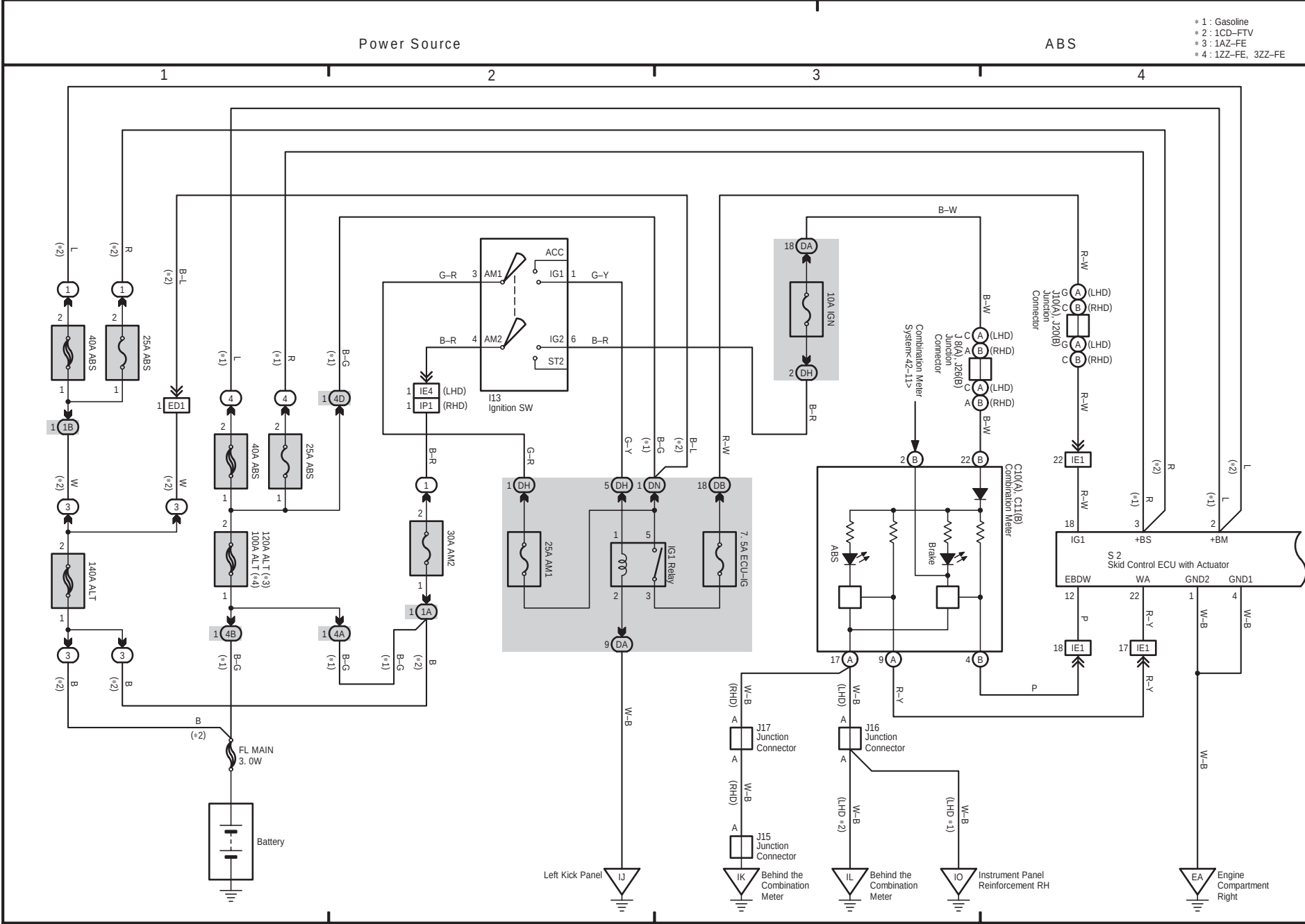


ABBREVIATIONS

The following abbreviations are used in this manual.

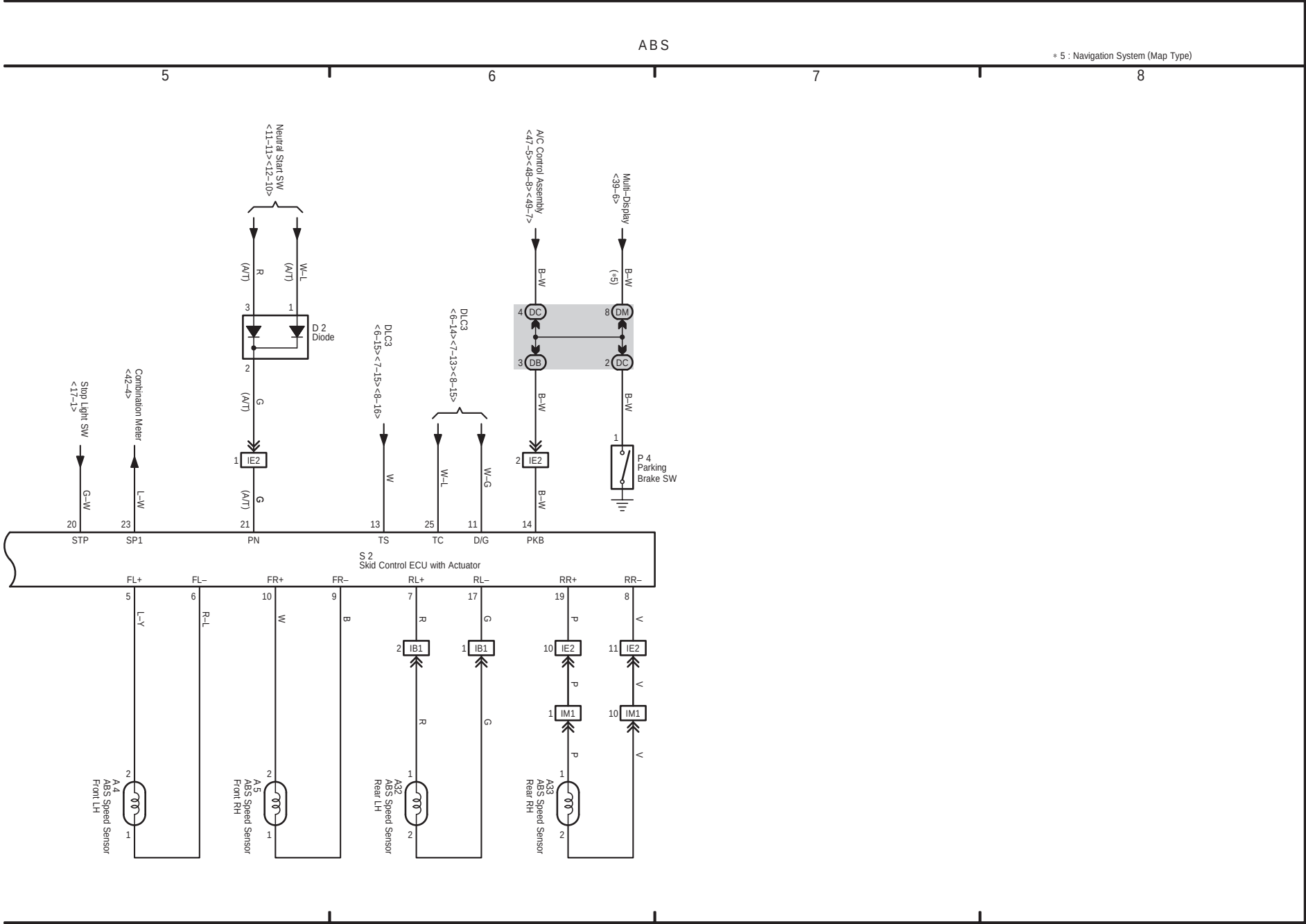
A/C	=	Air Conditioner
A/T	=	Automatic Transaxle
ABS	=	Anti-Lock Brake System
CIS	=	Commonwealth of Independent States
DLC3	=	Data Link Connector 3
EC	=	Electrochromic
ECT	=	Electronic Control Transmission
ECU	=	Electronic Control Unit
EFI	=	Electronic Fuel Injection
EGR	=	Exhaust Gas Recirculation
EPS	=	Electric Power Steering
ESA	=	Electronic Spark Advance
EVAP	=	Evaporative Emission
HID	=	High Intensity Discharge
INT	=	Intermittent
ISC	=	Idle Speed Control
J/B	=	Junction Block
L/B	=	Liftback Type
LH	=	Left-Hand
LHD	=	Left-Hand Drive
M/T	=	Manual Transaxle
PTC	=	Positive Temperature Coefficient
R/B	=	Relay Block
RH	=	Right-Hand
RHD	=	Right-Hand Drive
S/D	=	Sedan Type
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
TRC	=	Traction Control
VRV	=	Vacuum Regulating Valve
VSC	=	Vehicle Stability Control
VSV	=	Vacuum Switching Valve
VVT	=	Variable Valve Timing
VVT-i	=	Variable Valve Timing-intelligent
W/G	=	Wagon Type
w/	=	With
w/o	=	Without

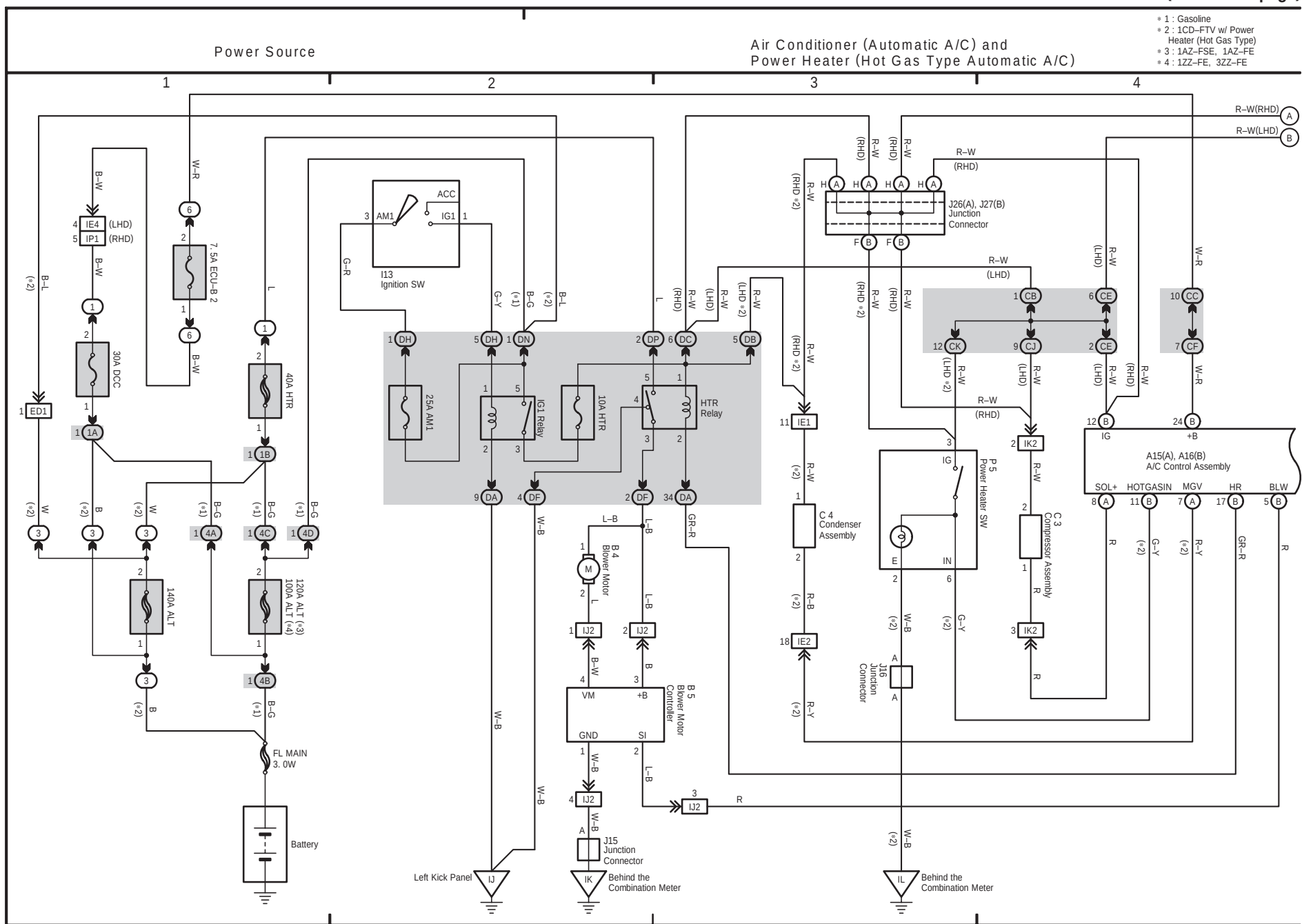
* The titles given inside the components are the names of the terminals (terminal codes) and are not treated as being abbreviations.



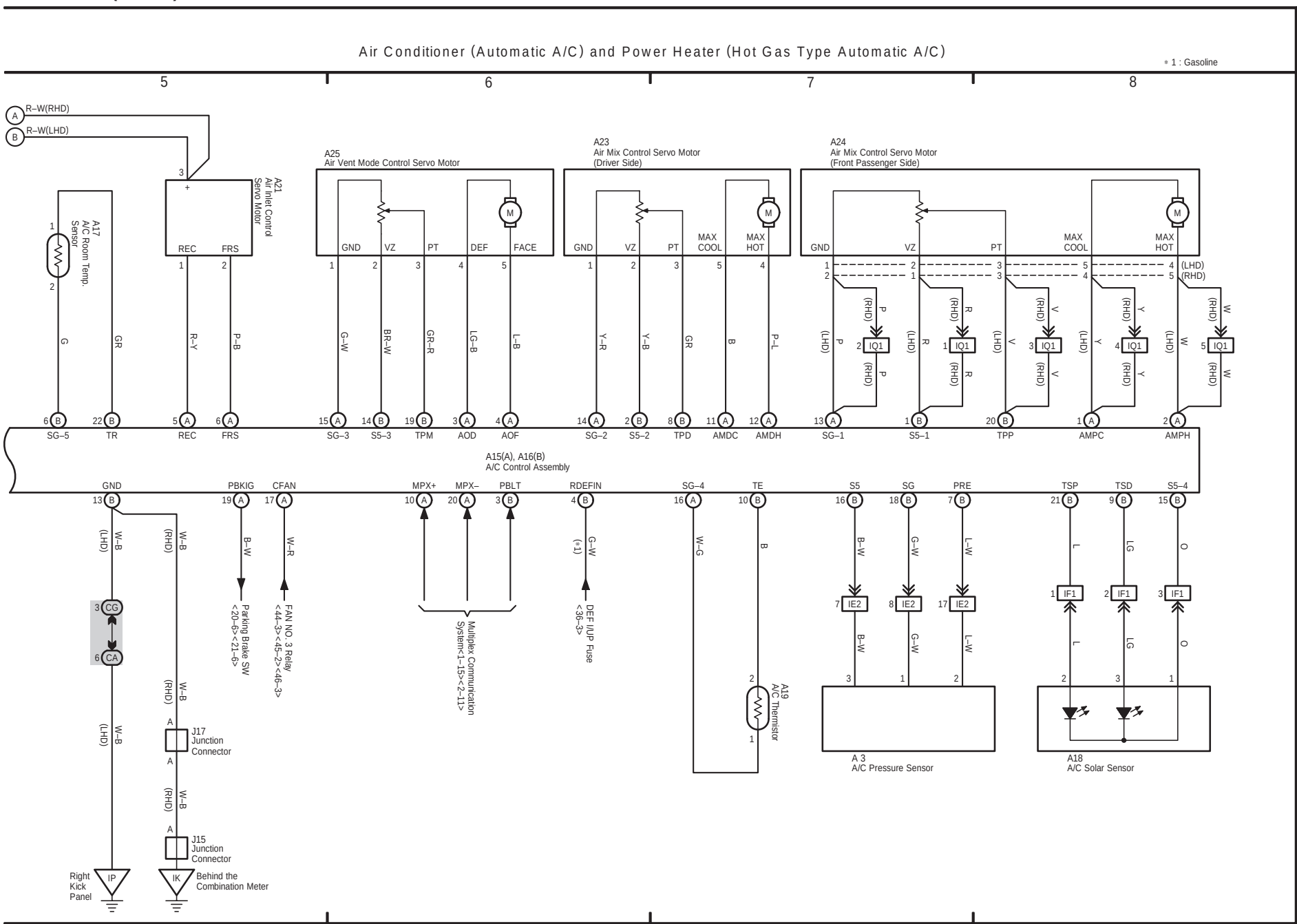
M OVERALL ELECTRICAL WIRING DIAGRAM

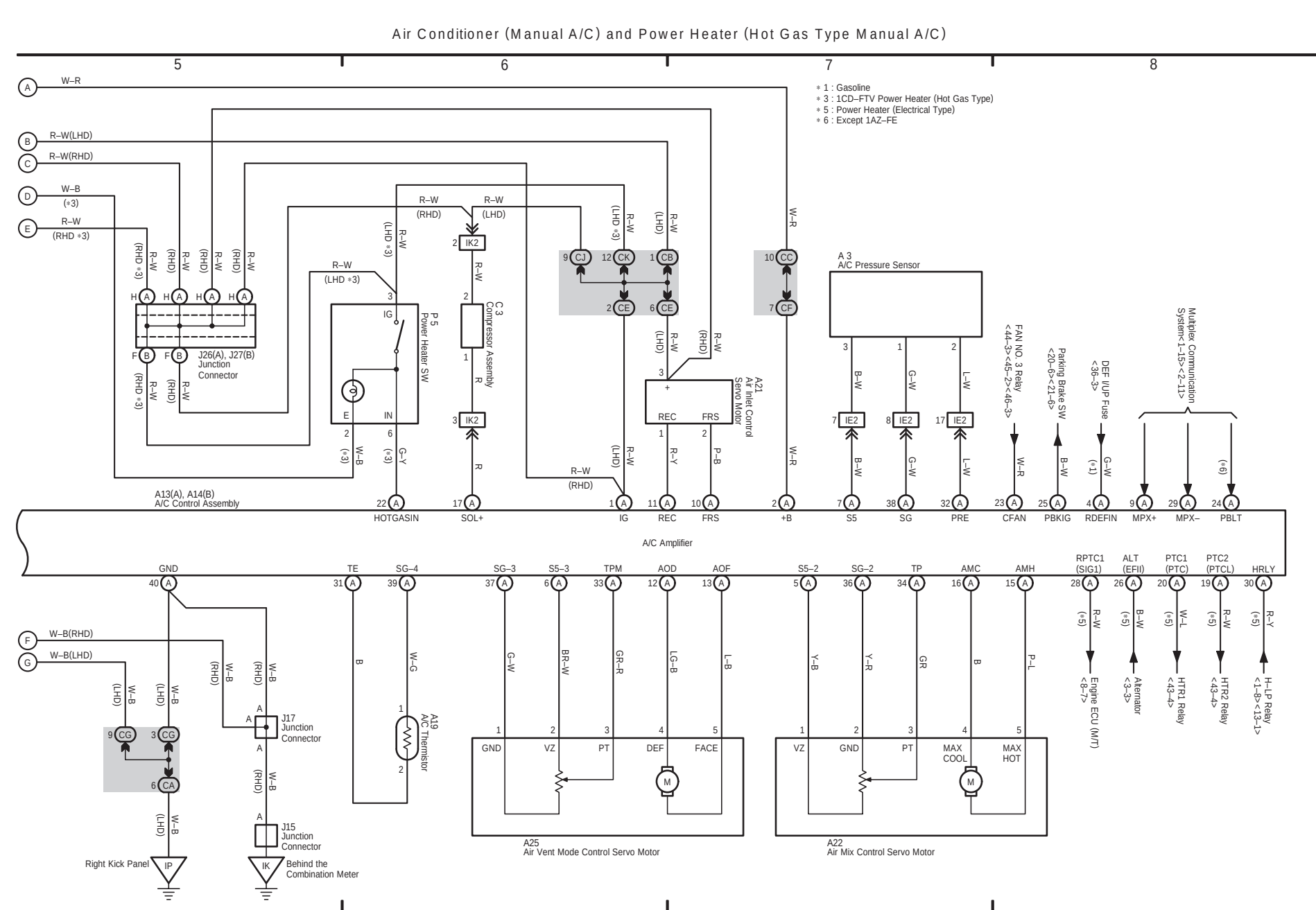
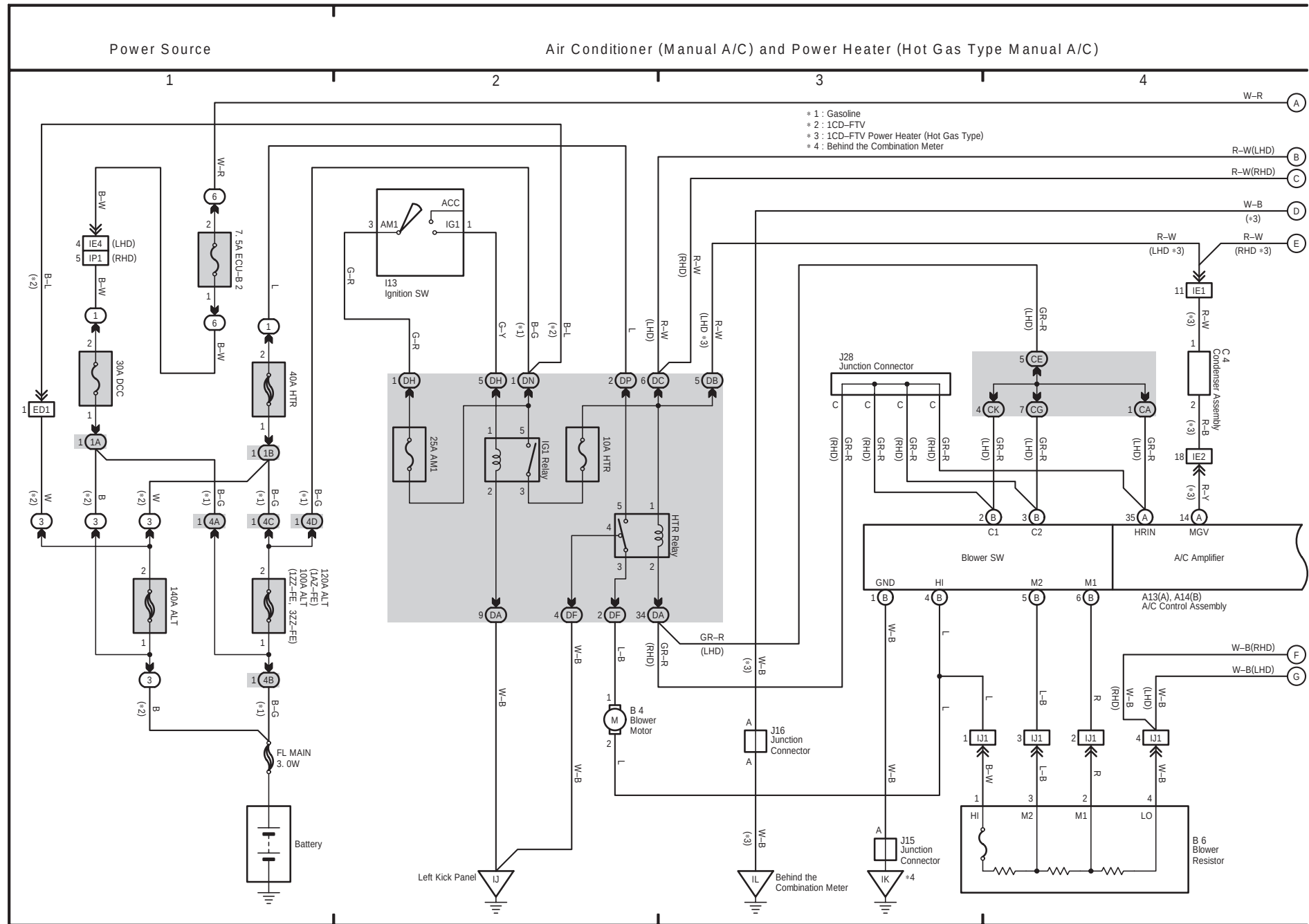
AVENSIS (EWD526E)



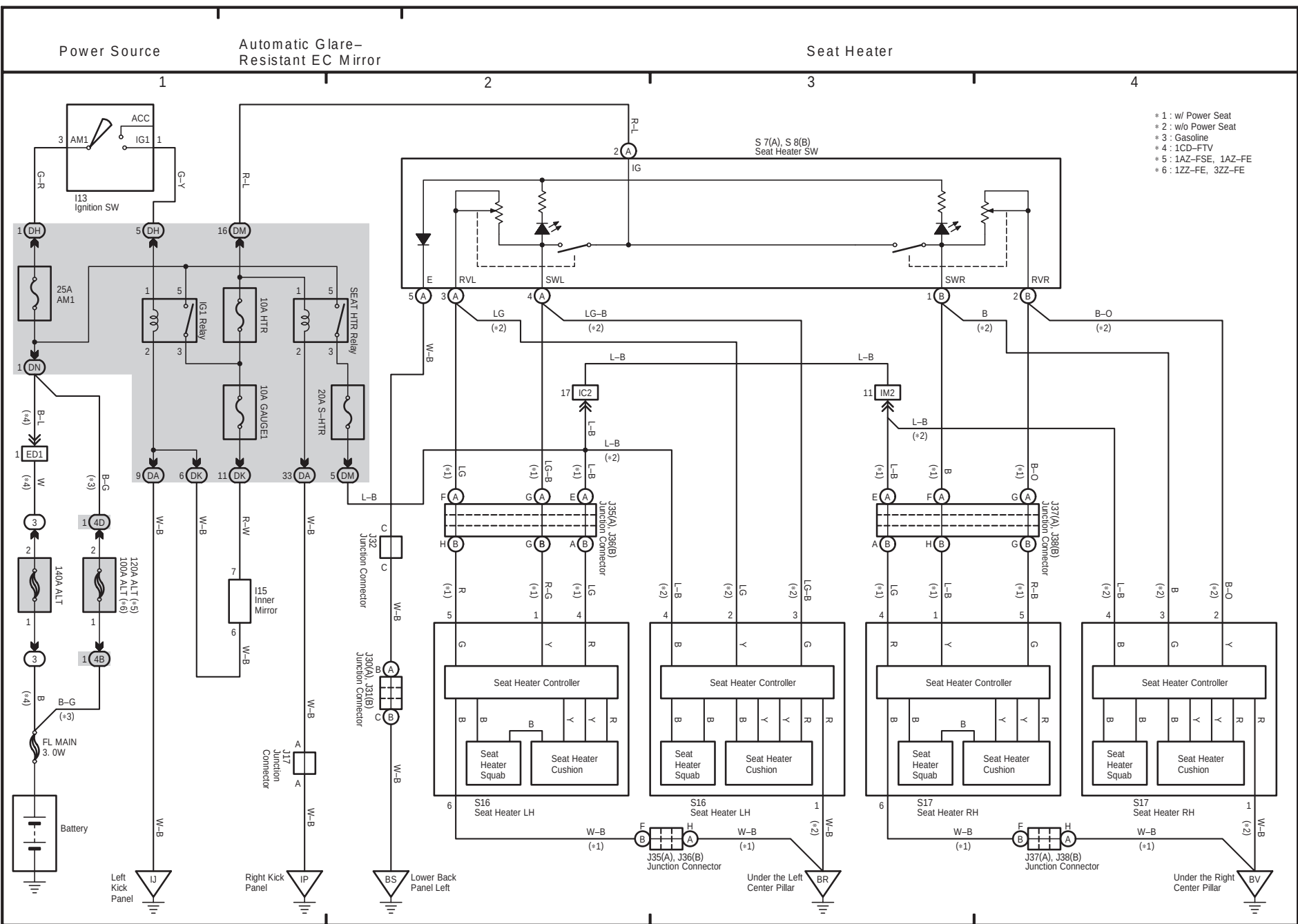


OVERALL ELECTRICAL WIRING DIAGRAM





37 AVENSIS

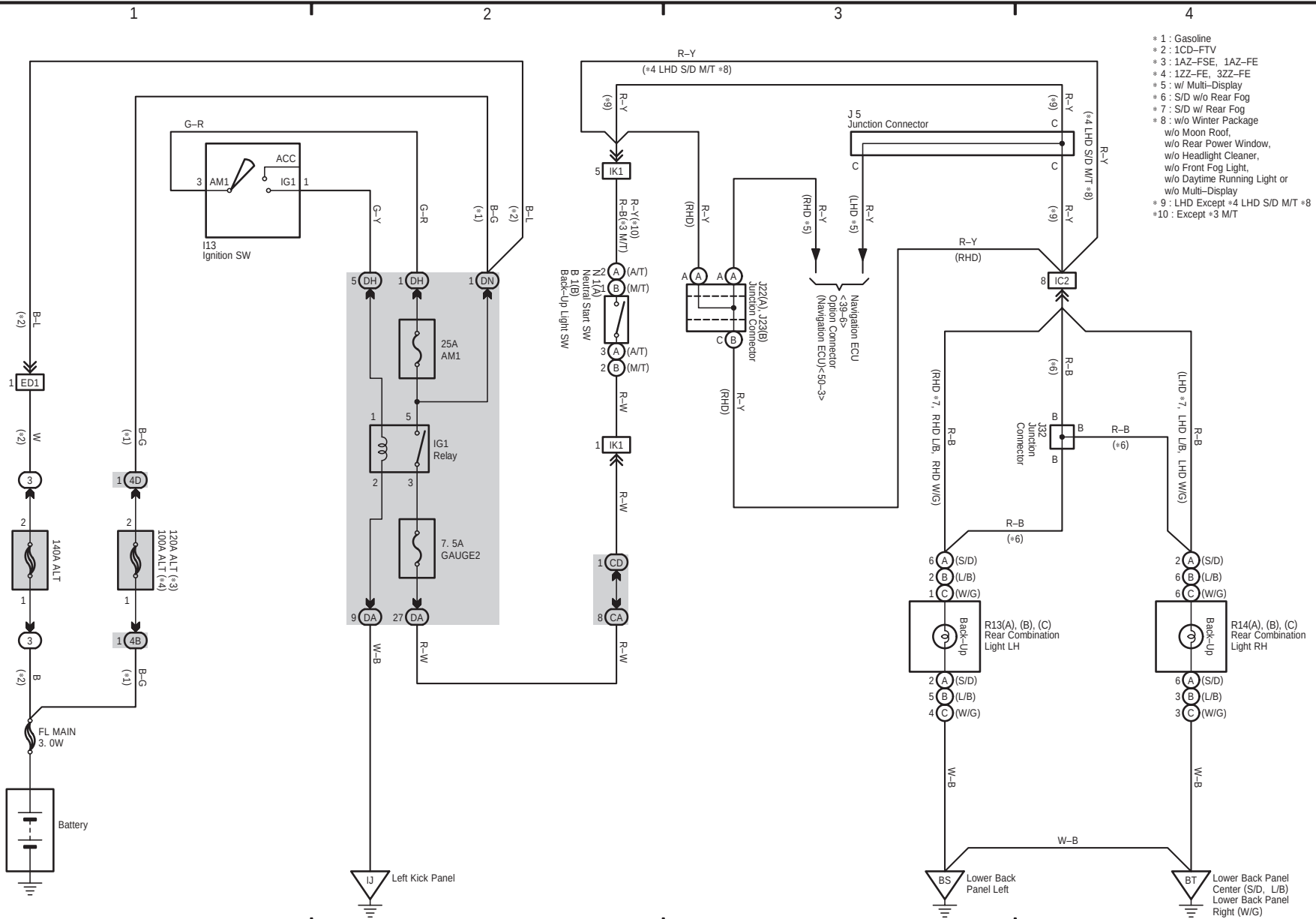


M OVERALL ELECTRICAL WIRING DIAGRAM

18 AVENSIS

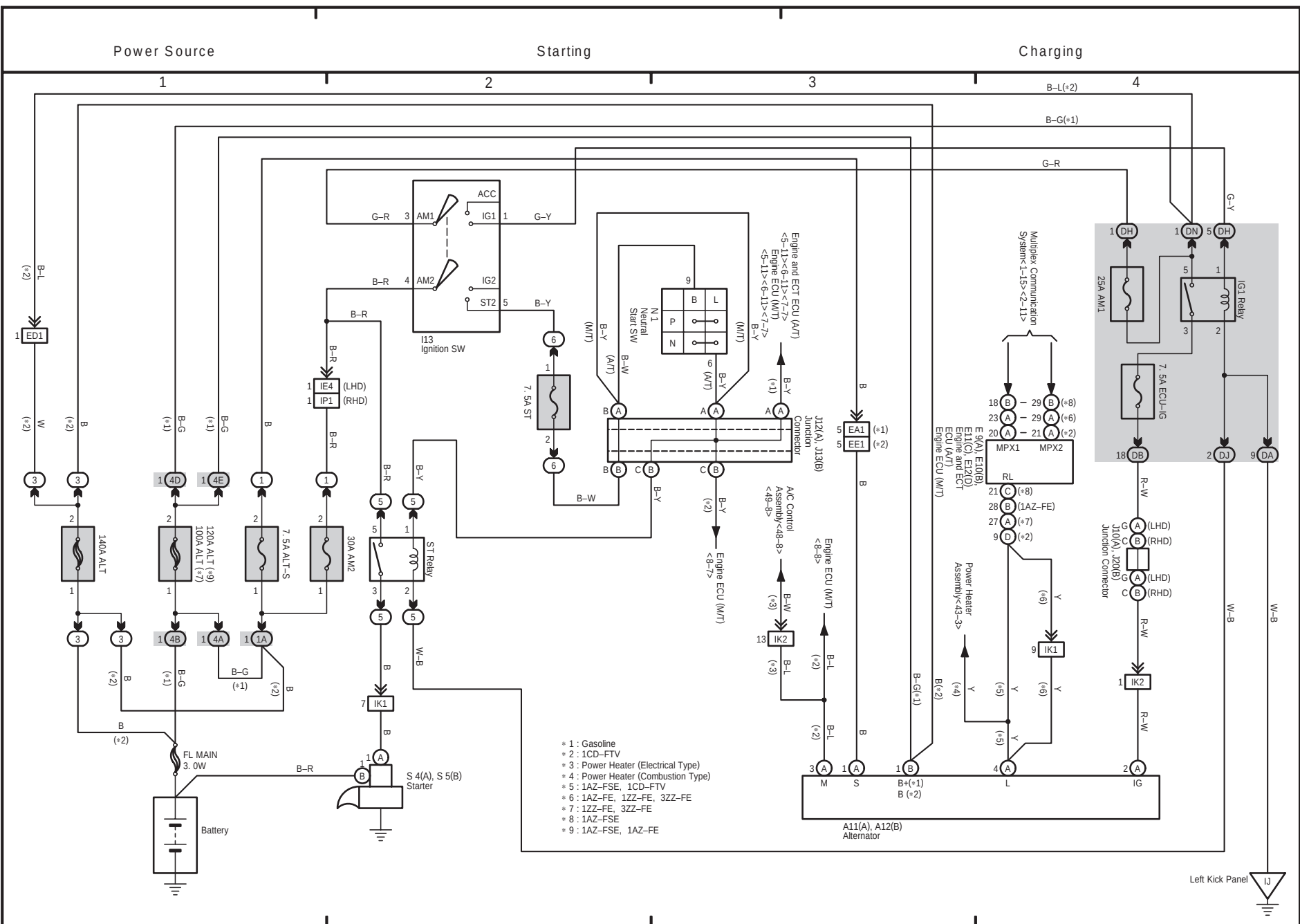
Power Source

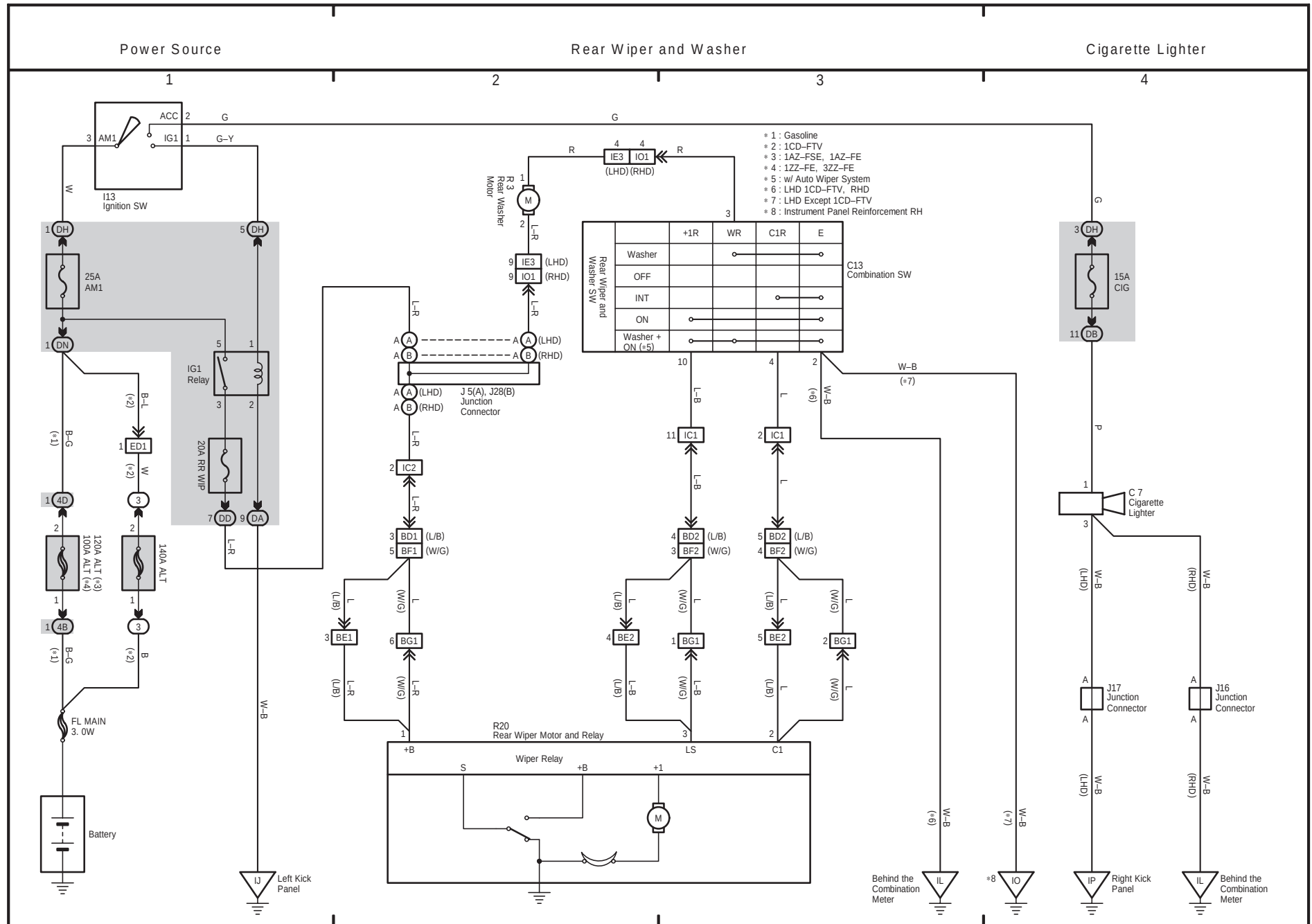
Back-Up Light

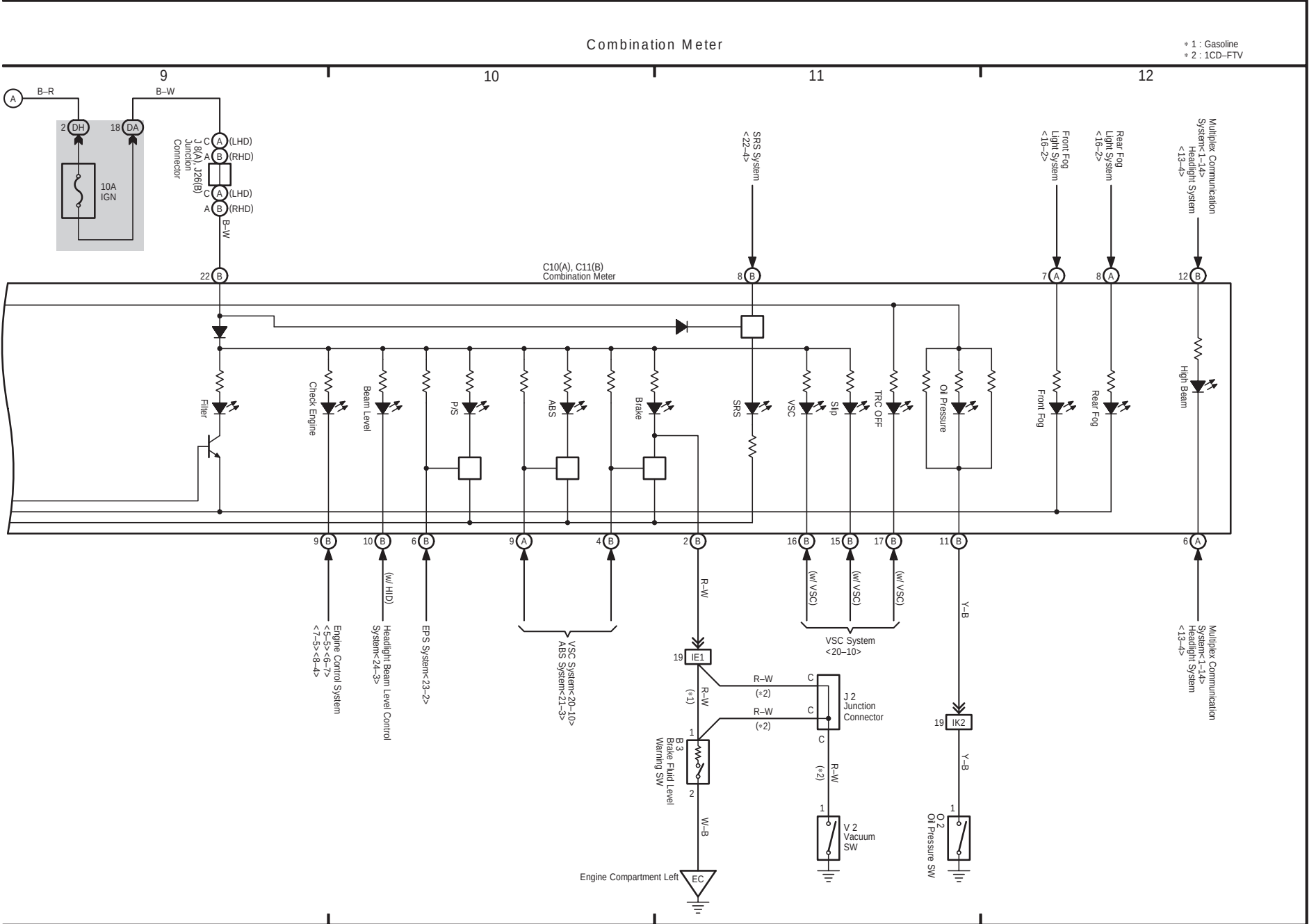
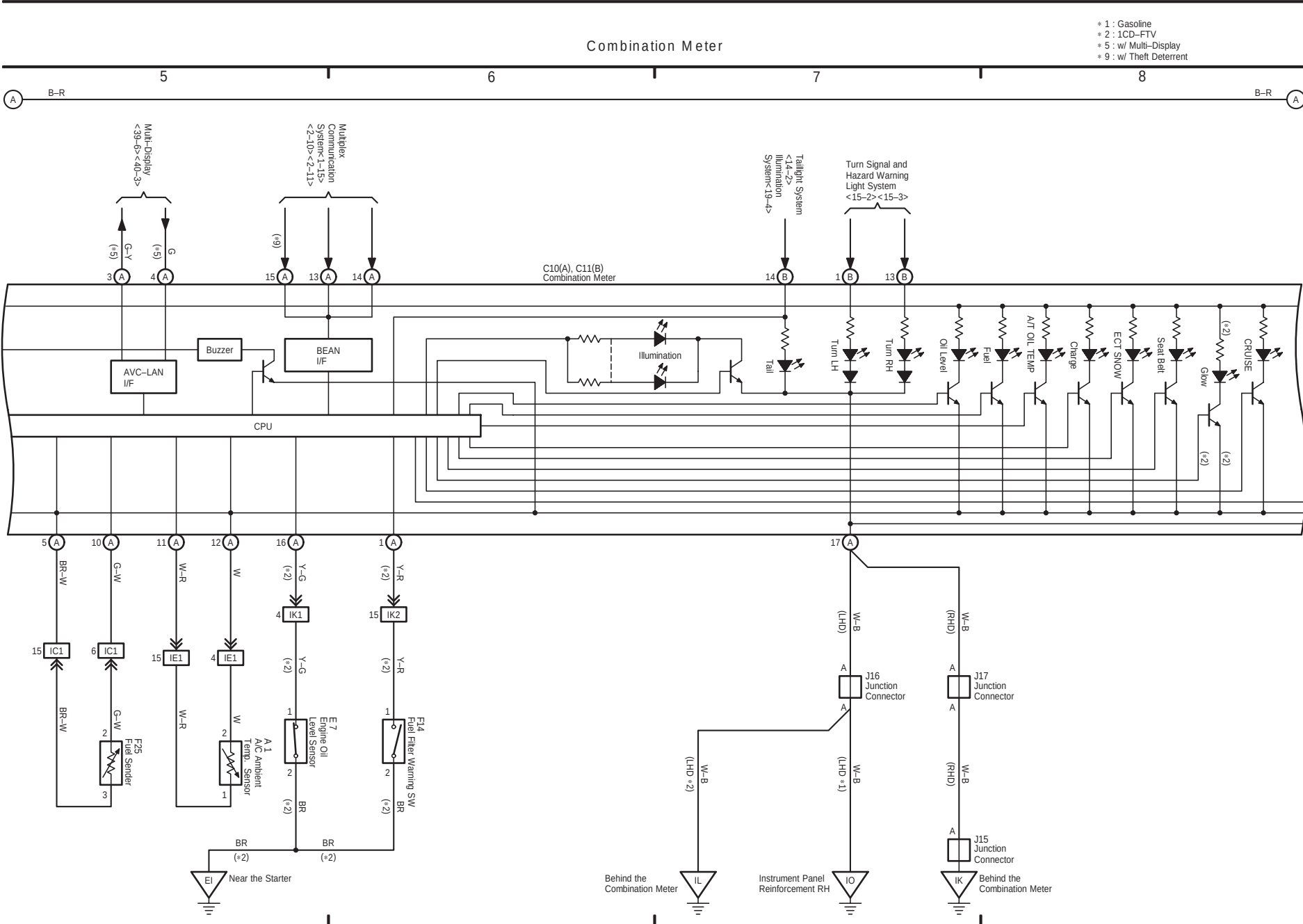
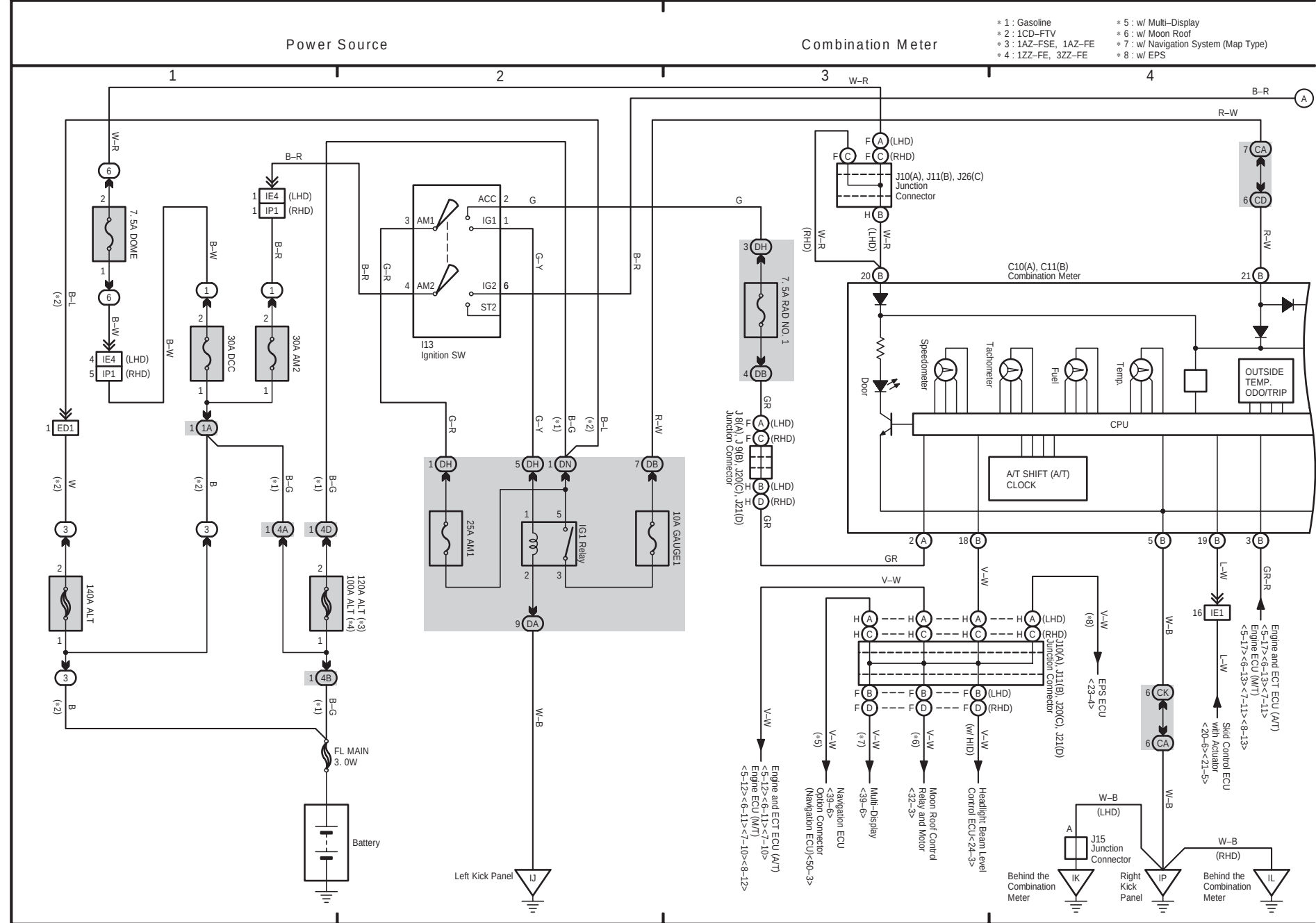


592

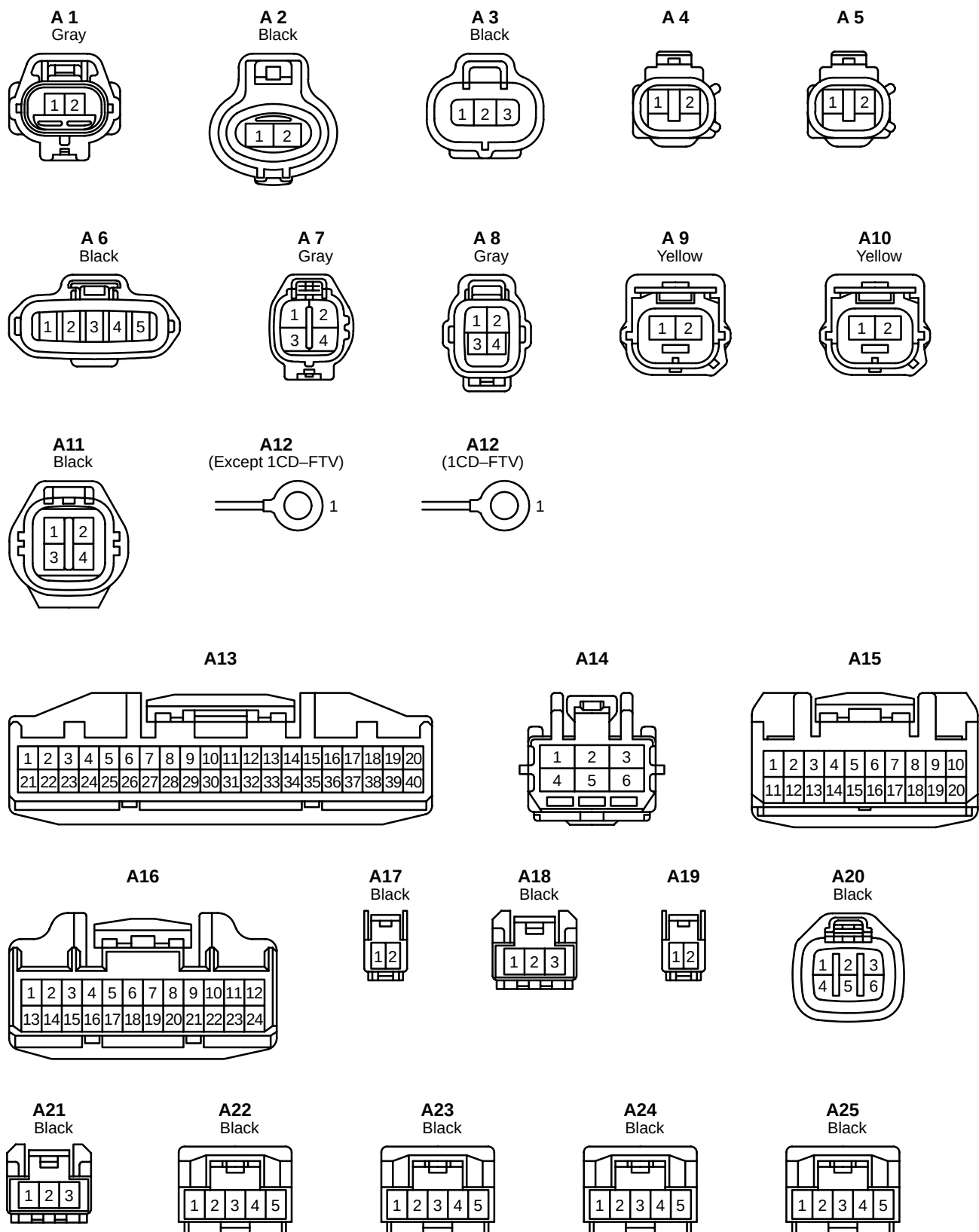
AVENSIS (EWD526E)



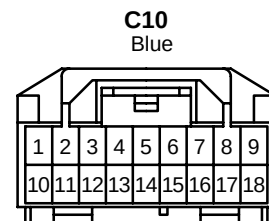
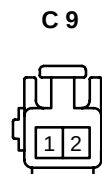
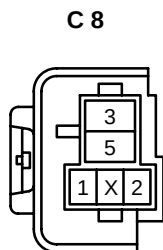
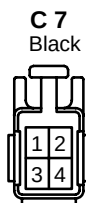
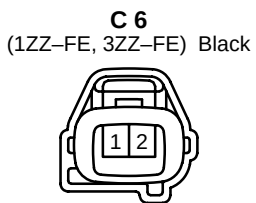
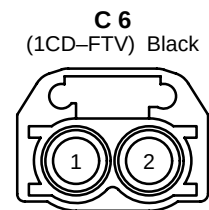
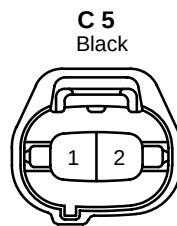
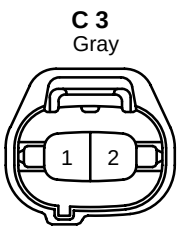
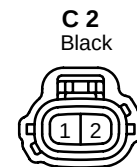
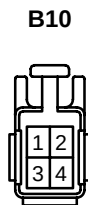
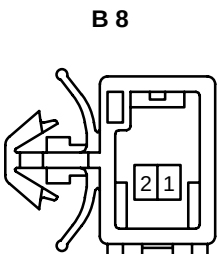
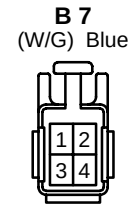
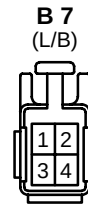
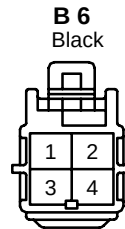
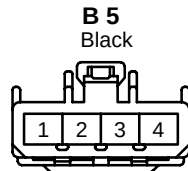
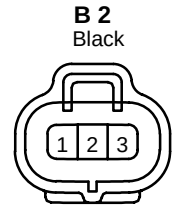
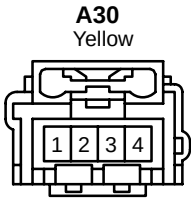
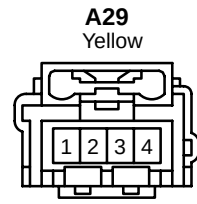
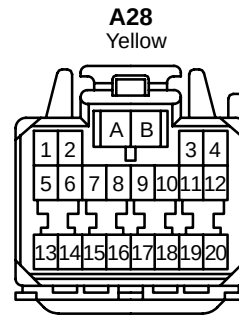
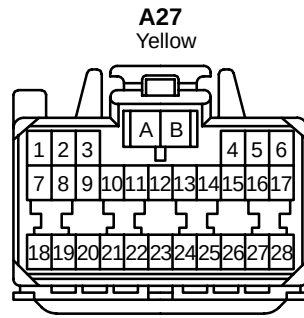
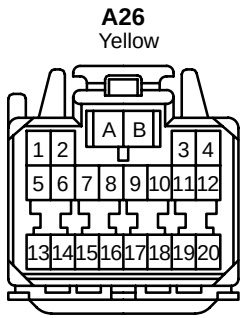




K CONNECTOR LIST

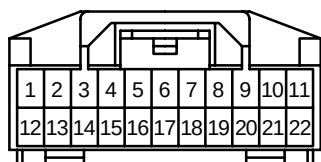


*1 : 1AZ-FSE, 1AZ-FE

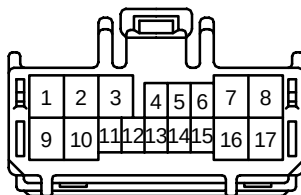


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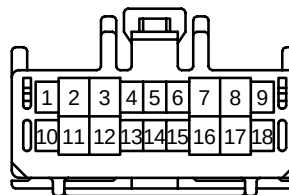
C11



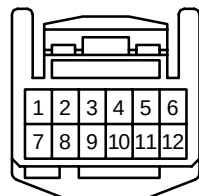
C12



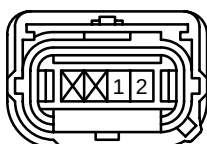
C13
Black



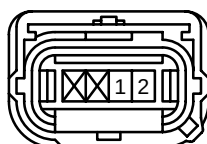
C14



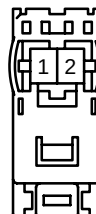
C15
Yellow



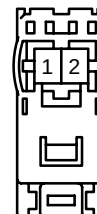
C16
Yellow



C17
Black



C18
Black



D 1
Black



D 2



D 3
Black



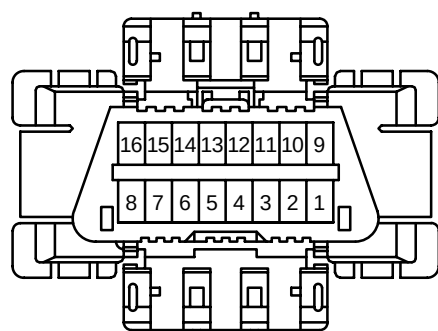
D 4
(Except 1CD-FTV)



