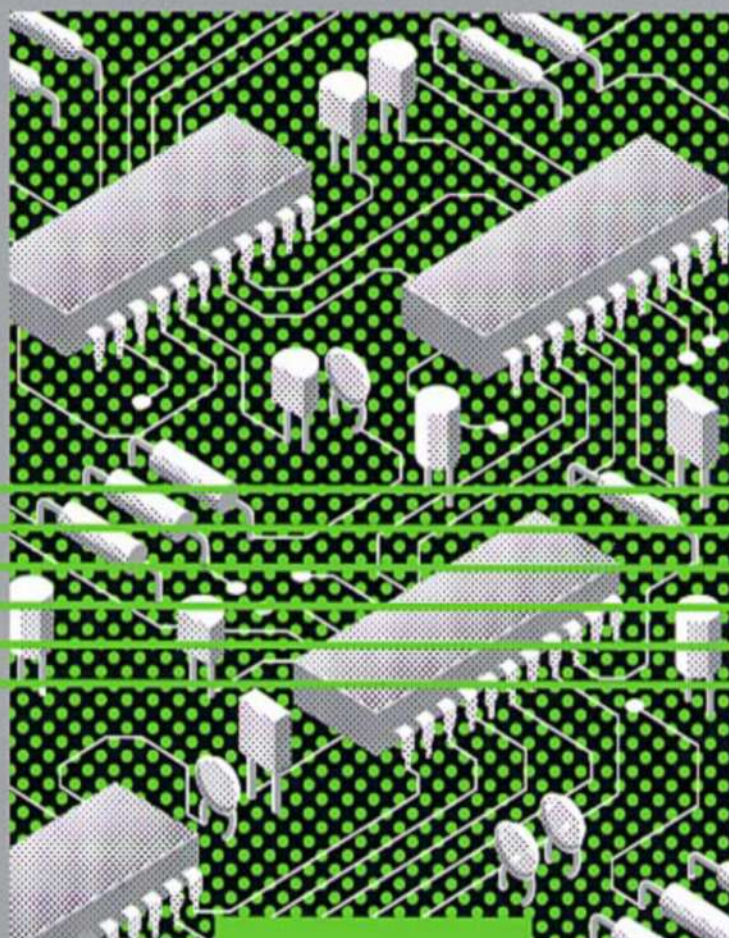


# **TOYOTA** **CAMRY**

## **ELECTRICAL WIRING DIAGRAM**

MCV 30 Series  
ACV 3\_ Series

Aug., 2001~



### **FOREWORD**

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

Applicable models: MCV30 Series  
ACV30, 31 Series

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

| Manual Name                            | Pub. No. |
|----------------------------------------|----------|
| • CAMRY Chassis and Body Repair Manual | RM915E   |
| • 1MZ-FE Engine Repair Manual          | RM917E   |
| • 1AZ-FE, 2AZ-FE Engine Repair Manual  | RM916E   |
| • CAMRY New Car Features               | NCF209E  |

All information in this manual is based on the latest product information at the time of publication. However, specifications and procedures are subject to change without notice.

**TOYOTA MOTOR CORPORATION**

#### **NOTICE**

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

# CAMRY

## ELECTRICAL WIRING DIAGRAM

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This manual consists of the following 13 sections:

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

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

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

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

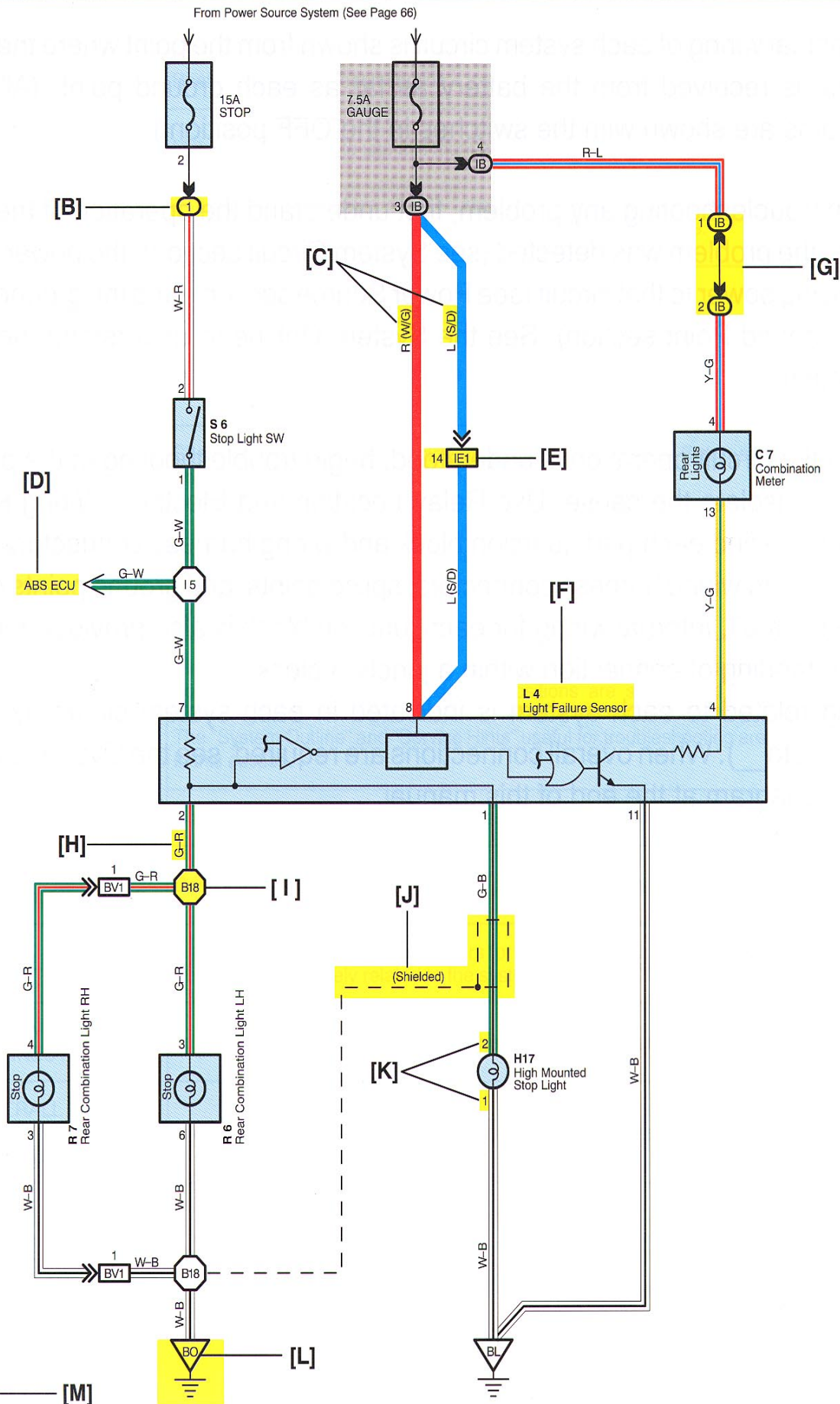
When the circuit operation is understood, begin troubleshooting of the problem circuit to isolate the cause. Use Relay Location and Electrical Wiring Routing sections to find each part, junction block and wiring harness connectors, wiring harness and wiring harness connectors, splice points, and ground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

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

[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

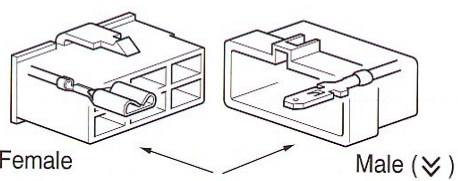
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

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.



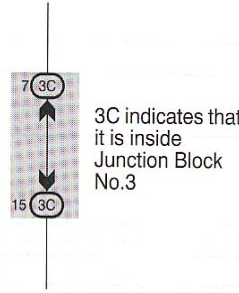
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g. "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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:



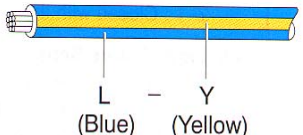
[H] : Indicates the wiring color.

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

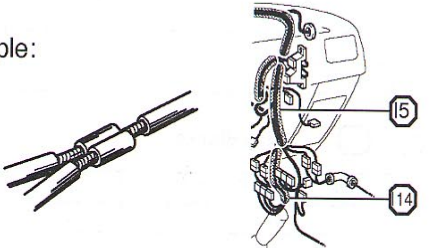
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

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:



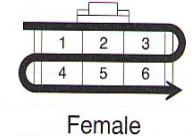
The Location of splice Point I 5 is indicated by the shaded section.

[J] : Indicates a shielded cable.

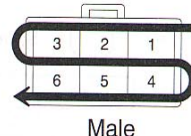


[K] : Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in order from upper left to lower right



Numbered in order from upper right to lower left



[L] : Indicates a ground point.

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

[M] : Page No.



## B HOW TO USE THIS MANUAL

### [N] System Outline

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

#### Stop Light Disconnection Warning

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

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

### [O] Service Hints

#### S6 Stop Light SW

2-1 : Closed with the brake pedal depressed

#### L4 Light Failure Sensor

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

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

11-Ground : Always continuity

### [P] : Parts Location

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

### [Q] : Relay Blocks

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

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

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

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

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

### [T] : Ground Points

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

### [U] : Splice Points

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

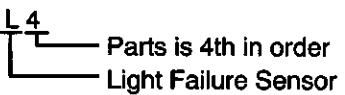
[N] : Explains the system outline.

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

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

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

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

Example : L 4  


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

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

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

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

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

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

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

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

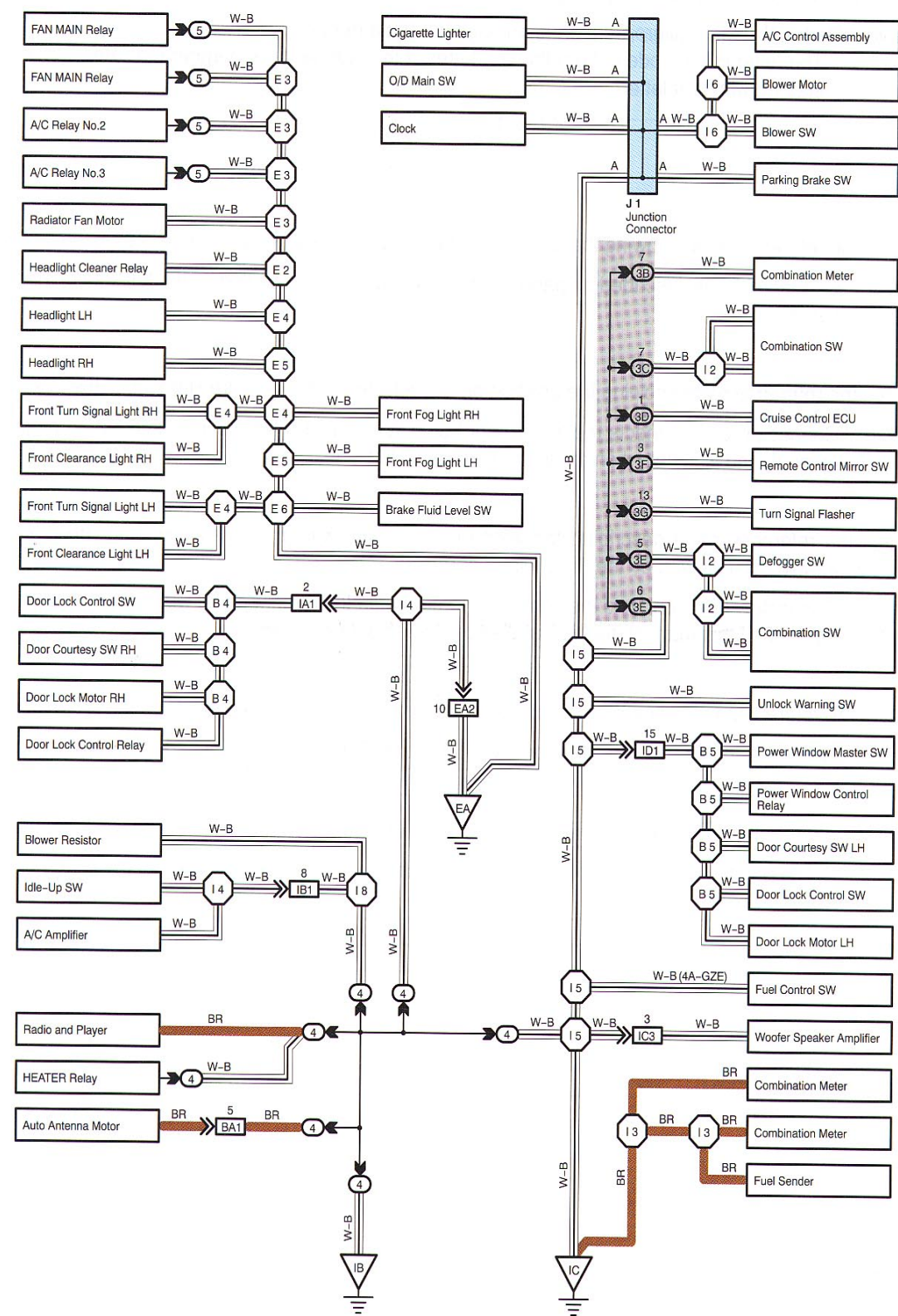
[U] : Indicates the reference page showing the position of the splice points on the vehicle.

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

B HOW TO USE THIS MANUAL

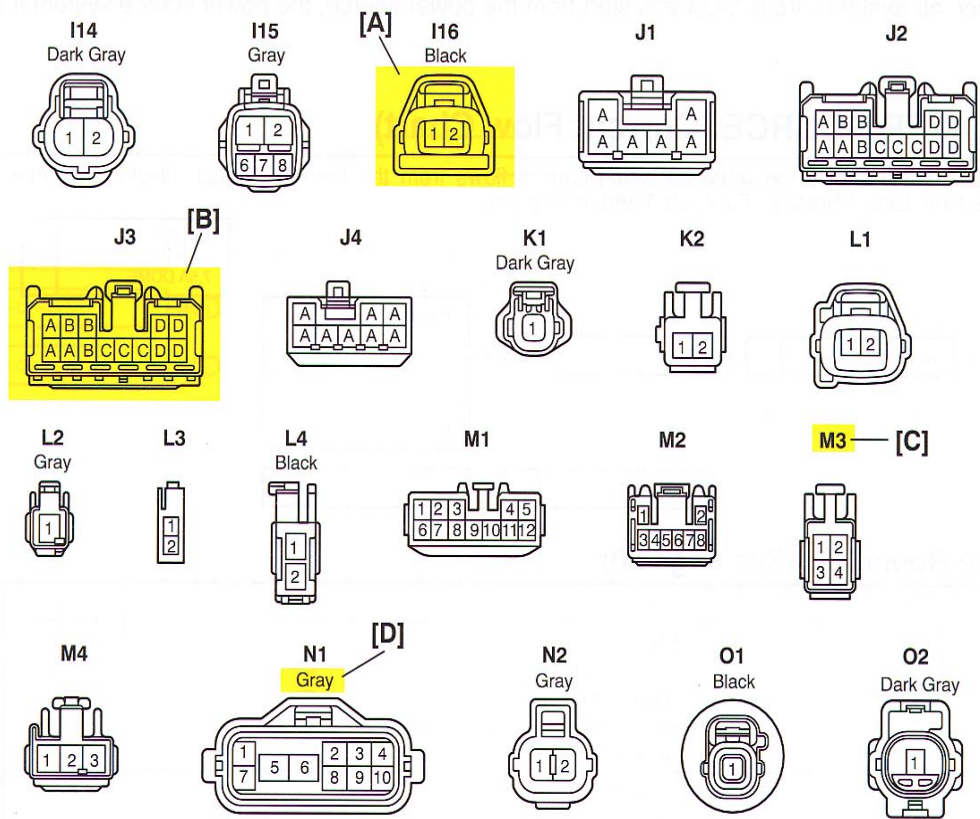
The ground points circuit diagram shows the connections from all major parts to the respective ground points. When troubleshooting a faulty ground point, checking the system circuits which use a common ground may help you identify the problem ground quickly. The relationship between ground points ( 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

I GROUND POINT

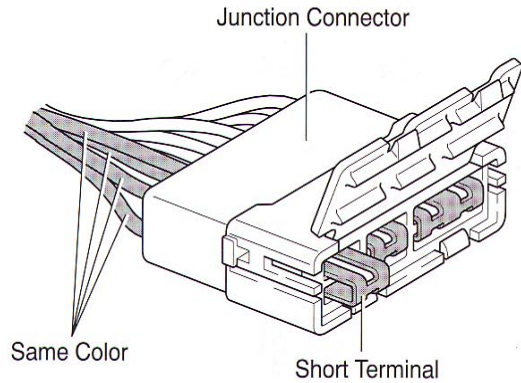




K CONNECTOR LIST



- [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.
- [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.

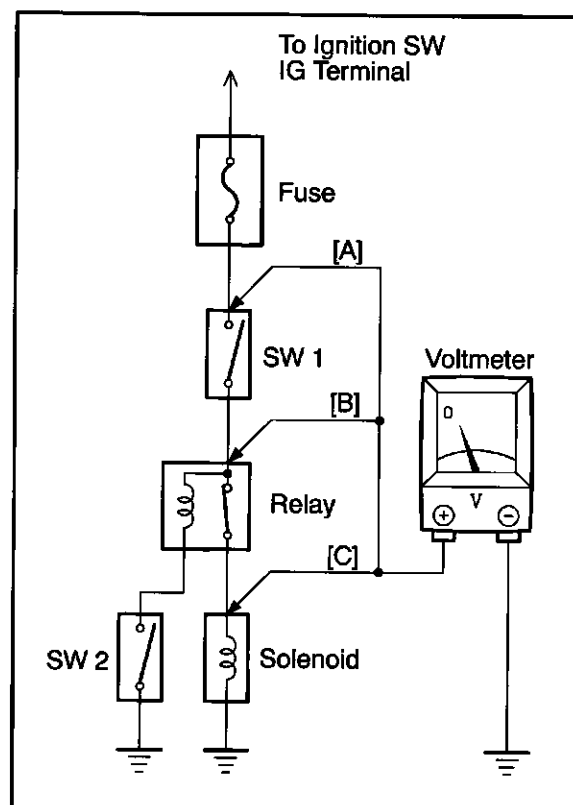


L PART NUMBER OF CONNECTORS

| 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   | 90980-11097 |
| [A]  | ABS Actual [B]             | 90980-151   | D10  | Door Courtesy SW LH       | 90980-11097 |
| A 8  | ABS Actuator               | 90980-11009 | D11  | Door Courtesy SW RH       | 90980-11097 |
| 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 | 90980-11156 |
| A11  | Airbag Sensor Front LH     | 90980-11856 | D14  | Door Courtesy SW Rear LH  | 90980-11156 |
| A12  | Airbag Sensor Front RH     | 90980-11856 | D15  | Door Courtesy SW Rear RH  | 90980-11156 |
| A13  | Airbag Sensor Front LH     | 90980-11194 | D16  | Door Courtesy SW Rear LH  | 90980-11170 |

- [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. In case of ordering a connector or terminal with wire, please confirm in advance if there is supply for it using "Parts Catalog News" (published by Parts Engineering Administration Dept.).



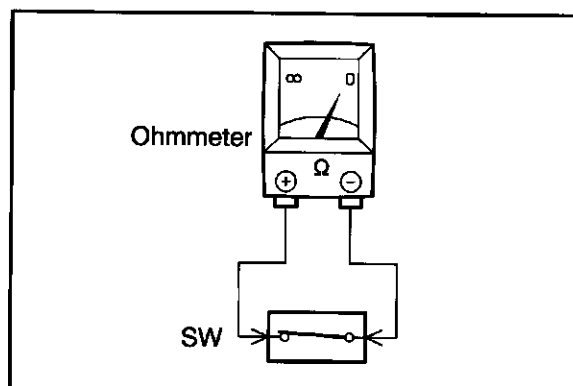
### VOLTAGE CHECK

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

Example:

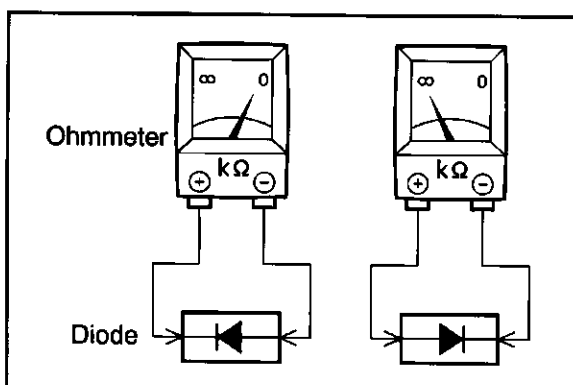
- [A] - Ignition SW on  
 [B] - Ignition SW and SW 1 on  
 [C] - Ignition SW, SW 1 and Relay on (SW 2 off)

- (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

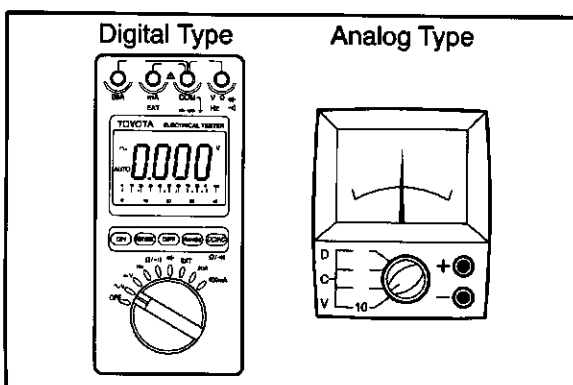
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.  
 (b) Contact the two leads of an ohmmeter to each of the check points.



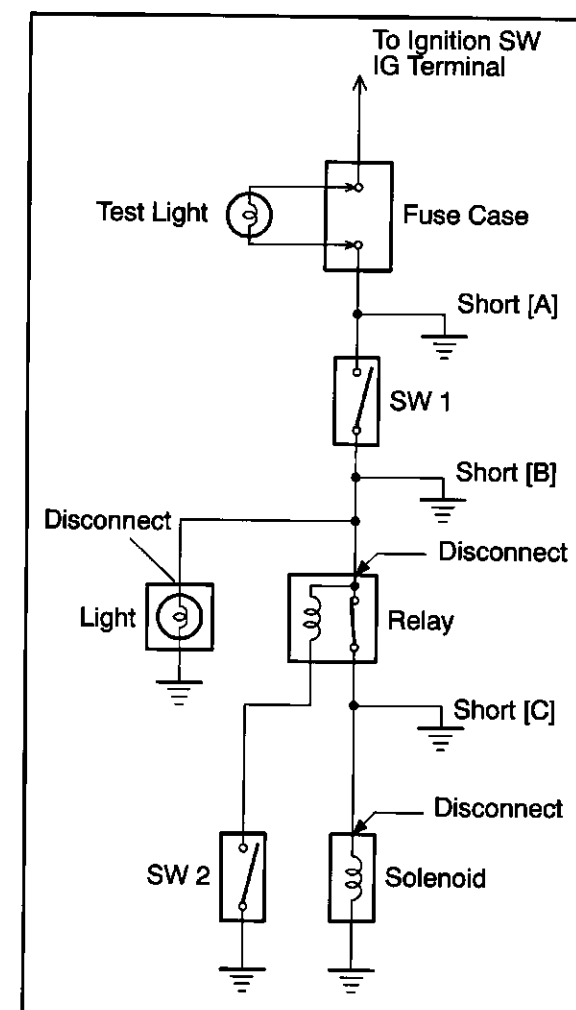
If the circuit has diodes, reverse the two leads and check again.

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 $\Omega$ /V minimum) for troubleshooting of the electrical circuit.



### FINDING A SHORT CIRCUIT

- (a) Remove the blown fuse and disconnect all loads of the fuse.  
 (b) Connect a test light in place of the fuse.  
 (c) 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)

- (d) 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.  
 (e) Find the exact location of the short by lightly shaking the problem wire along the body.

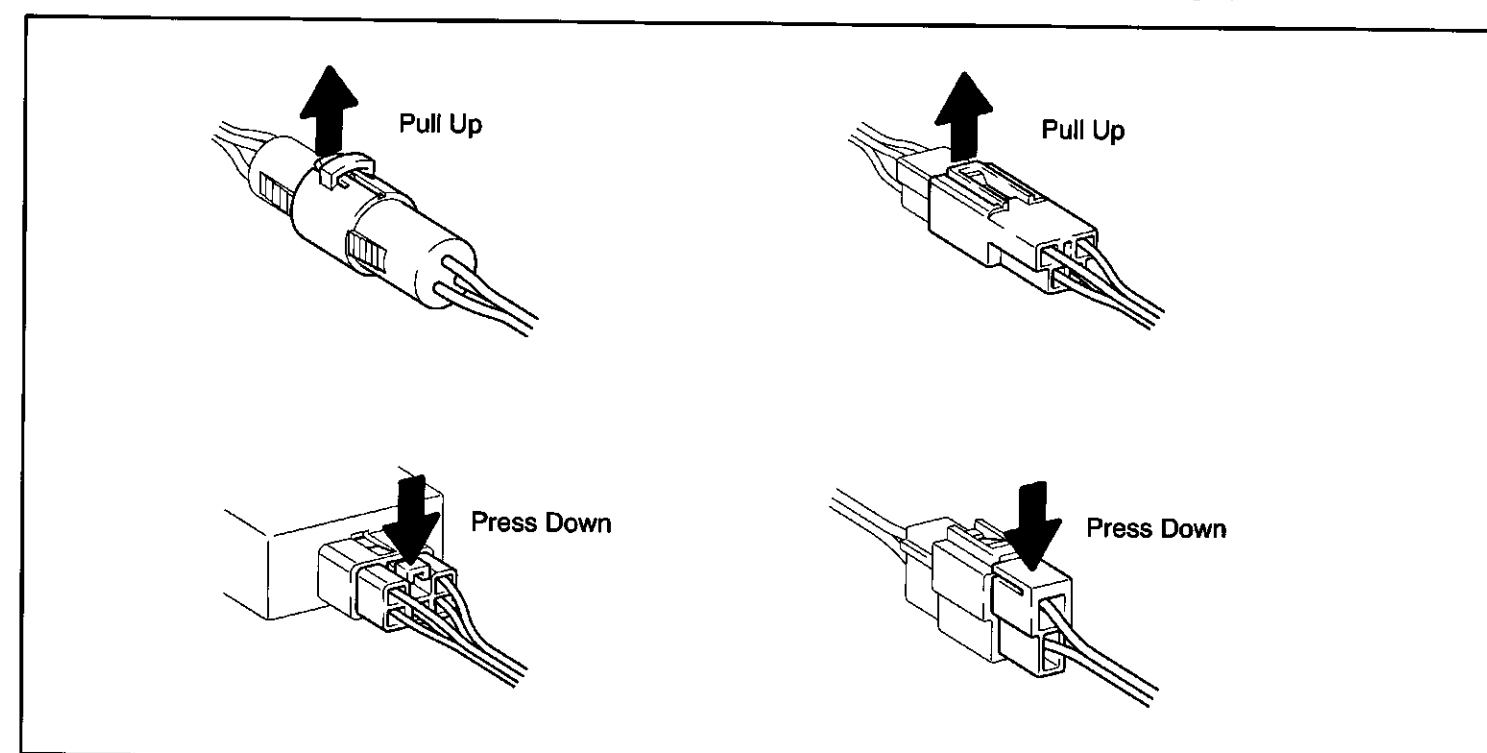
### CAUTION:

- (a) 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.)  
 (b) 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).

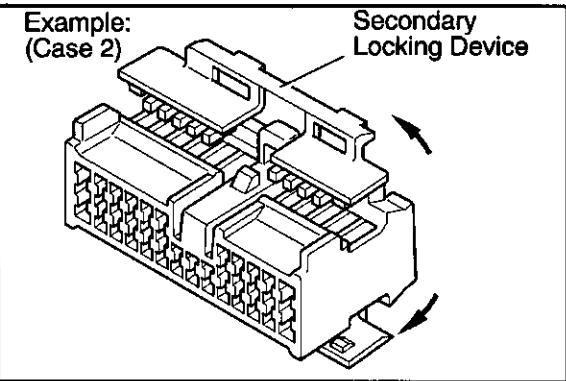
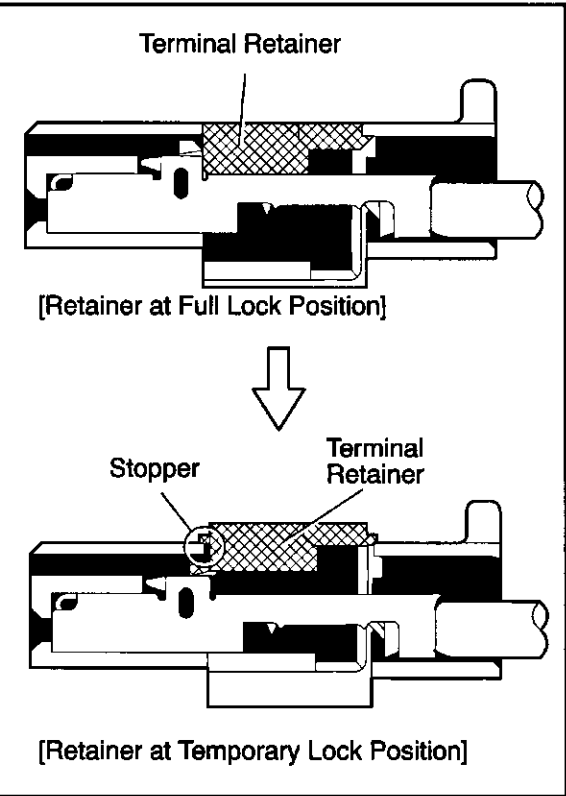
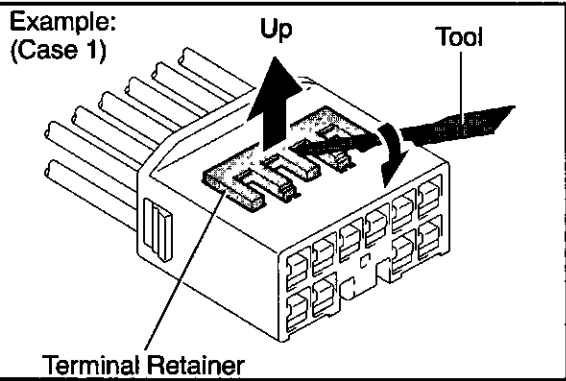
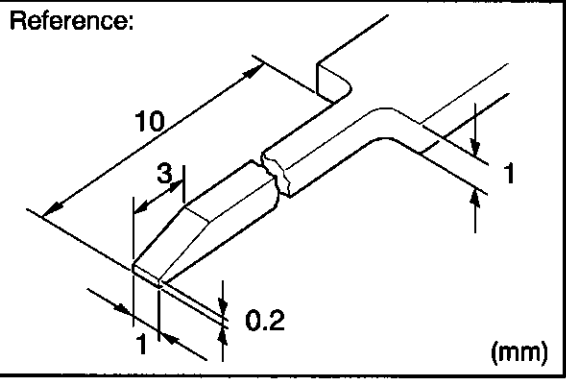
### DISCONNECTION OF MALE AND FEMALE CONNECTORS

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.







