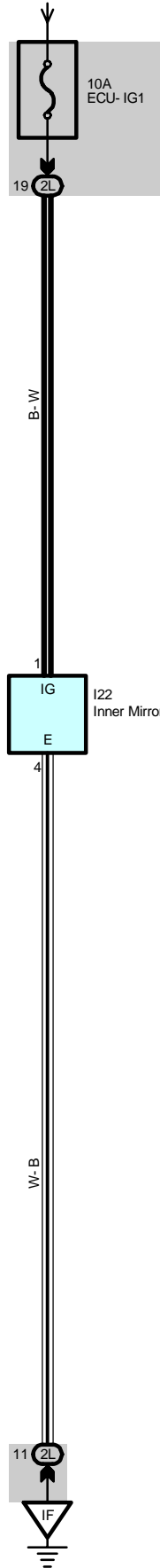
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)

: Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH

Automatic Glare-Resistant EC Mirror with Compass

From Power Source System (See Page 94)



Service Hints**I22 Inner Mirror**

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

 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
I22	72				

 : **Junction Block and Wire Harness Connector**

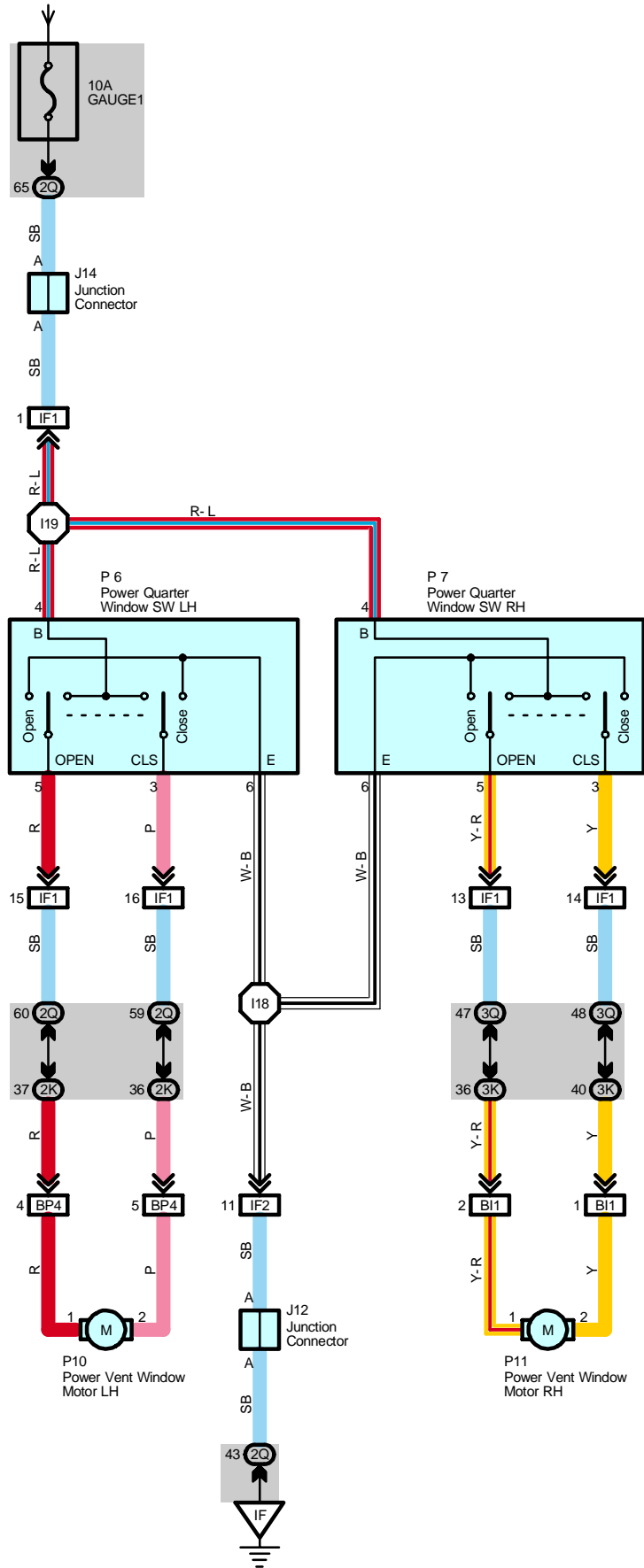
Code	See Page	Junction Block and Wire Harness (Connector Location)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)

 : **Ground Points**

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH

Power Rear Quarter Window

From Power Source System (See Page 94)



Service Hints

P6 Power Quarter Window SW LH

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

6-Ground : Always continuity

P7 Power Quarter Window SW RH

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

6-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
J12	71	P6	71	P10	73
J14	71	P7	71	P11	73

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	78	Instrument Panel Integration Wire and Instrument Panel Wire (Left Side of Instrument Panel)
IF2		
BI1	86	Roof No.2 Wire and Floor No.2 Wire (Right Side Rear Quarter Panel)
BP4	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)

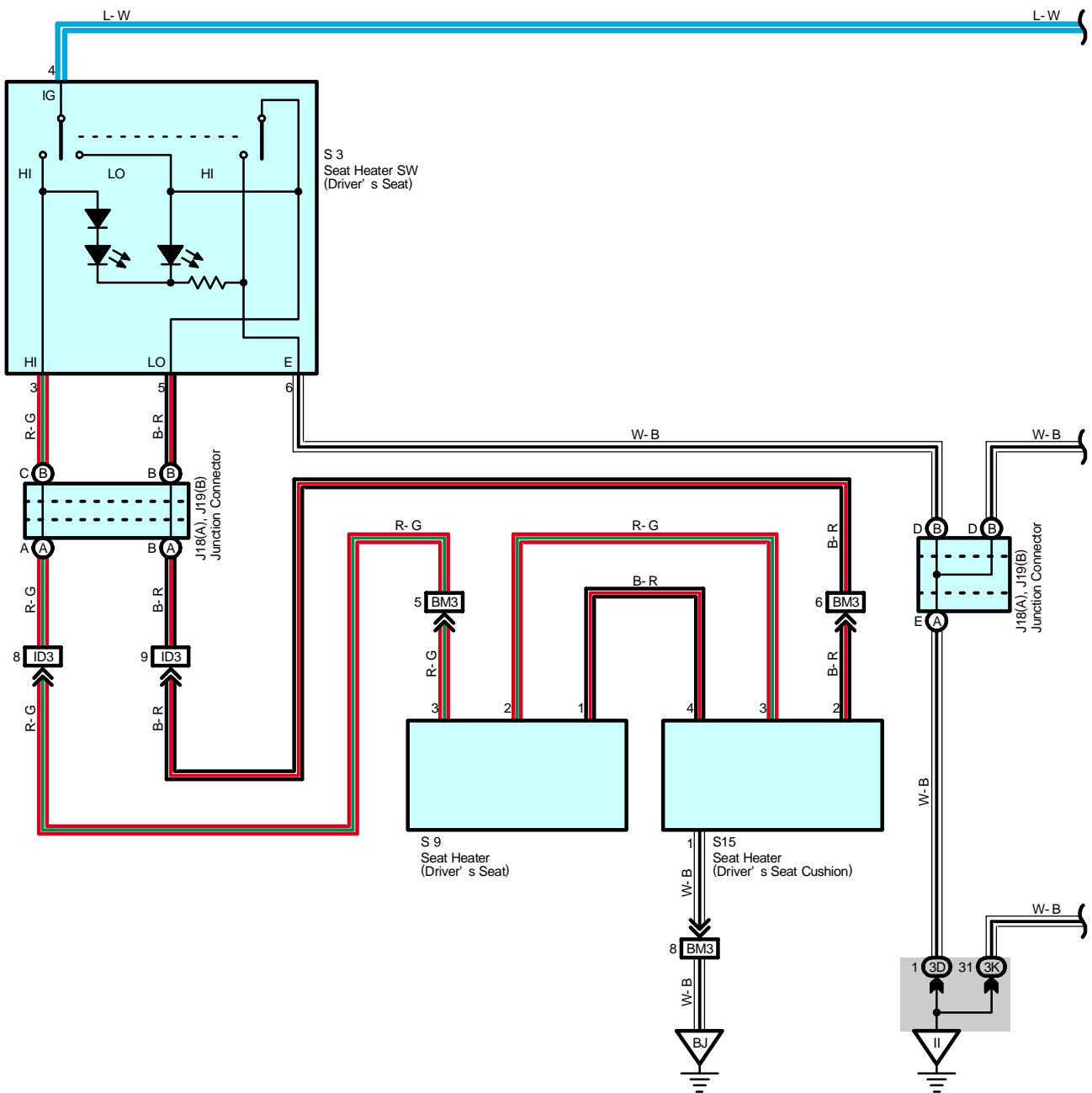
▽ : Ground Points

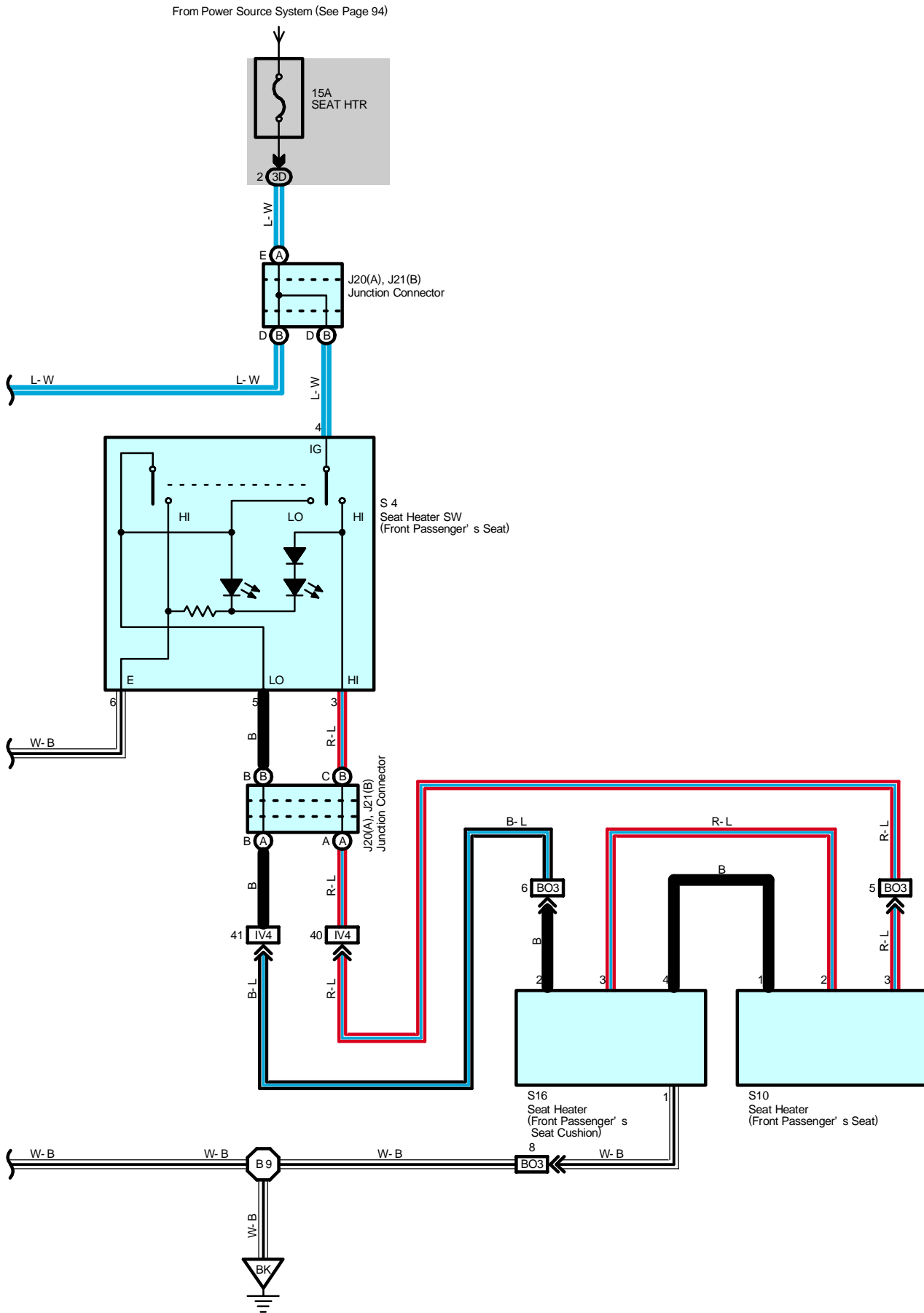
Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I18	80	Instrument Panel Wire	I19	80	Instrument Panel Wire

Seat Heater





Seat Heater

Service Hints

S3 Seat Heater SW (Driver's Seat)

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

6-Ground : Always continuity

S4 Seat Heater SW (Front Passenger's Seat)

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

6-Ground : Always continuity

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
J18	A	71	S3	71	S15	74
J19	B	71	S4	71	S16	74
J20	A	71	S9	74		
J21	B	71	S10	74		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
ID3	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
BM3	90	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BO3	90	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)

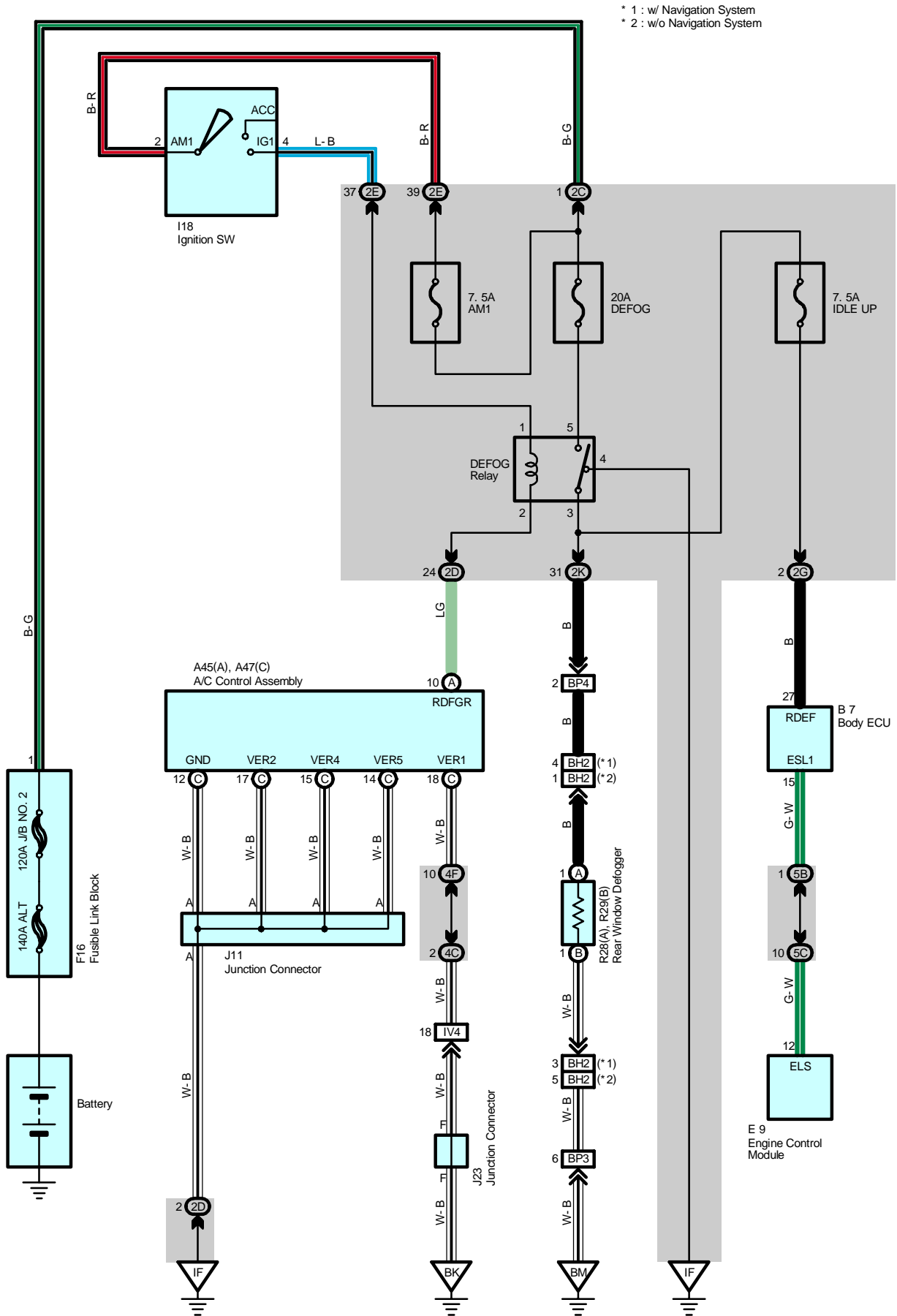
▽ : Ground Points

Code	See Page	Ground Points Location
II	78	Set Bolt of Cowl Side J/B RH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B9	88	Floor No.2 Wire			

Rear Window Defogger



Service Hints

A45 (A), A47 (C) A/C Control Assembly

(A)10-Ground : Approx. 12 volts with ignition SW at ON or ST position

(C)12, (C) 14, (C) 15, (C) 17, (C) 18-Ground : Always continuity

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A45	A	70	F16	68	R28	A	73	
A47	C	70	I18	70	R29	B	73	
B7		70	J11	71				
E9		70	J23	72				

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2C	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2G		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
4C	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4F		
5B	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5C		

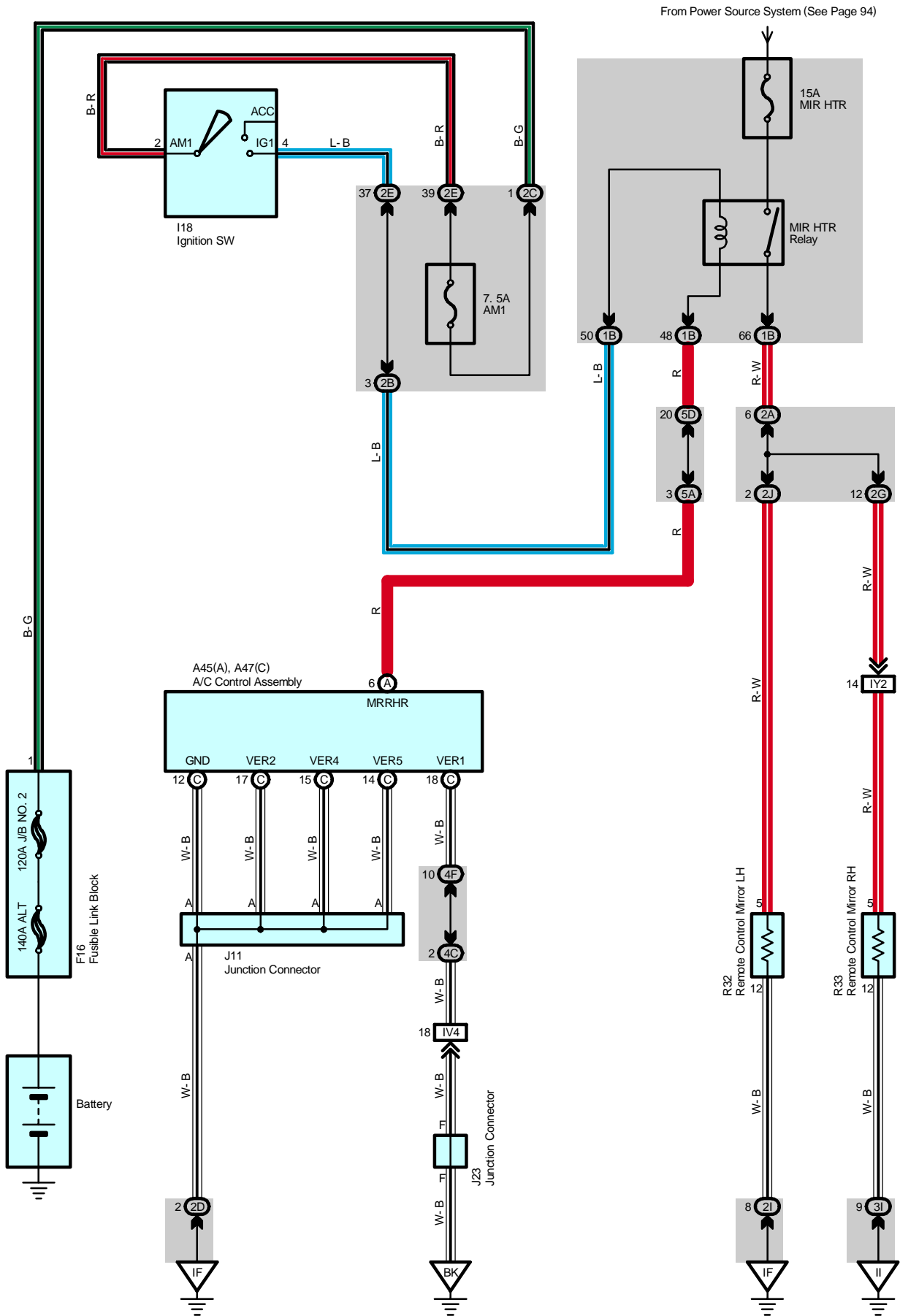
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
BH2	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BP3	88	Pillar No.1 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BP4		

: Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

Mirror Heater



Service Hints

A45 (A), A47 (C) A/C Control Assembly

(A) 6-Ground : Approx. 12 volts with ignition SW at ON or ST position

(C)12, (C) 14, (C) 15, (C) 17, (C) 18-Ground : Always continuity

: Parts Location

Code		See Page	Code	See Page	Code	See Page
A45	A	70	I18	70	R32	73
A47	C	70	J11	71	R33	73
F16		68	J23	72		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2B		
2C		
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2G		
2I	28	Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)
2J		
3I	40	Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)
4C	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4F		
5A	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)

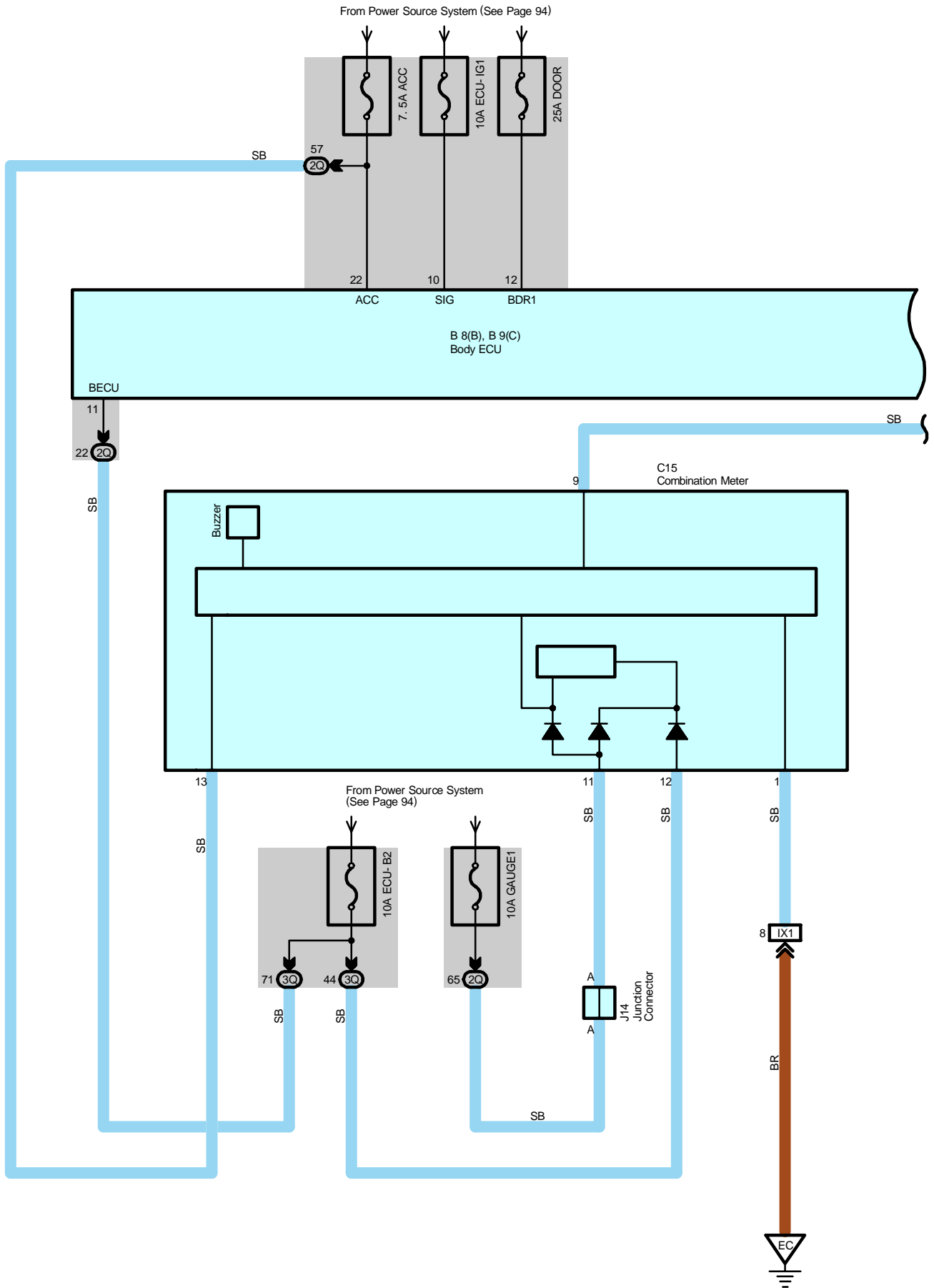
: Connector Joining Wire Harness and Wire Harness