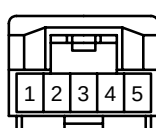
D 4
(1CD-FTV)



D 5



D 6



D 7



D 8



D 9



D10



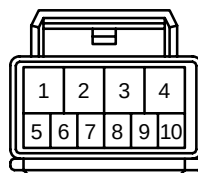
D11



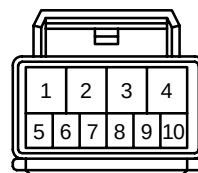
D12



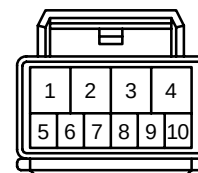
D13



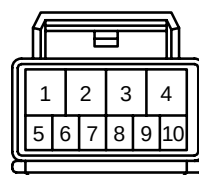
D14



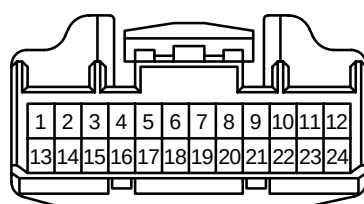
D15



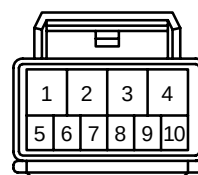
D16



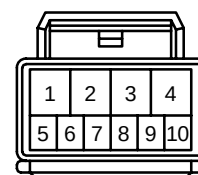
D17

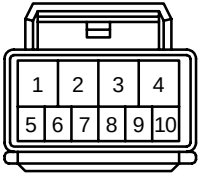
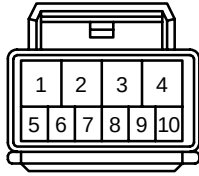
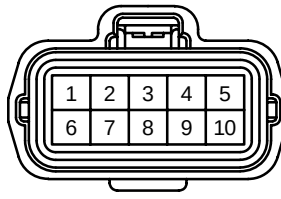
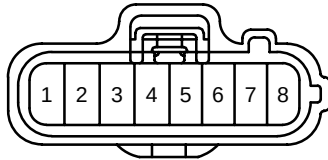
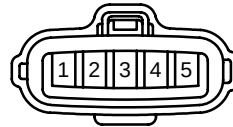
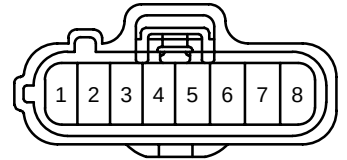
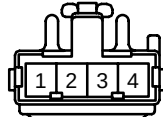
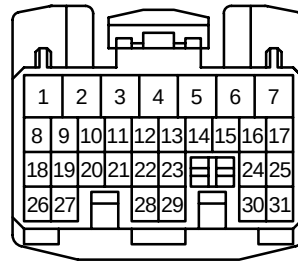
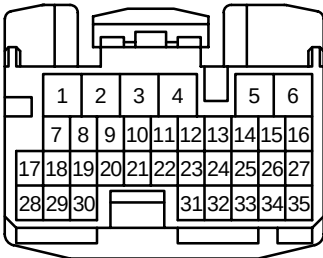
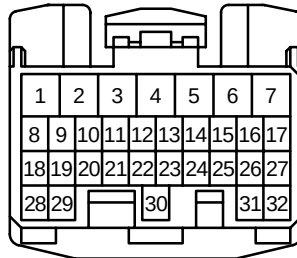
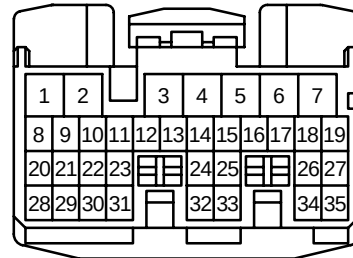
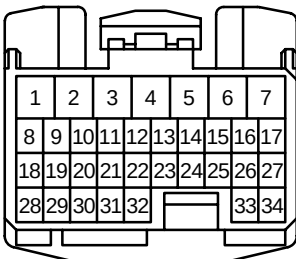
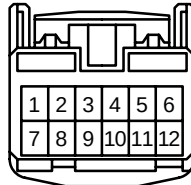
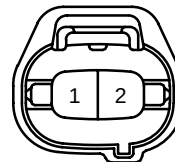
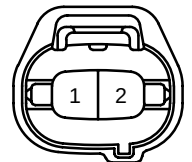


D18

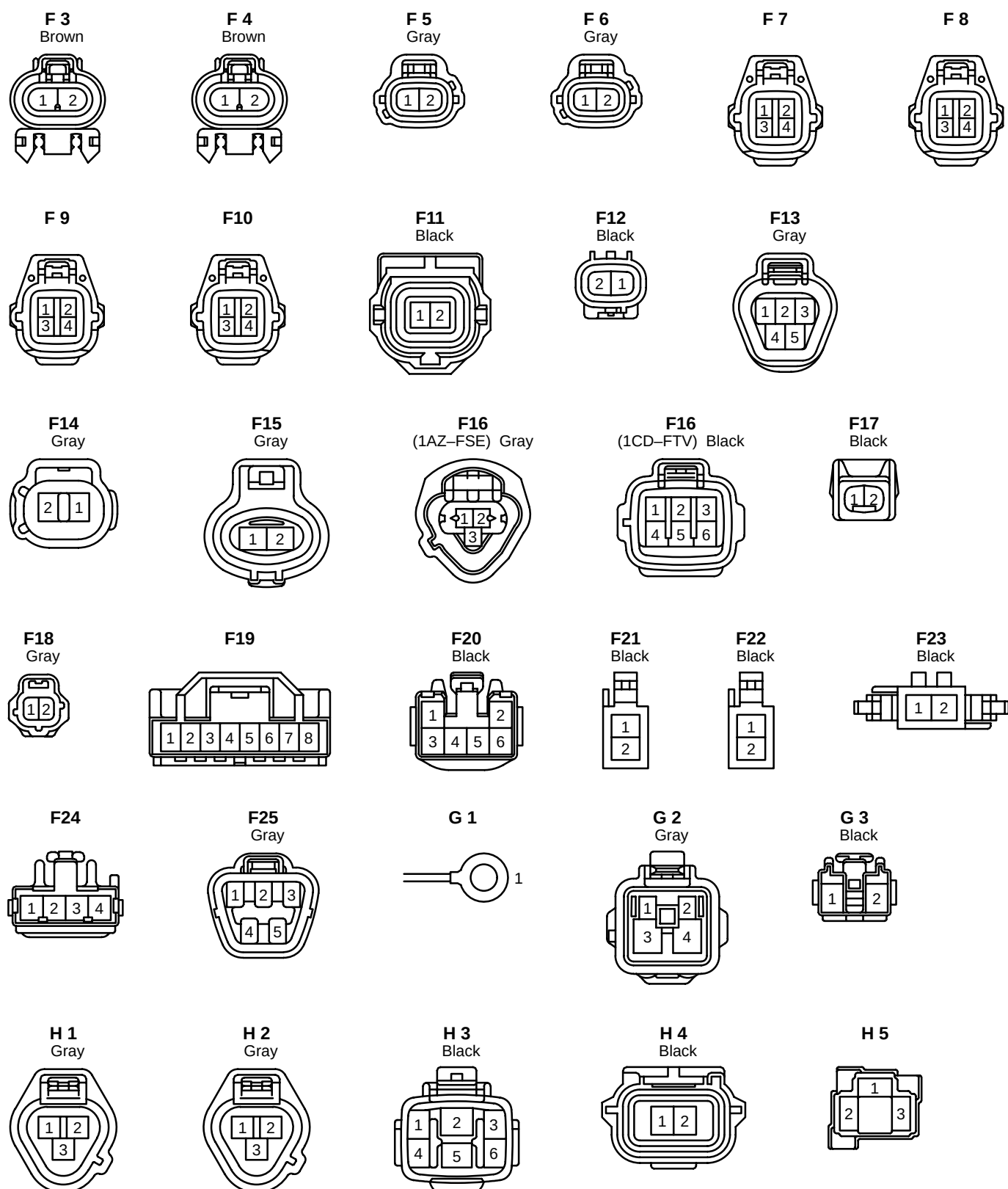


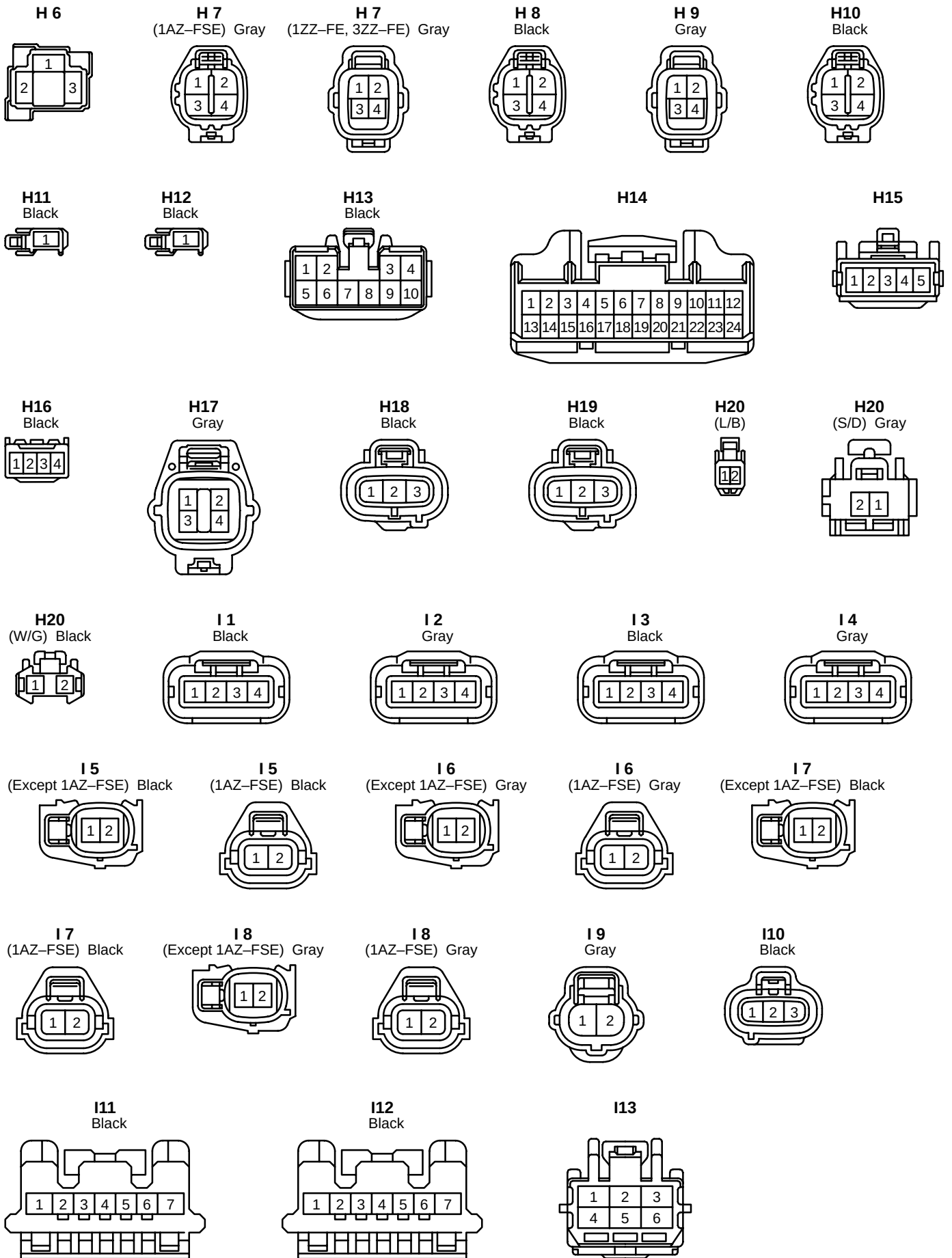
D19



D20**D21****E 1**
Gray**E 2**
(Except 1AZ-FE) Gray (1AZ-FE) Gray**E 3**
Black**E 4**
Black**E 5**
(1AZ-FSE) Black**E 5**
(1CD-FTV) Dark Gray**E 6**
Black**E 7**
Gray**E 8**
Black**E 9****E10****E11****E12****E13****E14**
Gray**E15****F 1**
Black**F 2**
Black

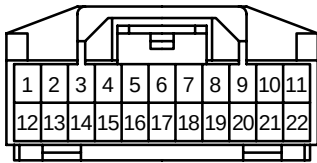
K CONNECTOR LIST



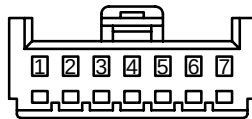


K CONNECTOR LIST

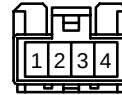
I14



I15
Black



I16



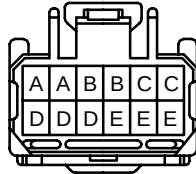
J 1
Gray



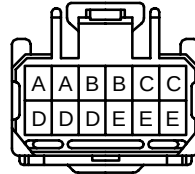
J 2
Black



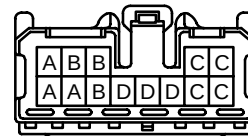
J 3



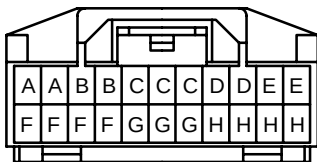
J 4



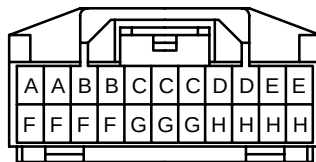
J 5



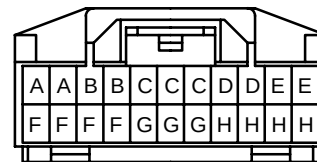
J 6



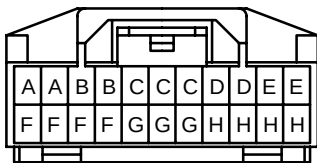
J 7



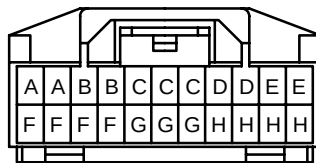
J 8
Black



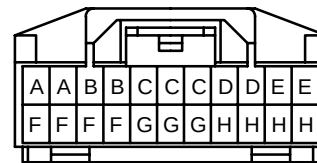
J 9
Black



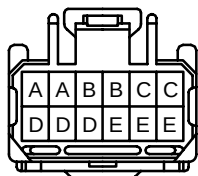
J10
Gray



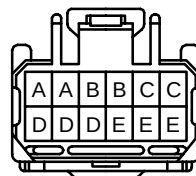
J11
Gray



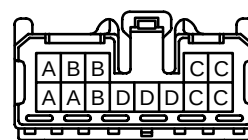
J12



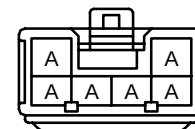
J13



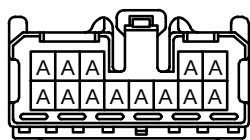
J14



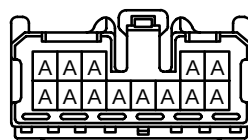
J15



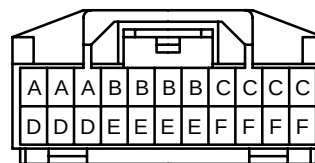
J16



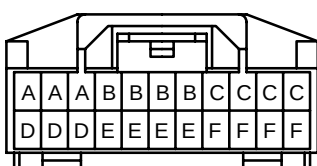
J17



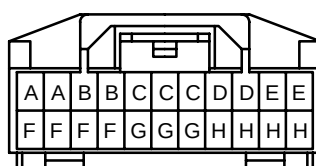
J18



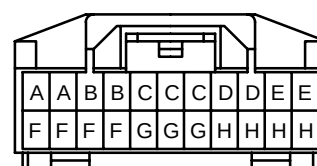
J19



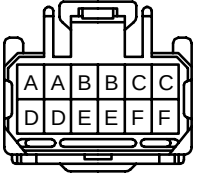
J20



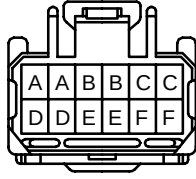
J21



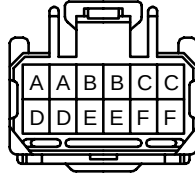
J22



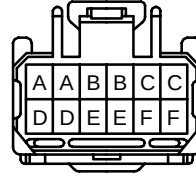
J23



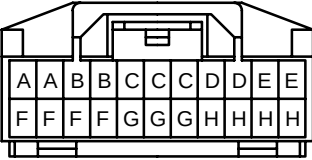
J24



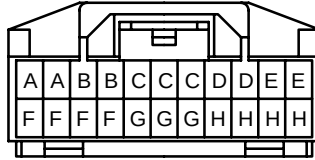
J25



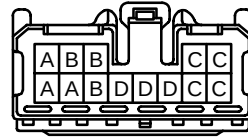
J26



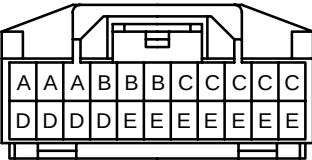
J27



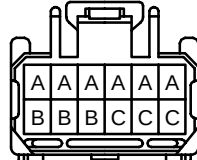
J28



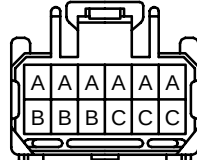
J29



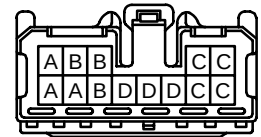
J30



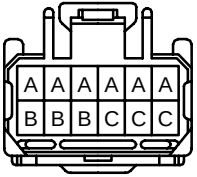
J31



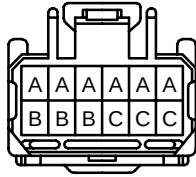
J32



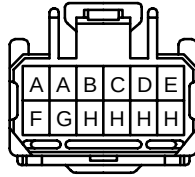
J33



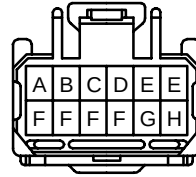
J34



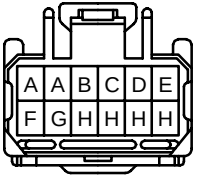
J35



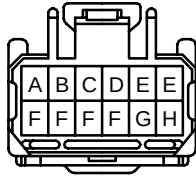
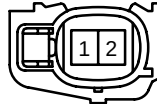
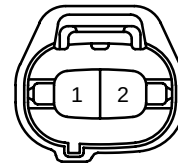
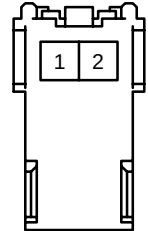
J36



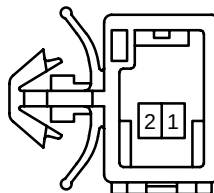
J37



J38

K 1
BlackK 2
BlackK 3
YellowL 1
BlackL 2
BlackL 3
Black

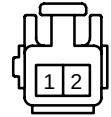
L 4



L 5



L 6



K CONNECTOR LIST

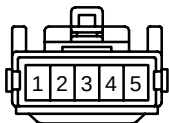
*2 : w/ Navigation System (Map Type)

*3 : w/o Navigation System (Map Type)

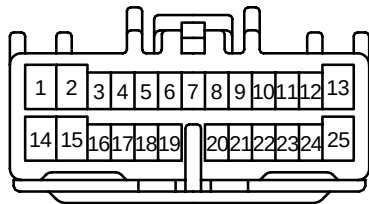
*4 : Power Heater (Combustion Type)

*5 : Power Heater (Hot Gas Type)

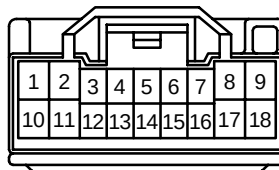
L 7



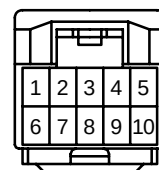
M 1
(*2)



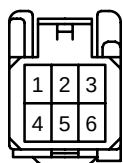
M 1
(*3)



M 2
(*2)



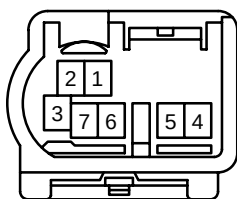
M 2
(*3)



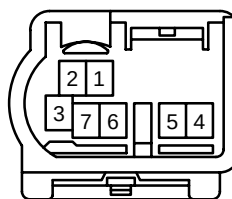
M 3



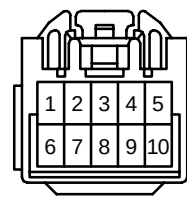
M 4



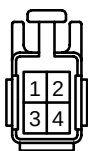
M 5



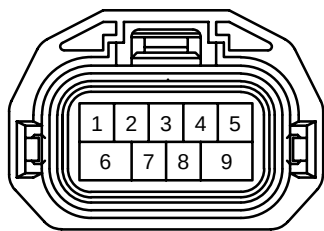
M 6
Gray



M 7



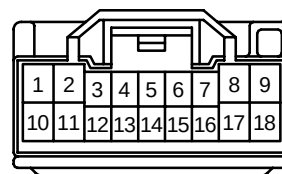
N 1
Gray



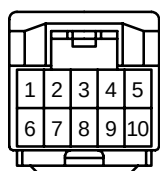
N 2
Gray



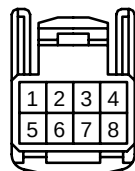
N 3



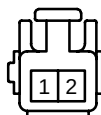
N 4



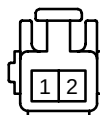
N 5



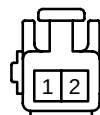
N 6



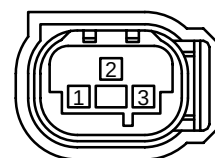
N 7



N 8



O 1
Black



O 2
Gray



P 1
Black



P 2
Black



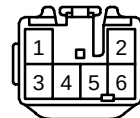
P 3
Gray



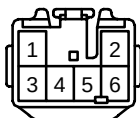
P 4
Black



P 5
(*4) Gray



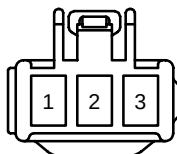
P 5
(*5)



P 6
Black



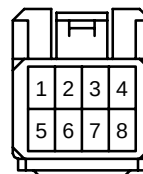
P 7



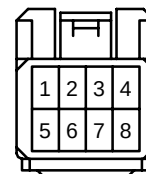
P 8

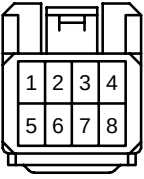
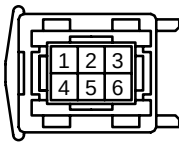
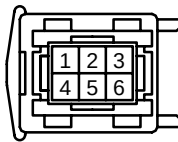
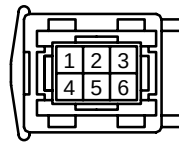
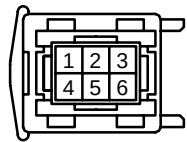
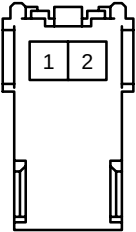
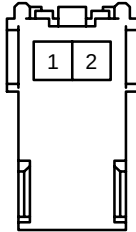
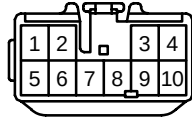
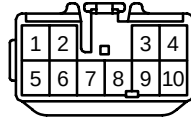
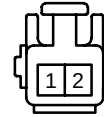
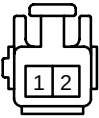
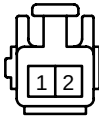
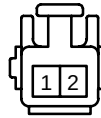
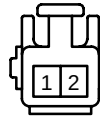
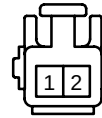
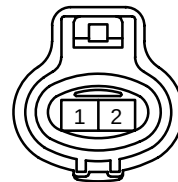
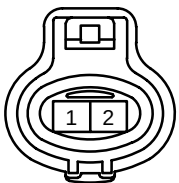
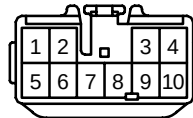
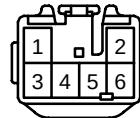
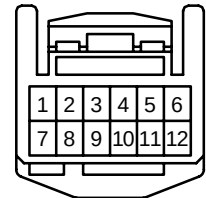
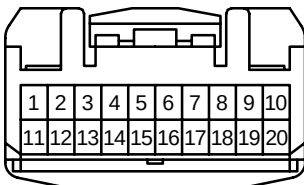
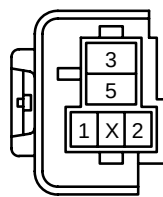
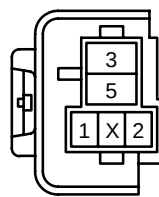
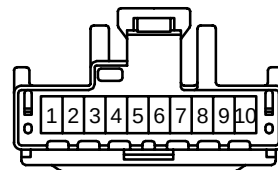
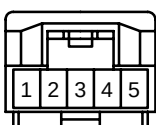
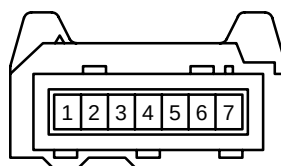
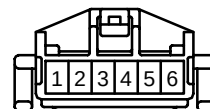


P 9



P 10

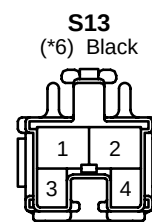
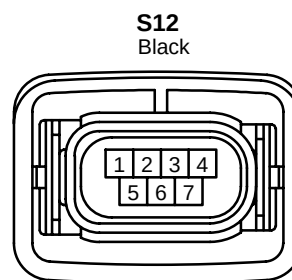
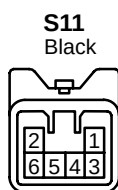
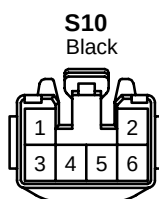
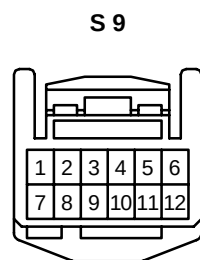
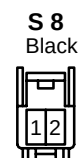
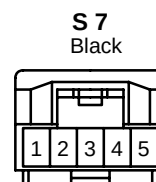
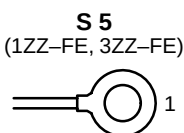
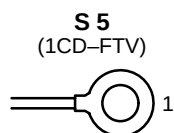
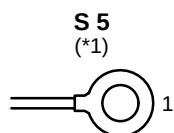
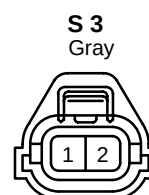
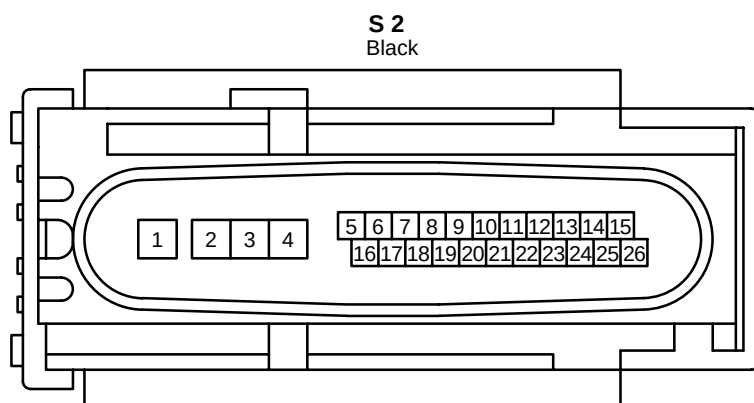
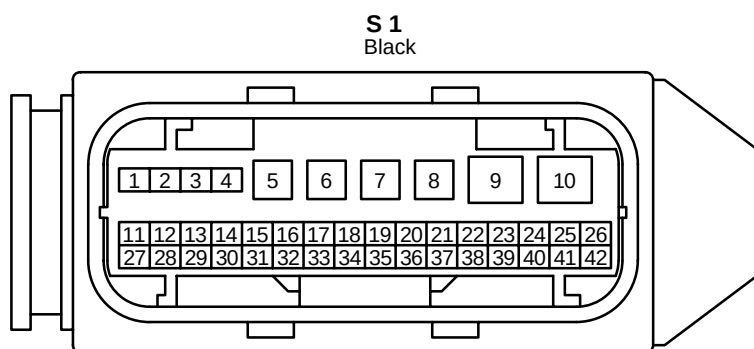
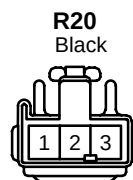
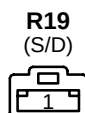
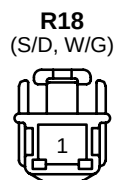
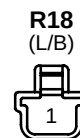
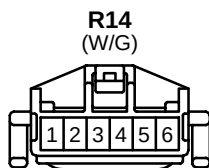
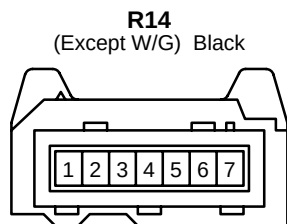


P11**P12**
Gray**P13**
Gray**P14**
Gray**P15**
Gray**P16**
Yellow**P17**
Yellow**P18**
Black**P19**
Black**P20****P21**
Black**P22****P23**
Blue**P24****P25**
Blue**R 1**
Gray**R 2**
Black**R 3**
Red**R 4****R 5****R 6****R 7****R 8****R 9****R10****R11****R12**
Black**R13**
(Except W/G) Black**R13**
(W/G)

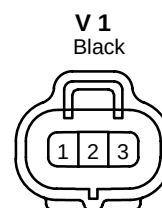
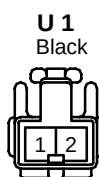
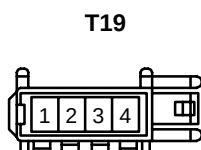
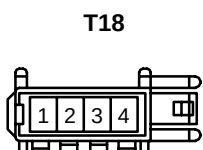
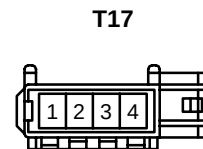
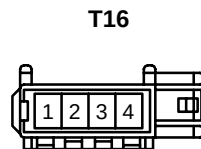
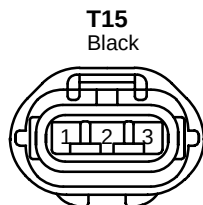
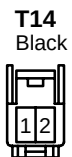
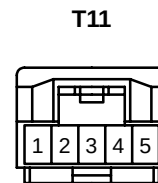
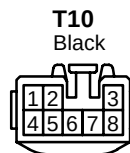
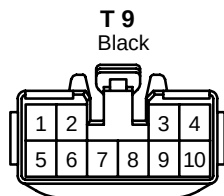
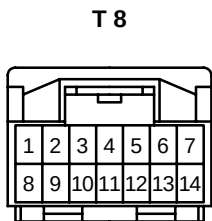
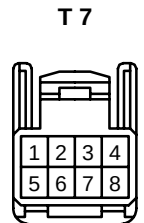
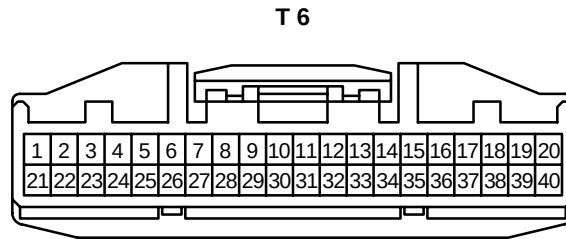
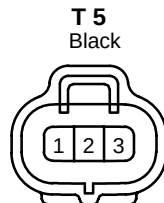
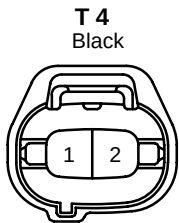
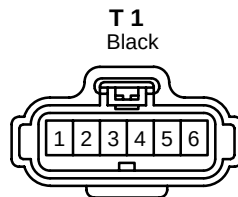
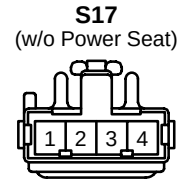
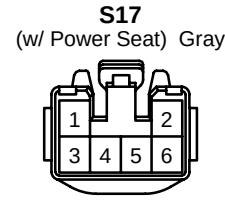
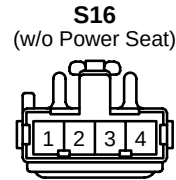
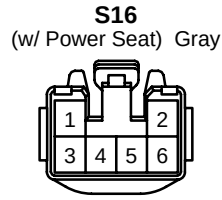
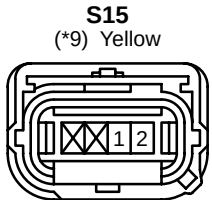
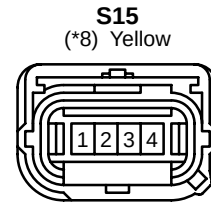
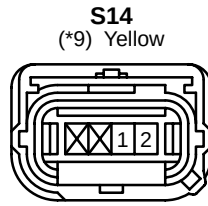
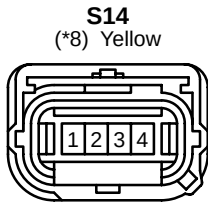
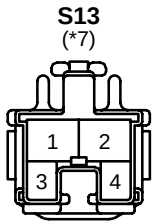
K CONNECTOR LIST

*1 : 1AZ-FSE, 1AZ-FE

*6 : 1AZ-FE, 1ZZ-FE, 3ZZ-FE



*7 : 1AZ-FSE, 1CD-FTV
 *8 : w/ Curtain Shield Airbag
 *9 : w/o Curtain Shield Airbag



K CONNECTOR LIST

V 3
Black



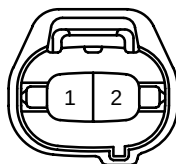
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Black



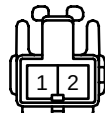
V 5
Blue



V 6
Brown



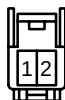
V 7
Black



V 8



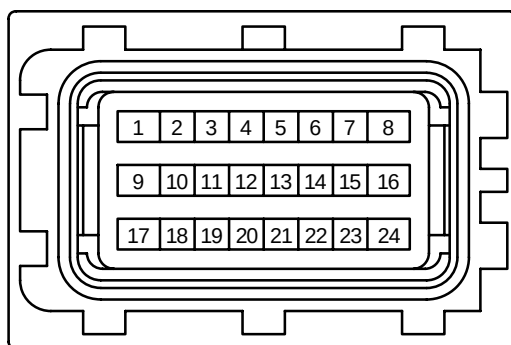
V 9



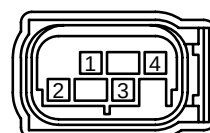
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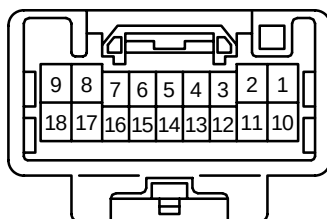
W 2
Black



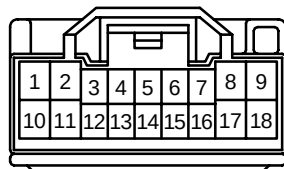
Y 1
Black



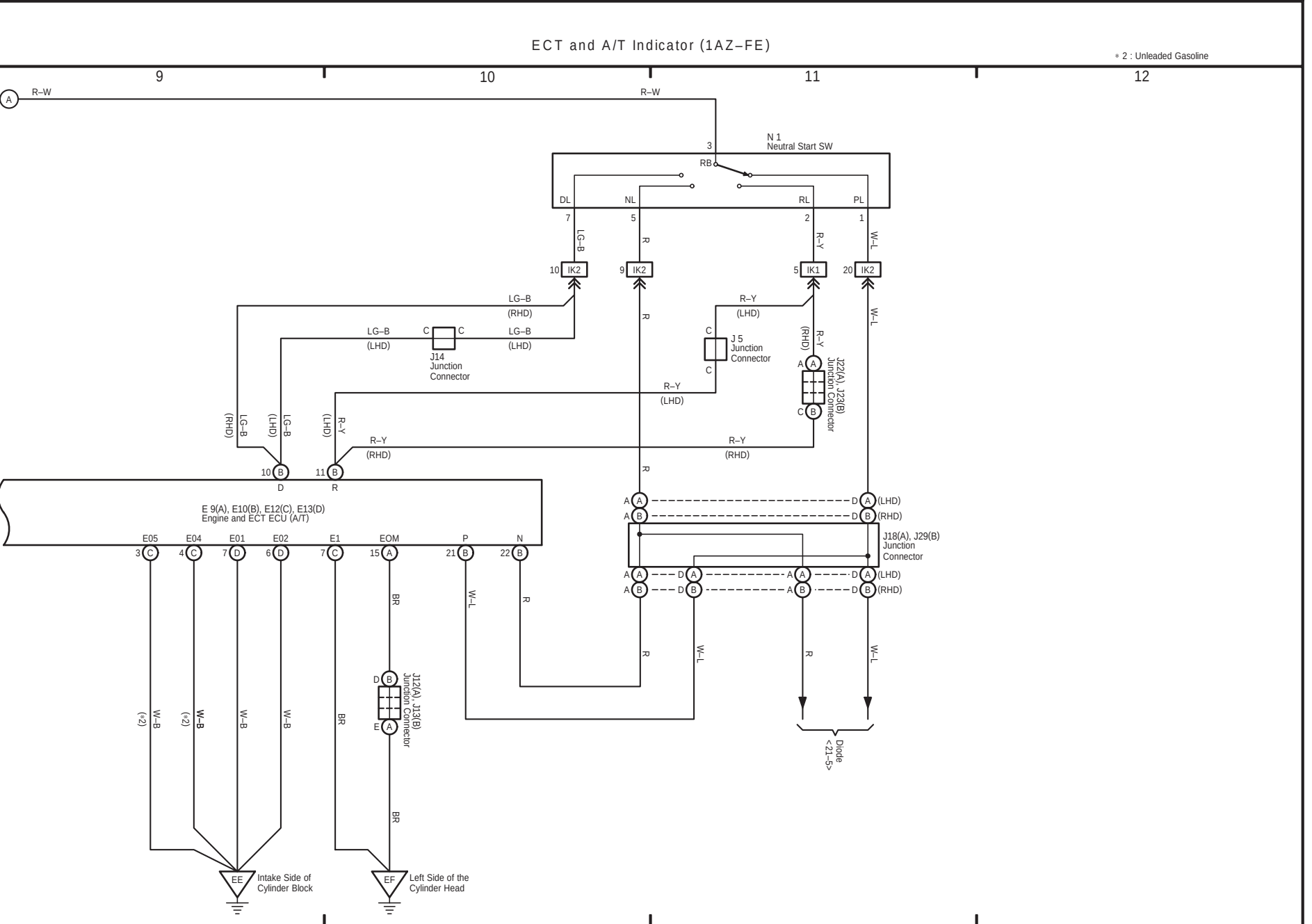
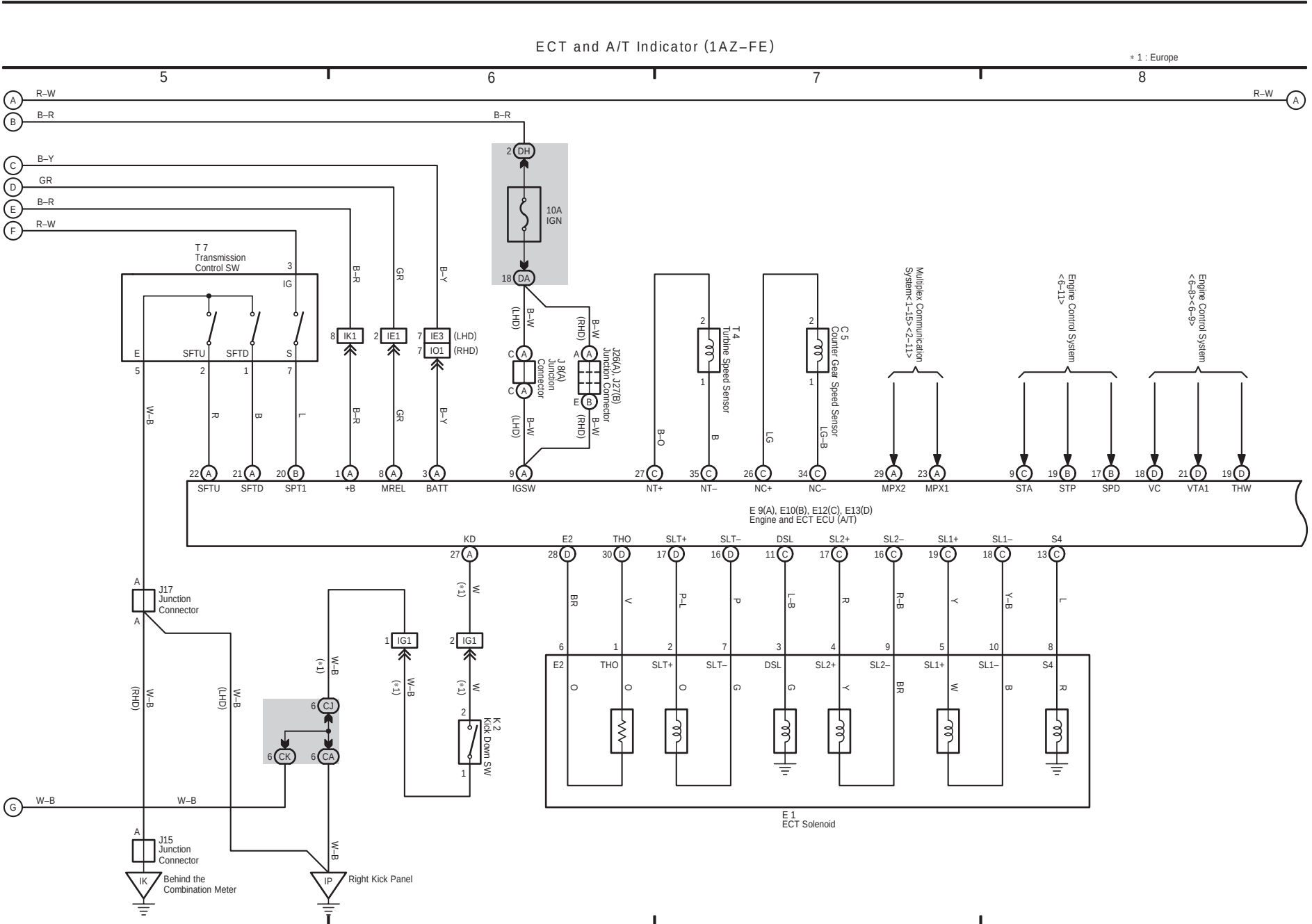
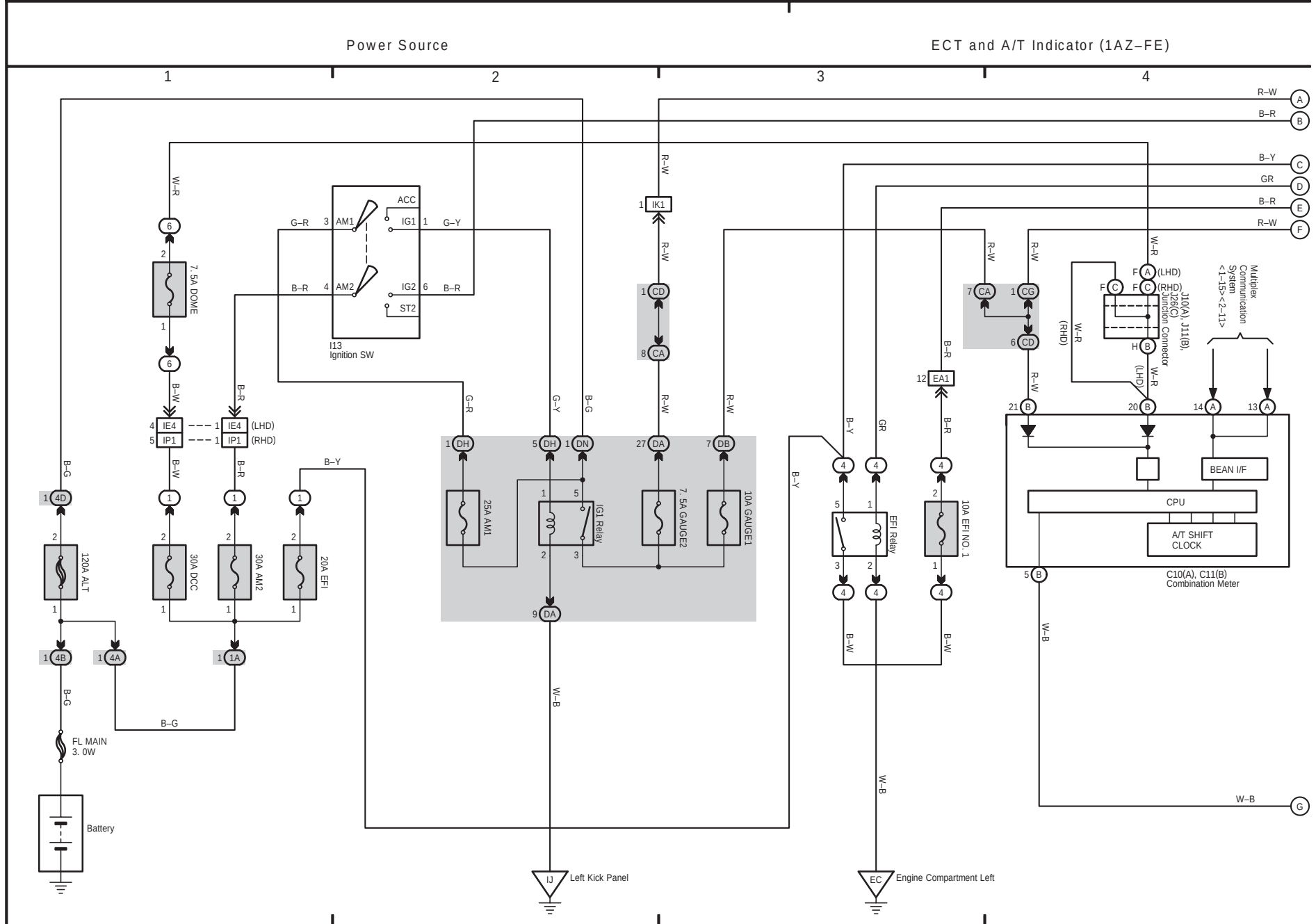
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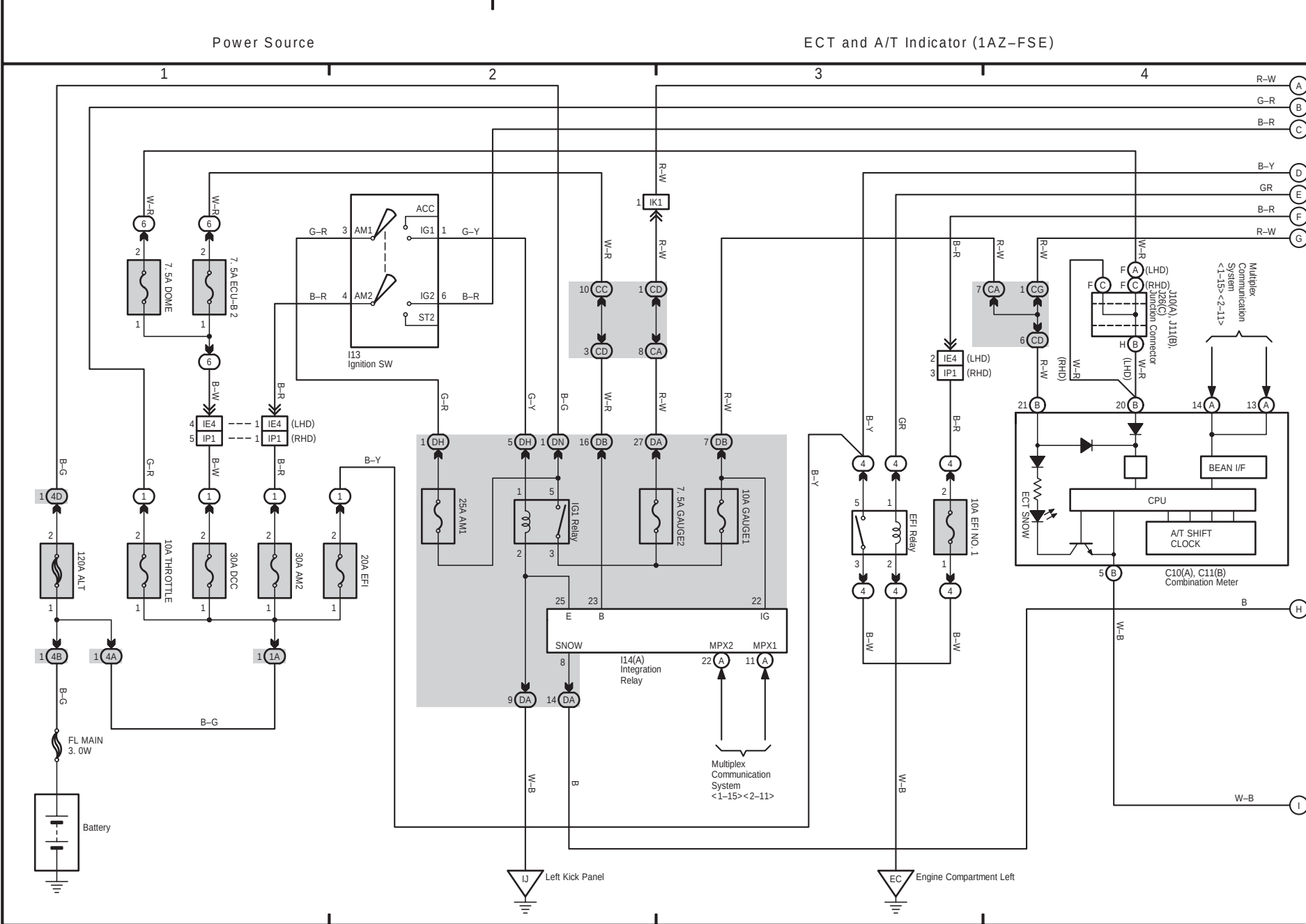
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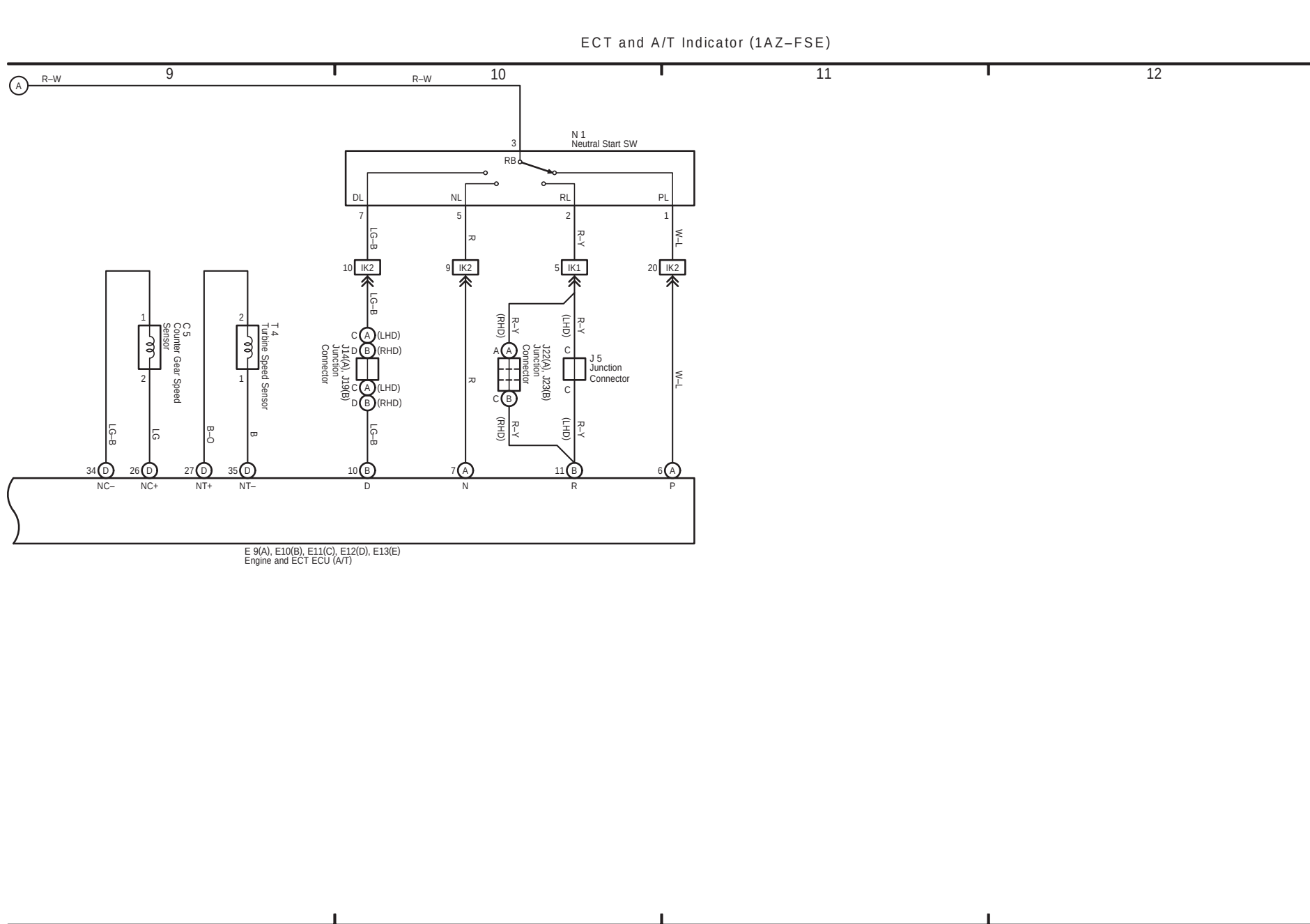
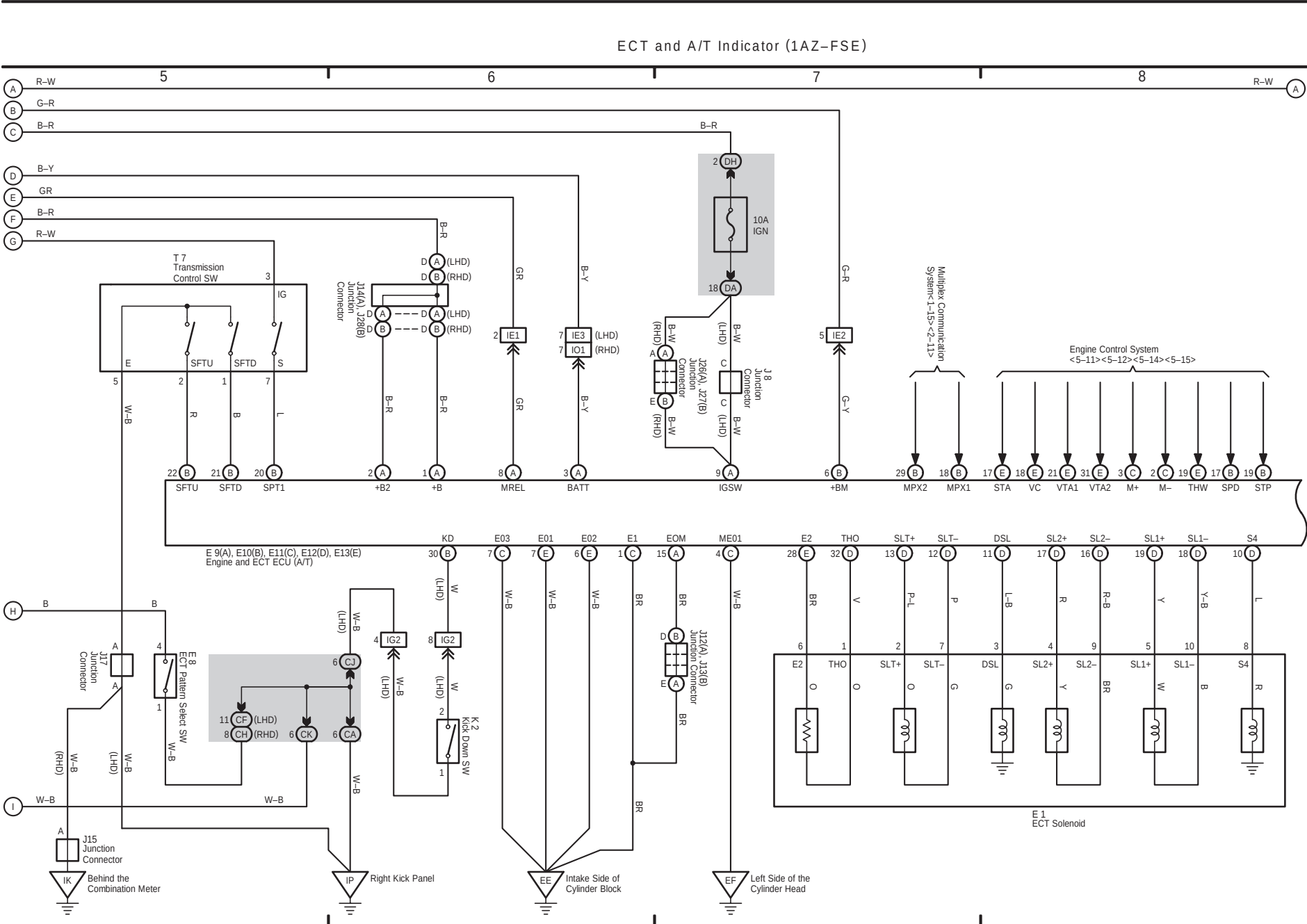