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

**1. PREPARE THE SPECIAL TOOL**

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

**2. DISCONNECT CONNECTOR**

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

- (a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.
- (b) Use a special tool or the terminal pick to unlock the secondary locking device or terminal retainer.

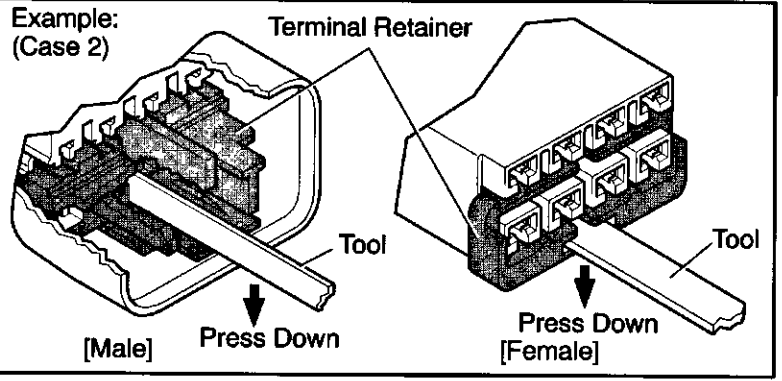
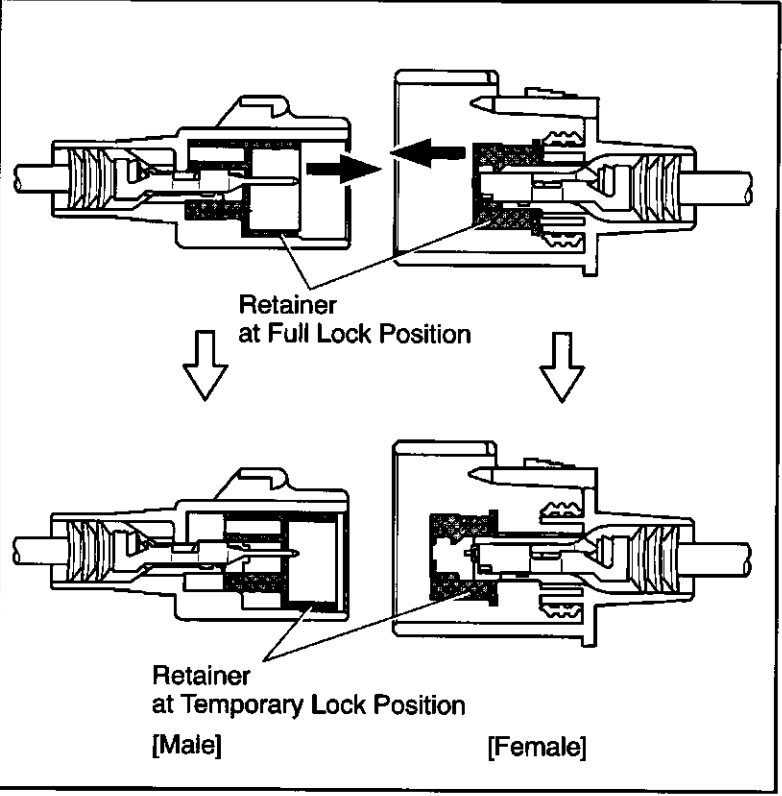
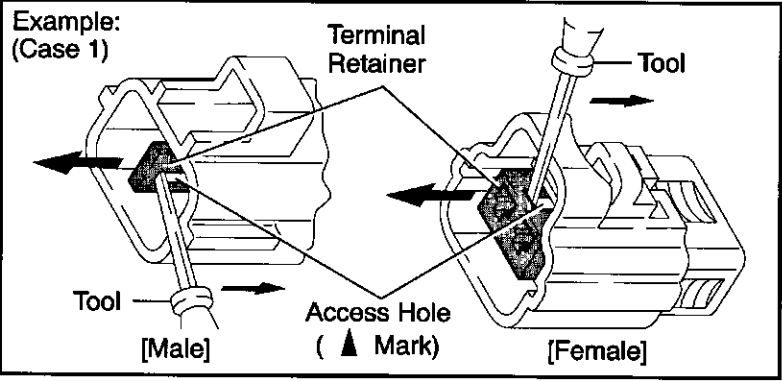
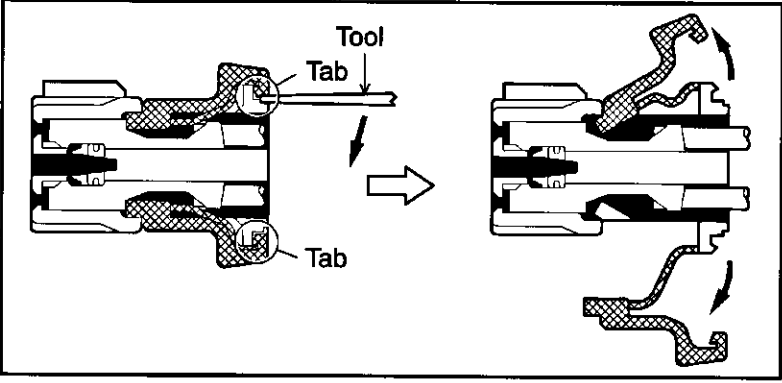
**NOTICE:**  
**Do not remove the terminal retainer from connector body.**

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

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

**"Case 1"**  
Raise the terminal retainer up to the temporary lock position.

**"Case 2"**  
Open the secondary locking device.



**[B] For Waterproof Type Connector**

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

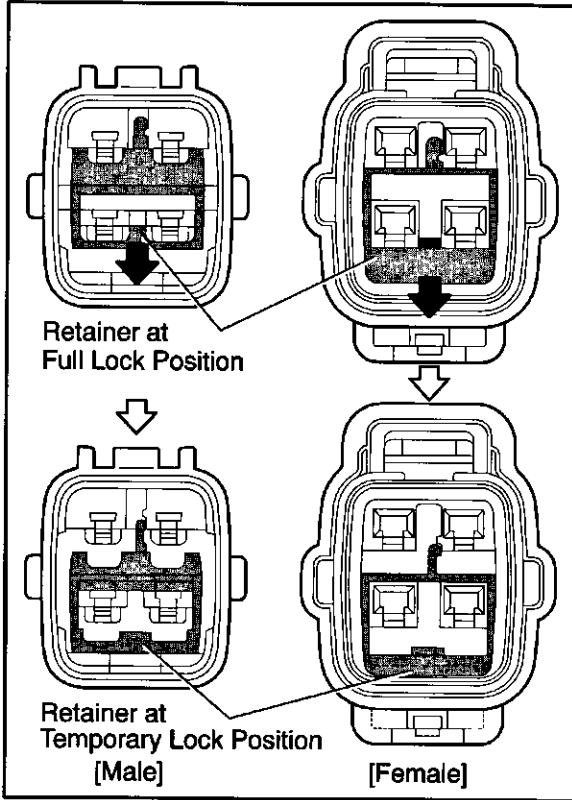
**Example:**  
Terminal Retainer : Connector Body  
Black or White : Gray  
Black or White : Dark Gray  
Gray or White : Black

**"Case 1"**  
Type where terminal retainer is pulled up to the temporary lock position (Pull Type).

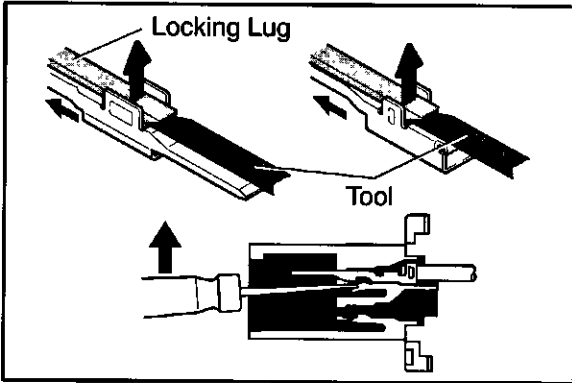
Insert the special tool into the terminal retainer access hole (▲ Mark) and pull the terminal retainer up to the temporary lock position.

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

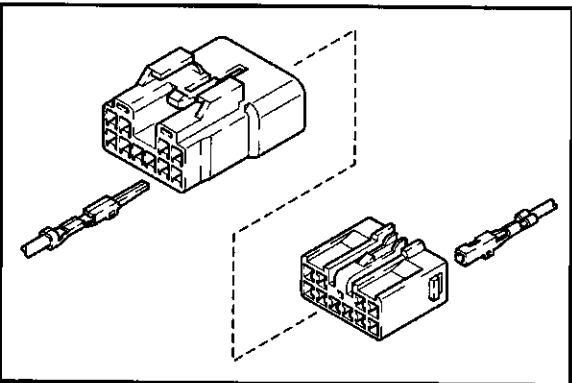
**"Case 2"**  
Type which cannot be pulled as far as Power Lock insert the tool straight into the access hole of terminal retainer as shown.



Push the terminal retainer down to the temporary lock position.



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

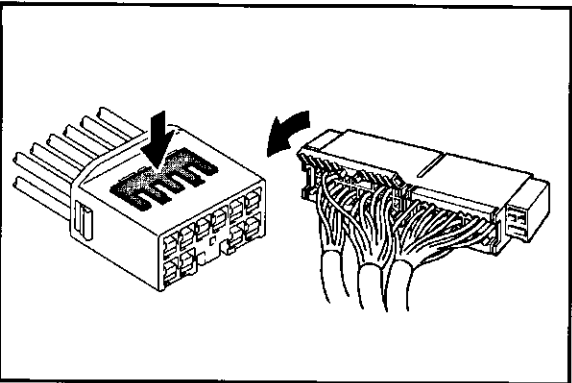


4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

HINT:

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



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

5. CONNECT CONNECTOR

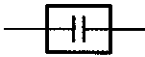
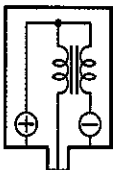
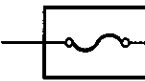
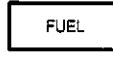
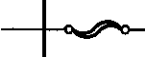
ABBREVIATIONS

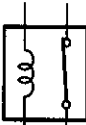
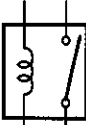
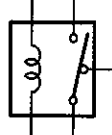
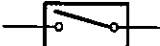
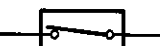
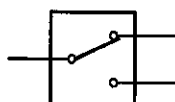
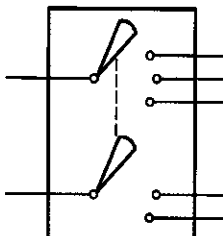
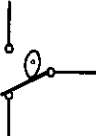
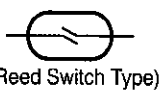
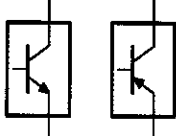
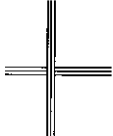
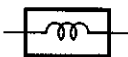
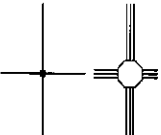
The following abbreviations are used in this manual.

|       |   |                                   |
|-------|---|-----------------------------------|
| A/C   | = | Air Conditioner                   |
| A/T   | = | Automatic Transaxle               |
| ABS   | = | Anti-Lock Brake System            |
| ACIS  | = | Acoustic Control Induction System |
| AICV  | = | Air Intake Control Valve          |
| BA    | = | Brake Assist                      |
| COMB. | = | Combination                       |
| DLC3  | = | Data Link Connector 3             |
| ECT   | = | Electronic Control Transmission   |
| ECU   | = | Electronic Control Unit           |
| EFI   | = | Electronic Fuel Injection         |
| EGR   | = | Exhaust Gas Recirculation         |
| ESA   | = | Electronic Spark Advance          |
| EVAP  | = | Evaporative Emission              |
| FL    | = | Fusible Link                      |
| J/B   | = | Junction Block                    |
| LH    | = | Left-Hand                         |
| LHD   | = | Left-Hand Drive                   |
| M/T   | = | Manual Transaxle                  |
| MPX   | = | Multiplex                         |
| O/D   | = | Overdrive                         |
| R/B   | = | Relay Block                       |
| RH    | = | Right-Hand                        |
| RHD   | = | Right-Hand Drive                  |
| SRS   | = | Supplemental Restraint System     |
| SW    | = | Switch                            |
| TEMP. | = | Temperature                       |
| TRC   | = | Traction Control                  |
| VSC   | = | Vehicle Stability Control         |
| VSV   | = | Vacuum Switching Valve            |
| VVT   | = | Variable Valve Timing             |
| w/    | = | With                              |
| w/o   | = | Without                           |

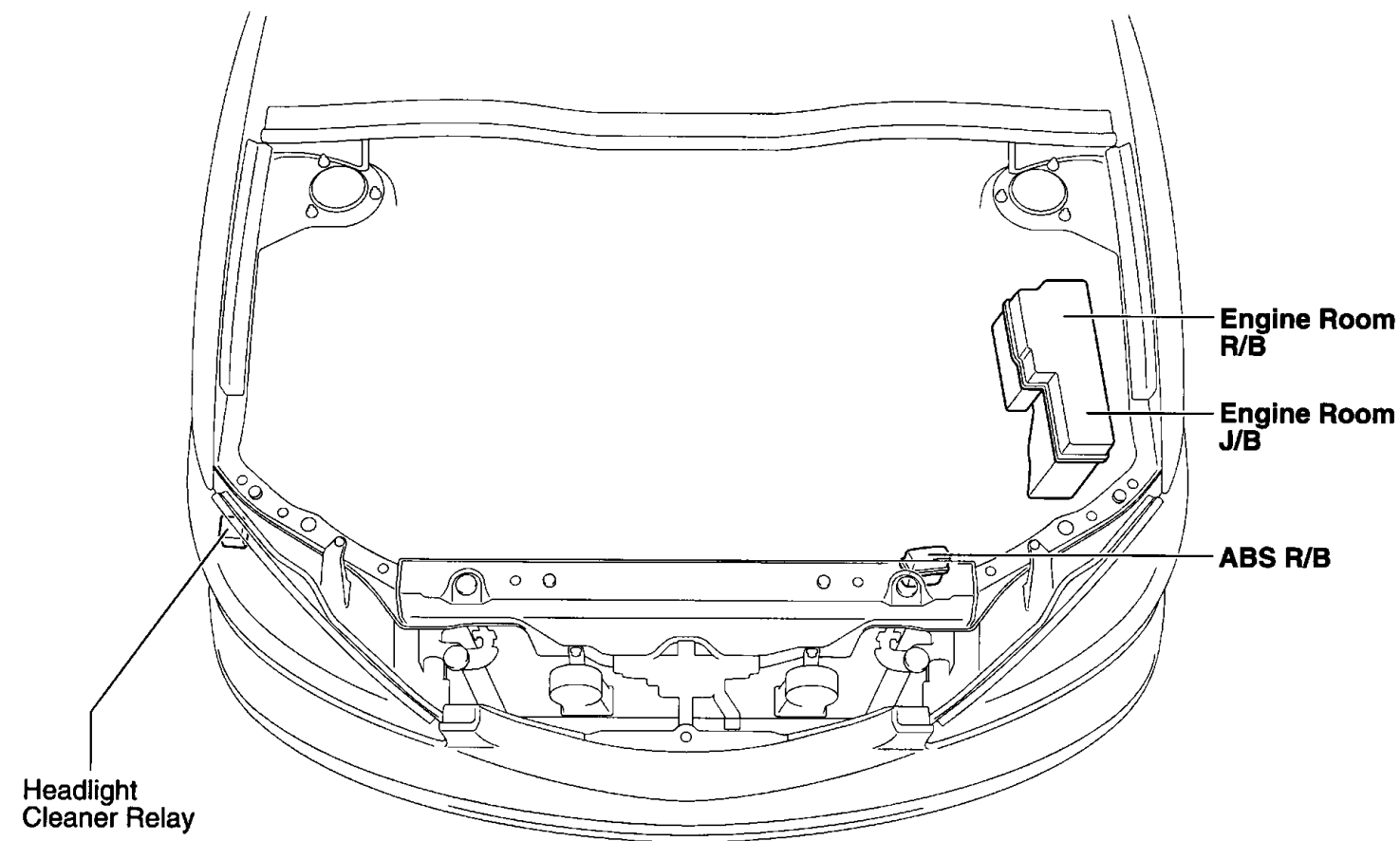
\* The titles given inside the components are the names of the terminals (terminal codes) and are not treated as being abbreviations.



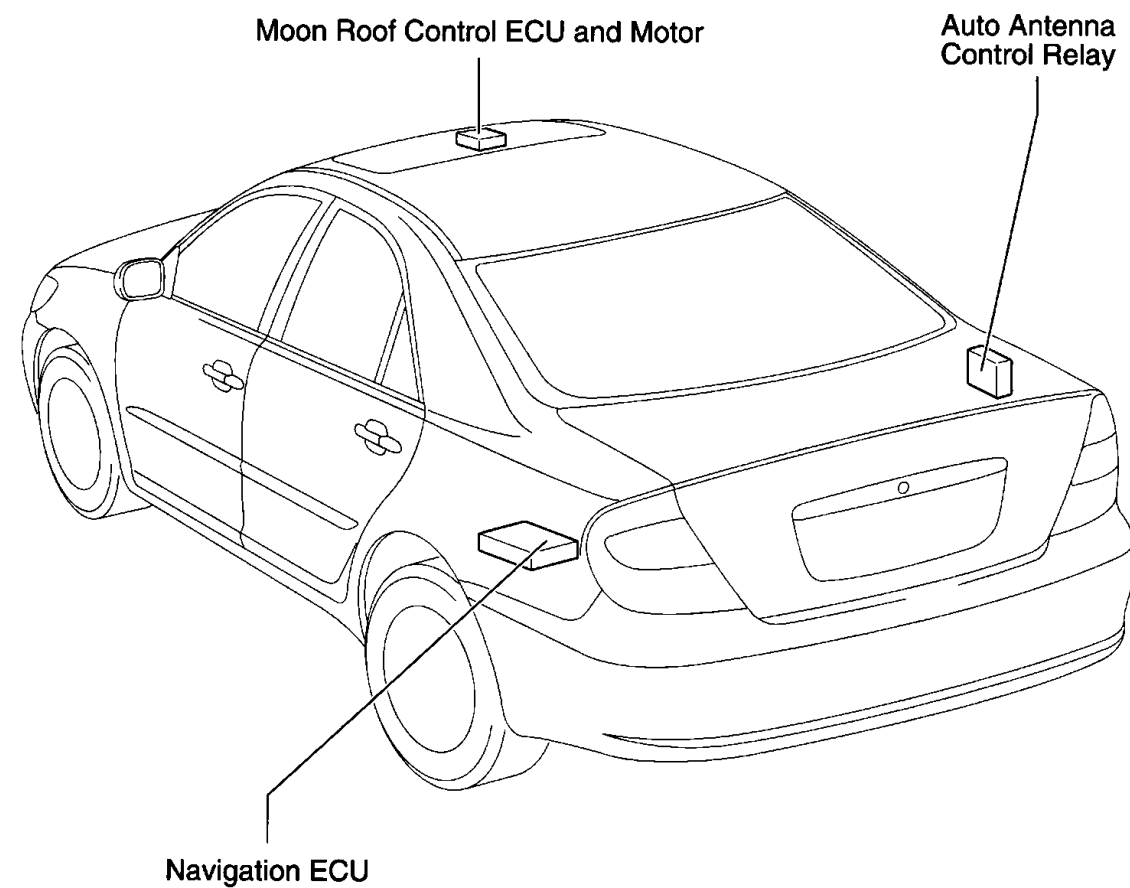
|                                                                                                                                                                                                                                                                                                           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