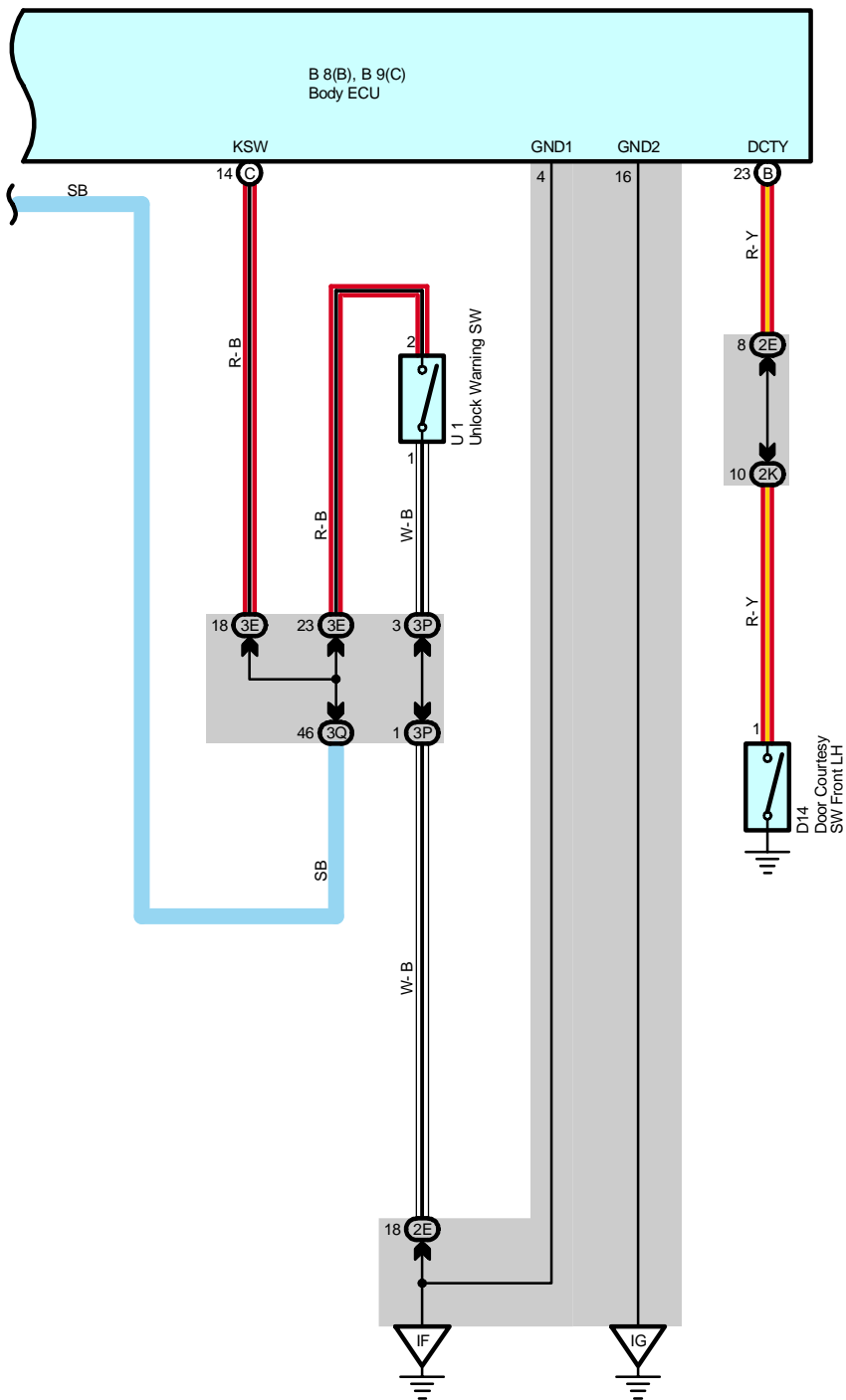
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)

: Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH
BK	86	Front Side Under the Front Passenger's Seat

Key Reminder





Key Reminder

System Outline

When the driver door is opened with the ignition SW off and ignition key remaining in the key cylinder (Unlock warning SW on), a signal is input from the unlock warning SW to the combination meter TERMINAL 9, the body ECU TERMINAL (C) 14, and from the door courtesy SW front LH to the body ECU TERMINAL (B)23. As a result, the buzzer in the combination meter goes on and warns the driver that the key is remaining in the key cylinder.

Service Hints

D14 Door Courtesy SW Front LH

1-Ground : Closed with driver's door open

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
B8	B	70	C15	70	J14	71
B9	C	70	D14	72	U1	71

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3E	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3P	43	
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

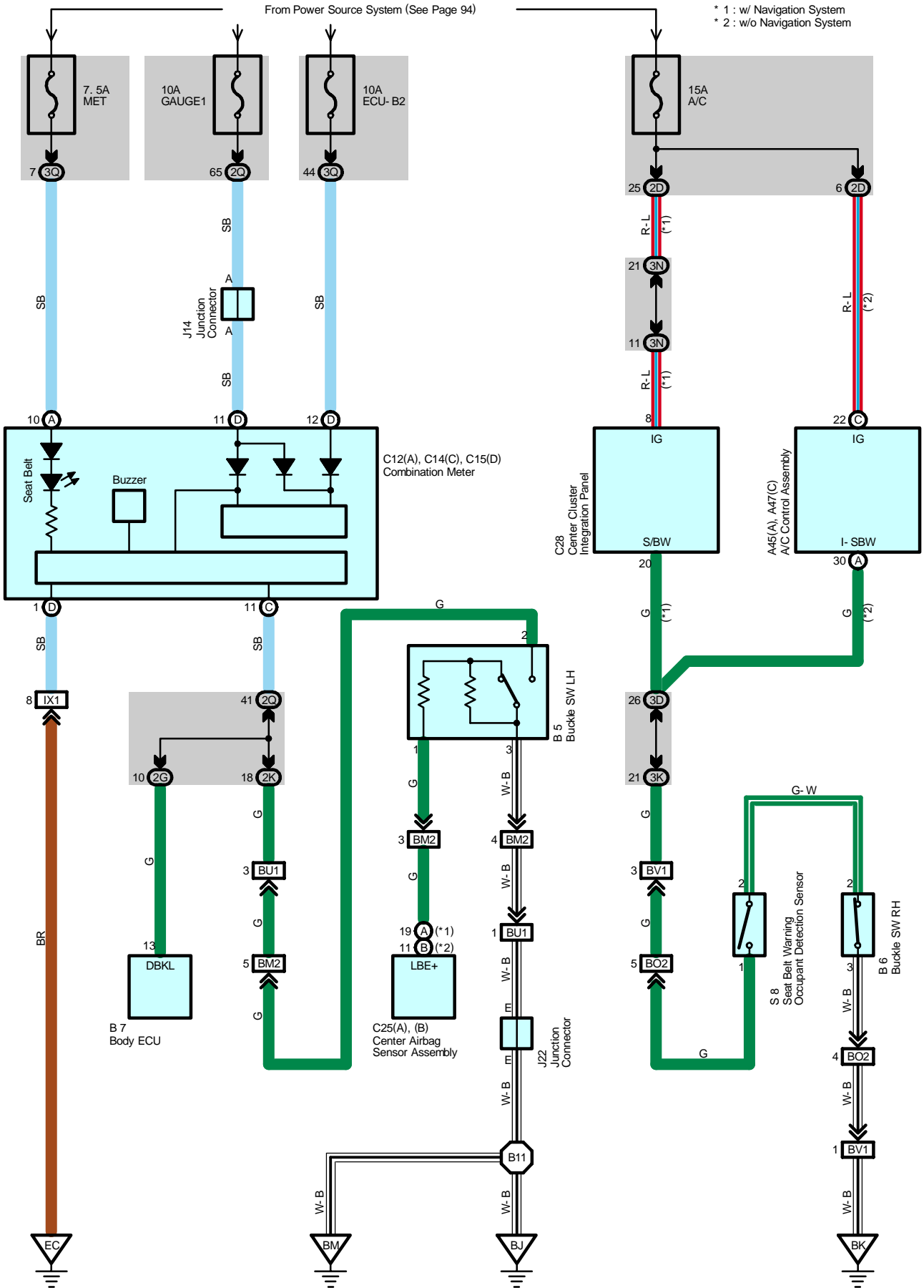
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)

▽ : Ground Points

Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH
IG		

Seat Belt Warning



System Outline

When the ignition SW turned on, a signal is input to the combination meter and the center cluster integration panel (w/ navigation system) or the A/C control assembly (w/o navigation system). To determine whether the driver has fastened the seat belt, a signal is input from the buckle SW LH to the combination meter. When the seat belt is not fastened, the seat belt warning light in the combination meter blinks, and emits a warning sound.

In addition, the front passenger is recognized by a sensor (Seat belt warning occupant detection sensor) is installed in the front passenger seat, and determines whether the seat belt is fastened. When not fastened, the signals from the seat belt warning occupant detection sensor and the buckle SW RH is input to the center cluster integration panel (w/ navigation system) or the A/C control assembly (w/o navigation system), and the passenger seat belt warning light blinks to warn the passenger.

Service Hints

S8 Seat Belt Warning Occupant Detection Sensor

1-2 : Closed with passenger sit on the front passenger seat

○ : Parts Location

Code		See Page	Code		See Page	Code	See Page
A45	A	70	C12	A	70	C28	70
A47	C	70	C14	C	70	J14	71
B5		74	C15	D	70	J22	72
B6		74	C25	A	70	S8	74
B7		70		B	70		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2G		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3N	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
BM2	90	Floor No.1 Wire and Front Seat LH Wire (Front Side Under the Driver's Seat)
BO2	90	Floor No.2 Wire and Front Seat RH Wire (Front Side Under the Front Passenger's Seat)
BU1	88	Floor No.1 Wire and Floor No.1 Wire (Near the Left Rear Suspension Support)
BV1	88	Floor No.2 Wire and Floor No.2 Wire (Near the Right Rear Suspension Support)

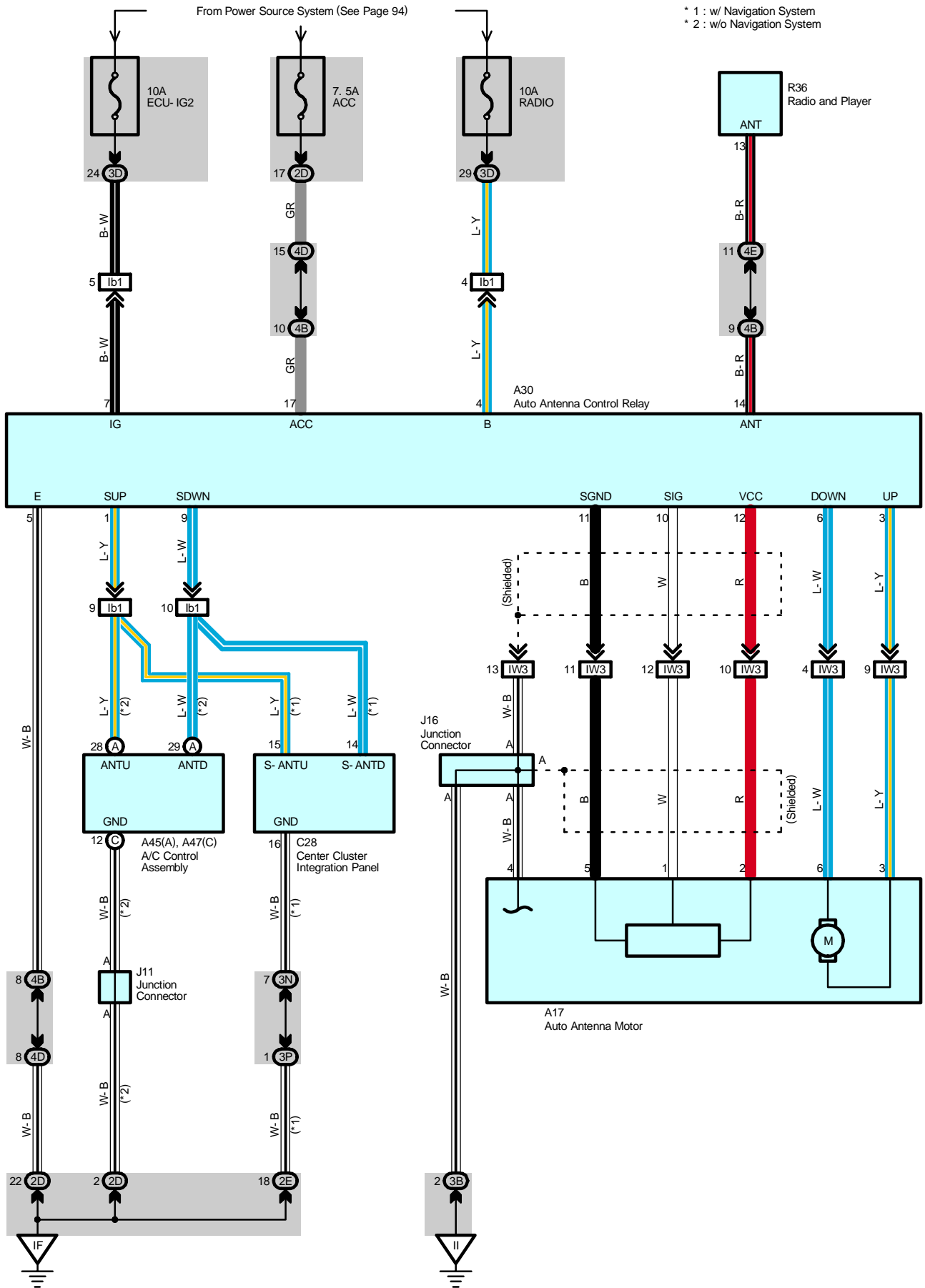
▽ : Ground Points

Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat
BM	86	Left Rear Side Quarter Panel

○ : Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B11	88	Floor No.1 Wire			

Auto Antenna



Service Hints

A30 Auto Antenna Control Relay

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page	
A17	68	A47	C	70	J16	71
A30	70	C28		70	R36	71
A45	A	J11		71		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3N	43	
3P		
4B	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4D		
4E		

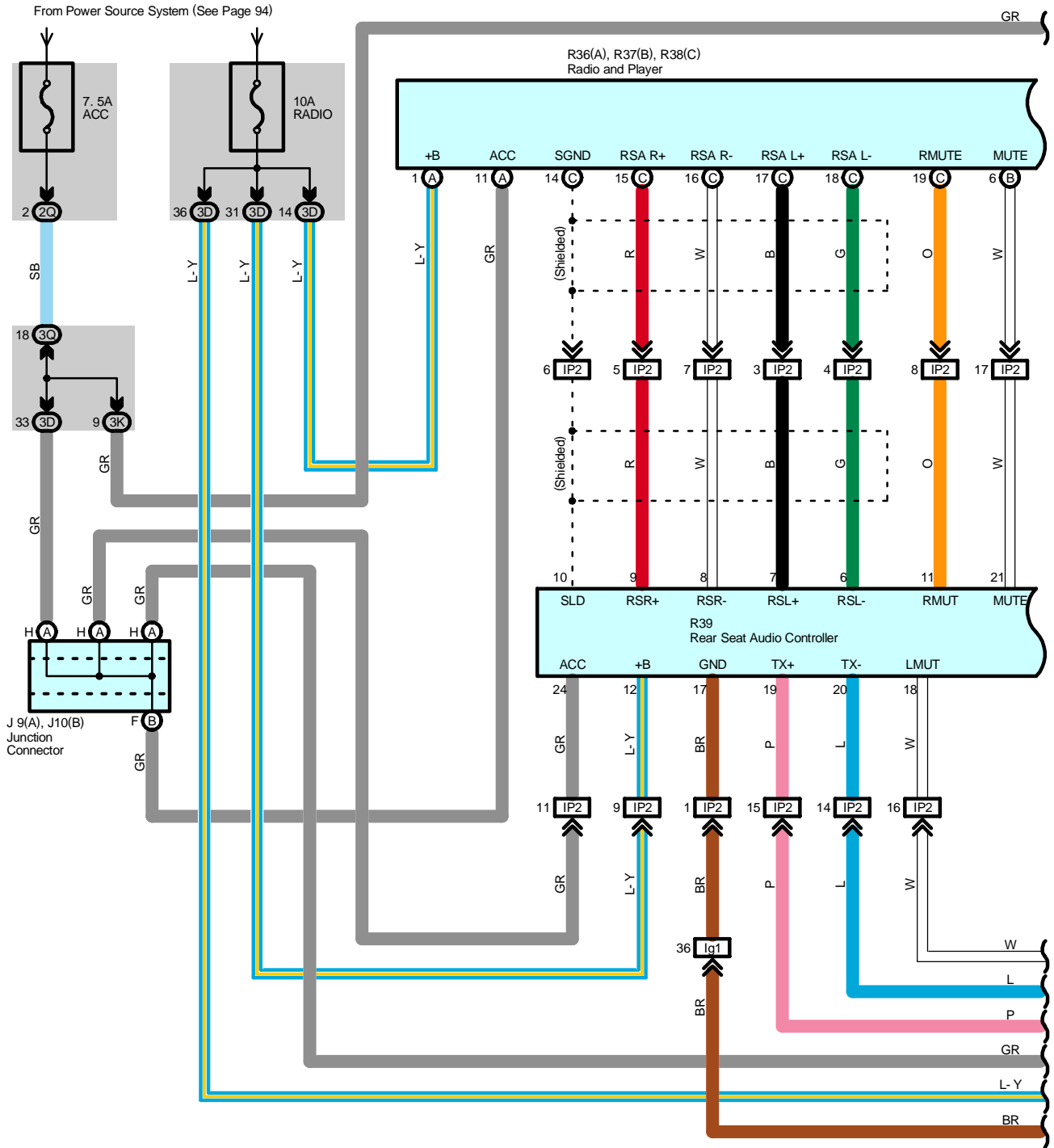
: Connector Joining Wire Harness and Wire Harness

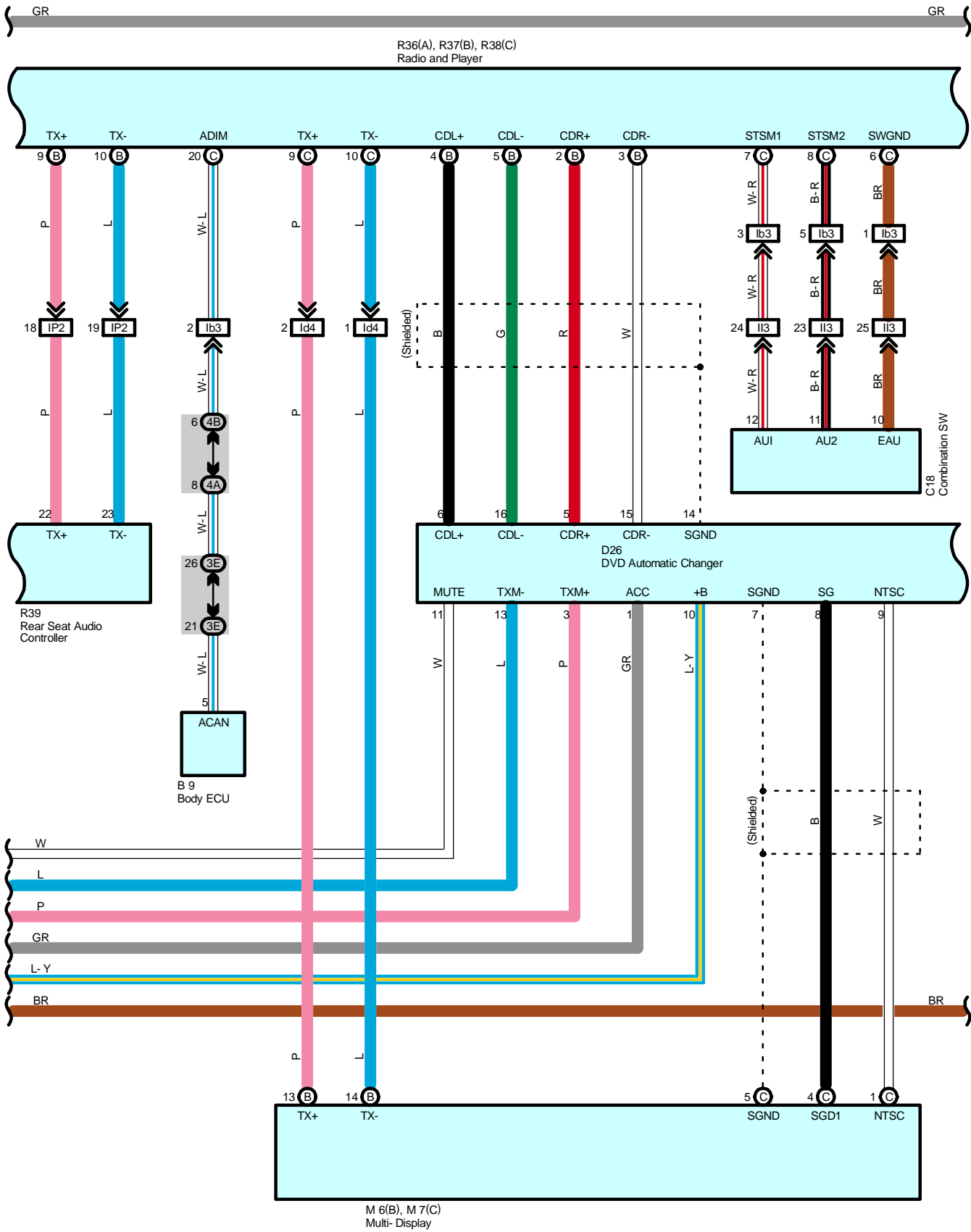
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IW3	82	Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)
Ib1	84	Dash Wire and Dash Wire (Behind the Combination Meter)

: Ground Points

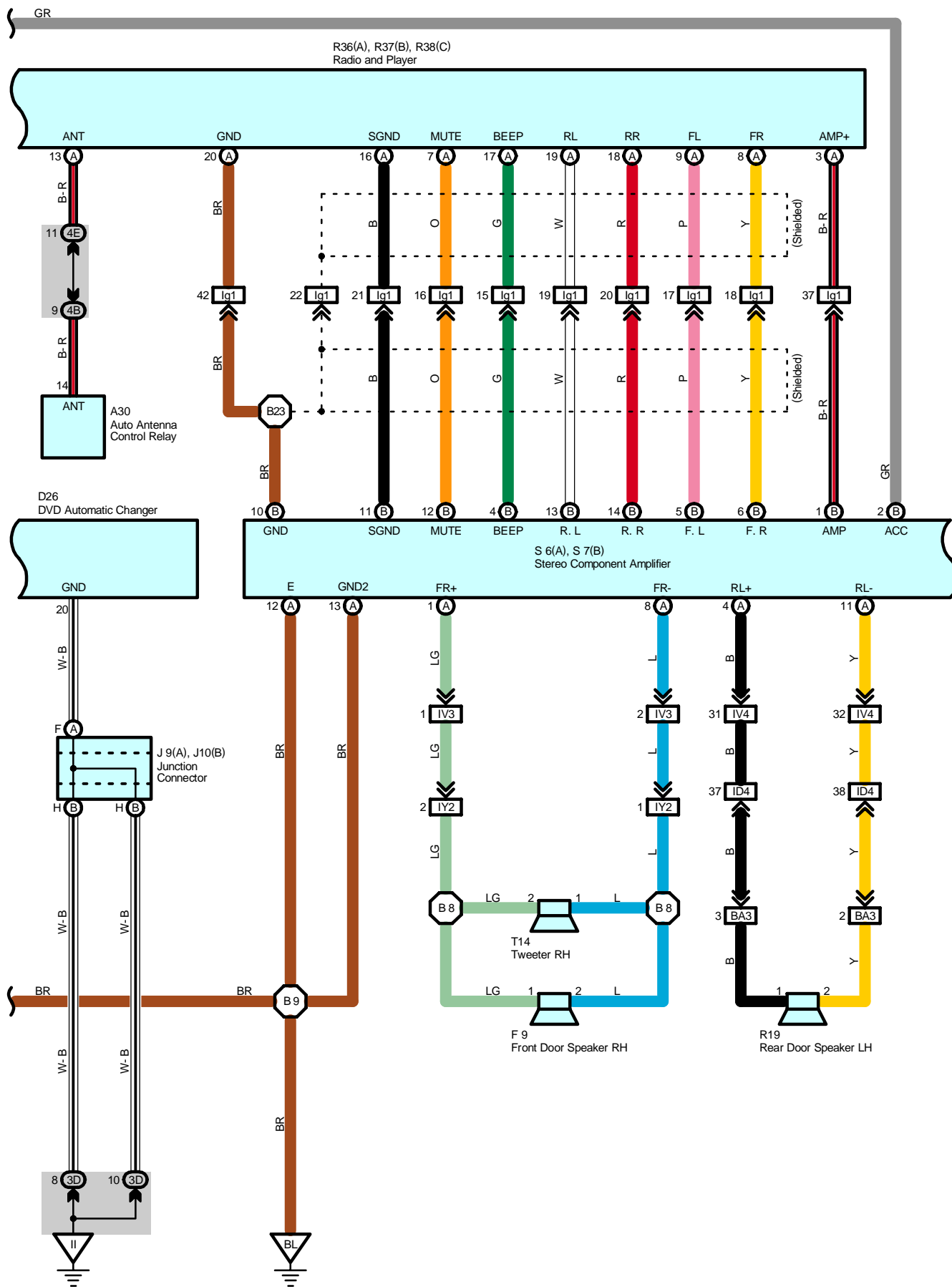
Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH

Radio and Player (w/ Navigation System)