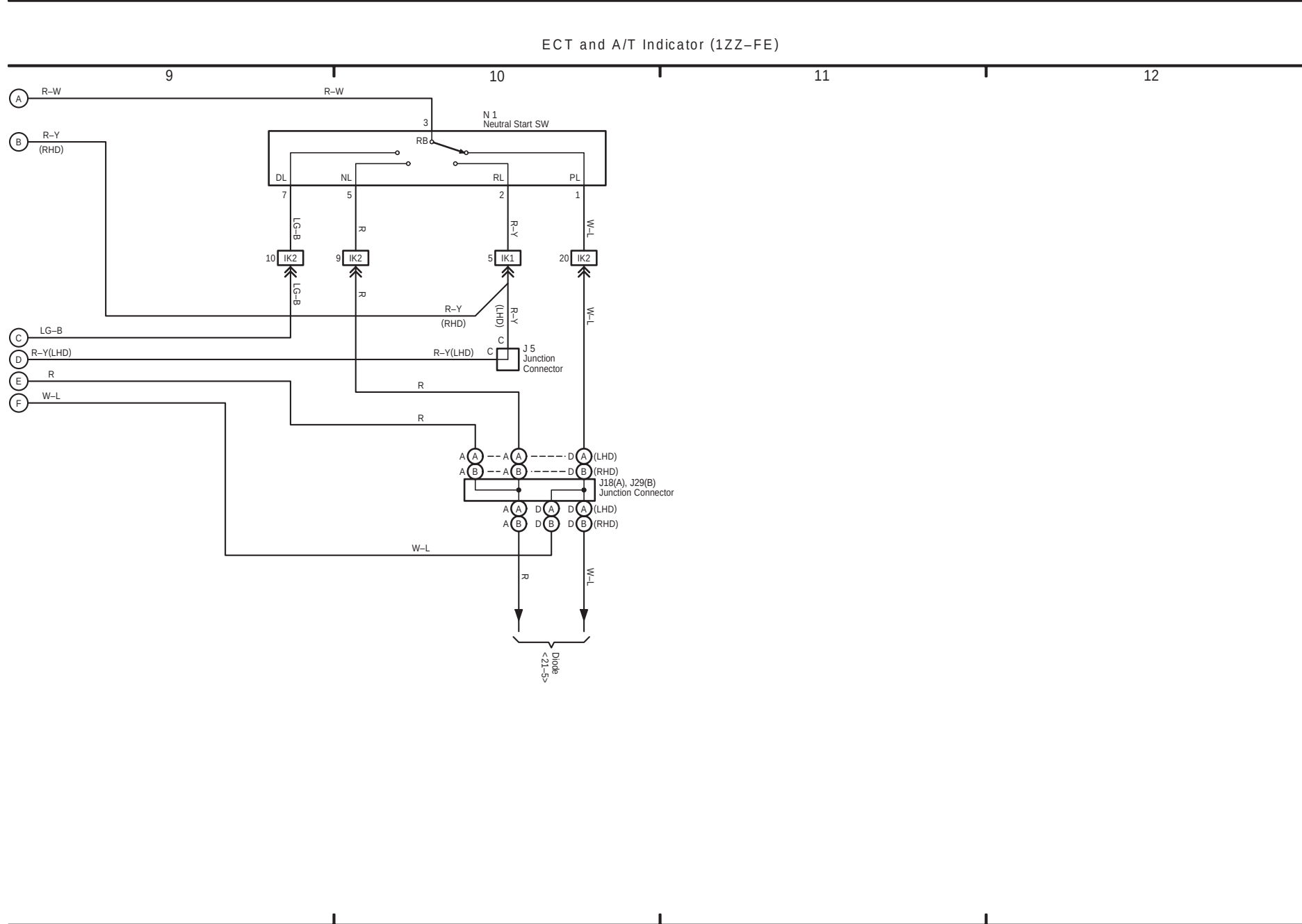
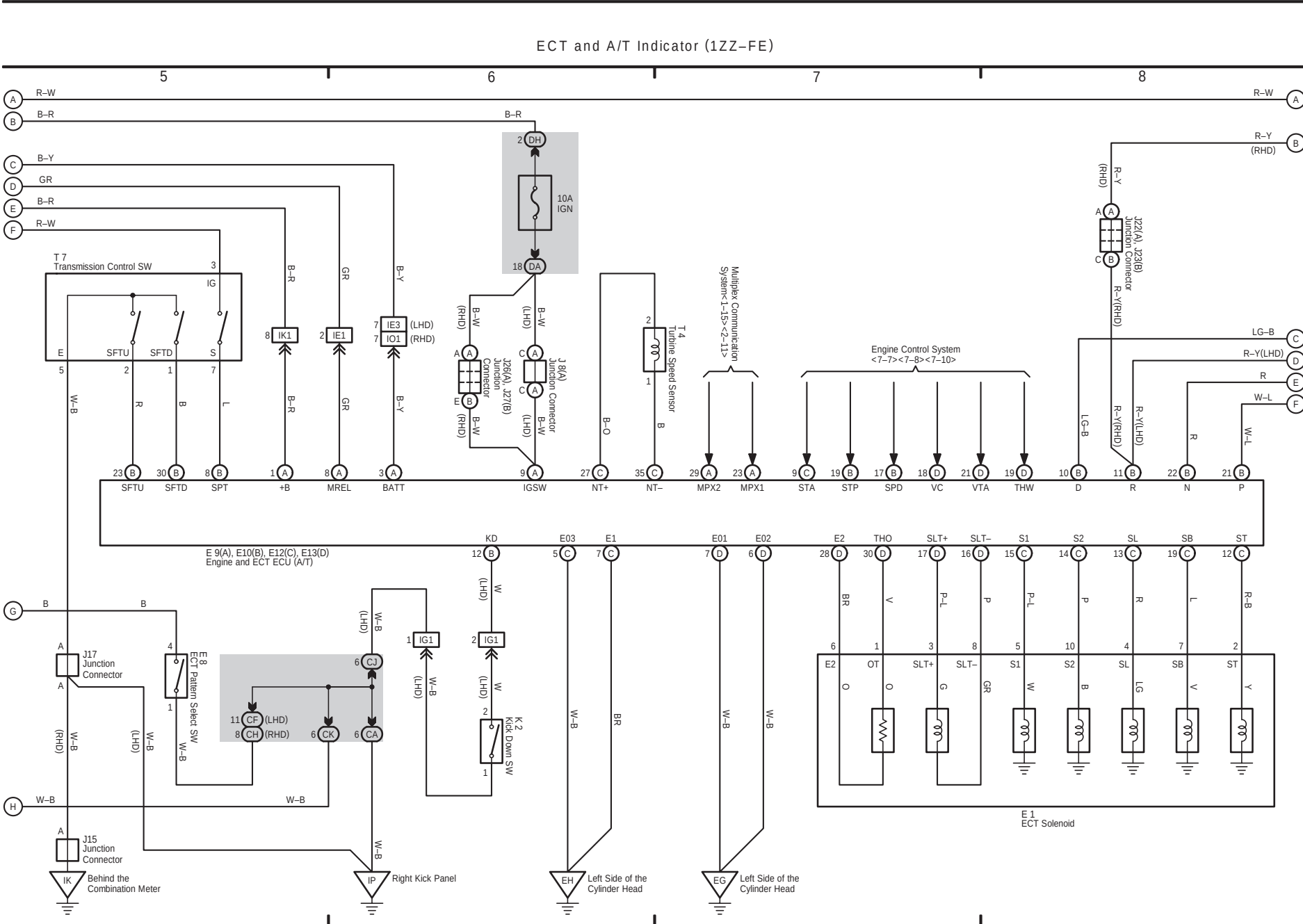
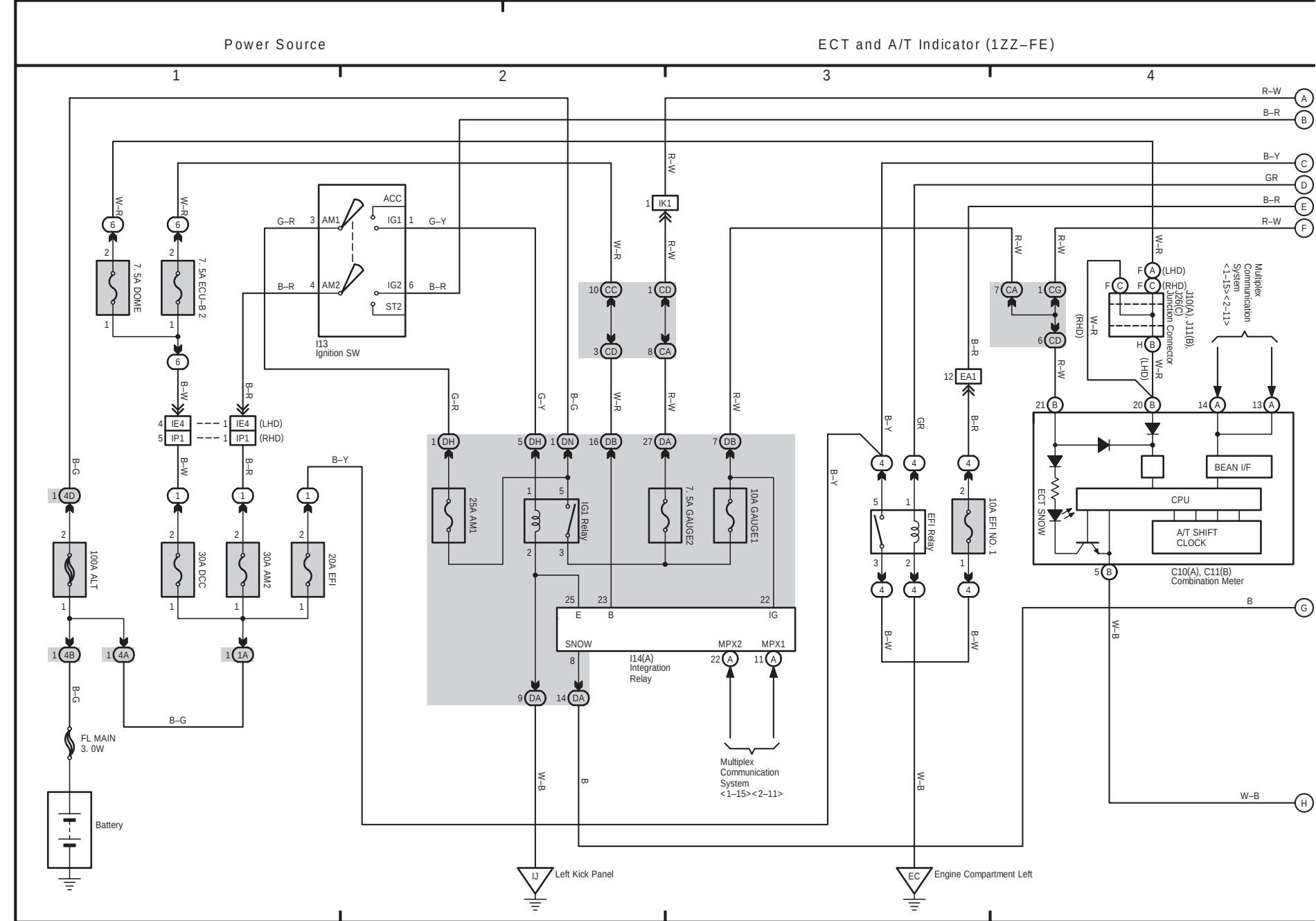
M OVERALL ELECTRICAL WIRING DIAGRAM

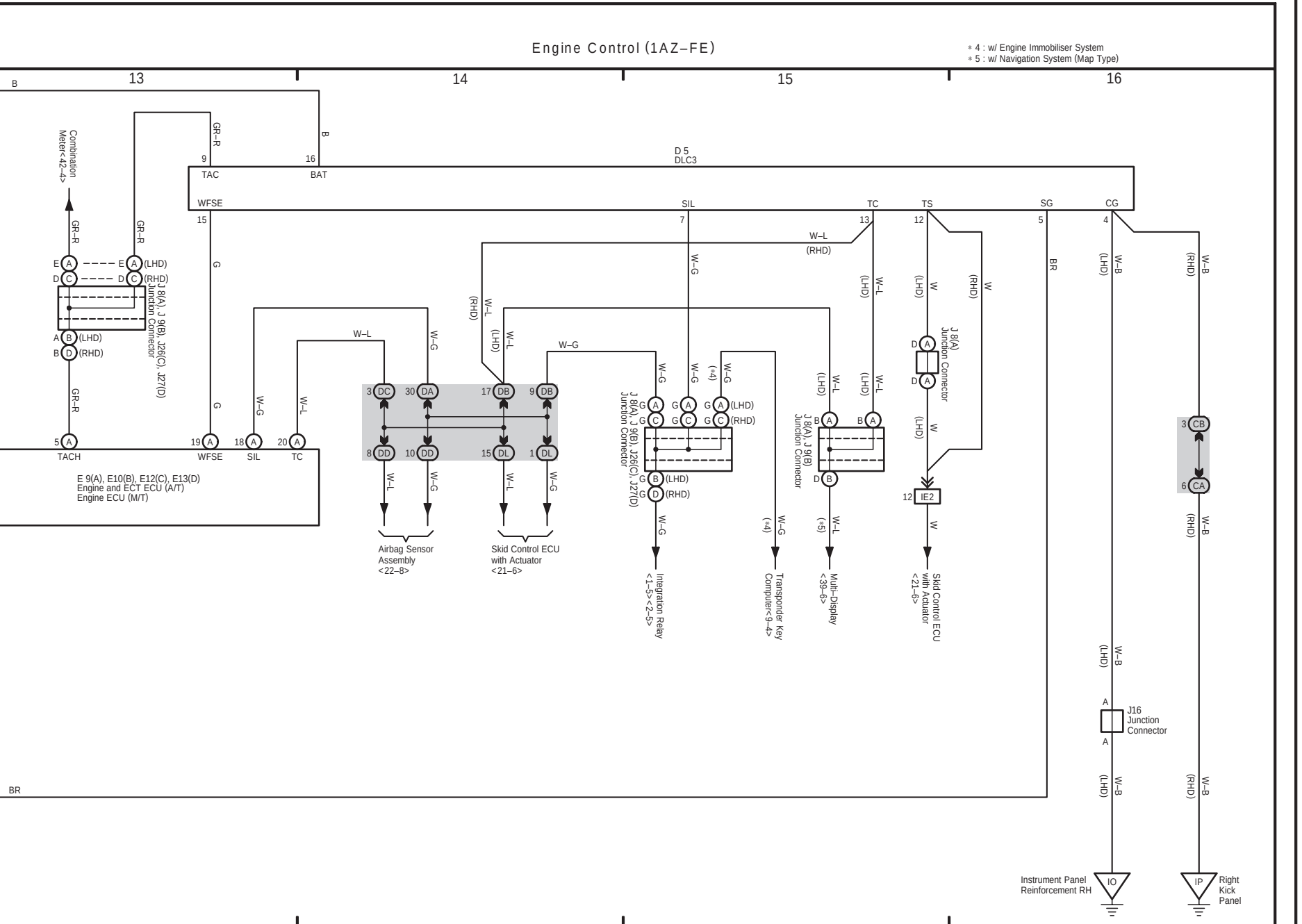
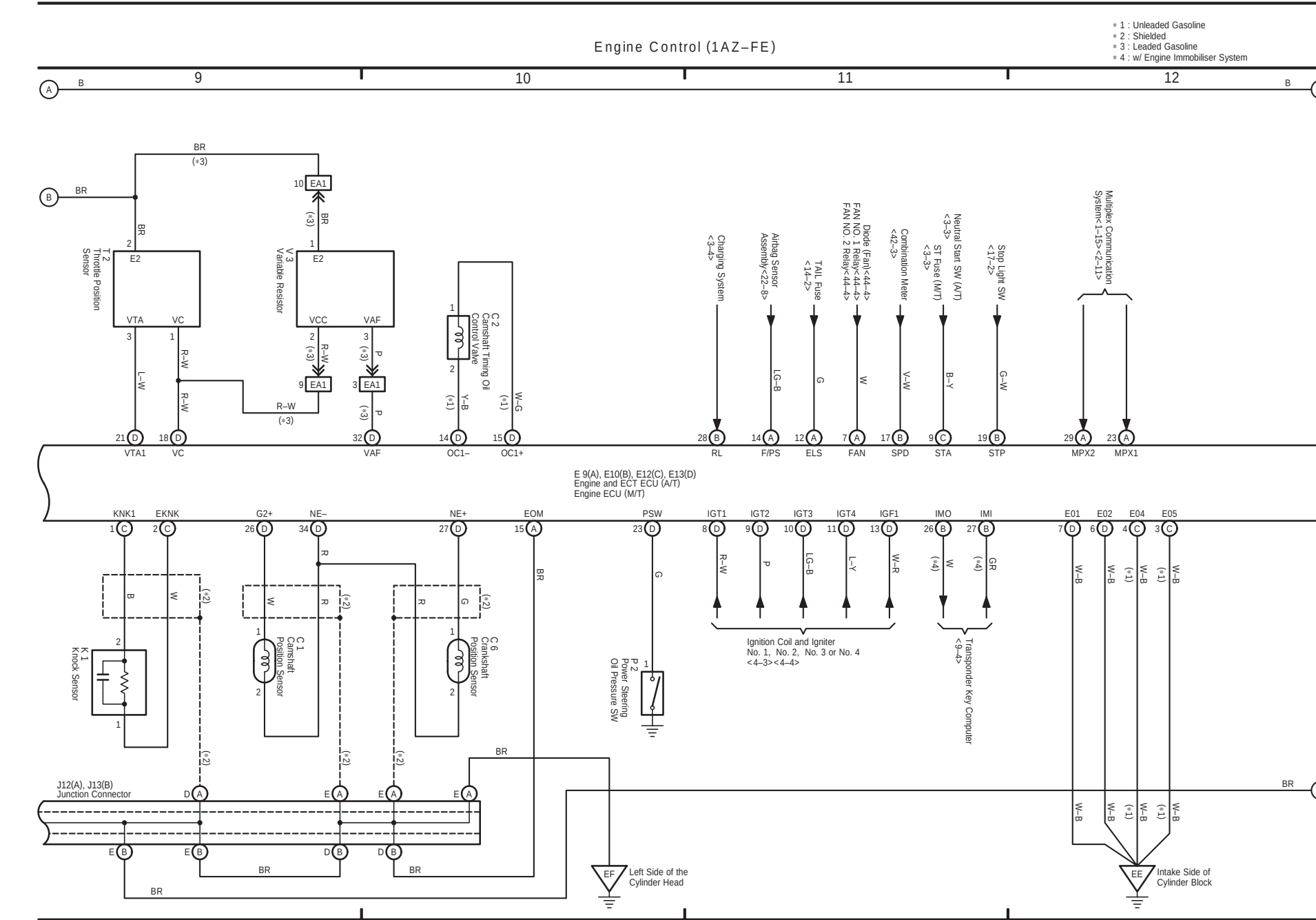
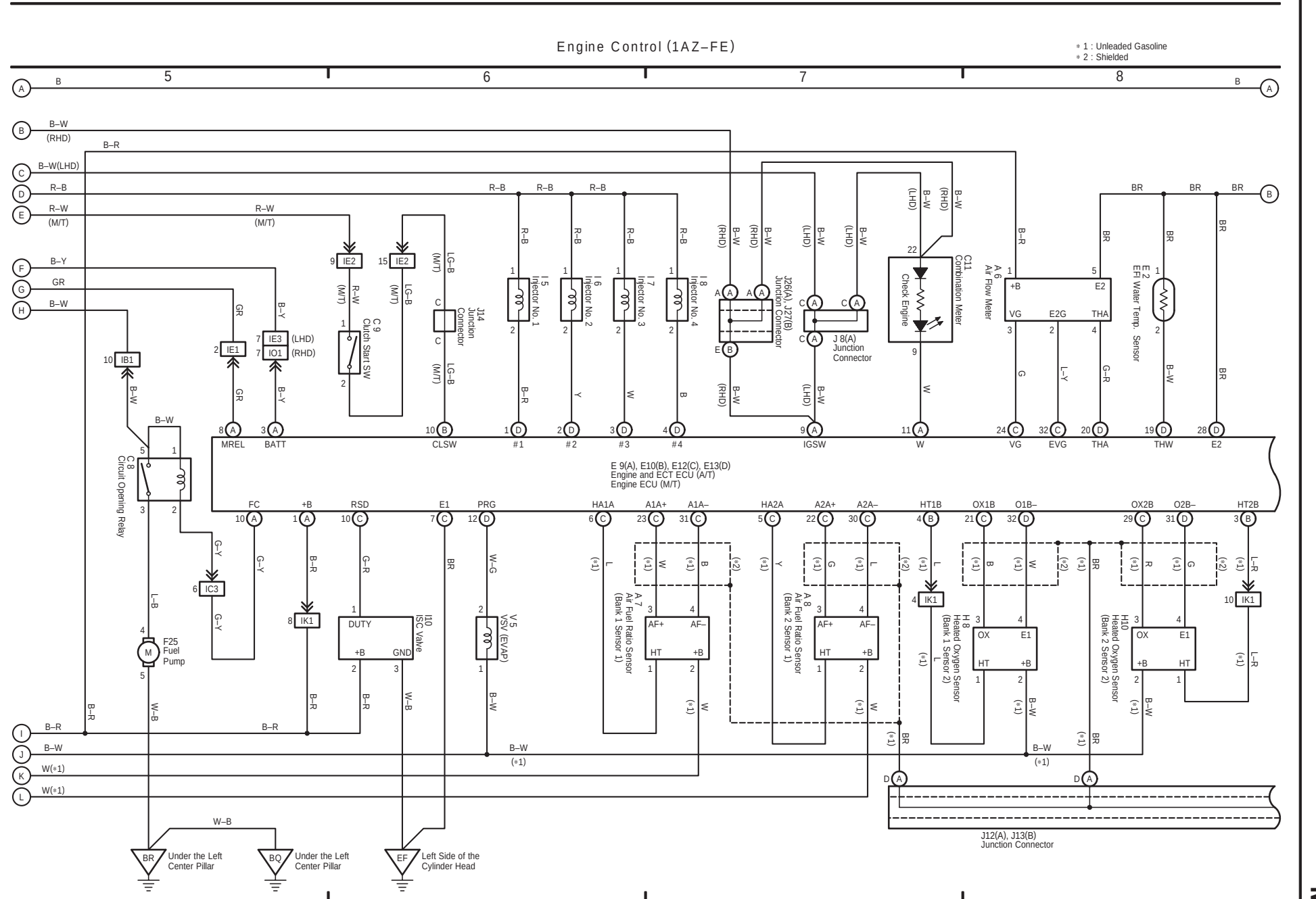
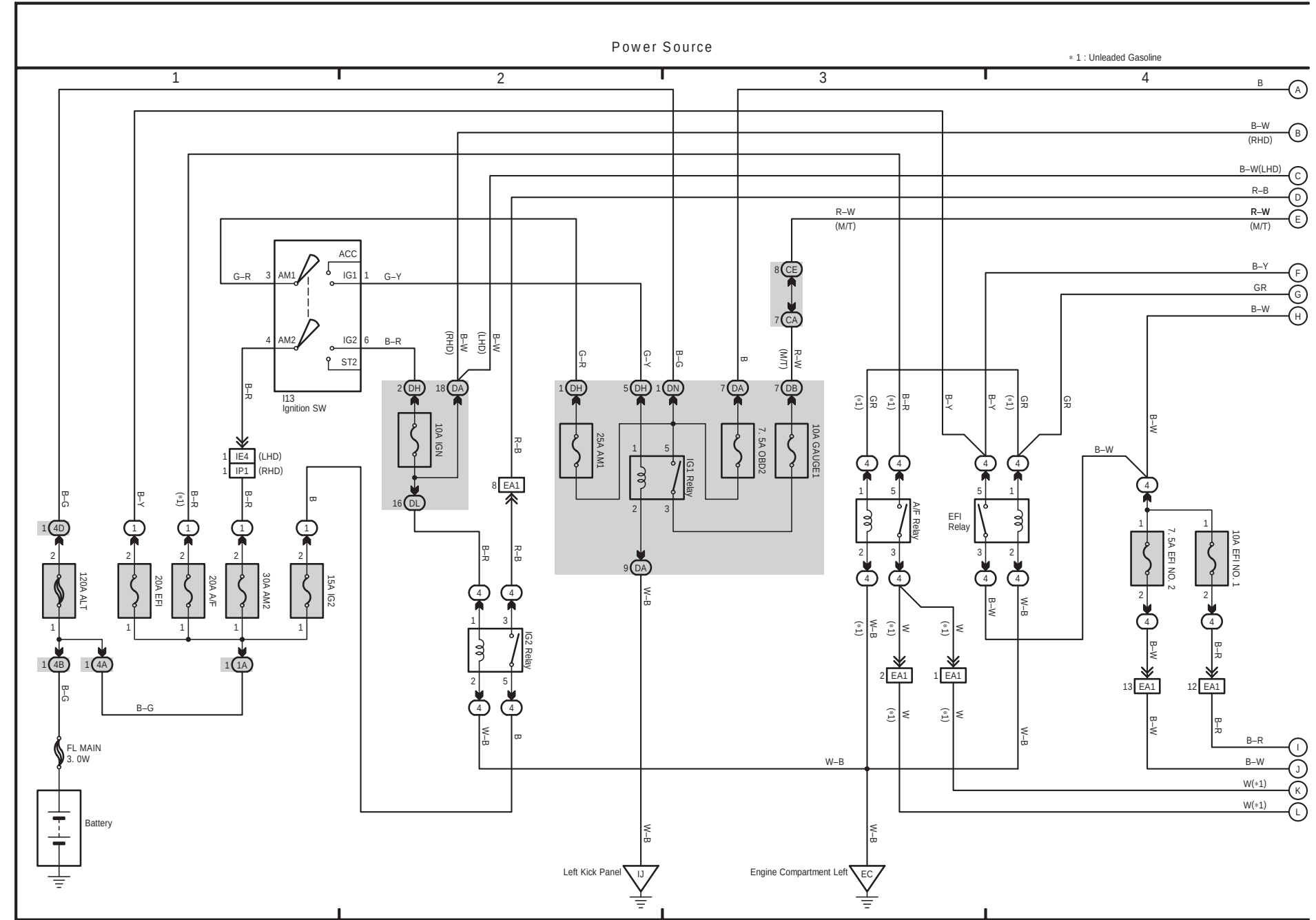


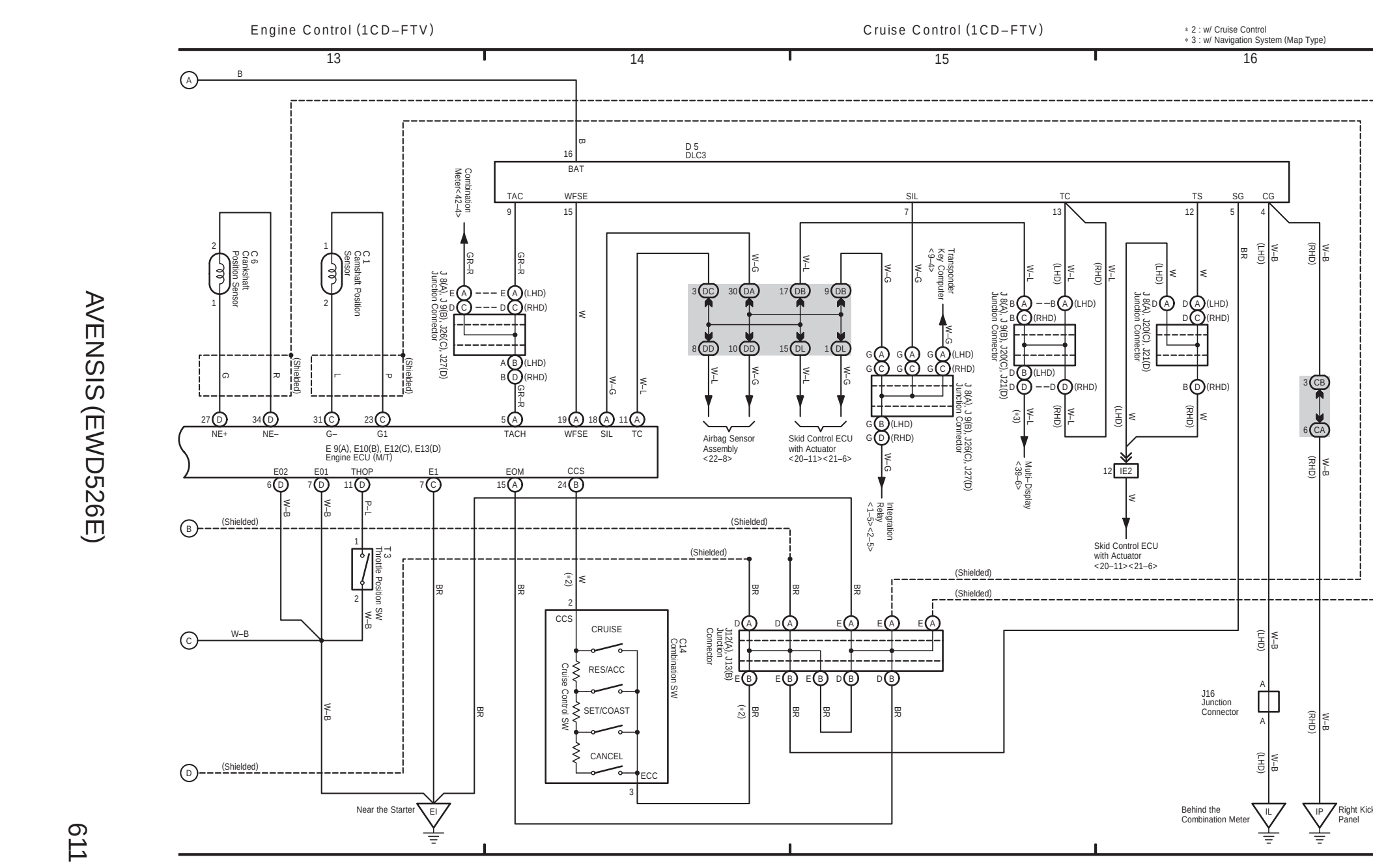
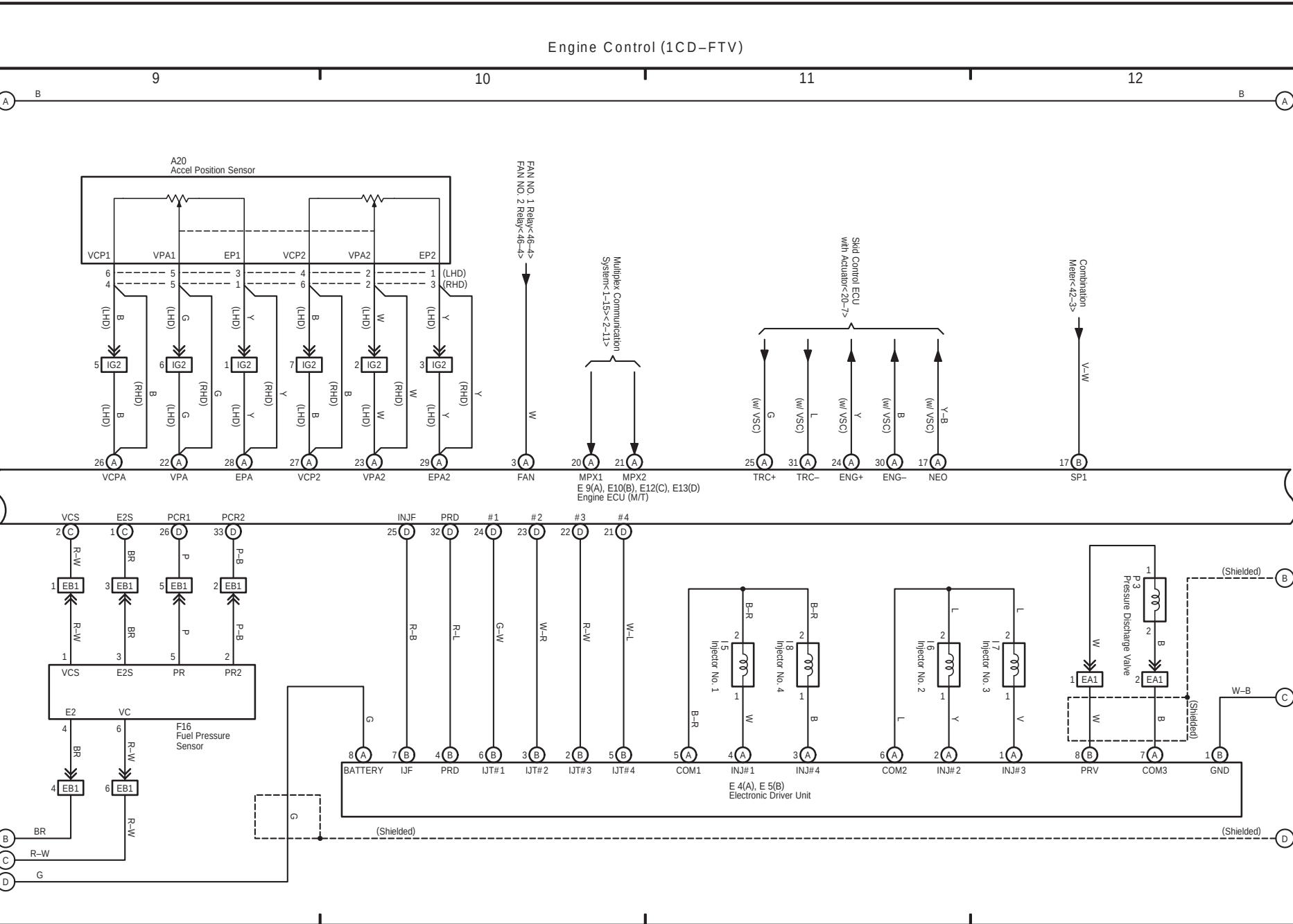
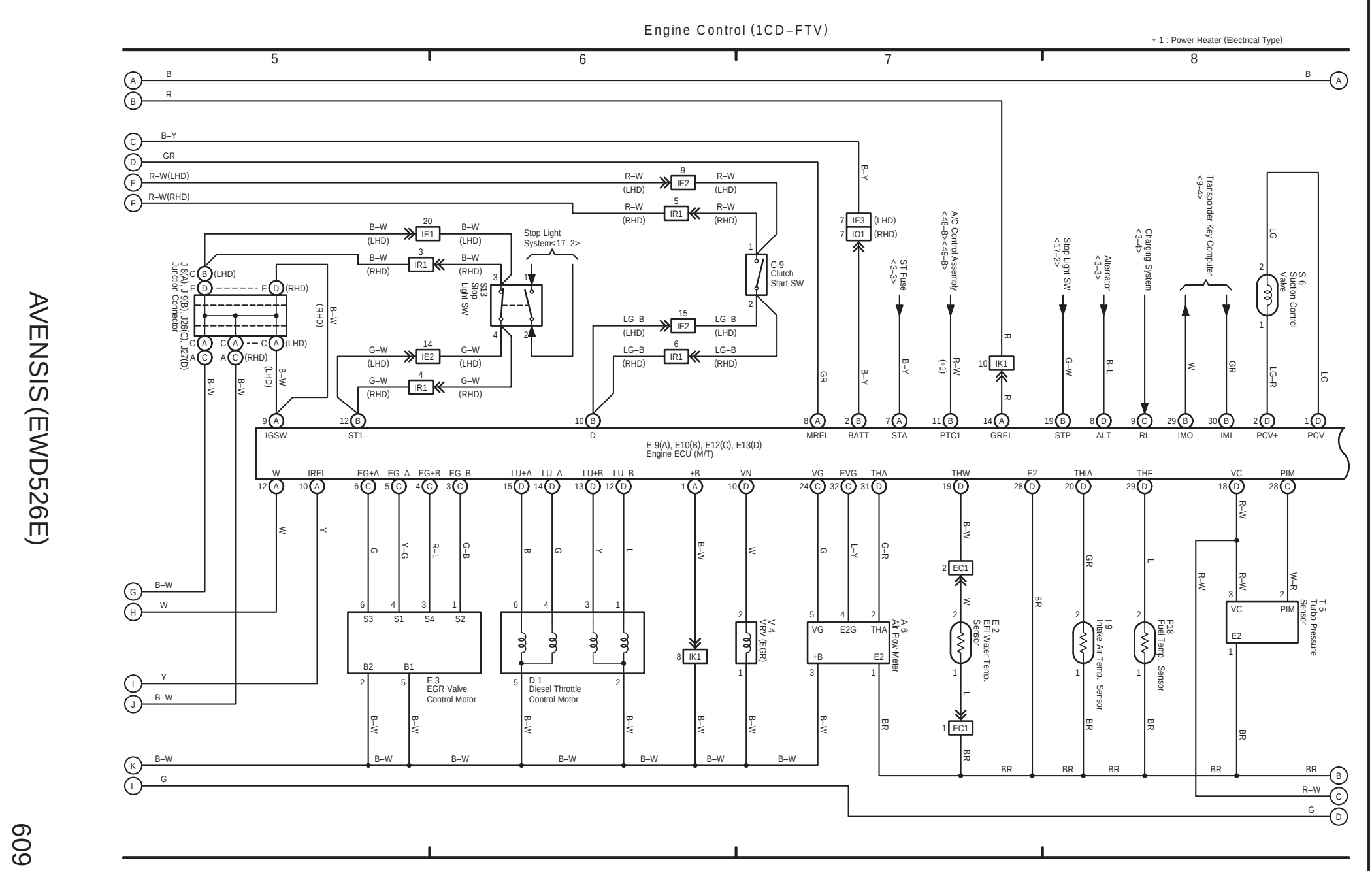
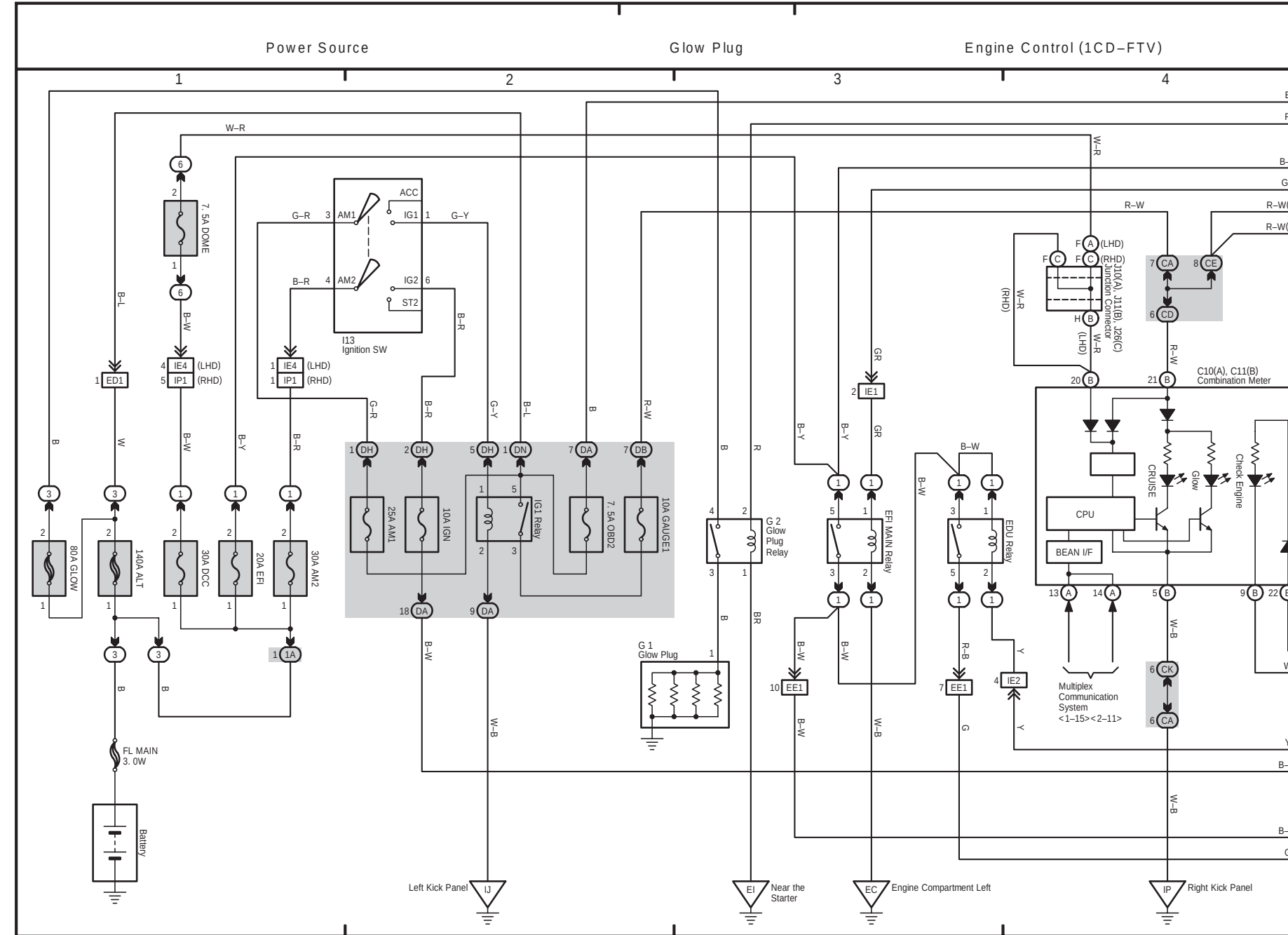
AVENSIS (EWD526E)



M OVERALL ELECTRICAL WIRING DIAGRAM

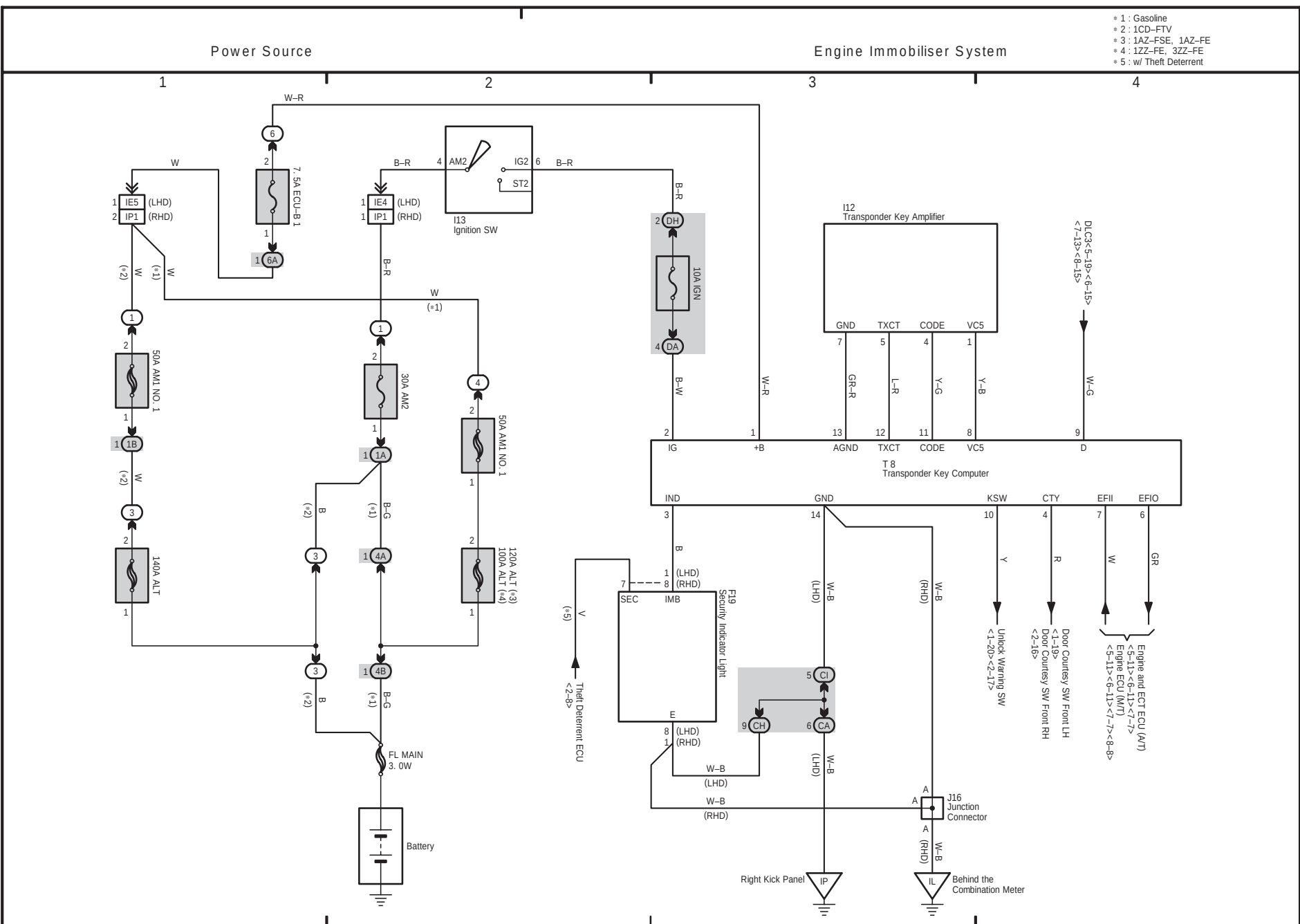


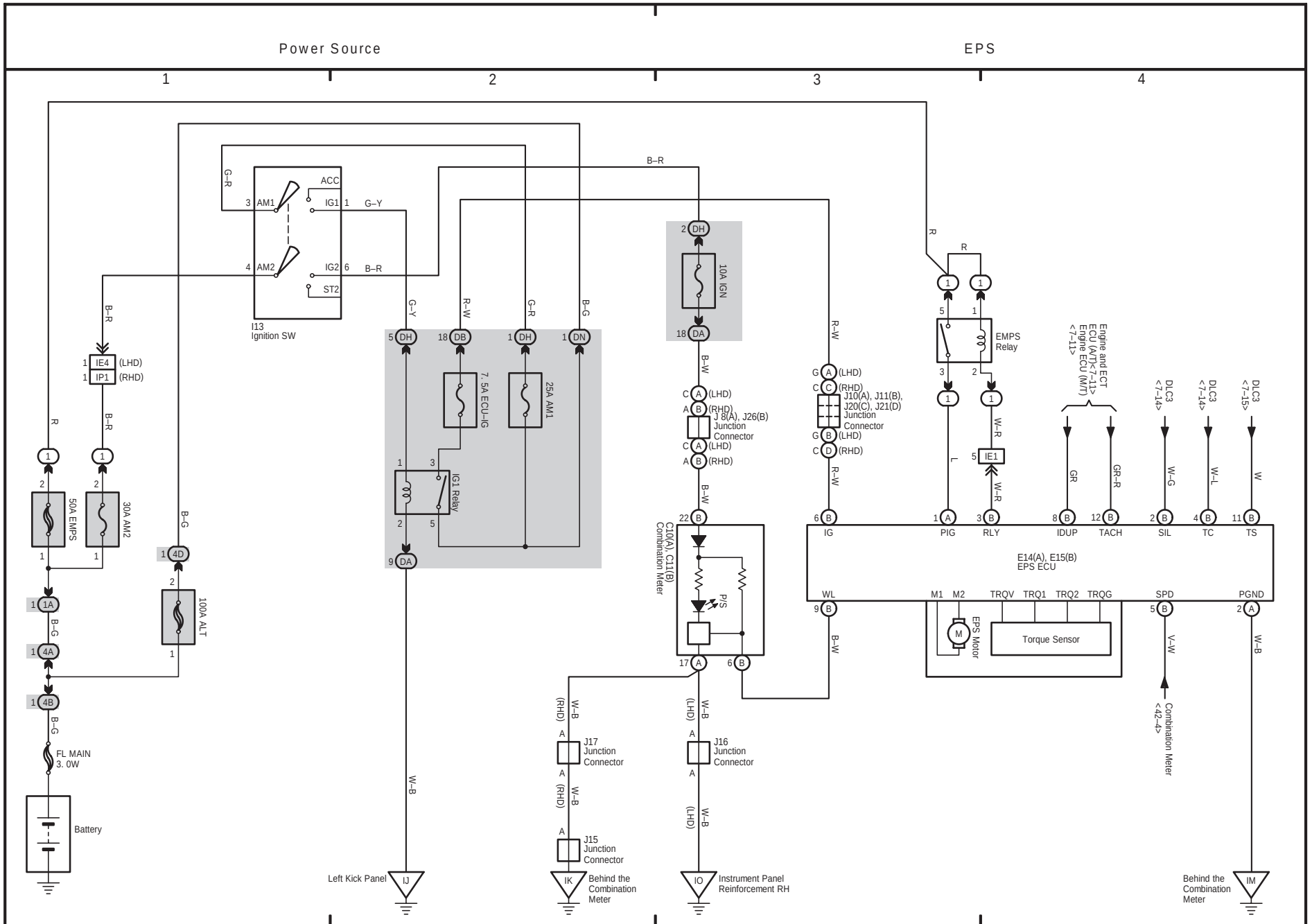




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AVENSIS (EWD526E)





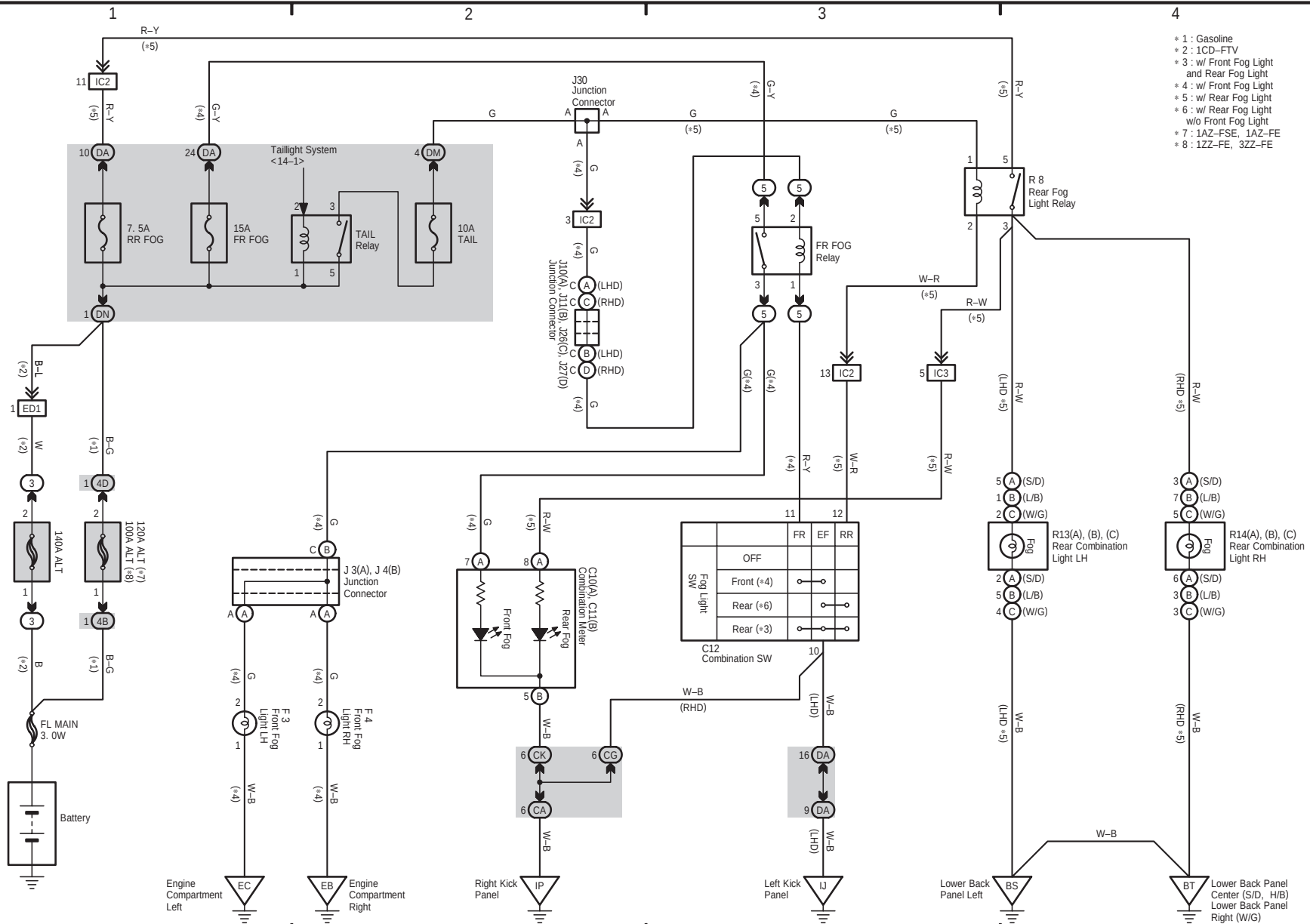
M OVERALL ELECTRICAL WIRING DIAGRAM

16 AVENSIS

Power Source

Front Fog Light

Rear Fog Light



[illegible]



Power Source

Front Wiper and Washer (w/o Auto Wiper System)

Headlight Cleaner (w/ HID)

Headlight Cleaner Motor

Headlight Cleaner Control Relay

Headlight Cleaner SW

Integration Relay

Engine Compartment Right

Left Kick Panel

Legend:

- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE
- * 5 : Behind the Combination Meter (LHD 1CD-FTV, RHD)
- * 6 : Instrument Panel Reinforcement RH (LHD Except 1CD-FTV)
- * 7 : w/ Headlight Cleaner w/ HID
- * 8 : Except *7
- * 9 : Left Side of the Suspension Tower

- * 1: Gasoline
- * 2: 1CD-FTV
- * 3: 1AZ-FSE, 1AZ-FE
- * 4: 1ZZ-FE, 3ZZ-FE
- * 5: Behind the Combination Meter (LHD 1CD-FTV, RHD)
- * 6: Instrument Panel Reinforcement RH (LHD Except 1CD-FTV)
- * 7: w/ Headlight Cleaner w/ HID
- * 8: Except *7
- * 9: Left Side of the Suspension Tower

[illegible]

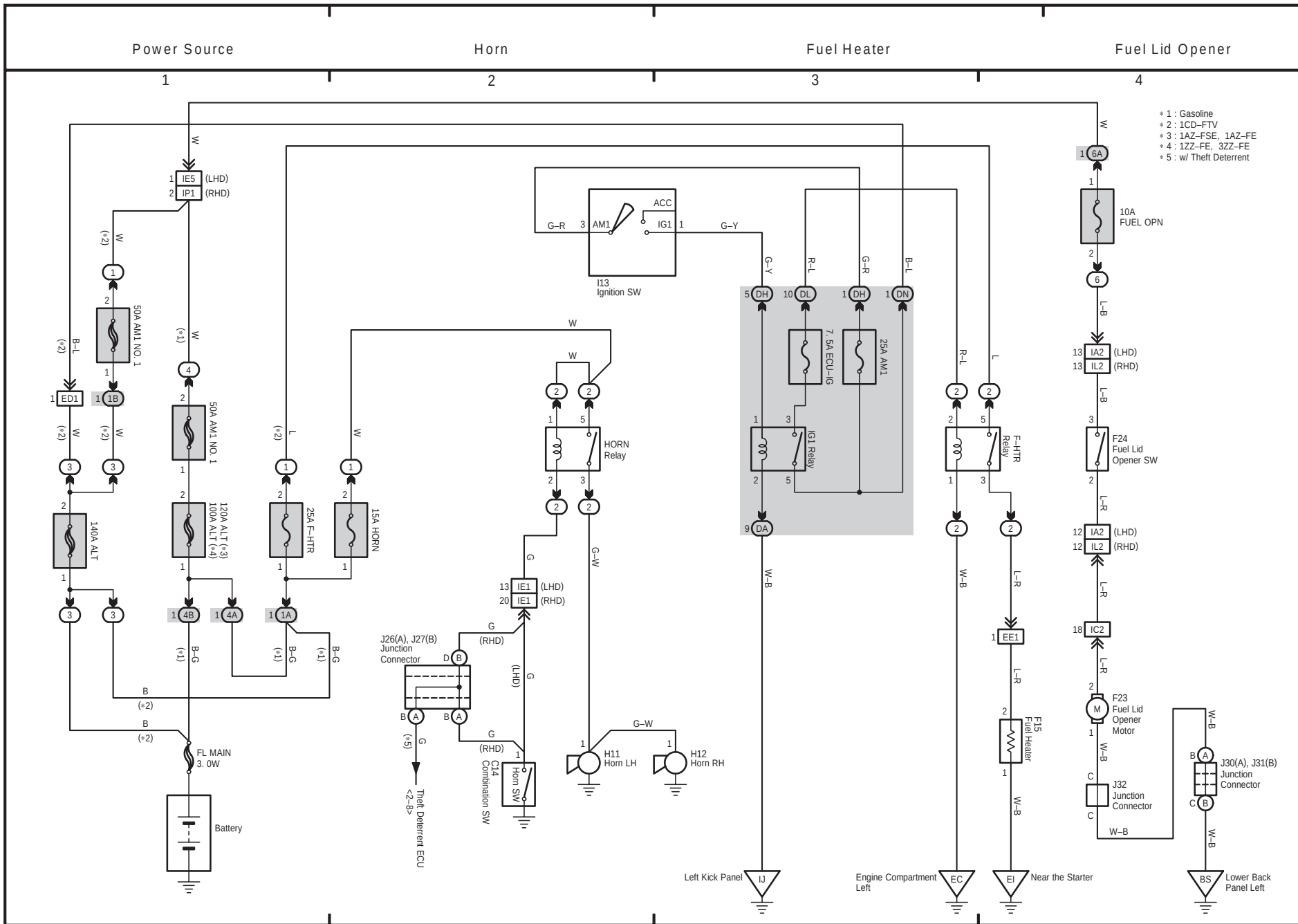
- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE
- * 5 : w/ Theft Deterrent

OVERALL ELECTRICAL WIRING DIAGRAM

26 AVENSIS

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AVENSIS (EWD526E)



HOW TO USE THIS MANUAL (1ZZ-FE/3ZZ-FE)

010BH-01

GENERAL INFORMATION

1. GENERAL DESCRIPTION

- (a) This manual is made in accordance with SAE J2008.
- (b) Generally repair operations can be separated in the following 3 main processes:
 - 1. Diagnosis
 - 2. Removing and Installing, Replacing, Disassembling, Installing and Checking, Adjusting
 - 3. Final Inspection
- (c) This manual explains "Removing and Installing, Replacing, Disassembling, Installing and Checking, Adjusting", but "Final Inspection" is omitted.
- (d) The following essential operations are not written in this manual, however these operations must be done in the practical situation.
 - (1) Operation with a jack or lift
 - (2) Cleaning of a removed part when necessary
 - (3) Visual check

2. INDEX

- (a) An alphabetical INDEX is provided as a section on the end of the book to guide you to the item to be repaired.

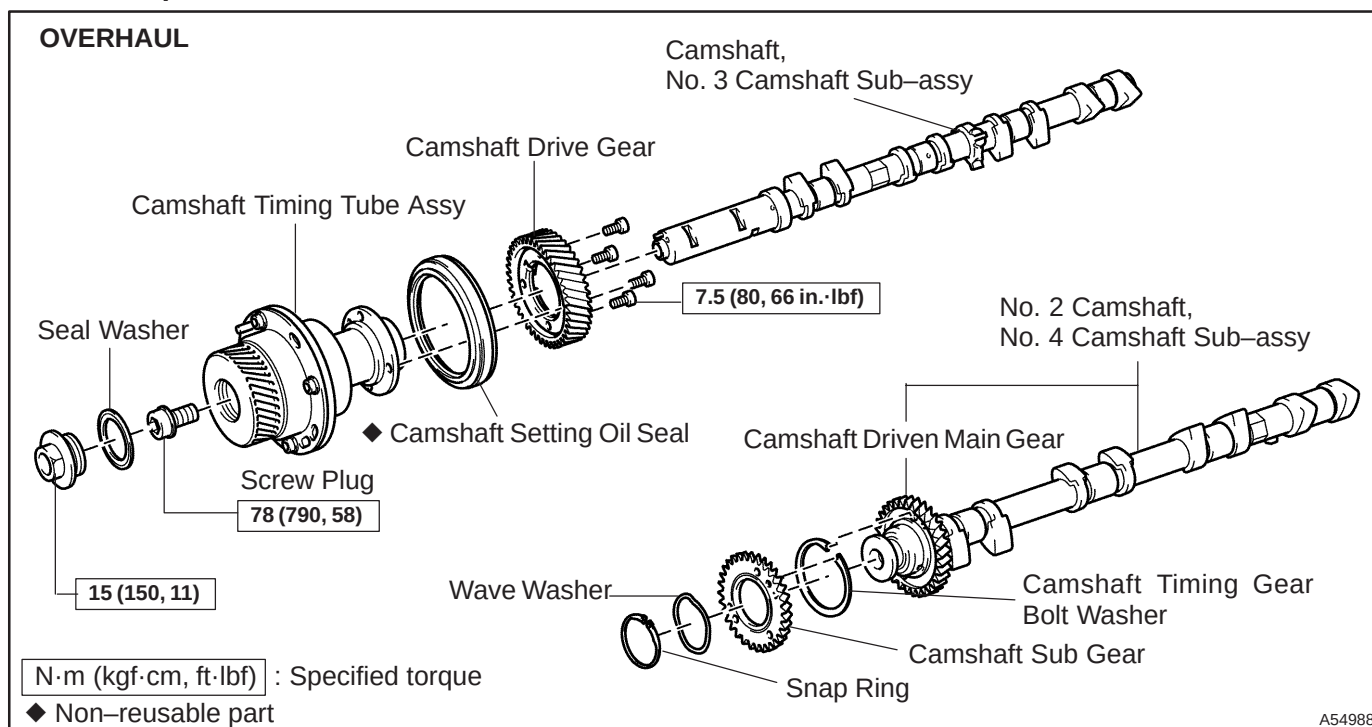
3. PREPARATION

- (a) Use of special service tools (SST) and special service materials (SSM) may be required, depending on the repairing condition. Be sure to use SST and SSM when they are required and follow the working procedure properly. A list of SST and SSM is in the Preparation section of this manual.