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

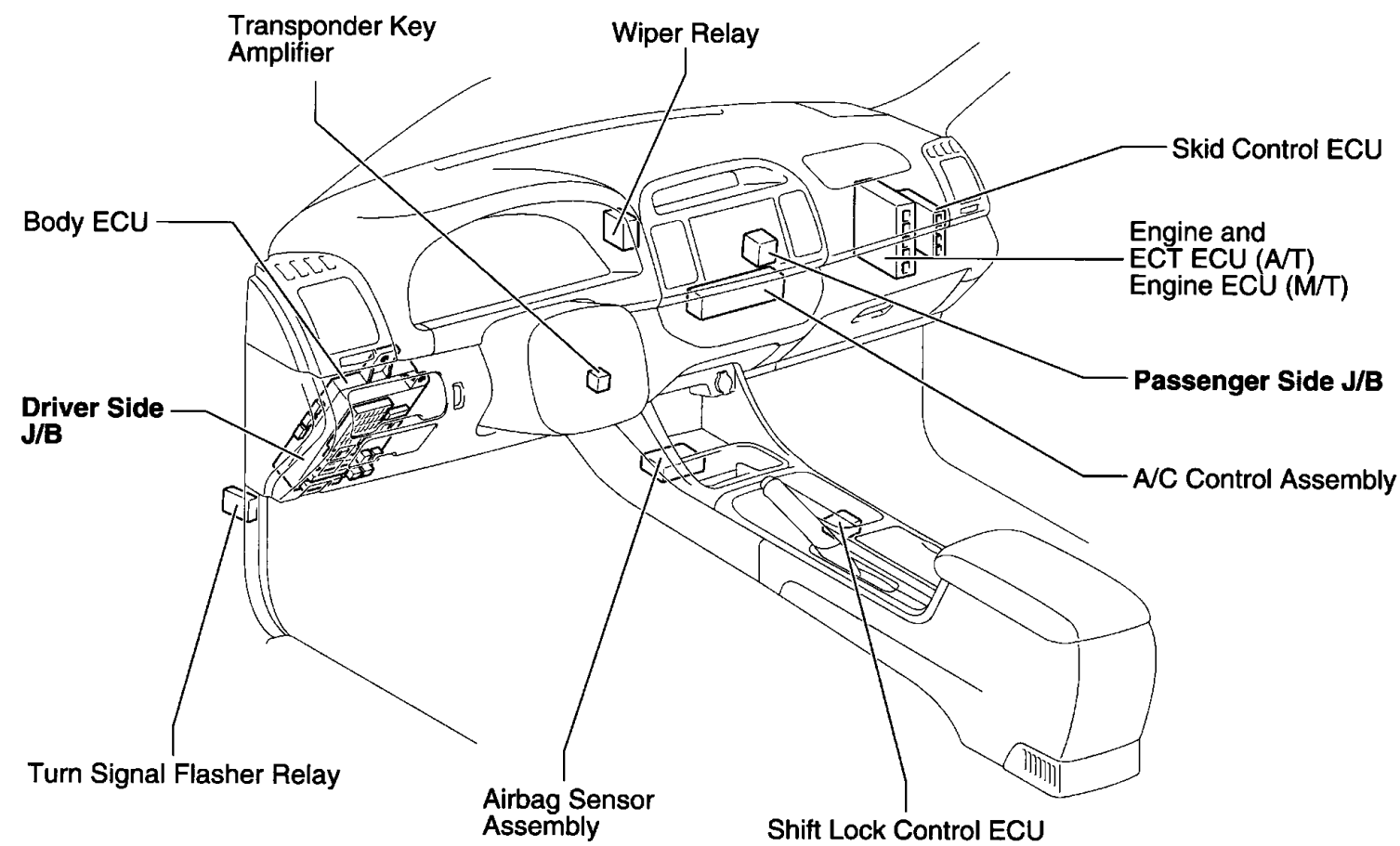
**[Engine Compartment]**



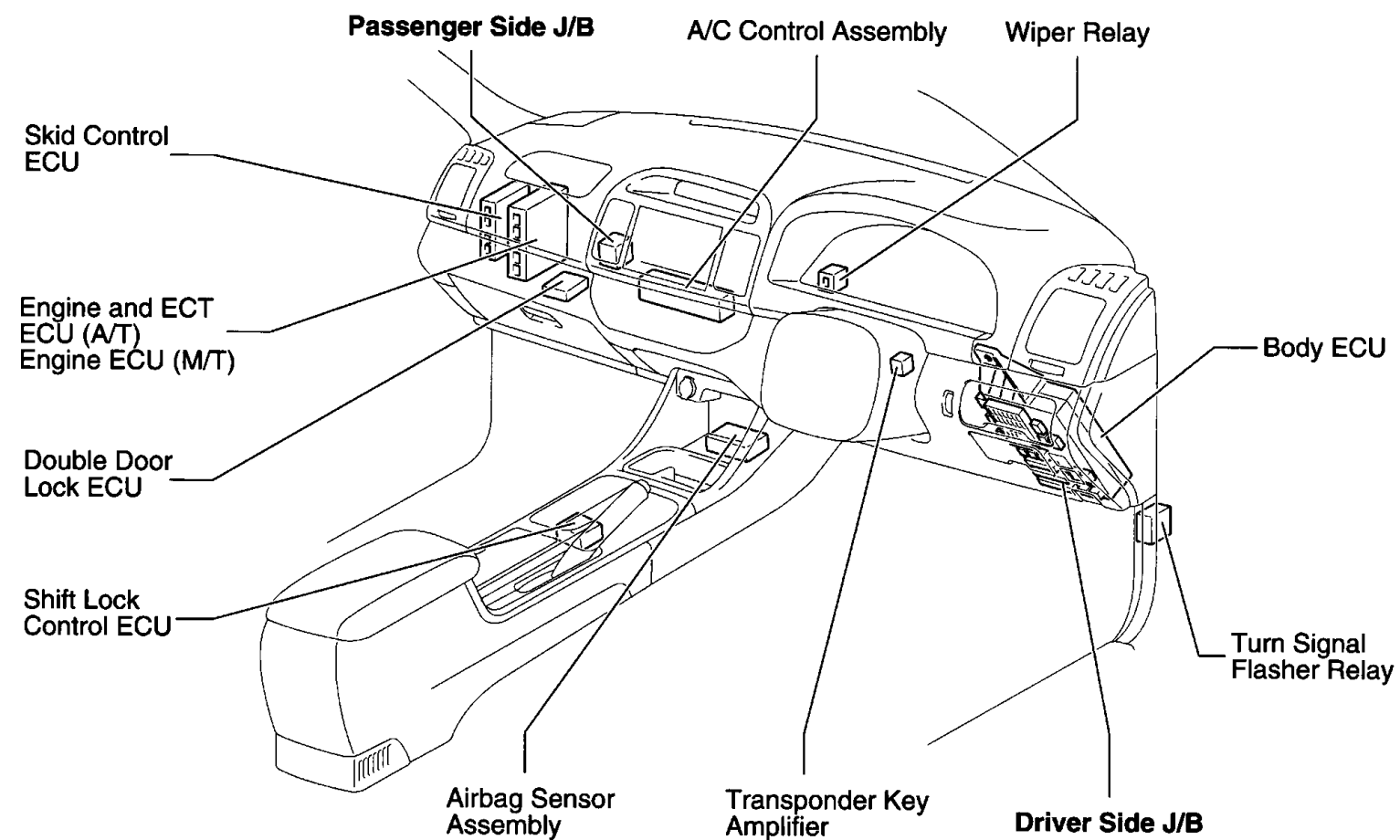
**[Body]**



**[Instrument Panel]  
(LHD)**



**(RHD)**

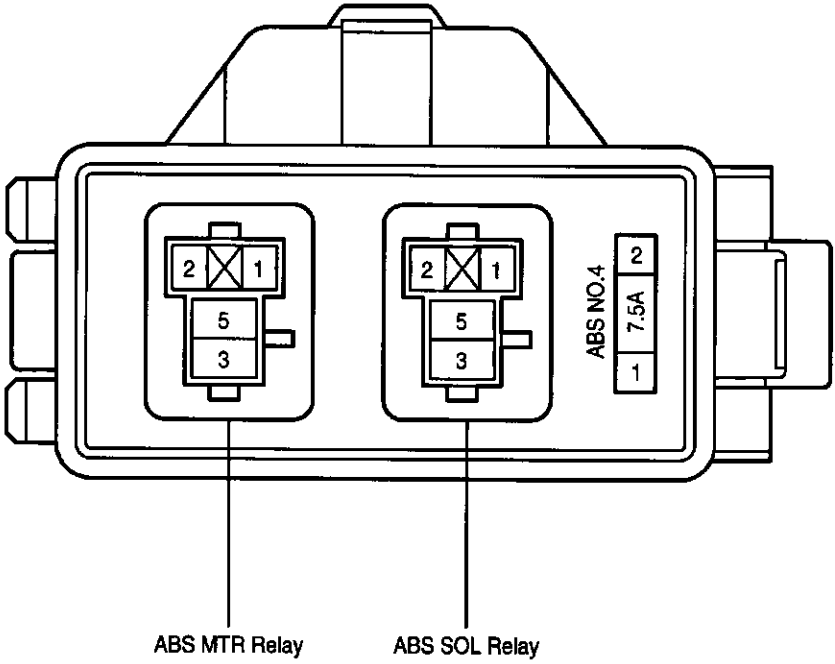
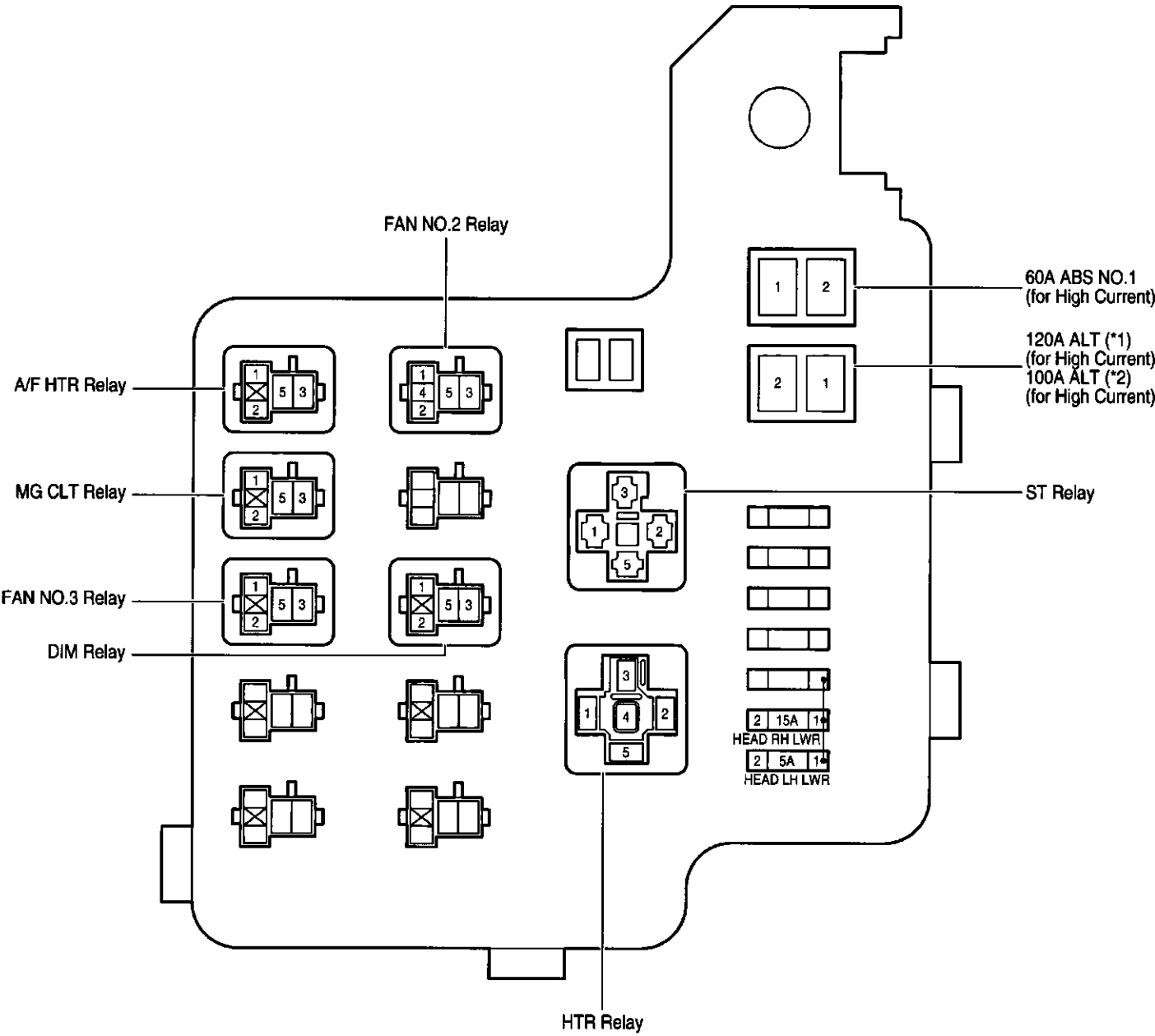




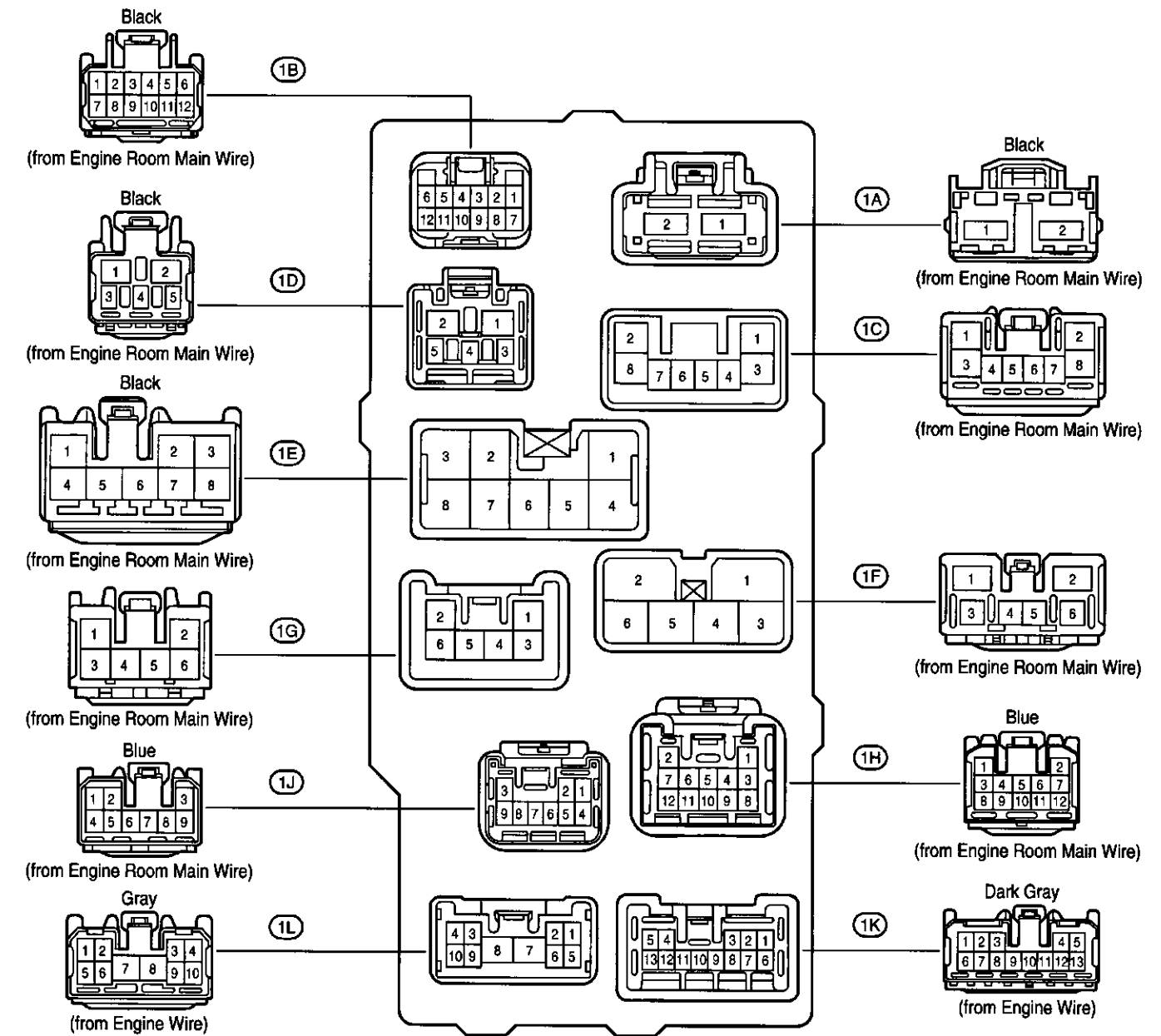
|                     |                                       |
|---------------------|---------------------------------------|
| ① : Engine Room R/B | Engine Compartment Left (See Page 20) |
|---------------------|---------------------------------------|

|             |                                        |
|-------------|----------------------------------------|
| ② : ABS R/B | Radiator Side Support LH (See Page 20) |
|-------------|----------------------------------------|

\* 1:1MZ-FE  
\* 2:2AZ-FE, 1AZ-FE

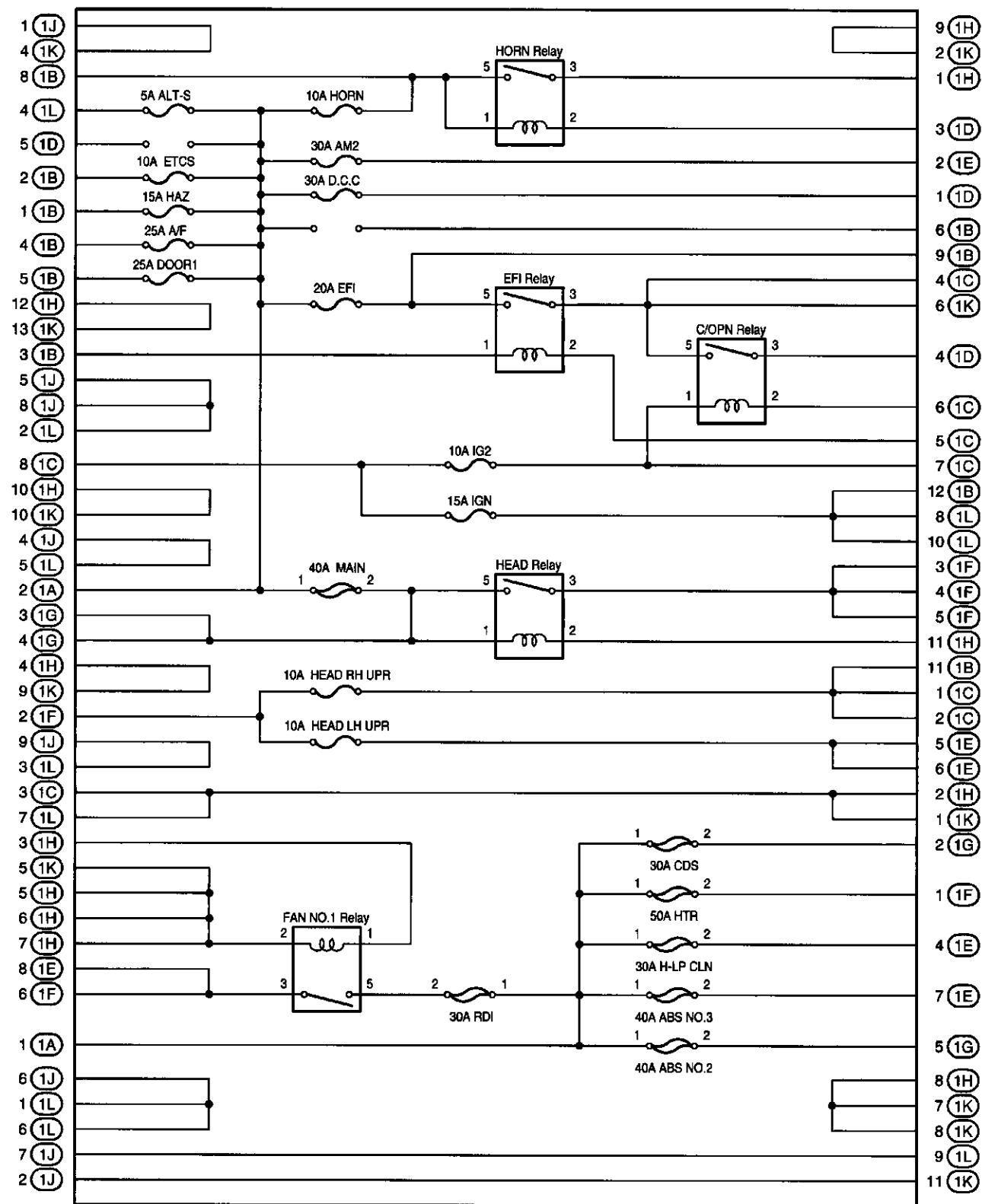


## 24



# F RELAY LOCATIONS

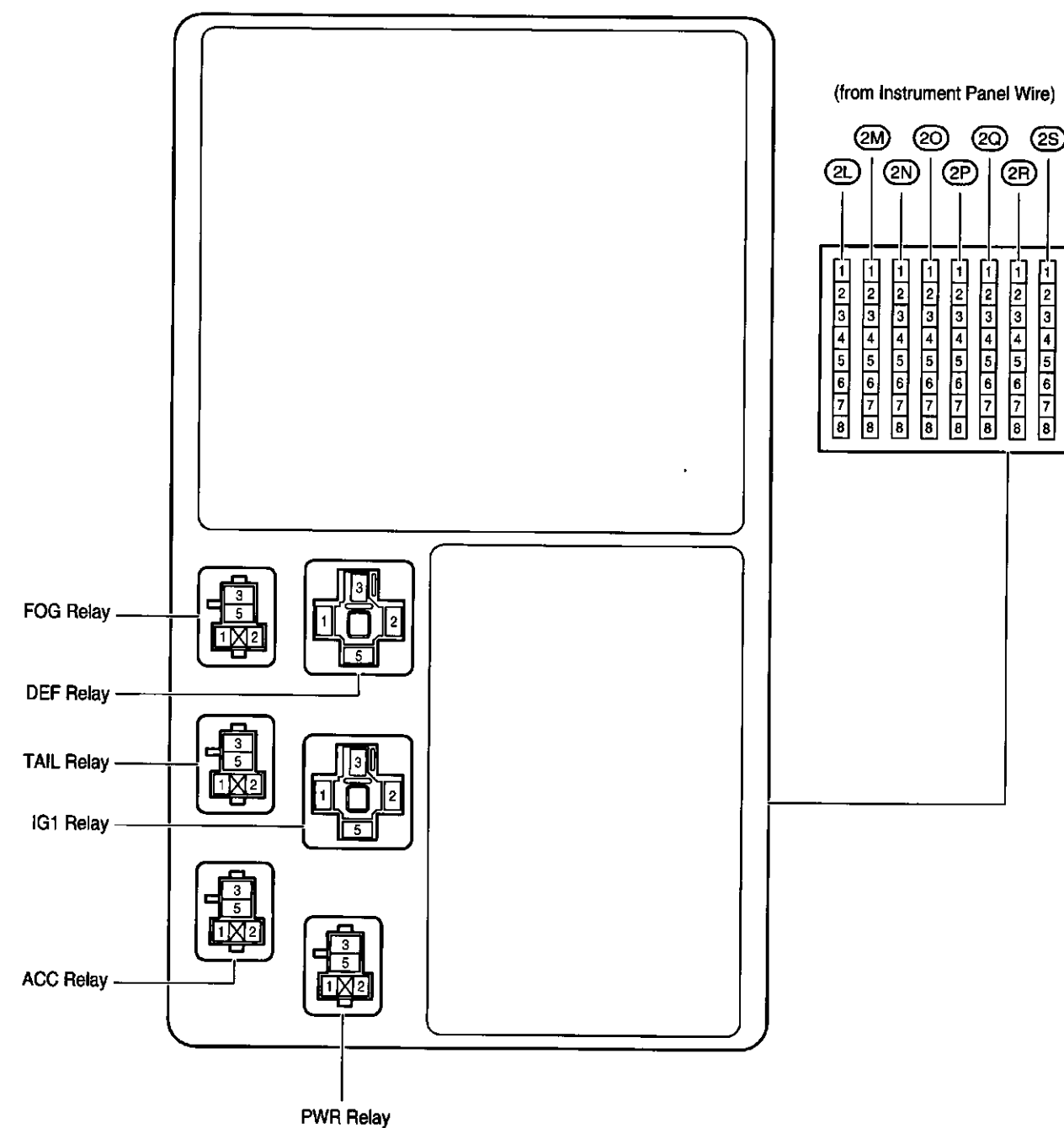
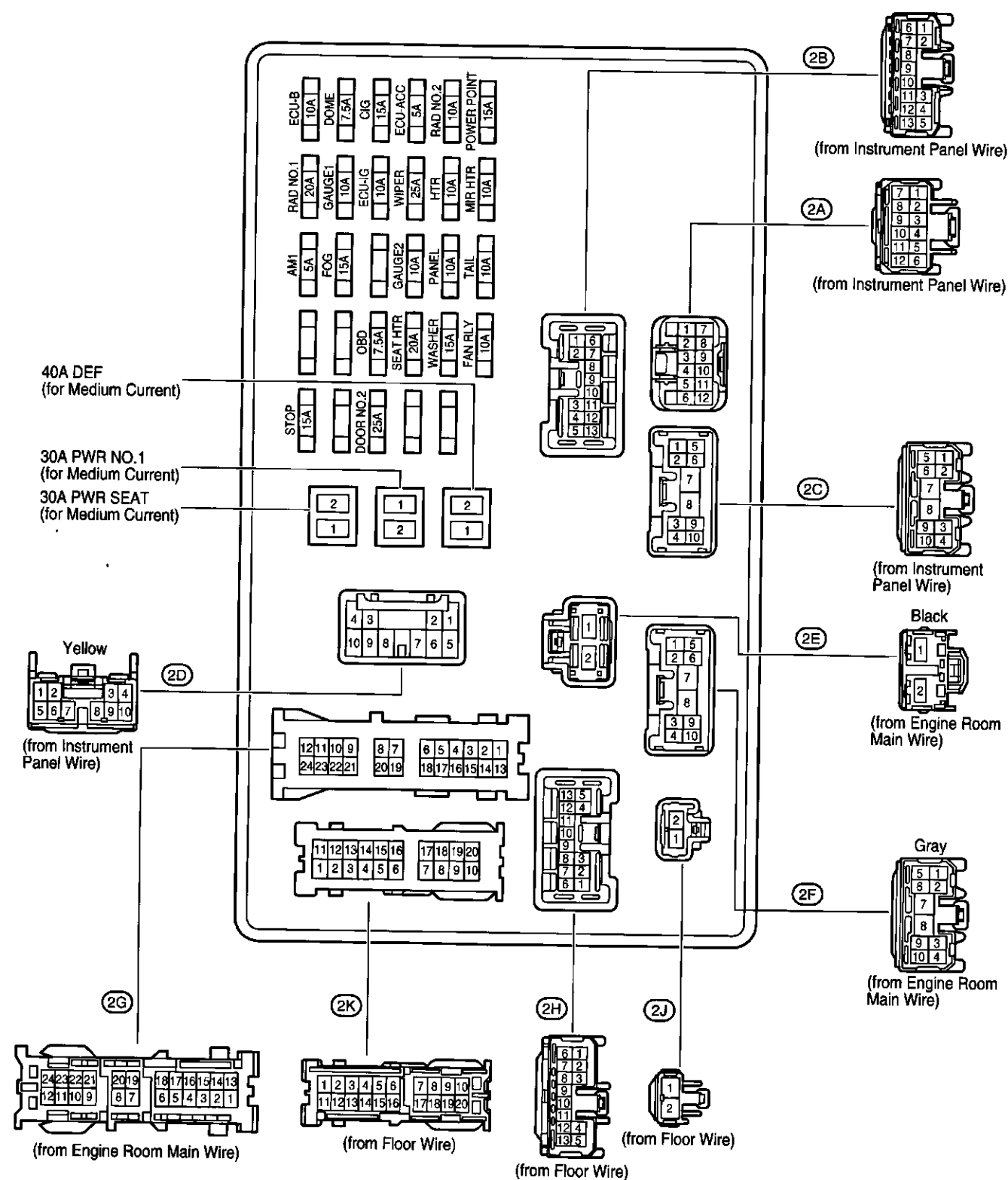
[Engine Room J/B Inner Circuit]