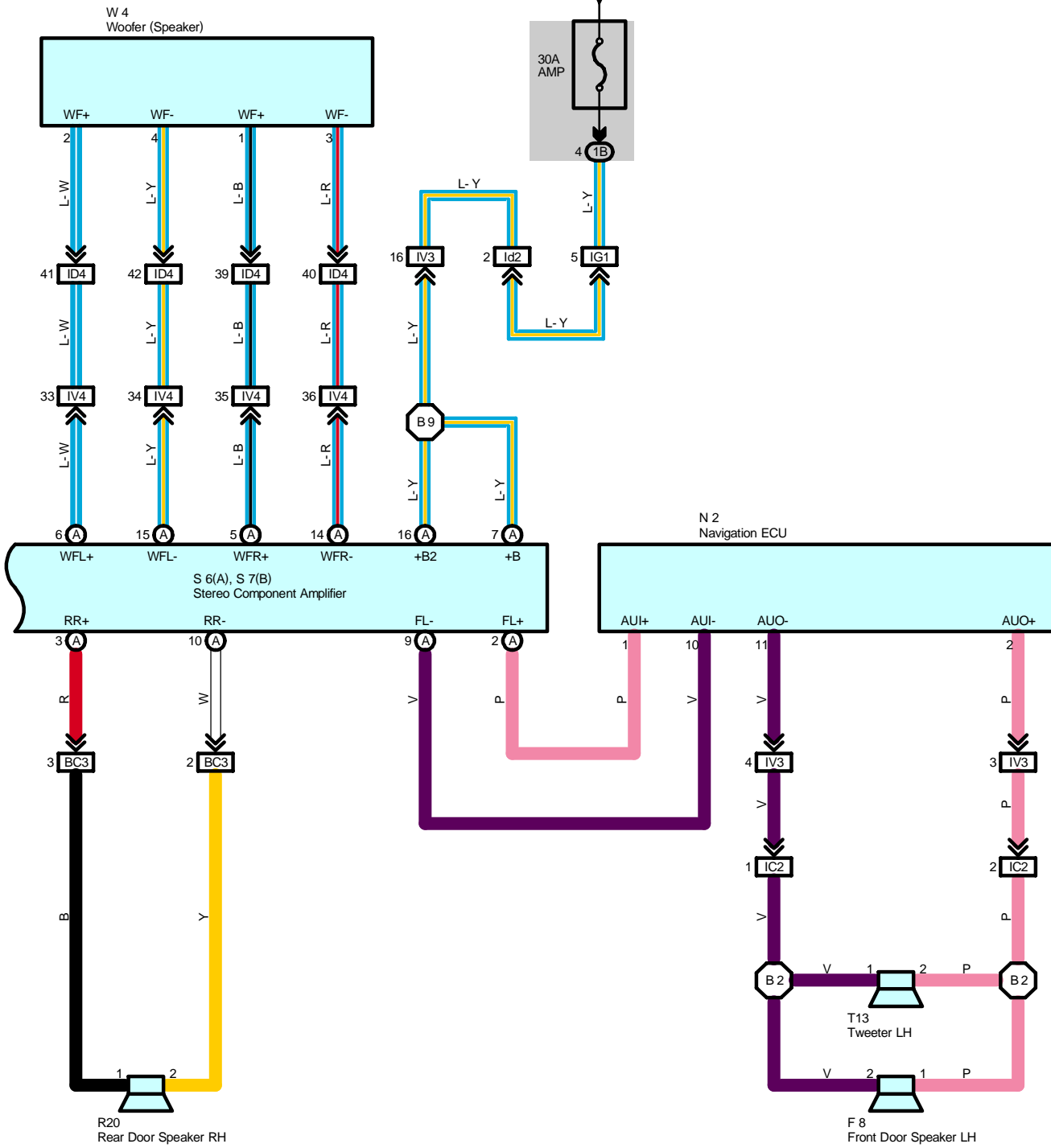




Radio and Player (w/ Navigation System)



From Power Source System (See Page 94)



Radio and Player (w/ Navigation System)

Service Hints

R36 Radio and Player

1-Ground : Always approx. 12 volts

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

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

(A) 7, (A) 16-Ground : Always approx. 12 volts

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

(A) 12, (A) 13-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A30	70	M6	B 71	R39	71
B9	70	M7	C 71	S6	A 73
C18	70	N2	72	S7	B 73
D26	70	R19	73	T13	73
F8	72	R20	73	T14	73
F9	72	R36	A 71	W4	73
J9	A 71	R37	B 71		
J10	B 71	R38	C 71		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4B		
4E		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
Ii3	80	Dash Wire and Column Wire (Near the Ignition SW)
IP2	80	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IV4		
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
Ib3	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Id2	84	Dash Wire and Dash Wire (Instrument Panel Center)
Id4		
Ig1	84	Dash Wire and Floor No.2 Wire (Right Side of Front Console)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)

▽ : Ground Points

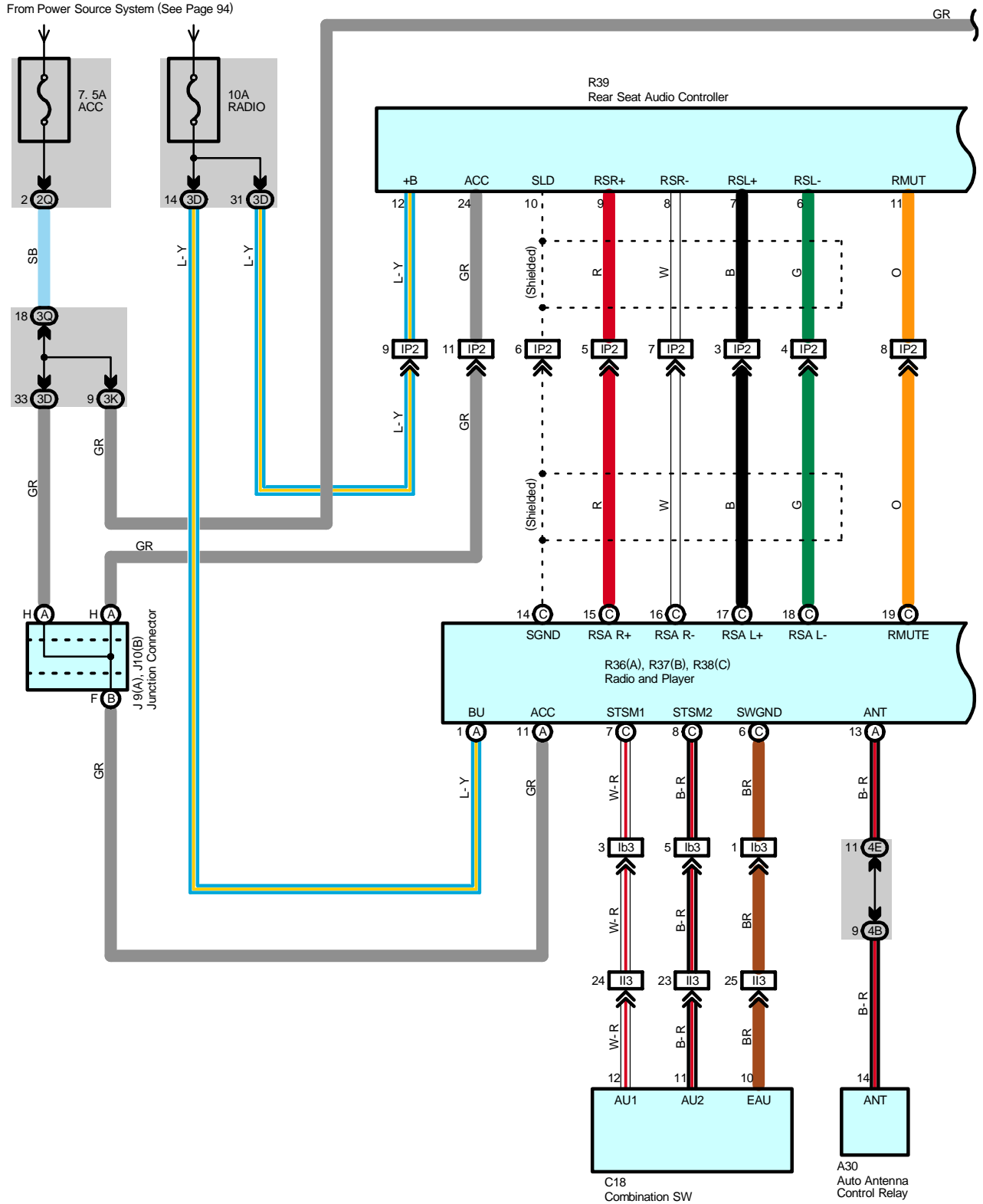
Code	See Page	Ground Points Location
II	78	Set Bolt of Cowl Side J/B RH
BL	86	Rear Side Under the Front Passenger's Seat

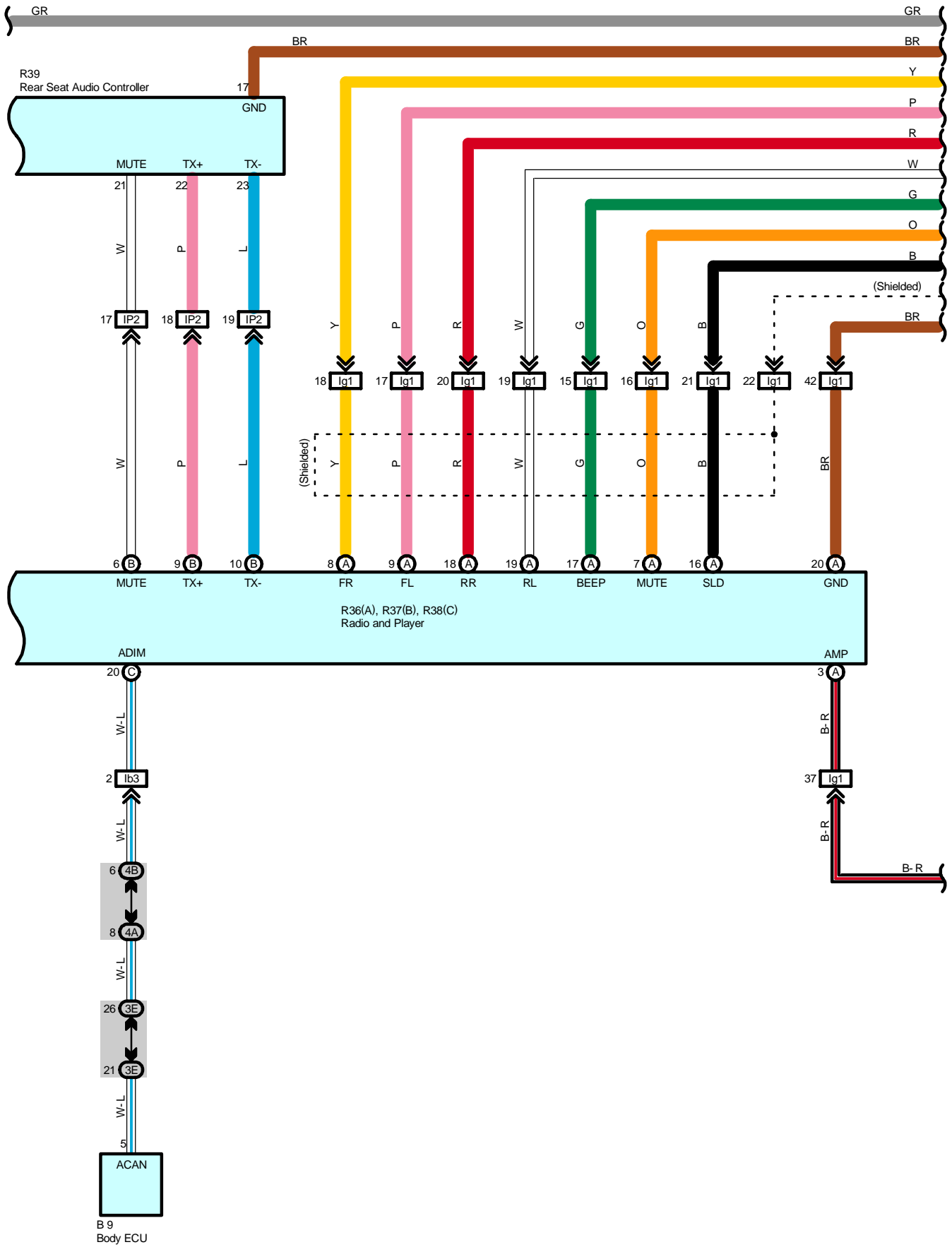


: Splice Points

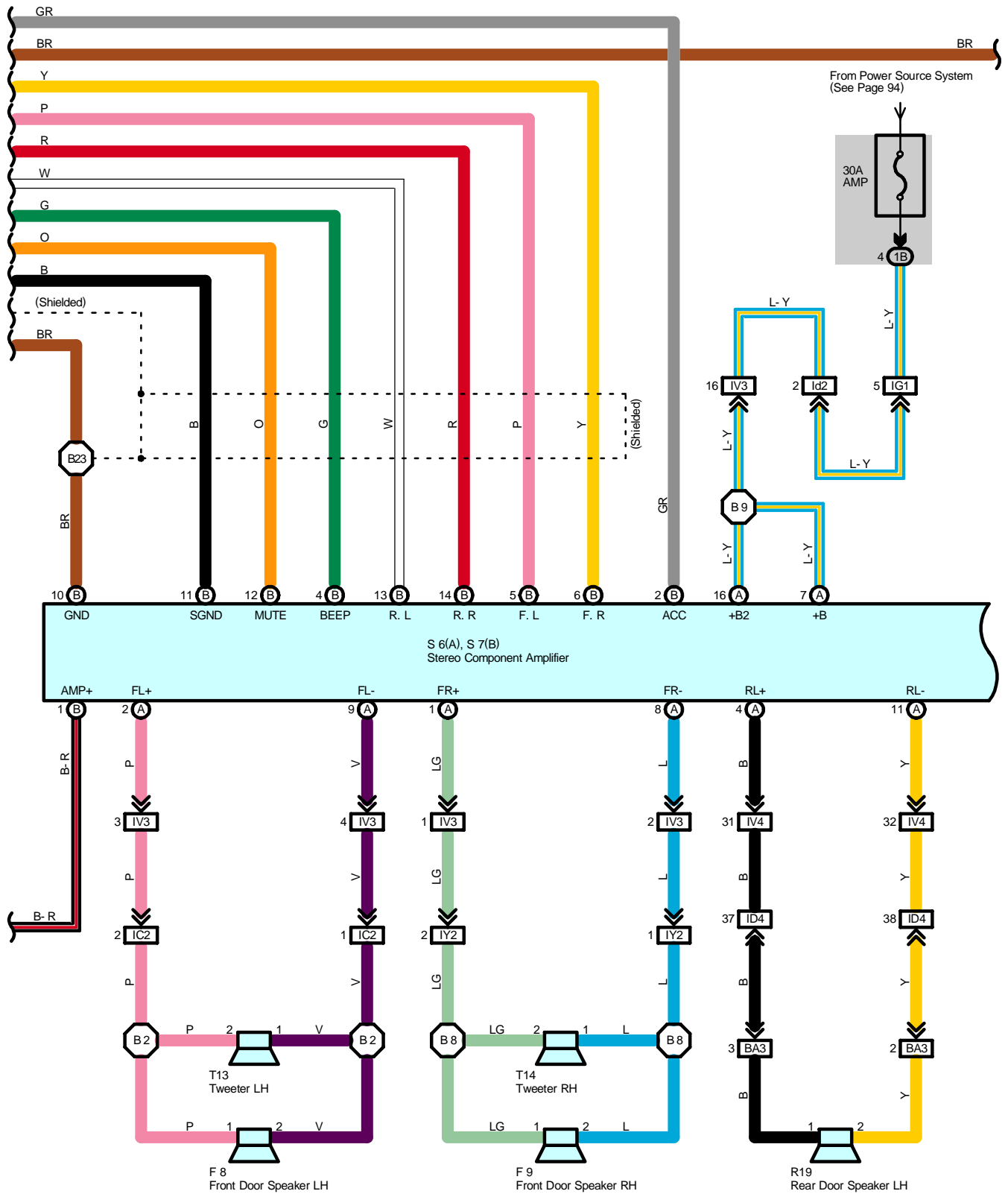
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B9	88	Floor No.2 Wire
B8	88	Front Door RH Wire	B23		

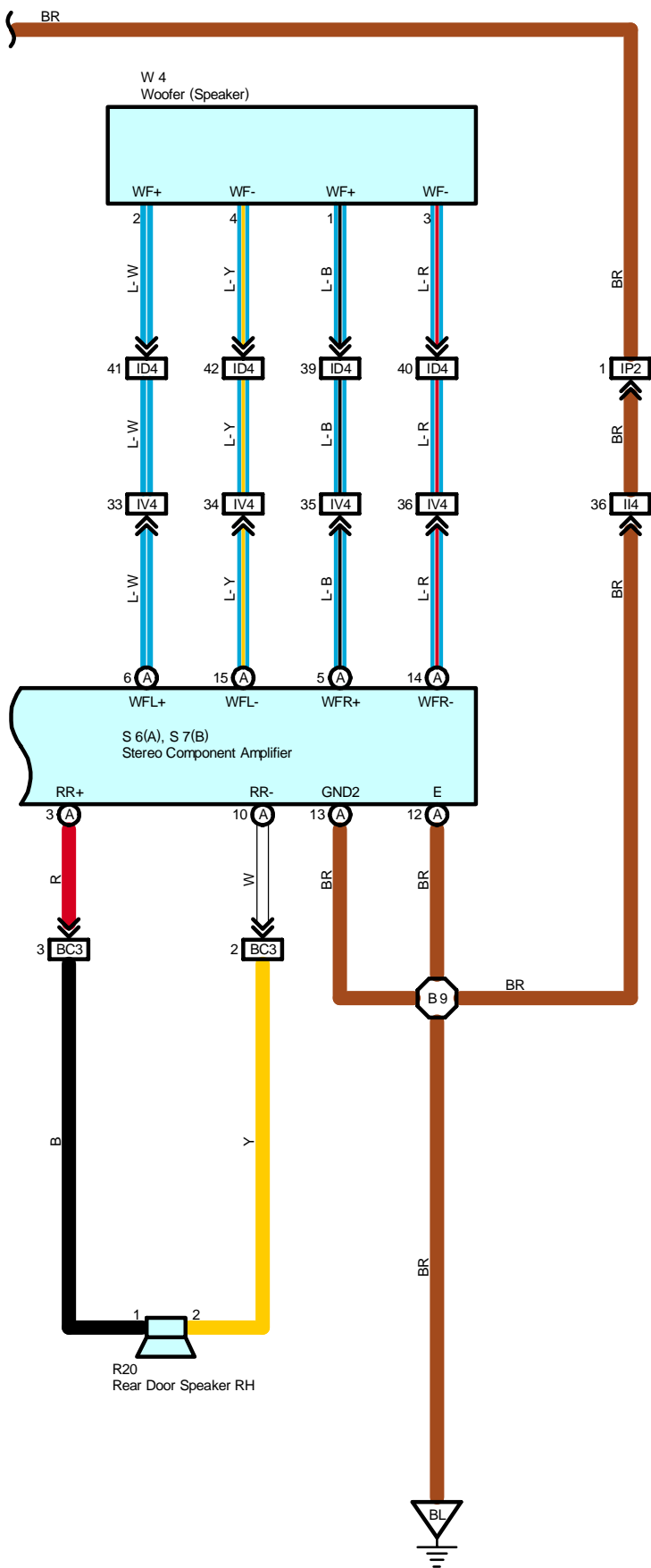
Radio and Player (w/o Navigation System)





Radio and Player (w/o Navigation System)





Radio and Player (w/o Navigation System)

Service Hints

R36 Radio and Player

1-Ground : Always approx. 12 volts

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

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

(A) 7, (A) 16-Ground : Always approx. 12 volts

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

(A) 12, (A) 13-Ground : Always continuity

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A30	70	J10	B 71	R39	71
B9	70	R19	73	S6	A 73
C18	70	R20	73	S7	B 73
F8	72	R36	A 71	T13	73
F9	72	R37	B 71	T14	73
J9	A 71	R38	C 71	W4	73

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4B		
4E		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
ID4	78	Dash Wire and Floor No.1 Wire (Left Kick Panel)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
II3	80	Dash Wire and Column Wire (Near the Ignition SW)
II4		
IP2	80	Rear Console Box Wire and Dash Wire (Right Side of Rear Console)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IV4		
IY2	82	Front Door RH Wire and Dash Wire (Right Kick Panel)
Ib3	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Id2	84	Dash Wire and Dash Wire (Instrument Panel Center)
Ig1	84	Dash Wire and Floor No.2 Wire (Right Side of Front Console)
BA3	86	Rear Door LH Wire and Floor No.1 Wire (Left Side of Center Pillar)
BC3	86	Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)

▽ : Ground Points

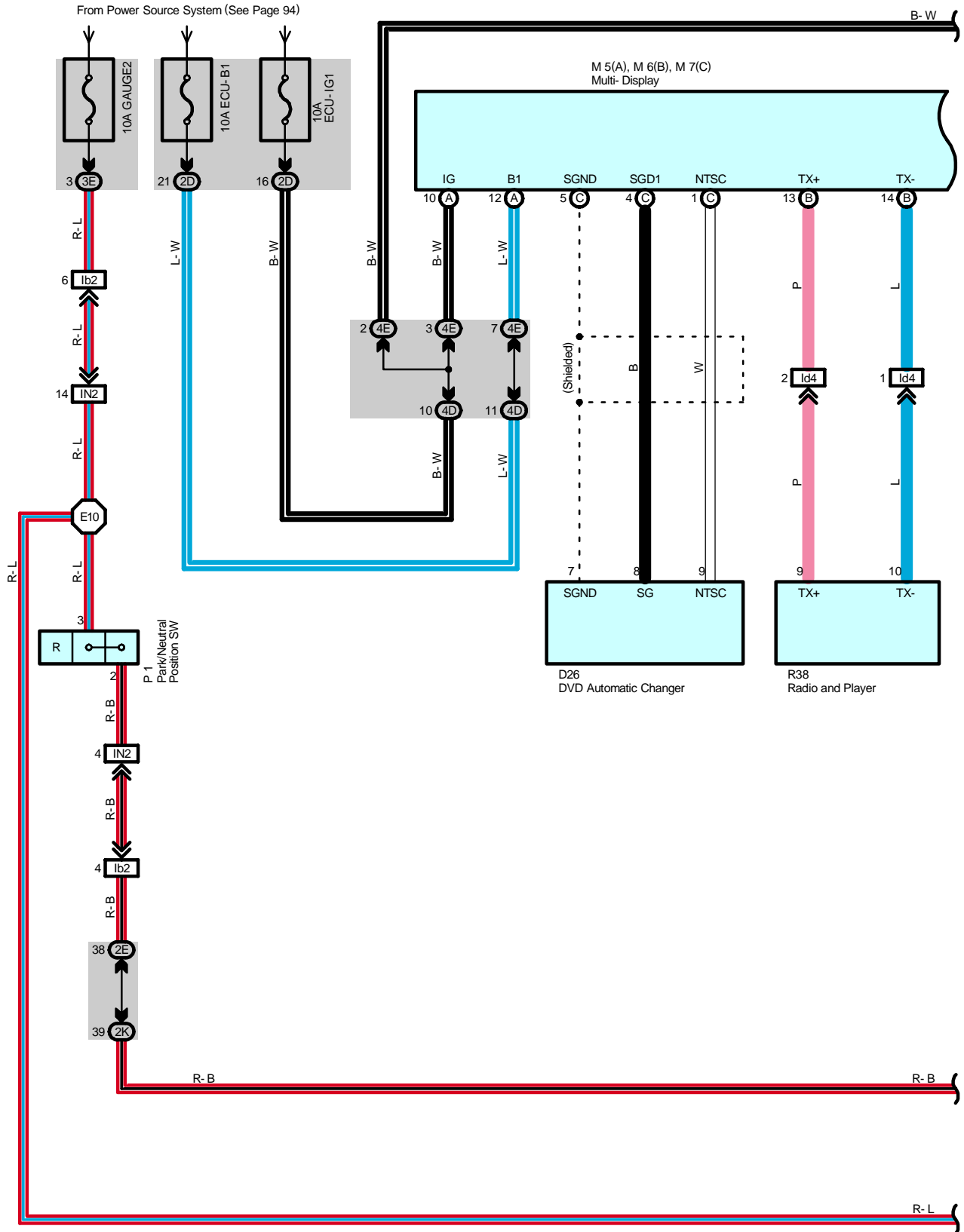
Code	See Page	Ground Points Location
BL	86	Rear Side Under the Front Passenger's Seat