4. REPAIR PROCEDURES

- (a) Component drawing is placed as the section or title when necessary.
- (b) Illustrations of the parts catalog are placed as the "disassembled parts drawing" so that it enables you to understand the fitting condition of the components.
- (c) Non-reusable parts, grease applied parts, precoated parts and tightening torque are specified in the components drawing.

Example:



- (d) Tightening torque, oil applying position, and non-reusable parts are described as important points in the procedure.

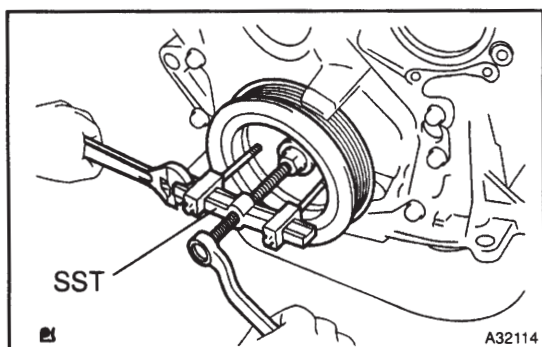
NOTICE:

There are cases where such information can only be indicated by an illustration. In that case, all the information such as torque, oil, etc. are described in the illustration.

- (e) Installing procedure of operation items is performed in the reverse order of the removing, and only the important points are described.
- (f) Only items with points are described in the procedure, and the operational portion and content are placed using an illustration. In the explanations, details of the operational method, standard value and notice are placed.
- (g) There may be a case where the illustrations of similar models are used. In that case the details may be different from the actual vehicle.
- (h) The procedures are presented in a step-by-step format:
- (1) The illustration shows what to do and where to do it.
 - (2) The task heading tells what to do.
 - (3) The detailed text tells how to perform the task and gives other information such as specifications and warnings.

Example:

*Illustration:
what to do and where*



Task heading: what to do

5. REMOVE CRANKSHAFT PULLEY

- (a) Using SST, remove the crankshaft pulley.
- SST **09950-50012** (**09951-05010**, **09952-05010**,
09953-05020, **09954-05020**, **09957-04010**)
- Set part No. Component part No. Detailed text:
how to do task*

A59974

HINT:

This format provides an experienced technician with a FAST TRACK to the necessary information. The task heading can be read at a glance when necessary, and the text below provides detailed information. Important specifications and warnings always stand out in bold type.

5. SERVICE SPECIFICATIONS

- (a) Specifications are presented in bold type throughout the manual. You never have to leave the procedure to look up your specifications. The specifications are also found in the Service Specifications section for a quick reference.

6. TERMS DEFINITION

CAUTION	Indicate the possibility of injury to you or other people.
NOTICE	Indicate the possibility of damage to the components being repaired.
HINT	Provide additional information to help you perform the repair efficiently.

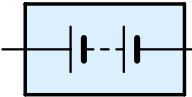
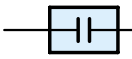
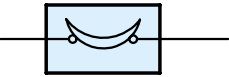
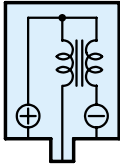
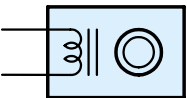
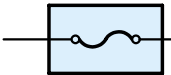
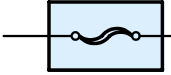
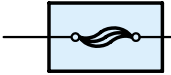
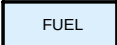
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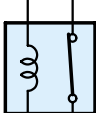
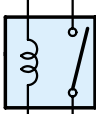
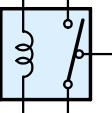
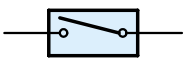
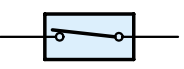
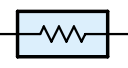
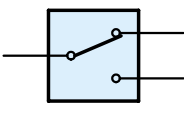
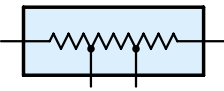
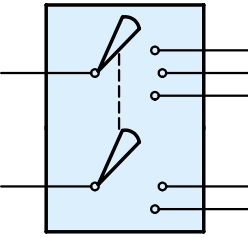
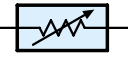
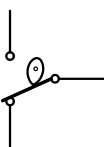
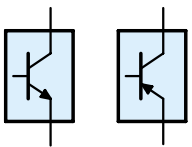
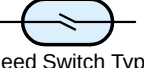
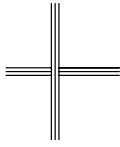
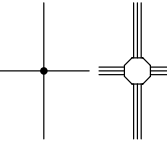
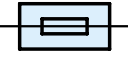
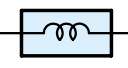
- (a) The UNITS given in this manual are primarily expressed according to the SI UNIT (International System of Unit), and alternately expressed in the metric system and in the English System.

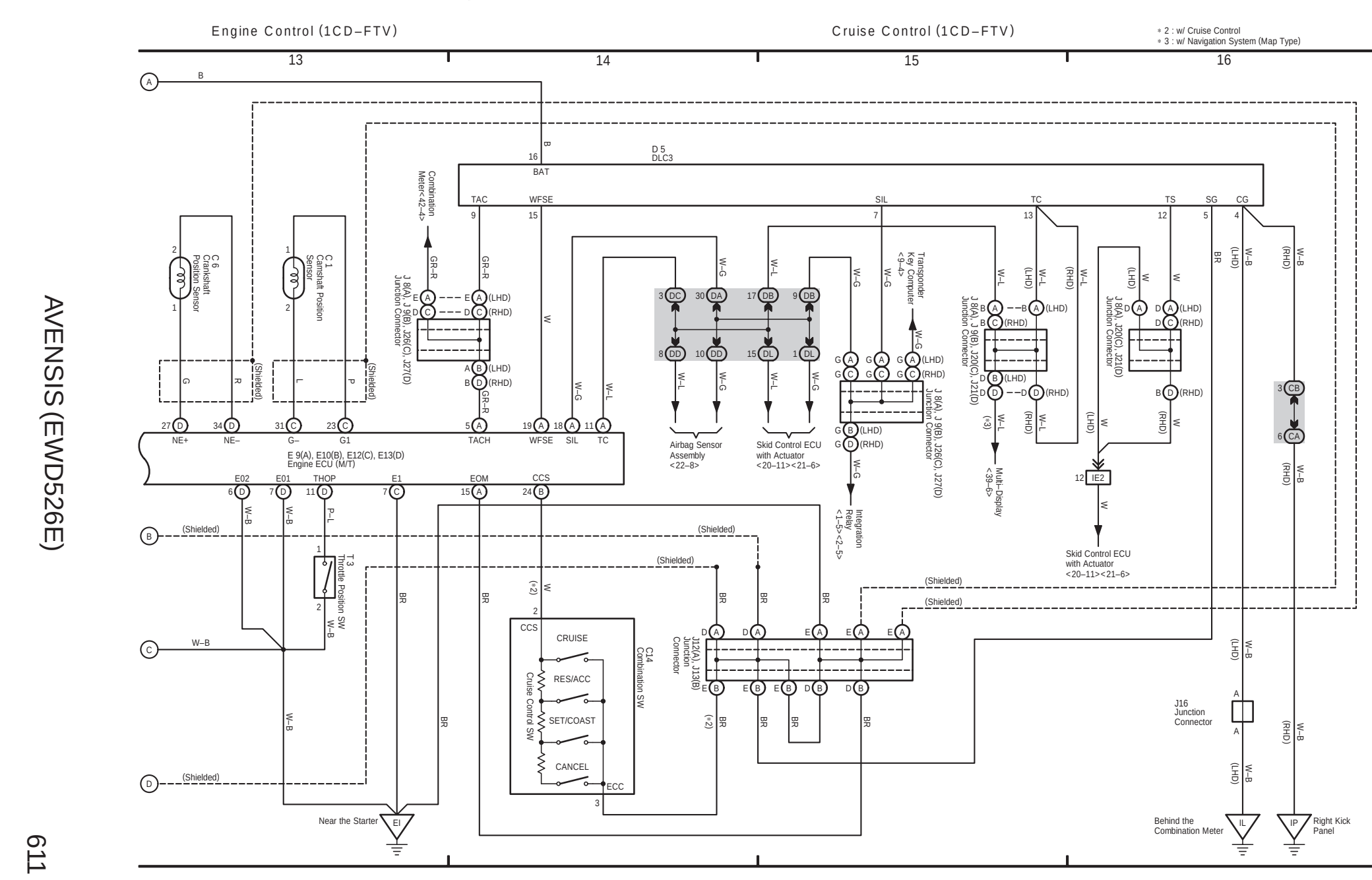
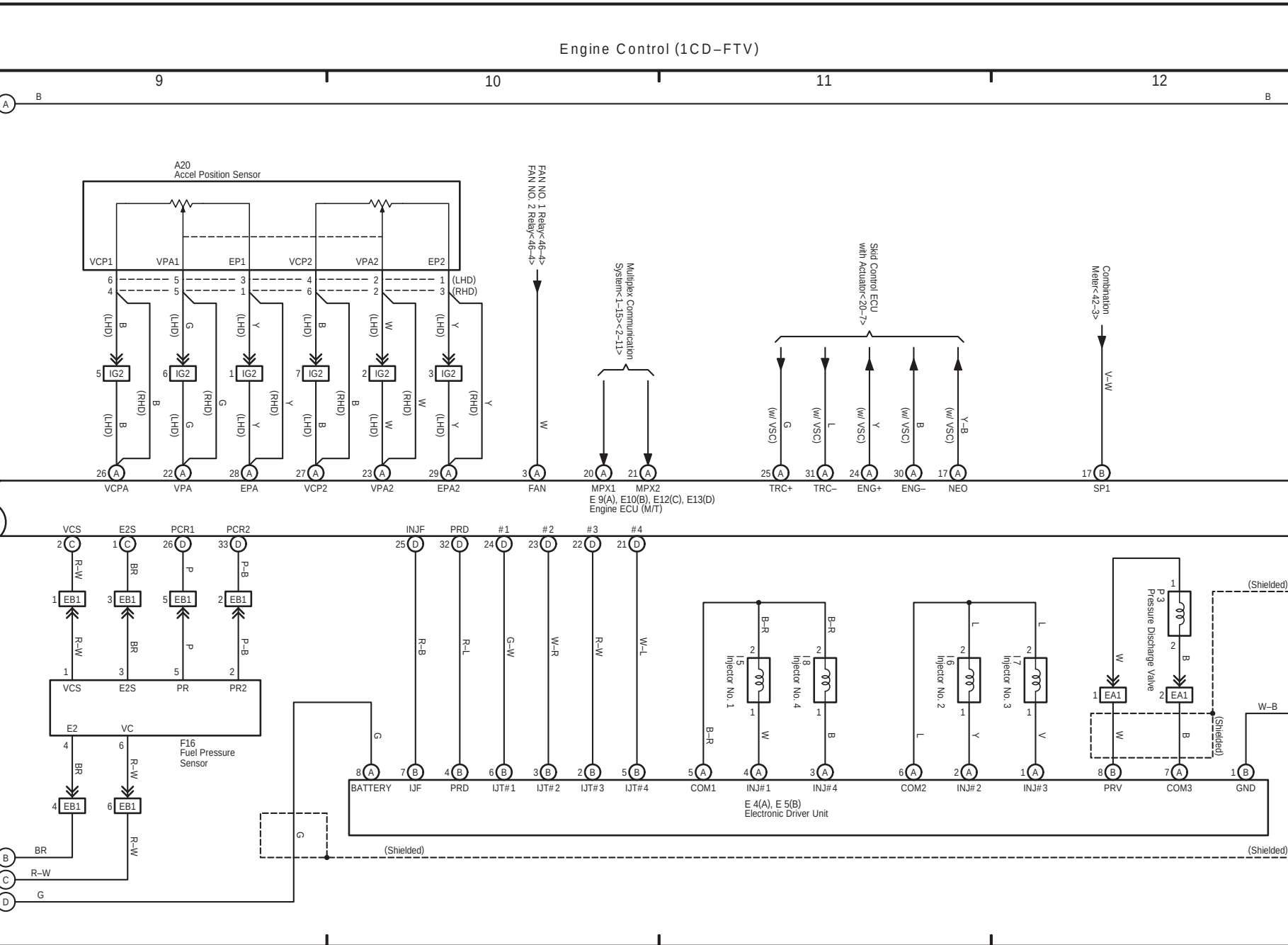
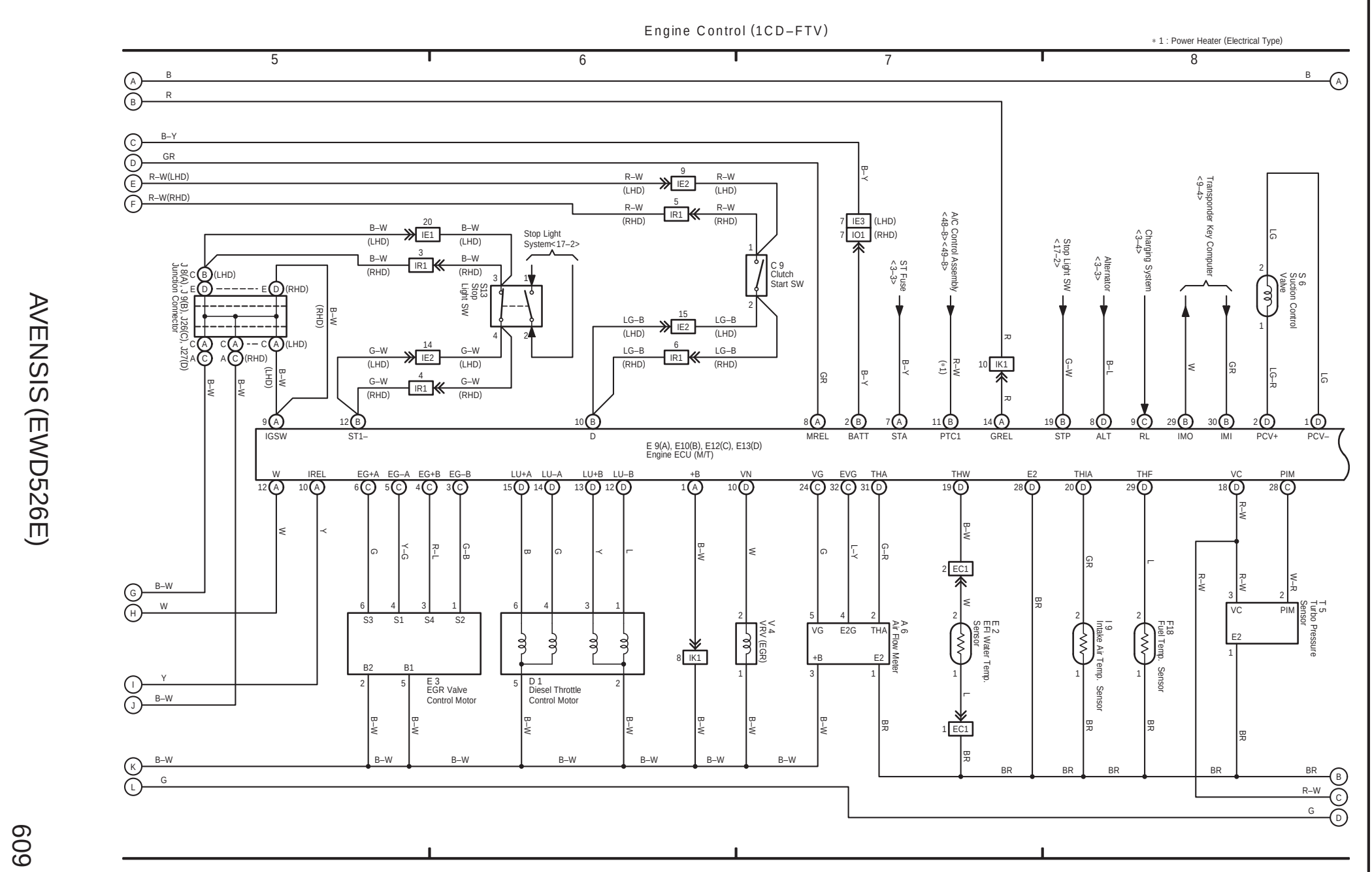
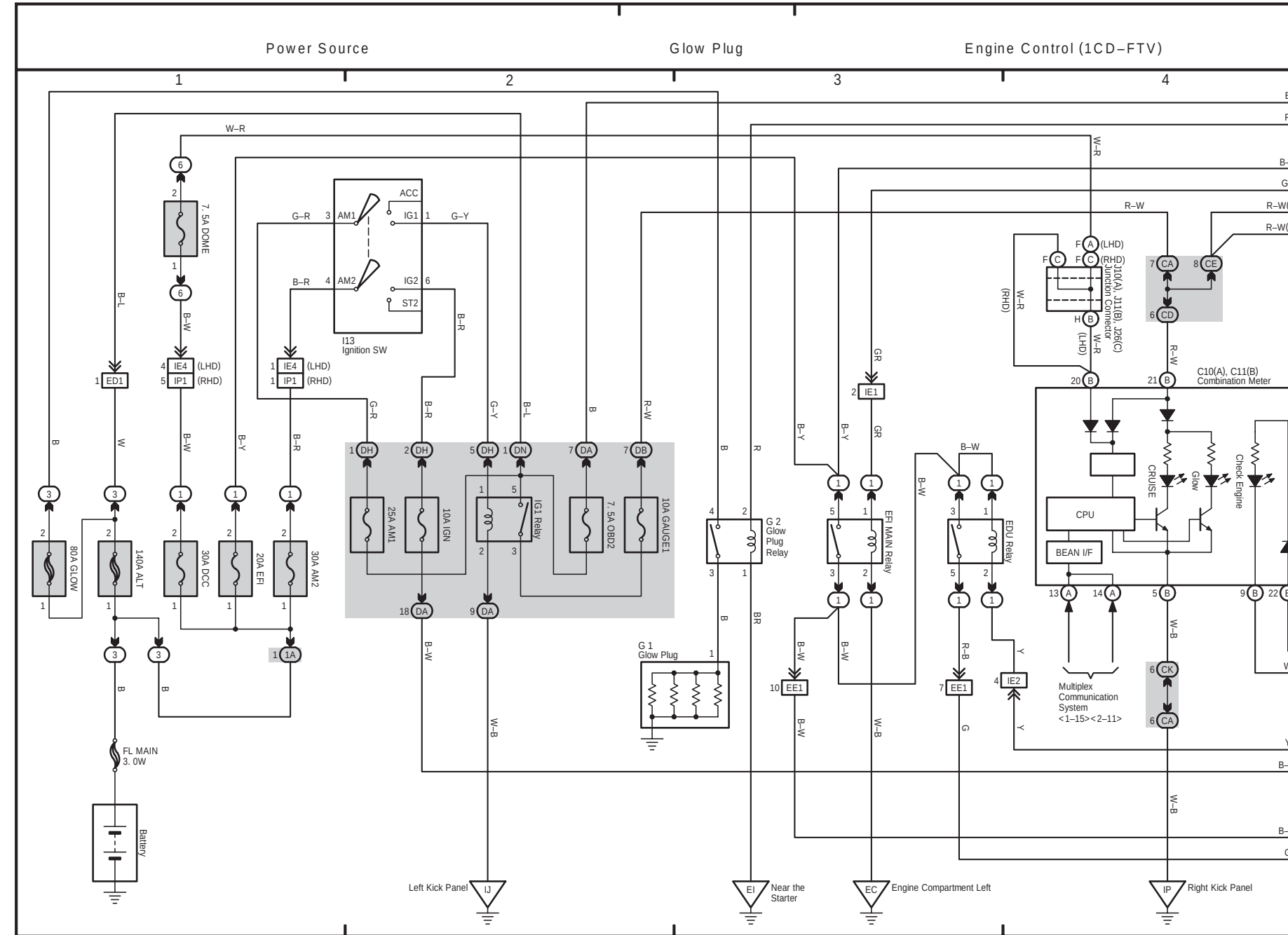
Example:

Torque: 30 N·m (310 kgf·cm, 22 ft·lbf)

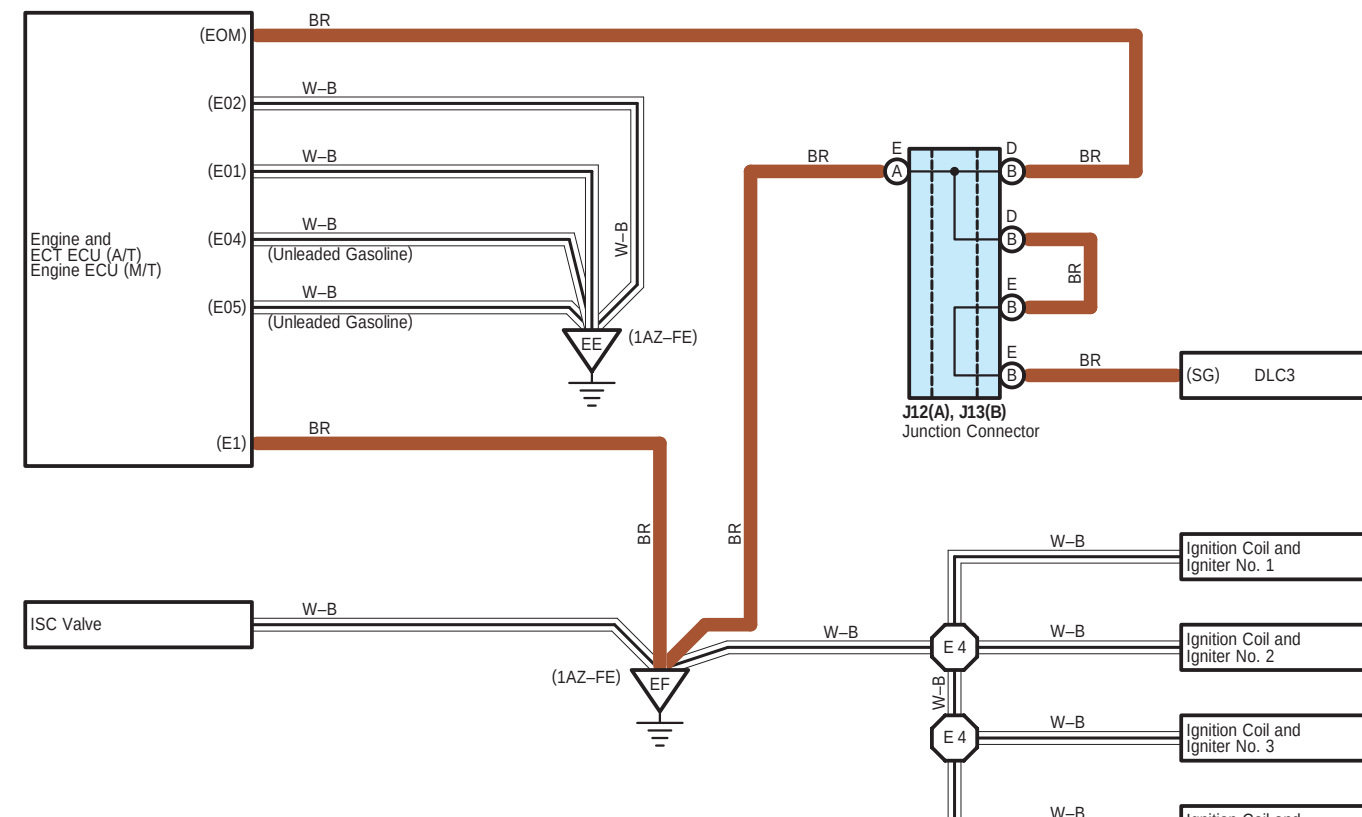
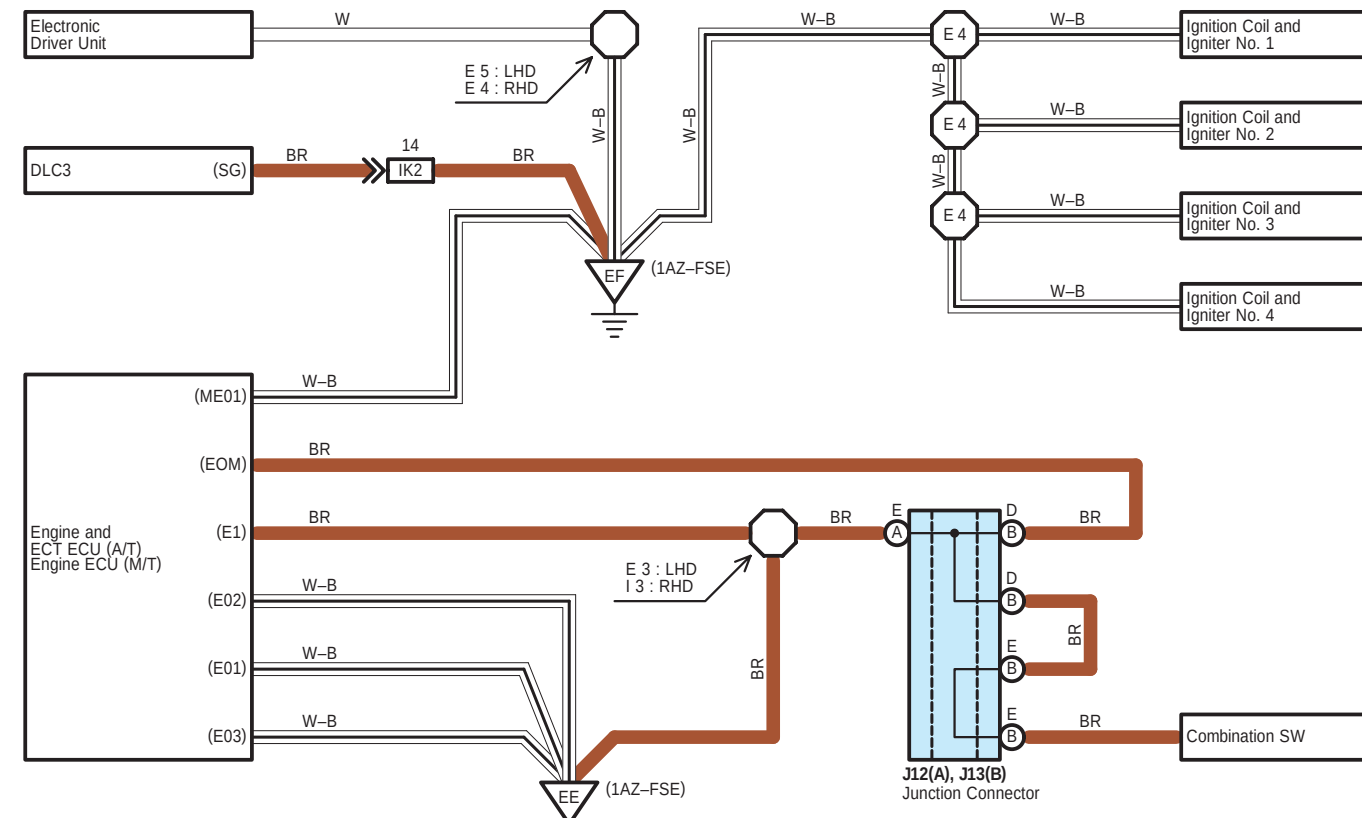
E GLOSSARY OF TERMS AND SYMBOLS

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

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

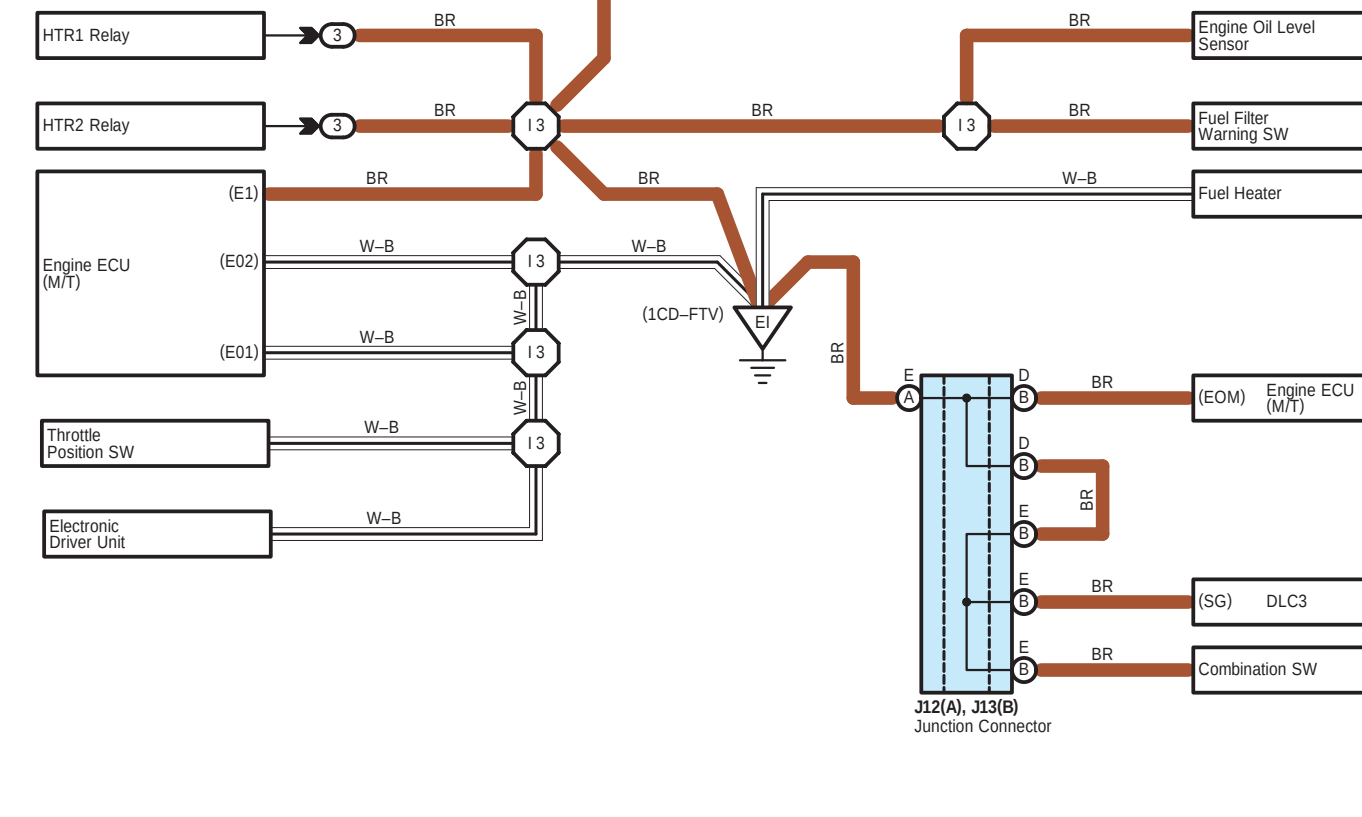
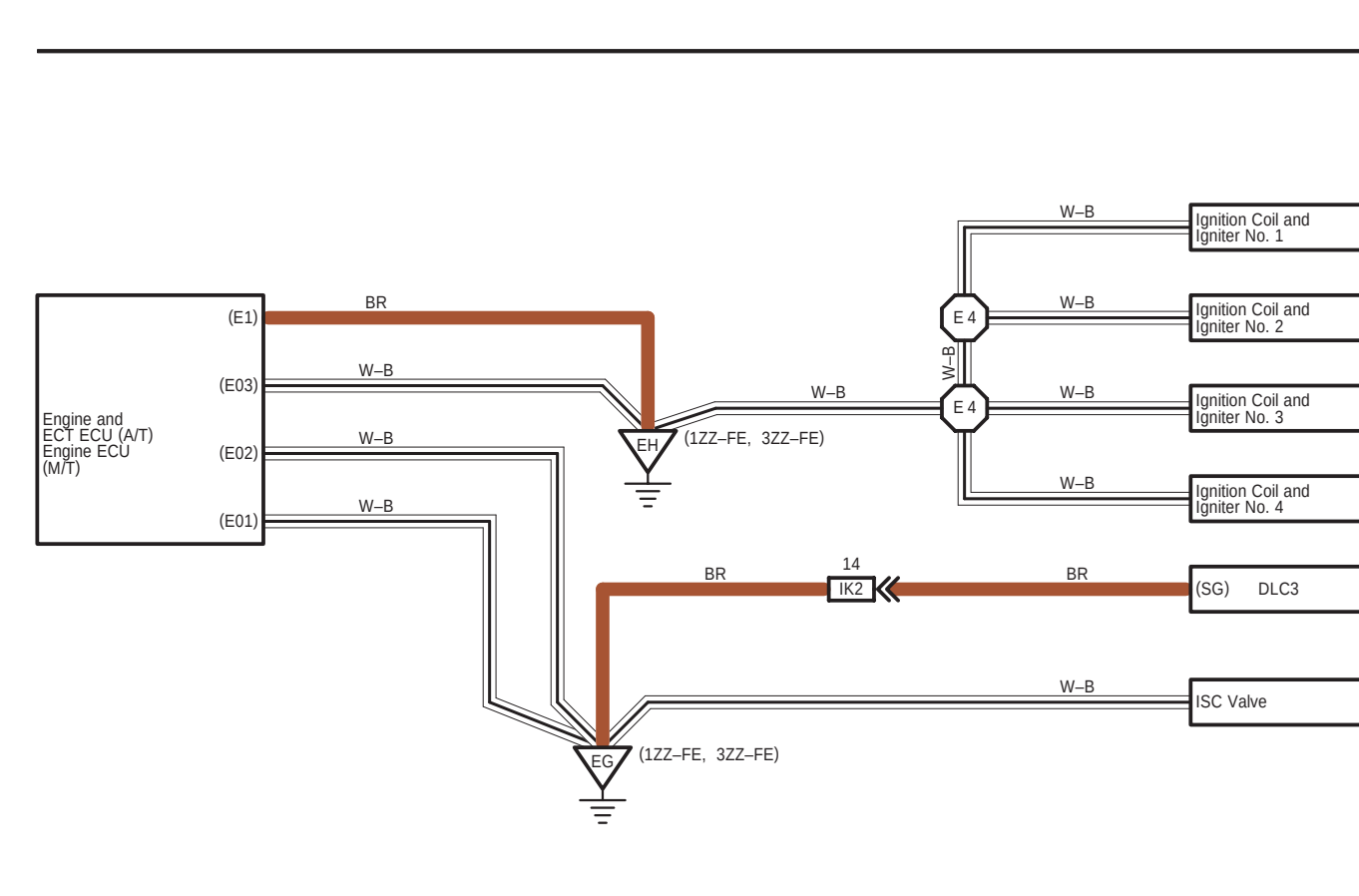


I GROUND POINT



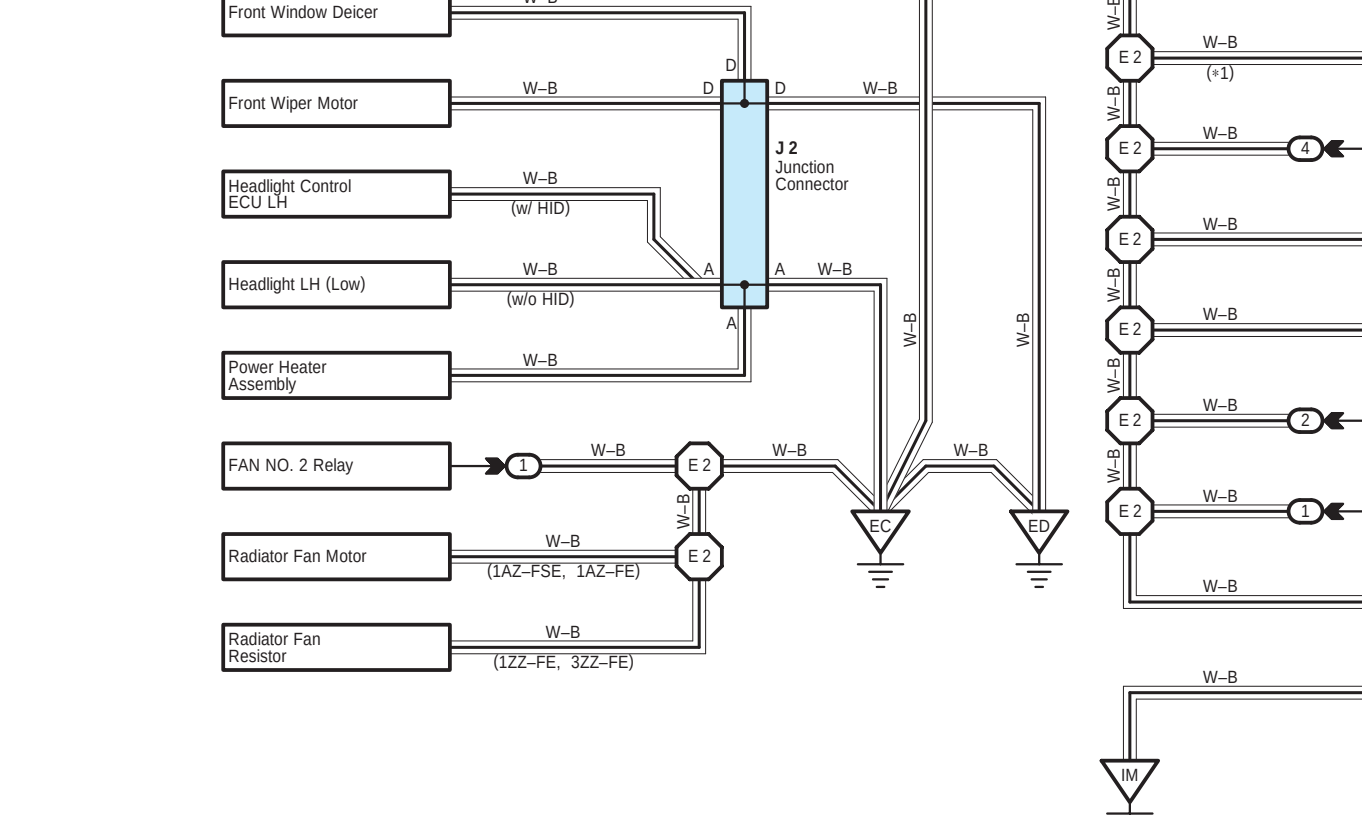
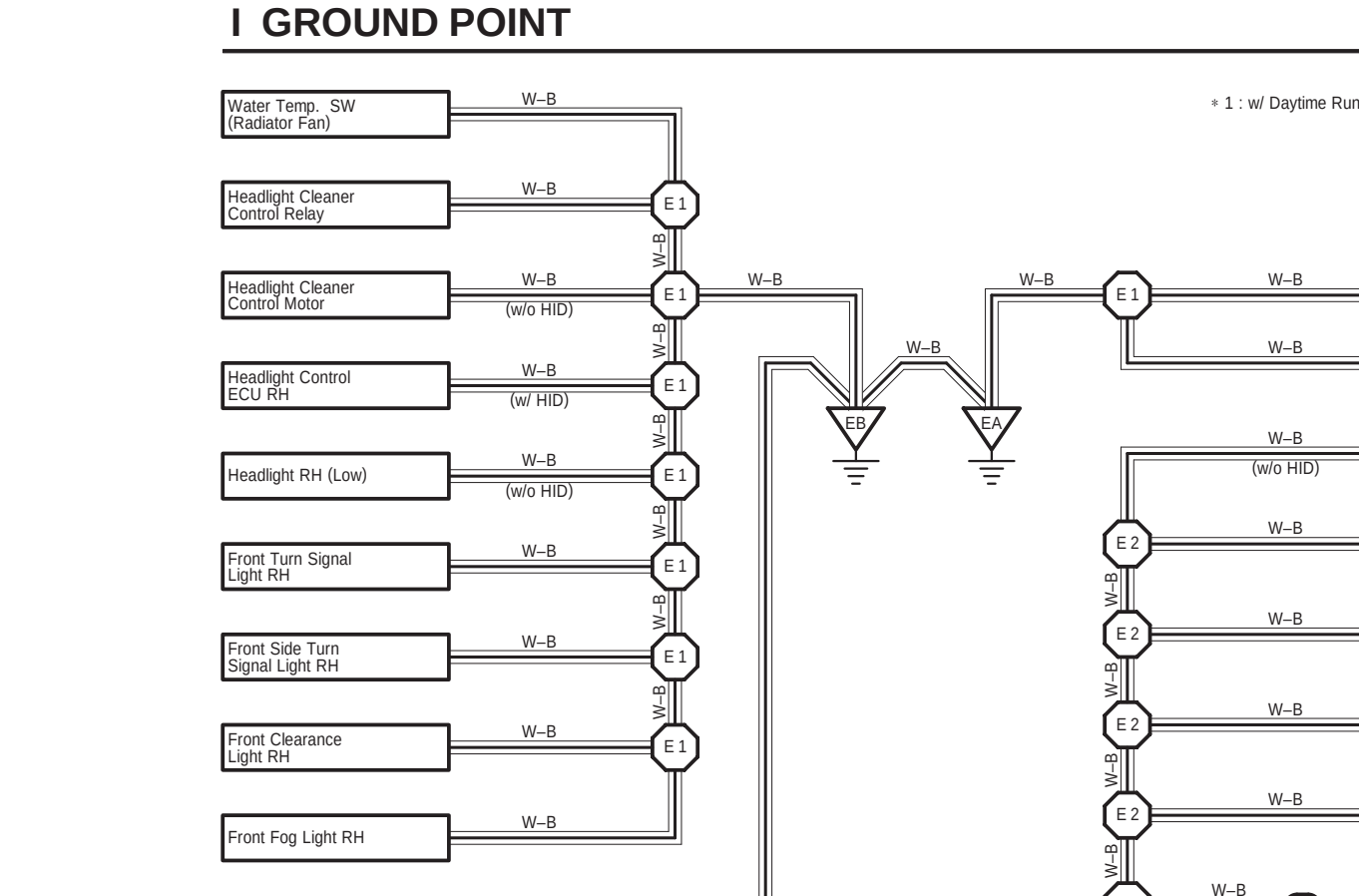
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AVENSIS (EWD526E)



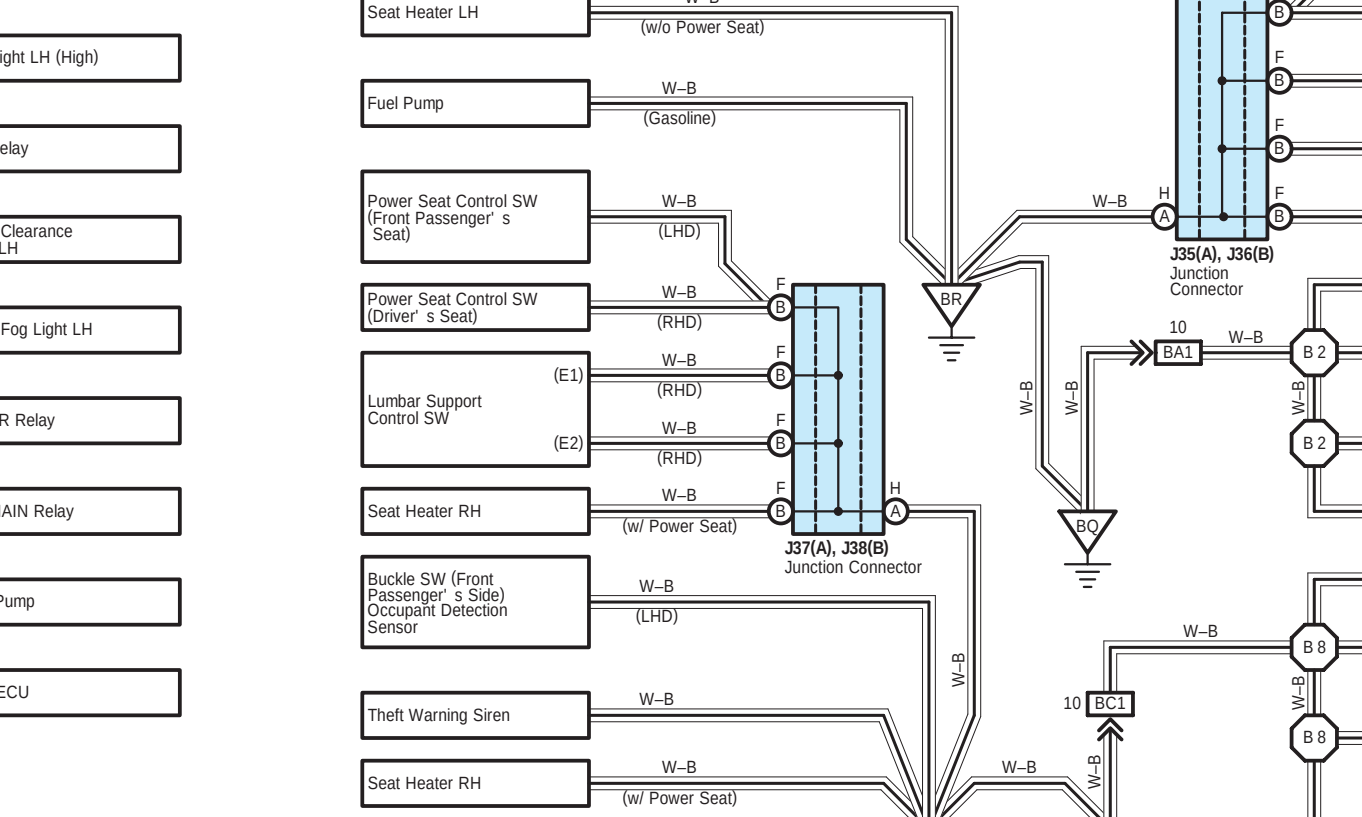
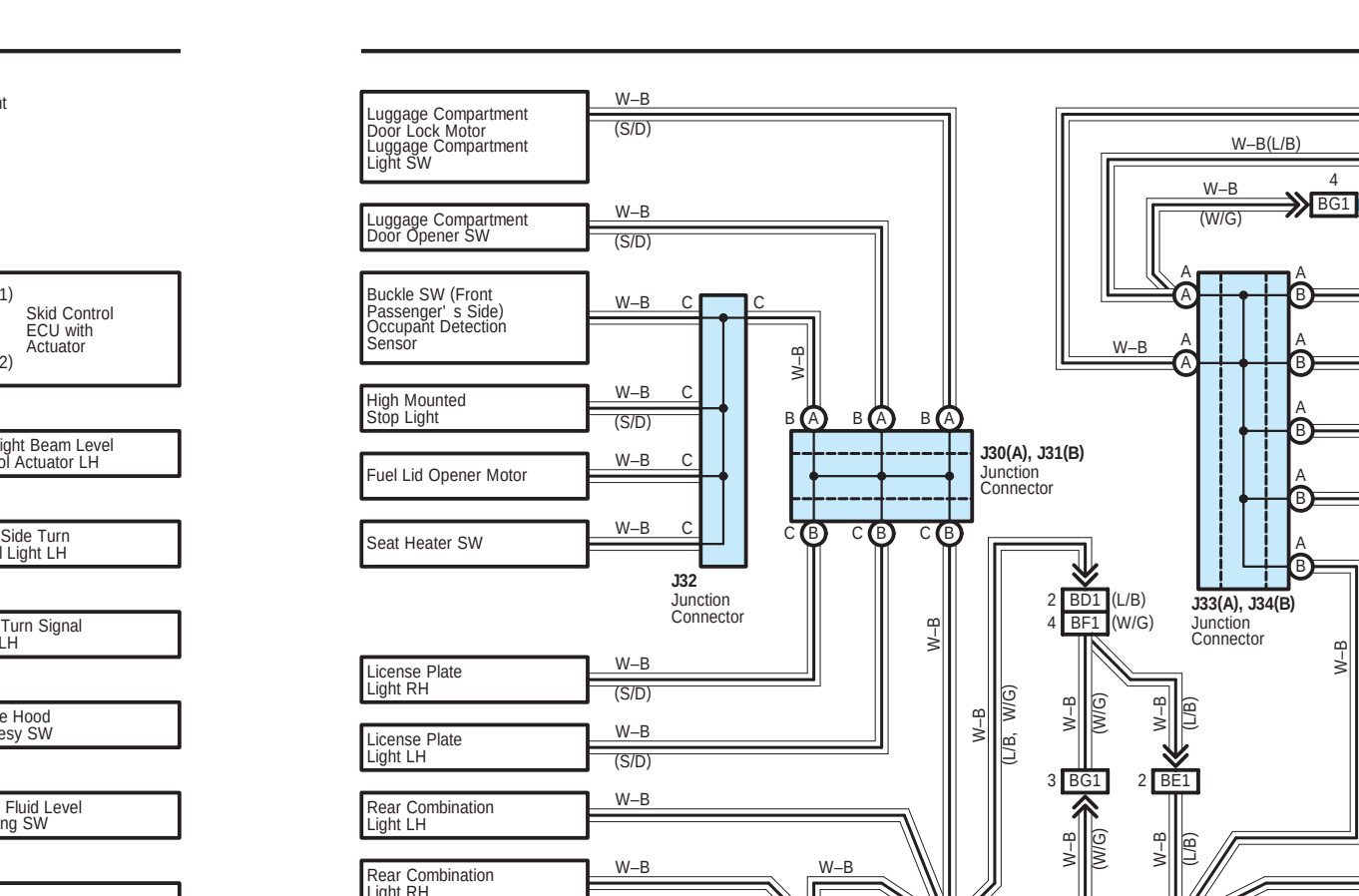
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AVENSIS (EWD526E)



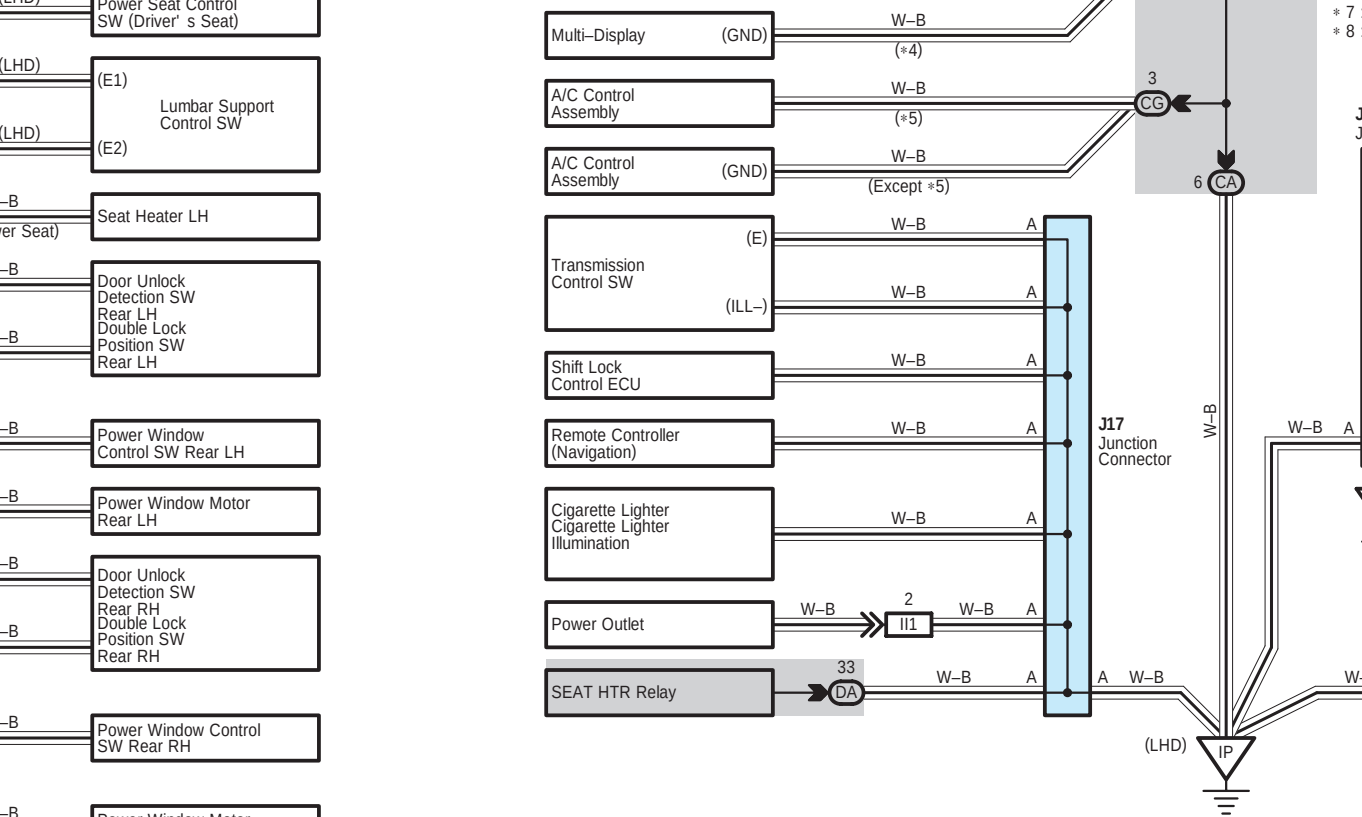
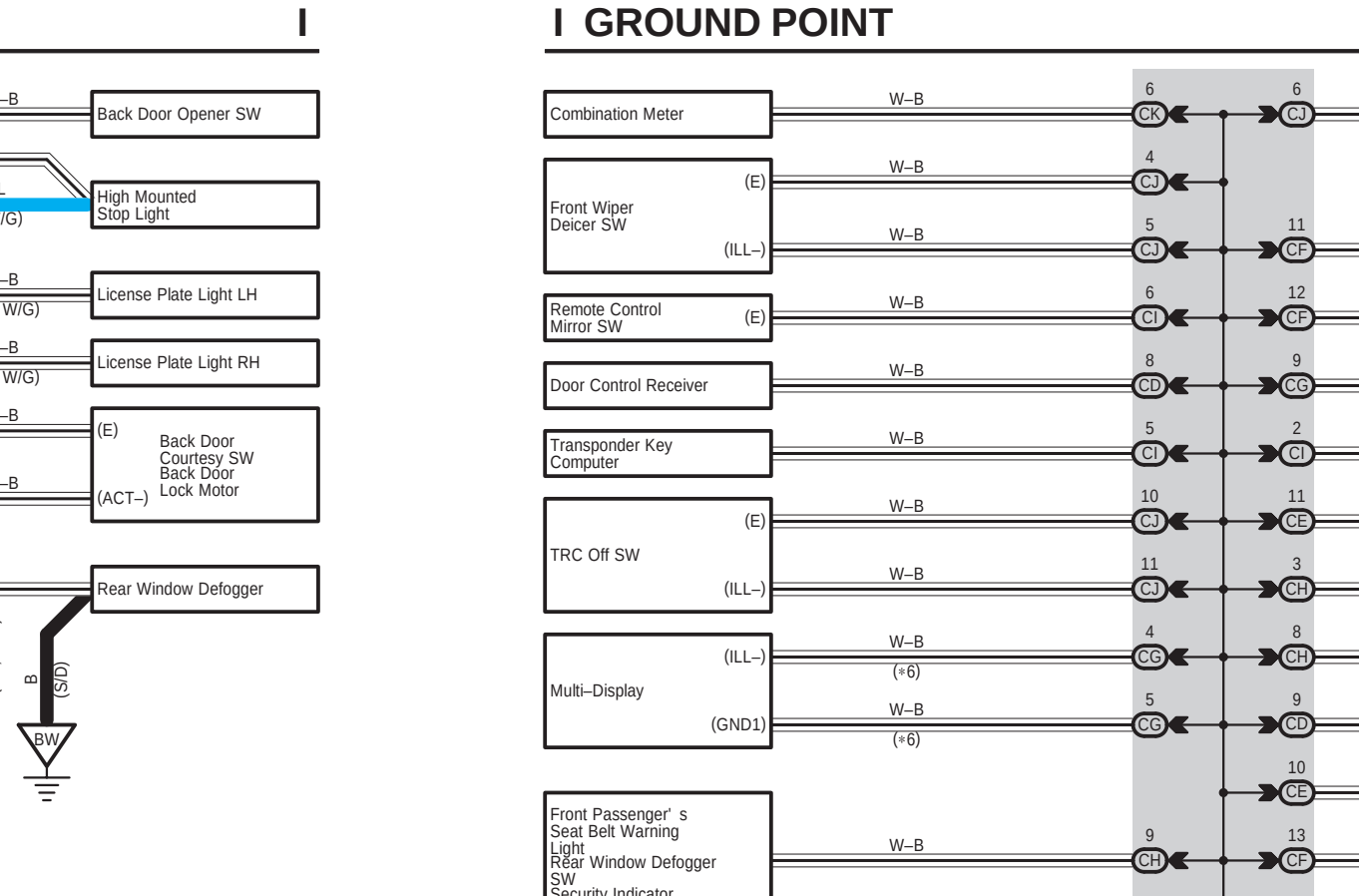
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AVENSIS (EWD526E)