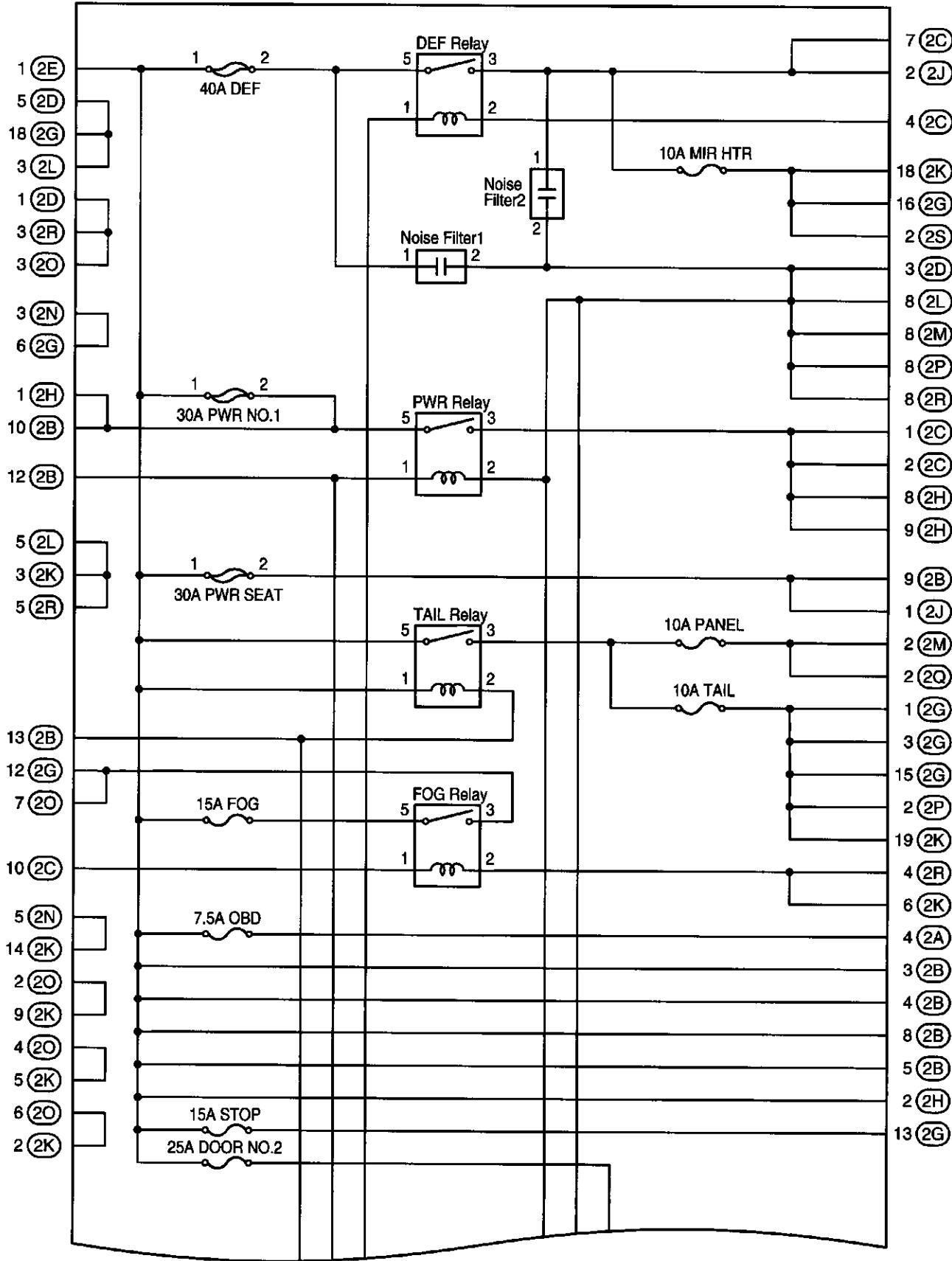




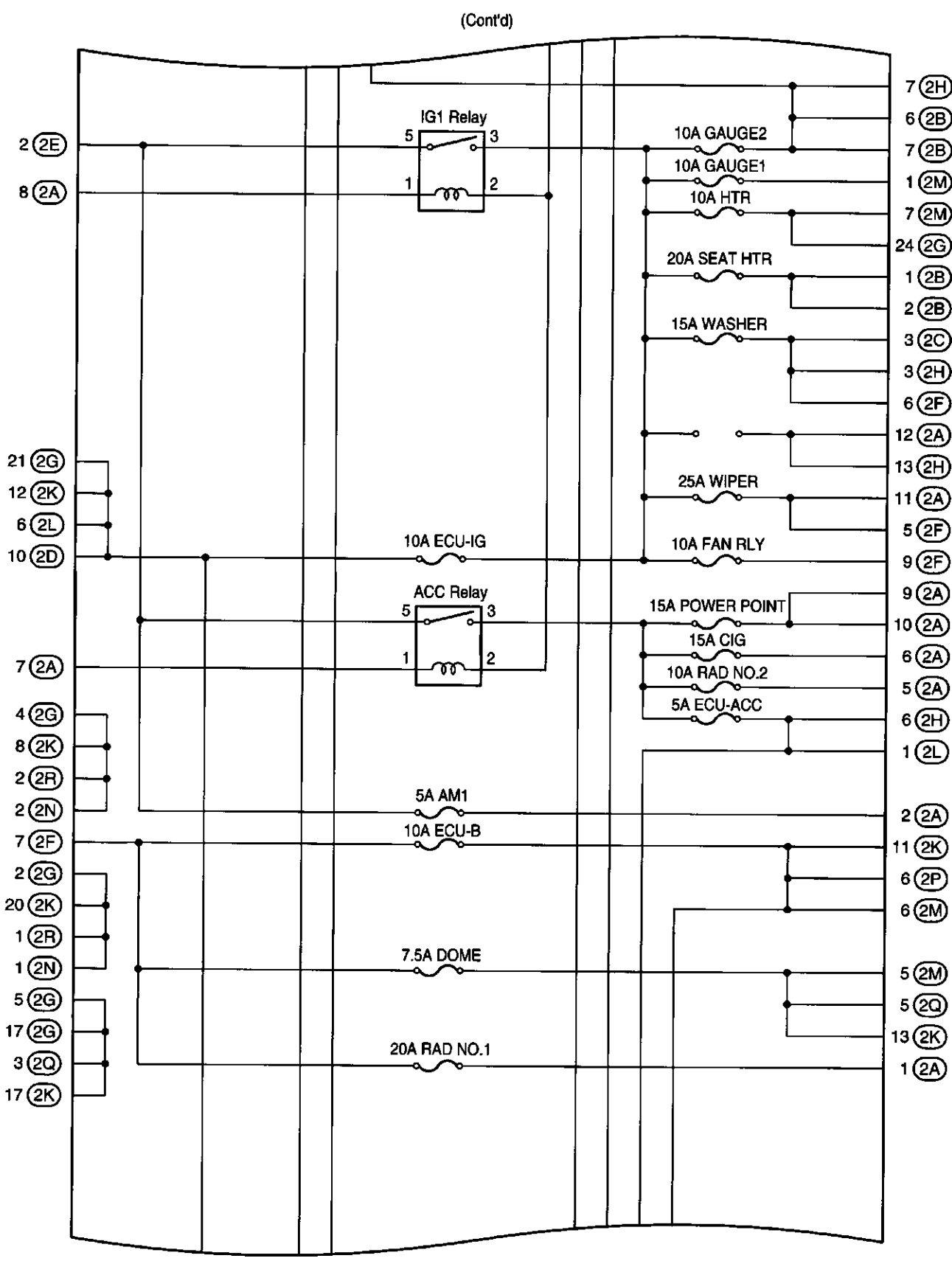
 : Driver Side J/B

**Lower Finish Panel (See Page 21)**



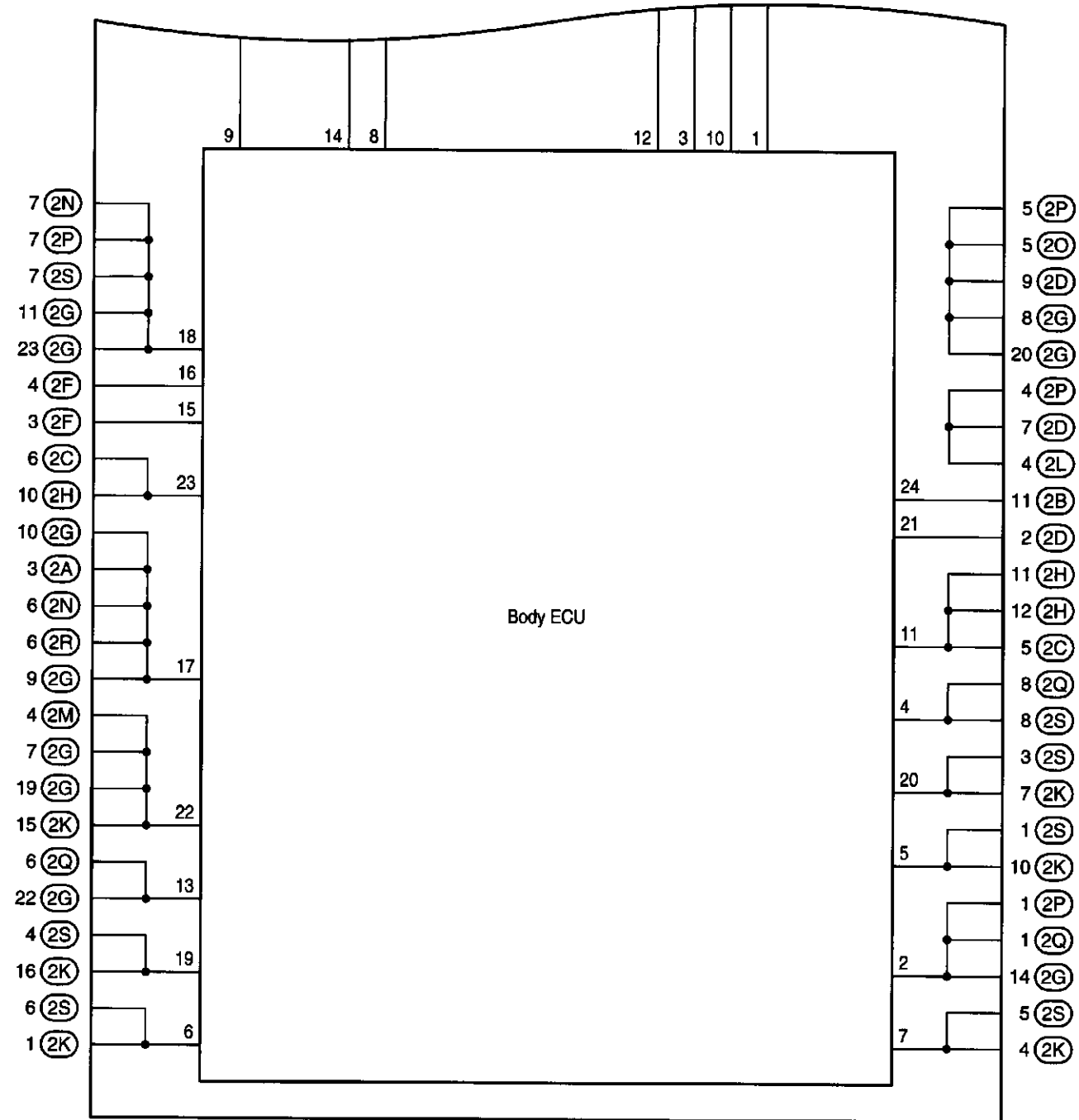


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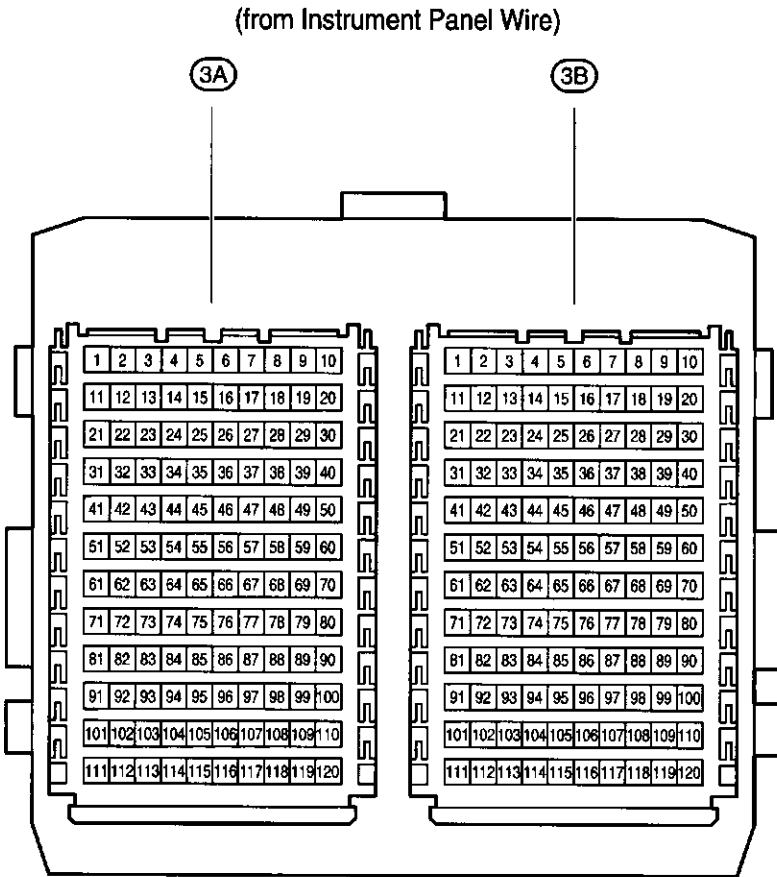
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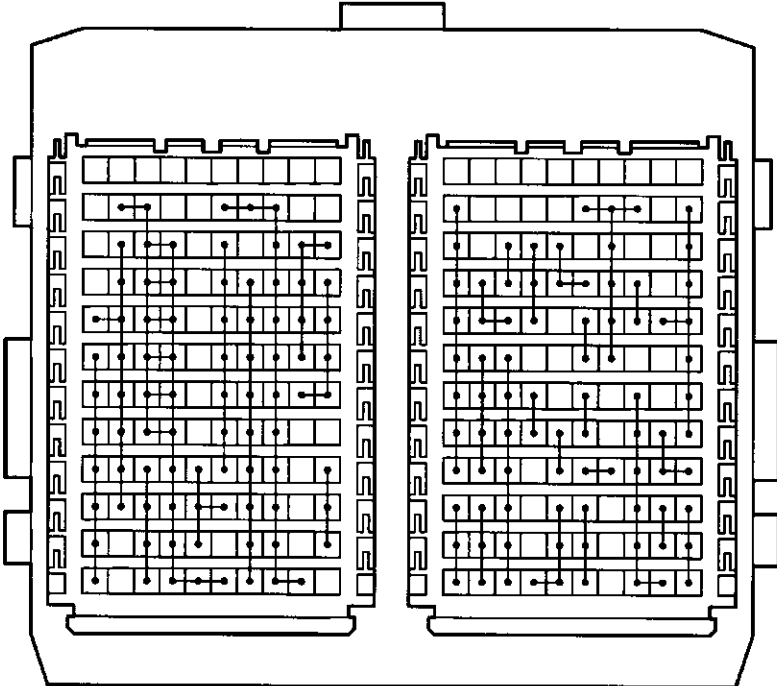




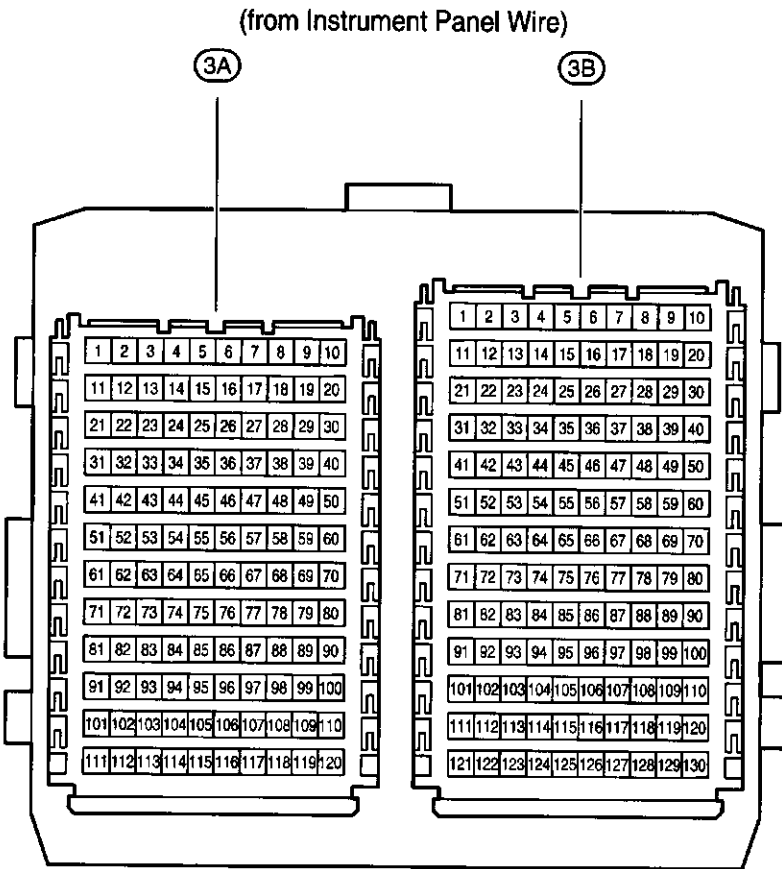
 : Passenger Side J/B    Instrument Panel Brace RH (See Page 21)  
(LHD)



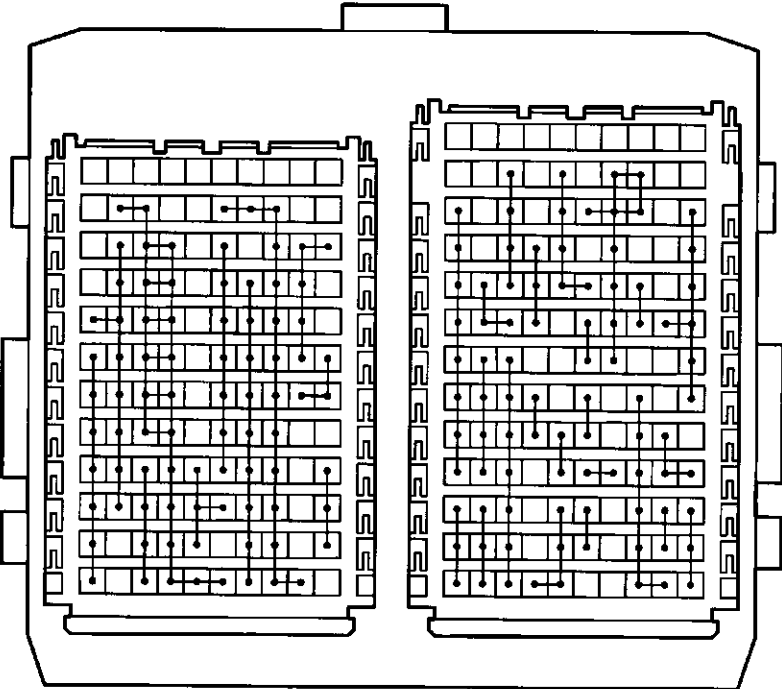
Short Terminal Grouping



 : Passenger Side J/B    Instrument Panel Brace LH (See Page 21)  
(RHD)



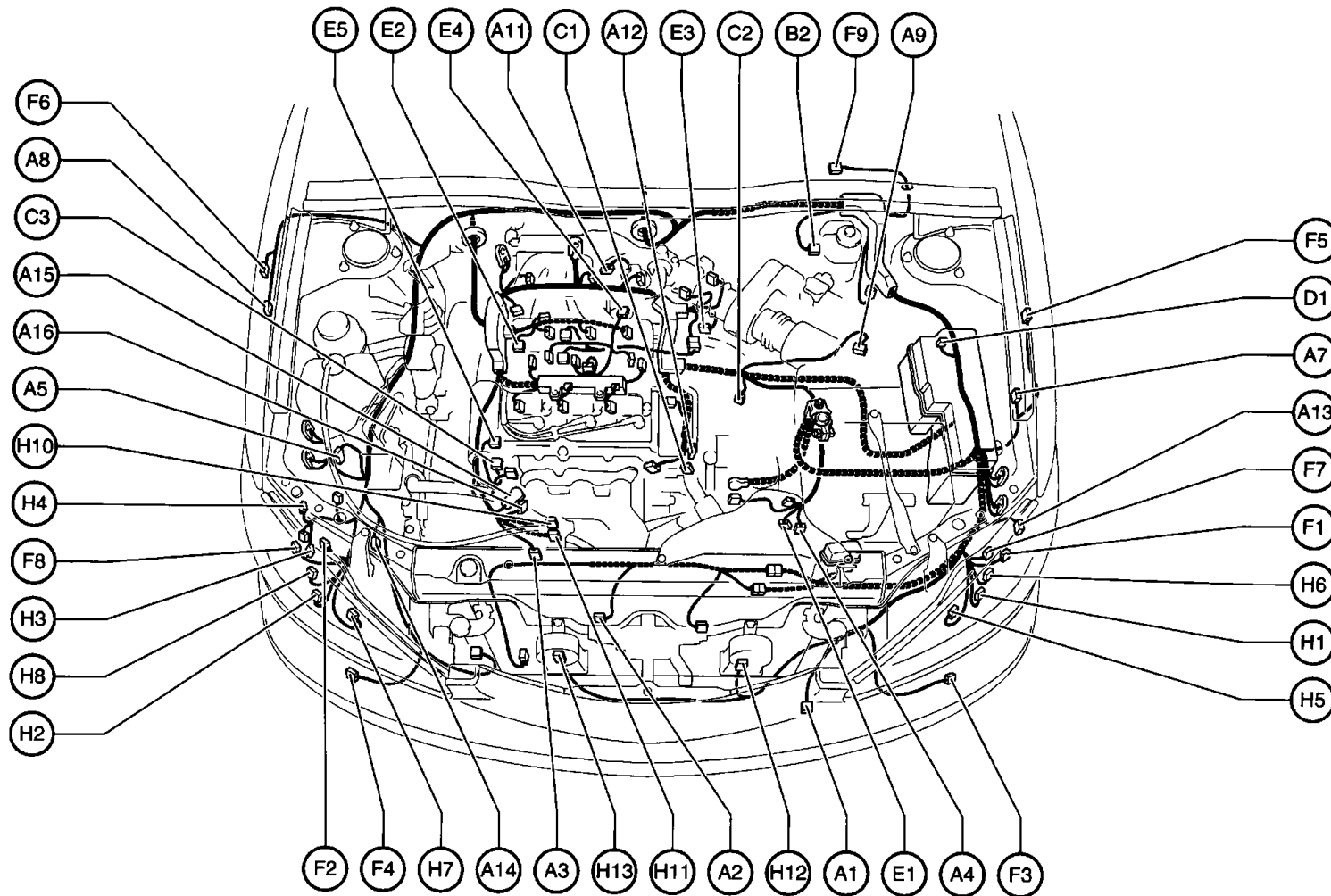
Short Terminal Grouping



# G ELECTRICAL WIRING ROUTING

## Position of Parts in Engine Compartment

[LHD : 1MZ-FE]



A 1 A/C Ambient Temp. Sensor  
 A 2 A/C Condenser Fan Motor  
 A 3 A/C Lock Sensor  
 A/C Magnetic Clutch  
 A 4 A/T Indicator Light SW  
 Back-Up Light SW  
 Neutral Start SW  
 A 5 ABS & BA & TRC & VSC Actuator  
 A 7 ABS Speed Sensor Front LH  
 A 8 ABS Speed Sensor Front RH  
 A 9 Air Flow Meter  
 A11 Air Fuel Ratio Sensor (Bank 1 Sensor 1)  
 A12 Air Fuel Ratio Sensor (Bank 2 Sensor 1)  
 A13 Airbag Sensor Front LH  
 A14 Airbag Sensor Front RH  
 A15 Alternator  
 A16 Alternator

B 2 Brake Fluid Level Warning SW

C 1 Camshaft Position Sensor  
 C 2 Counter Gear Speed Sensor  
 C 3 Crankshaft Position Sensor

D 1 Diode (A/C No.1)

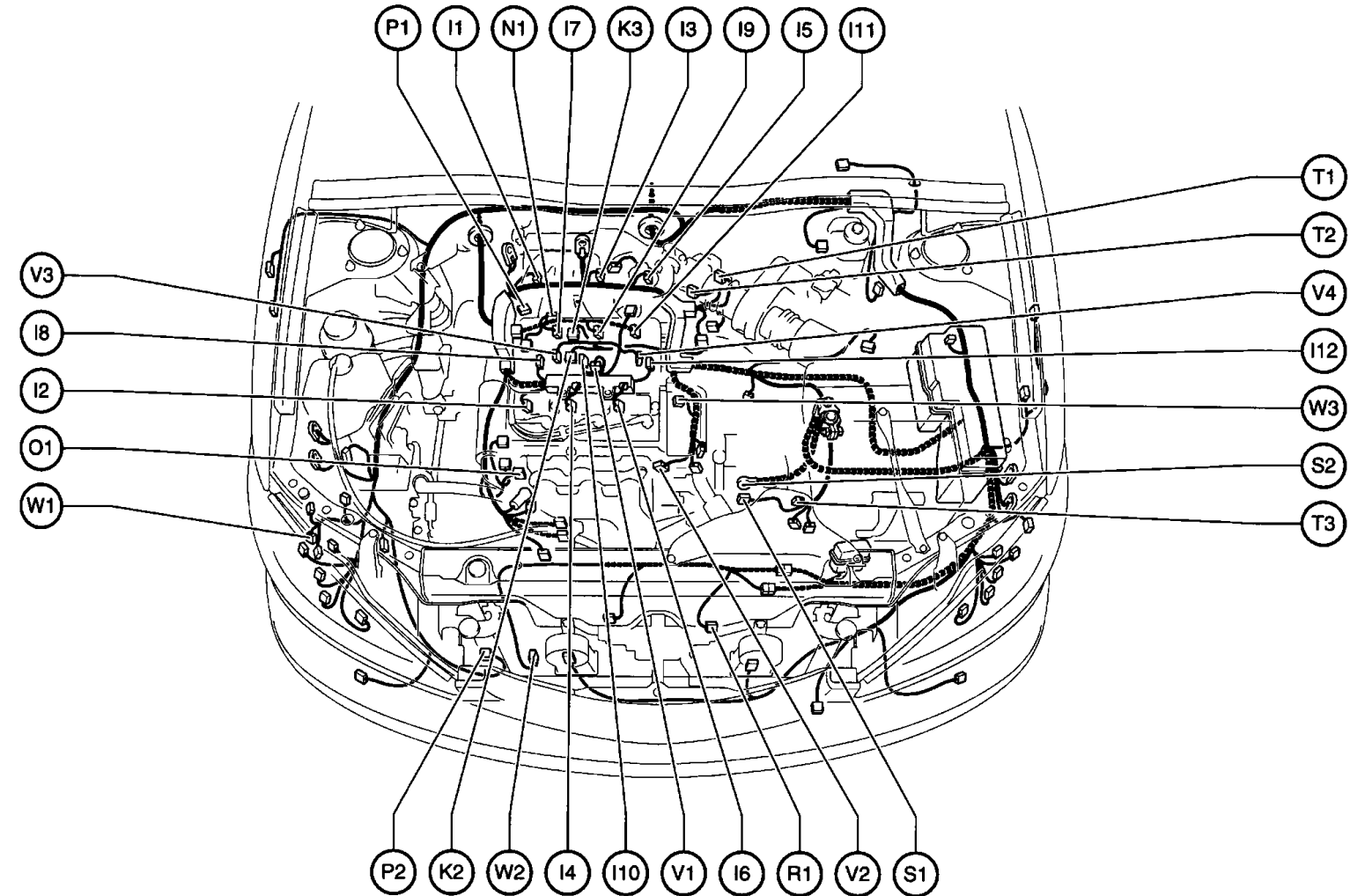
E 1 ECT Solenoid  
 E 2 EFI Water Temp. Sensor  
 E 3 EGR Gas Temp. Sensor  
 E 4 EGR Valve Position Sensor  
 E 5 Engine Oil Level Sensor

F 1 Front Clearance Light LH  
 F 2 Front Clearance Light RH  
 F 3 Front Fog Light LH  
 F 4 Front Fog Light RH  
 F 5 Front Side Turn Signal Light LH  
 F 6 Front Side Turn Signal Light RH  
 F 7 Front Turn Signal Light LH  
 F 8 Front Turn Signal Light RH  
 F 9 Front Wiper Motor

H 1 Headlight Beam Level Control Actuator LH  
 H 2 Headlight Beam Level Control Actuator RH  
 H 3 Headlight Cleaner Motor  
 H 4 Headlight Cleaner Relay  
 H 5 Headlight LH (High)  
 H 6 Headlight LH (Low)  
 H 7 Headlight RH (High)  
 H 8 Headlight RH (Low)  
 H10 Heated Oxygen Sensor (Bank 1 Sensor 1)  
 H11 Heated Oxygen Sensor (Bank 2 Sensor 1)  
 H12 Horn (High)  
 H13 Horn (Low)

## Position of Parts in Engine Compartment

[LHD : 1MZ-FE]



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

K 2 Knock Sensor No.1  
 K 3 Knock Sensor No.2

N 1 Noise Filter (Ignition)

O 1 Oil Pressure Sensor

P 1 Power Steering Oil Pressure SW  
 P 2 Pressure SW

R 1 Radiator Fan Motor

S 1 Starter  
 S 2 Starter

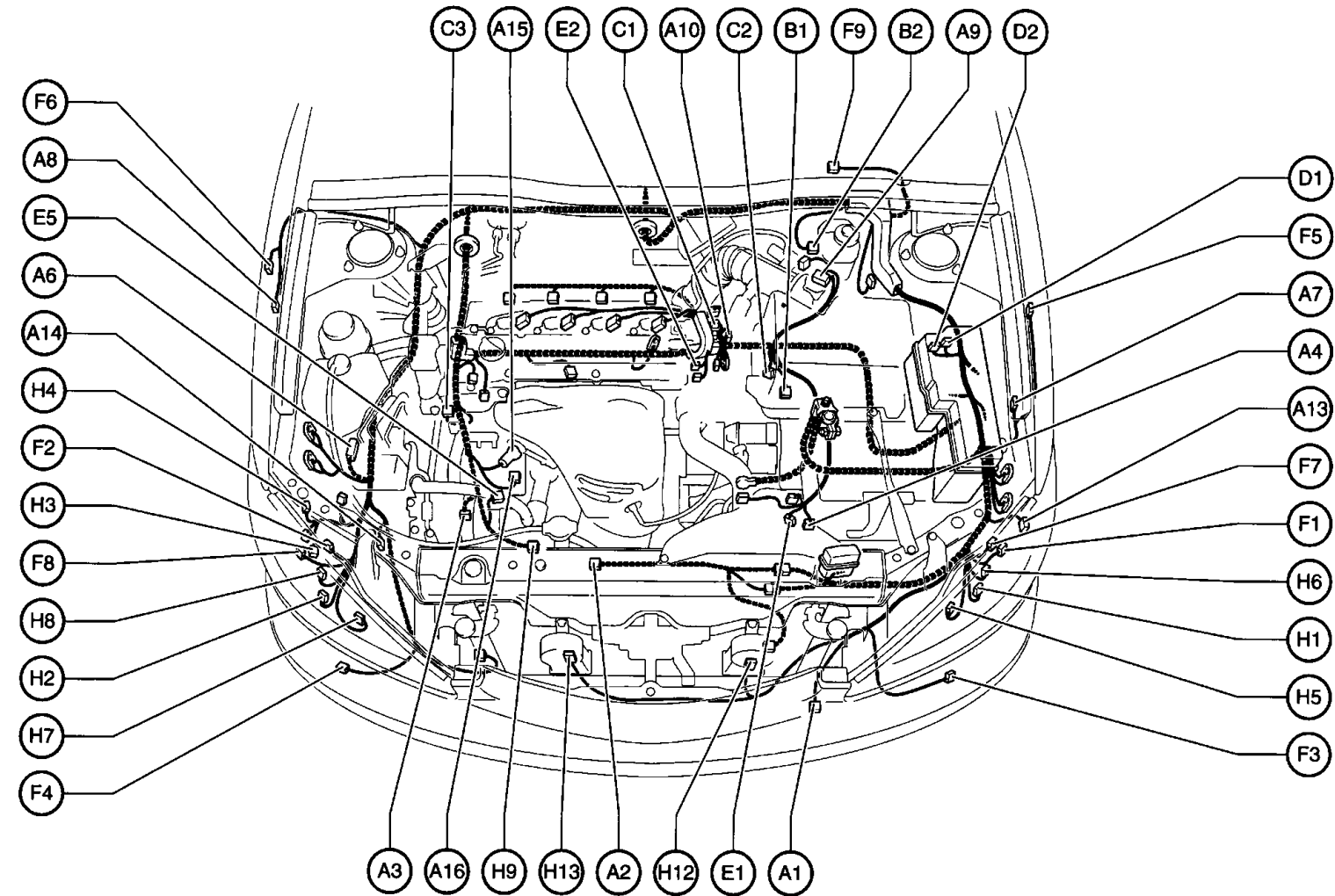
T 1 Throttle Control Motor  
 T 2 Throttle Position Sensor  
 T 3 Turbine Speed Sensor

V 1 VSV (ACIS)  
 V 2 VSV (AICV)  
 V 3 VSV (EGR)  
 V 4 VSV (EVAP)

W 1 Washer Motor  
 W 2 Water Temp. SW No.1  
 W 3 Water Temp. SW No.2

Position of Parts in Engine Compartment

[LHD : 2AZ-FE, 1AZ-FE]

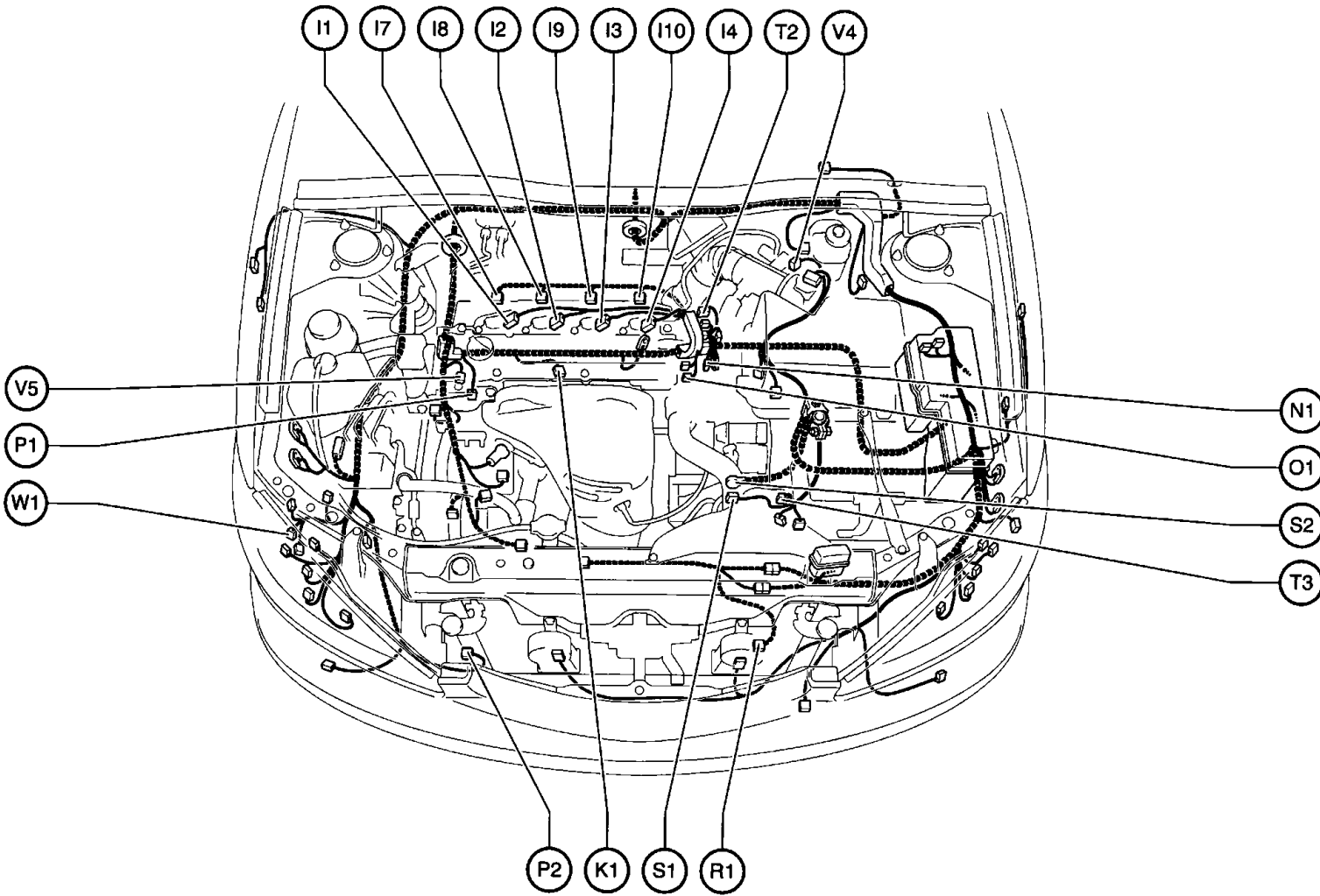


- A 1 A/C Ambient Temp. Sensor
- A 2 A/C Condenser Fan Motor
- A 3 A/C Lock Sensor
- A/C Magnetic Clutch
- A 4 A/T Indicator Light SW
- Back-Up Light SW
- Neutral Start SW
- A 6 ABS Actuator
- A 7 ABS Speed Sensor Front LH
- A 8 ABS Speed Sensor Front RH
- A 9 Air Flow Meter
- A10 Air Fuel Ratio Sensor
- A13 Airbag Sensor Front LH
- A14 Airbag Sensor Front RH
- A15 Alternator
- A16 Alternator
- B 1 Back-Up Light SW
- B 2 Brake Fluid Level Warning SW
- C 1 Camshaft Position Sensor
- C 2 Counter Gear Speed Sensor
- C 3 Crankshaft Position Sensor
- D 1 Diode (A/C No.1)
- D 2 Diode (A/C No.2)

- E 1 ECT Solenoid
- E 2 EFI Water Temp. Sensor
- E 5 Engine Oil Level Sensor
- F 1 Front Clearance Light LH
- F 2 Front Clearance Light RH
- F 3 Front Fog Light LH
- F 4 Front Fog Light RH
- F 5 Front Side Turn Signal Light LH
- F 6 Front Side Turn Signal Light RH
- F 7 Front Turn Signal Light LH
- F 8 Front Turn Signal Light RH
- F 9 Front Wiper Motor
- H 1 Headlight Beam Level Control Actuator LH
- H 2 Headlight Beam Level Control Actuator RH
- H 3 Headlight Cleaner Motor
- H 4 Headlight Cleaner Relay
- H 5 Headlight LH (High)
- H 6 Headlight LH (Low)
- H 7 Headlight RH (High)
- H 8 Headlight RH (Low)
- H 9 Heated Oxygen Sensor
- H12 Horn (High)
- H13 Horn (Low)