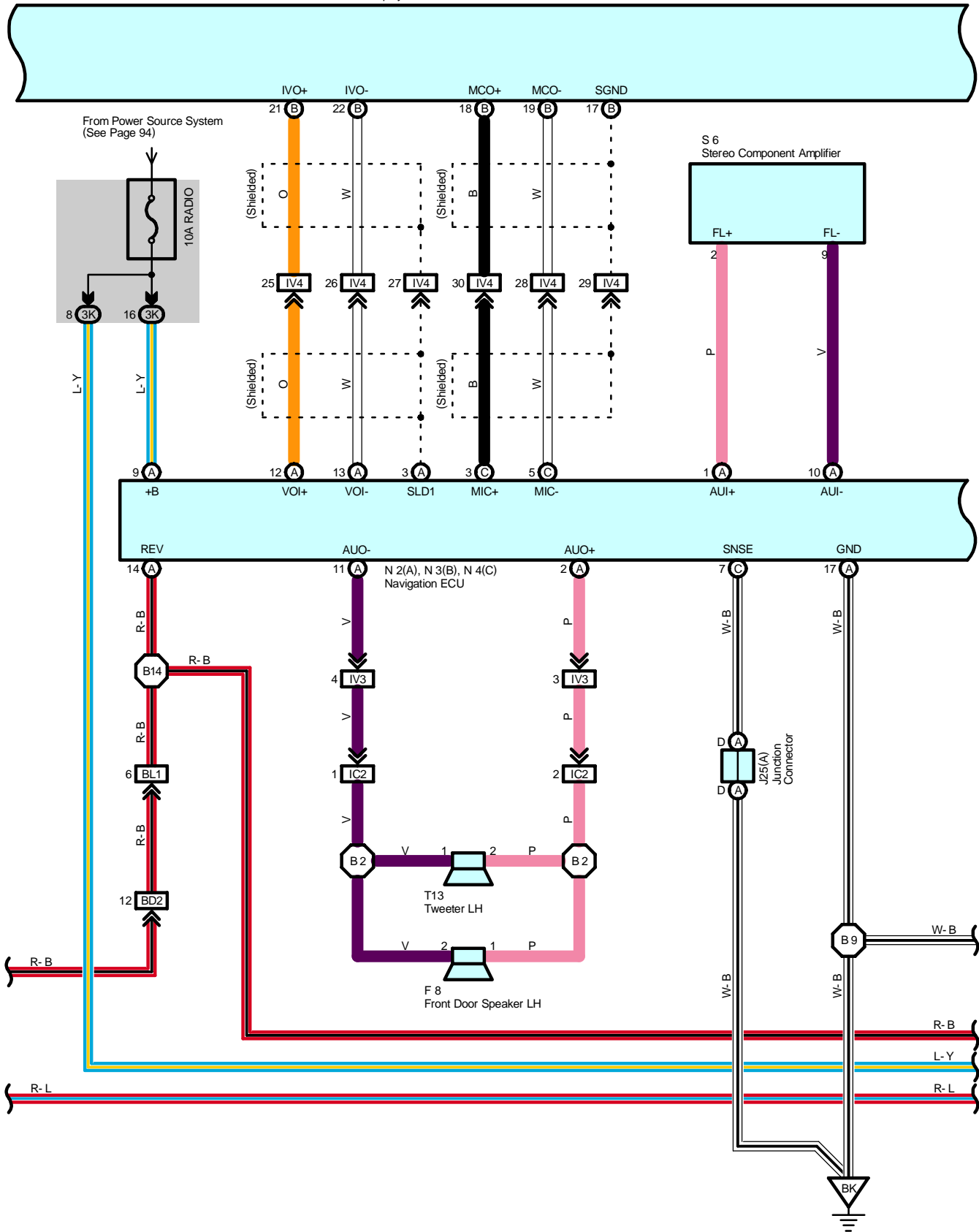
: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B2	88	Front Door LH Wire	B9	88	Floor No.2 Wire
B8	88	Front Door RH Wire	B23		

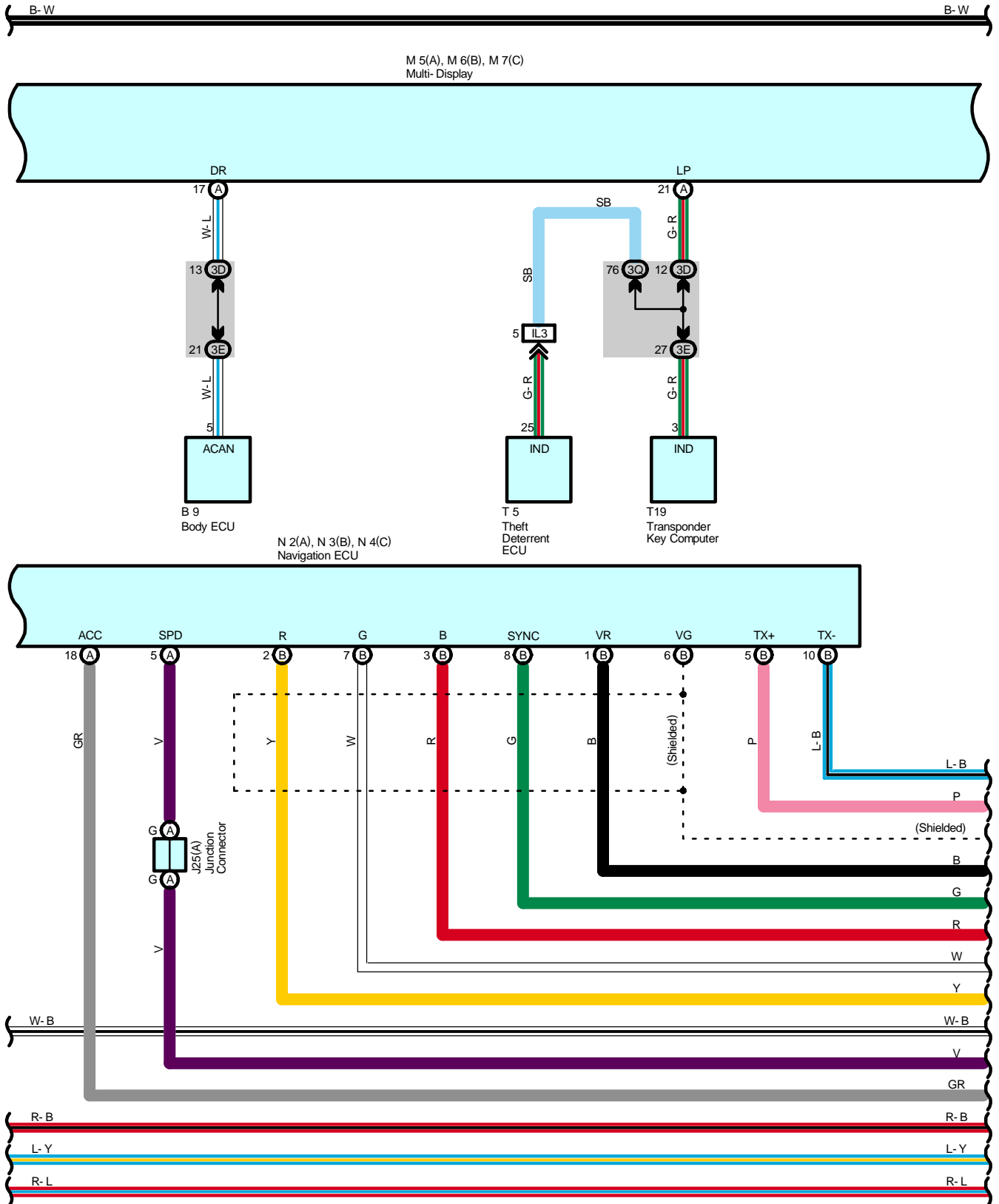
Navigation System, TOYOTA Parking Assist (Rear View Monitor)

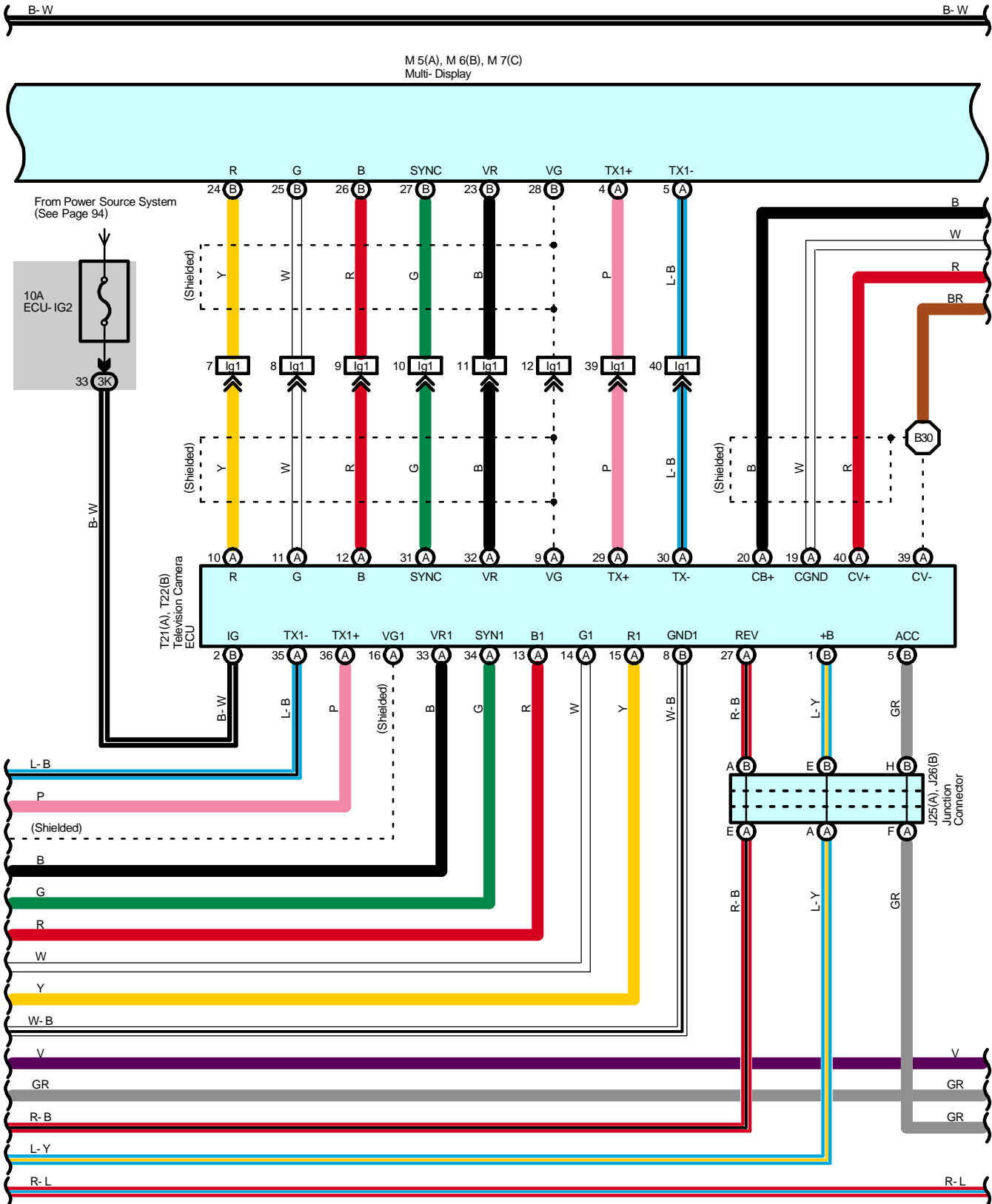


M 5(A), M 6(B), M 7(C)
Multi-Display

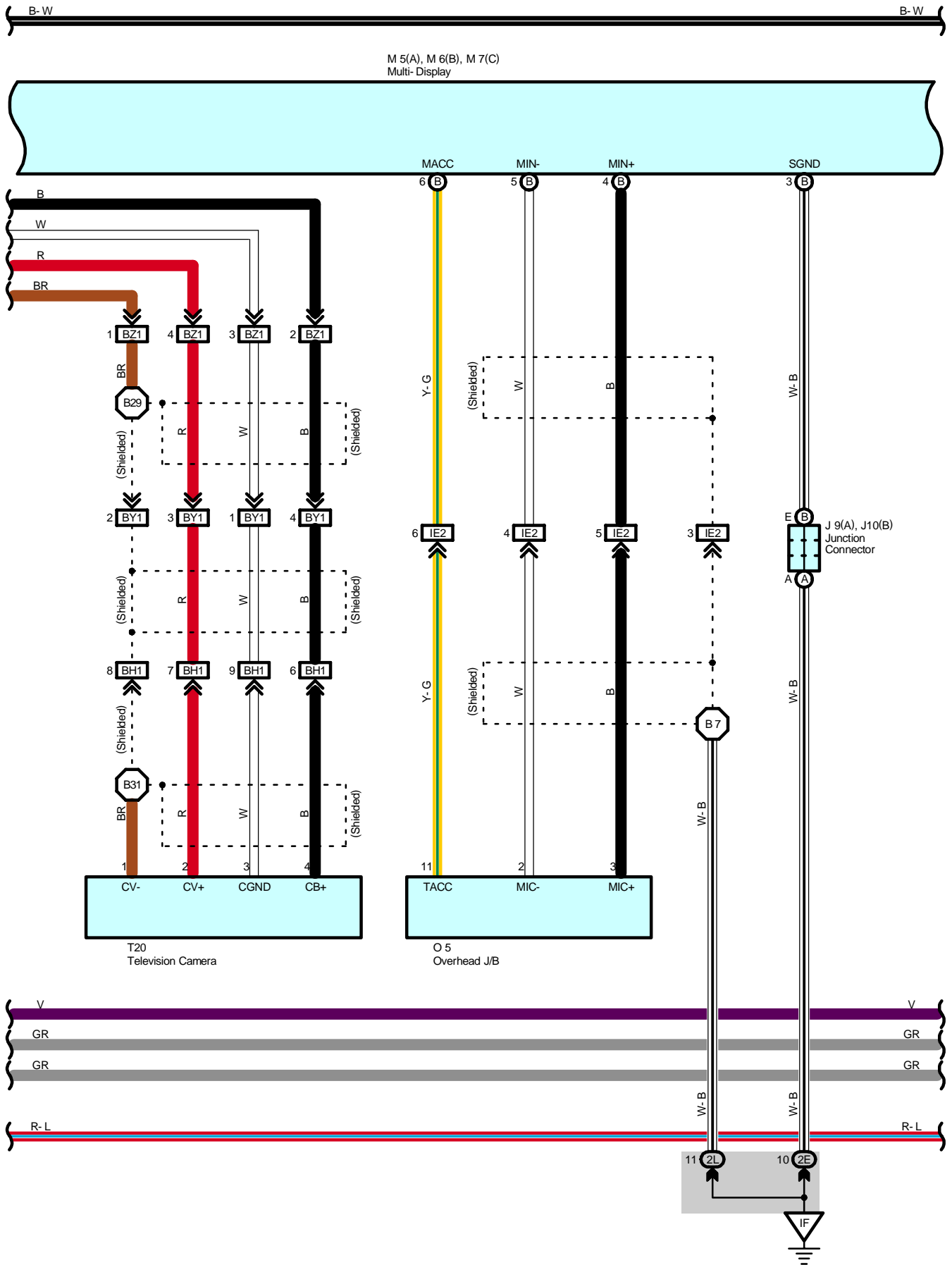


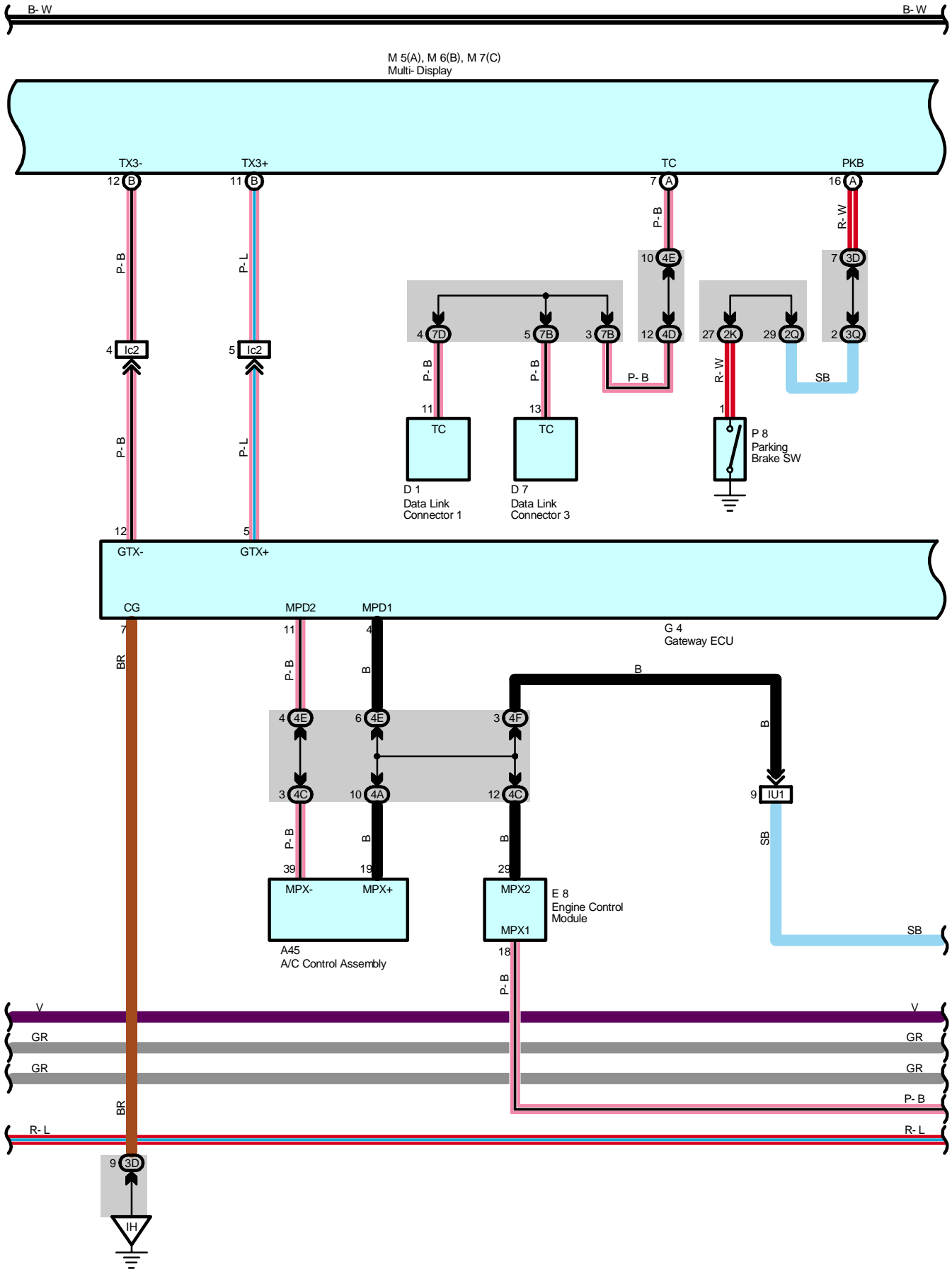
Navigation System, TOYOTA Parking Assist (Rear View Monitor)



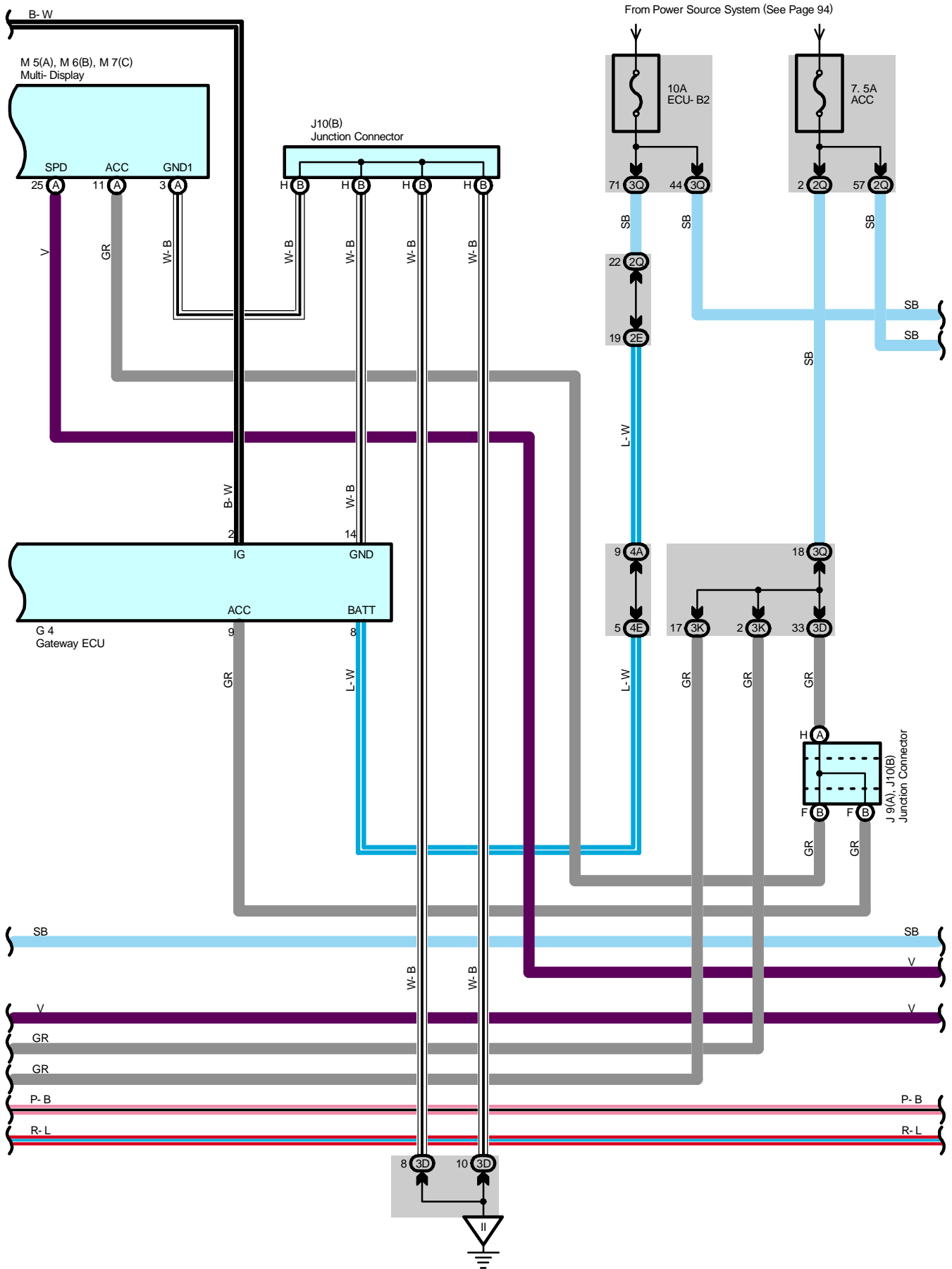


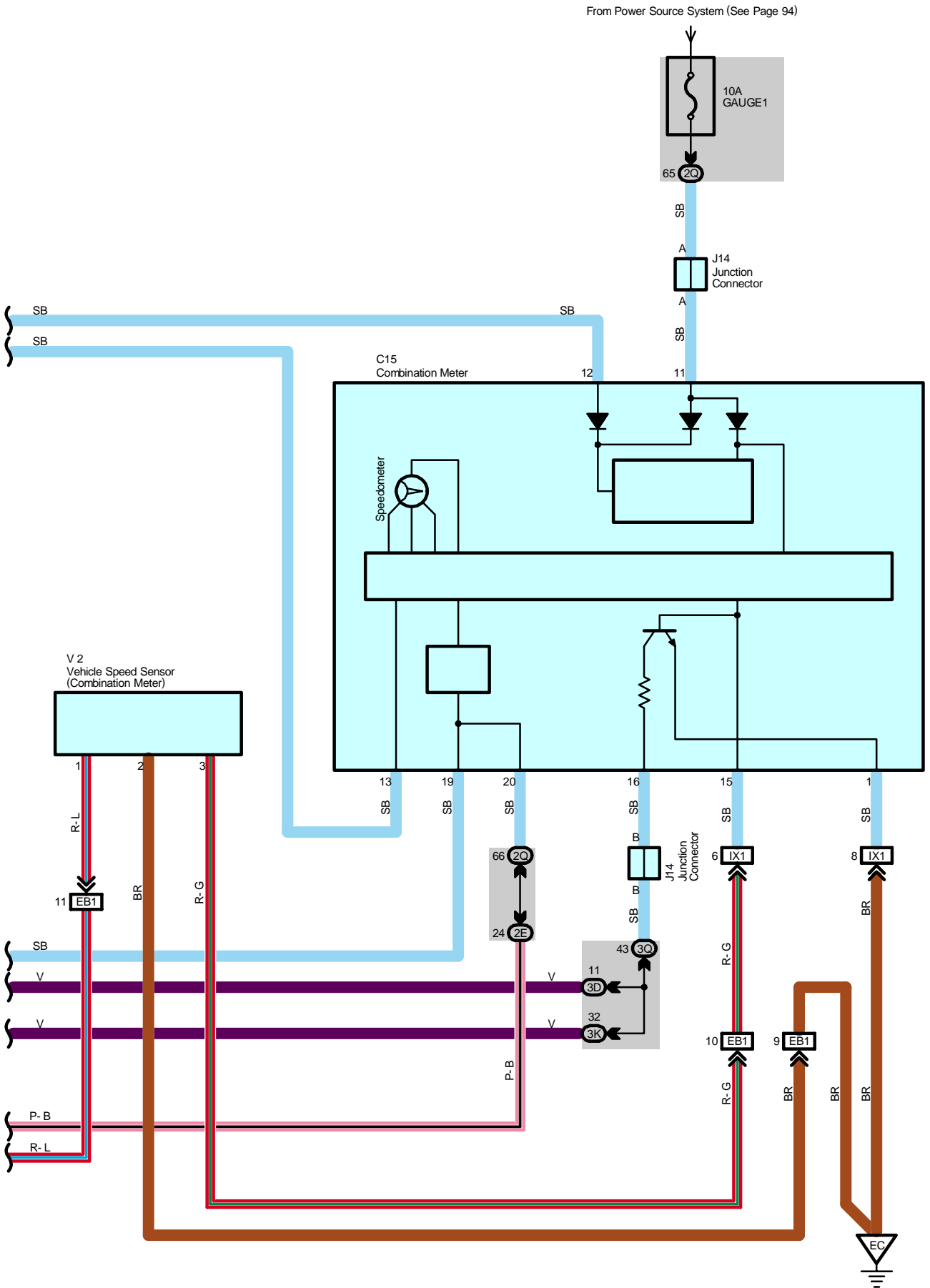
Navigation System, TOYOTA Parking Assist (Rear View Monitor)





Navigation System, TOYOTA Parking Assist (Rear View Monitor)





Navigation System, TOYOTA Parking Assist (Rear View Monitor)

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.