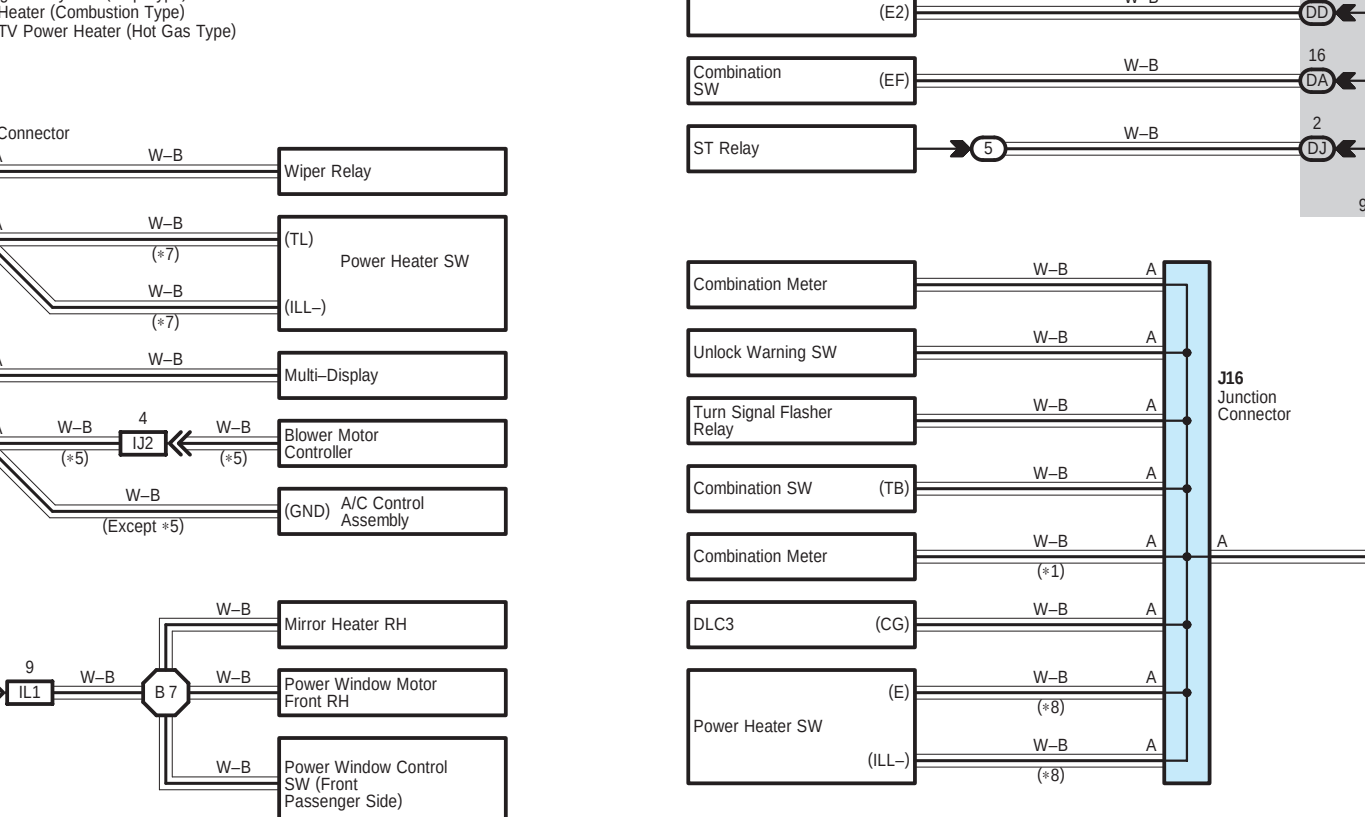
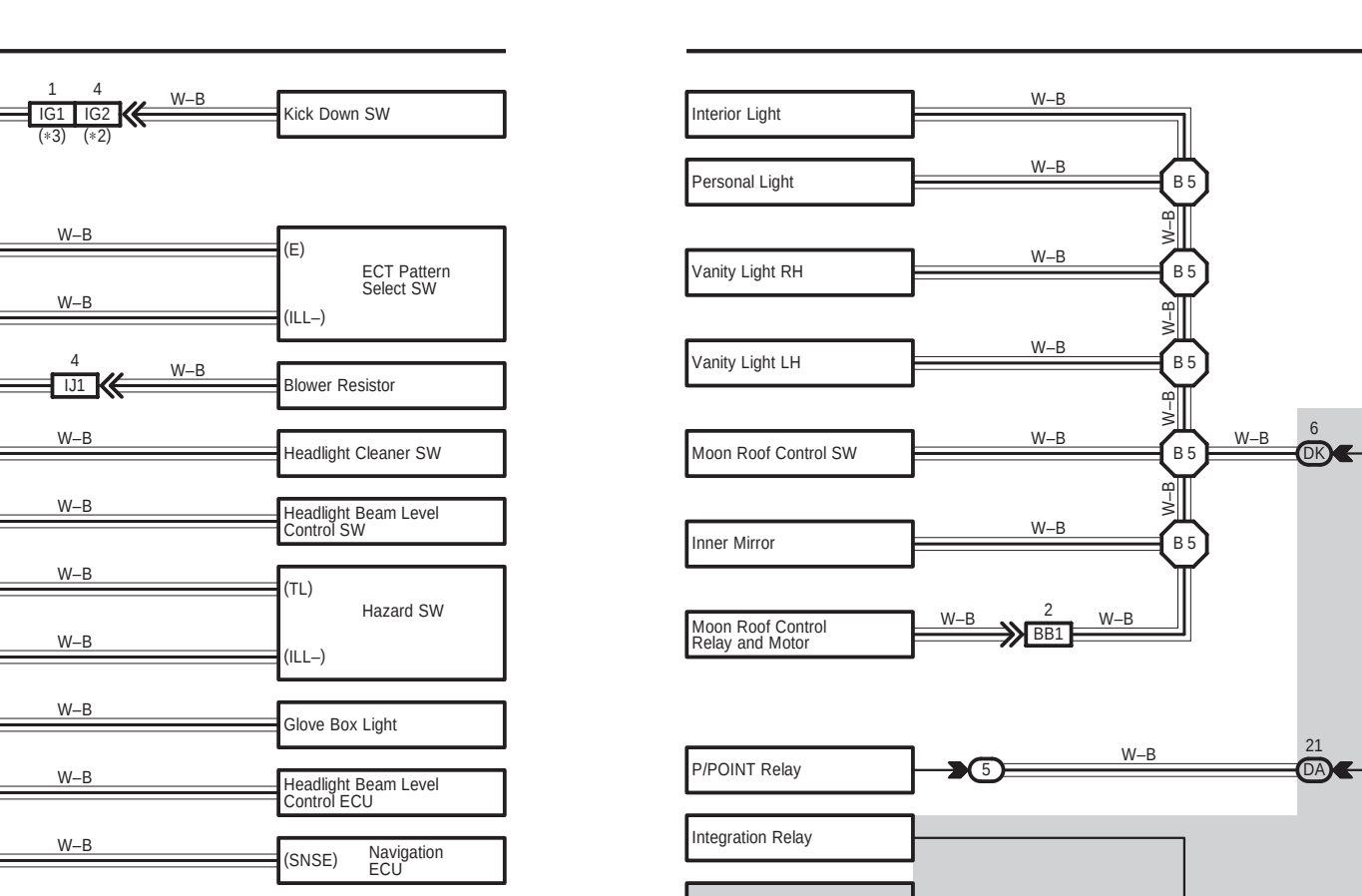
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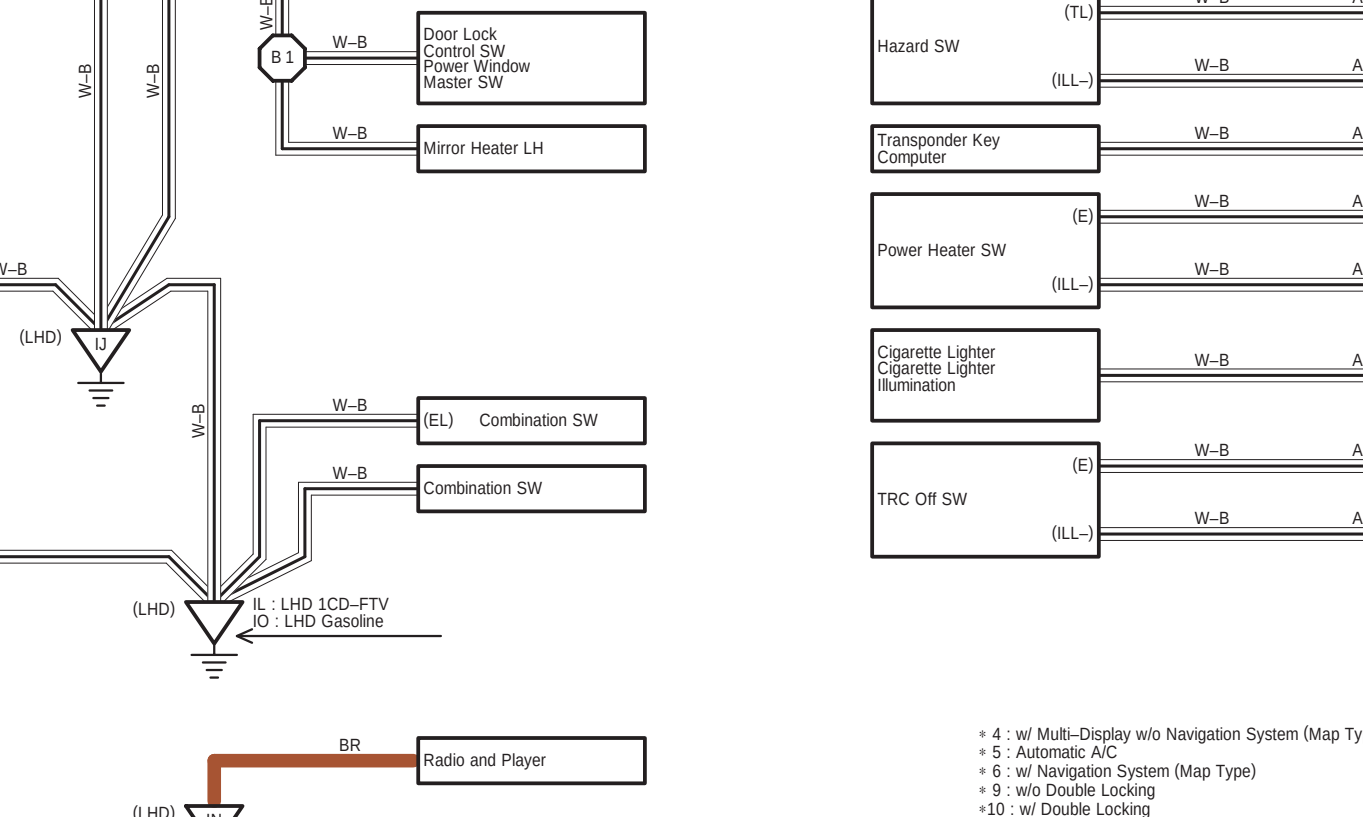
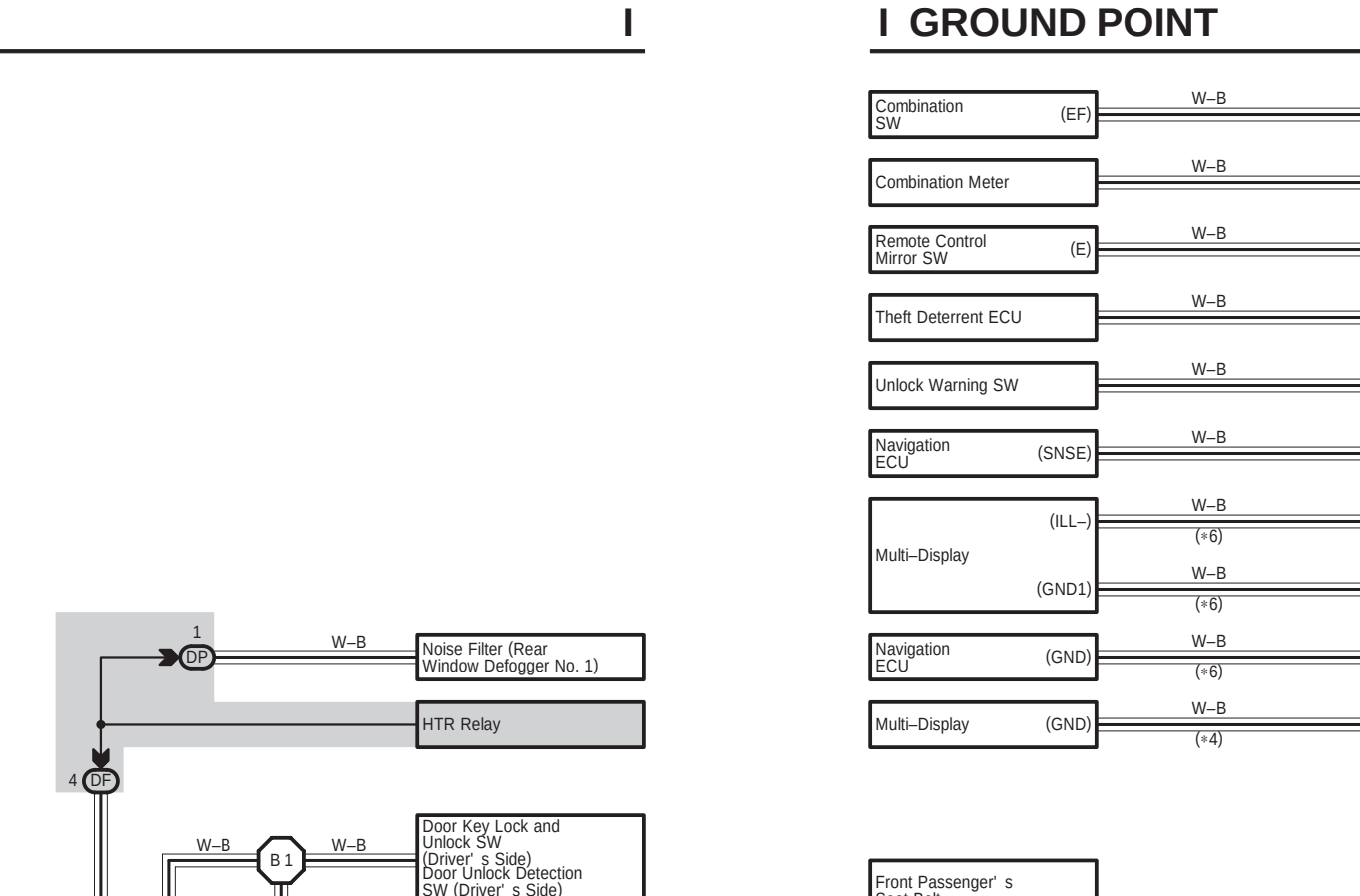
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AVENSIS (EWD526E)



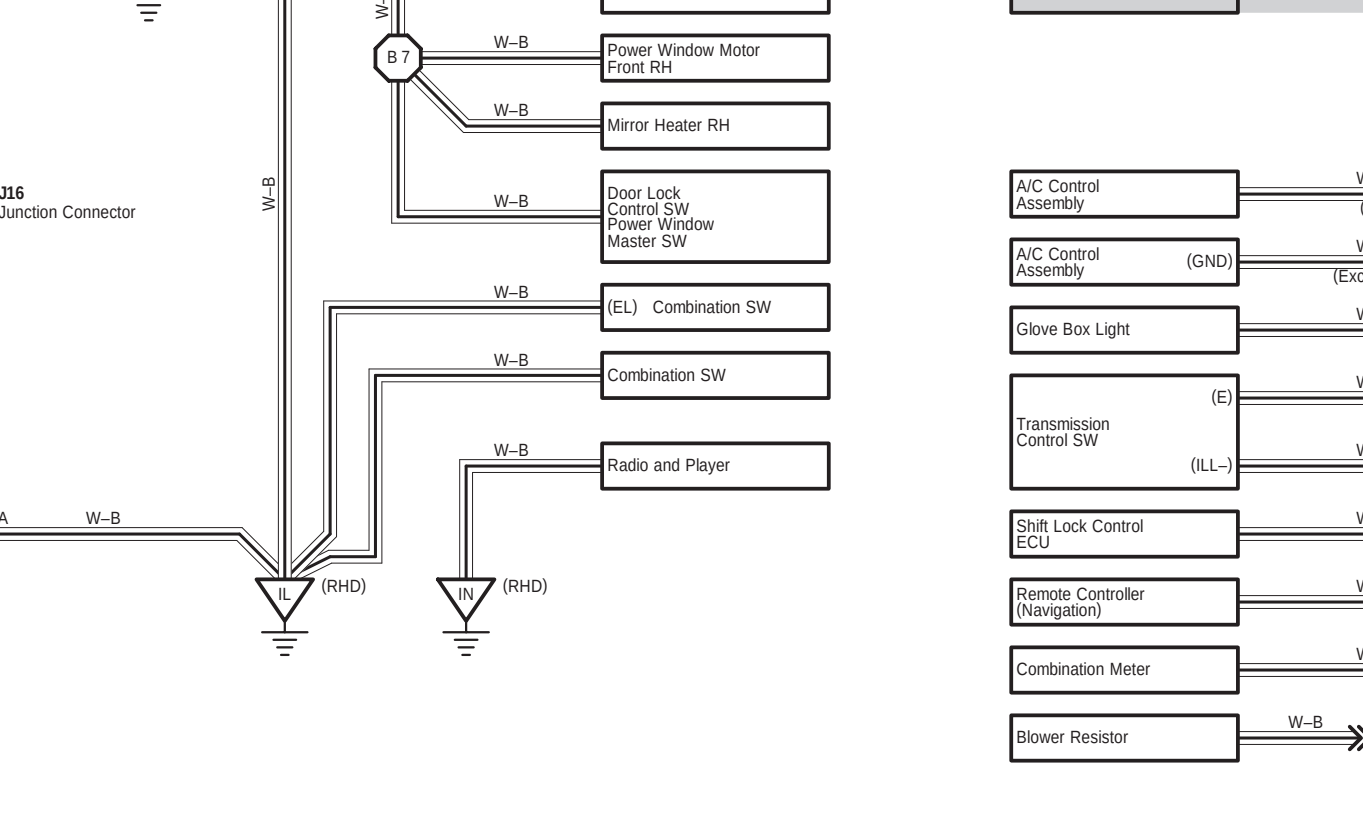
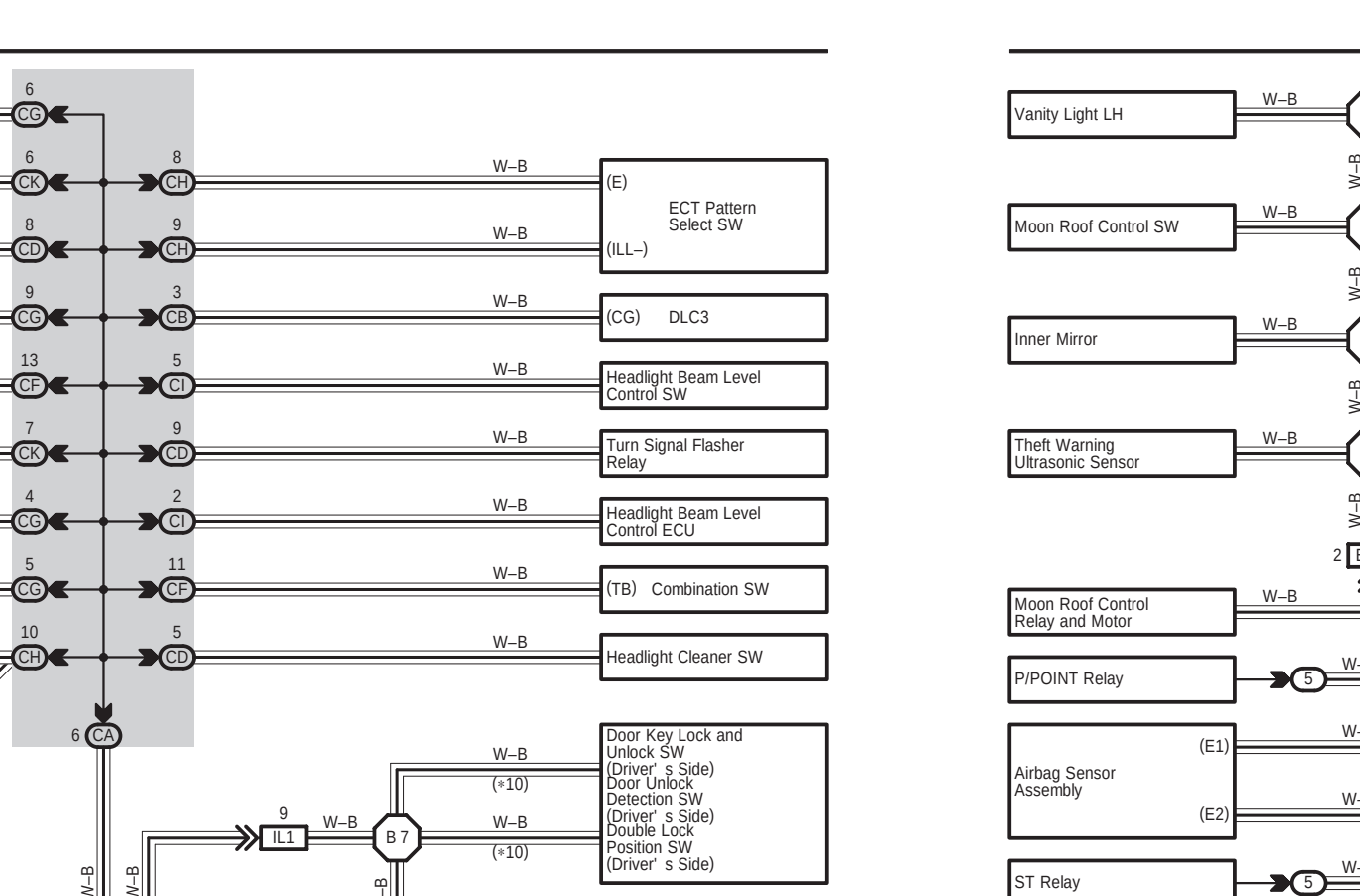
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AVENSIS (EWD526E)



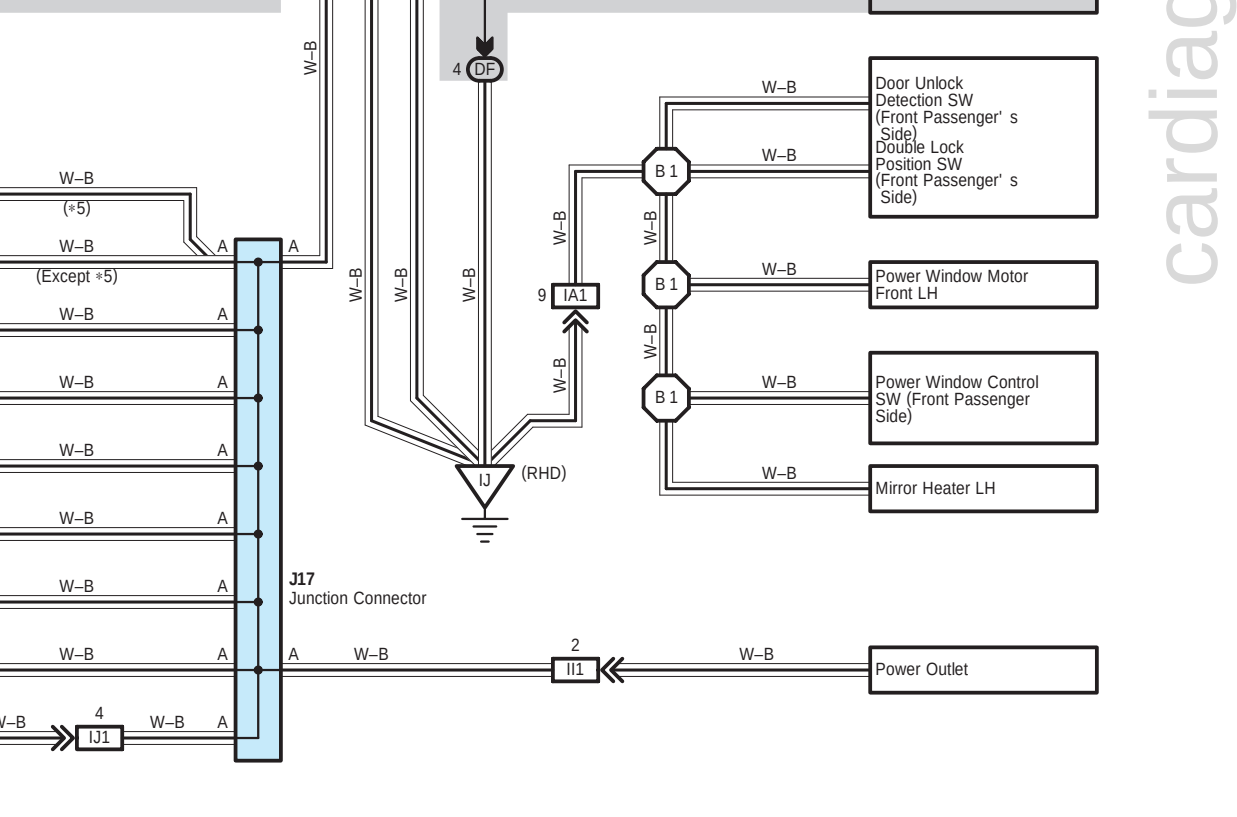
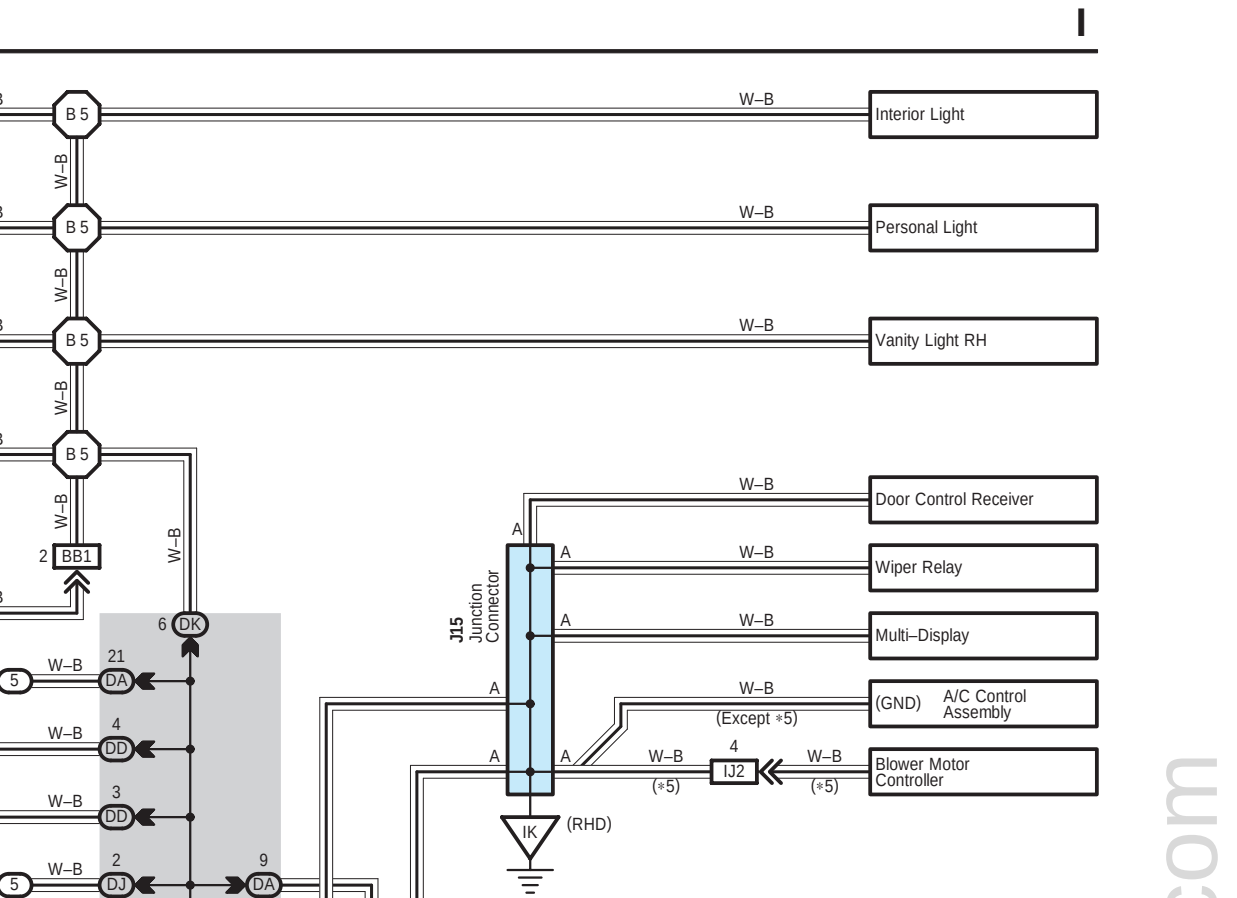
536

AVENSIS (EWD526E)



537

AVENSIS (EWD526E)



538

AVENSIS (EWD526E)

Power Source

Headlight Beam Level Control (w/ HID)

H1 Headlight Beam Level Control Actuator LH

H2 Headlight Beam Level Control Actuator RH

H14 Headlight Beam Level Control ECU

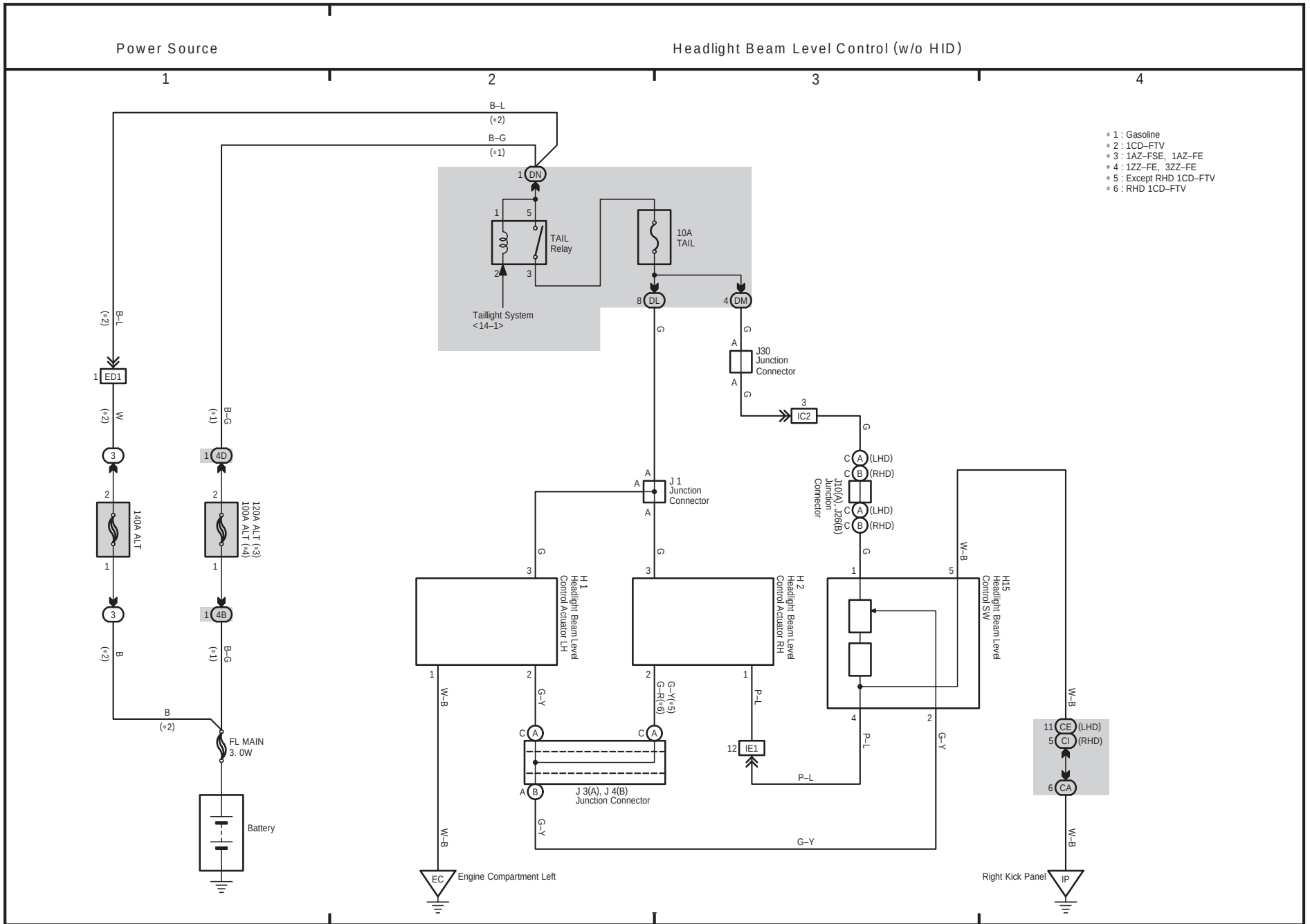
H18 Height Control Sensor (Front)

H19 Height Control Sensor (Rear)

Legend:

- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE

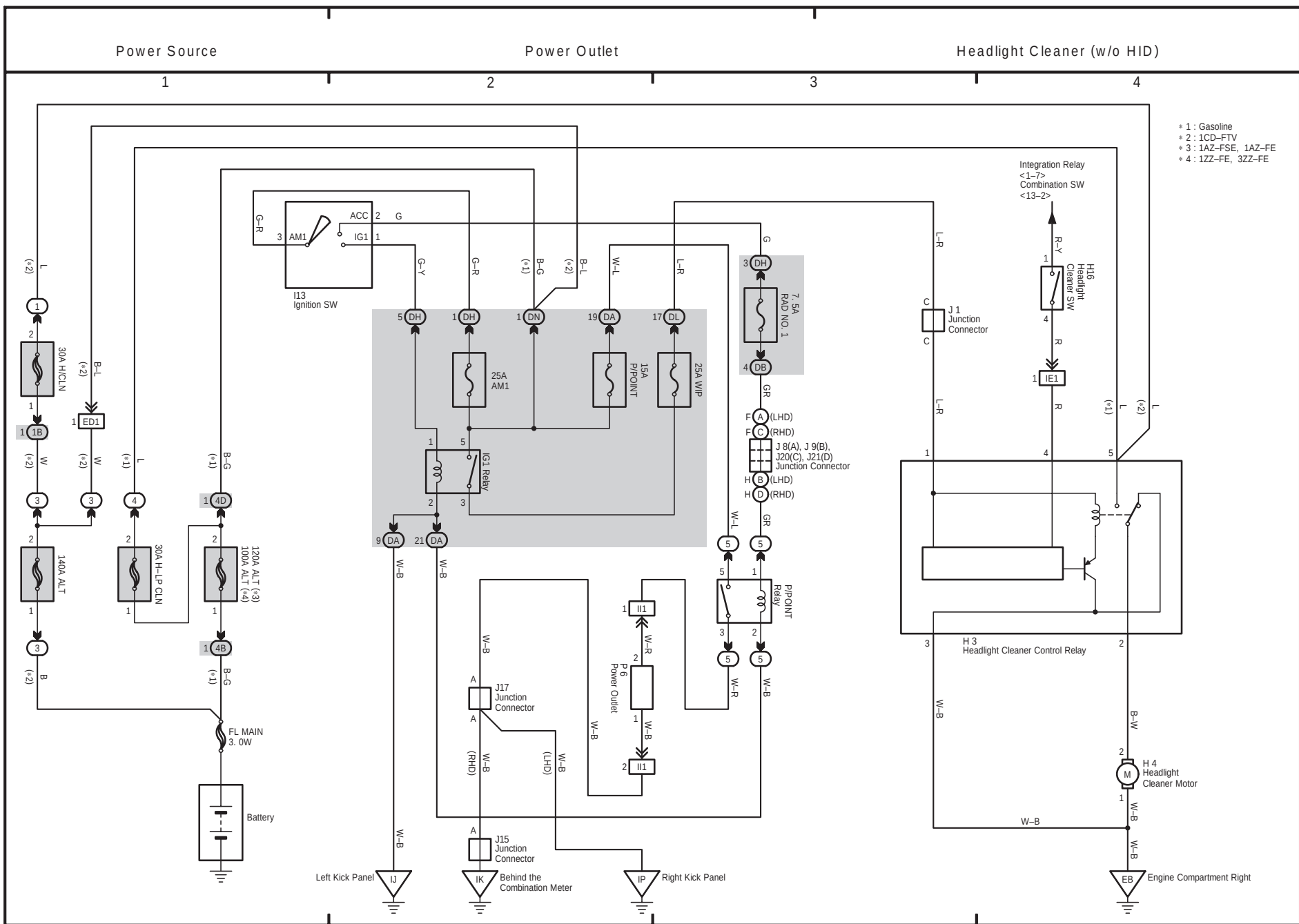
- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE



[illegible]

- * 1: Gasoline
- * 2: 1CD-FTV
- * 3: 1AZ-FSE, 1AZ-FE
- * 4: 1ZZ-FE, 3ZZ-FE
- * 5: Behind the Combination Meter (LHD 1CD-FTV, RHD)
- * 6: Instrument Panel Reinforcement RH (LHD Except 1CD-FTV)
- * 7: w/ Headlight Cleaner w/ HID
- * 8: Except *7
- * 9: Left Side of the Suspension Tower

30 AVENSIS







Power Source **Horn** **Fuel Heater** **Fuel Lid Opener**

1 2 3 4

Legend:

- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE
- * 5 : w/ Theft Deterrent

Diagram components and connections:

- Power Source:** Battery (3.0V), FL MAIN 3.0V, 50A AM1 NO. 1, 120A ALT (*3), 100A ALT (*4), 140A ALT, 15A HORN, 25A F-HTR, 120A ALT (*3), 100A ALT (*4).
- Horn:** Horn Relay, Horn LH (H11), Horn RH (H12), Horn SW, C14 Horn Combination SW, J26(A), J27(B) Junction Connector, Theft Deterrent ECU.
- Fuel Heater:** Fuel Heater (F15), Fuel Heater Relay (F-HTR), Fuel Heater Ignition Relay (IG1), Fuel Heater Ignition Relay (IG1), Fuel Heater Ignition Relay (IG1), Fuel Heater Ignition Relay (IG1).
- Fuel Lid Opener:** Fuel Lid Opener Motor (F23), Fuel Lid Opener Switch (F24), Fuel Lid Opener Switch (F24), Fuel Lid Opener Switch (F24), Fuel Lid Opener Switch (F24).

Wire colors and connectors are indicated throughout the diagram. Grounding points are labeled: Left Kick Panel (LJ), Engine Compartment Left (EC), Near the Starter (EI), and Lower Back Panel Left (BS).

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

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

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

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

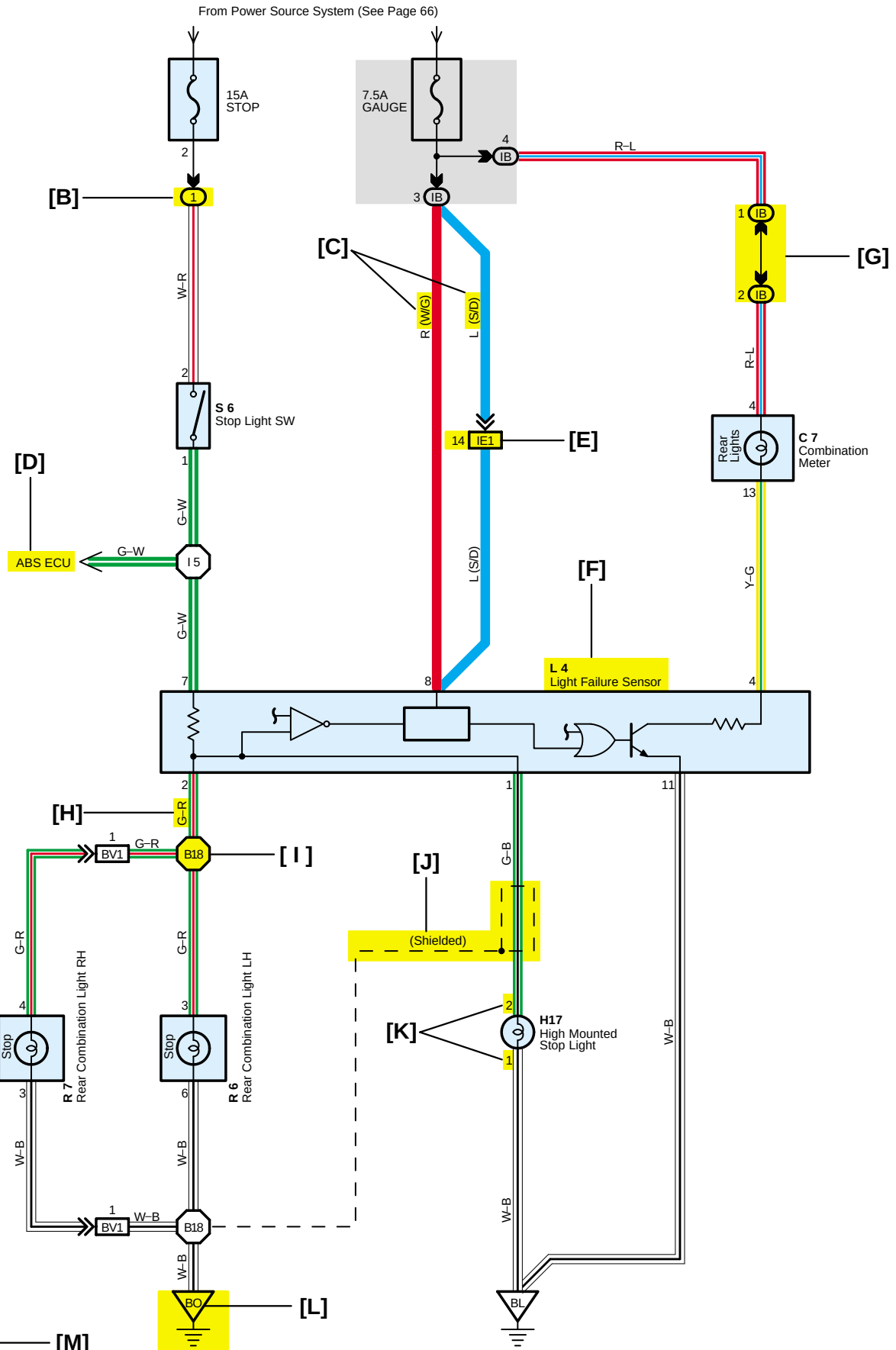
Wiring related to each system is indicated in each system circuit by arrows (from__, to__). When overall connections are required, see the Overall Electrical Wiring Diagram at the end of this manual.

B HOW TO USE THIS MANUAL

[A]

Stop Light

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



[A] : System Title

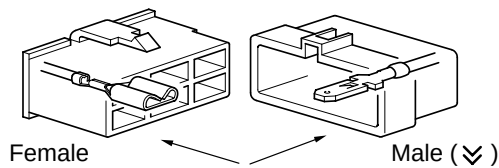
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

Example: ① Indicates Relay Block No.1

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

[D] : Indicates related system.

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



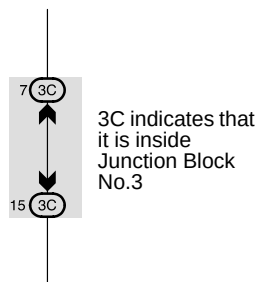
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g, "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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

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

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

Example:



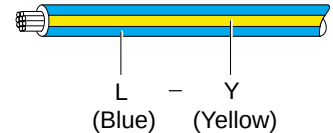
[H] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

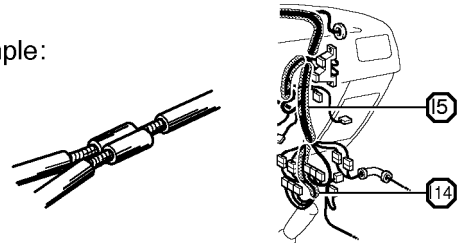
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L - Y



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

Example:



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

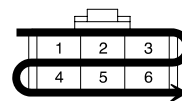
[J] : Indicates a shielded cable.



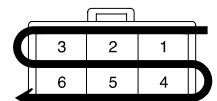
[K] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

[L] : Indicates a ground point.

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

[M] : Page No.

B HOW TO USE THIS MANUAL

[N]

System Outline

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

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

Stop Light Disconnection Warning

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

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

[O]

Service Hints

S6 Stop Light SW

2-1 : Closed with the brake pedal depressed

L4 Light Failure Sensor

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

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

11-Ground : Always continuity

[P]



: Parts Location

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

[Q]



: Relay Blocks

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

[R]



: Junction Block and Wire Harness Connector

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

[S]



: Connector Joining Wire Harness and Wire Harness

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

[T]



: Ground Points

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

[U]



: Splice Points

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

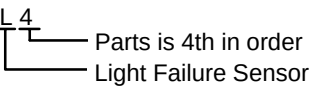
[N] : Explains the system outline.

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

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

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

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

Example : L 4

 Parts is 4th in order
 Light Failure Sensor

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

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

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

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

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

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

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

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

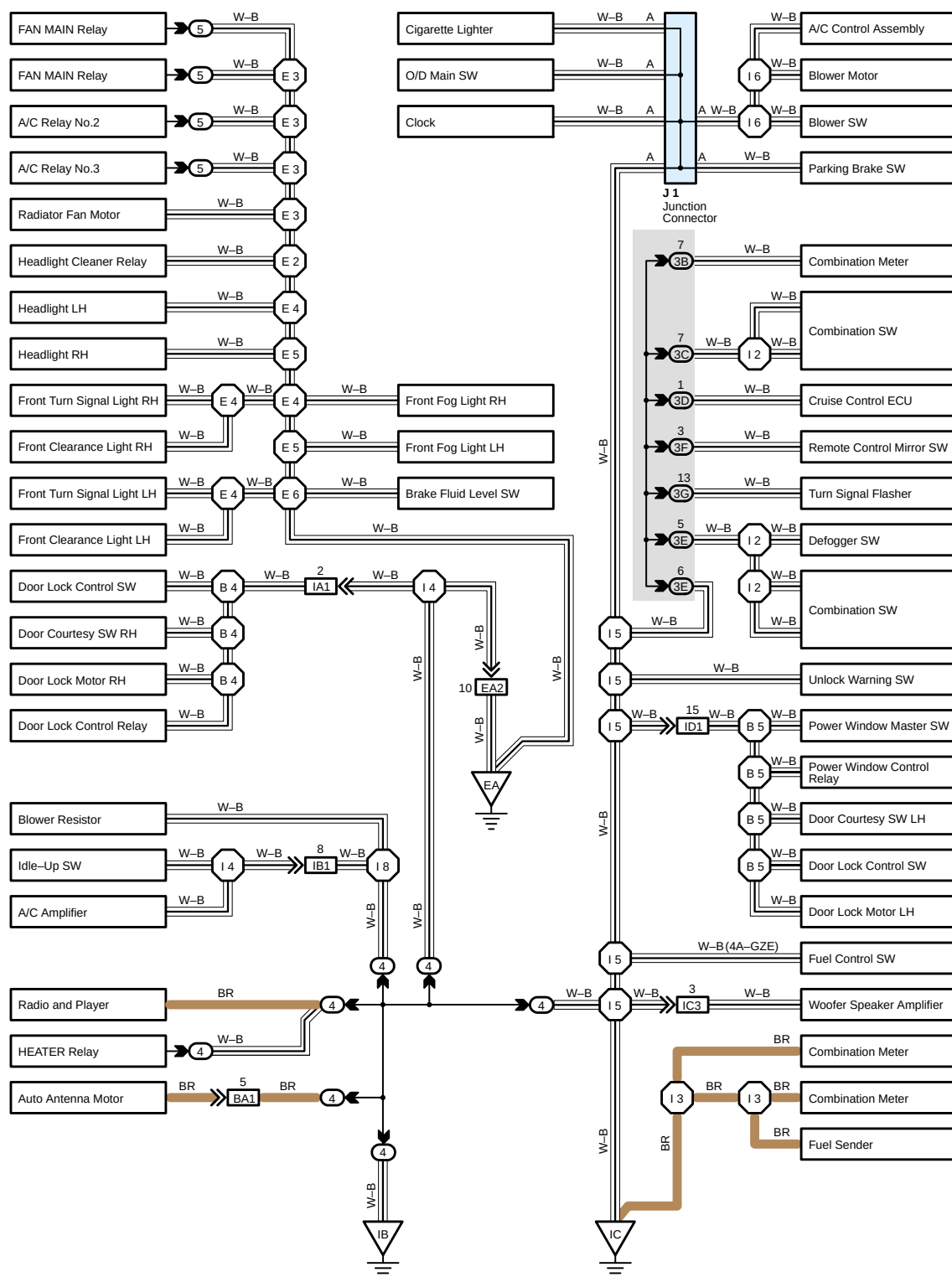
[U] : Indicates the reference page showing the position of the splice points on the vehicle.

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

B HOW TO USE THIS MANUAL

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

I GROUND POINT

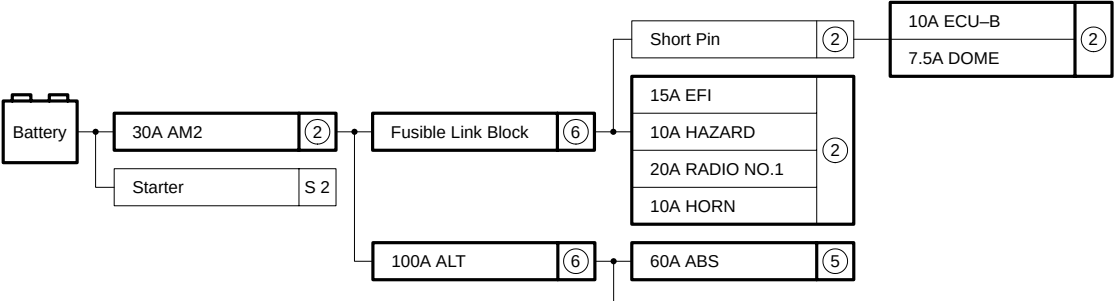


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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

J POWER SOURCE (Current Flow Chart)

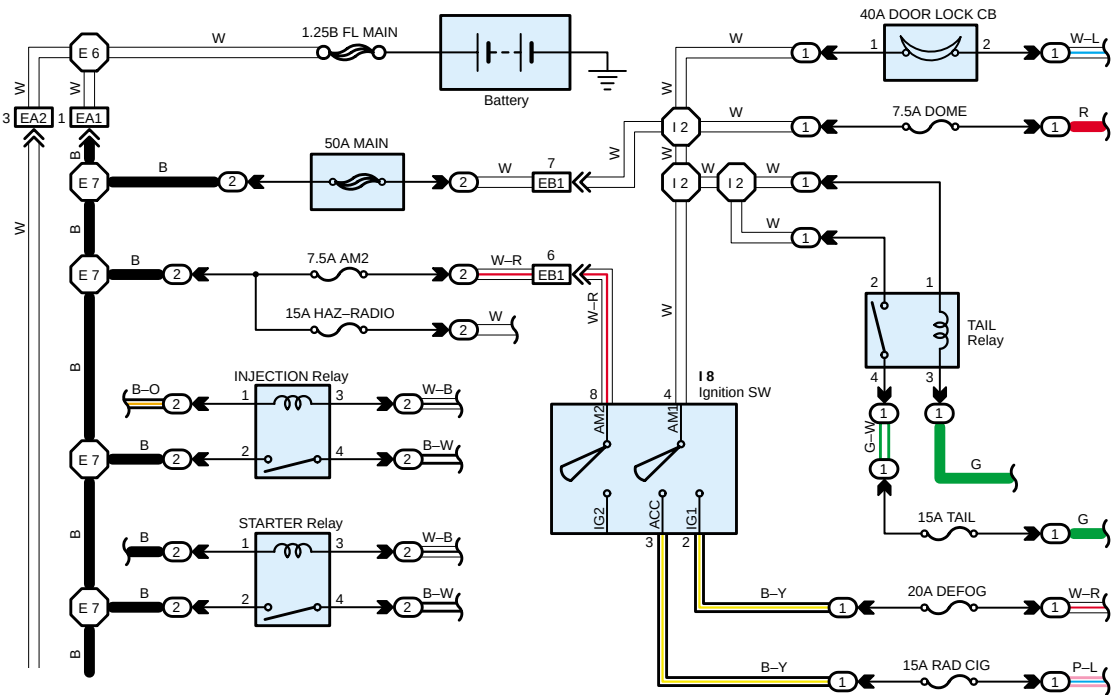
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

Fuse	System	Page
20A	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	
	4 Deterrent and Door Lock	

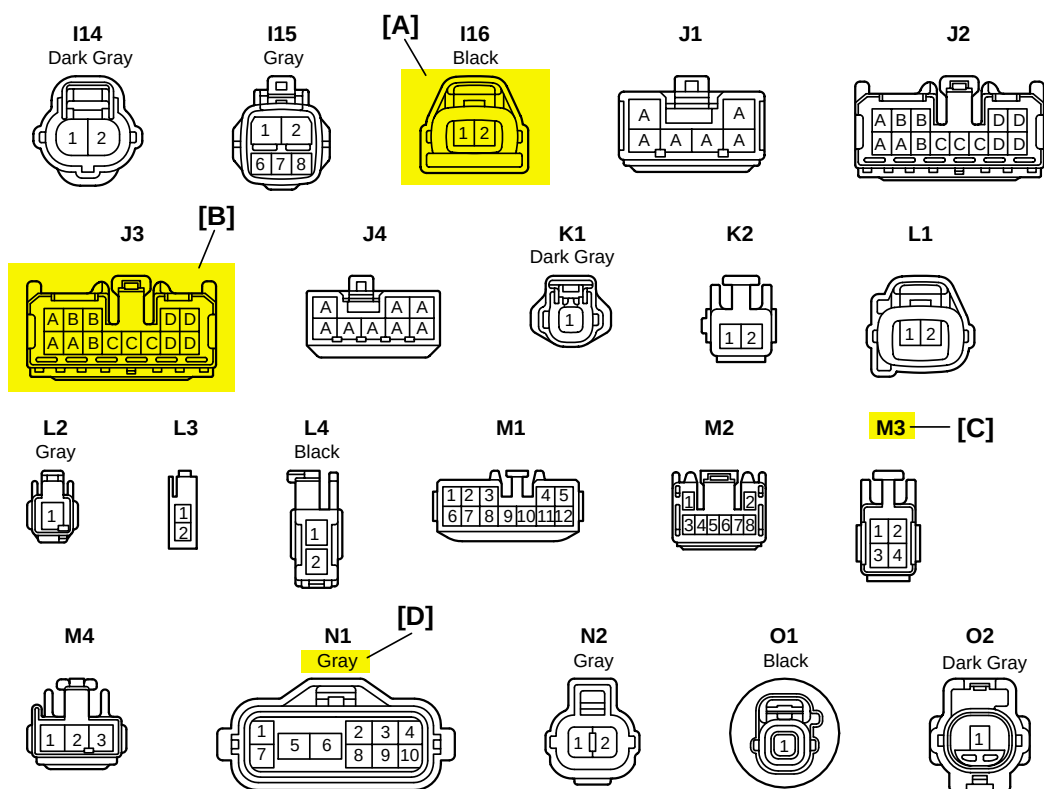
Power Source



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

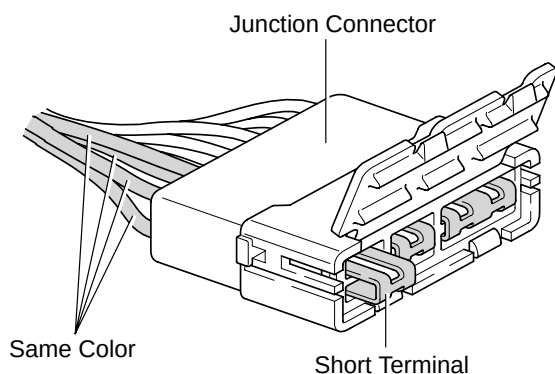
B HOW TO USE THIS MANUAL

K CONNECTOR LIST



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

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



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

Wire harness sharing the same short terminal grouping have the same color.

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

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

L PART NUMBER OF CONNECTORS

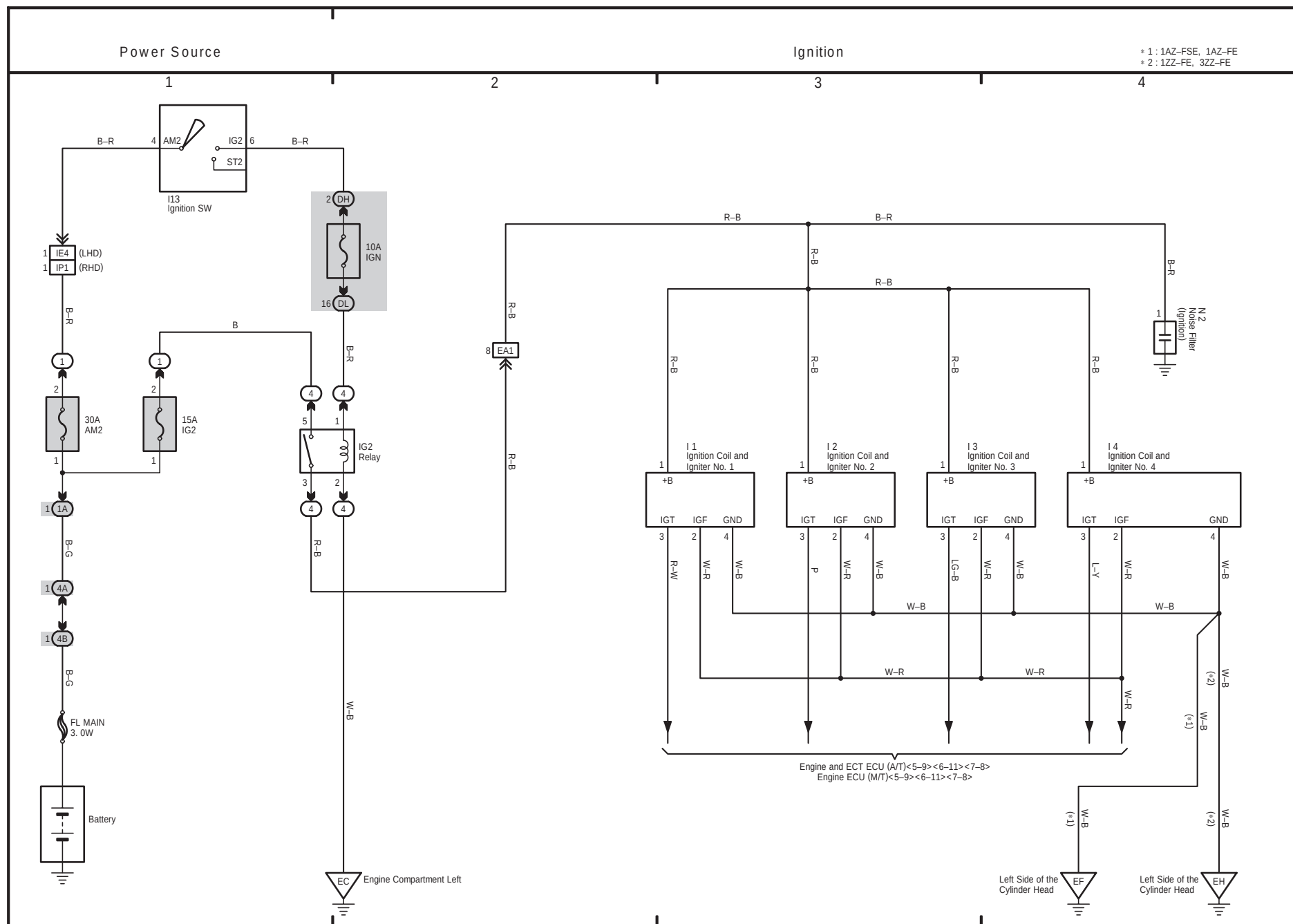
Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070	D 4	Diode (Courtesy)	90980-11608
A 2	A/C Condenser Fan Motor	90980-11237	D 5	Diode (Interior Light)	90980-10962
A 3	A/C Condenser Fan Relay	90980-10940	D 6	Diode (Moon Roof)	90980-11608
A 4	A/C Condenser Fan Resistor	90980-10928	D 7	Door Lock Control Relay	90980-10848
A 5	A/C Magnetic Clutch	90980-11271	D 8	Door Lock Control SW LH	90980-11148
A 6	A/T Oil Temp. Sensor	90980-11413	D 9	Door Lock Control SW RH	
[A]	ABS Actuator [B]	909-151	D10	Door Courtesy SW LH	90980-11097
A 8	ABS Actuator	90980-11009	D11	Door Courtesy SW RH	
A 9	ABS Speed Sensor Front LH	90980-10941	D12	Door Courtesy SW Front LH	90980-11156
A10	ABS Speed Sensor Front RH	90980-11002	D13	Door Courtesy SW Front RH	
A11	Airbag Sensor Front LH	90980-11856	D14	Door Courtesy SW Rear LH	
A12	Airbag Sensor Front RH		D15	Door Courtesy SW Rear RH	90980-11170
A13	Airbag Sensor Front LH	90980-11194	D16	Door Courtesy SW Front LH	
		90980-11194			

[A] : Part Code

[B] : Part Name

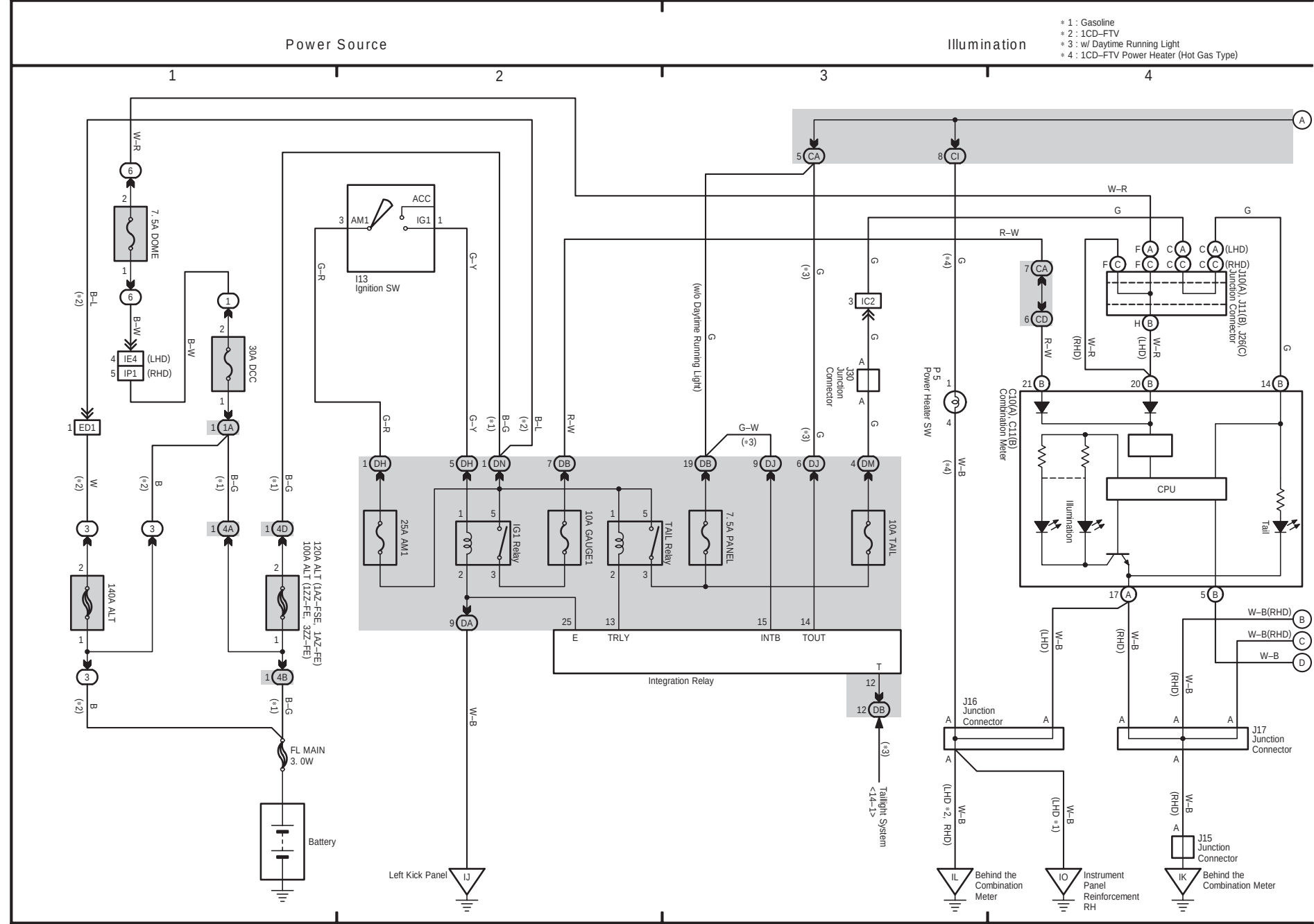
[C] : Part Number
Toyota Part Number are indicated.