Position of Parts in Engine Compartment

[LHD : 2AZ-FE, 1AZ-FE]

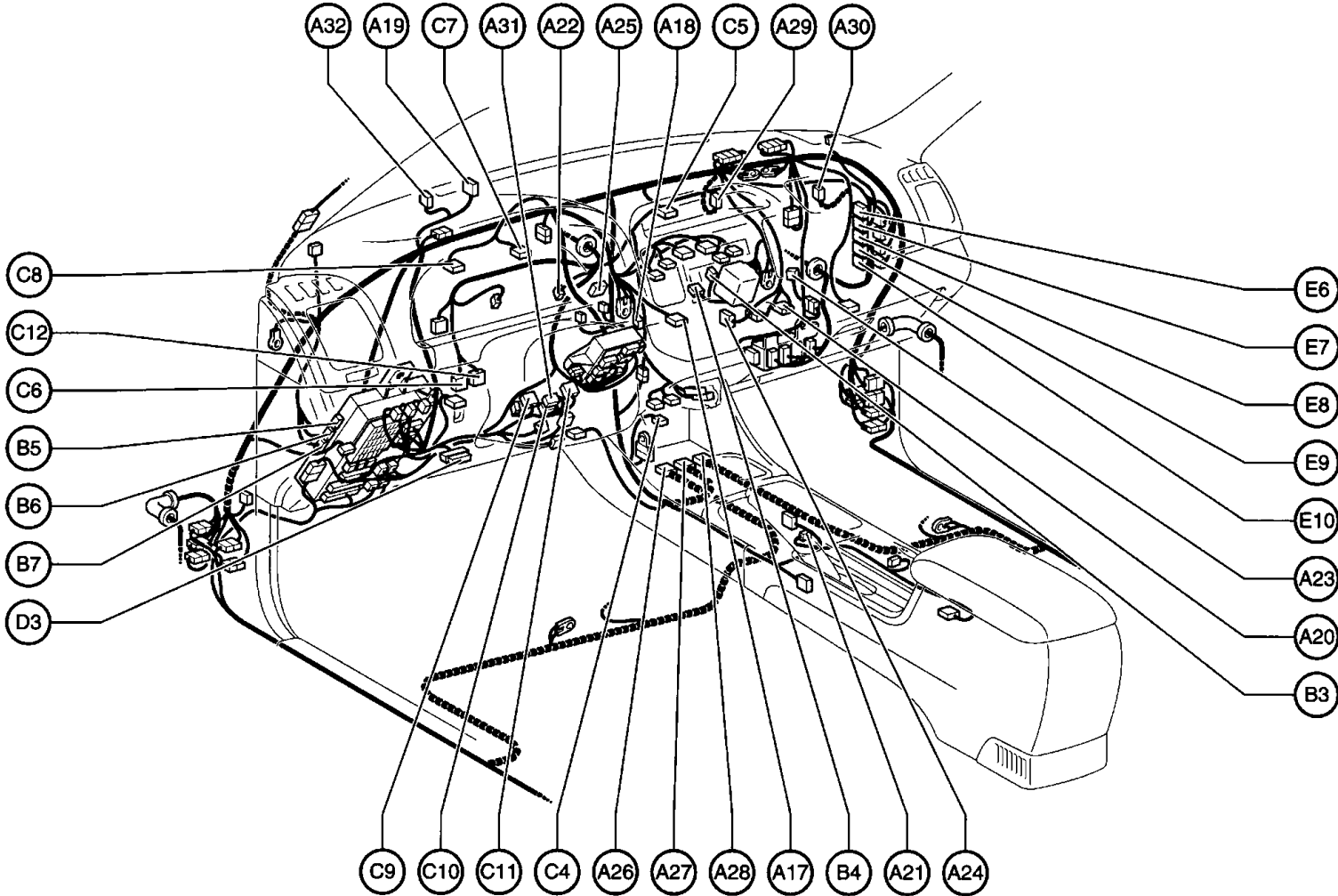


- I 1 Ignition Coil and Igniter No.1
- I 2 Ignition Coil and Igniter No.2
- I 3 Ignition Coil and Igniter No.3
- I 4 Ignition Coil and Igniter No.4
- I 7 Injector No.1
- I 8 Injector No.2
- I 9 Injector No.3
- I 10 Injector No.4
- K 1 Knock Sensor
- N 1 Noise Filter (Ignition)
- O 1 Oil Pressure Sensor

- P 1 Power Steering Oil Pressure SW
- P 2 Pressure SW
- R 1 Radiator Fan Motor
- S 1 Starter
- S 2 Starter
- T 2 Throttle Position Sensor
- T 3 Turbine Speed Sensor
- V 4 VSV (EVAP)
- V 5 VVT Solenoid
- W 1 Washer Motor

Position of Parts in Instrument Panel

[LHD]



- A17 A/C Control Assembly

A18 A/C Room Temp. Sensor

A19 A/C Solar Sensor

A20 A/C Thermistor

A21 A/T Shift Lever Illumination  
O/D Main SW

A22 Accelerator Position Sensor

A23 Air Inlet Control Servo Motor

A24 Air Mix Control Servo Motor

A25 Air Vent Mode Control Servo Motor

A26 Airbag Sensor Assembly

A27 Airbag Sensor Assembly

A28 Airbag Sensor Assembly

A29 Airbag Squib (Front Passenger Airbag Assembly)

A30 Airbag Squib (Front Passenger Airbag Assembly)

A31 Airbag Squib (Steering Wheel Pad)

A32 Automatic Light Control Sensor

B 3 Blower Motor

B 4 Blower Motor Controller

B 5 Body ECU

B 6 Body ECU

B 7 Body ECU
- C 4 Cigarette Lighter  
Cigarette Lighter Illumination

C 5 Clock

C 6 Clutch Start SW

C 7 Combination Meter

C 8 Combination Meter

C 9 Combination SW

C10 Combination SW

C11 Combination SW

C12 Cruise Control Clutch SW

D 3 DLC3

E 6 Engine and ECT ECU (A/T)  
Engine ECU (M/T)

E 7 Engine and ECT ECU (A/T)  
Engine ECU (M/T)

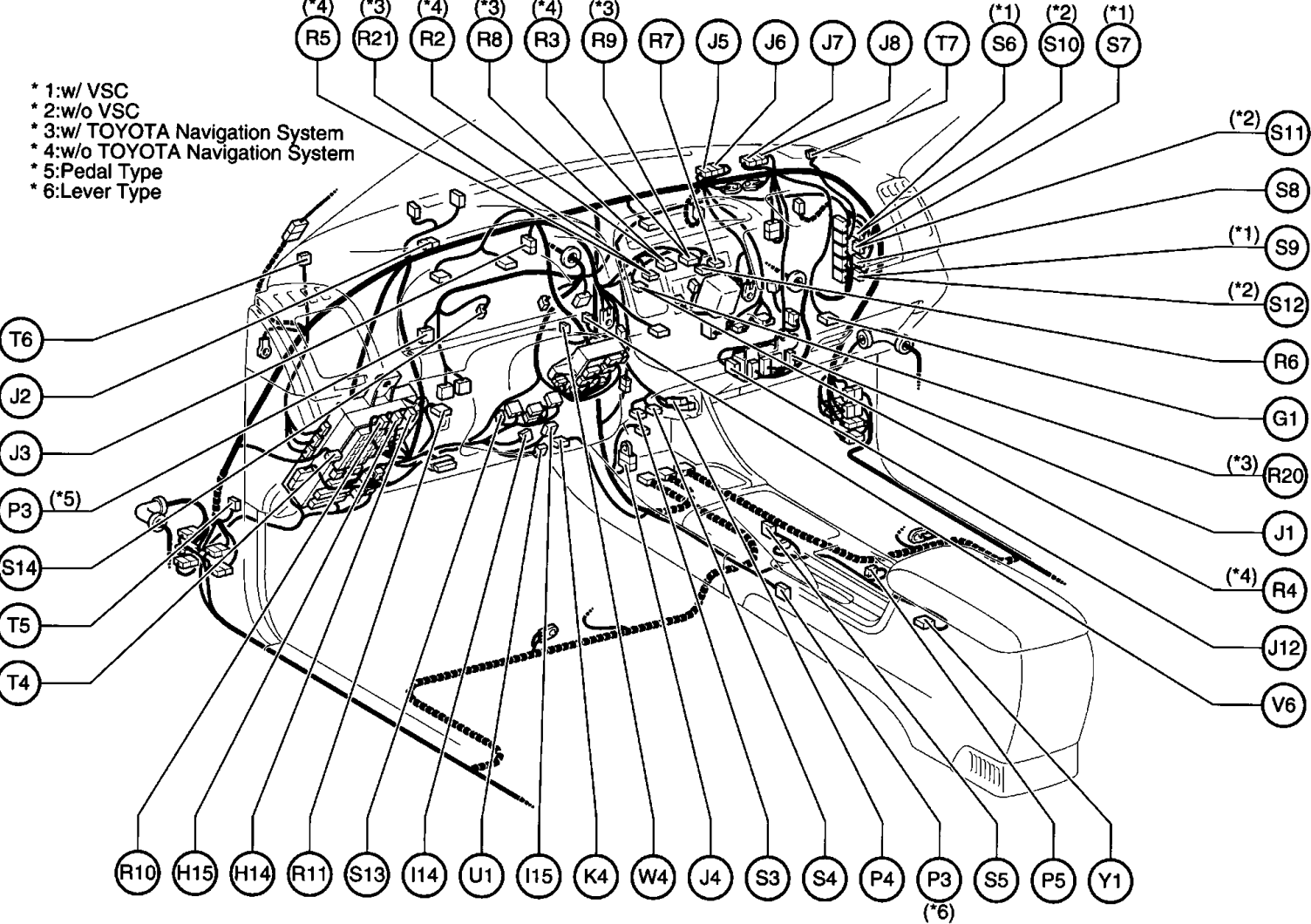
E 8 Engine and ECT ECU (A/T)  
Engine ECU (M/T)

E 9 Engine and ECT ECU (A/T)  
Engine ECU (M/T)

E10 Engine and ECT ECU (A/T)  
Engine ECU (M/T)

Position of Parts in Instrument Panel

[LHD]



- G 1 Glove Box Light and SW

H14 Headlight Beam Level Control SW

H15 Headlight Cleaner SW

I 14 Ignition Key Cylinder Light  
Transponder Key Amplifier

I 15 Ignition SW

J 1 Junction Connector

J 2 Junction Connector

J 3 Junction Connector

J 4 Junction Connector

J 5 Junction Connector

J 6 Junction Connector

J 7 Junction Connector

J 8 Junction Connector

J 12 Junction Connector

K 4 Kick Down SW

P 3 Parking Brake SW

P 4 Power Outlet (Front)

P 5 Power Outlet (Rear)

R 2 Radio and Player

R 3 Radio and Player

R 4 Radio and Player

R 5 Radio and Player

R 6 Radio and Player with Display

R 7 Radio and Player with Display

R 8 Radio and Player with Display

R 9 Radio and Player with Display

R10 Rear Fog Light SW

R11 Rheostat

R20 Radio and Player with Display

R21 Radio and Player with Display

S 3 Seat Heater SW LH

S 4 Seat Heater SW RH

S 5 Shift Lock Control ECU

S 6 Skid Control ECU

S 7 Skid Control ECU

S 8 Skid Control ECU

S 9 Skid Control ECU

S10 Skid Control ECU

S11 Skid Control ECU

S12 Skid Control ECU

S13 Steering Sensor

S14 Stop Light SW

T 4 TRC OFF SW

T 5 Turn Signal Flasher Relay

T 6 Tweeter LH

T 7 Tweeter RH

U 1 Unlock Warning SW

V 6 VSC Warning Buzzer

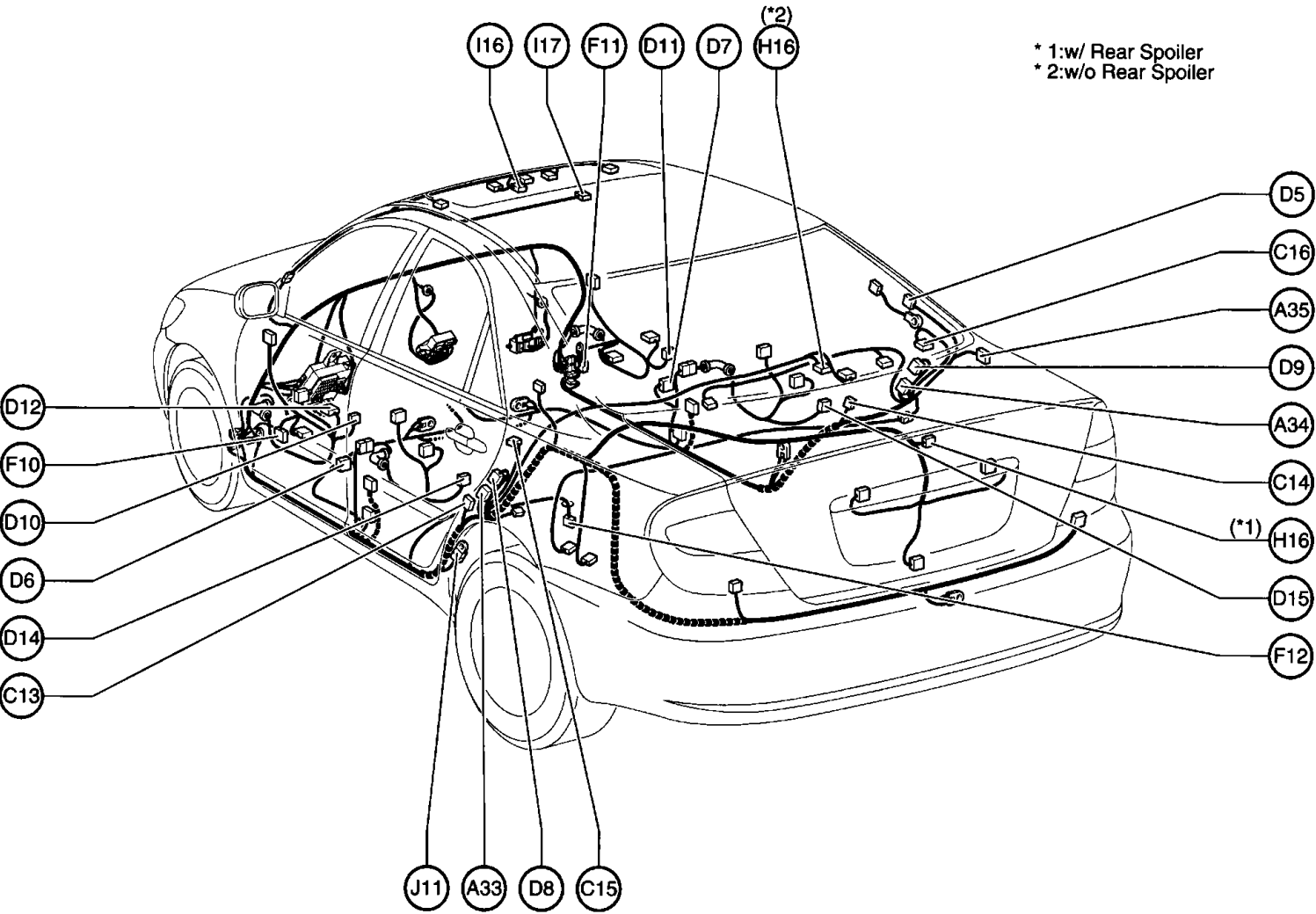
W 4 Wiper Relay

Y 1 Yaw Rate Sensor



Position of Parts in Body

[LHD]



- A33 ABS Speed Sensor Rear LH

A34 ABS Speed Sensor Rear RH

A35 Auto Antenna Control Relay

C13 Curtain Shield Airbag Sensor LH

C14 Curtain Shield Airbag Sensor RH

C15 Curtain Shield Airbag Squib LH

C16 Curtain Shield Airbag Squib RH

D 5 Door Control Receiver

D 6 Door Courtesy SW Front LH

D 7 Door Courtesy SW Front RH

D 8 Door Courtesy SW Rear LH

D 9 Door Courtesy SW Rear RH

D10 Door Key Lock and Unlock SW Front LH

Door Lock Motor Front LH

Door Unlock Detection SW Front LH

D11 Door Key Lock and Unlock SW Front RH

Door Lock Motor Front RH

Door Unlock Detection SW Front RH

D12 Door Lock Control SW Front LH

Power Window Master SW

D14 Door Lock Motor Rear LH

Door Unlock Detection SW Rear LH

D15 Door Lock Motor Rear RH

Door Unlock Detection SW Rear RH

F 10 Front Door Speaker LH

F 11 Front Door Speaker RH

F 12 Fuel Pump

Fuel Sender

H16 High Mounted Stop Light

I 16 Inner Mirror

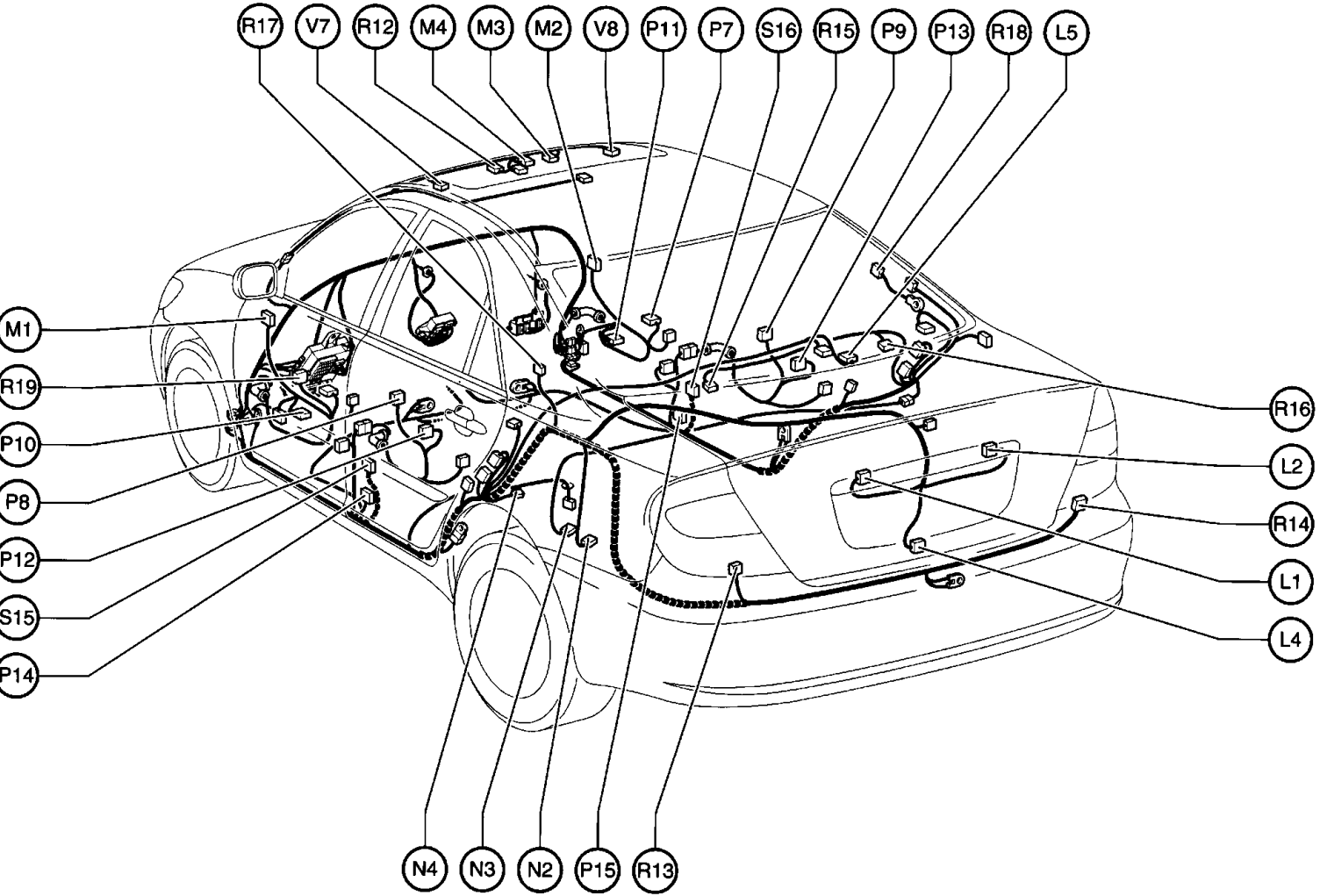
I 17 Interior Light

J 11 Junction Connector

\* 1:w/ Rear Spoiler  
\* 2:w/o Rear Spoiler

Position of Parts in Body

[LHD]



- L 1 License Plate Light LH

L 2 License Plate Light RH

L 4 Luggage Compartment Door Opener Motor

Luggage Compartment Light SW

L 5 Luggage Compartment Light

M 1 Mirror Heater LH

Remote Control Mirror LH

M 2 Mirror Heater RH

Remote Control Mirror RH

M 3 Moon Roof Control ECU and Motor

M 4 Moon Roof Control SW

Personal Light

N 2 Navigation ECU

N 3 Navigation ECU

N 4 Noise Filter

P 7 Power Window Control SW Front RH

P 8 Power Window Control SW Rear LH

P 9 Power Window Control SW Rear RH

P10 Power Window Motor Front LH

P11 Power Window Motor Front RH

P12 Power Window Motor Rear LH

P13 Power Window Motor Rear RH

P14 Pretensioner LH

P15 Pretensioner RH

R12 Rain Sensor

R13 Rear Combination Light LH

R14 Rear Combination Light RH

R15 Rear Speaker LH

R16 Rear Speaker RH

R17 Rear Window Defogger

R18 Rear Window Defogger

R19 Remote Control Mirror SW

S15 Side Airbag Sensor LH

S16 Side Airbag Sensor RH

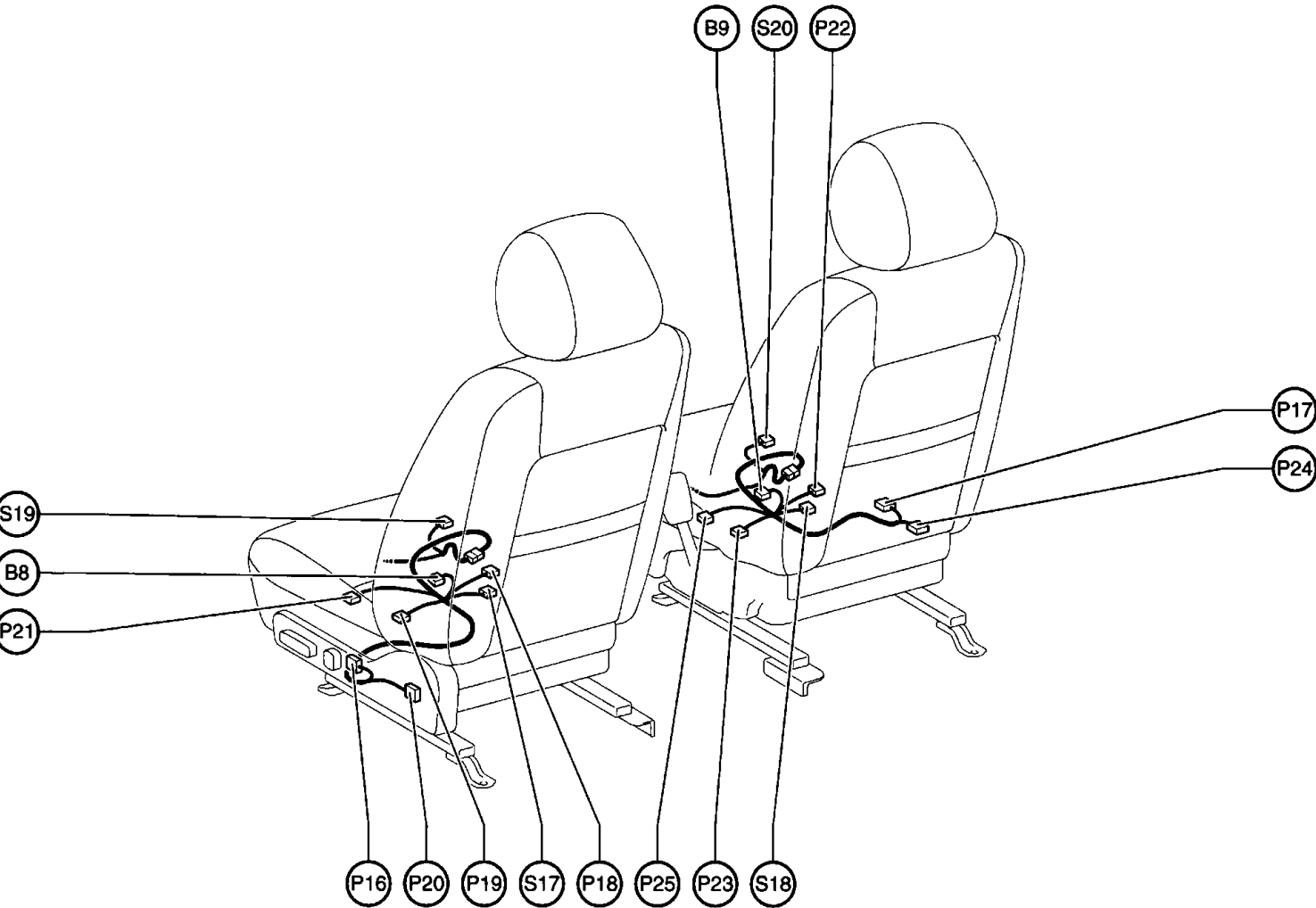
V 7 Vanity Light LH

V 8 Vanity Light RH

G ELECTRICAL WIRING ROUTING

Position of Parts in Seat

[LHD]



- B 8 Buckle SW LH

B 9 Buckle SW RH

Occupant Detection Sensor
- S17 Seat Heater LH

S18 Seat Heater RH

S19 Side Airbag Squib LH

S20 Side Airbag Squib RH
- P16 Power Seat Control SW (Driver's Seat)

P17 Power Seat Control SW (Front Passenger's Seat)

P18 Power Seat Motor (Driver's Seat Front Vertical Control)

P19 Power Seat Motor (Driver's Seat Lifter Control)

P20 Power Seat Motor (Driver's Seat Reclining Control)

P21 Power Seat Motor (Driver's Seat Slide Control)

P22 Power Seat Motor

(Front Passenger's Seat Front Vertical Control)

P23 Power Seat Motor

(Front Passenger's Seat Lifter Control)

P24 Power Seat Motor

(Front Passenger's Seat Reclining Control)

P25 Power Seat Motor

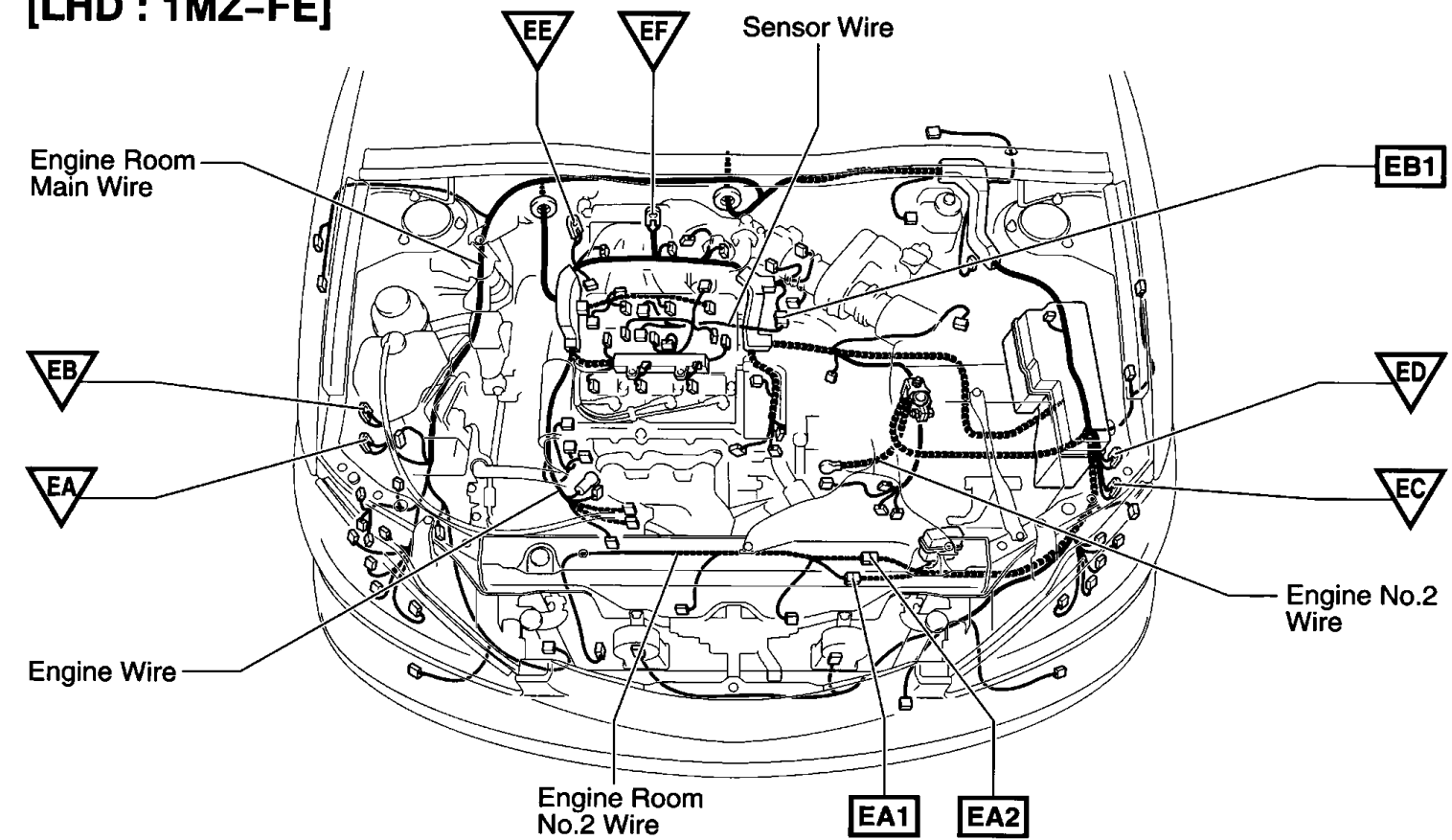
(Front Passenger's Seat Slide Control)