Service Hints

N2 (A), N4 (C) Navigation ECU

- (A) 9-Ground : Always approx. 12 volts
- (A)18-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- (A)17-Ground : Always continuity
- (C) 7-Ground : Always continuity

M5 (A), M6 (B) Multi-Display

- (A)12-Ground : Always approx. 12 volts
- (A)11-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- (A)10-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (A) 3-Ground : Always continuity
- (B) 3-Ground : Always continuity

T22 Television Camera ECU

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A45	70	J14	71	P8	73
B9	70	J25	A 72	R38	71
C15	70	J26	B 72	S6	73
D1	68	M5	A 71	T5	71
D7	70	M6	B 71	T13	73
D26	70	M7	C 71	T19	71
E8	70	N2	A 72	T20	73
F8	72	N3	B 72	T21	A 73
G4	70	N4	C 72	T22	B 73
J9	A 71	O5	72	V2	69
J10	B 71	P1	69		

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2L	28	Roof No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
7B	64	Dash Wire and J/B No.7 (Behind the Grove Box)
7D	64	Engine Room No.2 Wire and J/B No.7 (Behind the Grove Box)

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
IC2	78	Front Door LH Wire and Dash Wire (Left Kick Panel)
IE2	78	Dash Wire and Roof No.1 Wire (Left Kick Panel)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IV3	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
IV4		
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Ic2	84	Dash Wire and Dash Wire (Behind the Center Panel)
Id4	84	Dash Wire and Dash Wire (Instrument Panel Center)
Ig1	84	Dash Wire and Floor No.2 Wire (Right Side of Front Console)
BD2	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BH1	86	Pillar No.1 Wire and Back Door Upper Wire (Left Side of Back Door)
BL1	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BY1	88	Pillar No.1 Wire and Floor No.3 Wire (Left Rear Side Quarter Panel)
BZ1	88	Floor No.3 Wire and Floor No.2 Wire (Right Side of Rear Floor Crossmember)

 : **Ground Points**

Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH
IH	78	Set Bolt of Cowl Side J/B RH
II		
BK	86	Front Side Under the Front Passenger's Seat

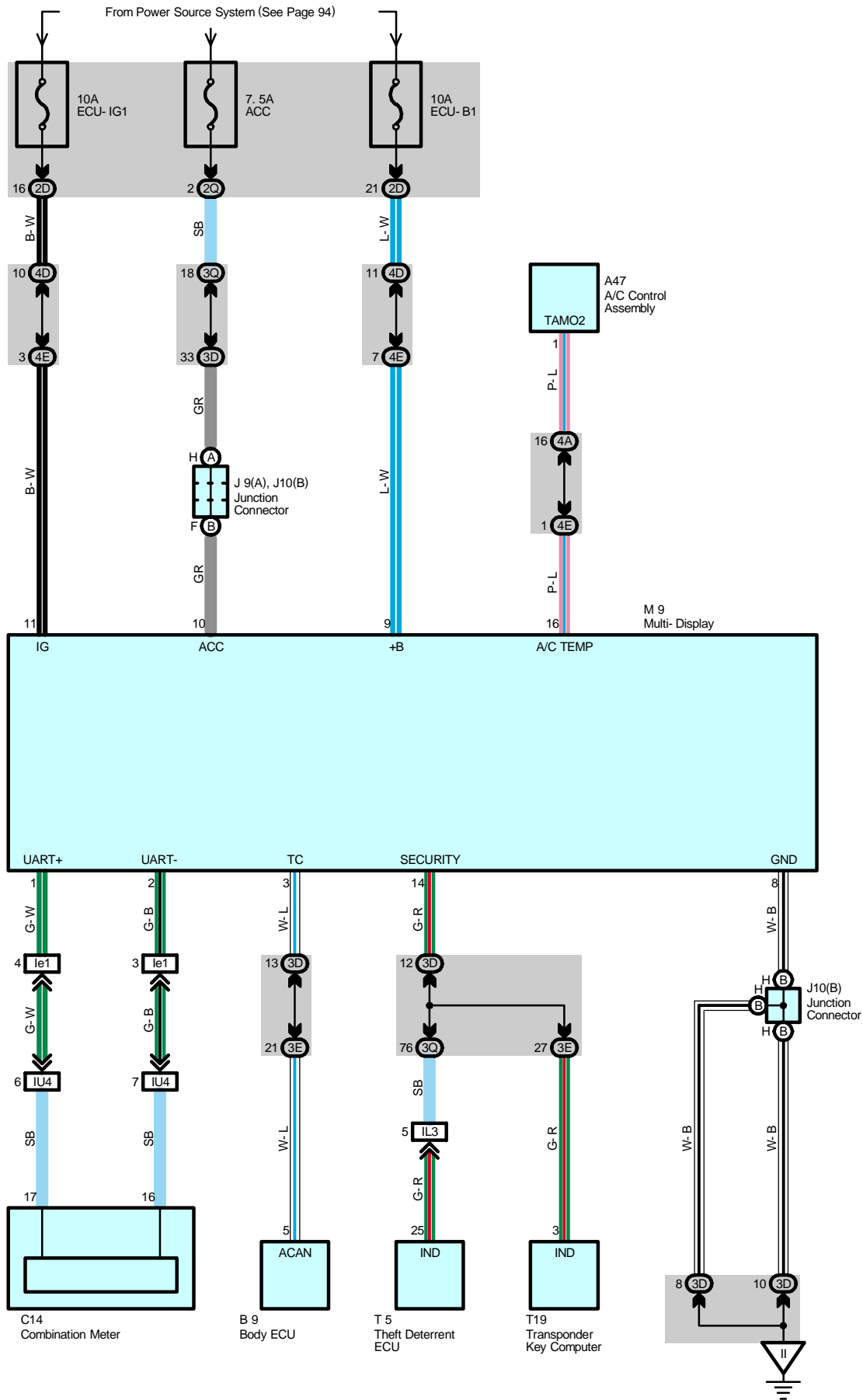
Navigation System, TOYOTA Parking Assist (Rear View Monitor)



: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E10	76	Engine Wire	B14	88	Floor No.2 Wire
B2	88	Front Door LH Wire	B29	88	Floor No.3 Wire
B7	88	Roof No.1 Wire	B30	88	Floor No.2 Wire
B9	88	Floor No.2 Wire	B31	88	Back Door Upper Wire

Multi-Display (w/o Navigation System)



Service Hints

M9 Multi-Display

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

: Parts Location

Code	See Page	Code	See Page	Code	See Page	
A47	70	J9	A	71	T5	71
B9	70	J10	B	71	T19	71
C14	70	M9	71			

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4D		
4E		

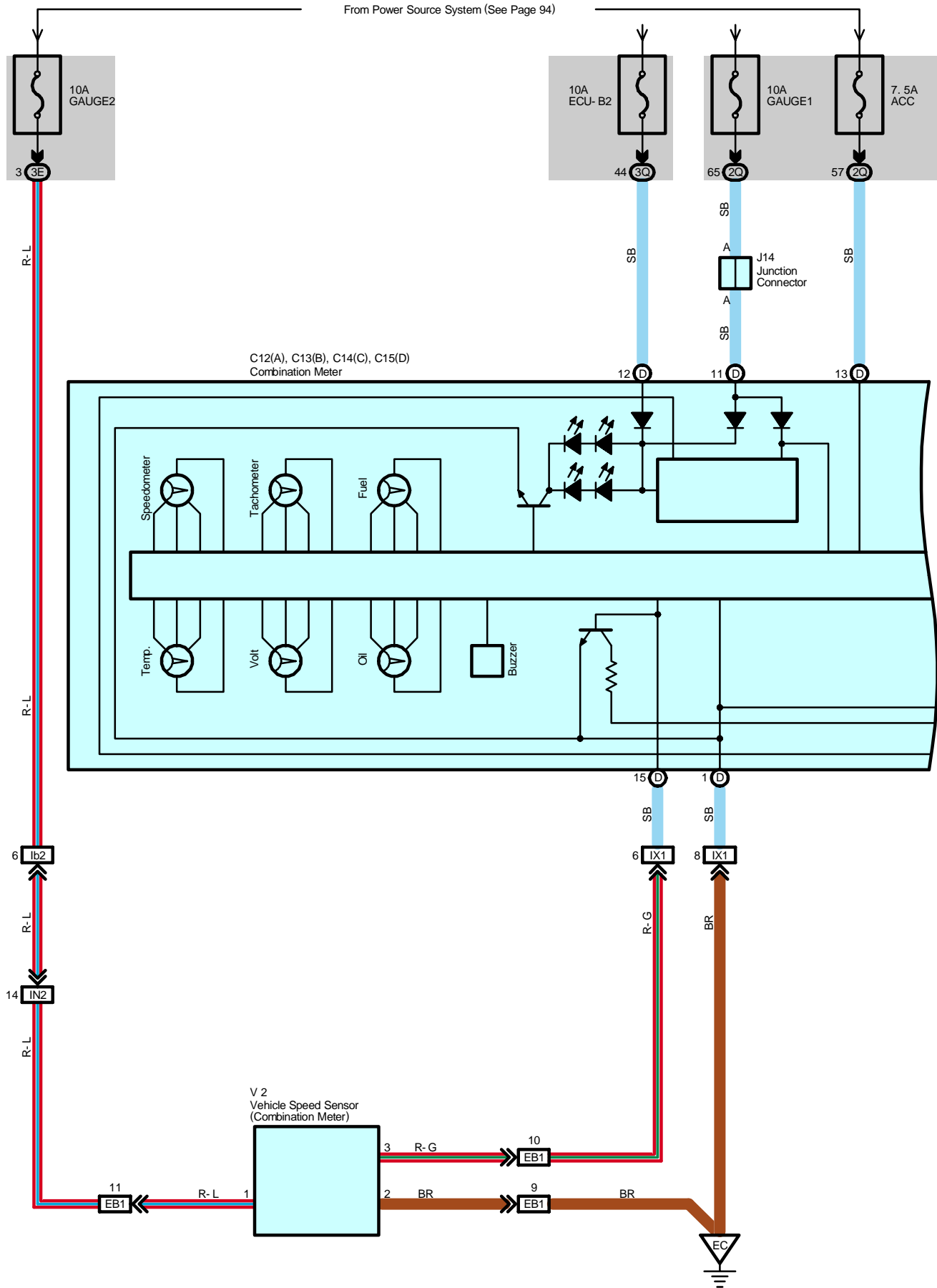
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IL3	80	Instrument Panel Integration Wire and Computer Wire (Instrument Panel Center)
IU4	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
Ie1	84	Dash Wire and Dash Wire (Behind the Glove Box)

: Ground Points

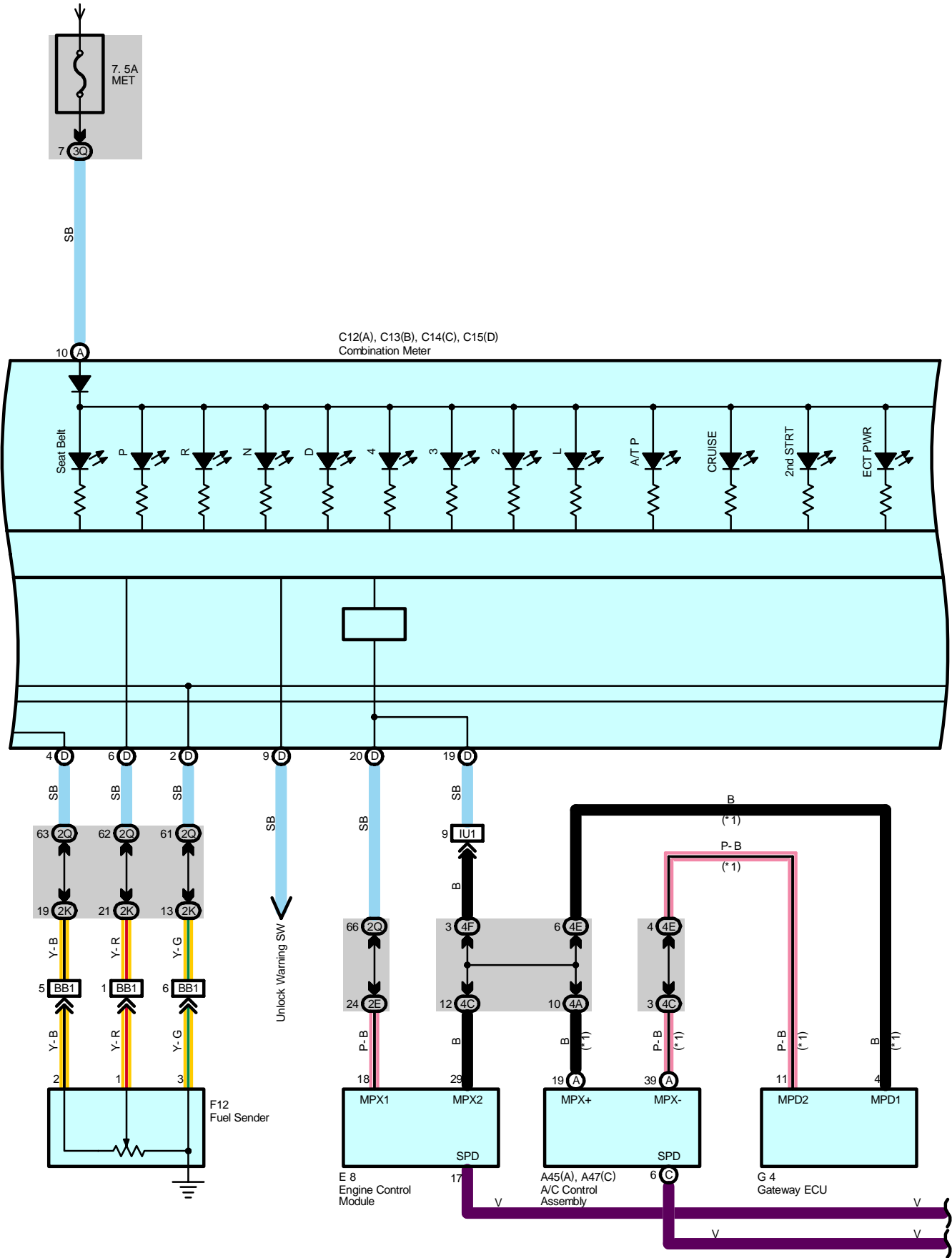
Code	See Page	Ground Points Location
II	78	Set Bolt of Cowl Side J/B RH

Combination Meter



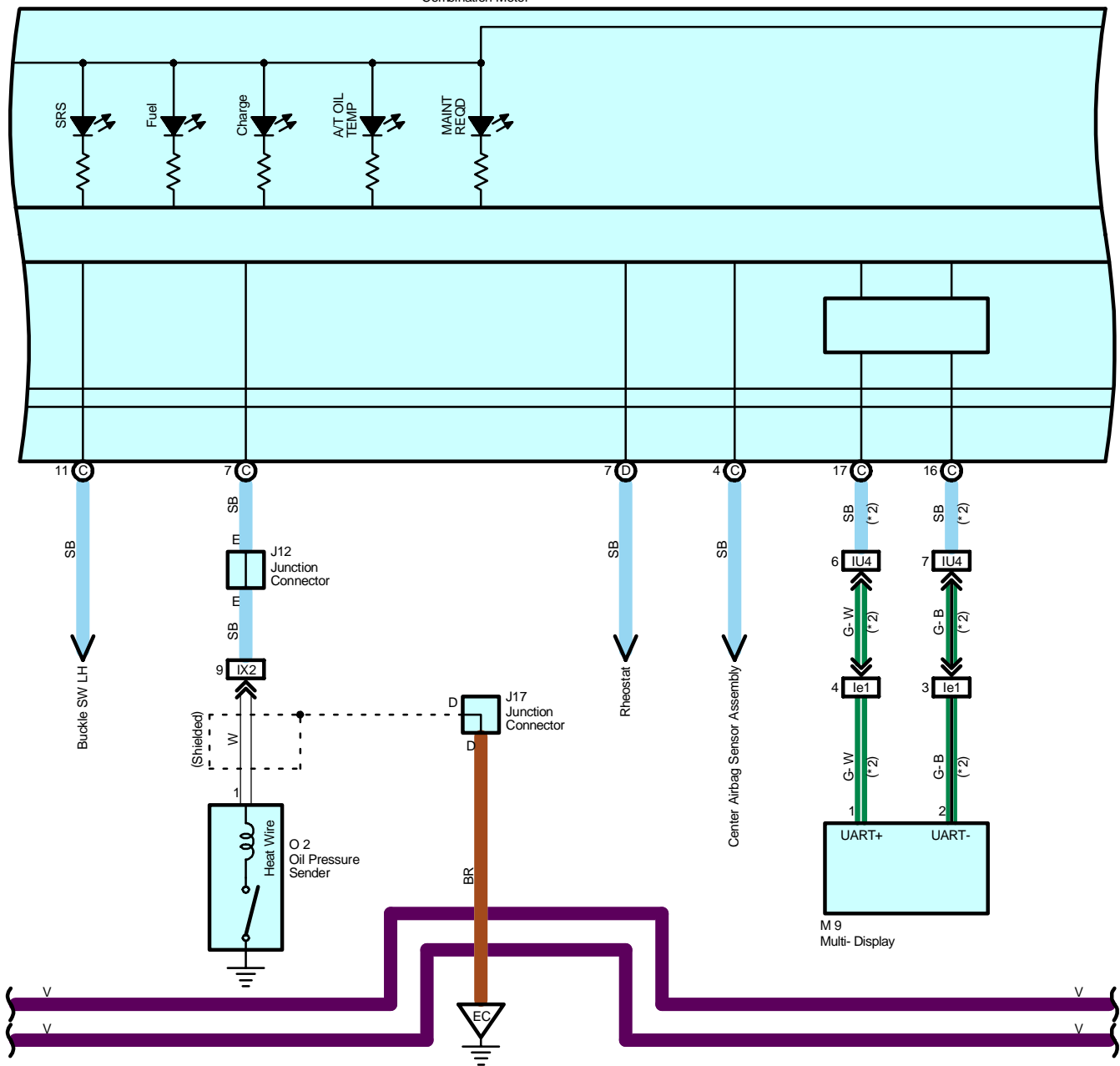
From Power Source System (See Page 94)

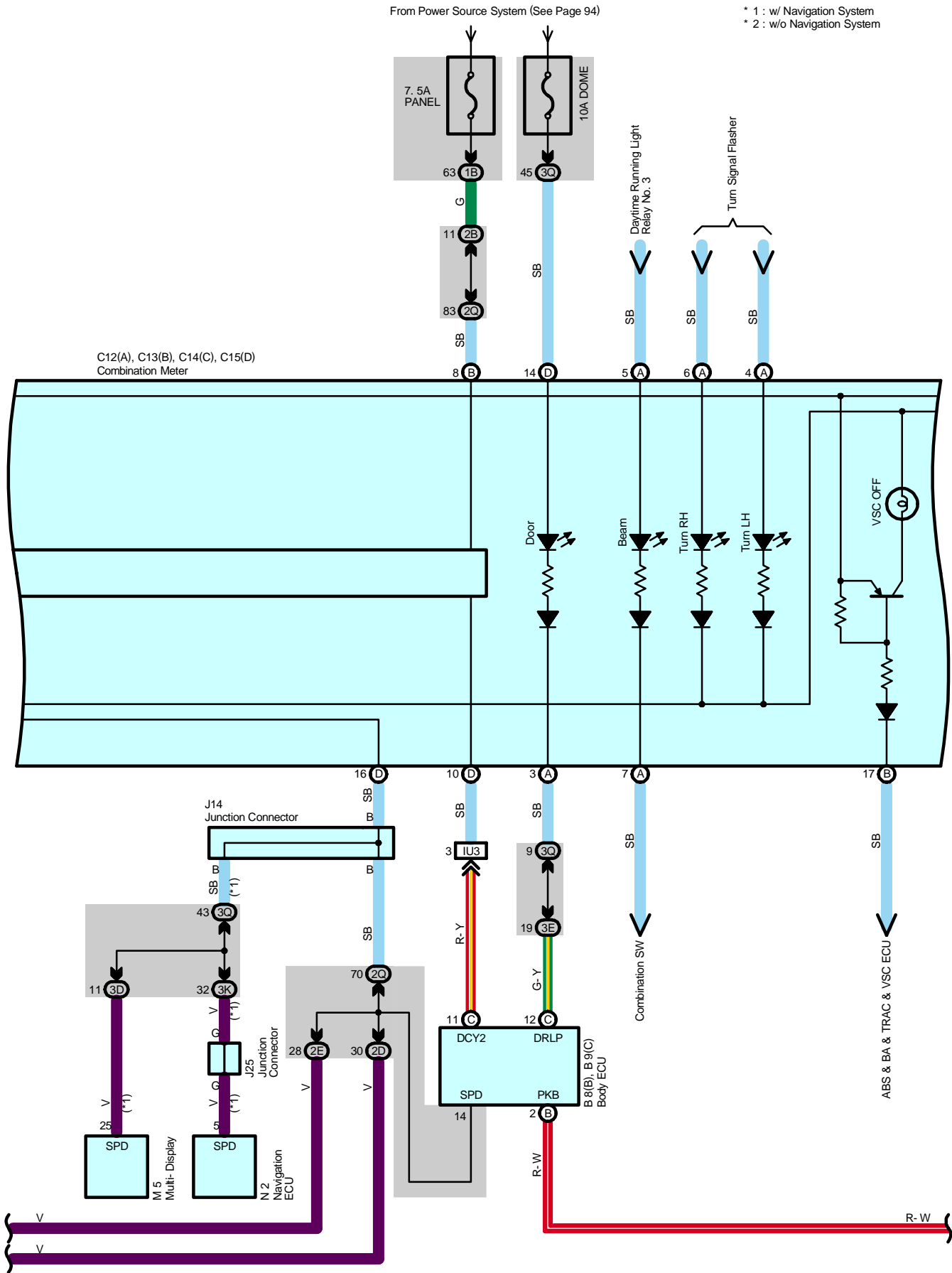
* 1 : w/ Navigation System



Combination Meter

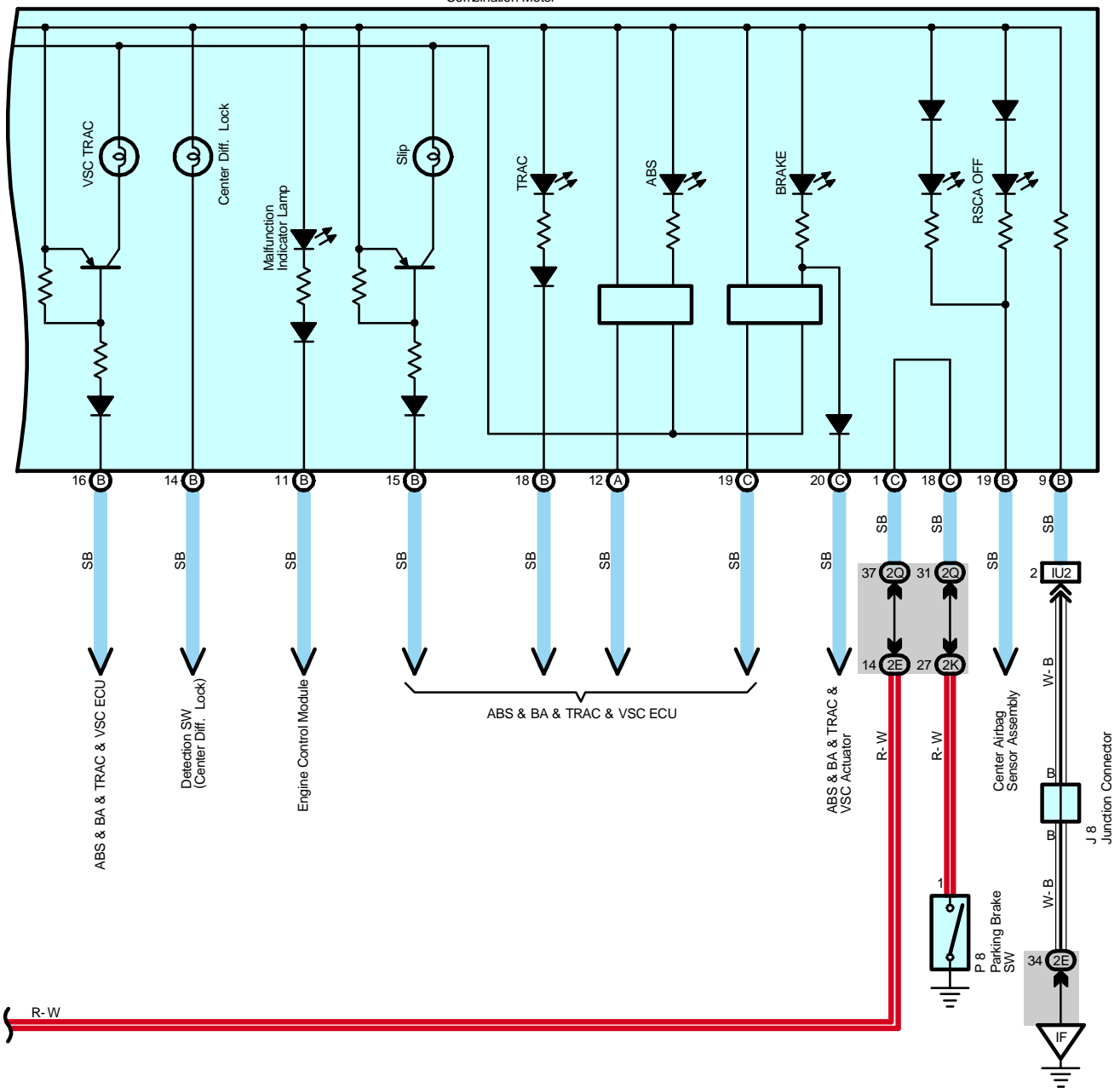
C12(A), C13(B), C14(C), C15(D)
Combination Meter