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



19 AVENSIS

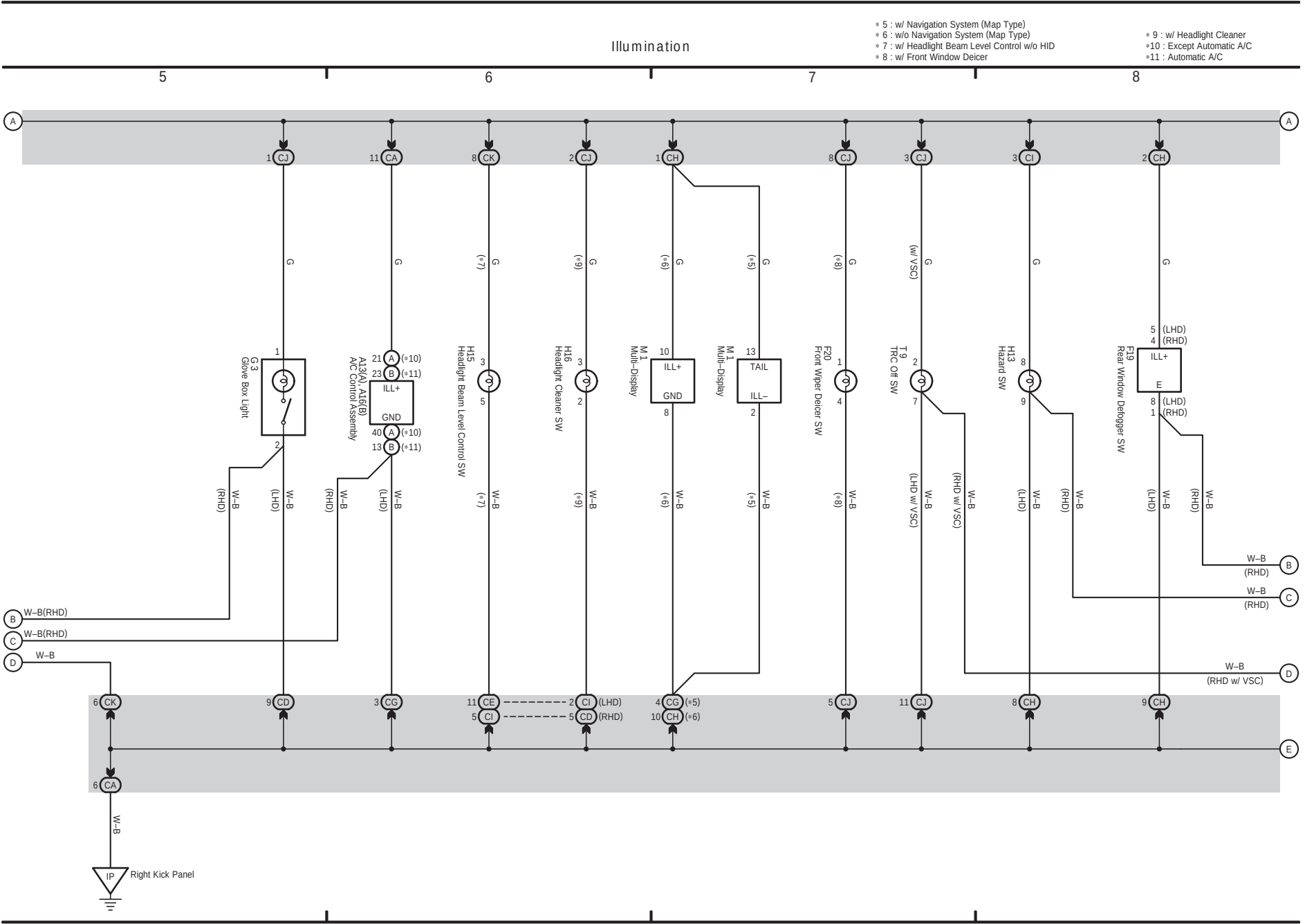
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M OVERALL ELECTRICAL WIRING DIAGRAM

19 AVENSIS (Cont' d)

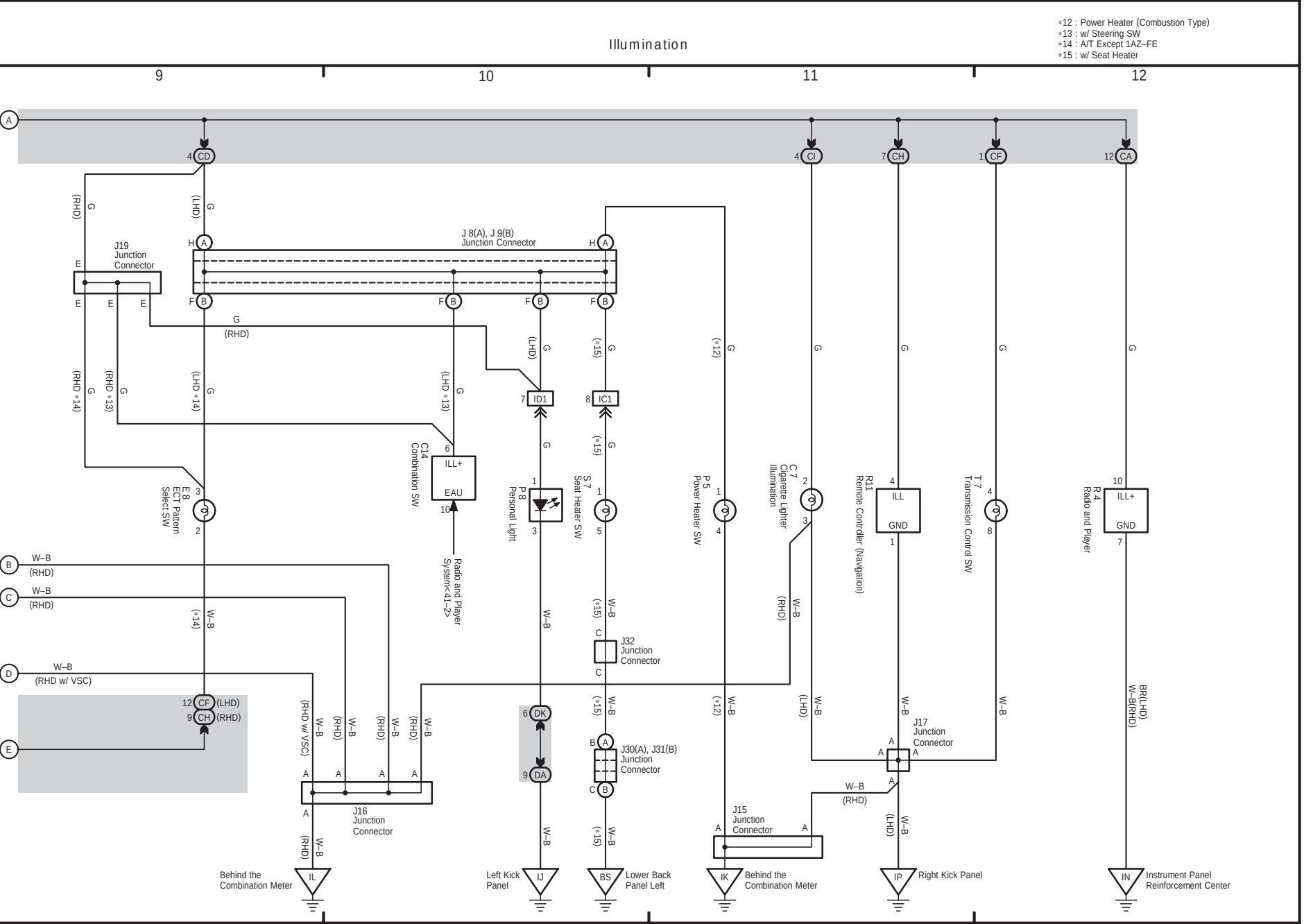
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AVENSIS (EWD526E)

19 AVENSIS (Cont' d)

- * 12 : Power Heater (Combustion Type)
- * 13 : w/ Steering SW
- * 14 : AT Except 1A2-FE
- * 15 : w/ Seat Heater



M OVERALL ELECTRICAL WIRING DIAGRAM

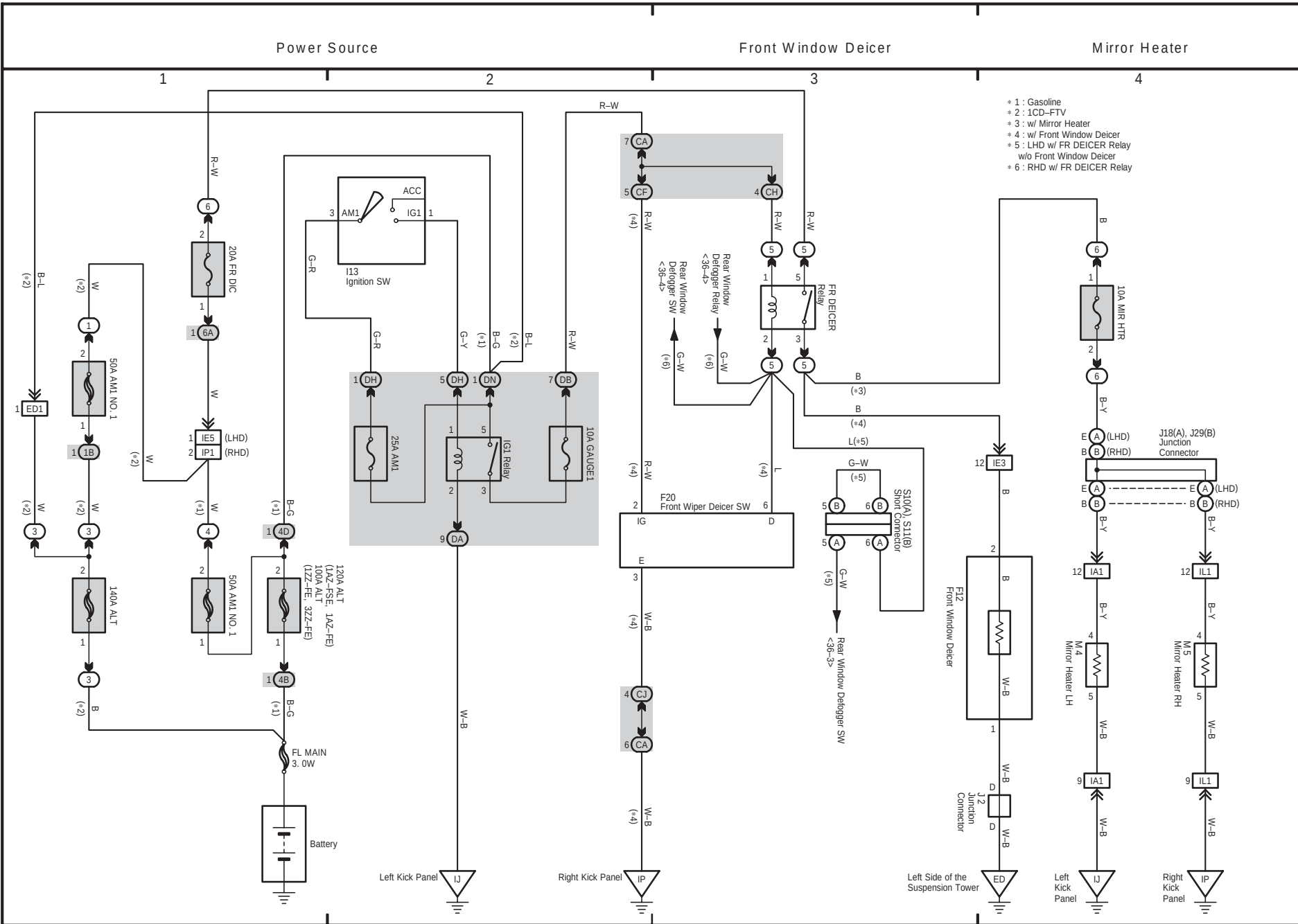
A INTRODUCTION

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.

M OVERALL ELECTRICAL WIRING DIAGRAM

35 AVENSIS



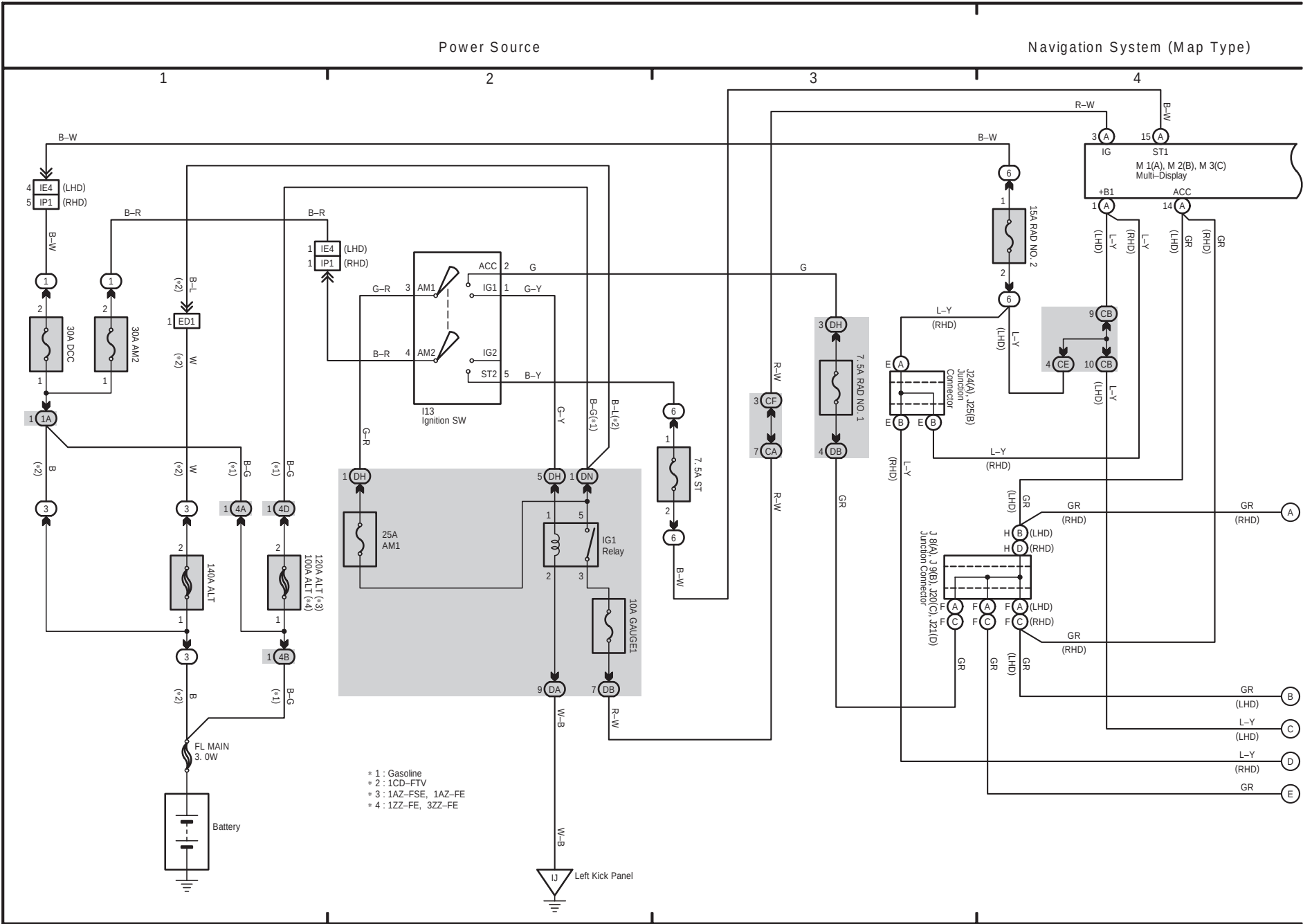
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39 AVENSIS

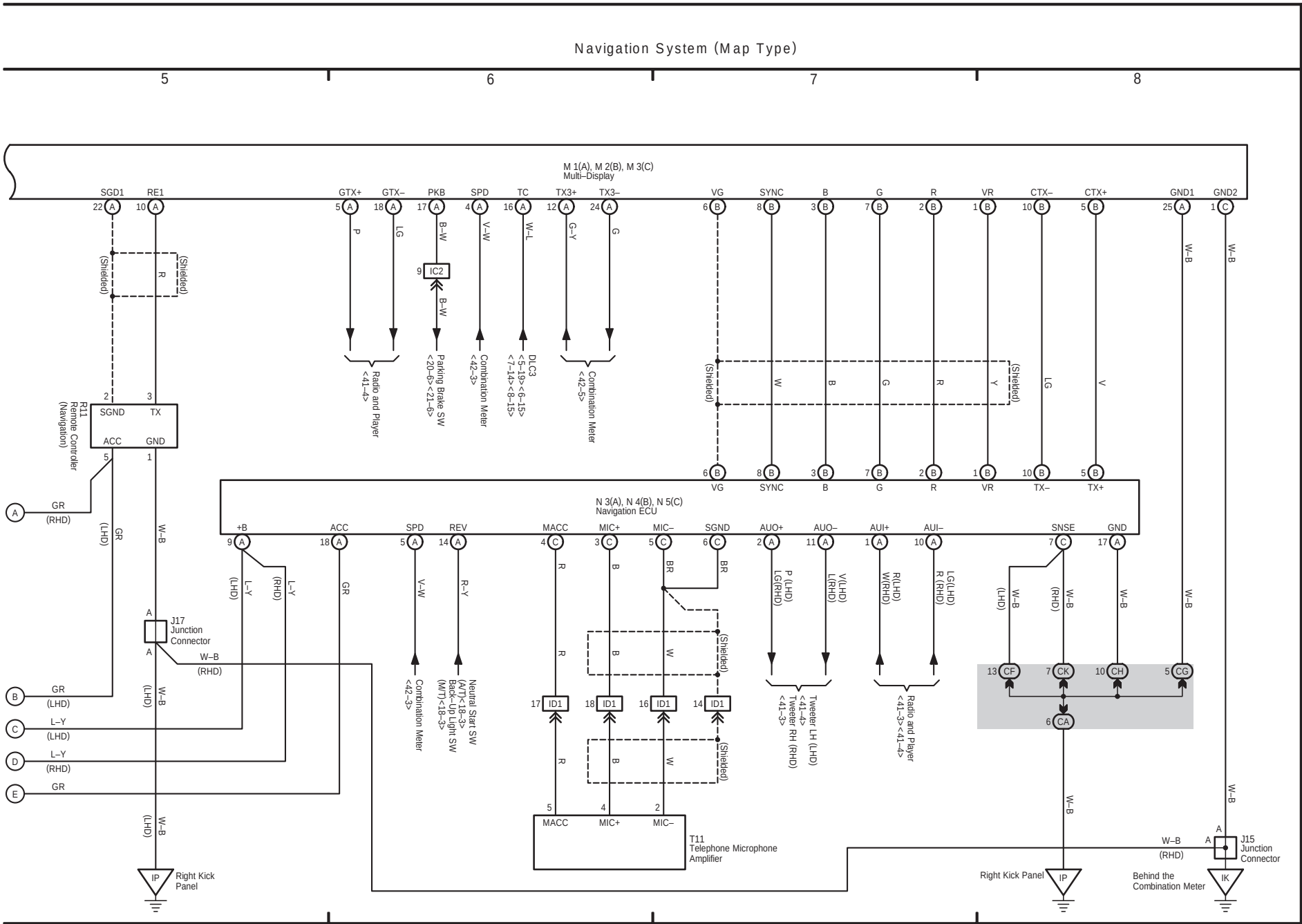
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M OVERALL ELECTRICAL WIRING DIAGRAM



39 AVENSIS (Cont' d)

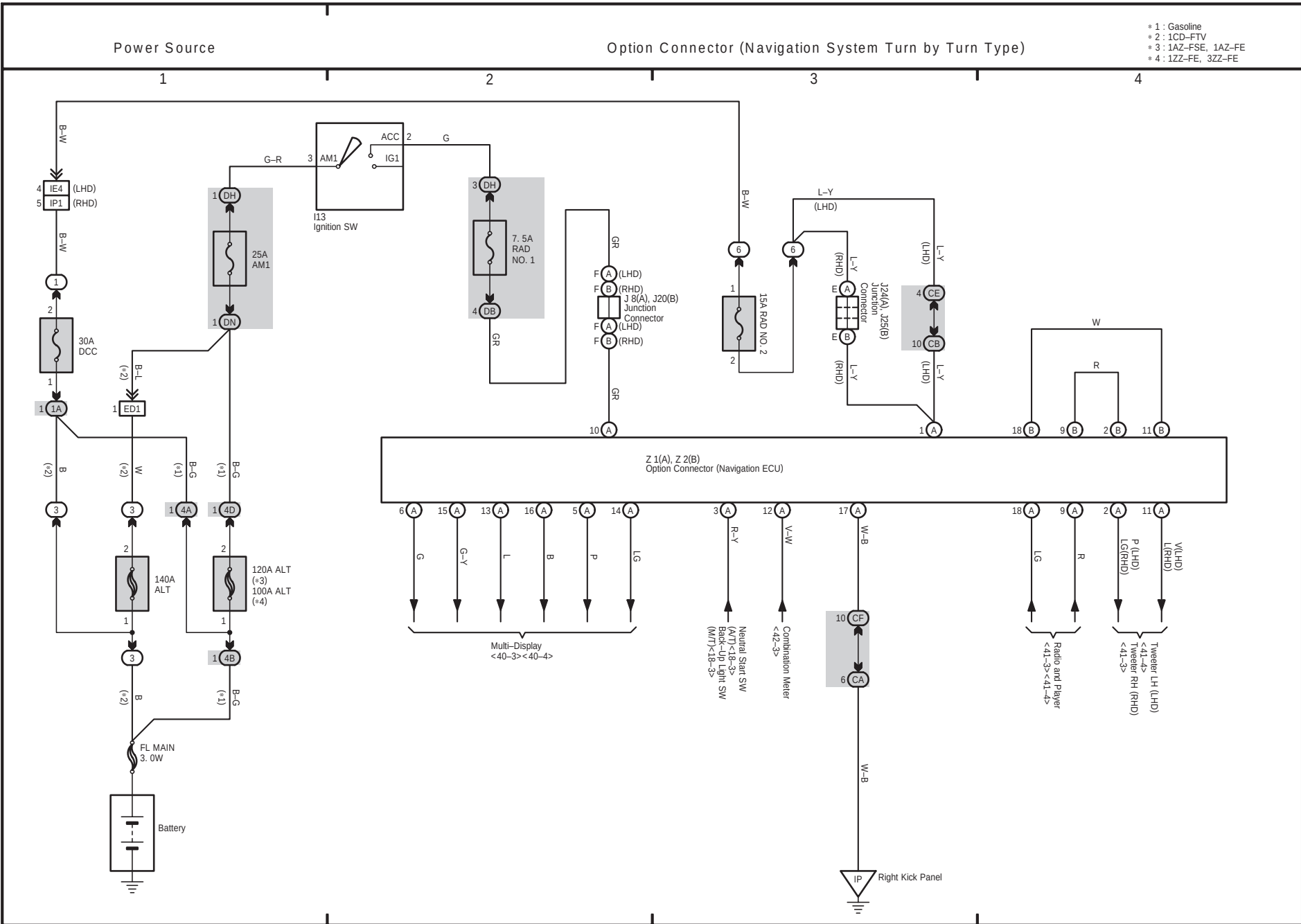
AVENSIS (EWD526E)



M OVERALL ELECTRICAL WIRING DIAGRAM

- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE

50 AVENSIS



L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11030	B10	Buckle SW (Front Passenger's Side)	90980-10795
A 2	A/C Condenser Fan Motor	90980-10928		Occupant Detection Sensor	
A 3	A/C Pressure Sensor	90980-10845	C 1	Camshaft Position Sensor	90980-10947
A 4	ABS Speed Sensor Front LH	90980-11003	C 2	Camshaft Timing Oil Control Valve	90980-11162
A 5	ABS Speed Sensor Front RH		C 3	Compressor Assembly	90980-11156
A 6	Air Flow Meter	90980-11317	C 4	Condenser Assembly	90980-11003
A 7	Air Fuel Ratio Sensor (Bank 1 Sensor 1)	90980-11178	C 5	Counter Gear Speed Sensor	90980-11156
A 8	Air Fuel Ratio Sensor (Bank 2 Sensor 1)	90980-10869	C 6	Crankshaft Position Sensor (1AZ-FSE, 1AZ-FE)	90980-10947
A 9	Airbag Sensor Front LH	90980-11856		Crankshaft Position Sensor (1CD-FTV)	90980-12028
A10	Airbag Sensor Front RH			Crankshaft Position Sensor (1ZZ-FE, 3ZZ-FE)	90980-10947
A11	Alternator	90980-11964	C 7	Cigarette Lighter	90980-10795
A12	Alternator (Except 1CD-FTV)	90980-09212		Cigarette Lighter Illumination	
	Alternator (1CD-FTV)	90980-09213	C 8	Circuit Opening Relay	82660-05020
A13	A/C Control Assembly	90980-12169	C 9	Clutch Start SW	90980-10825
A14	A/C Control Assembly	90980-11778	C10	Combination Meter	90980-11913
A15	A/C Control Assembly	90980-12259	C11	Combination Meter	90980-11915
A16	A/C Control Assembly	90980-12200	C12	Combination SW	90980-11672
A17	A/C Room Temp. Sensor	90980-11918	C13	Combination SW	90980-11594
A18	A/C Solar Sensor	90980-11987	C14	Combination SW	90980-12183
A19	A/C Thermistor	90980-11918	C15	Curtain Shield Airbag Sensor LH	90980-12352
A20	Accel Position Sensor	90980-11144	C16	Curtain Shield Airbag Sensor RH	
A21	Air Inlet Control Servo Motor	90980-11987	C17	Curtain Shield Airbag Squib LH	90980-12219
A22	Air Mix Control Servo Motor	90980-11909	C18	Curtain Shield Airbag Squib RH	
A23	Air Mix Control Servo Motor (Driver Side)		D 1	Diesel Throttle Control Motor	90980-11144
A24	Air Mix Control Servo Motor (Front Passenger Side)		D 2	Diode	90980-11071
A25	Air Vent Mode Control Servo Motor		D 3	Diode	90980-10962
A26	Airbag Sensor Assembly	82824-50160	D 4	Diode (Fan) (Except 1CD-FTV)	90980-11608
A27	Airbag Sensor Assembly	90980-11872		Diode (Fan) (1CD-FTV)	90980-11071
A28	Airbag Sensor Assembly	82824-50150	D 5	DLC3	90980-11665
A29	Airbag Squib (Front Passenger Airbag Assembly)	90980-12160	D 6	Door Control Receiver	90980-11909
A30	Airbag Squib (Steering Wheel Pad)		D 7	Door Courtesy Light LH	90980-11148
A31	Antenna Amplifier	90980-10870	D 8	Door Courtesy Light RH	
A32	ABS Speed Sensor Rear LH	90980-11060	D 9	Door Courtesy SW Front LH	90980-10871
A33	ABS Speed Sensor Rear RH		D10	Door Courtesy SW Front RH	
B 1	Back-Up Light SW	90980-10576	D11	Door Courtesy SW Rear LH	
B 2	Brake Booster Pressure Sensor	90980-10845	D12	Door Courtesy SW Rear RH	
B 3	Brake Fluid Level Warning SW	90080-98001	D13	Door Key Lock and Unlock SW (Driver's Side)	90980-12226
B 4	Blower Motor	90980-10214		Door Lock Control Motor (Driver's Side)	
B 5	Blower Motor Controller	90980-11676		Door Unlock Detection SW (Driver's Side)	
B 6	Blower Resistor	90980-11136			
B 7	Back Door Courtesy SW	90980-10795			
	Back Door Lock Motor				
B 8	Back Door Opener SW	90980-11967			
B 9	Buckle SW (Driver's Side)	90980-10942			

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	
D14	Door Key Lock and Unlock SW (Driver's Side)	90980-12226	E14	EPS ECU	90980-12300	
	Door Lock Control Motor (Driver's Side)		E15	EPS ECU	90980-12290	
	Door Unlock Detection SW (Driver's Side)		F 1	Front Clearance Light LH	90980-11149	
	Double Lock Motor (Driver's Side)		F 2	Front Clearance Light RH		
	Double Lock Position SW (Driver's Side)		F 3	Front Fog Light LH	90980-11660	
D15	Door Lock Control Motor (Front Passenger's Side)		F 4	Front Fog Light RH		90980-11162
	Door Lock Control Motor (Front Passenger's Side)		F 5	Front Side Turn Signal Light LH	90980-10942	
D16	Door Unlock Detection SW (Front Passenger's Side)		F 6	Front Side Turn Signal Light RH		90980-10942
	Double Lock Motor (Front Passenger's Side)		F 7	Front Turn Signal Light LH	Headlight Control ECU LH	
	Double Lock Position SW (Front Passenger's Side)			F 8		
	D17		Door Lock Control SW		F 9	
Power Window Master SW		F10	Front Turn Signal Light RH	Headlight RH (Low)		
D18	Door Lock Motor Rear LH	90980-12226	F11		Front Washer Motor	
D19	Door Lock Motor Rear LH		F12	Front Window Deicer	90980-11155	
	Door Unlock Detection SW Rear LH		F13	Front Wiper Motor	90980-11599	
	Double Lock Motor Rear LH		F14	Fuel Filter Warning SW	90980-11002	
	Double Lock Position SW Rear LH		F15	Fuel Heater	90980-10928	
D20	Door Lock Motor Rear RH		F16	Fuel Pressure Sensor (1AZ-FSE)	90980-11451	
D21	Door Lock Motor Rear RH			Fuel Pressure Sensor (1CD-FTV)	90980-11194	
	Door Unlock Detection SW Rear RH		F17	Fuel Pump	90080-98001	
	Double Lock Motor Rear RH		F18	Fuel Temp. Sensor	90980-10737	
	Double Lock Position SW Rear RH		F19	Front Passenger's Seat Belt Warning Light	90980-11989	
E 1	ECT Solenoid			90980-11658		Rear Window Defogger SW
E 2	EFI Water Temp. Sensor (Except 1AZ-FE)			90980-10737		Security Indicator Light
	EFI Water Temp. Sensor (1AZ-FE)		90980-10735	F20	Front Wiper Deicer SW	90980-10797
E 3	EGR Valve Control Motor		90980-11144	F21	Front Door Speaker LH	90080-98157
E 4	Electronic Driver Unit		90980-11592	F22	Front Door Speaker RH	
E 5	Electronic Driver Unit (1AZ-FSE)		90980-11024	F23	Fuel Lid Opener Motor	90080-98313
	Electronic Driver Unit (1CD-FTV)	90980-11593	F24	Fuel Lid Opener SW	90980-11013	
E 6	Engine Hood Courtesy SW	90980-10554	F25	Fuel Pump	90980-11077	
E 7	Engine Oil Level Sensor	90980-11235		Fuel Sender		
E 8	ECT Pattern Select SW	90980-11013	G 1	Glow Plug	99141-13006	
E 9	Engine and ECT ECU (A/T)	90980-12142	G 2	Glow Plug Relay	90980-11569	
	Engine ECU (M/T)		G 3	Glove Box Light	90980-11098	
E10	Engine and ECT ECU (A/T)	90980-12146	H 1	Headlight Beam Level Control Actuator LH	90980-11016	
	Engine ECU (M/T)		H 2	Headlight Beam Level Control Actuator RH		
E11	Engine and ECT ECU (A/T)	90980-12143	H 3	Headlight Cleaner Control Relay	90980-10939	
	Engine ECU (M/T)		H 4	Headlight Cleaner Motor	90080-98116	
E12	Engine and ECT ECU (A/T)	90980-12145	H 5	Headlight LH (High)	90980-11314	
	Engine ECU (M/T)		H 6	Headlight RH (High)		
E13	Engine and ECT ECU (A/T)	90980-12144				
	Engine ECU (M/T)					

L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
H 7	Heated Oxygen Sensor (Bank 1 Sensor 1) (1AZ-FSE)	90980-11028	J 8	Junction Connector	90980-11915
	Heated Oxygen Sensor (Bank 1 Sensor 1) (1ZZ-FE, 3ZZ-FE)	90980-10869	J 9	Junction Connector	
			J10	Junction Connector	
H 8	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11028	J11	Junction Connector	
H 9	Heated Oxygen Sensor (Bank 2 Sensor 1)	90980-10869	J12	Junction Connector	90980-11661
H10	Heated Oxygen Sensor (Bank 2 Sensor 2)	90980-11028	J13	Junction Connector	
H11	Horn LH	90980-10619	J14	Junction Connector	90980-11542
H12	Horn RH		J15	Junction Connector	90980-10976
H13	Hazard SW	90980-10801	J16	Junction Connector	90980-11542
H14	Headlight Beam Level Control ECU	90980-12200	J17	Junction Connector	
H15	Headlight Beam Level Control SW	90980-10789	J18	Junction Connector	90980-11915
H16	Headlight Cleaner SW	90980-10601	J19	Junction Connector	
H17	Heated Oxygen Sensor (Bank 1 Sensor 2)	90980-11930	J20	Junction Connector	
H18	Height Control Sensor (Front)	90980-11860	J21	Junction Connector	
H19	Height Control Sensor (Rear)		J22	Junction Connector	90980-11661
H20	High Mounted Stop Light (L/B)	90980-10320	J23	Junction Connector	
	High Mounted Stop Light (S/D)	90980-WB002	J24	Junction Connector	
	High Mounted Stop Light (W/G)	90980-11148	J25	Junction Connector	
I 1	Ignition Coil and Igniter No.1	90980-11885	J26	Junction Connector	90980-11915
I 2	Ignition Coil and Igniter No.2		J27	Junction Connector	90980-11542
I 3	Ignition Coil and Igniter No.3		J28	Junction Connector	
I 4	Ignition Coil and Igniter No.4		J29	Junction Connector	90980-11915
I 5	Injector No.1 (Except 1AZ-FSE)	90980-11875	J30	Junction Connector	90980-11661
	Injector No.1 (1AZ-FSE)	90980-12117	J31	Junction Connector	
I 6	Injector No.2 (Except 1AZ-FSE)	90980-11875	J32	Junction Connector	90980-11542
	Injector No.2 (1AZ-FSE)	90980-12117	J33	Junction Connector	90980-11661
I 7	Injector No.3 (Except 1AZ-FSE)	90980-11875	J34	Junction Connector	
	Injector No.3 (1AZ-FSE)	90980-12117	J35	Junction Connector	
I 8	Injector No.4 (Except 1AZ-FSE)	90980-11875	J36	Junction Connector	
	Injector No.4 (1AZ-FSE)	90980-12117	J37	Junction Connector	
I 9	Intake Air Temp. Sensor	90980-11025	J38	Junction Connector	
I10	ISC Valve	90980-11145	K 1	Knock Sensor	90980-11875
I11	Ignition Key Cylinder Light	90980-12092	K 2	Kick Down SW	90980-11156
I12	Ignition Key Cylinder Light		K 3	Knee Airbag Squib	90980-12253
	Transponder Key Amplifier		L 1	License Plate Light LH	90080-98001
I13	Ignition SW	90980-11778	L 2	License Plate Light RH	
I14	Integration Relay	90980-11915	L 3	Luggage Compartment Door Lock Motor	90980-10908
I15	Inner Mirror	90980-11794		Luggage Compartment Light SW	
I16	Interior Light	90980-11950	L 4	Luggage Compartment Door Opener SW	90980-11967
J 1	Junction Connector	90980-10803	L 5	Luggage Compartment Light	90980-11148
J 2	Junction Connector		L 6	Lumbar Support Control Motor	90980-10825
J 3	Junction Connector	90980-11661	L 7	Lumbar Support Control SW	90980-10789
J 4	Junction Connector		M 1	Multi-Display (w/ Navigation System (Map Type))	90980-11877
J 5	Junction Connector	90980-11542			Multi-Display (w/o Navigation System (Map Type))
J 6	Junction Connector	90980-11915			
J 7	Junction Connector				

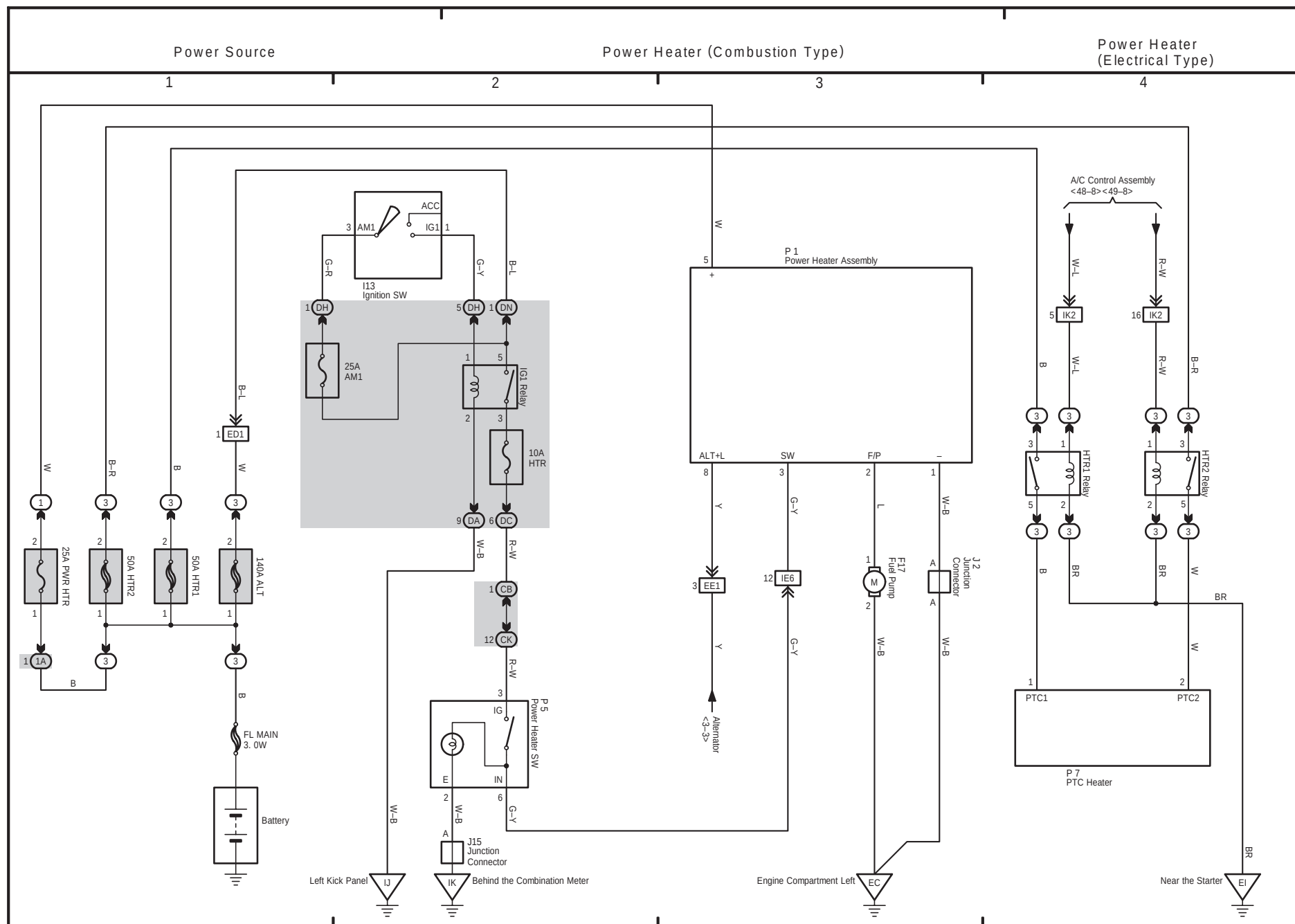
Note: Not all of the above part numbers of the connector are established for the supply.

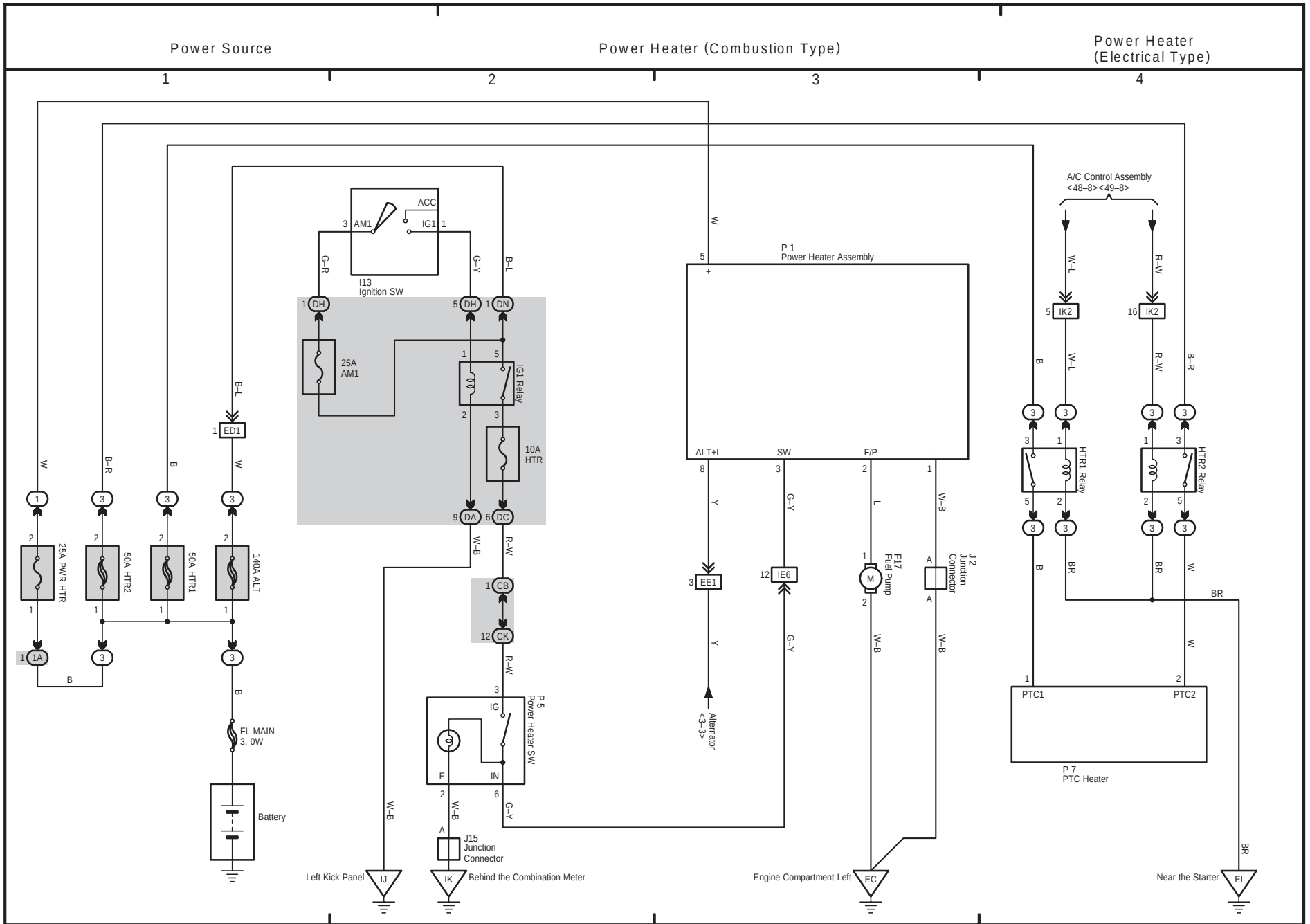
Code	Part Name	Part Number	Code	Part Name	Part Number
M 2	Multi-Display (w/ Navigation System (Map Type))	90980-11923	P23	Power Seat Motor (Driver's Seat Slide Control)	90980-10825
	Multi-Display (w/o Navigation System (Map Type))	90980-12209	P24	Power Seat Motor (Front Passenger's Seat Reclining Control)	
M 3	Multi-Display	90980-10871	P25	Power Seat Motor (Front Passenger's Seat Slide Control)	
M 4	Mirror Heater LH	90980-12059	R 1	Radiator Fan Motor	90980-10928
	Remote Control Mirror LH		R 2	Radiator Fan Resistor	
M 5	Mirror Heater RH		R 3	Rear Washer Motor	90080-98117
	Remote Control Mirror RH		R 4	Radio and Player	90980-10997
M 6	Moon Roof Control Relay and Motor	82824-05030	R 5	Radio and Player	90980-10996
M 7	Moon Roof Control SW	90980-10795	R 6	Radio and Player	90980-12183
N 1	Neutral Start SW	90980-11784	R 7	Radio and Player	90980-12259
N 2	Noise Filter (Ignition)	90980-10843	R 8	Rear Fog Light Relay	82660-05010
N 3	Navigation ECU	90980-11973	R 9	Rear Window Defogger Relay	82660-05020
N 4	Navigation ECU	90980-11923	R10	Remote Control Mirror SW	90980-11657
N 5	Navigation ECU	90980-12221	R11	Remote Controller (Navigation)	90980-11909
N 6	Noise Filter (Rear Window Defogger No.1)	90980-10825	R12	Rain Sensor	90080-98309
N 7	Noise Filter (Rear Window Defogger No.2)		R13	Rear Combination Light LH (Except W/G)	90080-98175
N 8	Noise Filter (Stop Light)			Rear Combination Light LH (W/G)	90980-10964
O 1	Oil Pressure Sensor	90080-98200	R14	Rear Combination Light RH (Except W/G)	90080-98175
O 2	Oil Pressure SW	90980-11363		Rear Combination Light RH (W/G)	90980-10964
P 1	Power Heater Assembly	90980-10897	R15	Rear Door Speaker LH	90080-98157
P 2	Power Steering Oil Pressure SW	90980-11428	R16	Rear Door Speaker RH	
P 3	Pressure Discharge Valve	90980-11285	R17	Rear Interior Light	90980-11148
P 4	Parking Brake SW	90980-10871	R18	Rear Window Defogger (L/B)	90980-11258
P 5	Power Heater SW	90980-10996		Rear Window Defogger (S/D, W/G)	90980-11259
P 6	Power Outlet	90080-98182	R19	Rear Window Defogger (L/B)	90980-11258
P 7	PTC Heater	90980-11685		Rear Window Defogger (S/D)	90980-10786
P 8	Personal Light	90980-11950		Rear Window Defogger (W/G)	90980-11259
P 9	Power Window Control SW (Front Passenger Side)	90980-12113	R20	Rear Wiper Motor and Relay	90980-10908
P10	Power Window Control SW Rear LH		S 1	Skid Control ECU with Actuator	90080-98278
P11	Power Window Control SW Rear RH		S 2	Skid Control ECU with Actuator	90980-WB001
P12	Power Window Motor Front LH	90080-98276	S 3	Spill Valve	90980-12117
P13	Power Window Motor Front RH		S 4	Starter	90980-11400
P14	Power Window Motor Rear LH		S 5	Starter (1AZ-FSE, 1AZ-FE)	90980-09506
P15	Power Window Motor Rear RH			Starter (1CD-FTV)	90980-09507
P16	Pretensioner LH	Starter (1ZZ-FE, 3ZZ-FE)		90980-09463	
P17	Pretensioner RH	90980-12253	S 6	Suction Control Valve	90980-11285
P18	Power Seat Control SW (Driver's Seat)	90980-10997	S 7	Seat Heater SW	90980-11909
P19	Power Seat Control SW (Front Passenger's Seat)		S 8	Seat Heater SW	90980-11918
P20	Power Seat Motor (Driver's Seat Front Vertical Control)	90980-10825	S 9	Shift Lock Control ECU	90980-12183
P21	Power Seat Motor (Driver's Seat Lifter Control)		S10	Short Connector	90980-10797
P22	Power Seat Motor (Driver's Seat Reclining Control)		S11	Short Connector	90980-10796
			S12	Steering Sensor	90080-98241
			S13	Stop Light SW	90980-11118

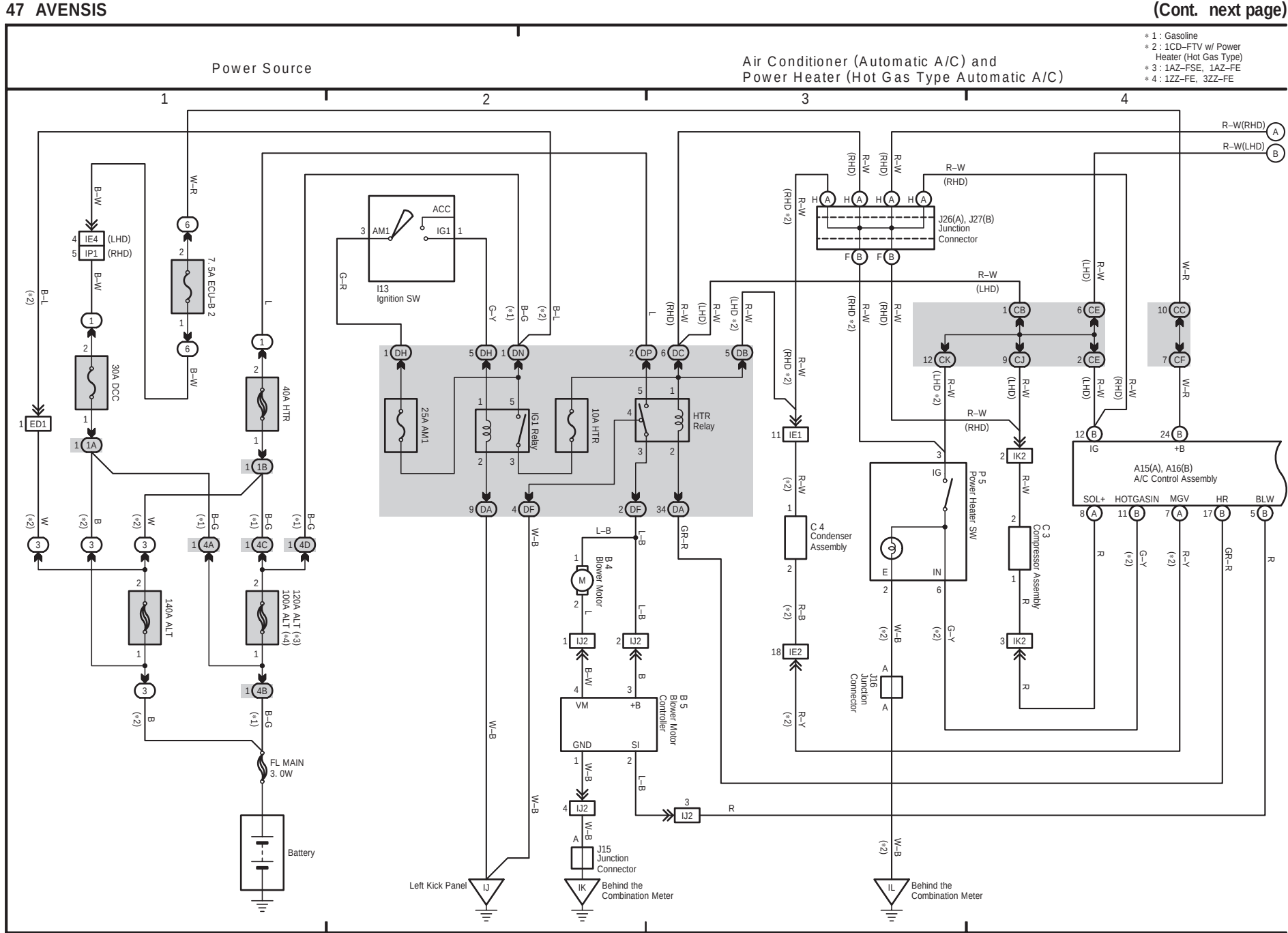
L PART NUMBER OF CONNECTORS

Code	Part Name	Part Number	Code	Part Name	Part Number
S14	Side Airbag Sensor LH (w/ Curtain Shield Airbag)	90980-12225			
	Side Airbag Sensor LH (w/o Curtain Shield Airbag)	90980-12352			
S15	Side Airbag Sensor RH (w/ Curtain Shield Airbag)	90980-12225			
	Side Airbag Sensor RH (w/o Curtain Shield Airbag)	90980-12352			
S16	Seat Heater LH (w/ Power Seat)	90980-10797			
	Seat Heater LH (w/o Power Seat)	90980-11090			
S17	Seat Heater RH (w/ Power Seat)	90980-10797			
	Seat Heater RH (w/o Power Seat)	90980-11090			
S18	Side Airbag Squib LH	90980-11864			
S19	Side Airbag Squib RH				
T 1	Throttle Control Motor and Position Sensor	90980-11858			
T 2	Throttle Position Sensor	90980-11261			
T 3	Throttle Position SW	90980-11038			
T 4	Turbine Speed Sensor	90980-11156			
T 5	Turbo Pressure Sensor	90980-10845			
T 6	Theft Deterrent ECU	90980-12169			
T 7	Transmission Control SW	90980-12221			
T 8	Transponder Key Computer	90980-11911			
T 9	TRC Off SW	90980-10801			
T10	Turn Signal Flasher Relay	90980-10799			
T11	Telephone Microphone Amplifier	90980-11909			
T12	Theft Warning Ultrasonic Sensor	90980-12221			
T13	Theft Warning Ultrasonic Sensor Rear LH	90980-11918			
T14	Theft Warning Ultrasonic Sensor Rear RH				
T15	Theft Warning Siren	90980-11349			
T16	Tweeter Front LH	90980-12304			
T17	Tweeter Front RH				
T18	Tweeter Rear LH				
T19	Tweeter Rear RH				
U 1	Unlock Warning SW	90980-10860			
V 1	Vacuum Sensor	90980-10845			
V 2	Vacuum SW	90980-11252			
V 3	Variable Resistor	90980-10902			
V 4	VRV (EGR)	90980-11162			
V 5	VSV (EVAP)	90980-10572			
V 6	VSV (Intake Air Control Valve)	90980-11149			
V 7	VSC Warning Buzzer	90980-10906			
V 8	Vanity Light LH	90980-11918			
V 9	Vanity Light RH				
W 1	Water Temp. SW (Radiator Fan)	90980-11235			
W 2	Wiper Relay	90080-98318			
Y 1	Yaw Rate Sensor	90080-98249			
Z 1	Option Connector (Navigation ECU)	82824-30240			
Z 2	Option Connector (Navigation ECU)	90980-11973			

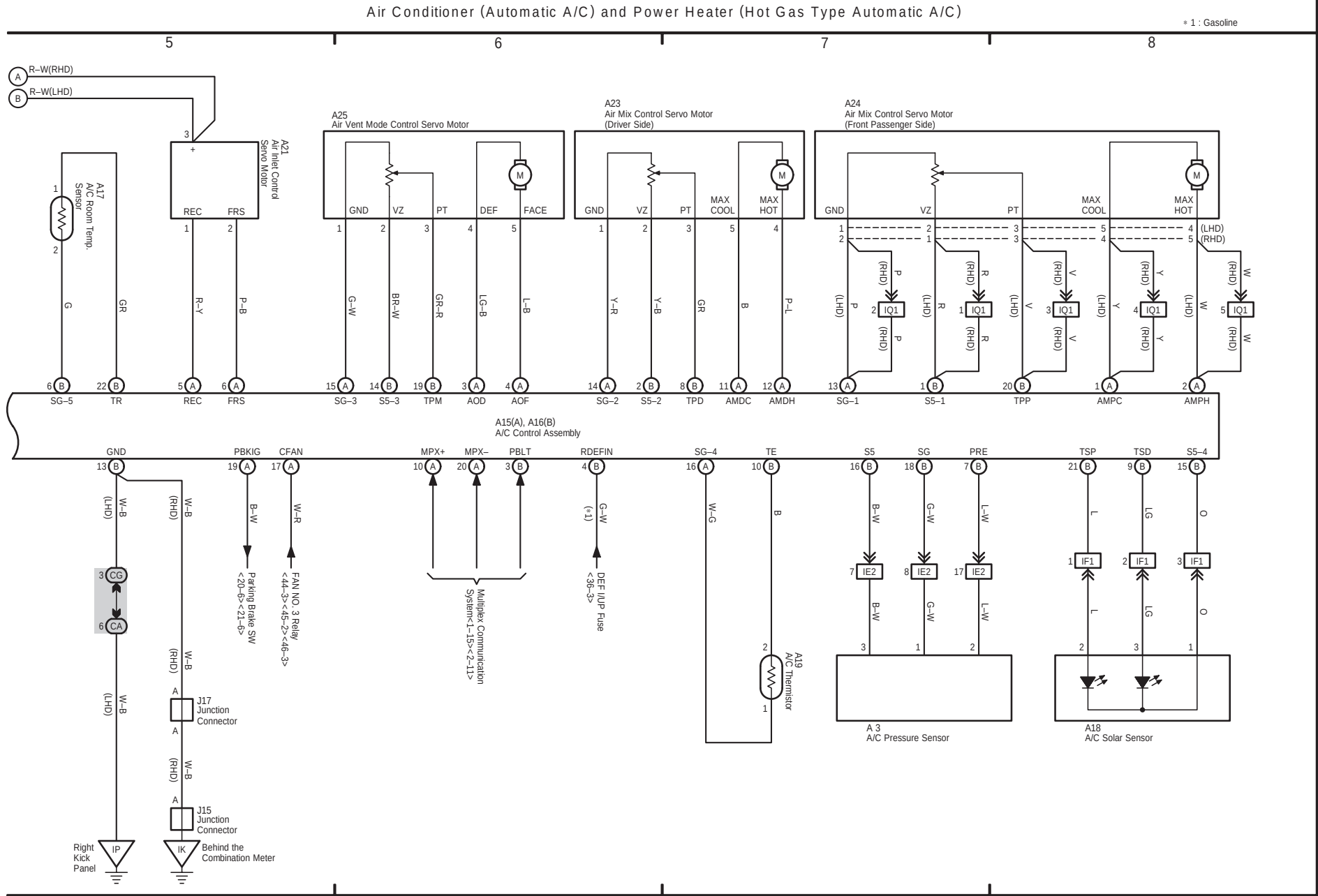
Note: Not all of the above part numbers of the connector are established for the supply.