G ELECTRICAL WIRING ROUTING

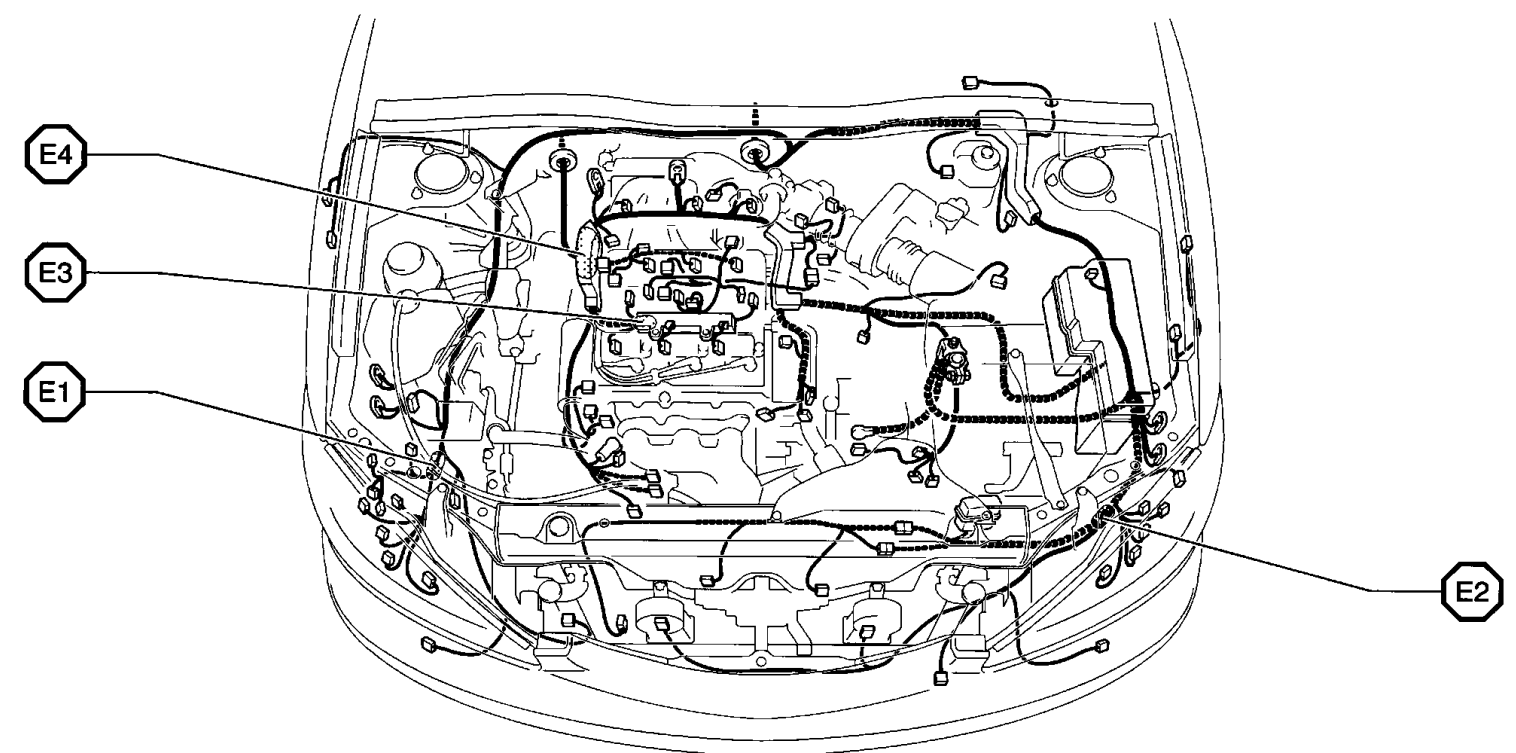
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽

 : Location of Ground Points

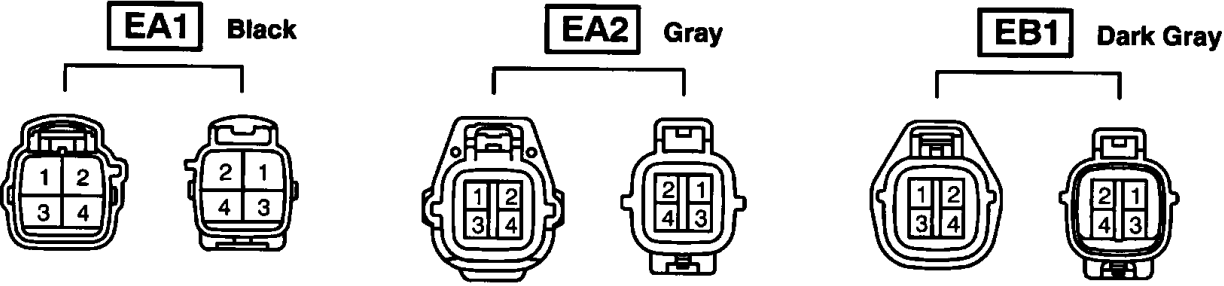
[LHD : 1MZ-FE]



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness

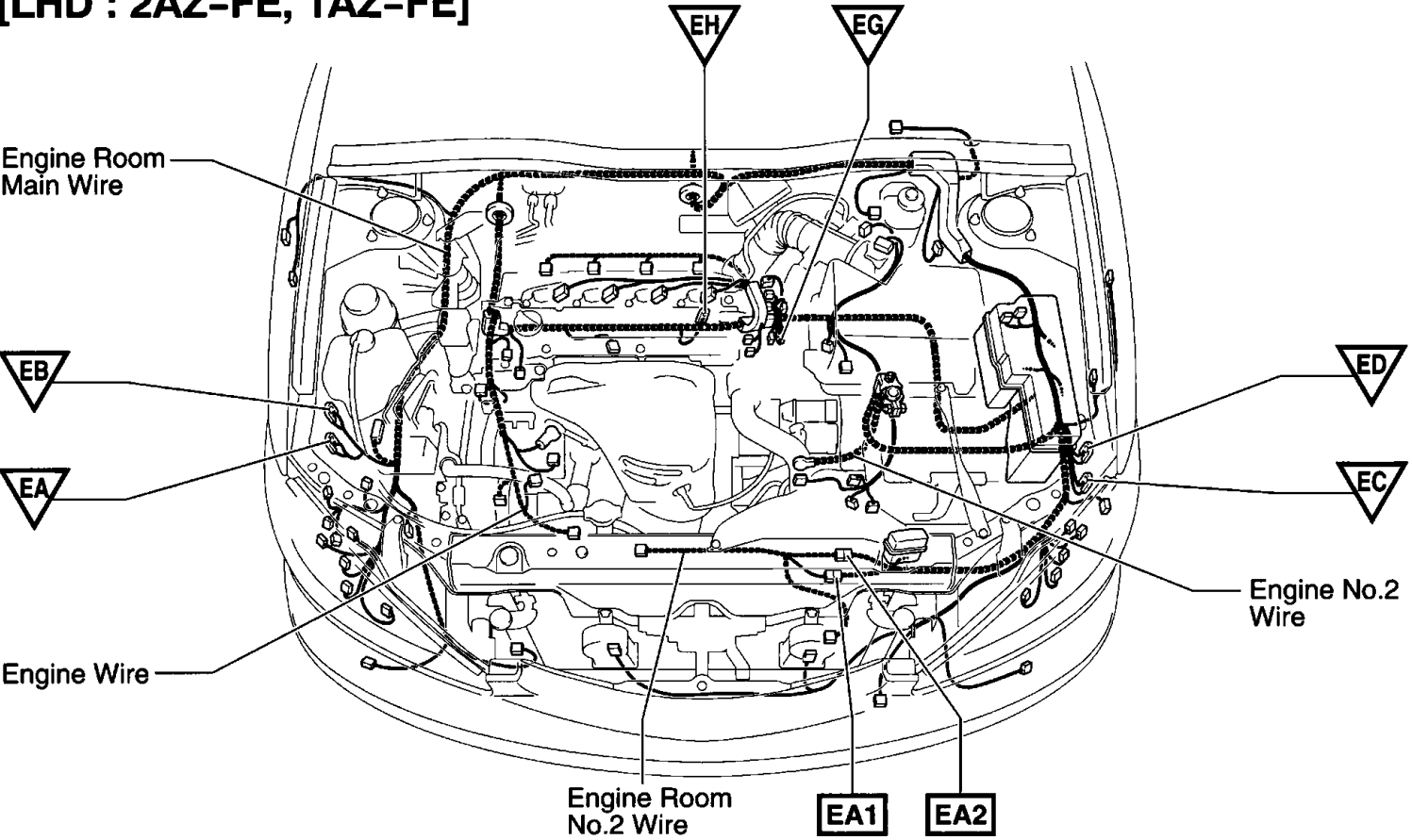


| Code | Joining Wire Harness and Wire Harness (Connector Location)                 |
|------|----------------------------------------------------------------------------|
| EA1  | Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH) |
| EA2  | Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH) |
| EB1  | Engine Wire and Sensor Wire (Left Bank of Cylinder Head)                   |

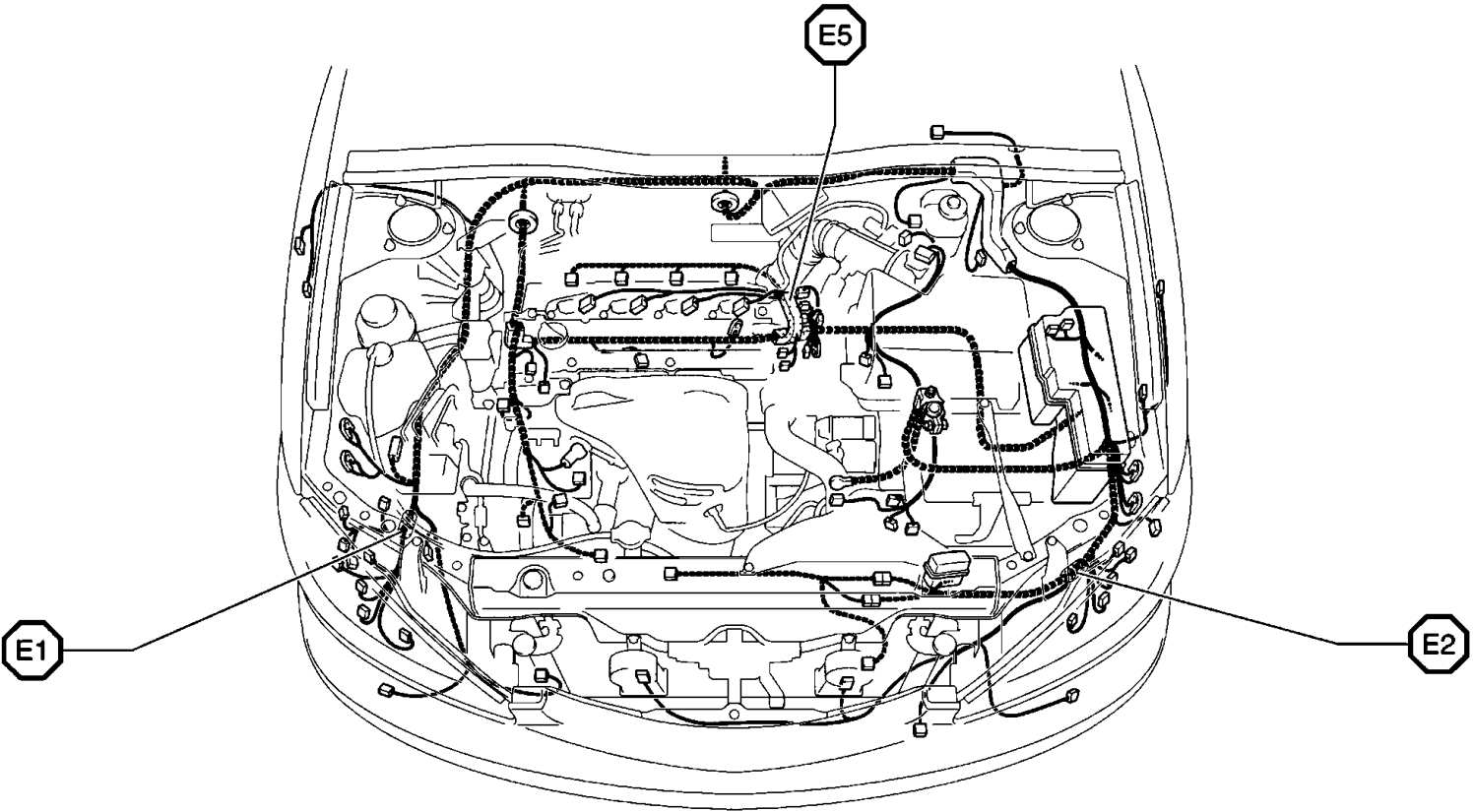
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽

 : Location of Ground Points

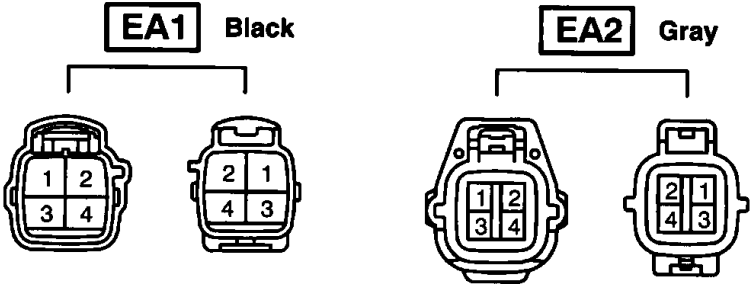
[LHD : 2AZ-FE, 1AZ-FE]



- : Location of Splice Points



Connector Joining Wire Harness and Wire Harness

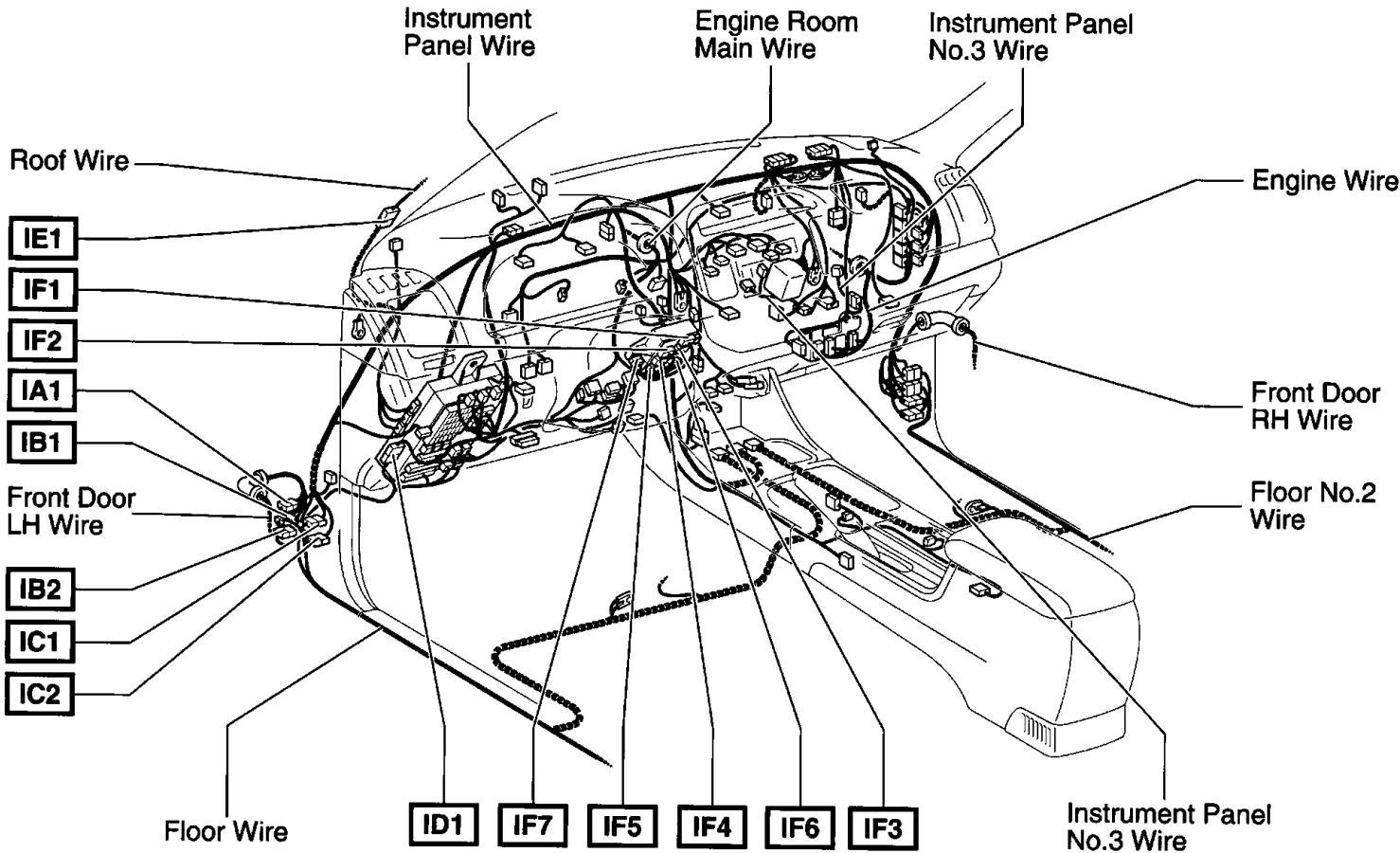


| Code | Joining Wire Harness and Wire Harness (Connector Location)                 |
|------|----------------------------------------------------------------------------|
| EA1  | Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH) |
| EA2  | Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH) |

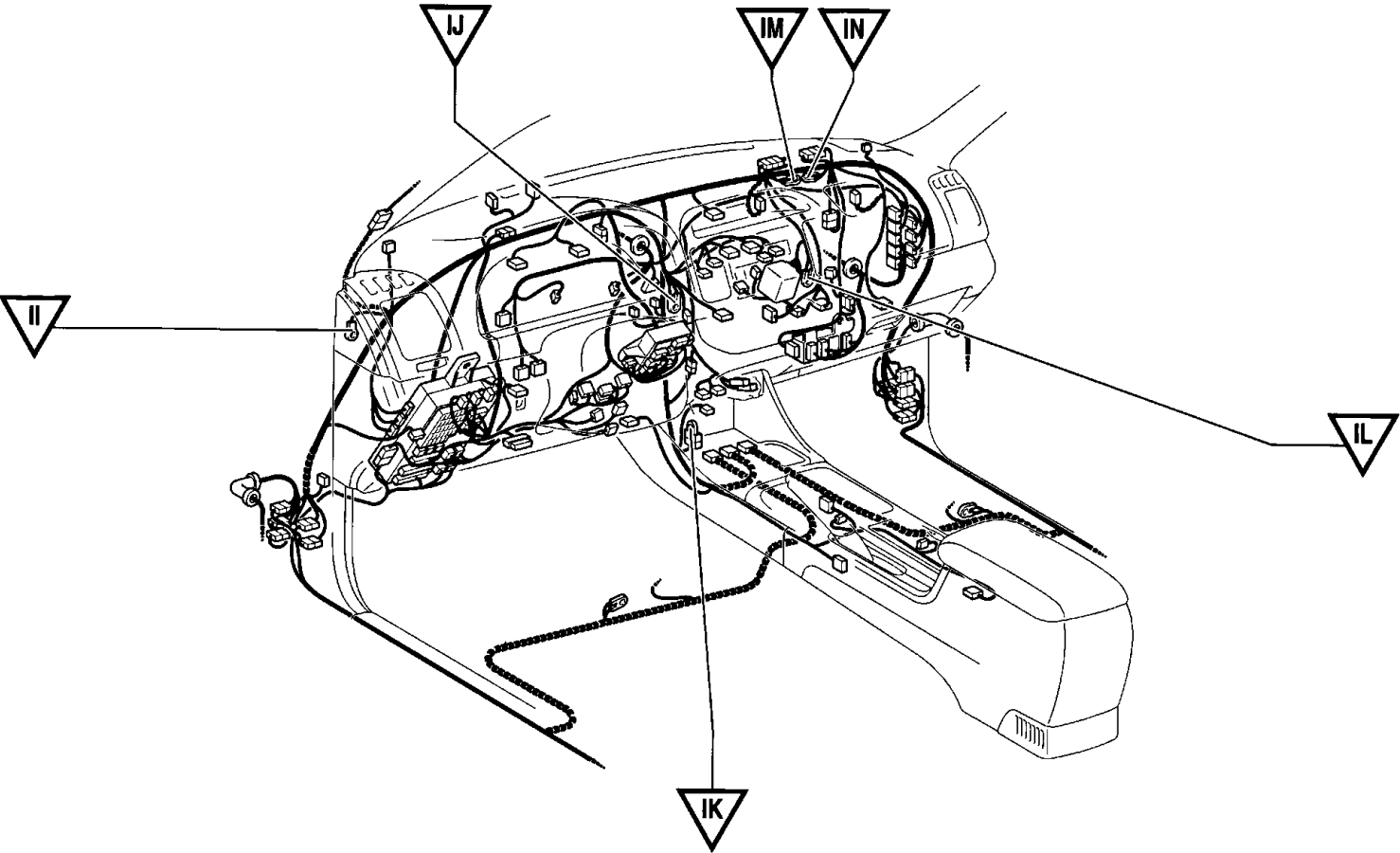


 : Location of Connector Joining Wire Harness and Wire Harness

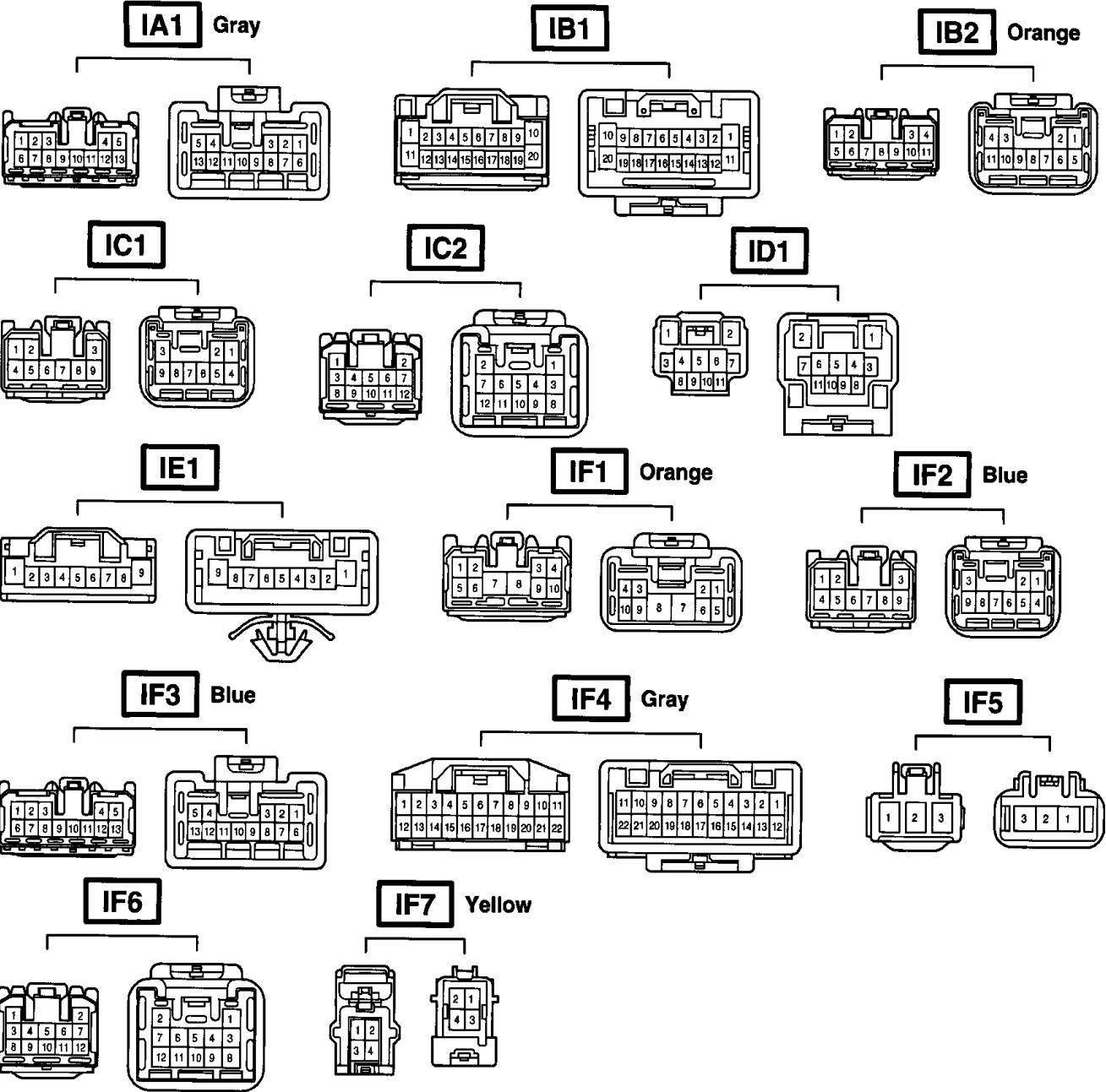
[LHD]



 : Location of Ground Points



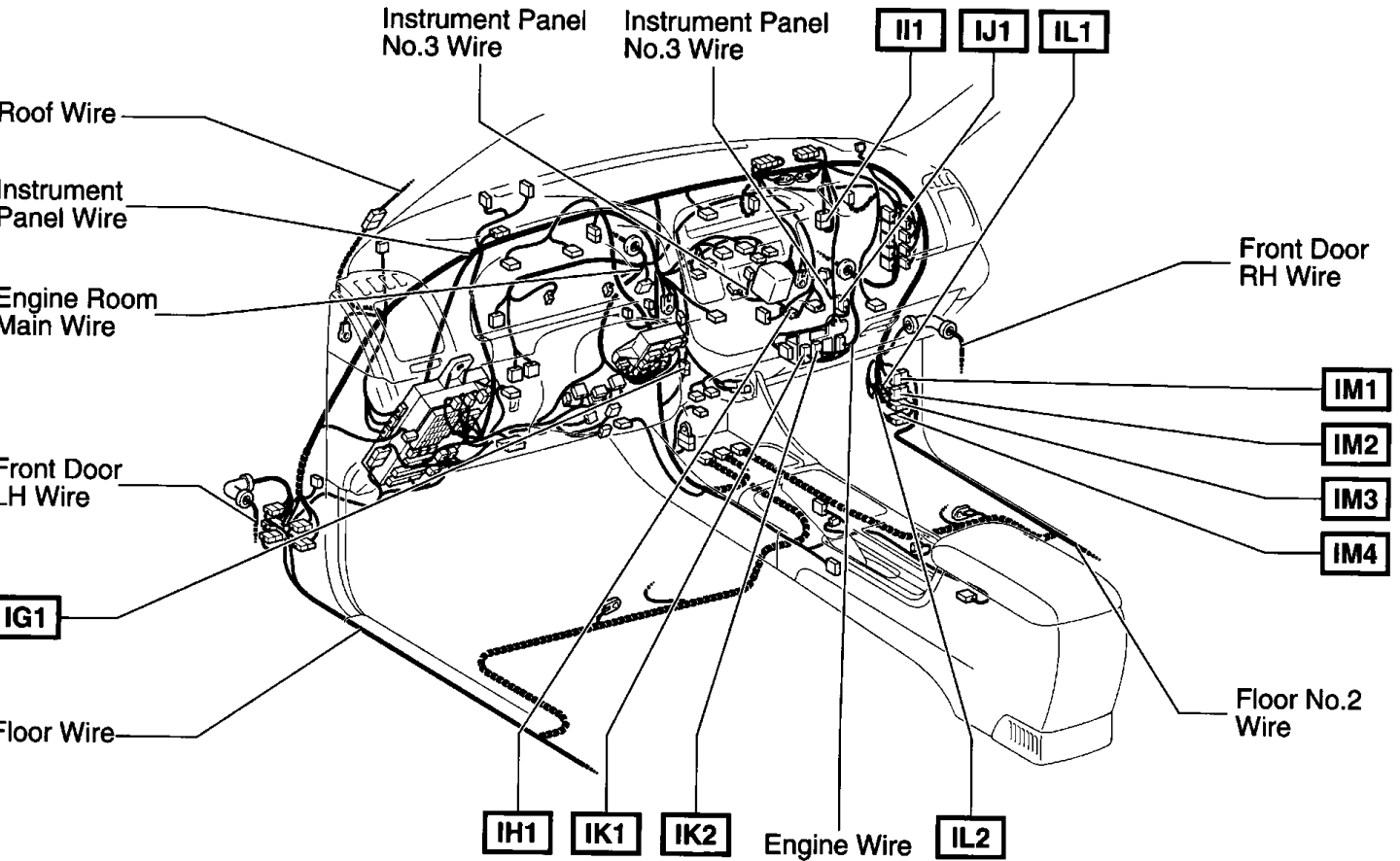
Connector Joining Wire Harness and Wire Harness