Combination Meter

C12(A), C13(B), C14(C), C15(D)
Combination Meter



Service Hints

P8 Parking Brake SW

1-Ground : Closed with parking brake lever pulled up

C12 (A), C13 (B), C15 (D) Combination Meter

(D) 12, (D) 14-Ground : Always approx. 12 volts

(D) 13-Ground : Approx. 12 volts with ignition SW at ACC or ON position

(A) 10, (D) 11-Ground : Approx. 12 volts with ignition SW at ON or ST position

(B) 8-Ground : Approx. 12 volts with light control SW at TAIL or HEAD position

(B) 9, (D) 1-Ground : Always continuity

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
A45	A	70	E8	70	M5	71
A47	C	70	F12	72	M9	71
B8	B	70	G4	70	N2	72
B9	C	70	J8	71	O2	69
C12	A	70	J12	71	P8	73
C13	B	70	J14	71	V2	69
C14	C	70	J17	71		
C15	D	70	J25	72		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2K	28	Floor No.1 Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4E		
4F		

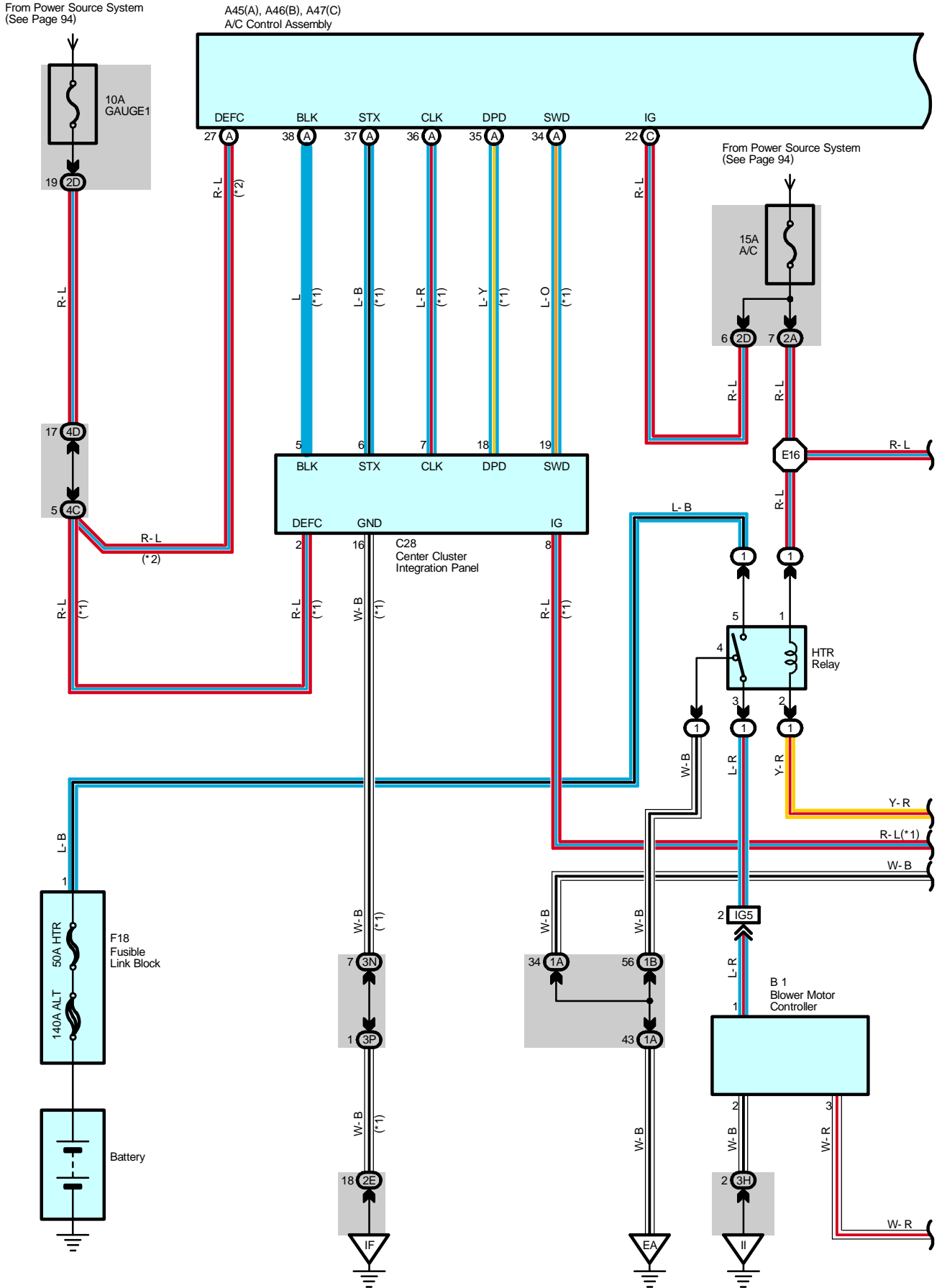
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	76	Engine Wire and Transmission Wire (On the Transmission)
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IU1	82	Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box)
IU2		
IU3		
IU4		
IX1	82	Instrument Panel Integration Wire and Engine Wire (Behind the Glove Box)
IX2		
Ib2	84	Dash Wire and Dash Wire (Behind the Combination Meter)
Ie1	84	Dash Wire and Dash Wire (Behind the Glove Box)
BB1	86	Floor No.1 Wire and Fuel Tank Wire (Near the Fuel Tank)

▽ : Ground Points

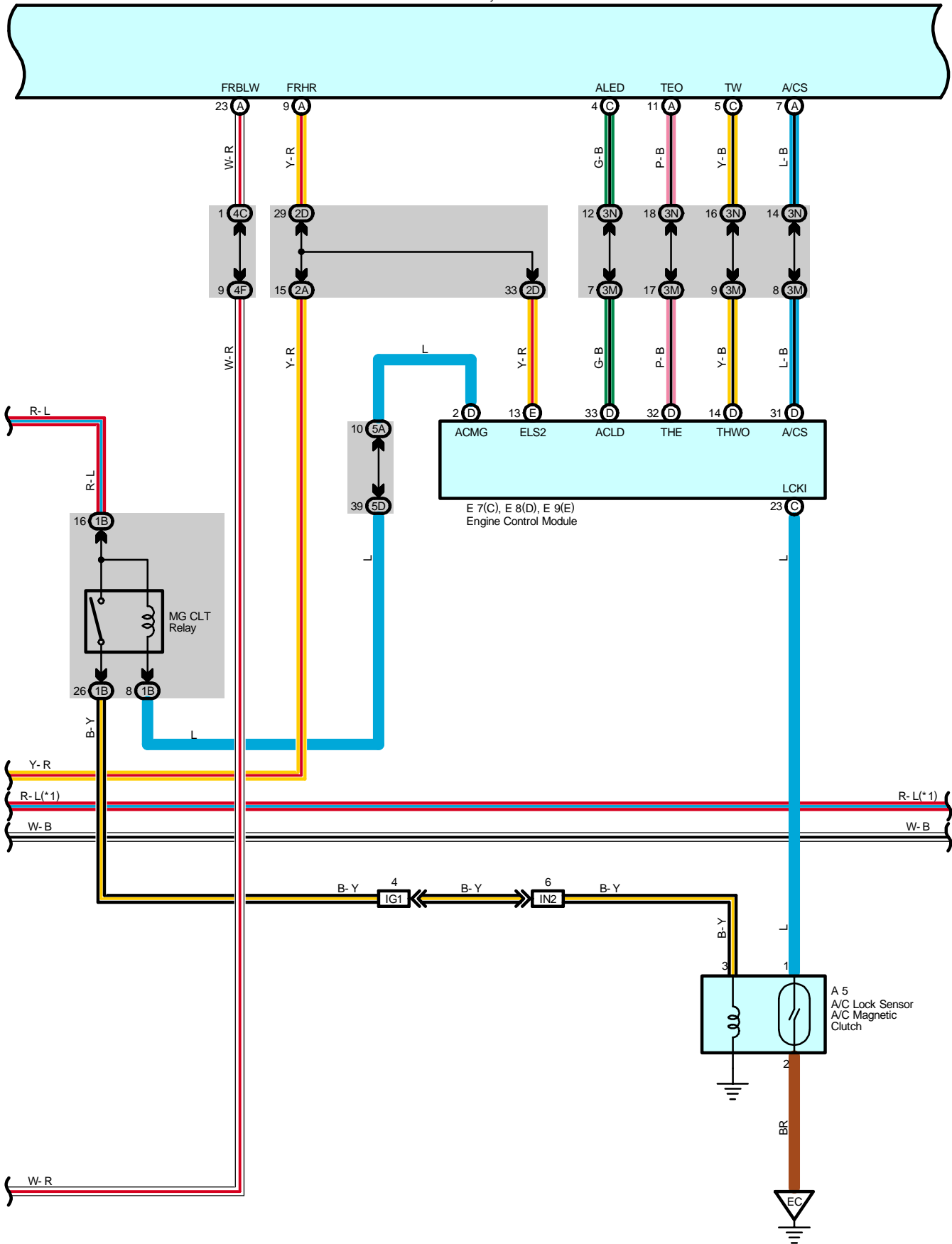
Code	See Page	Ground Points Location
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH

Air Conditioning (Front)



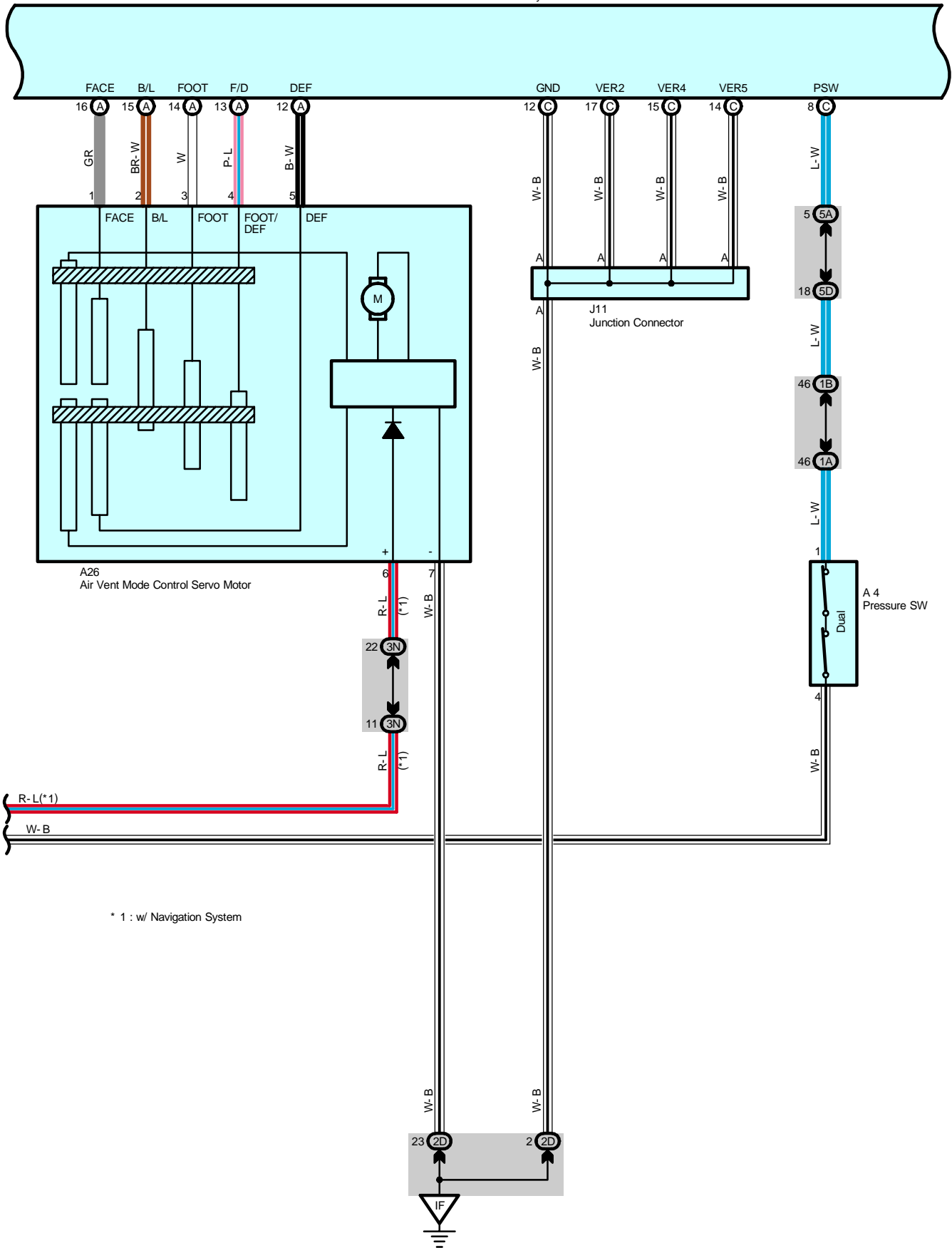
A45(A), A46(B), A47(C)
A/C Control Assembly

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

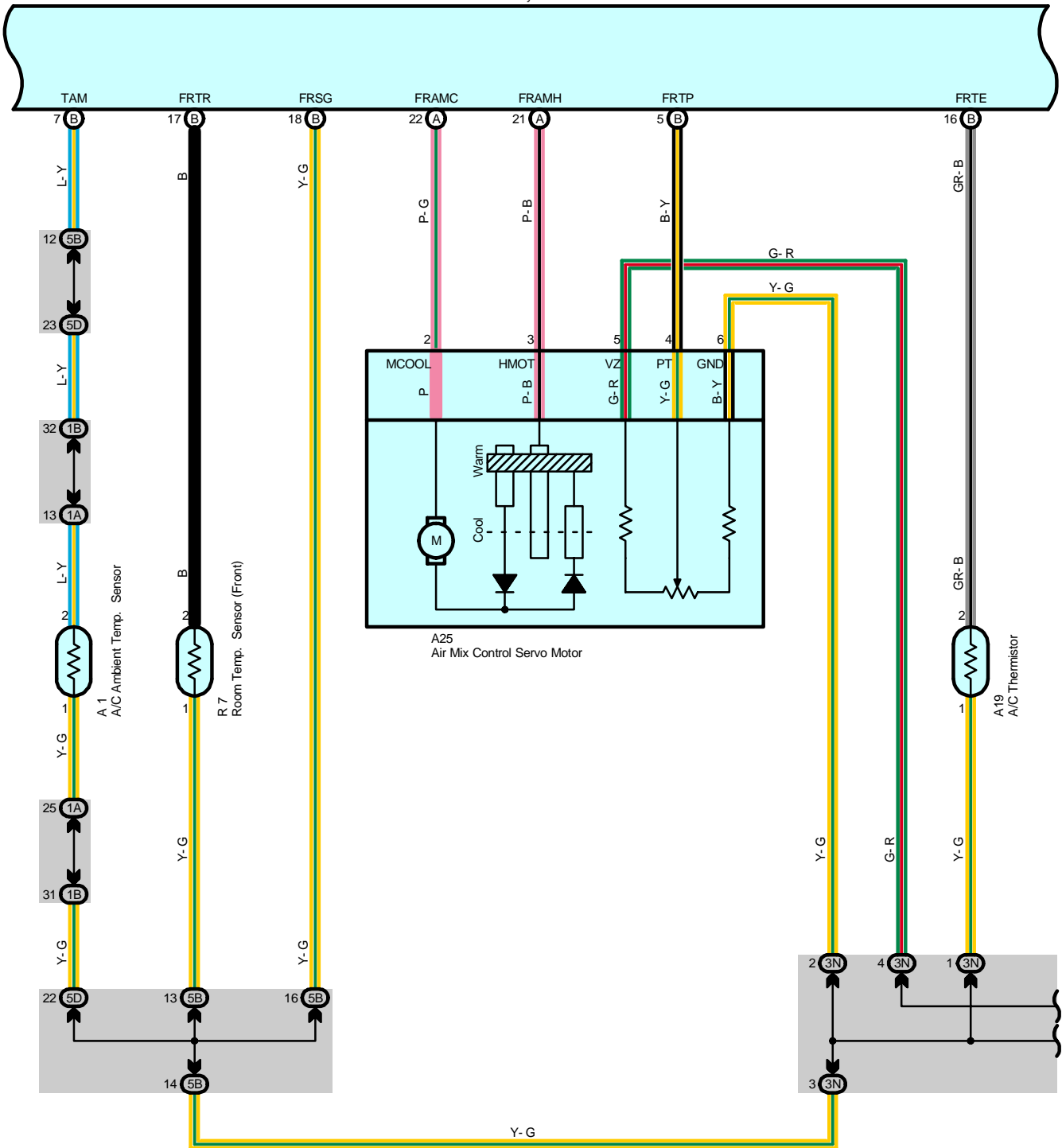


Air Conditioning (Front)

A45(A), A46(B), A47(C)
A/C Control Assembly

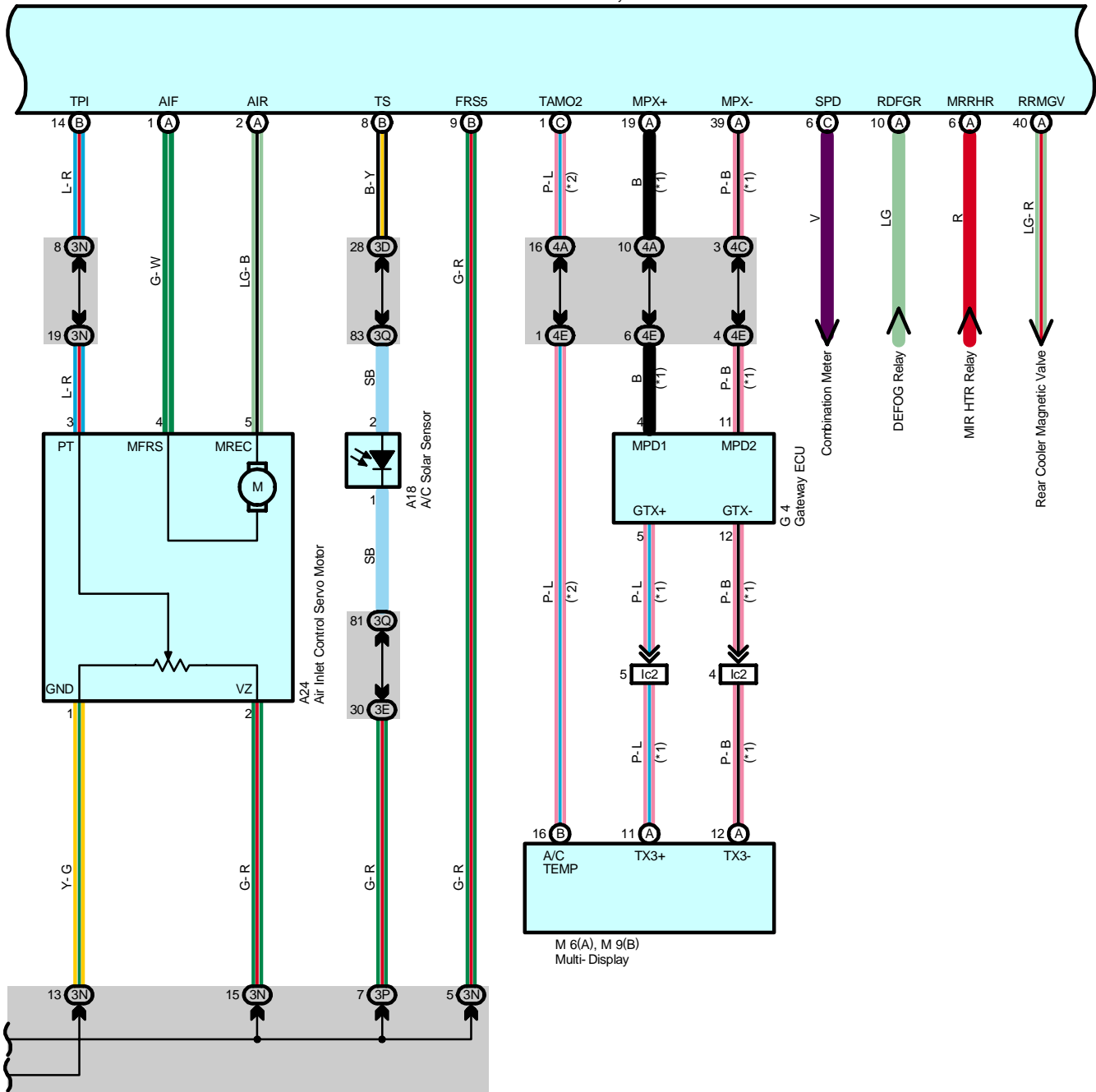


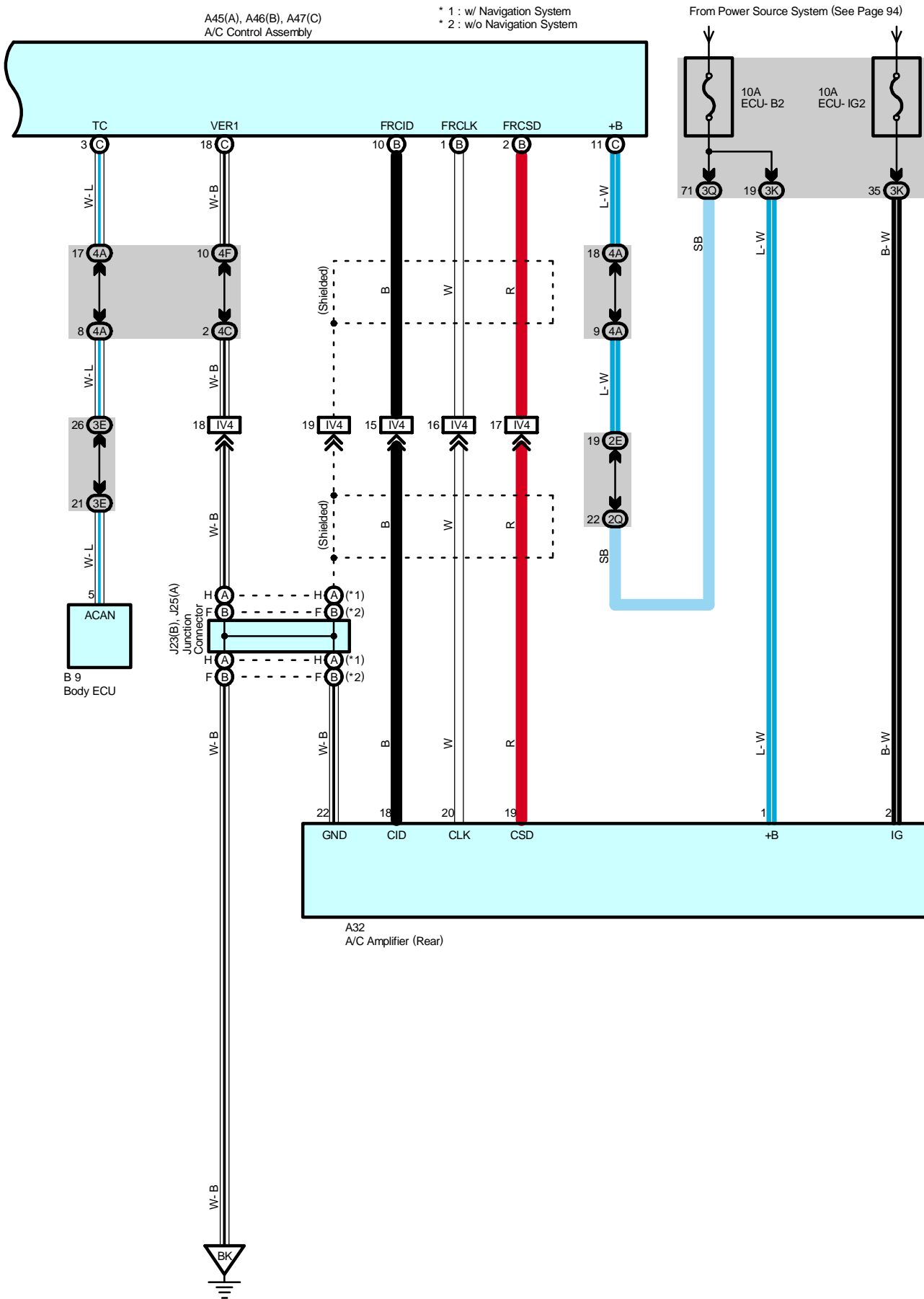
A45(A), A46(B), A47(C)
A/C Control Assembly



Air Conditioning (Front)

A45(A), A46(B), A47(C)
A/C Control Assembly





Air Conditioning (Front)

System Outline

1. Heater Blower Operation

Manual operation

When the blower speed is set at any speed by the blower control SW, the A/C control assembly sends a signal to the blower motor controller, and controls the blower motor speed.

Auto operation

When the auto SW is operated, the A/C control assembly sends signals to the blower motor controller, according to the signals from respective sensors, commands from the temperature SW etc., and controls the blower motor automatically.

2. Air Inlet Control Servo Motor Control

When the FRESH/RECIRC select SW is switched to RECIRC, the motor in the air inlet control servo motor rotates to move the damper to the RECIRC side. The damper position is recognized by the A/C control assembly TERMINAL TPI, and rotates the motor until the damper reaches its position.

When the FRESH/RECIRC select SW is switched to FRESH, the motor in the air inlet control servo motor rotates to move the damper to the FRESH side. The damper position is recognized by the A/C control assembly TERMINAL TPI, and rotates the motor until the damper reaches its position.

When the FRESH/RECIRC select SW is set to auto, the exhaust gas sensor in the engine room detects the ingredient of the exhaust emission, and switches the FRESH/RECIRC mode automatically.

3. Air Vent Mode Control Servo Motor

When the mode select SW in the A/C control assembly is pushed, a signal is sent from the A/C control assembly, and activates the air vent mode control servo motor. This causes the servo motor to rotate to the position selected using the mode select SW (FACE, BI-LEVEL, FOOT, FOOT/DEF, DEF), and moves the damper.