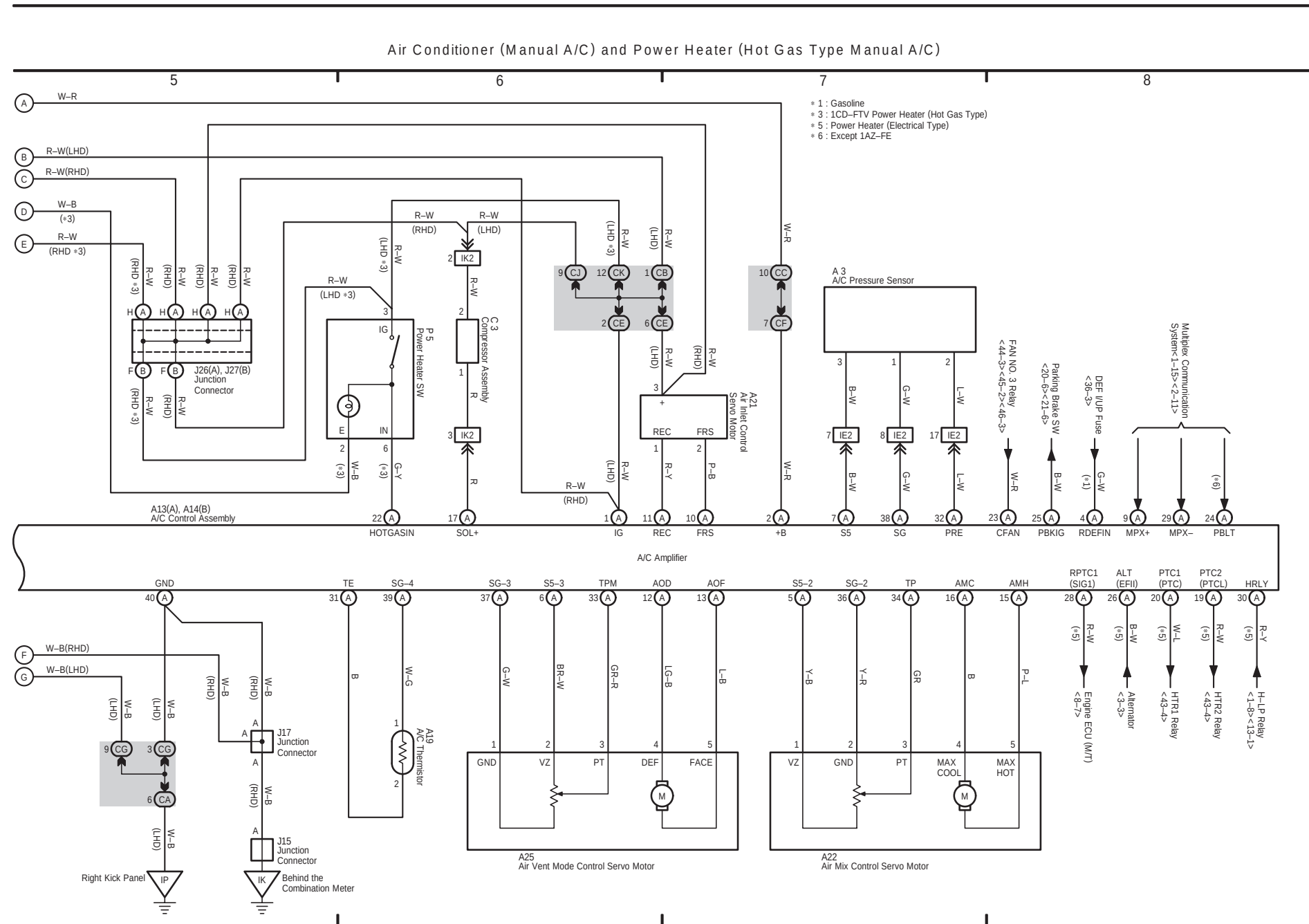
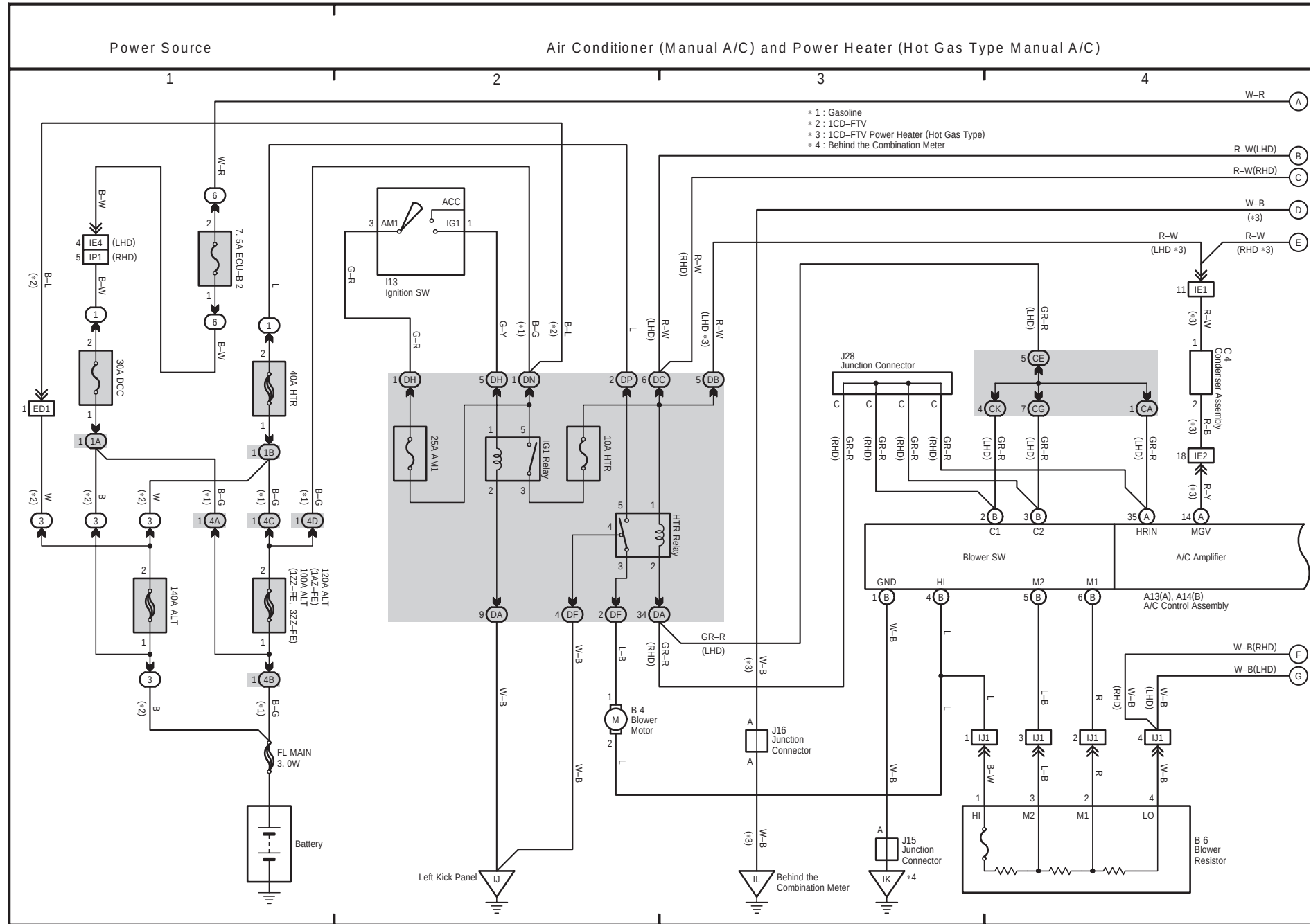






M OVERALL ELECTRICAL WIRING DIAGRAM





The diagram illustrates the electrical system for the Headlight Cleaner (w/o HID). It is organized into four main sections: Power Source, Power Outlet, Headlight Cleaner (w/o HID), and a legend.

Power Source: Includes the Battery, FL MAIN 3.0W, and various fuses (30A H/CLN, 140A ALT, 120A ALT, 100A ALT). It also shows the I13 Ignition SW and the I17 Junction Connector.

Power Outlet: Features the I13 Ignition SW, the 25A AM1, the 25A W/P, the 15A P/POINT, and the 25A W/P. It also includes the I17 Junction Connector and the I15 Junction Connector.

Headlight Cleaner (w/o HID): Shows the H16 Headlight Cleaner SW, the H3 Headlight Cleaner Control Relay, the H4 Headlight Cleaner Motor, and the H15 Junction Connector. It also includes the I17 Junction Connector and the I15 Junction Connector.

Legend:

- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE

The diagram shows the following components and their connections:

- Power Source:**
 - Battery
 - FL MAIN 3.0W
 - 30A H/CLN
 - 140A ALT
 - 120A ALT (*3)
 - 100A ALT (*4)
 - I13 Ignition SW
 - I17 Junction Connector
 - I15 Junction Connector
- Power Outlet:**
 - 25A AM1
 - 25A W/P
 - 15A P/POINT
 - 25A W/P
 - I17 Junction Connector
 - I15 Junction Connector
- Headlight Cleaner (w/o HID):**
 - H16 Headlight Cleaner SW
 - H3 Headlight Cleaner Control Relay
 - H4 Headlight Cleaner Motor
 - I17 Junction Connector
 - I15 Junction Connector

The diagram shows the following components and their connections:

- Power Source:**
 - Battery
 - FL MAIN 3.0W
 - 30A H/CLN
 - 140A ALT
 - 120A ALT (*3)
 - 100A ALT (*4)
 - I13 Ignition SW
 - I17 Junction Connector
 - I15 Junction Connector
- Power Outlet:**
 - 25A AM1
 - 25A W/P
 - 15A P/POINT
 - 25A W/P
 - I17 Junction Connector
 - I15 Junction Connector
- Headlight Cleaner (w/o HID):**
 - H16 Headlight Cleaner SW
 - H3 Headlight Cleaner Control Relay
 - H4 Headlight Cleaner Motor
 - I17 Junction Connector
 - I15 Junction Connector

- * 1 : Gasoline
- * 2 : 1CD-FTV
- * 3 : 1AZ-FSE, 1AZ-FE
- * 4 : 1ZZ-FE, 3ZZ-FE



J POWER SOURCE (Current Flow Chart)

Driver Side J/B (See Page 30)

Fuse		System	Page
7.5A	ECU-IG	ABS	348
		Charging	126
		EPS	364
		Fuel Heater	446
		Radiator Fan and Condenser Fan (1AZ-FSE, 1AZ-FE)	496
		Radiator Fan and Condenser Fan (1CD-FTV)	500
		Radiator Fan (1ZZ-FE, 3ZZ-FE)	498
		VSC	338
7.5A	GAUGE2	ABS	348
		Back-Up Light	254
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Headlight Beam Level Control (w/ HID)	276
		Navigation System (Map Type)	472
		Turn Signal and Hazard Warning Light	244
7.5A	OBD2	Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1CD-FTV)	174
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
7.5A	PANEL	Headlight (w/ Daytime Running Light)	222
		Illumination	256
		Key Reminder and Light Reminder	290
		Multiplex Communication System (LHD)	192
7.5A	RAD NO.1	Combination Meter	488
		Door Lock Control (RHD) and Theft Deterrent	374
		Headlight (w/ Daytime Running Light)	222
		Interior Light (LHD)	264
		Interior Light (RHD)	270
		Moon Roof	436
		Multi-Display (w/o Navigation System Map Type)	480
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Navigation System (Map Type)	472
		Power Outlet	452
		Power Window (LHD)	412
		Power Window (RHD)	418
		Radio and Player	484
		Remote Control Mirror	462
7.5A	RR FOG	Rear Fog Light	236

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

Fuse		System	Page
10A	GAUGE1	ABS	348
		Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510
		Automatic Glare-Resistant EC Mirror	448
		Charging	126
		Combination Meter	488
		Cruise Control (1AZ-FSE)	322
		Cruise Control (1CD-FTV)	330
		Door Lock Control (RHD) and Theft Deterrent	374
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1CD-FTV)	174
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		EPS	364
		Front Window Deicer	454
		Headlight Beam Level Control (w/ HID)	276
		Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
		Headlight (w/ Daytime Running Light)	222
		Illumination	256
		Interior Light (LHD)	264
		Interior Light (RHD)	270
		Key Reminder and Light Reminder	290
		Mirror Heater	460
		Moon Roof	436
		Multi-Display (w/o Navigation System Map Type)	480
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Navigation System (Map Type)	472
		Power Window (LHD)	412
		Power Window (RHD)	418
		Rear Window Defogger	456
		Seat Belt Warning	294
		Shift Lock	440
		SRS	355
		VSC	338
10A	HTR	Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510

* 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	HTR	Heater	518
		Power Heater (Combustion Type)	528
		Power Heater (Electrical Type)	524
		Seat Heater	468
10A	IGN	ABS	348
		Combination Meter	488
		Cruise Control (1AZ-FSE)	322
		Cruise Control (1CD-FTV)	330
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1CD-FTV)	174
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		Engine Immobiliser System	188
		EPS	364
		Headlight Beam Level Control (w/ HID)	276
		Ignition	130
		Seat Belt Warning	294
10A	TAIL	SRS	355
		VSC	338
		Combination Meter	488
		Cruise Control (1AZ-FSE)	322
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		Front Fog Light	232
		Headlight Beam Level Control (w/o HID)	280
		Illumination	256
		Key Reminder and Light Reminder	290
15A	CIG	Rear Fog Light	236
		Taillight	240
15A	CIG	Cigarette Lighter	450
15A	FR FOG	Front Fog Light	232
15A	P/POINT	Power Outlet	452
15A	STOP	ABS	348
		Cruise Control (1AZ-FSE)	322
		Cruise Control (1CD-FTV)	330
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134

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

Fuse		System	Page
15A	STOP	Engine Control (1CD-FTV)	174
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		Shift Lock	440
		Stop Light	250
		VSC	338
20A	RR WIP	Rear Wiper and Washer	432
20A	S-HTR	Seat Heater	468
20A	S/ROOF	Moon Roof	436
25A	DOOR	Door Lock Control (LHD)	368
		Door Lock Control (RHD) and Theft Deterrent	374
		Double Locking	404
		Headlight (w/ Daytime Running Light)	222
		Interior Light (LHD)	264
		Interior Light (RHD)	270
		Key Reminder and Light Reminder	290
		Moon Roof	436
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Power Window (LHD)	412
		Power Window (RHD)	418
		Wireless Door Lock Control (LHD)	388
		Wireless Door Lock Control (RHD)	396
25A	WIP	Front Wiper and Washer (w/ Auto Wiper System)	424
		Front Wiper and Washer (w/o Auto Wiper System)	428
		Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
30A	PWR SEAT	Power Seat	464

Engine Room R/B No.1 (1CD-FTV) (See Page 25)

Fuse		System	Page
7.5A	ALT-S	Charging	126
10A	HAZARD	Turn Signal and Hazard Warning Light	244
15A	HORN	Door Lock Control (RHD) and Theft Deterrent	374
		Horn	442
		Multiplex Communication System (RHD)	206
15A	IG2	Ignition	130
20A	EFI	Cruise Control (1CD-FTV)	330
		Engine Control (1CD-FTV)	174
25A	ABS (w/o VSC)	ABS	348
25A	F-HTR	Fuel Heater	446
25A	PWR HTR	Power Heater (Combustion Type)	528
25A	VSC (w/ VSC)	VSC	338
30A	AM2	Starting	124

* 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
30A	CDS	Radiator Fan and Condenser Fan (1CD-FTV)	500
30A	H/CLN	Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
30A	RR DEF	Rear Window Defogger	456
40A	ABS (w/o VSC)	ABS	348
40A	HTR	Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510
		Heater	518
		Power Heater (Electrical Type)	524
40A	MAIN	Headlight Beam Level Control (w/ HID)	276
		Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
		Headlight (w/ Daytime Running Light)	222
		Headlight (w/o Daytime Running Light)	228
		Multiplex Communication System (LHD)	192
40A	RD1	Radiator Fan and Condenser Fan (1CD-FTV)	500
50A	VSC (w/ VSC)	VSC	338

Engine Room R/B No.1 (Gasoline) (See Page 24)

Fuse		System	Page
7.5A	ALT-S	Charging	126
10A	HAZARD	Turn Signal and Hazard Warning Light	244
10A	THROTTLE	ECT and A/T Indicator (1AZ-FSE)	298
		Engine Control (1AZ-FSE)	134
15A	HORN	Door Lock Control (RHD) and Theft Deterrent	374
		Horn	442
		Multiplex Communication System (RHD)	206
15A	IG2	Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		Ignition	130
20A	A/F	Engine Control (1AZ-FE)	148
20A	EFI	ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
30A	AM2	Starting	124
30A	CDS	Radiator Fan and Condenser Fan (1AZ-FSE, 1AZ-FE)	496

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

Fuse		System	Page
30A	H/CLN	Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
30A	RDI (1AZ-FSE, 1AZ-FE)	Radiator Fan and Condenser Fan (1AZ-FSE, 1AZ-FE)	496
30A	RR DEF	Rear Window Defogger	456
40A	HTR	Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510
		Heater	518
40A	MAIN	Headlight Beam Level Control (w/ HID)	276
		Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
		Headlight (w/ Daytime Running Light)	222
		Headlight (w/o Daytime Running Light)	228
		Multiplex Communication System (LHD)	192
40A	RDI (1ZZ-FE, 3ZZ-FE)	Radiator Fan (1ZZ-FE, 3ZZ-FE)	498
50A	EMPS	EPS	364

Engine Room R/B No.2 (See Page 26)

Fuse		System	Page
10A	H-LP HI LH	Headlight (w/ Daytime Running Light)	222
		Headlight (w/o Daytime Running Light)	228
		Multiplex Communication System (LHD)	192
10A	H-LP HI RH	Combination Meter	488
		Headlight (w/ Daytime Running Light)	222
		Headlight (w/o Daytime Running Light)	228
		Multiplex Communication System (LHD)	192
15A	H-LP LH	Headlight (w/ Daytime Running Light)	222
		Headlight (w/o Daytime Running Light)	228
		Multiplex Communication System (LHD)	192
15A	H-LP RH	Combination Meter	488
		Headlight (w/ Daytime Running Light)	222
		Headlight (w/o Daytime Running Light)	228
		Multiplex Communication System (LHD)	192

Engine Room R/B No.3 (See Page 26)

Fuse		System	Page
50A	HTR1	Power Heater (Electrical Type)	524
50A	HTR2	Power Heater (Electrical Type)	524
80A	GLOW	Engine Control (1CD-FTV)	174
140A	ALT	Charging	126
		Front Fog Light	232
		Headlight Beam Level Control (w/o HID)	280
		Headlight (w/ Daytime Running Light)	222

* 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	Illumination	256
		Key Reminder and Light Reminder	290
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Rear Fog Light	236
		Seat Heater	468
		Taillight	240

Engine Room R/B No.4 (See Page 27)

Fuse		System	Page
7.5A	EFI NO.2	Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
10A	EFI NO.1	Cruise Control (1AZ-FSE)	322
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
25A	ABS (w/o VSC)	ABS	348
25A	VSC (w/ VSC)	VSC	338
30A	H-LP CLN	Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
40A	ABS (w/o VSC)	ABS	348
50A	VSC (w/ VSC)	VSC	338
100A	ALT (1ZZ-FE, 3ZZ-FE)	Charging	126
		Front Fog Light	232
		Headlight Beam Level Control (w/o HID)	280
		Headlight (w/ Daytime Running Light)	222
		Illumination	256
		Key Reminder and Light Reminder	290
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Rear Fog Light	236
		Seat Heater	468
		Taillight	240
120A	ALT (1AZ-FSE, 1AZ-FE)	Charging	126
		Front Fog Light	232
		Headlight Beam Level Control (w/o HID)	280
		Headlight (w/ Daytime Running Light)	222
		Illumination	256
		Key Reminder and Light Reminder	290
		Multiplex Communication System (LHD)	192

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

Fuse		System	Page
120A	ALT (1AZ-FSE, 1AZ-FE)	Multiplex Communication System (RHD)	206
		Rear Fog Light	236
		Seat Heater	468
		Taillight	240

Fuse Block (See Page 29)

Fuse		System	Page
7.5A	DEF I/UP	Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510
		Heater	518
		Rear Window Defogger	456
7.5A	DOME	ABS	348
		Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510
		Charging	126
		Combination Meter	488
		Cruise Control (1AZ-FSE)	322
		Cruise Control (1CD-FTV)	330
		Door Lock Control (RHD) and Theft Deterrent	374
		Double Locking	404
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1CD-FTV)	174
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		EPS	364
		Headlight Beam Level Control (w/ HID)	276
		Headlight (w/ Daytime Running Light)	222
		Illumination	256
		Interior Light (LHD)	264
		Interior Light (RHD)	270
		Key Reminder and Light Reminder	290
		Moon Roof	436
		Multi-Display (w/o Navigation System Map Type)	480
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Navigation System (Map Type)	472
		Seat Belt Warning	294
		SRS	355

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

J POWER SOURCE (Current Flow Chart)

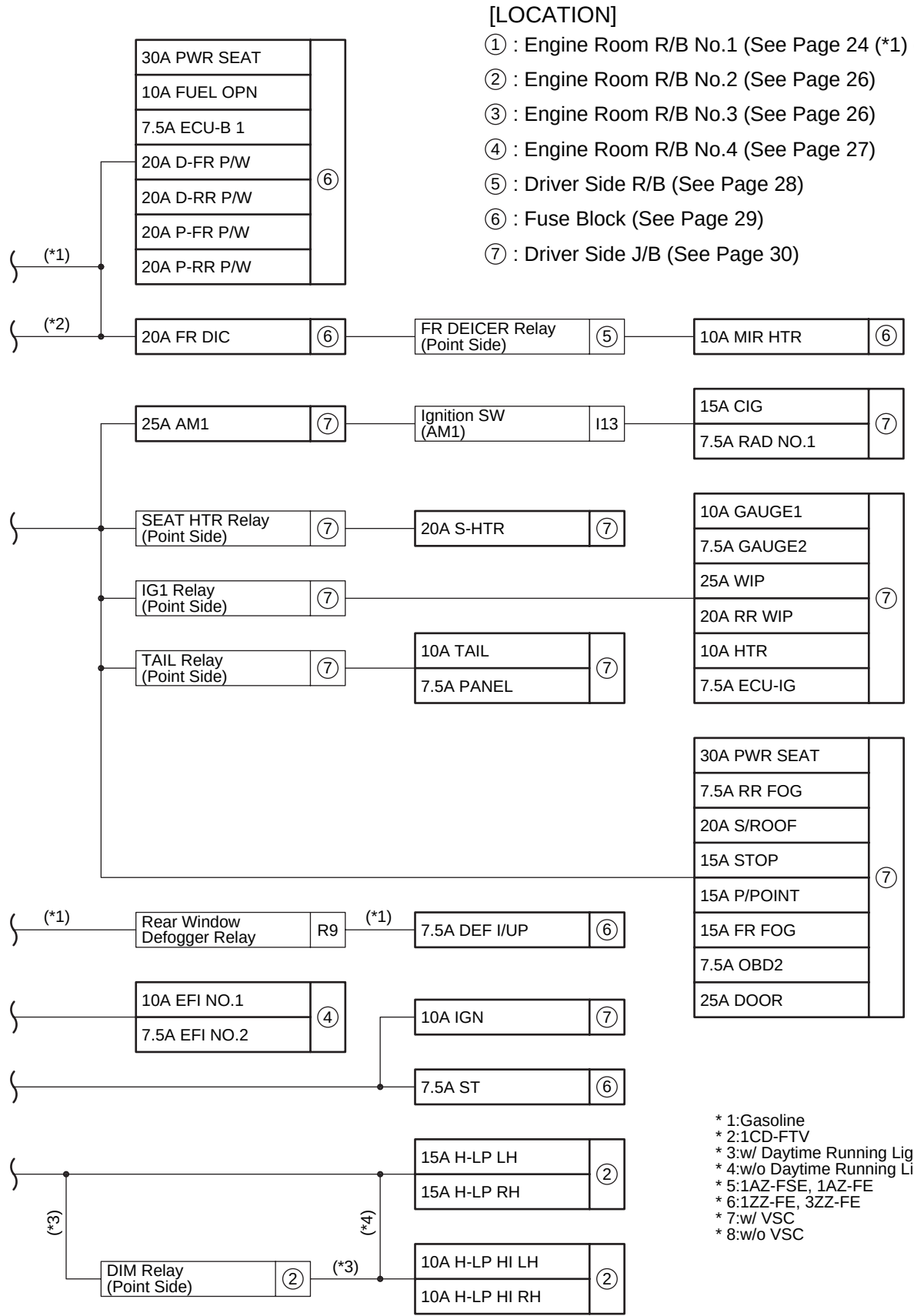
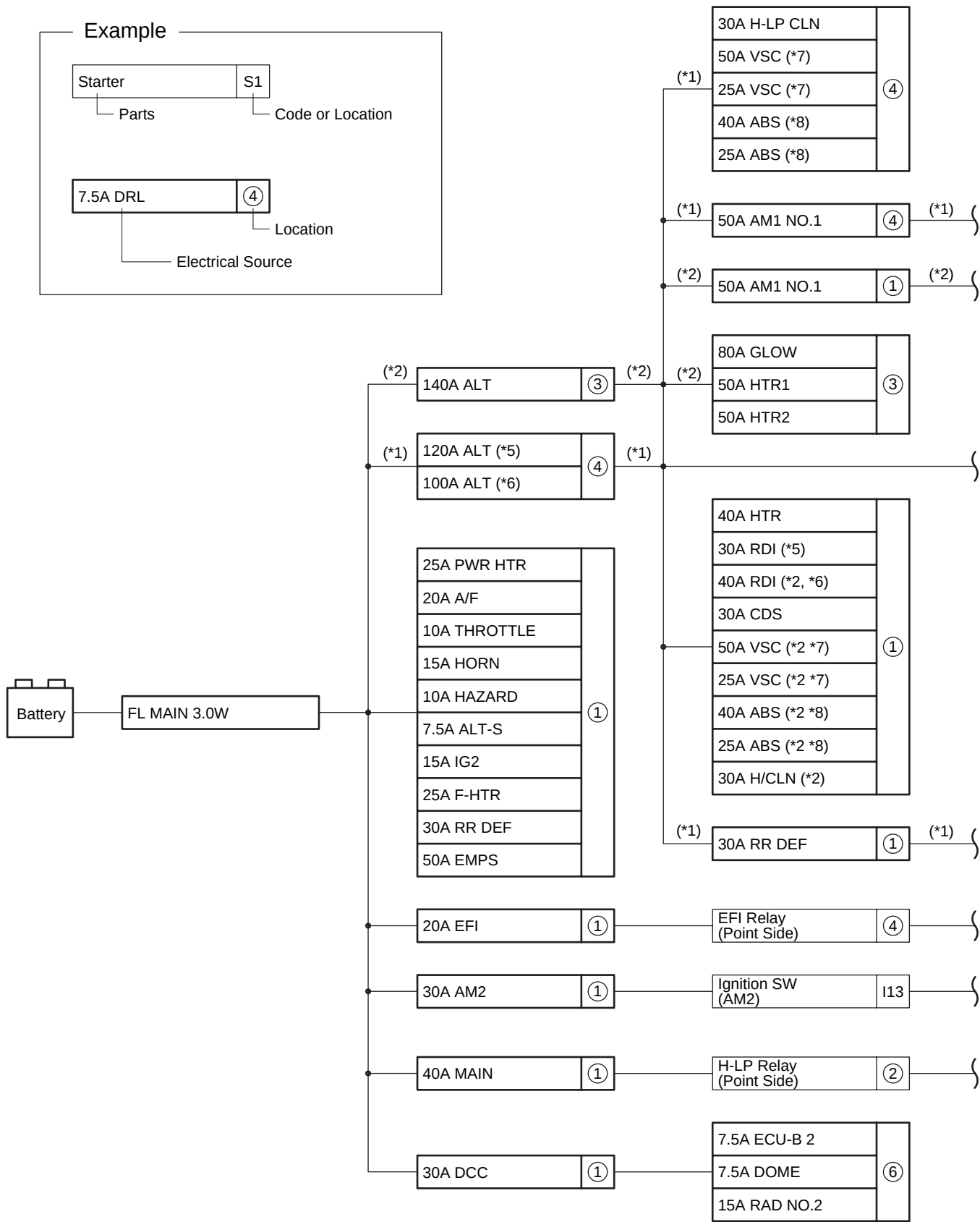
Fuse		System	Page
7.5A	DOME	VSC	338
		Wireless Door Lock Control (RHD)	396
7.5A	ECU-B 1	Engine Immobiliser System	188
7.5A	ECU-B 2	Air Conditioner (Automatic A/C) and Power Heater (Hot Gas Type Automatic A/C)	502
		Air Conditioner (Manual A/C) and Power Heater (Hot Gas Type Manual A/C)	510
		Door Lock Control (LHD)	368
		Door Lock Control (RHD) and Theft Deterrent	374
		Double Locking	404
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Headlight Cleaner (w/ HID)	284
		Headlight Cleaner (w/o HID)	288
		Headlight (w/ Daytime Running Light)	222
		Heater	518
		Interior Light (LHD)	264
		Interior Light (RHD)	270
		Key Reminder and Light Reminder	290
		Multiplex Communication System (LHD)	192
		Multiplex Communication System (RHD)	206
		Power Heater (Electrical Type)	524
		Power Window (LHD)	412
		Power Window (RHD)	418
		Wireless Door Lock Control (LHD)	388
		Wireless Door Lock Control (RHD)	396
7.5A	ST	Cruise Control (1AZ-FSE)	322
		Cruise Control (1CD-FTV)	330
		ECT and A/T Indicator (1AZ-FE)	306
		ECT and A/T Indicator (1AZ-FSE)	298
		ECT and A/T Indicator (1ZZ-FE)	314
		Engine Control (1AZ-FE)	148
		Engine Control (1AZ-FSE)	134
		Engine Control (1CD-FTV)	174
		Engine Control (1ZZ-FE, 3ZZ-FE)	162
		Navigation System (Map Type)	472
10A	FUEL OPN	Fuel Lid Opener	124
			444
10A	MIR HTR	Mirror Heater	460
15A	RAD NO.2	Multi-Display (w/o Navigation System Map Type)	480
		Navigation System (Map Type)	472
		Radio and Player	484
20A	D-FR P/W	Power Window (LHD)	412
		Power Window (RHD)	418

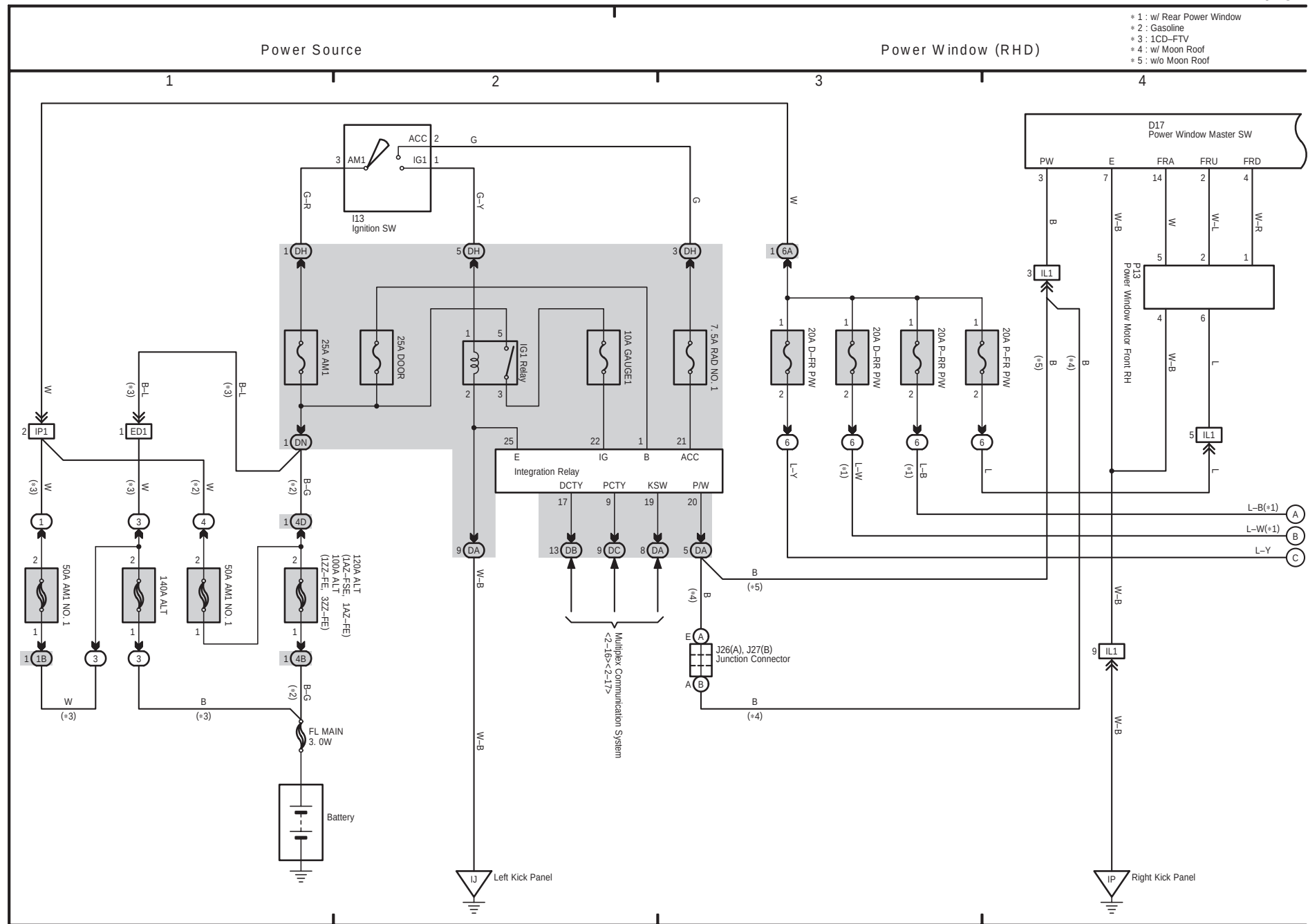
* These are the page numbers of the first page on which the related system is shown.

Fuse		System	Page
20A	D-RR P/W	Power Window (LHD)	412
		Power Window (RHD)	418
20A	FR DIC	Front Window Deicer	454
		Mirror Heater	460
20A	P-FR P/W	Power Window (LHD)	412
		Power Window (RHD)	418
20A	P-RR P/W	Power Window (LHD)	412
		Power Window (RHD)	418
30A	PWR SEAT	Power Seat	464

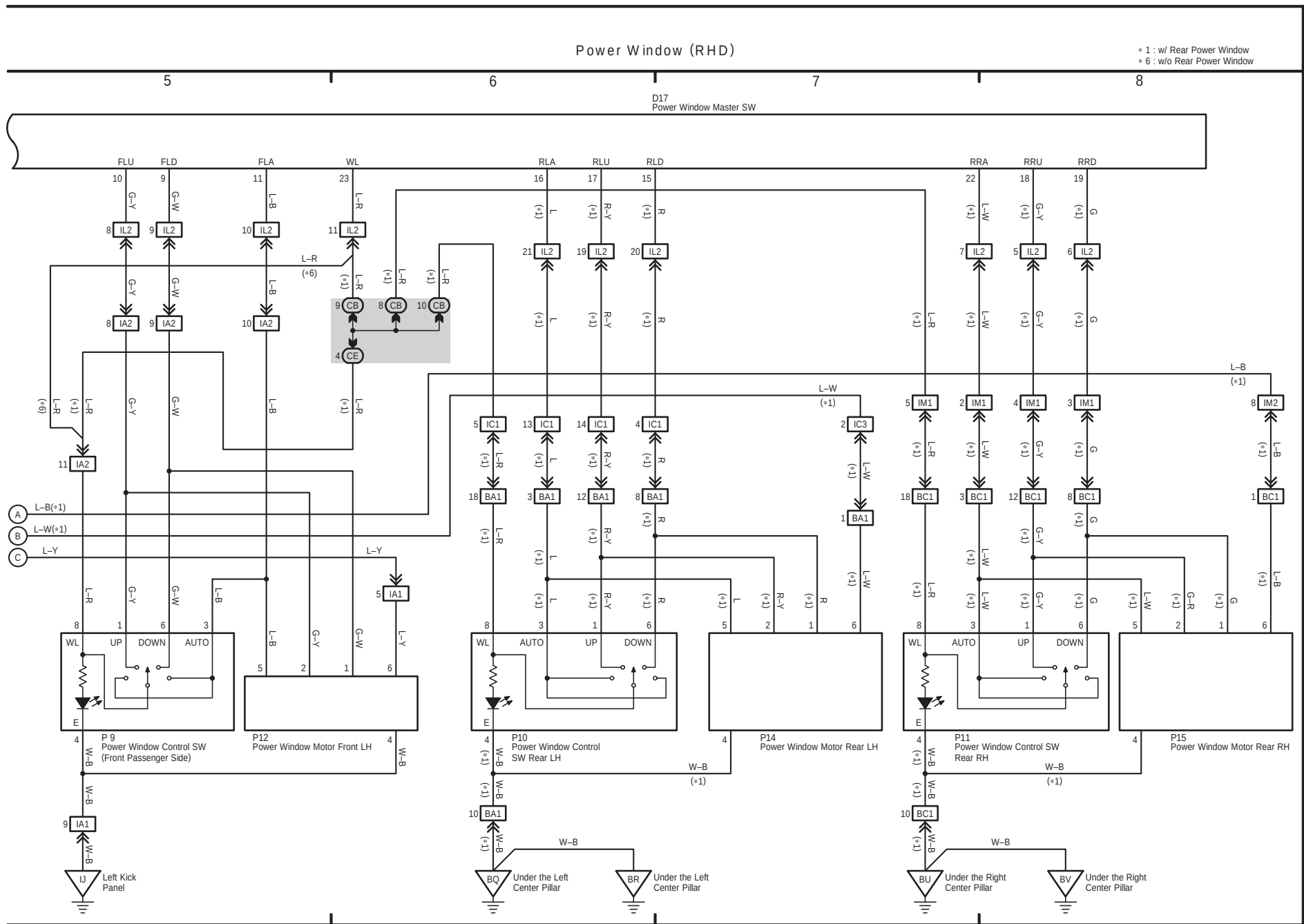
* These are the page numbers of the first page on which the related system is shown.

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.





OVERALL ELECTRICAL WIRING DIAGRAM



REPAIR INSTRUCTION (1NZ-FE/2NZ-FE)

010BI-01

PRECAUTION

1. TO PREVENT FROM ENTERING FOREIGN SUBSTANCES.

- (a) When foreign substances such as dust, grain of sand or metallic dust enter inside of engine, it often causes functional failure of the engine.
 - (1) Precaution before disassembly.
 - Remove adequately all sand and mud adhere to the outside of engine.
 - (2) Precaution at reassembly.
 - Protect disassembled parts from dust by using vinyl sheet to cover.

2. TO PREVENT SCRATCHES ON THE PARTS.

- (a) The existence of scratches on the contact and revolving surfaces often causes oil leak and seizure.
 - (1) Precautions at disassembly and reassembly.
 - When disassemble the contact surface of the parts, use plastic hammer striking lightly. (Do not pry out by screwdriver).
 - When fix the parts to the vise, do not directly catch it in the vise. Fix the parts through aluminum bar.

3. TO CLEAN AND WASH THE PARTS.

- (a) Each parts needs to be well cleaned, washed, and dried by air, and apply specified oil before reassembly.
 - (1) Cleaning and washing by alkaline solvent is prohibited:
 - Parts made of aluminum and rubber. (ex. cylinder head cover gasket etc.)
 - (2) Cleaning and washing by flushing oil (ex. kerosene, white gasoline etc.) is prohibited:
 - Parts made of rubber. (ex. cylinder head cover gasket etc.)

4. POSITION AND DIRECTION OF EACH PARTS.

- (a) Each parts needs to be reassembled as the same position and direction as it disassembled.
 - (1) Precautions at disassembly and reassembly.
 - Follow the directions when the manual designates to mark the matchmark and/or direction mark.
 - Disassembled parts needs to be put in order as disassembled, not to change position and/or direction.
 - Follow the directions when the manual instructs the position and direction.

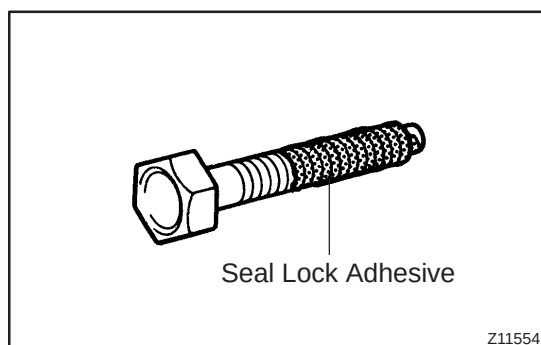
5. INSTALL ENGINE ASSEMBLY TO OVERHAUL STAND WHEN OVERHAUL THE ENGINE.

6. PUT THE DISASSEMBLED PARTS IN ORDER AS THEY DISASSEMBLED.

7. APPLY ENGINE OIL TO THE SLIDING AND ROTATING SURFACES.

8. NON-REUSABLE PARTS SUCH AS GASKET AND SEAL NEEDS TO BE CHANGED TO THE NEW PARTS.

9. BASIC REPAIR HINT



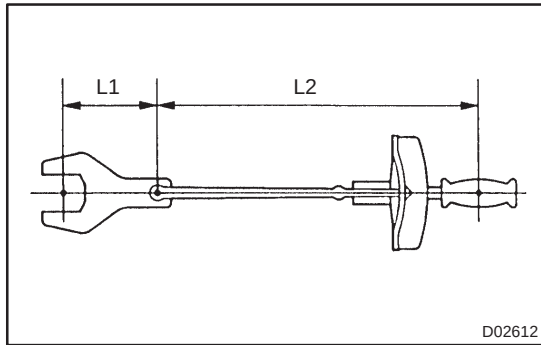
(a) Precoated Parts:

- (1) Precoated parts are bolts, nuts, etc. that are coated with a seal lock adhesive at the factory.
- (2) If a precoated part is retightened, loosened or caused to move in any way, it must be recoated with the specified adhesive.
- (3) When reusing precoated parts, clean off the old adhesive and dry with compressed air. Then apply the specified seal lock adhesive to the bolt, nut or threads.

NOTICE:

Do the torque checking with the lower limit value of the torque tolerance.

- (4) Depending on the seal lock agent to apply, there may be a case where it is necessary to leave it for a specified time until it hardens.
- (b) Gaskets:
When necessary, use a sealer on gaskets to prevent leaks.
- (c) Bolts, Nuts and Screws:
Carefully observe all specifications for bolt tightening torques. Always use a torque wrench.

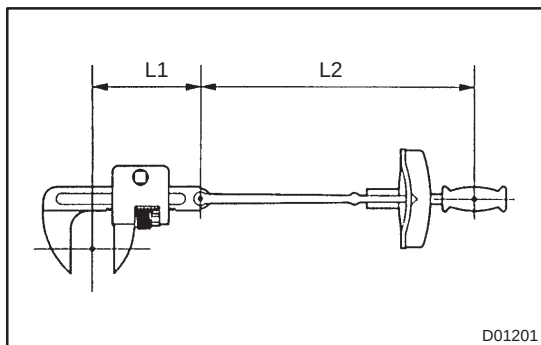


(d) Torque When Using Extension Tool with Torque Wrench:

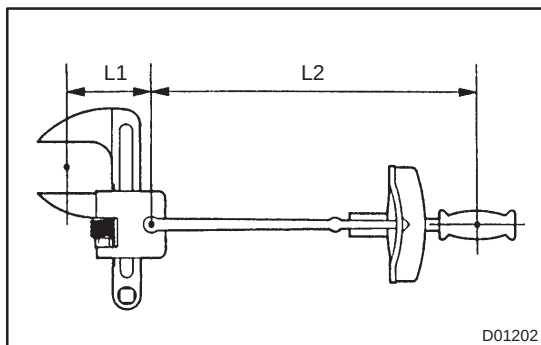
- (1) In case of tightening by extending the entire length of the torque wrench combined with SST or tool, if you tighten until the reading of the torque wrench reached the specified torque value, the actual torque becomes excessive.

- (2) In this text, only the specified torque is described. In case of using SST or extension tool, find the reading of the torque wrench by the formula.

- (3) Formula $T' = T \times L2 / (L1 + L2)$



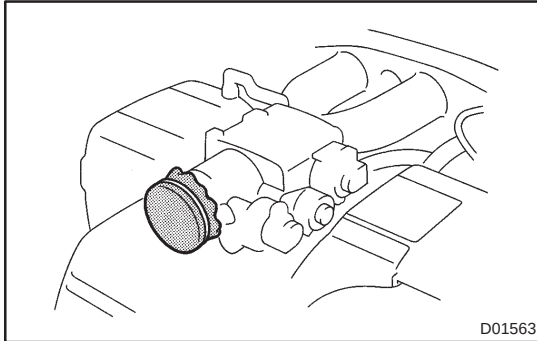
T'	Reading of torque wrench {N·m (kgf·cm, ft·lbf)}
T	Torque {N·m (kgf·cm, ft·lbf)}
L1	Length of SST or tool (cm)
L2	Length of torque wrench (cm)



10. REMOVAL AND INSTALLATION OF FUEL CONTROL PARTS

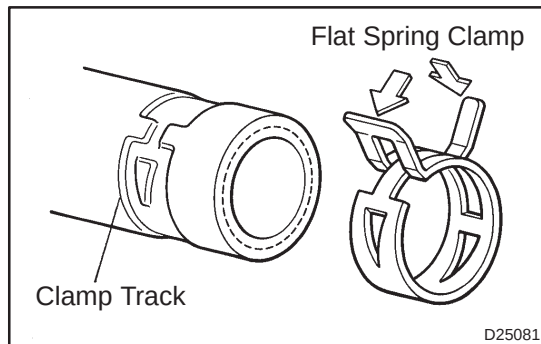
- (a) Place for Removing and Installing Fuel System Parts:
 - (1) Place with good air ventilation and without anything flammable such as welder, grinder, drill, electric motor or stove in the surroundings.
 - (2) Never work in a place like a pit or nearby pit as there is a possibility that vaporized fuel fills those places.
- (b) Removing and Installing of Fuel System Parts:
 - (1) Prepare a fire extinguisher before starting the operation.
 - (2) For prevention of the static electricity, install a ground on the fuel changer, vehicle and fuel tank, and do not spray much water so as to prevent slipping.

- (3) Never use any electric equipment like an electric motor or a working light as they may cause spark or high temperature.
- (4) Never use an iron hammer as it may cause spark.
- (5) Dispose the shop rag separately from any fuel deposit.



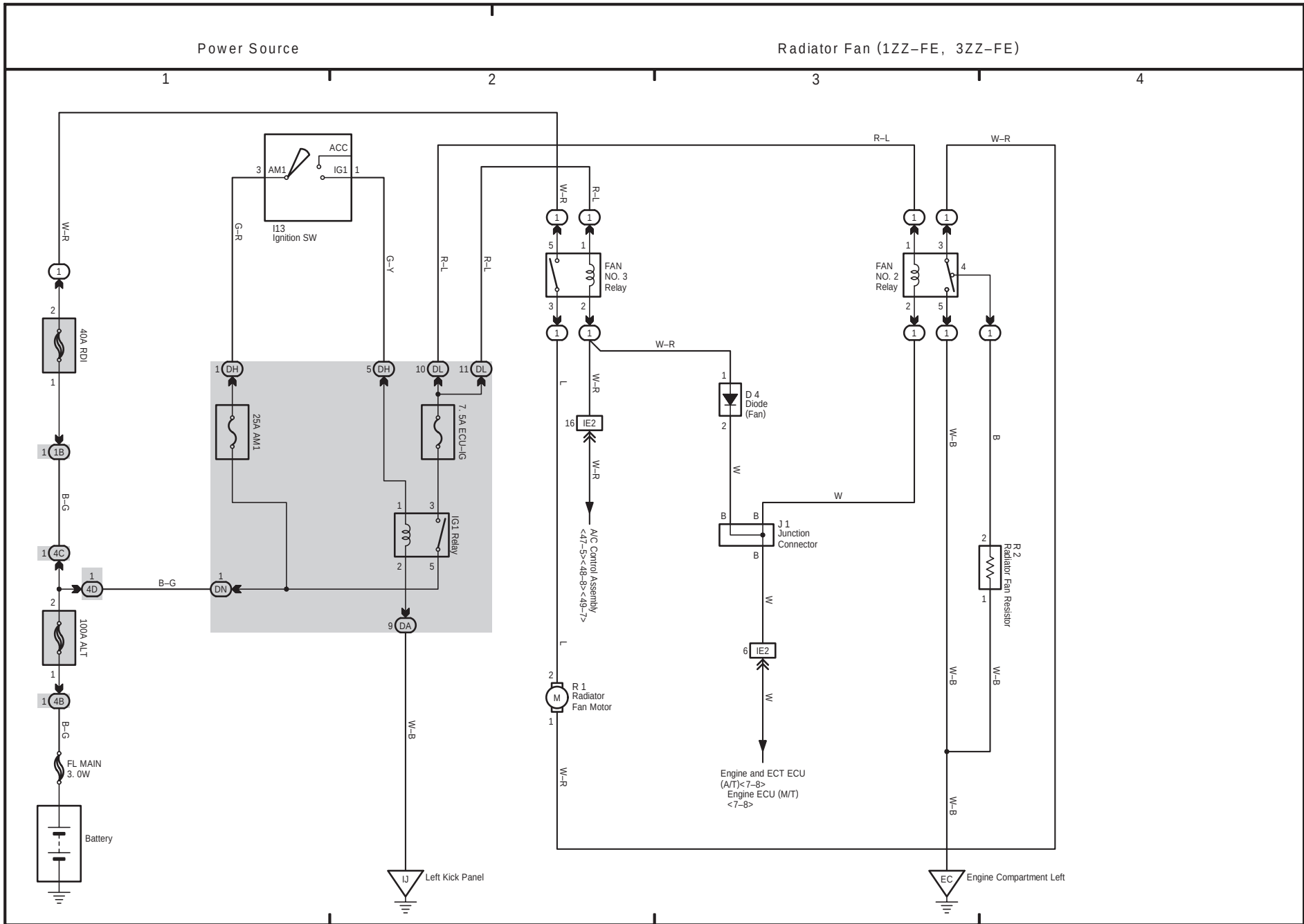
11. REMOVAL AND INSTALLATION OF ENGINE INTAKE PARTS

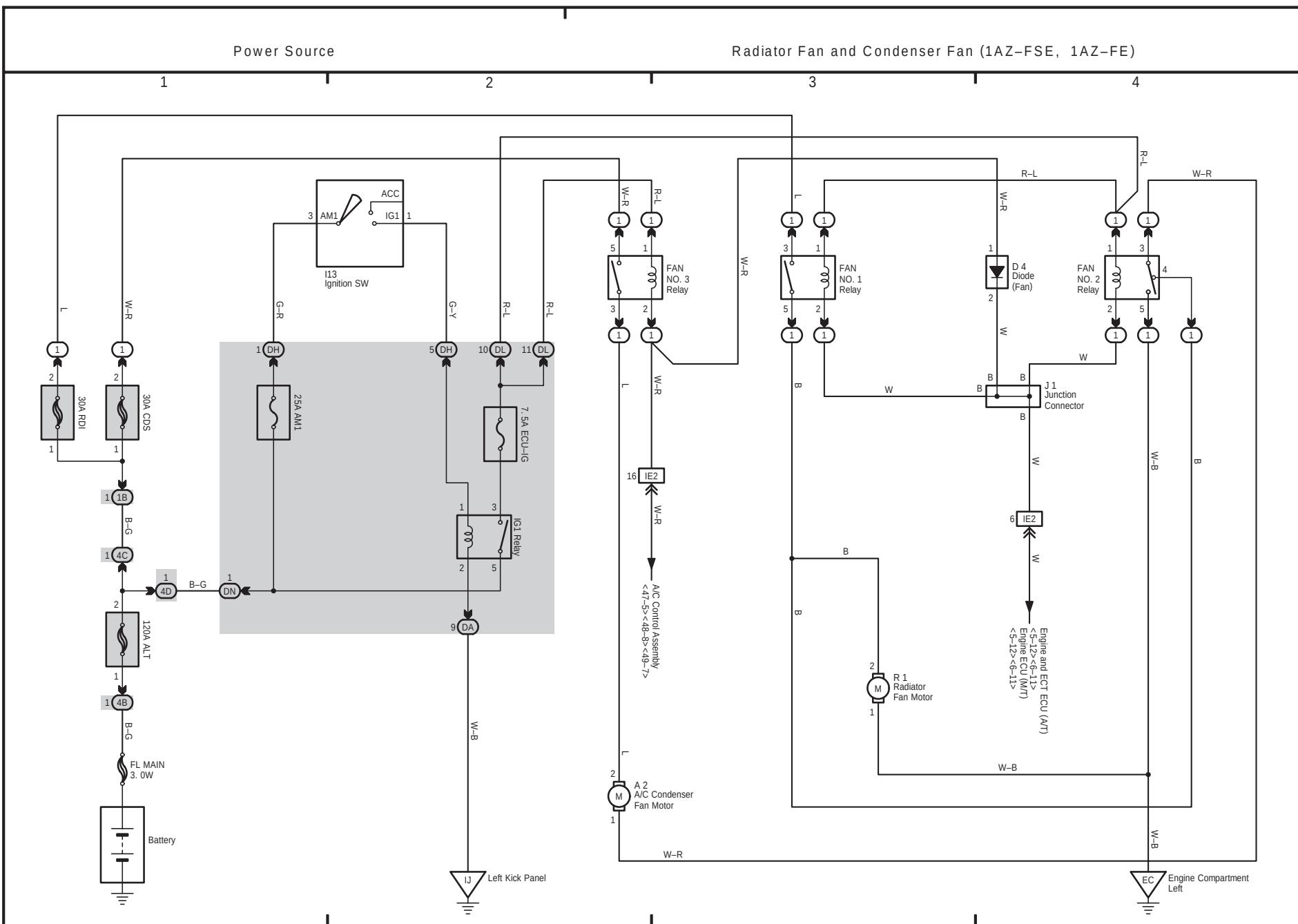
- (a) If any metal tip is mixed in the inlet pass, that may give a bad effect to the engine and turbo charger.
- (b) When removing and installing of the inlet system parts, close the opening of the removed inlet system parts and the engine with a clean shop rag or gum tape.
- (c) When installing the inlet system parts, check that there is no mixing of a metal tip.



12. HANDLING OF HOSE CLAMPS

- (a) Before removing the hose, check the depth of inserting portion and the clamp position to restore it surely.
- (b) Change a deformed or dented into a new one.
- (c) In case of reusing the hose, install the clamp on the hose where it has a clamp track.
- (d) For a flat spring type clamp, make it adjust by adding force to the arrow mark direction after the installation.