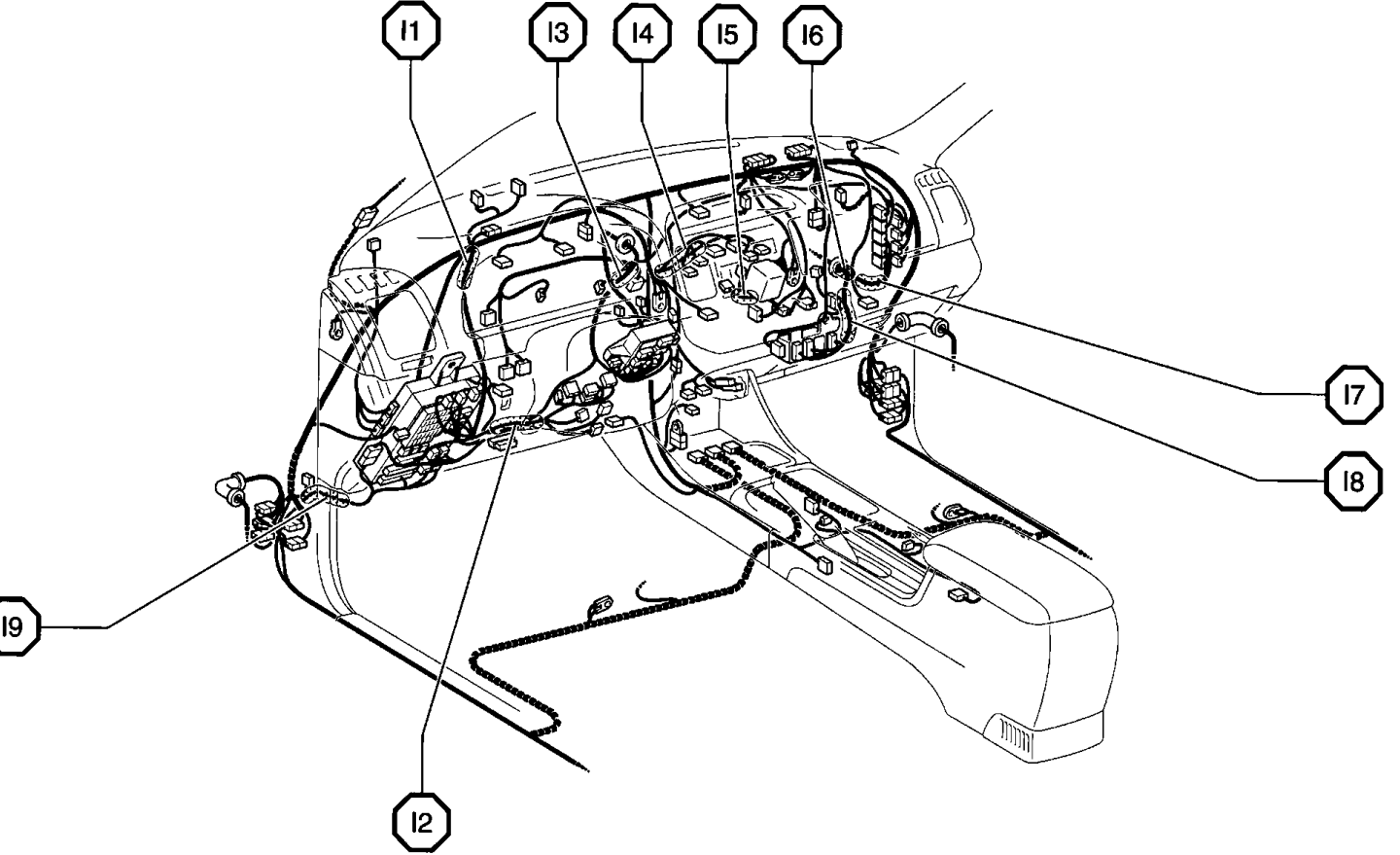
| Code | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|--------------------------------------------------------------------------------------|
| IA1  | Front Door LH Wire and Floor Wire (Left Kick Panel)                                  |
| IB1  | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)                       |
| IB2  |                                                                                      |
| IC1  | Instrument Panel Wire and Floor Wire (Left Kick Panel)                               |
| IC2  |                                                                                      |
| ID1  | Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)                  |
| IE1  | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)                    |
| IF1  | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
| IF2  |                                                                                      |
| IF3  |                                                                                      |
| IF4  |                                                                                      |
| IF5  |                                                                                      |
| IF6  |                                                                                      |
| IF7  |                                                                                      |

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

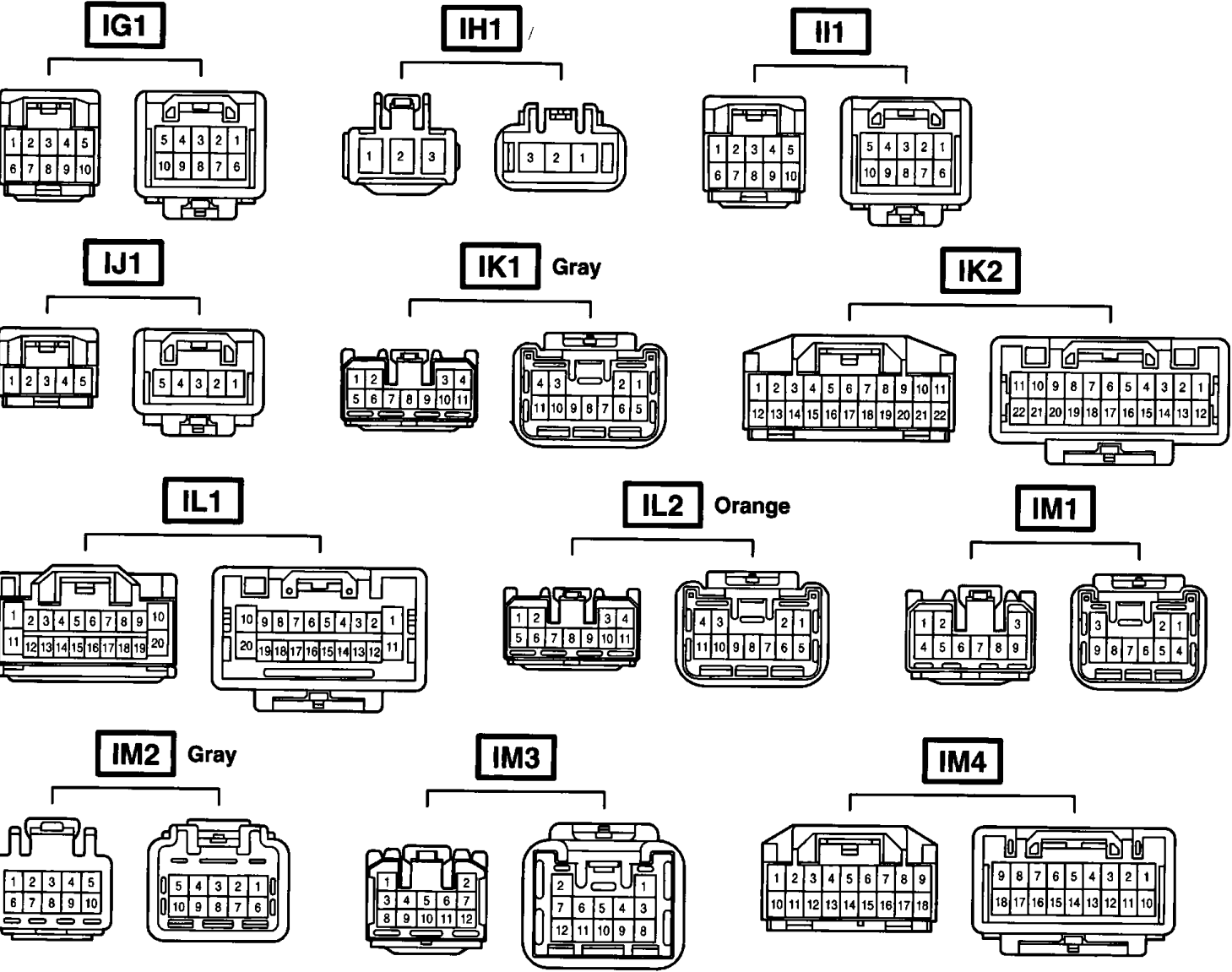
[LHD]



**○ : Location of Splice Points**



Connector Joining Wire Harness and Wire Harness

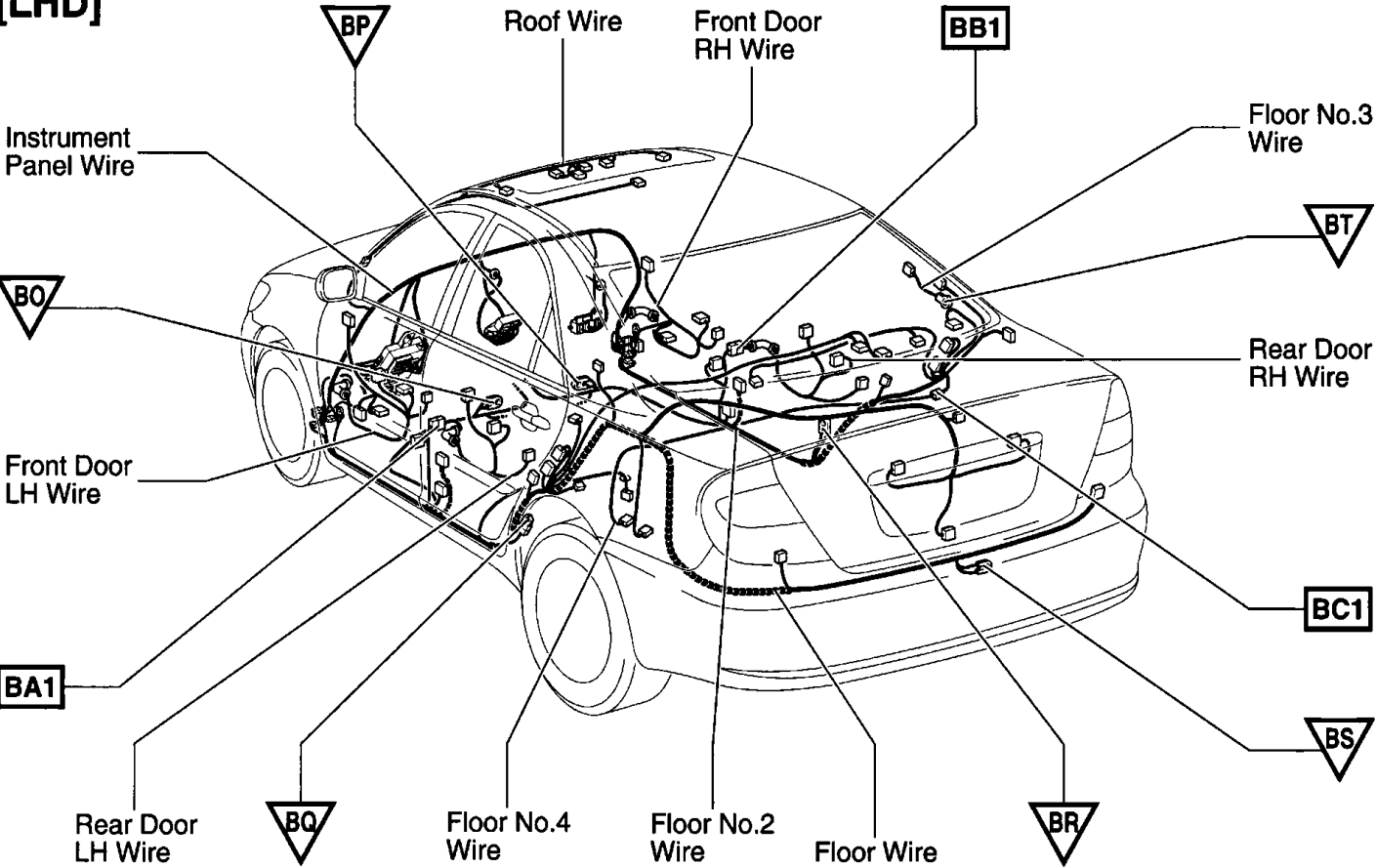


| Code | Joining Wire Harness and Wire Harness (Connector Location)                          |
|------|-------------------------------------------------------------------------------------|
| IG1  | Instrument Panel Wire and Engine Room Main Wire (Instrument Panel Brace LH)         |
| IH1  | Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)         |
| II1  | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH) |
| IJ1  | Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)         |
| IK1  | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                        |
| IK2  | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                        |
| IL1  | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)                     |
| IL2  | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)                     |
| IM1  | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)                        |
| IM2  |                                                                                     |
| IM3  |                                                                                     |
| IM4  |                                                                                     |

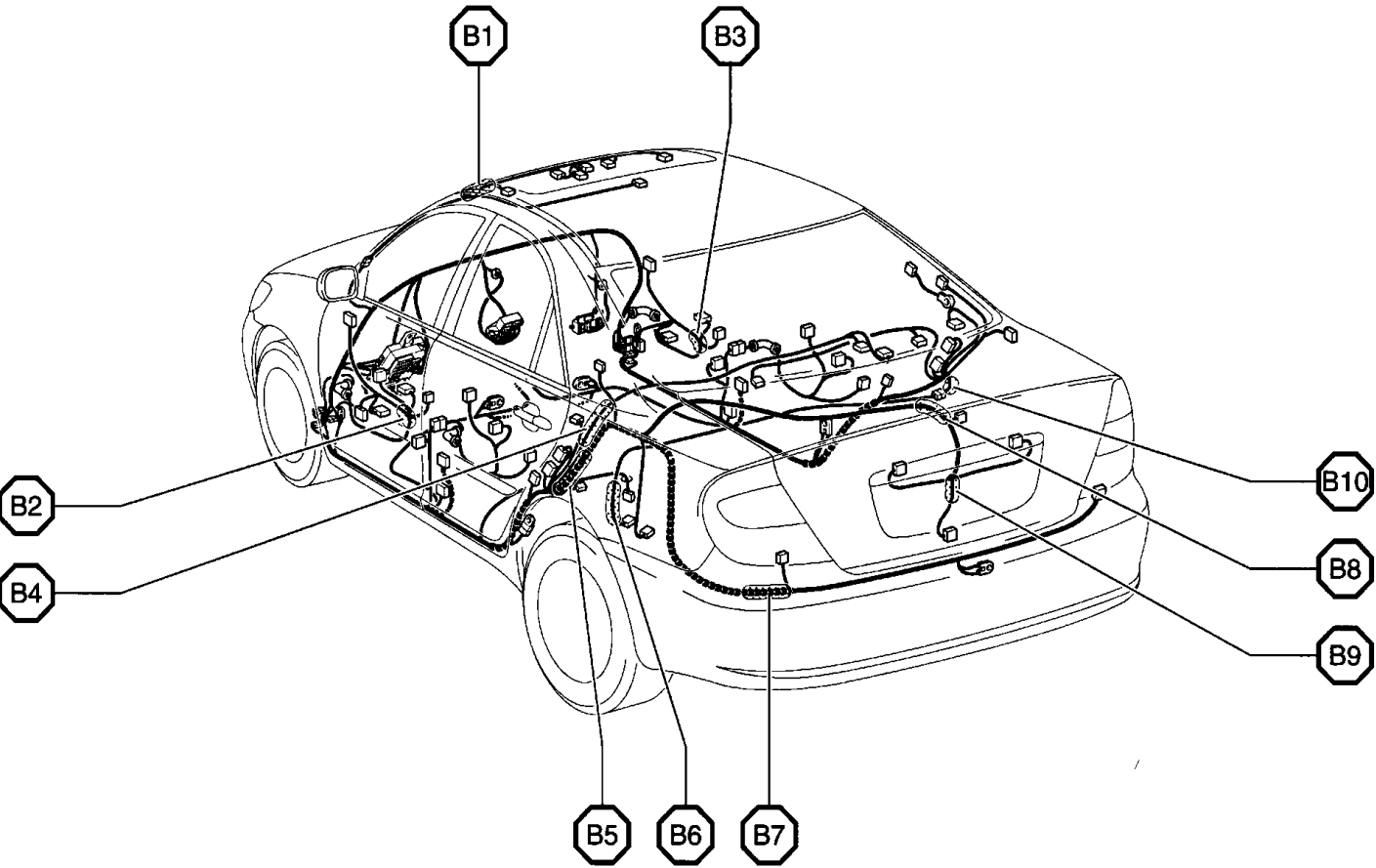
□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

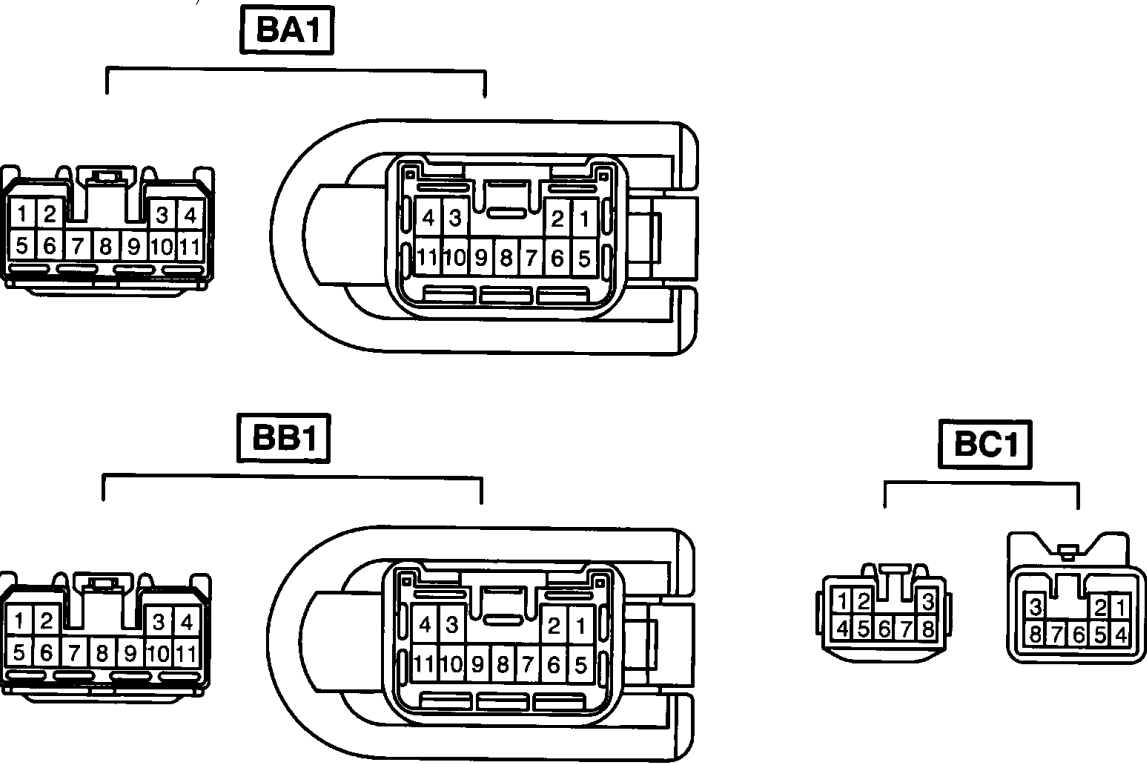
[LHD]



○ : Location of Splice Points



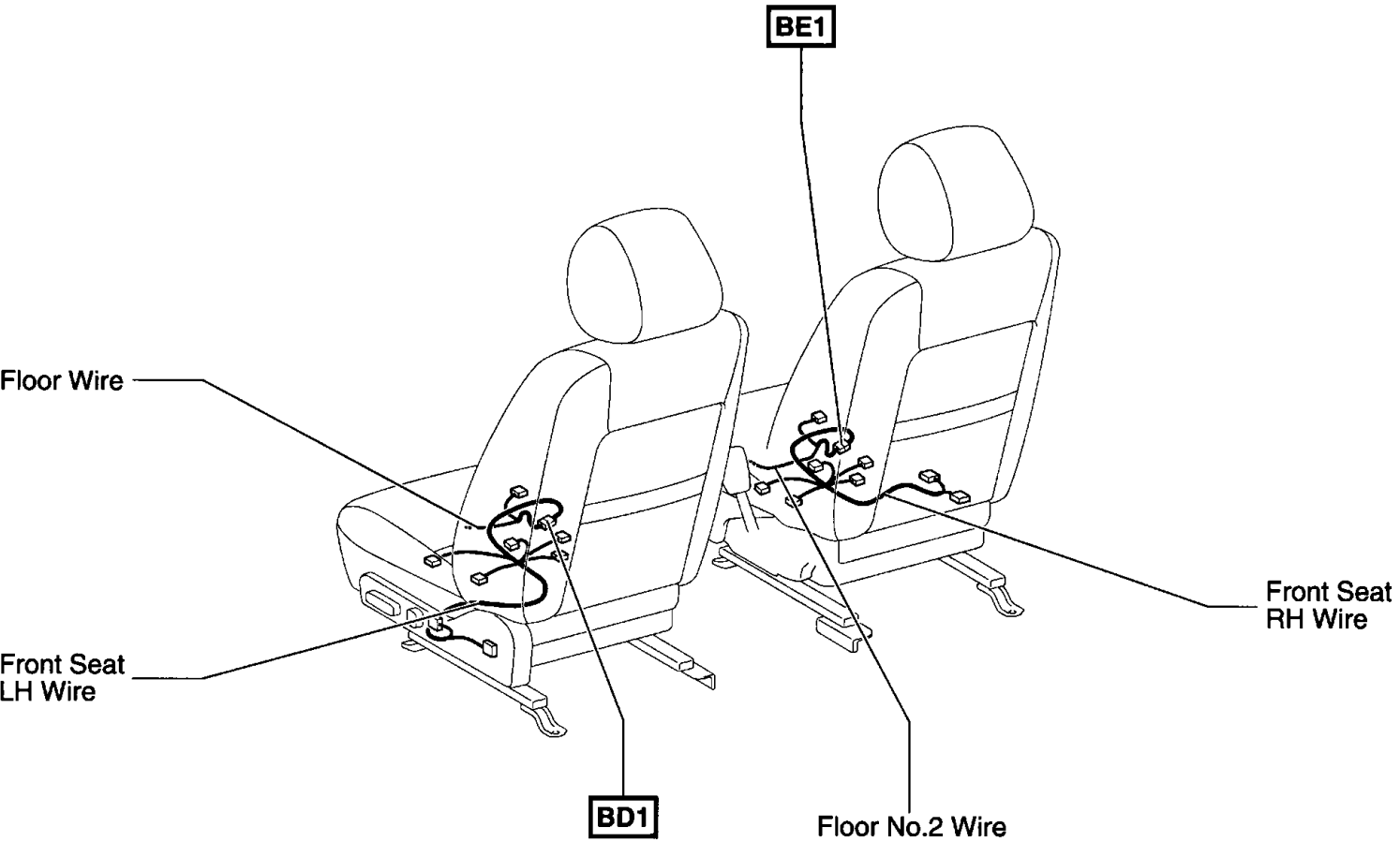
Connector Joining Wire Harness and Wire Harness



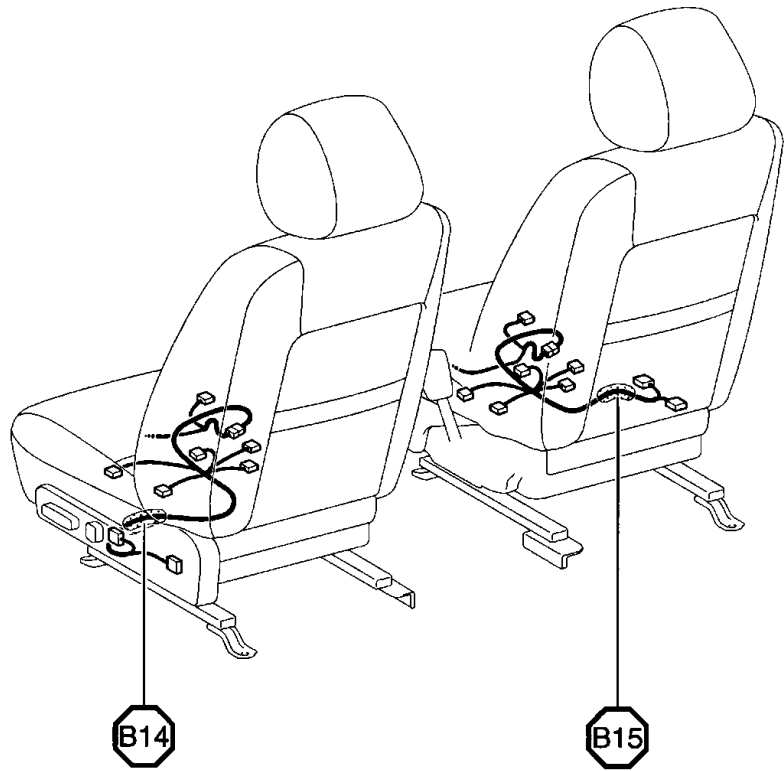
| Code | Joining Wire Harness and Wire Harness (Connector Location)                |
|------|---------------------------------------------------------------------------|
| BA1  | Rear Door LH Wire and Floor Wire (Left Center Pillar)                     |
| BB1  | Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)               |
| BC1  | Floor No.4 Wire and Floor No.2 Wire (Behind the Rear Passenger's Seat RH) |

 : Location of Connector Joining Wire Harness and Wire Harness

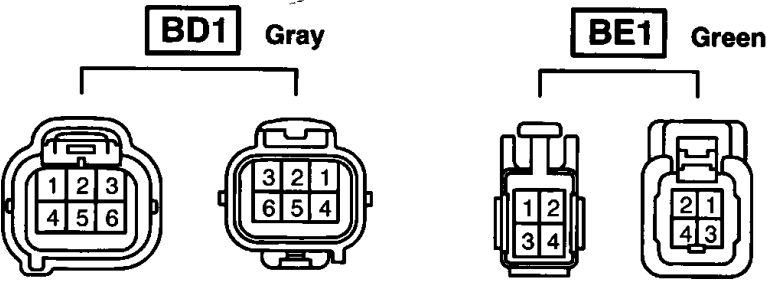
[LHD]



 : Location of Splice Points



Connector Joining Wire Harness and Wire Harness



| Code | Joining Wire Harness and Wire Harness (Connector Location)                |
|------|---------------------------------------------------------------------------|
| BD1  | Floor Wire and Front Seat LH Wire (Under the Driver's Seat)               |
| BE1  | Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat) |



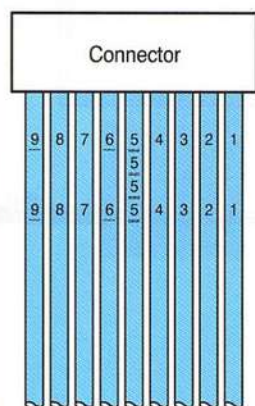
# CAMRY

## ELECTRICAL WIRING DIAGRAM

### SYSTEM CIRCUITS

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There are two types of wire harness for the instrument panel on CAMRY.