4. Air Mix Control Servo Motor

When the temperature control SW in the A/C control assembly is pushed, a signal is sent from the A/C control assembly, and activates the air mix control servo motor. The motor and damper is moved until it reaches the temperature set by the temperature control SW.

5. Air Conditioning Operation

The A/C control assembly receives various signals, i. e., the engine RPM from the crankshaft position sensor, outlet temperature from the A/C ambient temp. sensor, coolant temperature from the engine coolant temp. sensor, and the lock signal from the A/C compressor, etc. When the engine is started and the A/C SW is turned on, a signal is sent to the A/C control assembly. As a result, the magnetic clutch is turned on and operates the compressor.

In addition, when the engine control module detects that the magnetic clutch is on and the A/C compressor is operating, it controls the engine in the direction to avoid lowering the engine RPM during A/C operation.

When any of the following signals are sent to the A/C control assembly, the A/C is turned off.

- * Coolant temp. is high.
- * Outlet air temp. is low.
- * Large difference between the engine speed and compressor speed.
- * The refrigerant pressure is abnormally high or low.

Service Hints

A45 (A), A47 (C) A/C Control Assembly

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

(C)22-Ground : Approx. 12 volts with ignition SW at ON or ST position

(A)27-Ground : Approx. 12 volts with ignition SW at ON or ST position (w/o navigation system)

(C)12, (C) 14, (C) 15, (C) 17, (C) 18-Ground : Always continuity

C28 Center Cluster Integration Panel (w/ Navigation System)

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

16-Ground : Always continuity

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A1	68	A45	A 70	F18	68
A4	68	A46	B 70	G4	70
A5	68	A47	C 70	J11	71
A18	70	B1	70	J23	B 72
A19	70	B9	70	J25	A 72
A24	70	C28	70	M6	A 71
A25	70	E7	C 70	M9	B 71
A26	70	E8	D 70	R7	71
A32	72	E9	E 70		

: 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	24	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2A	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2D	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2E		
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3D	40	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3E		
3H		
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3M	43	Dash Wire and Cowl Side J/B RH (Right Kick Panel)
3N		
3P		
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4D		
4E		
4F		
5A	56	Dash Wire and J/B No.5 (Behind the Combination Meter)
5B		
5D	56	Engine Room No.2 Wire and J/B No.5 (Behind the Combination Meter)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IG1	78	Engine Room No.2 Wire and Dash Wire (Behind the Combination Meter)
IG5		
IN2	80	Engine Wire and Dash Wire (Behind the Glove Box)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
Ic2	84	Dash Wire and Dash Wire (Behind the Center Panel)

Air Conditioning (Front)



: Ground Points

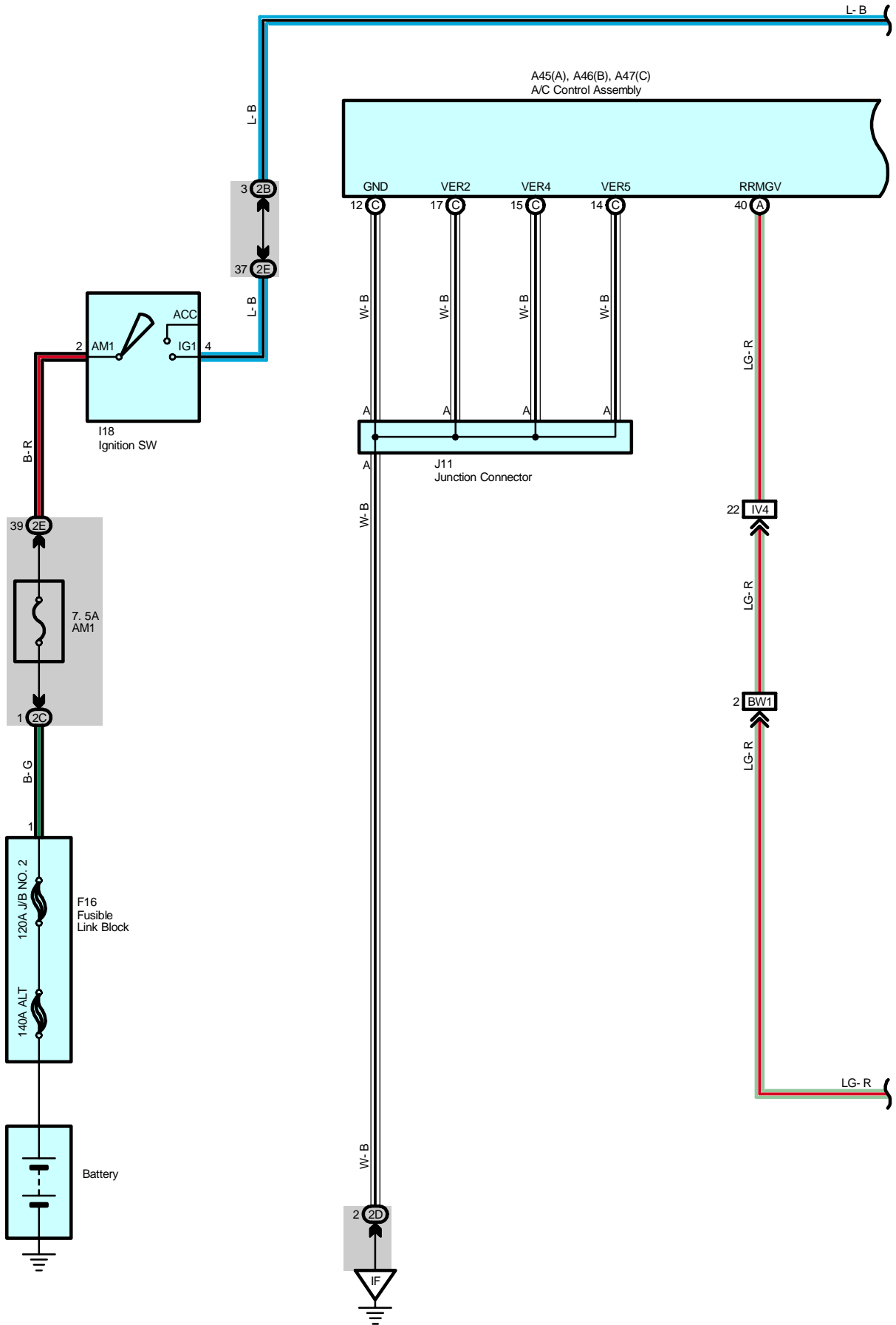
Code	See Page	Ground Points Location
EA	76	Front Right Side of Fender Apron
EC	76	Rear Bank of Right Cylinder Head
IF	78	Set Bolt of Cowl Side J/B LH
II	78	Set Bolt of Cowl Side J/B RH
BK	86	Front Side Under the Front Passenger's Seat

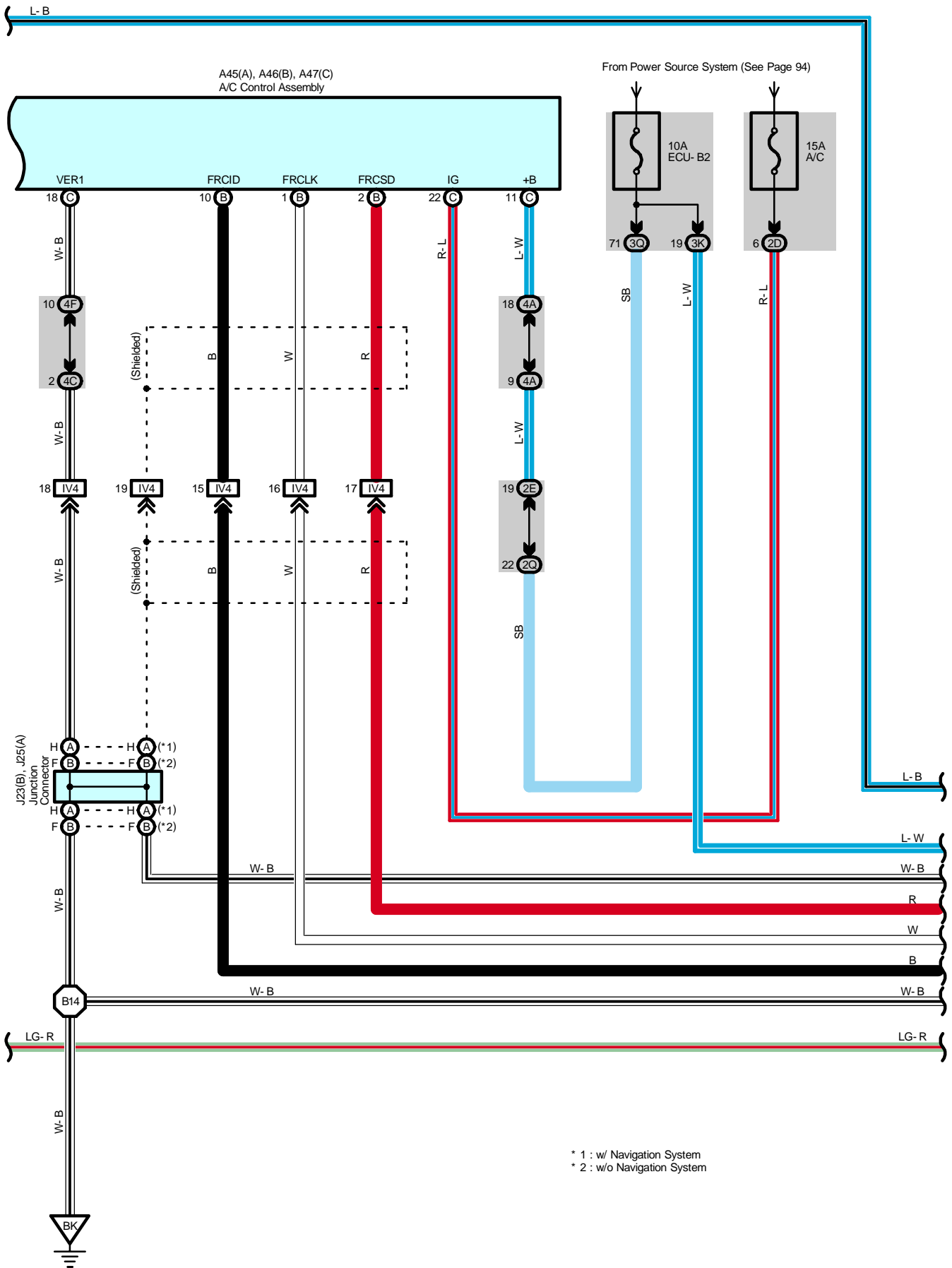


: Splice Points

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E16	76	Engine Room No.2 Wire			

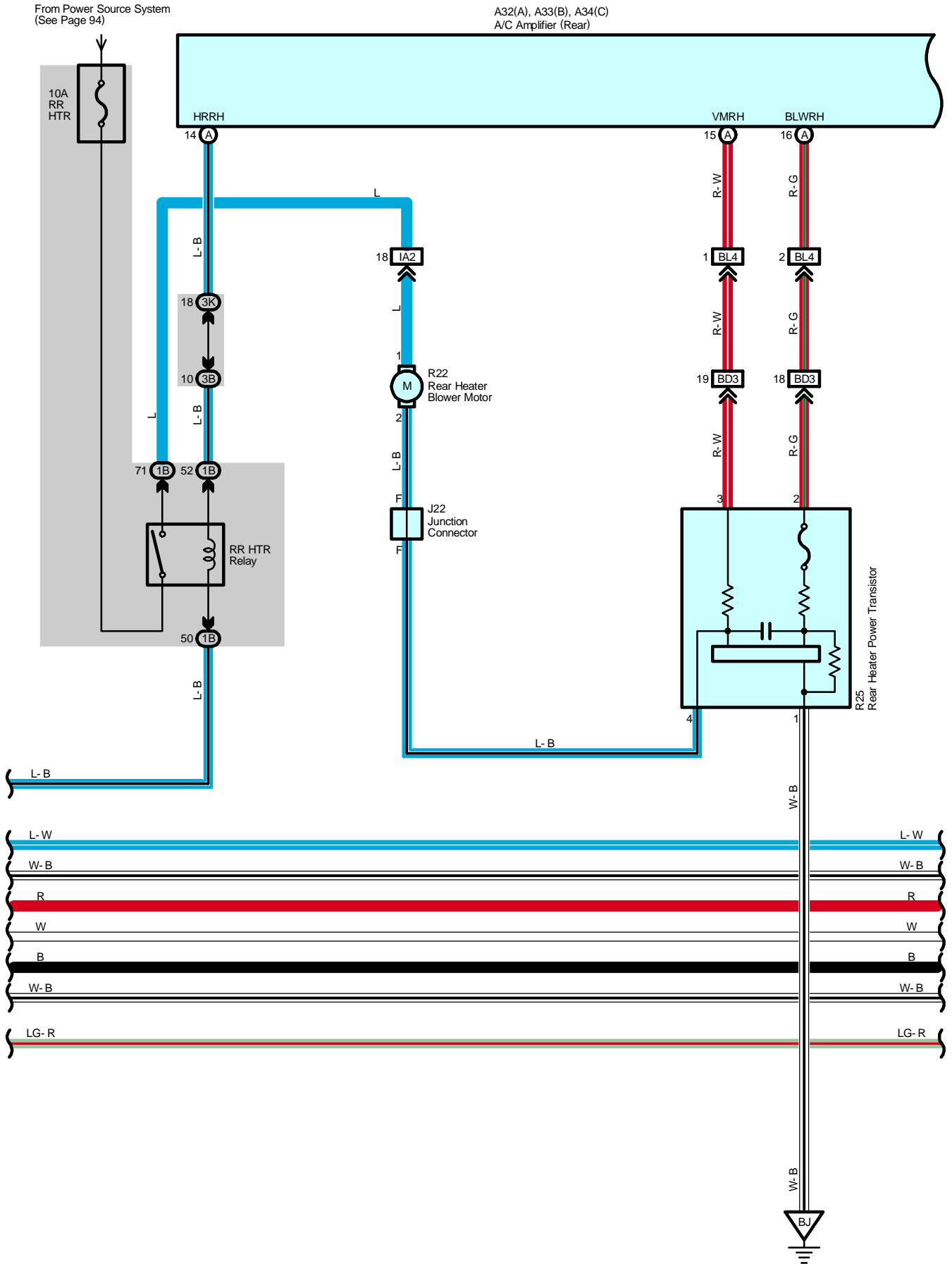
Air Conditioning (Rear)



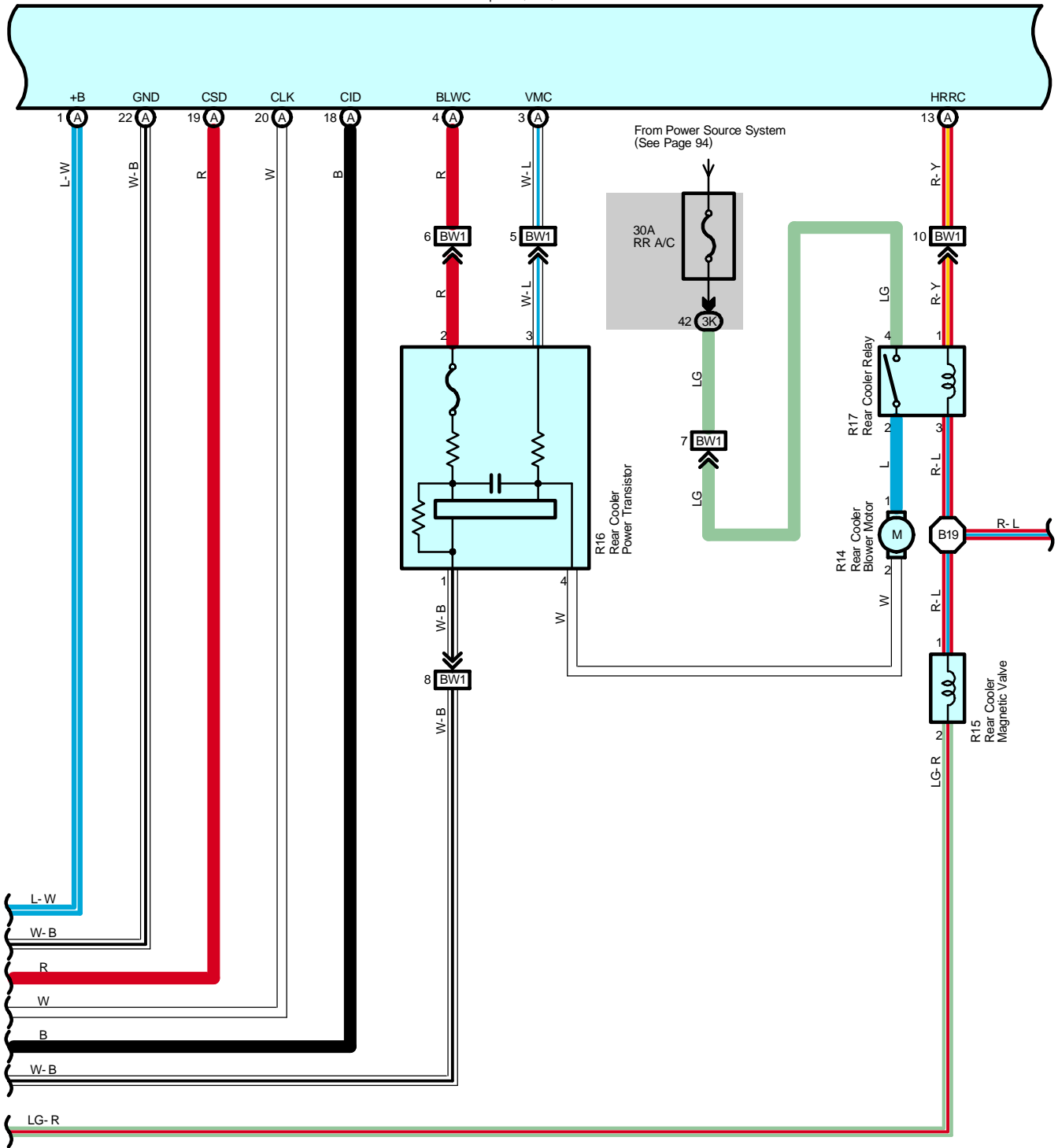


* 1 : w/ Navigation System
 * 2 : w/o Navigation System

Air Conditioning (Rear)

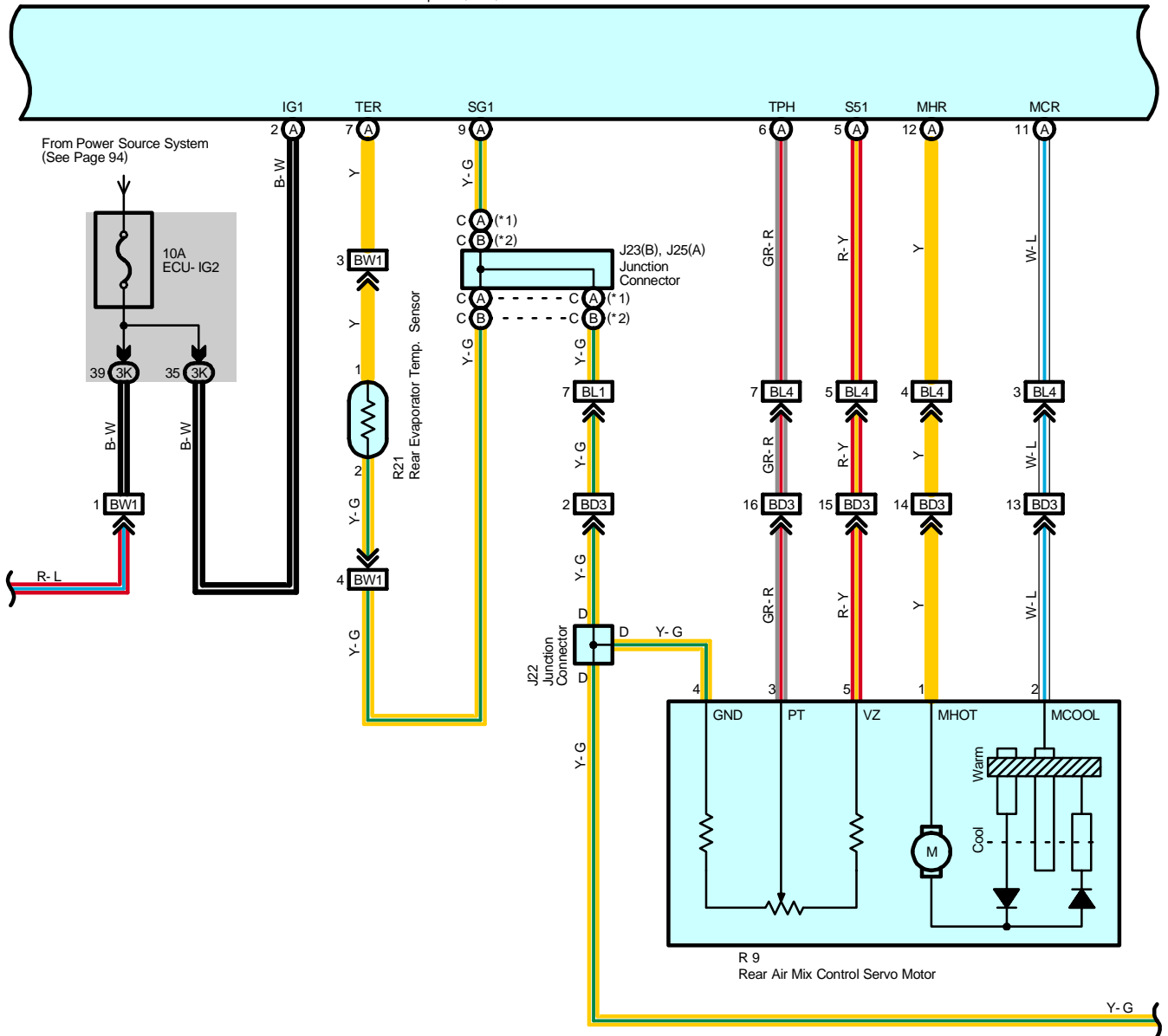


A32(A), A33(B), A34(C)
A/C Amplifier (Rear)



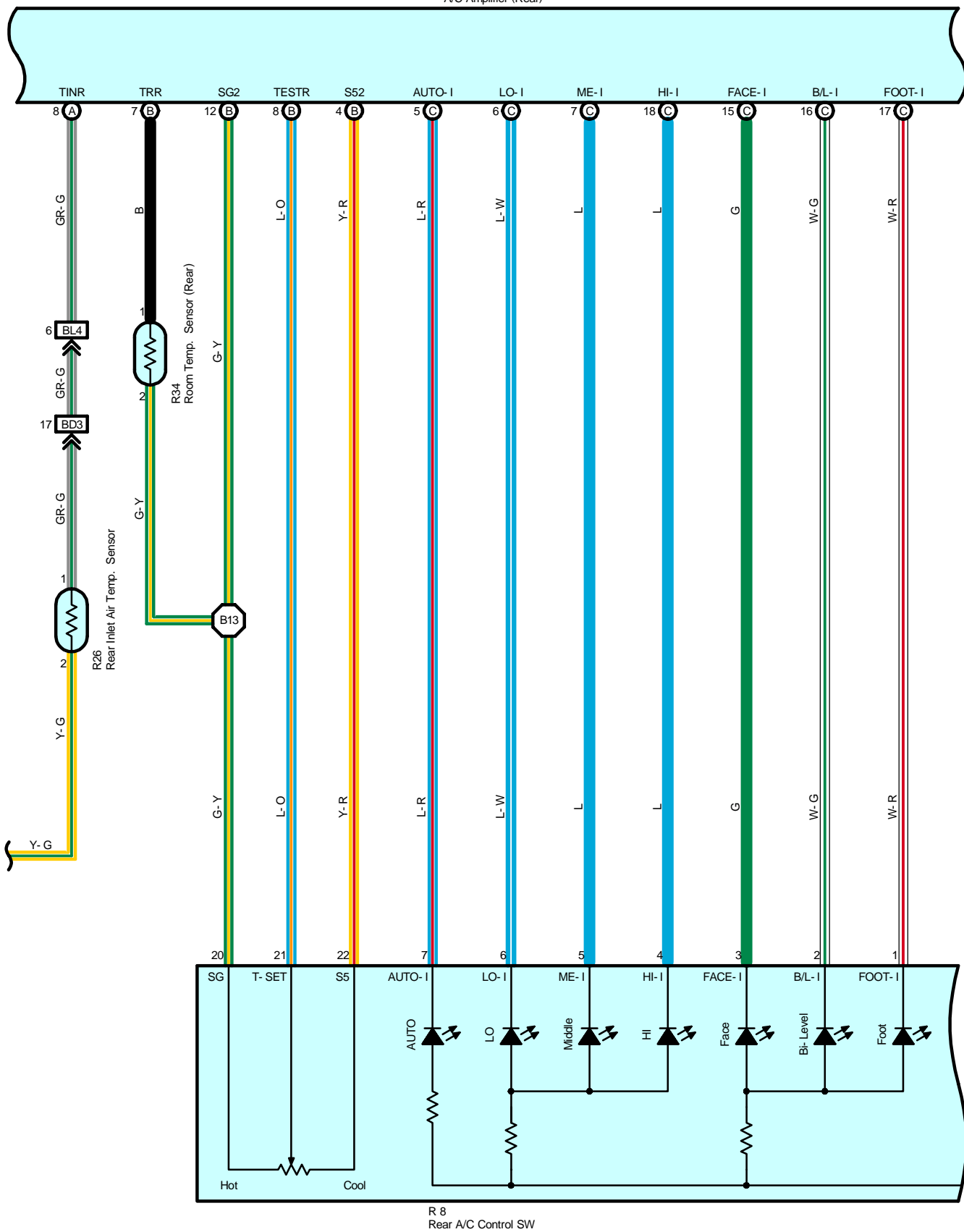
Air Conditioning (Rear)