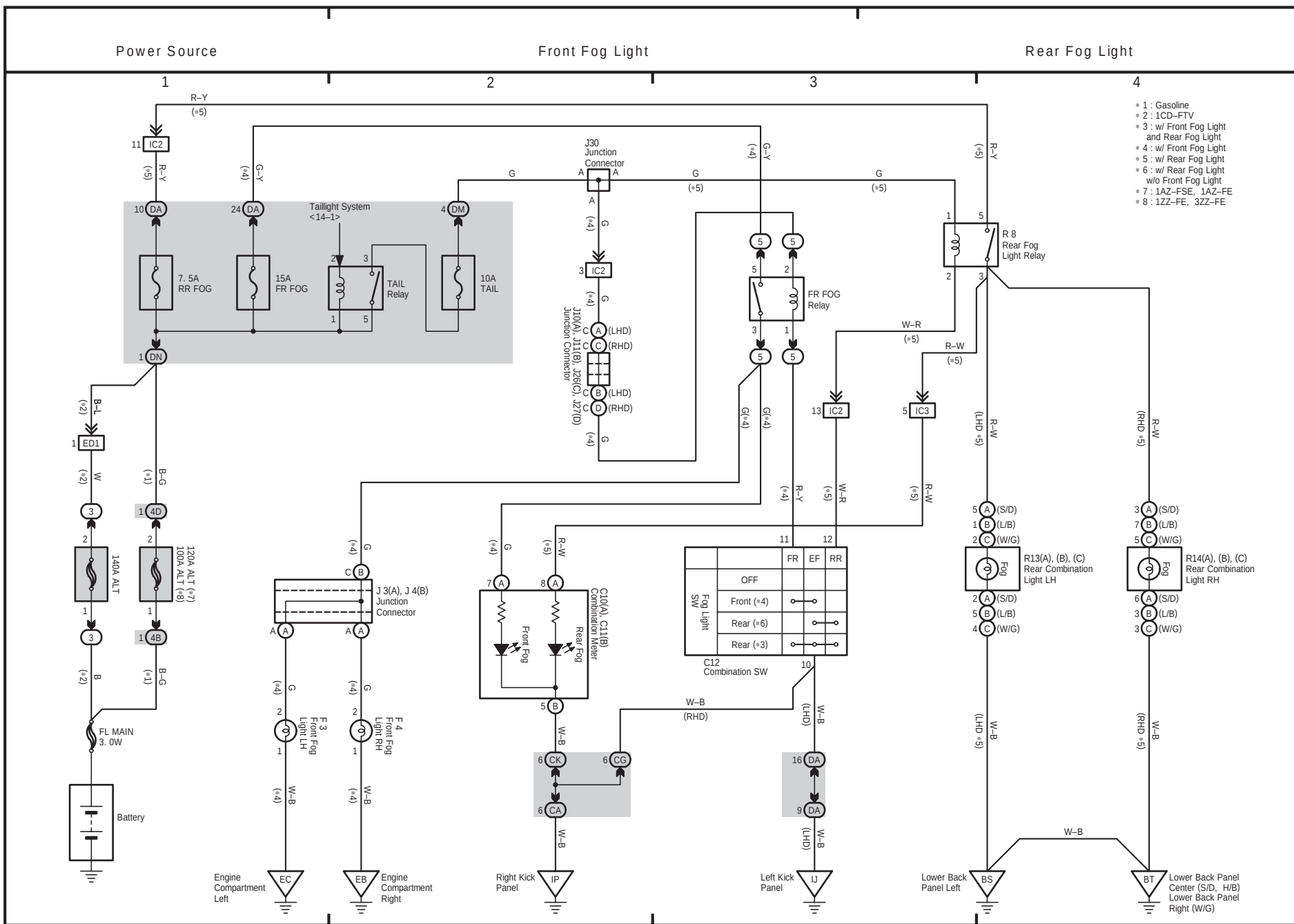


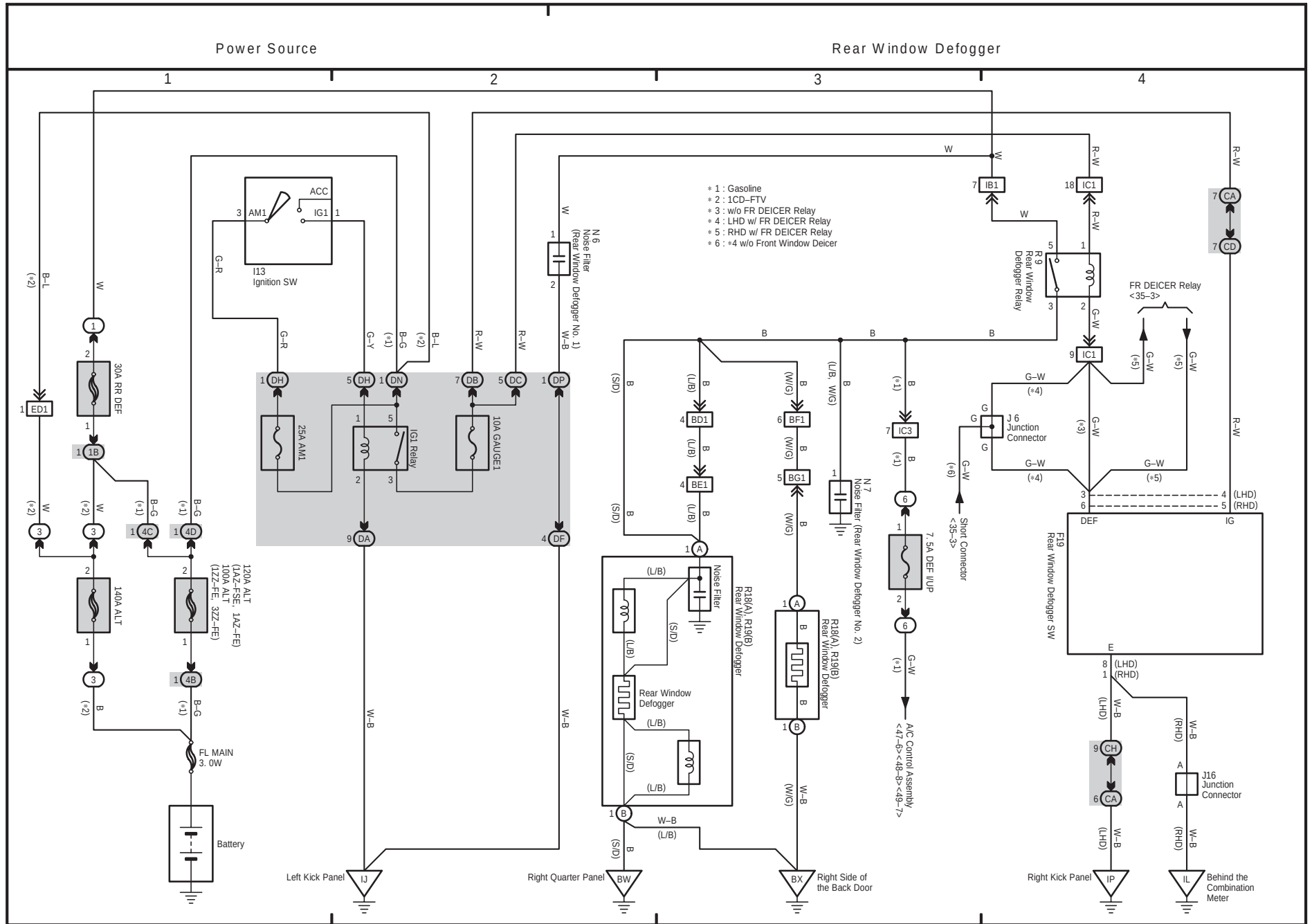


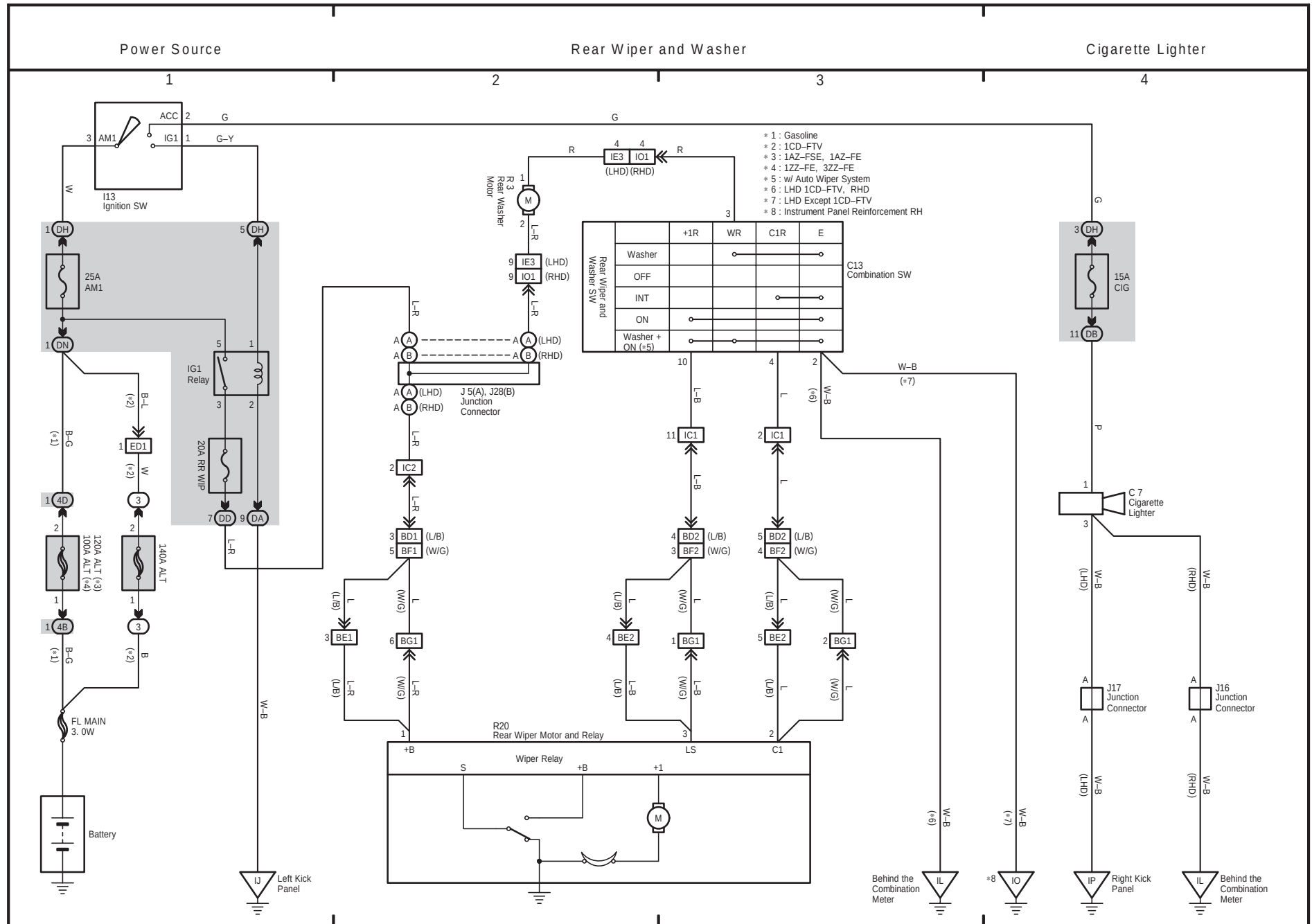
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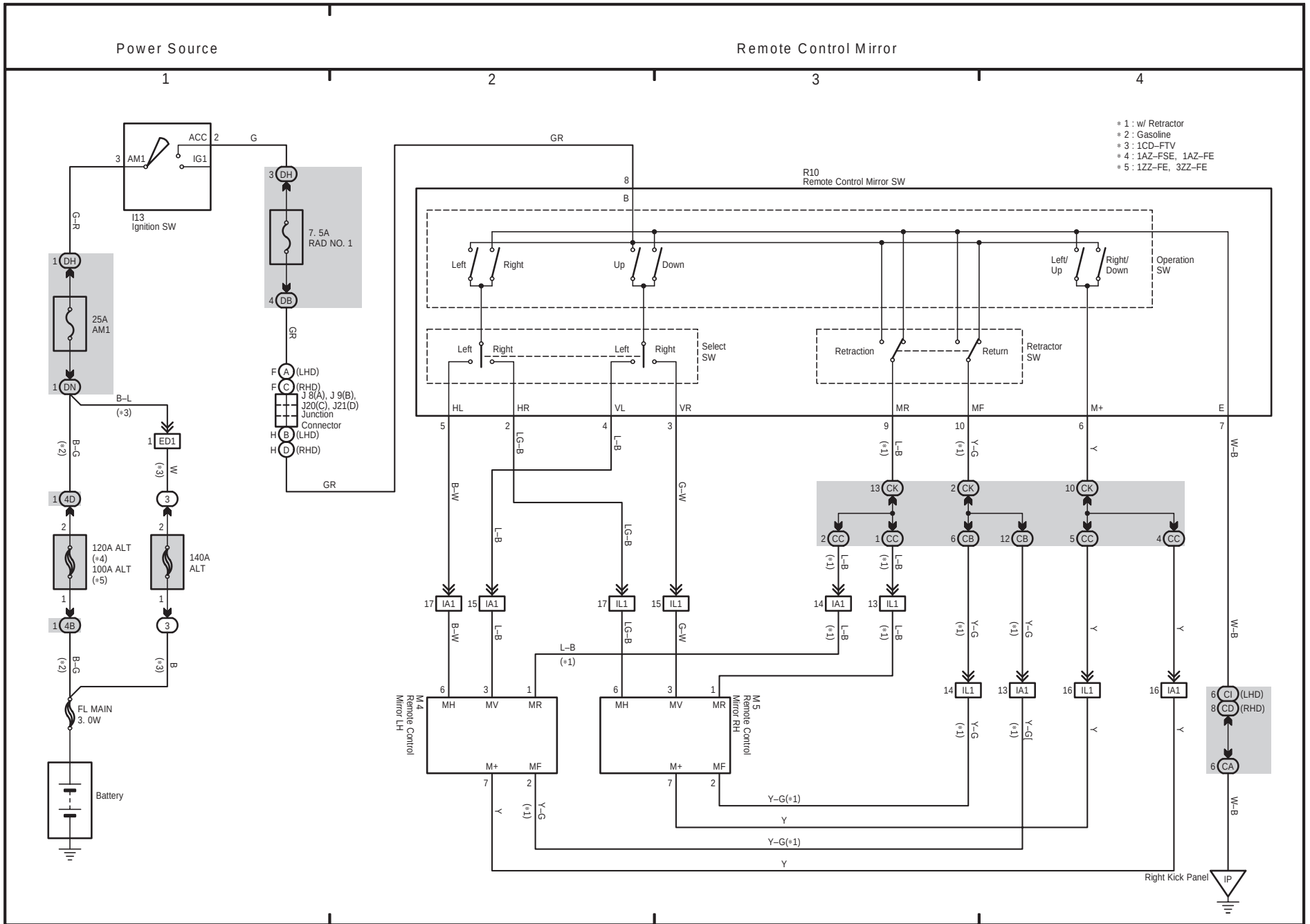


16 AVENSIS

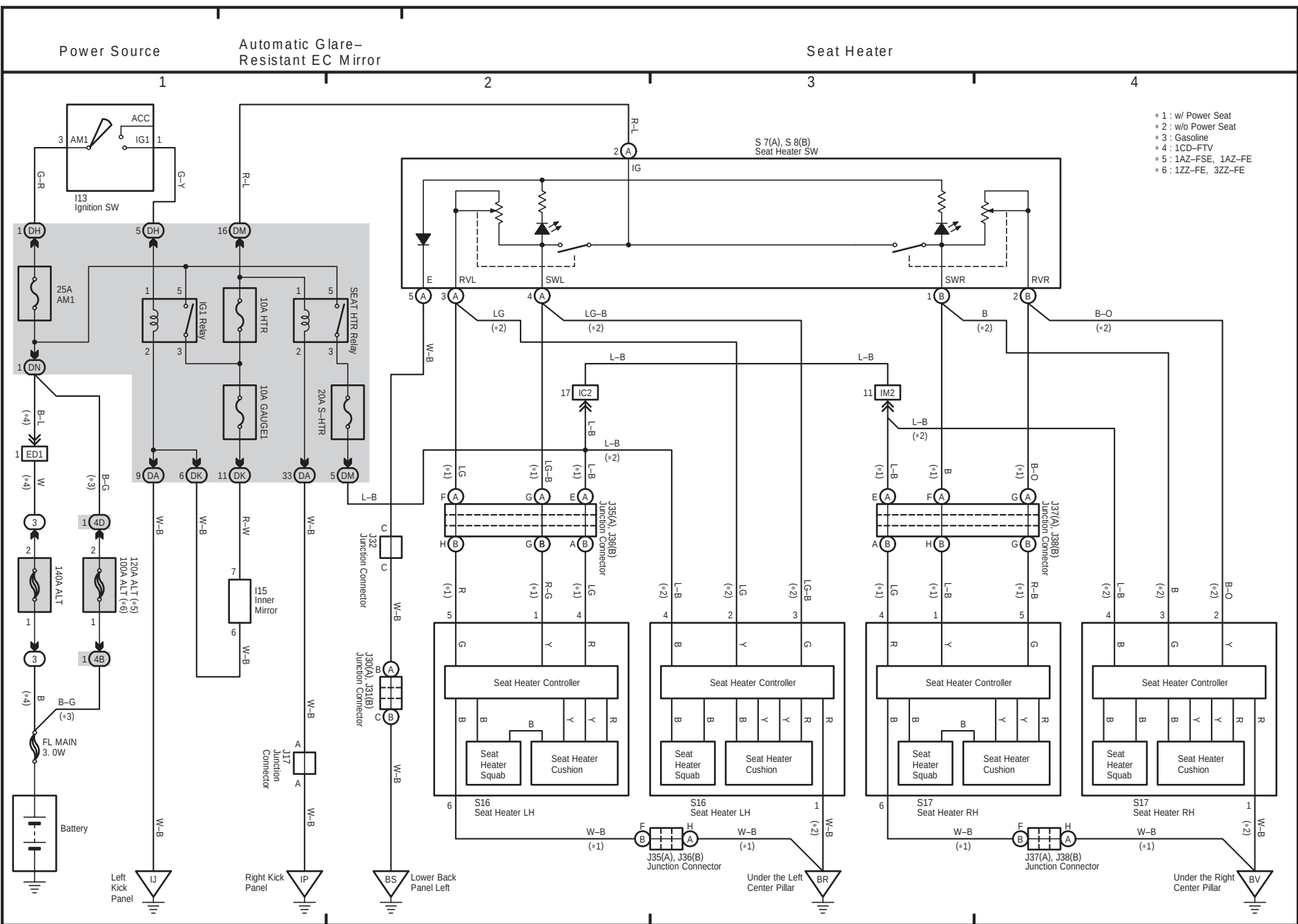




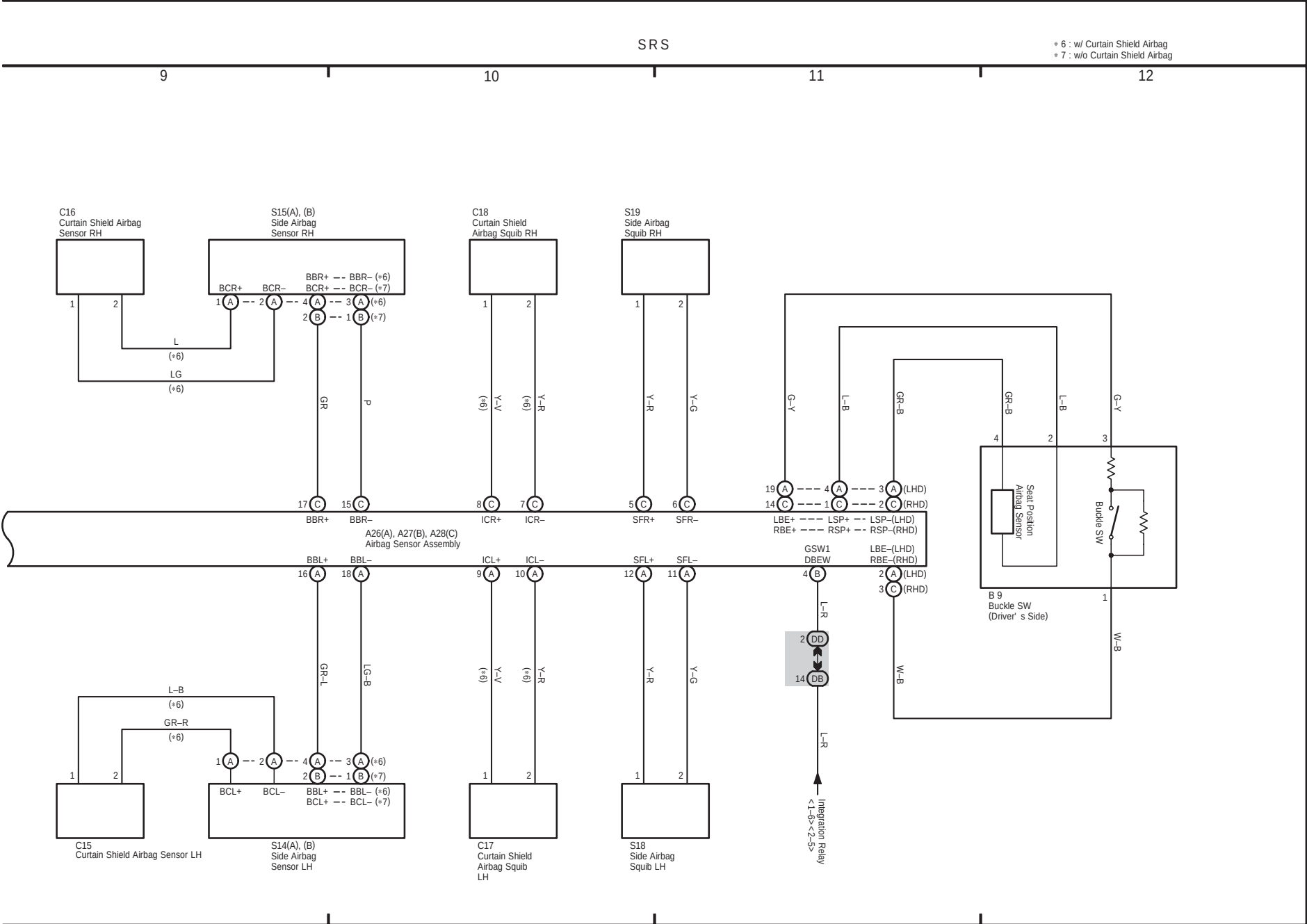
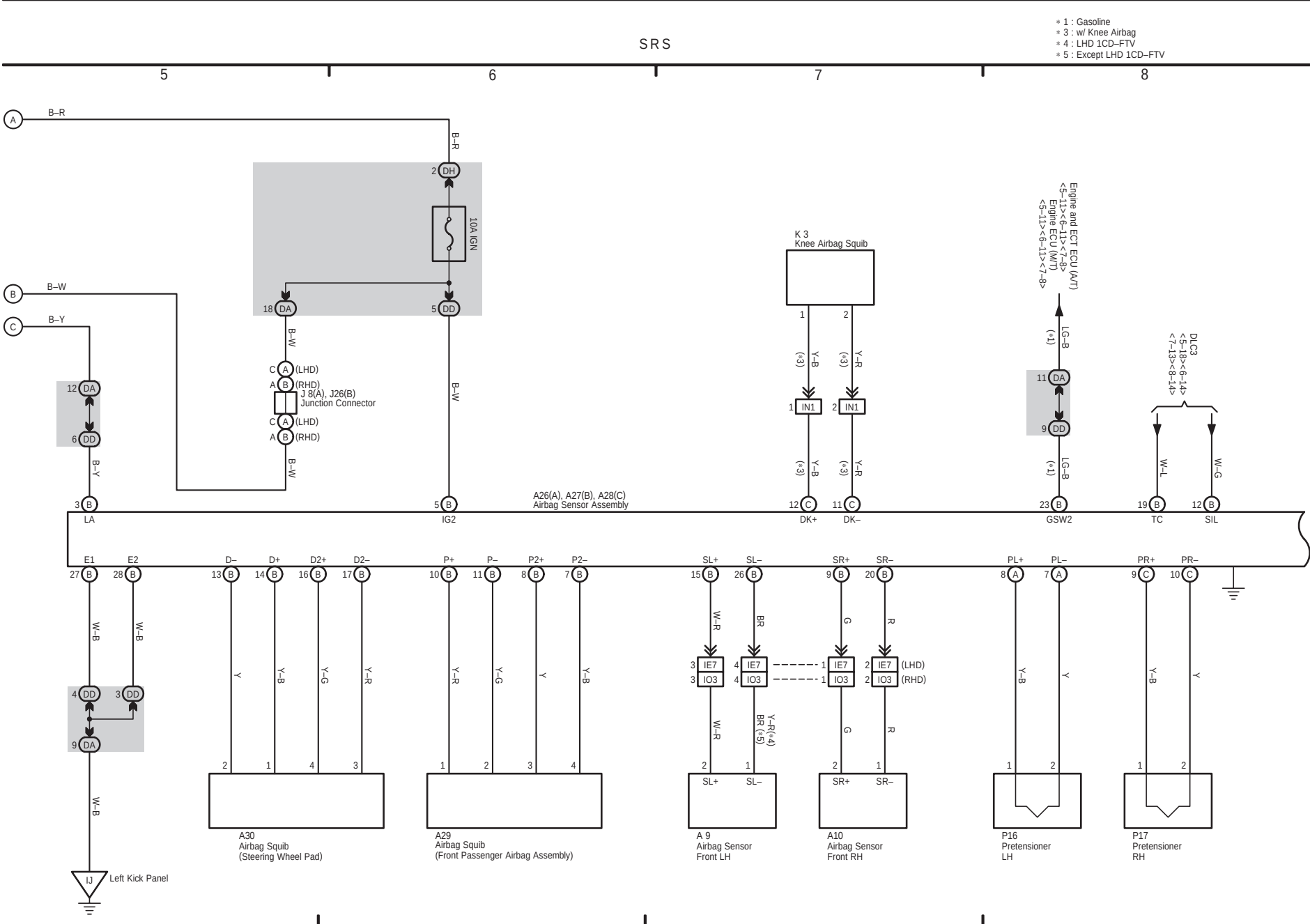
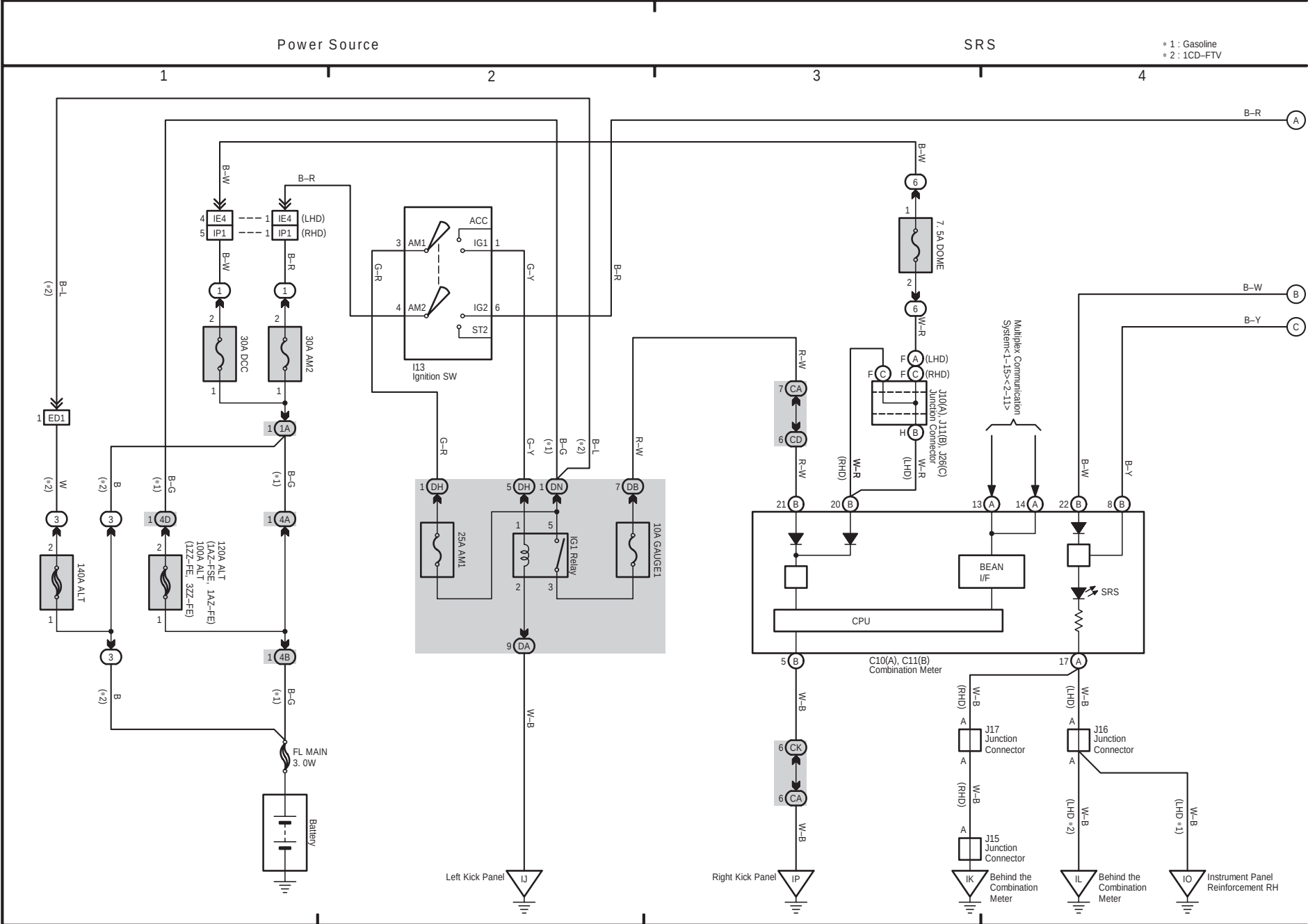




37 AVENSIS

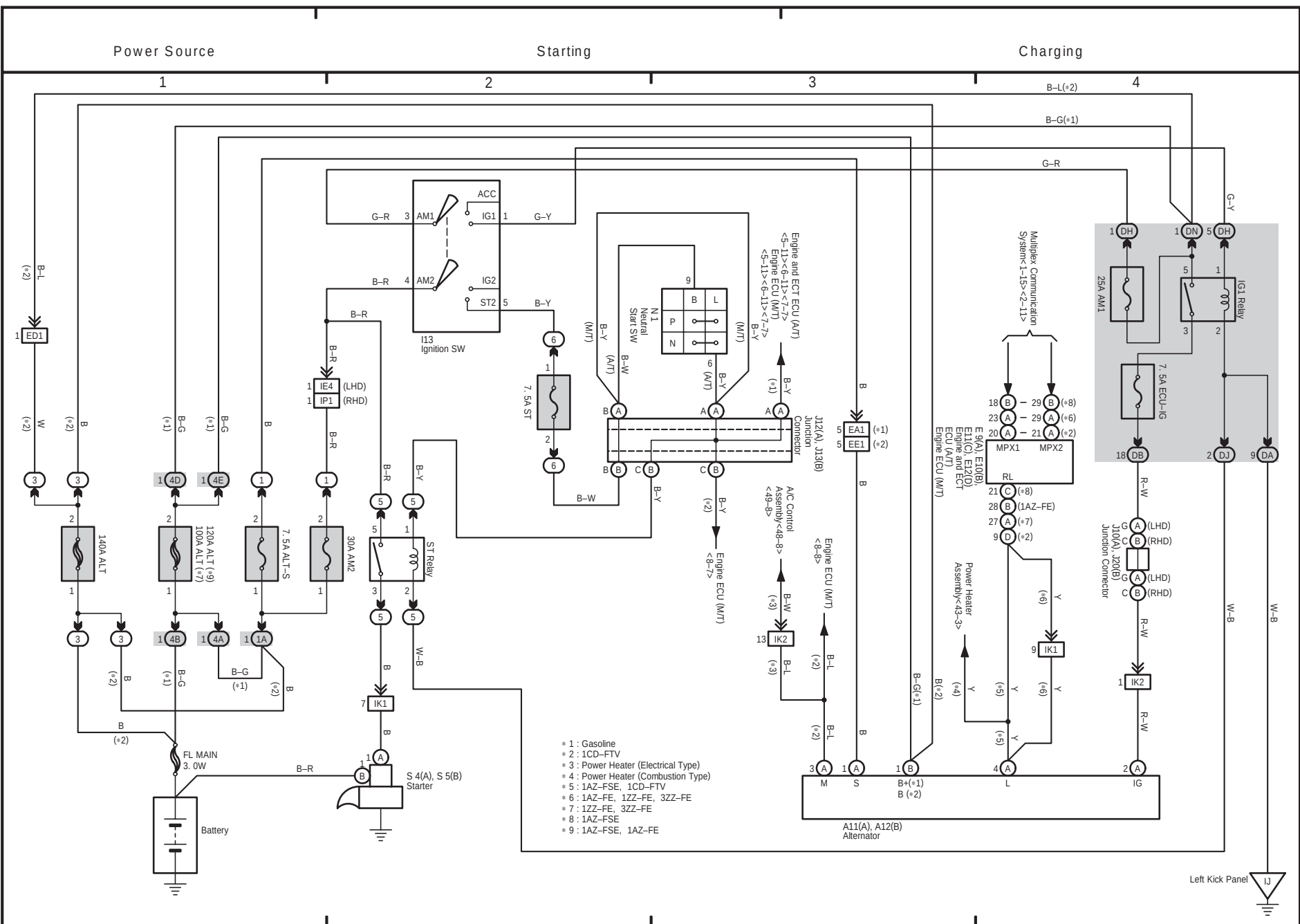


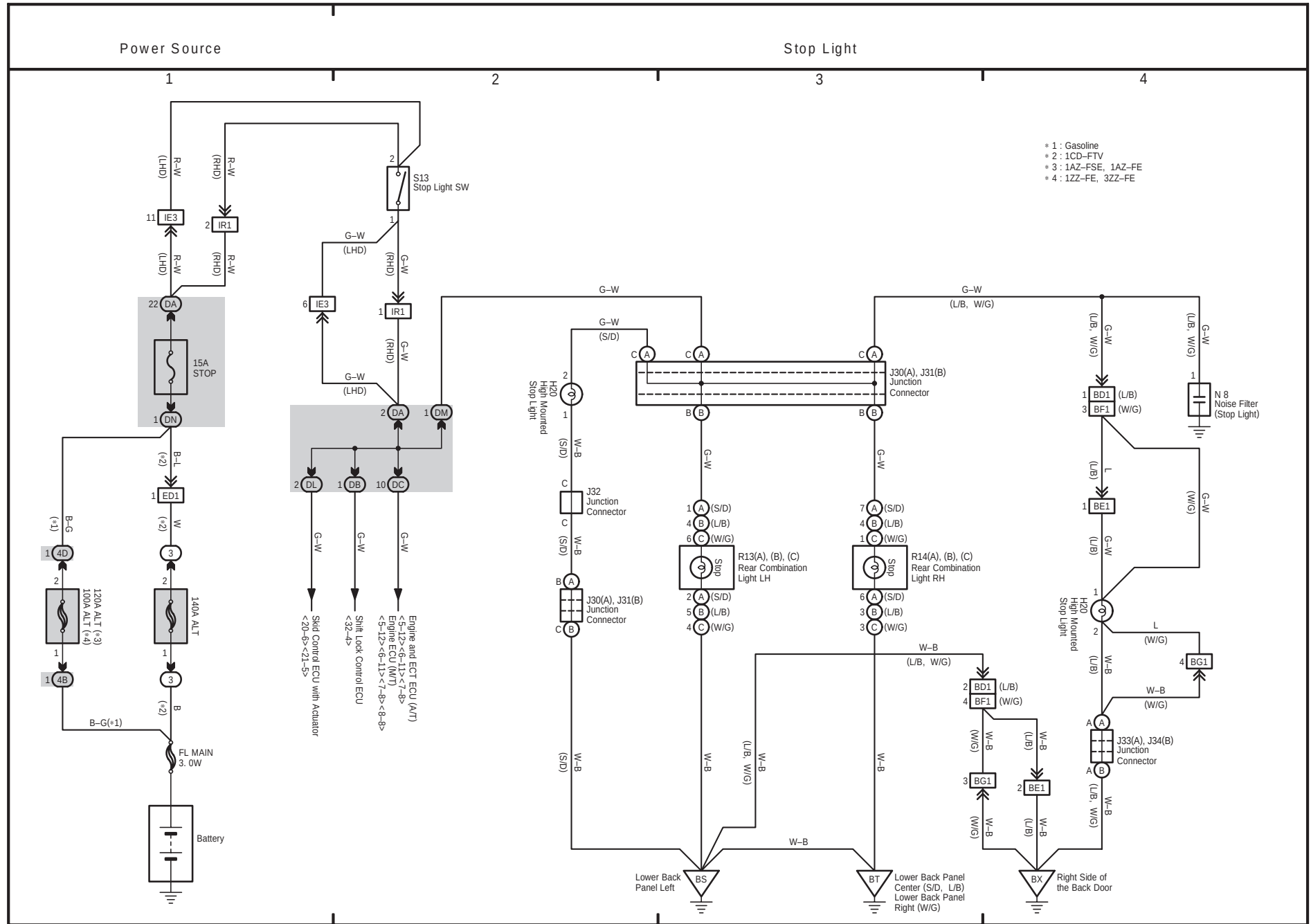
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592

AVENSIS (EWD526E)



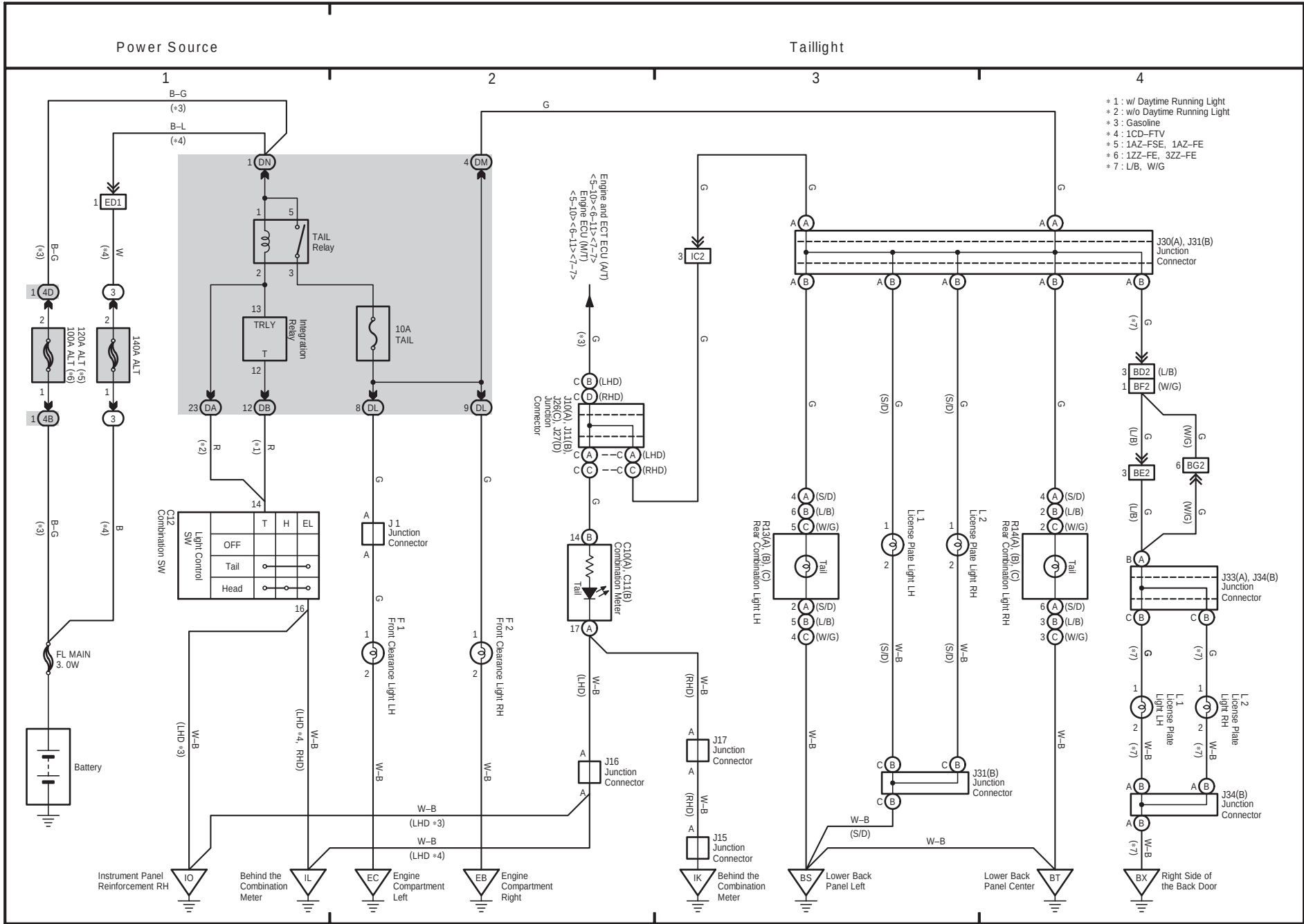


M OVERALL ELECTRICAL WIRING DIAGRAM

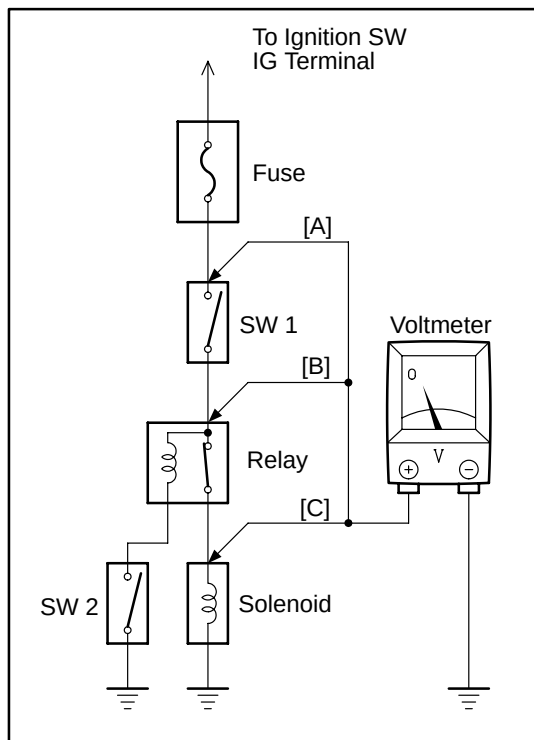
14 AVENSIS

626

AVENSIS (EWD526E)



C TROUBLESHOOTING



VOLTAGE CHECK

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

Example:

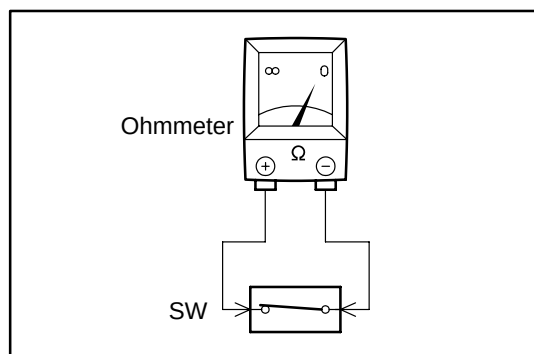
[A] – Ignition SW on

[B] – Ignition SW and SW 1 on

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

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

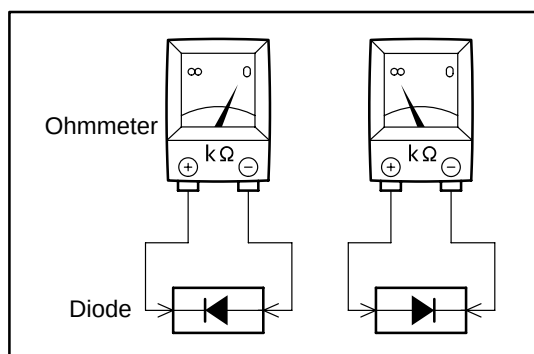
This check can be done with a test light instead of a voltmeter.



CONTINUITY AND RESISTANCE CHECK

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

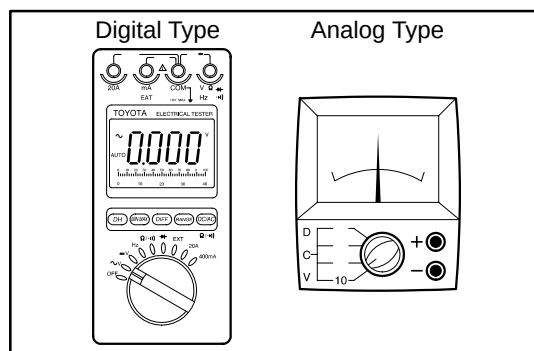
- (b) Contact the two leads of an ohmmeter to each of the check points.



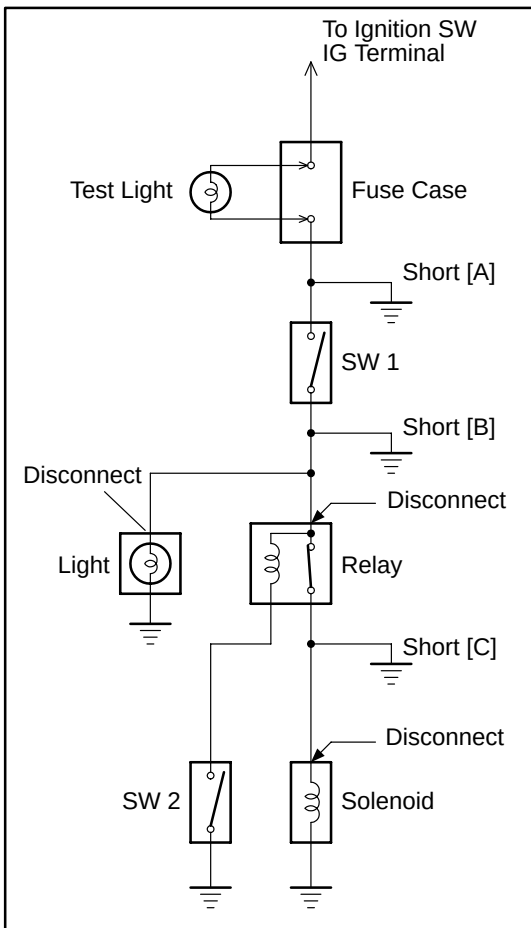
If the circuit has diodes, reverse the two leads and check again.

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

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



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



FINDING A SHORT CIRCUIT

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

Example:

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

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

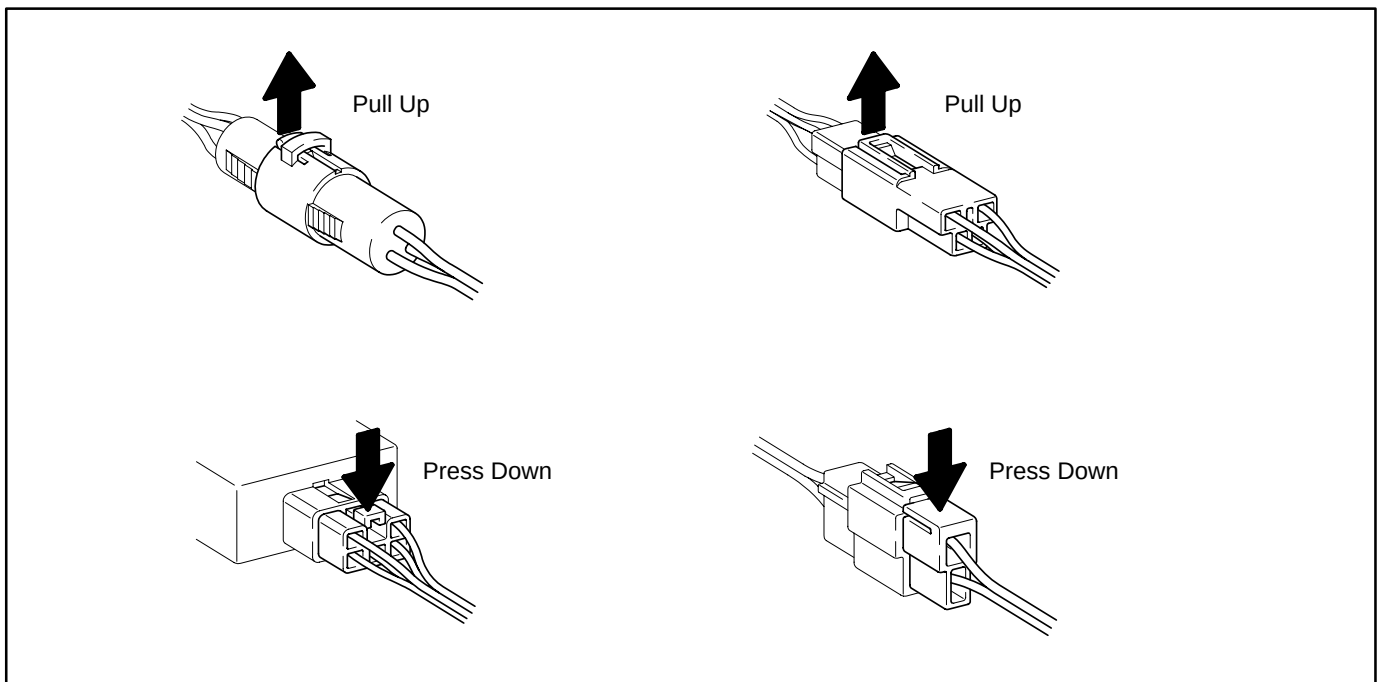
CAUTION:

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

DISCONNECTION OF MALE AND FEMALE CONNECTORS

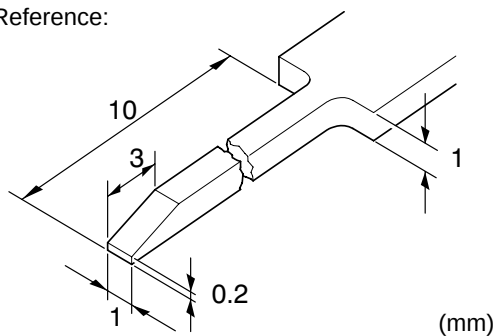
To pull apart the connectors, pull on the connector itself, not the wire harness.

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



C TROUBLESHOOTING

Reference:



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

1. PREPARE THE SPECIAL TOOL

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

2. DISCONNECT CONNECTOR

3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

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

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

NOTICE:

Do not remove the terminal retainer from connector body.

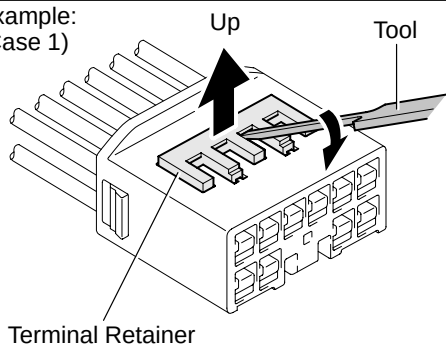
[A] For Non-Waterproof Type Connector

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

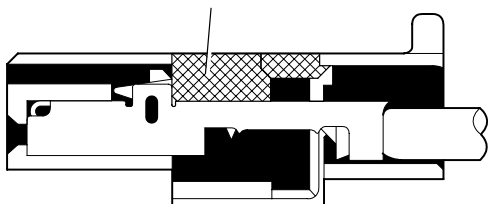
"Case 1"

Raise the terminal retainer up to the temporary lock position.

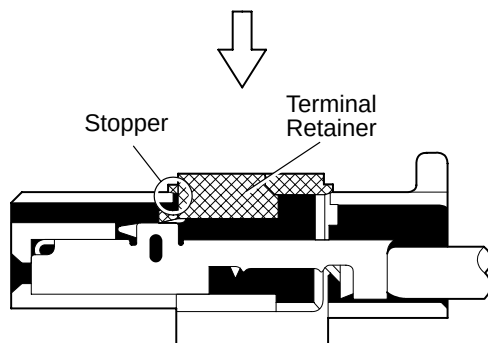
Example:
(Case 1)



Terminal Retainer

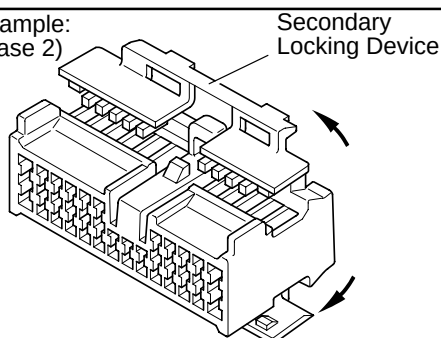


[Retainer at Full Lock Position]



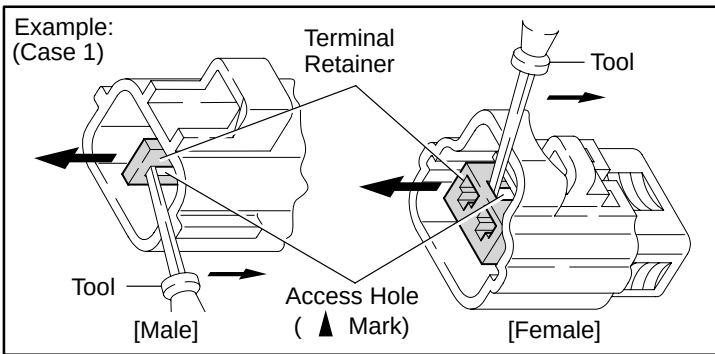
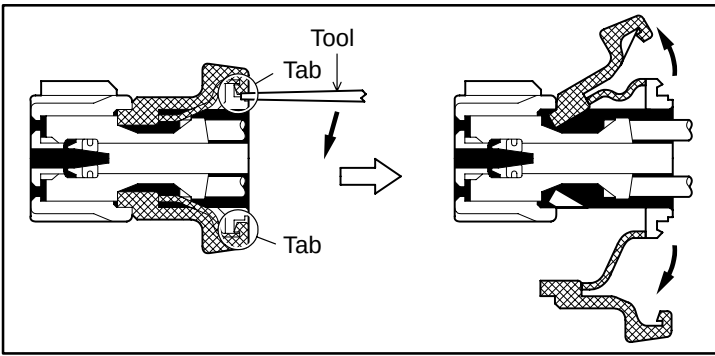
[Retainer at Temporary Lock Position]

Example:
(Case 2)



"Case 2"

Open the secondary locking device.



[B] For Waterproof Type Connector

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

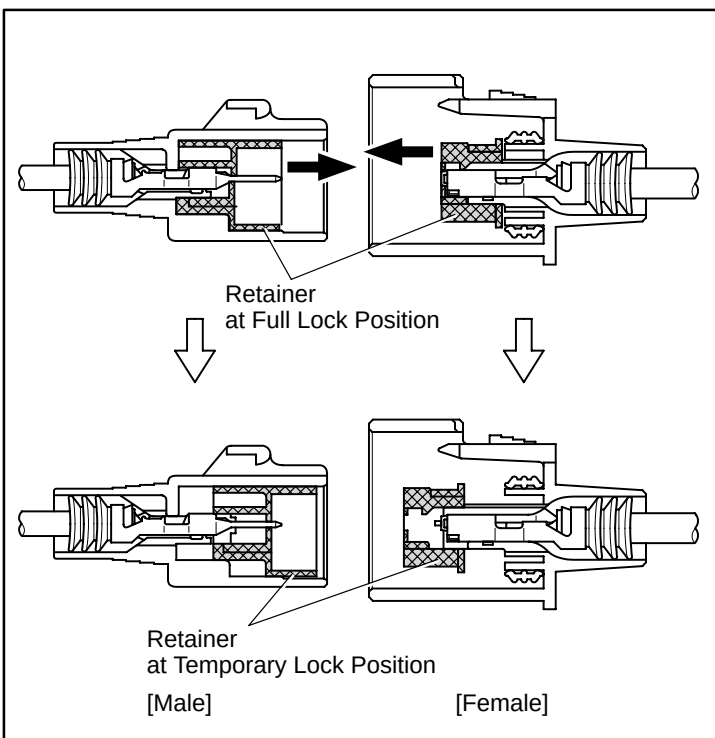
Example:

Terminal Retainer : Connector Body

Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

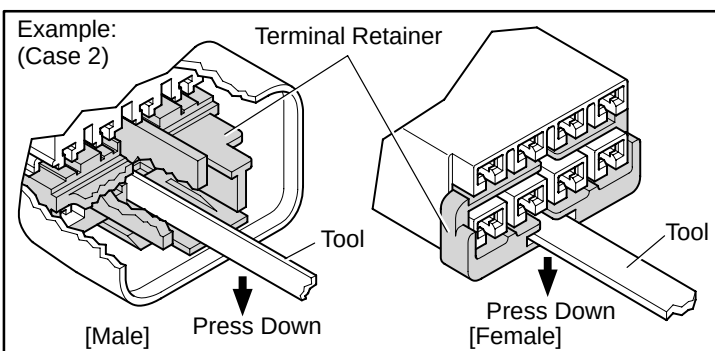


"Case 1"

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.

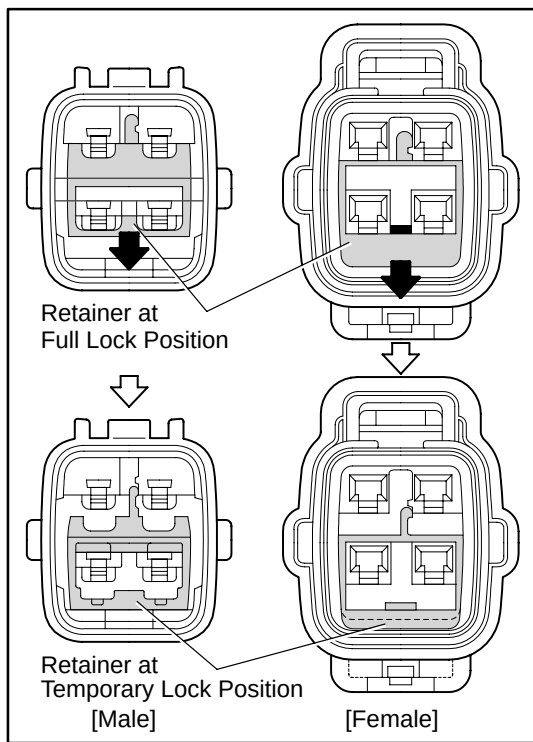
HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.



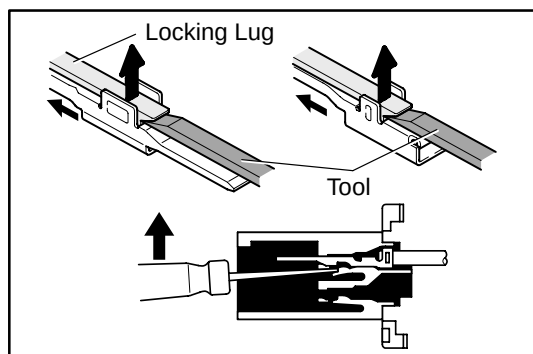
"Case 2"

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

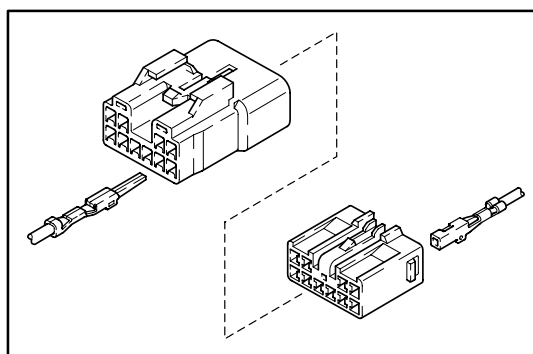
C TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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

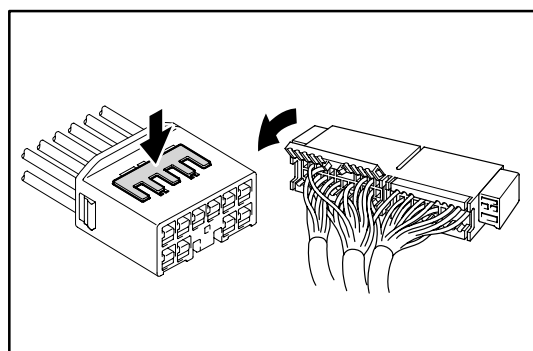


4. INSTALL TERMINAL TO CONNECTOR

(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

Power Source

Turn Signal and Hazard Warning Light