A32(A), A33(B), A34(C)
A/C Amplifier (Rear)



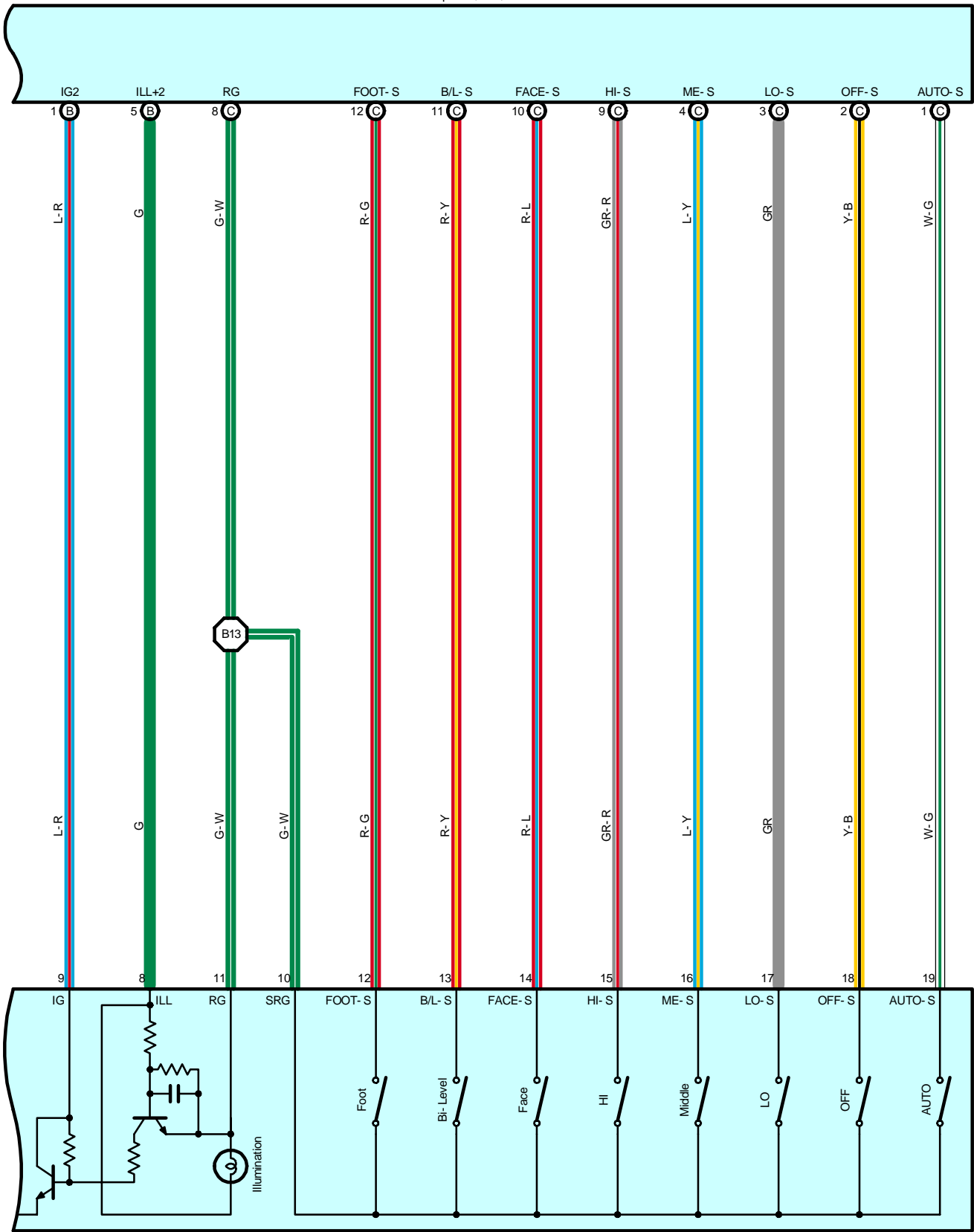
- * 1 : w/ Navigation System
- * 2 : w/o Navigation System

A32(A), A33(B), A34(C)
A/C Amplifier (Rear)



Air Conditioning (Rear)

A32(A), A33(B), A34(C)
A/C Amplifier (Rear)



R 8
Rear A/C Control SW

System Outline

1. Cooler and Heater Blower Operation

* Manual operation

When the blower control SW in the rear A/C control SW is set to any blower speed, a signal is sent to the A/C amplifier. The A/C amplifier controls the power transistor and operates the rear cooler blower motor and rear heater blower motor at the set speed.

* Auto operation

When the auto SW in the rear A/C control SW is operated, a signal is sent to the A/C amplifier. The A/C amplifier controls the power transistor according to the signals from respective sensors, and operates the rear cooler blower motor and rear heater blower motor.

2. Air Mix Control Servo Motor Control

When the temperature control lever in the rear A/C control SW is operated, a signal is sent to the A/C amplifier. The A/C amplifier controls the rear air mix control servo motor to operate the damper until it reaches the temperature set by the temperature control lever.

3. Air Conditioning Operation

The cooler and heater operation can be switched by the mode select SW in the rear A/C control SW.

Service Hints

A32 A/C Amplifier (Rear)

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

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page		
A32	A	72	J11	71	R16	73	
A33	B	72	J22	72	R17	73	
A34	C	72	J23	B	72	R21	73
A45	A	70	J25	A	72	R22	73
A46	B	70	R8	73	R25	73	
A47	C	70	R9	73	R26	73	
F16	68	R14	73	R34	73		
I18	70	R15	73				

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	24	Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)
2B	28	Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)
2C		
2D		
2E	28	Dash Wire and Cowl Side J/B LH (Left Kick Panel)
2Q	30	Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)
3B	40	Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3K	40	Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)
3Q	42	Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel)
4A	52	Dash Wire and J/B No.4 (Instrument Panel Center)
4C		
4F		

Air Conditioning (Rear)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	78	Engine Room No.2 Wire and Floor No.1 Wire (Left Kick Panel)
IV4	82	Dash Wire and Floor No.2 Wire (Right Kick Panel)
BD3	86	Floor No.3 Wire and Floor No.1 Wire (Left Rear Side Quarter Panel)
BL1	88	Floor No.2 Wire and Floor No.3 Wire (Right Side of Rear Floor Crossmember)
BL4		
BW1	88	Floor No.2 Wire and A/C Sub Wire (Right Side Rear Quarter Panel)

: Ground Points

Code	See Page	Ground Points Location
IF	78	Set Bolt of Cowl Side J/B LH
BJ	86	Under the Driver's Seat
BK	86	Front Side Under the Front Passenger's Seat

: Splice Points

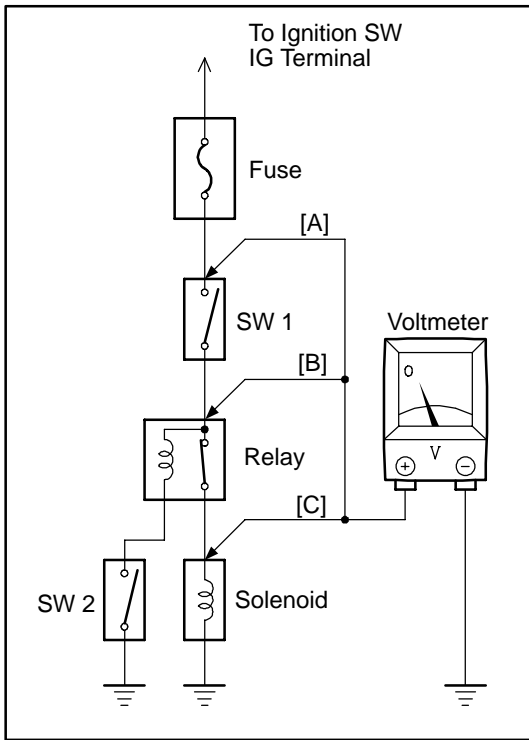
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B13	88	Roof No.2 Wire	B19	88	A/C Sub Wire
B14	88	Floor No.2 Wire			

2004 LAND CRUISER ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

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C TROUBLESHOOTING

VOLTAGE CHECK



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

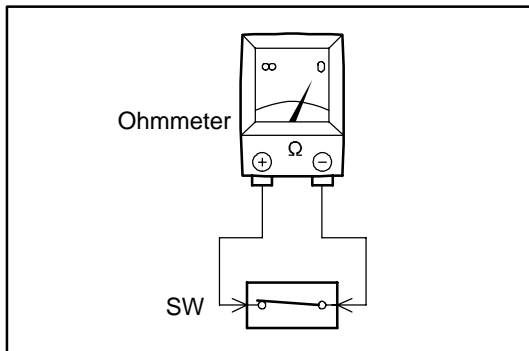
Example:

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

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

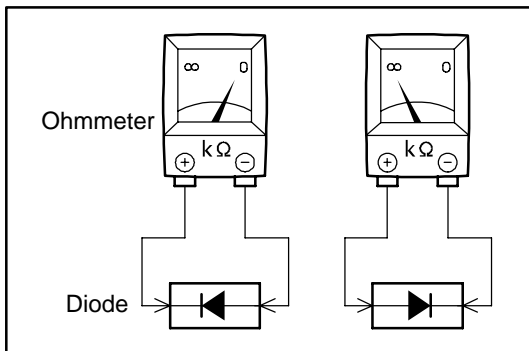
This check can be done with a test light instead of a voltmeter.

CONTINUITY AND RESISTANCE CHECK



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

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

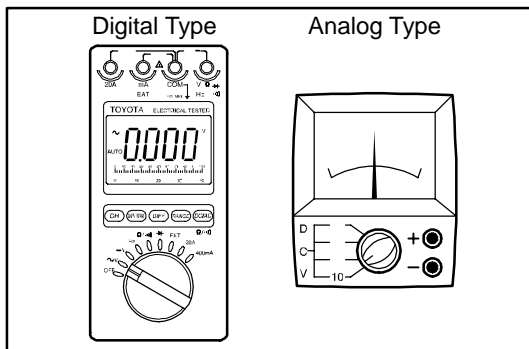


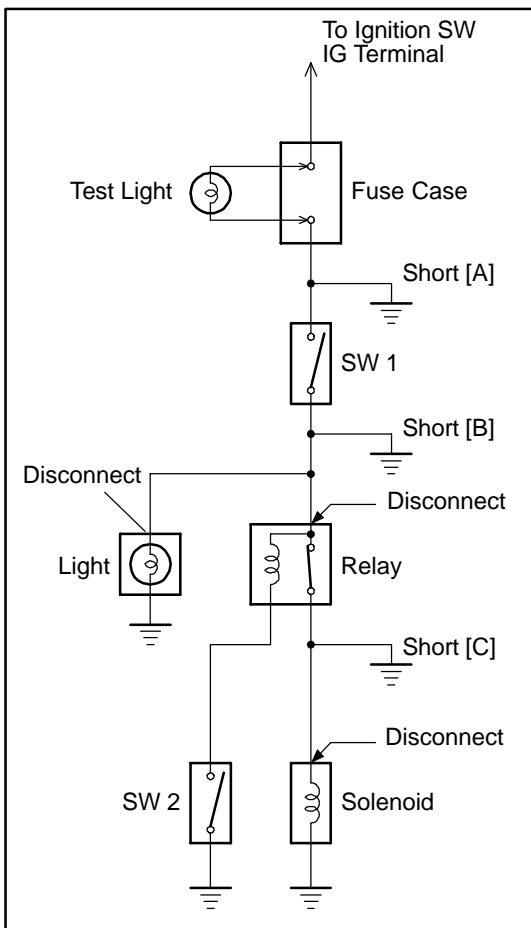
If the circuit has diodes, reverse the two leads and check again.

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

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

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





FINDING A SHORT CIRCUIT

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

Example:

- [A] - Ignition SW on
 - [B] - Ignition SW and SW 1 on
 - [C] - Ignition SW, SW 1 and Relay on (Connect the Relay) and SW 2 off (or Disconnect SW 2)
- Disconnect and reconnect the connectors while watching the test light. The short lies between the connector where the test light stays lit and the connector where the light goes out.
 - Find the exact location of the short by lightly shaking the problem wire along the body.

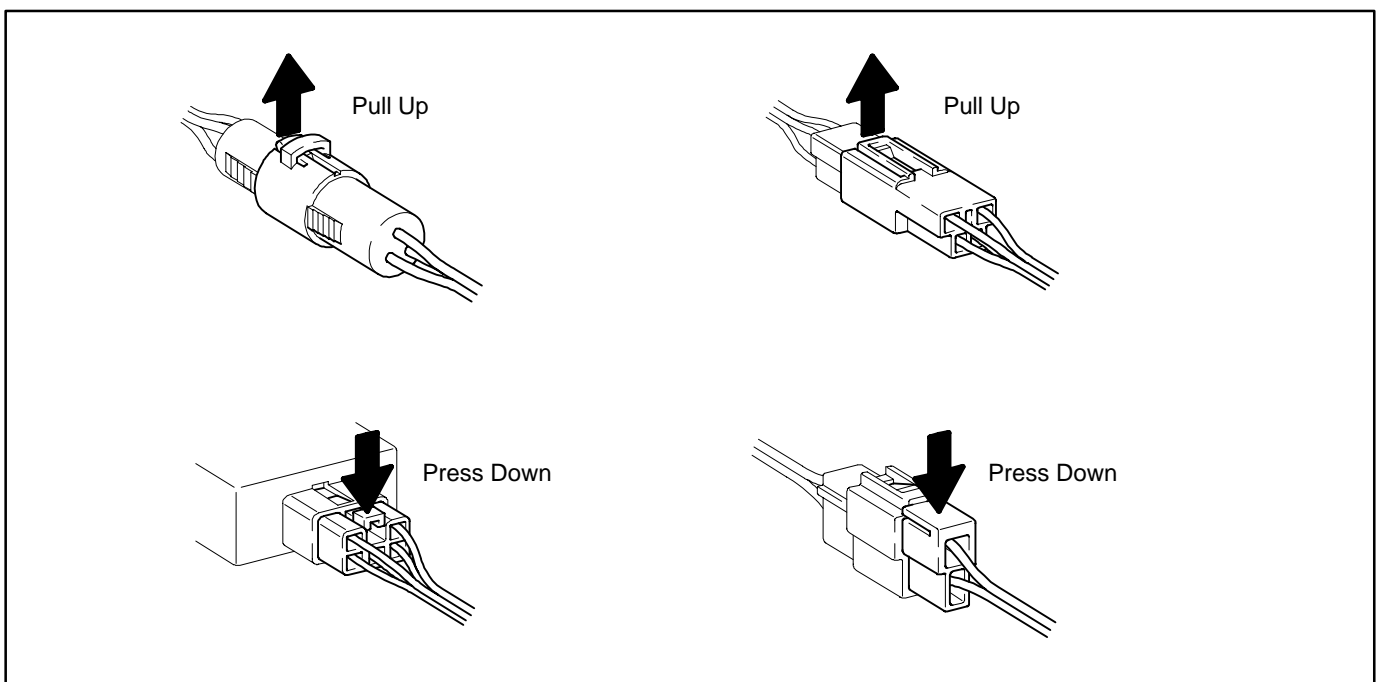
CAUTION:

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

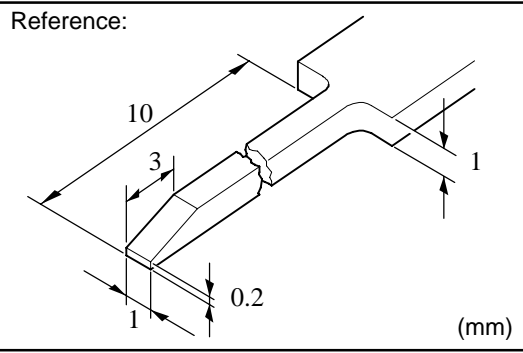
DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

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



C TROUBLESHOOTING



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

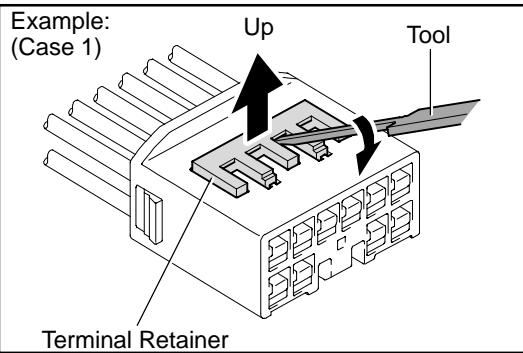
3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

(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.

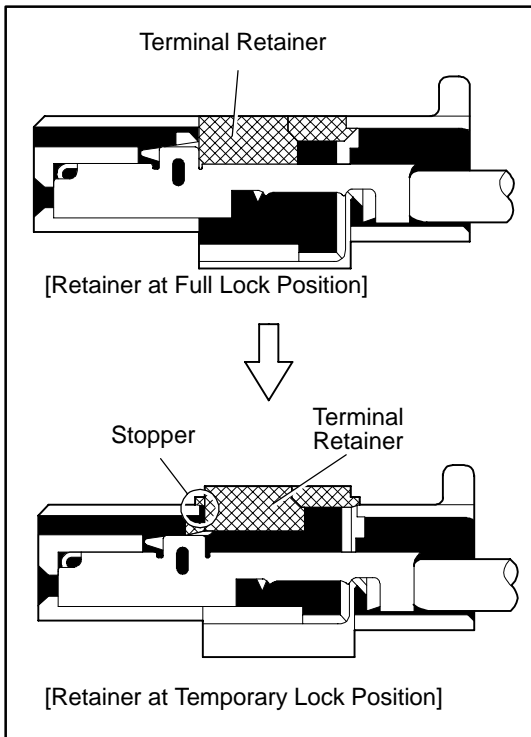


[A] For Non-Waterproof Type Connector

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

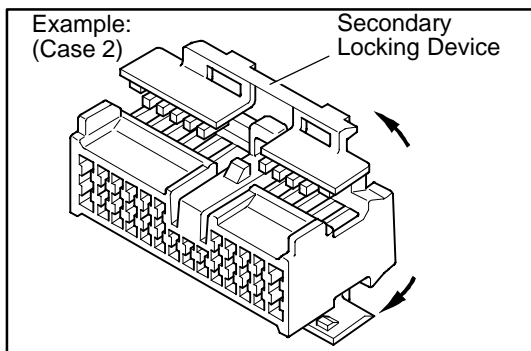
"Case 1"

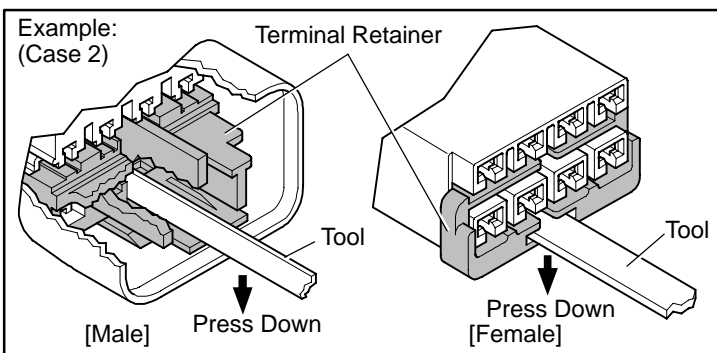
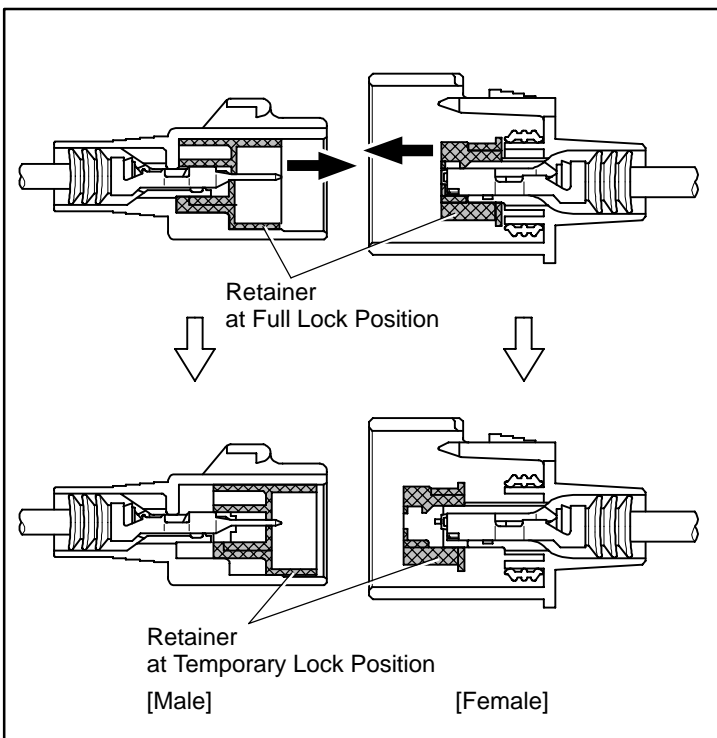
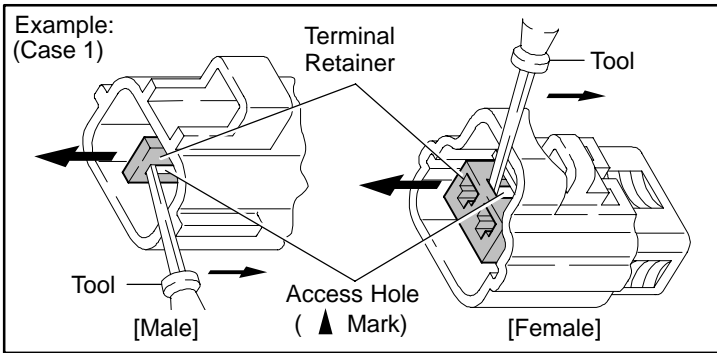
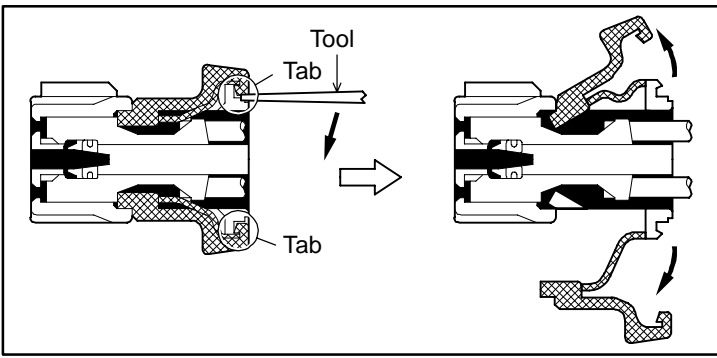
Raise the terminal retainer up to the temporary lock position.



"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).

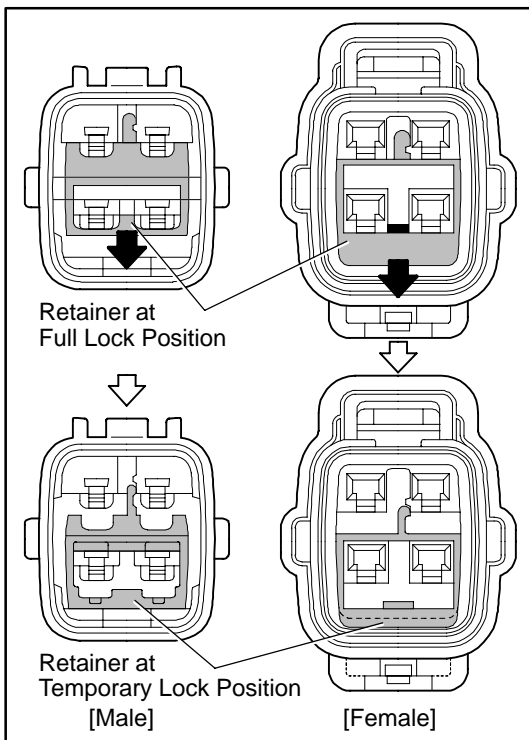
Insert the special tool into the terminal retainer access hole (▲Mark) and pull the terminal retainer up to the temporary lock position.

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

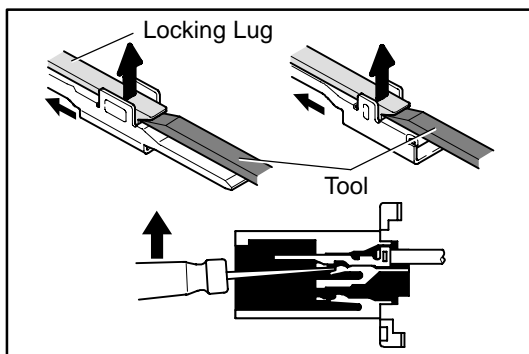
"Case 2"

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

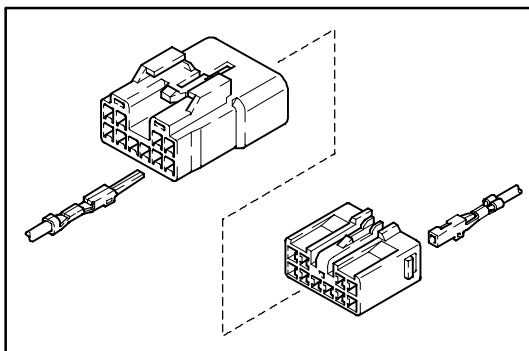
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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

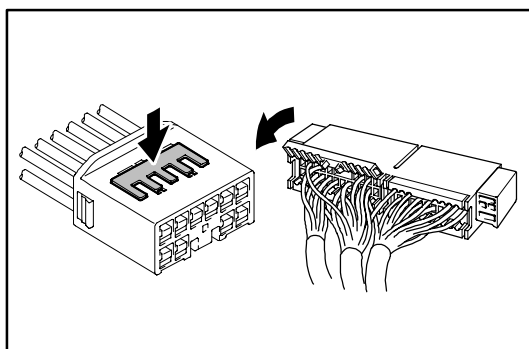


4. INSTALL TERMINAL TO CONNECTOR

(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