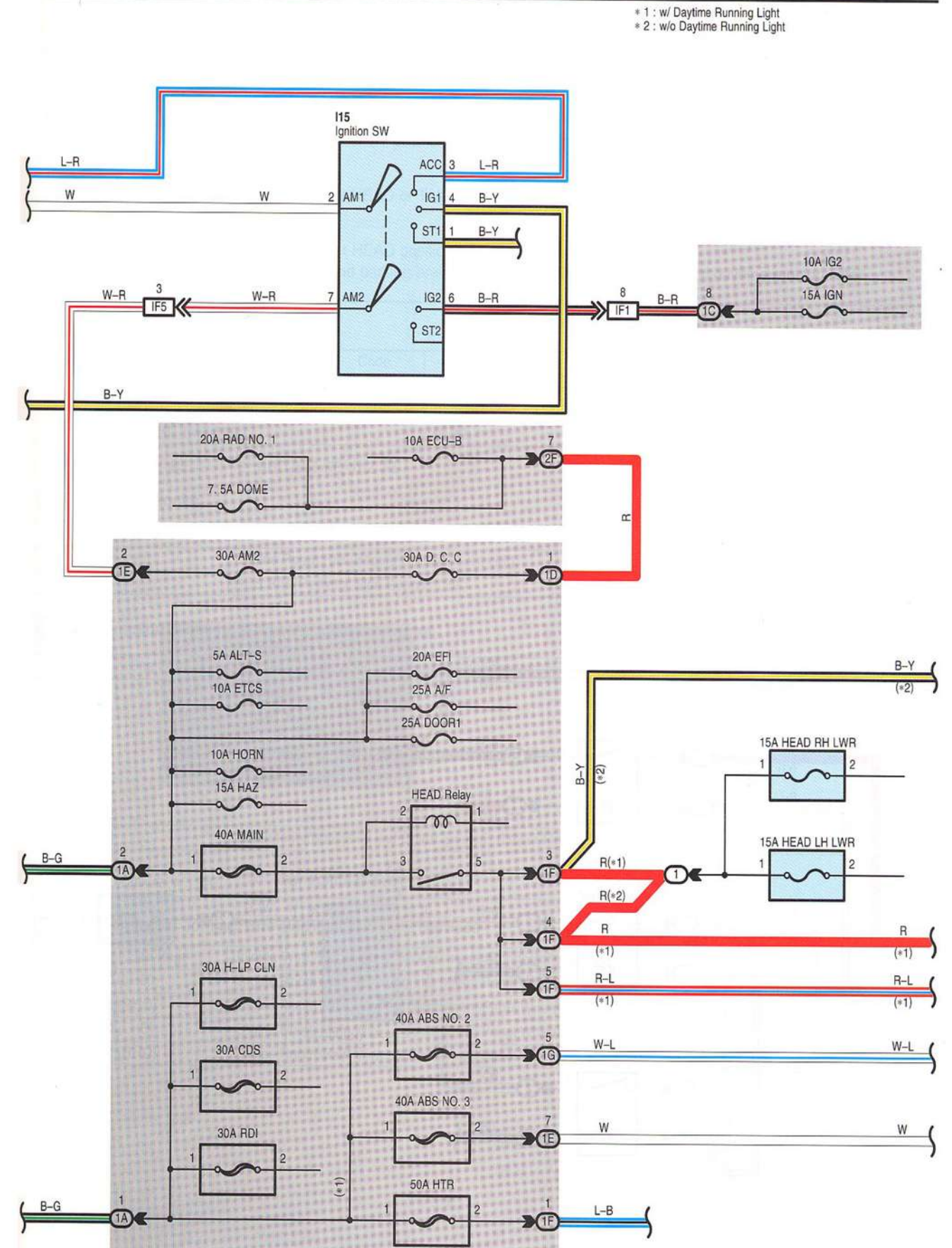
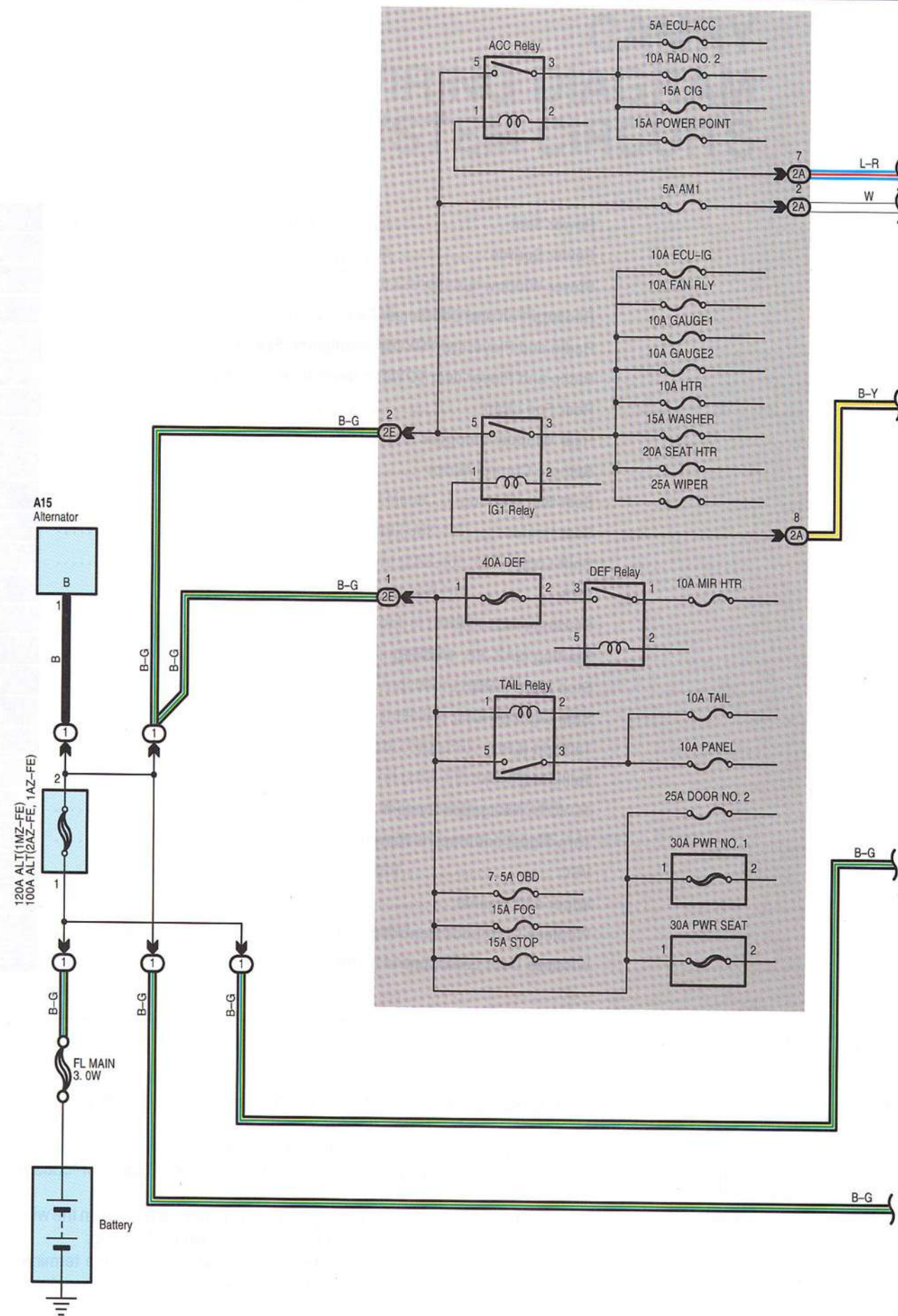
Type A : The wire harness that uses the color-coded wire.

Type B : The wire harness that uses the same colored wire. (Not color-coded)

In case of using the same colored wires, each terminal number is printed on the wire as shown in the illustration on the left in order to distinguish each wiring. Be sure to connect the terminal to the same place as indicated by the terminal number printed on the wire after disconnecting the terminal from the connector.



## Power Source

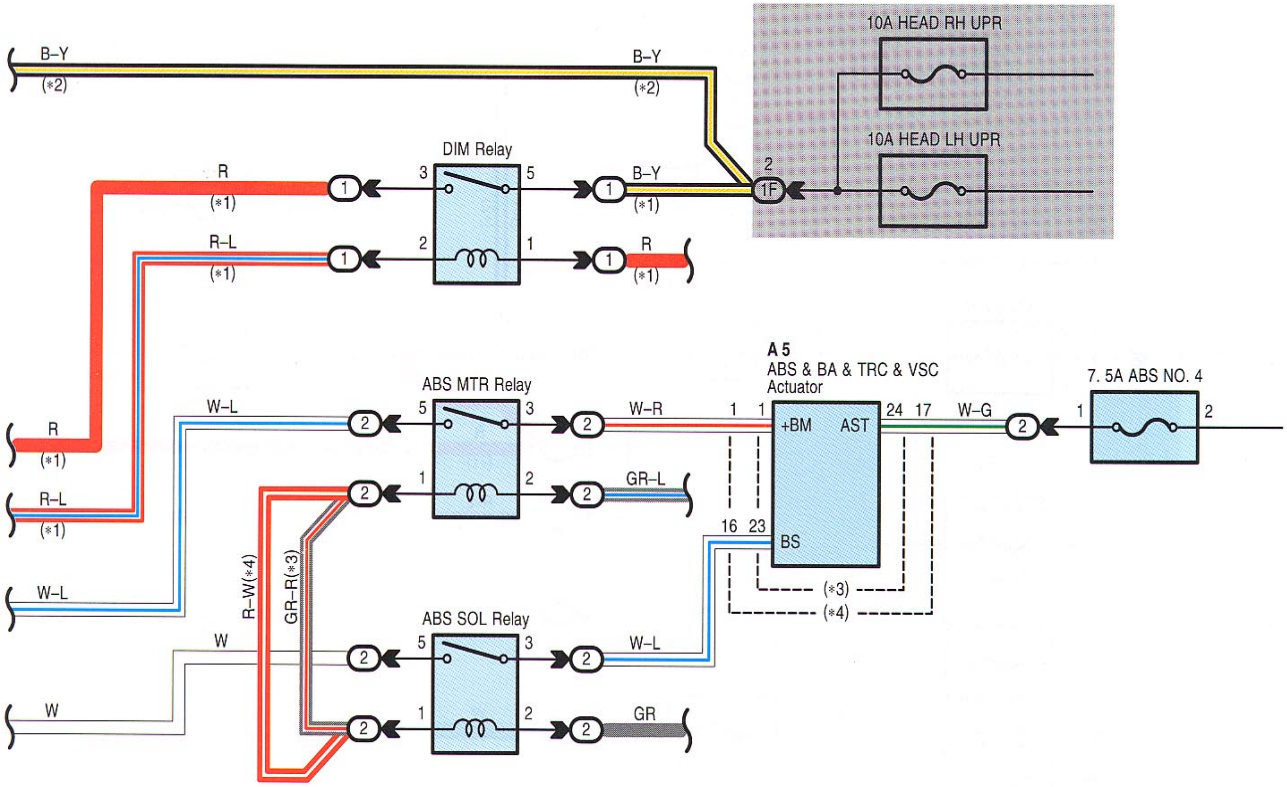


\* 1 : w/ Daytime Running Light  
\* 2 : w/o Daytime Running Light



Power Source

\* 1 : w/ Daytime Running Light  
\* 2 : w/o Daytime Running Light  
\* 3 : w/ VSC  
\* 4 : w/o VSC



Service Hints

I15 Ignition SW

- 2-3 : Closed with the ignition SW at ACC or ON position
- 2-4 : Closed with the ignition SW at ON or ST position
- 2-1 : Closed with the ignition SW at ST position
- 7-6 : Closed with the ignition SW at ON or ST position

TAIL Relay

- 5-3 : Closed with the light control SW at HEAD or TAIL position

HEAD Relay

- 5-3 : Closed with the light control SW at HEAD position or dimmer SW at FLASH position
- Closed with the engine running and parking brake released (Parking brake SW off) (w/ daytime running light)

○ : Parts Location

| Code | See Page                           | Code | See Page                              | Code | See Page             |
|------|------------------------------------|------|---------------------------------------|------|----------------------|
| A5   | 36 (LHD 1MZ-FE)<br>46 (RHD 1MZ-FE) | A15  | 38 (*1)<br>46 (RHD 1MZ-FE)<br>48 (*2) | I15  | 41 (LHD)<br>51 (RHD) |
| A15  | 36 (LHD 1MZ-FE)                    |      |                                       |      |                      |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Relay Blocks

| Code | See Page | Relay Blocks (Relay Block Location)       |
|------|----------|-------------------------------------------|
| 1    | 22       | Engine Room R/B (Engine Compartment Left) |
| 2    | 23       | ABS R/B (Radiator Side Support LH)        |

○ : Junction Block and Wire Harness Connector

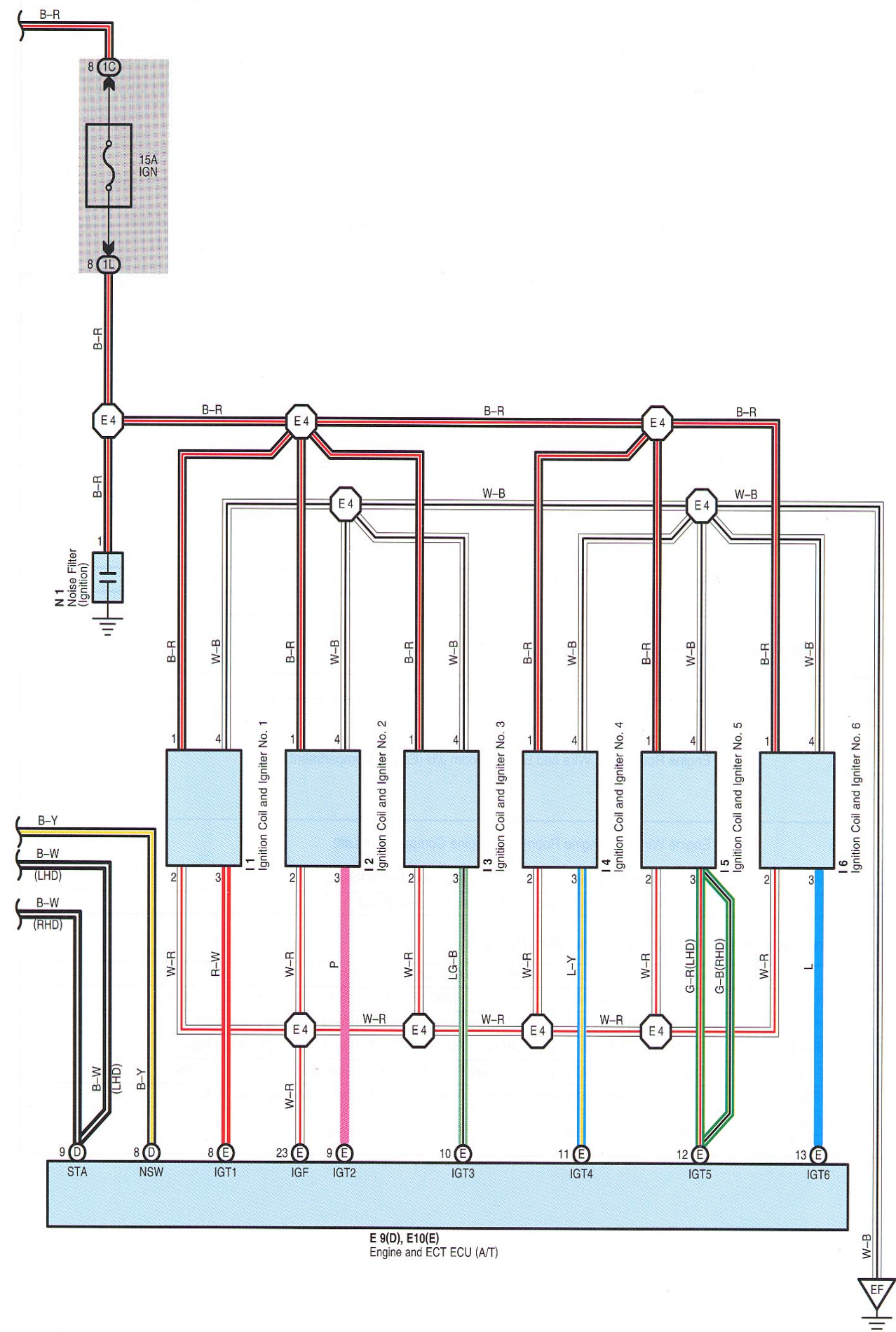
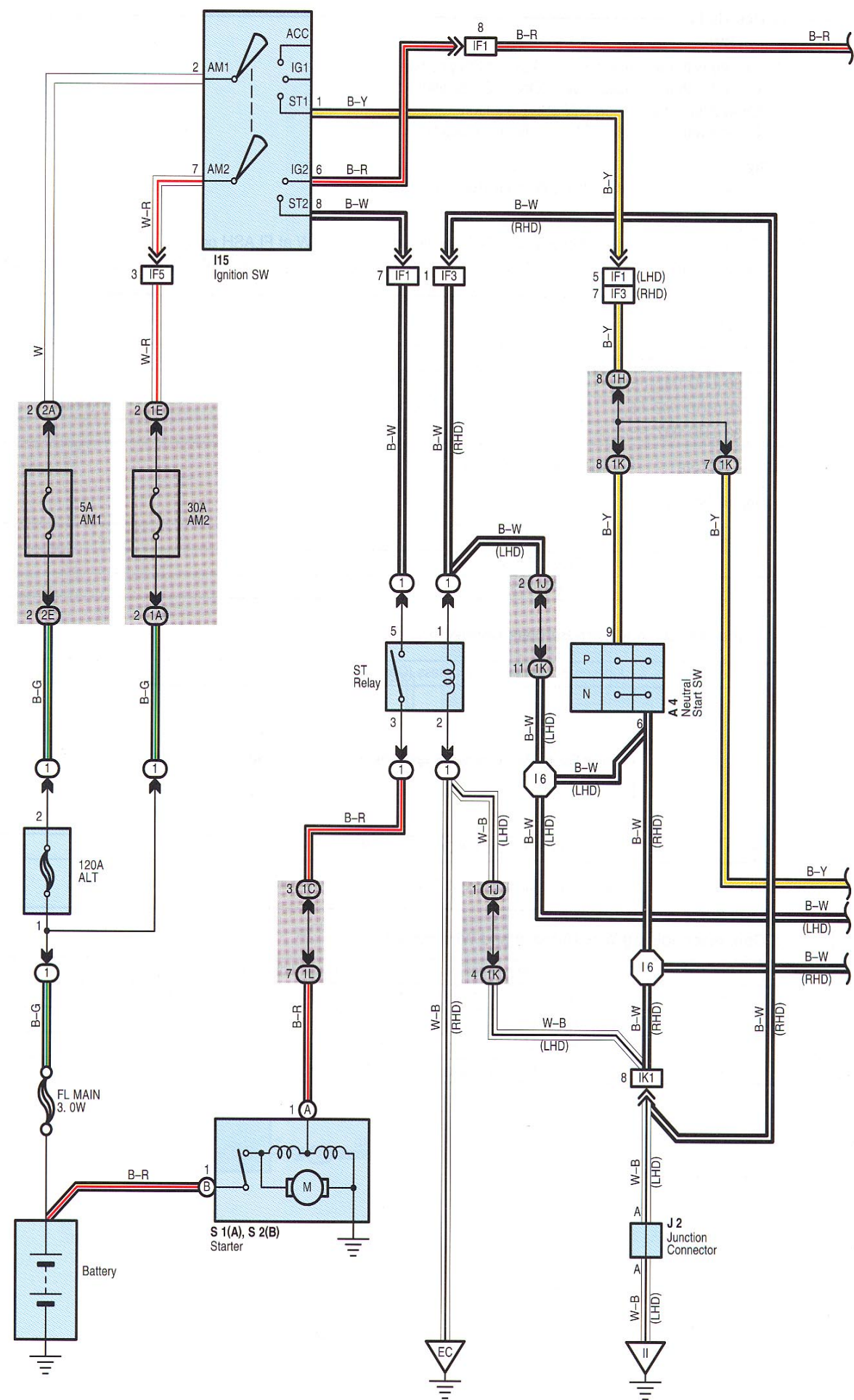
| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1A   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 1C   |          |                                                                     |
| 1D   |          |                                                                     |
| 1E   |          |                                                                     |
| 1F   |          |                                                                     |
| 1G   |          |                                                                     |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |
| 2F   |          |                                                                     |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |



Starting and Ignition (1MZ-FE)



Starting and Ignition (1MZ-FE)

Service Hints

I15 Ignition SW

- 2-1 : Closed with the ignition SW at ST position
- 7-6 : Closed with the ignition SW at ON or ST position
- 7-8 : Closed with the ignition SW at ST position

A4 Neutral Start SW

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

S1 (A), S2 (B) Starter

Point closed with the neutral start SW at P or N position and the ignition SW at ST position

○ : Parts Location

| Code |   | See Page        | Code | See Page        | Code | See Page        |
|------|---|-----------------|------|-----------------|------|-----------------|
| A4   |   | 36 (LHD 1MZ-FE) | I2   | 47 (RHD 1MZ-FE) | I15  | 41 (LHD)        |
|      |   | 46 (RHD 1MZ-FE) |      | 37 (LHD 1MZ-FE) |      | 51 (RHD)        |
| E9   | D | 40 (LHD)        | I3   | 47 (RHD 1MZ-FE) | J2   | 41 (LHD)        |
|      |   | 50 (RHD)        |      | 37 (LHD 1MZ-FE) |      | 37 (LHD 1MZ-FE) |
| E10  | E | 40 (LHD)        | I4   | 47 (RHD 1MZ-FE) | N1   | 47 (RHD 1MZ-FE) |
|      |   | 50 (RHD)        |      | 37 (LHD 1MZ-FE) |      | 37 (LHD 1MZ-FE) |
| I1   |   | 37 (LHD 1MZ-FE) | I5   | 47 (RHD 1MZ-FE) | S1   | A               |
|      |   | 47 (RHD 1MZ-FE) |      | 37 (LHD 1MZ-FE) |      | 47 (RHD 1MZ-FE) |
| I2   |   | 37 (LHD 1MZ-FE) | I6   | 47 (RHD 1MZ-FE) | S2   | B               |
|      |   |                 |      | 37 (LHD 1MZ-FE) |      | 47 (RHD 1MZ-FE) |

○ : Relay Blocks

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

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1A   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 1C   |          |                                                                     |
| 1E   |          |                                                                     |
| 1H   |          |                                                                     |
| 1J   |          |                                                                     |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)           |
| 1L   |          |                                                                     |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF3  | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |

▽ : Ground Points

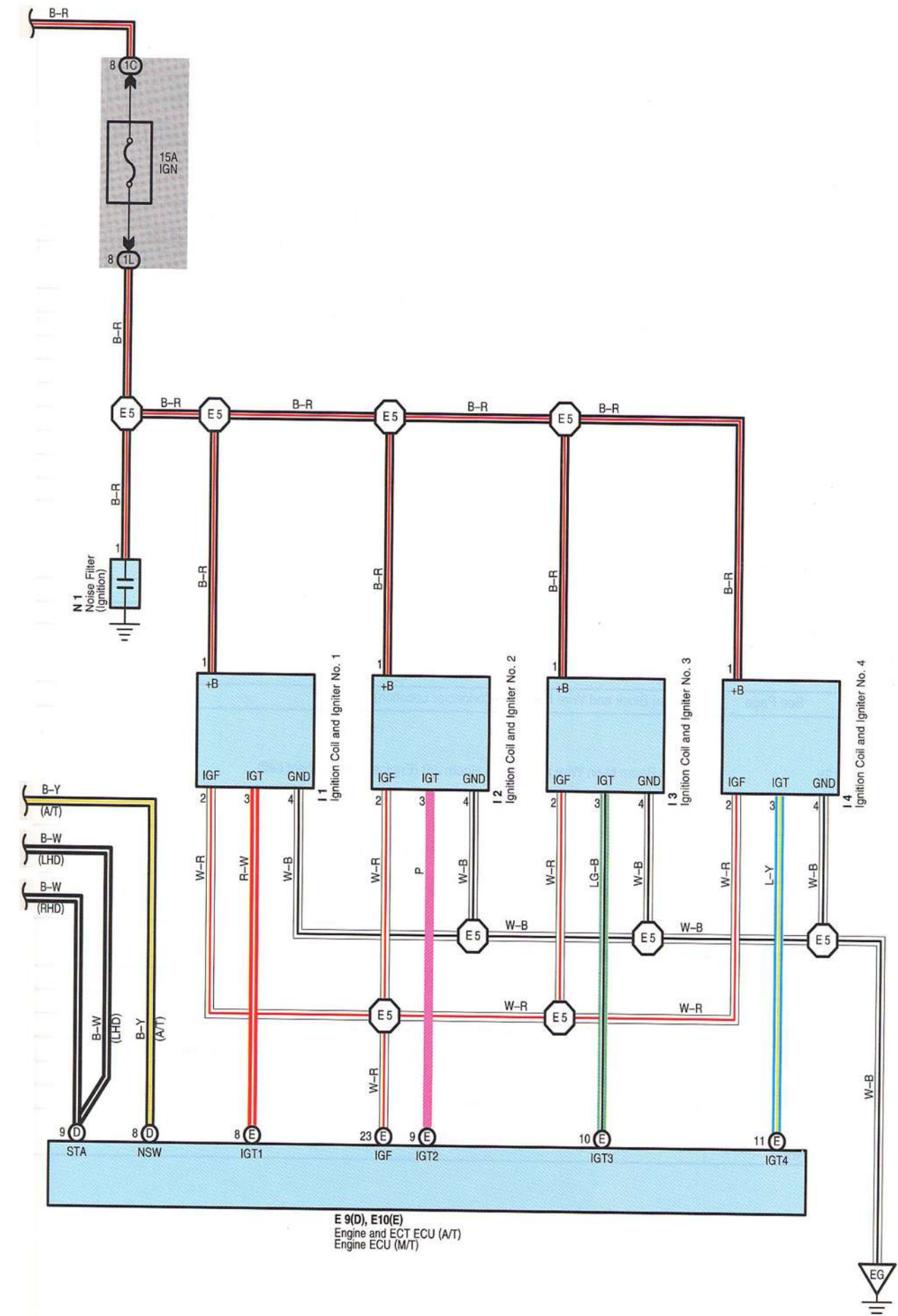
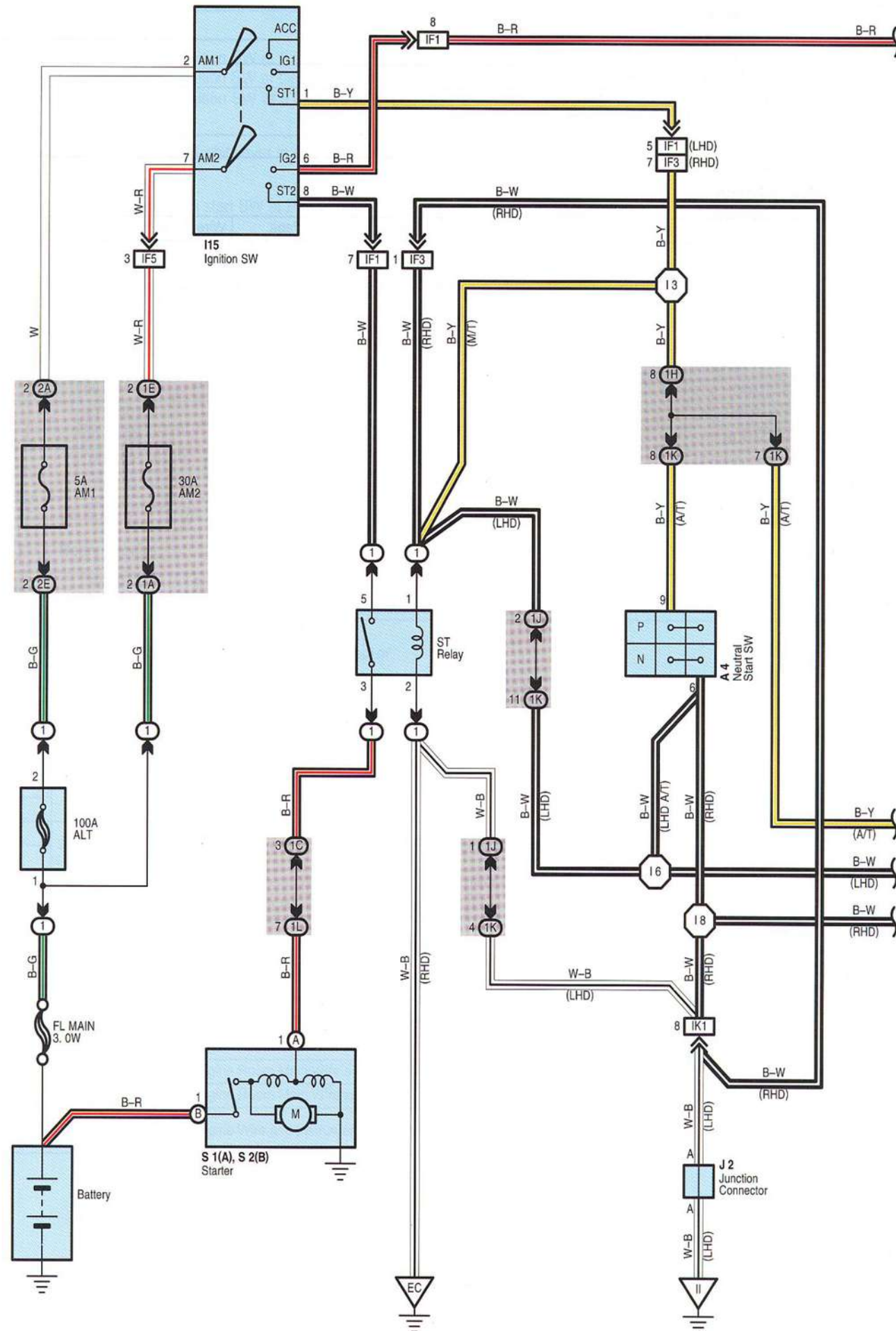
| Code | See Page        | Ground Points Location  |
|------|-----------------|-------------------------|
| EC   | 68 (RHD 1MZ-FE) | Left Fender             |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank |
|      | 68 (RHD 1MZ-FE) |                         |
| II   | 60 (LHD)        | Cowl Side Panel LH      |

○ : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E4   | 56 (LHD 1MZ-FE) | Engine Wire                     | I6   | 62 (LHD) | Engine Wire                     |
|      | 68 (RHD 1MZ-FE) |                                 |      | 74 (RHD) |                                 |



# Starting and Ignition (2AZ-FE, 1AZ-FE)





Starting and Ignition (2AZ-FE, 1AZ-FE)

Service Hints

I15 Ignition SW

2-1 : Closed with the ignition SW at ST position  
7-6 : Closed with the ignition SW at ON or ST position  
7-8 : Closed with the ignition SW at ST position

A4 Neutral Start SW (A/T)

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

S1 (A), S2 (B) Starter

Point closed with the neutral start SW at P or N position and the ignition SW at ST position (A/T)  
Point closed with the clutch start SW on and the ignition SW at ST position (M/T)

Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| A4   | 38 (*1)  | I2   | 39 (*1)  | J2   | 41 (LHD) |
|      | 48 (*2)  |      | 49 (*2)  |      | 39 (*1)  |
| E9   | D        | I3   | 39 (*1)  | N1   | 49 (*2)  |
|      |          |      | 49 (*2)  |      | 39 (*1)  |
| E10  | E        | I4   | 39 (*1)  | S1   | A        |
|      |          |      | 49 (*2)  |      |          |
| I1   |          | I15  | 41 (LHD) | S2   | B        |
|      |          |      | 51 (RHD) |      |          |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

Relay Blocks

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

Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1A   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 1C   |          |                                                                     |
| 1E   |          |                                                                     |
| 1H   |          |                                                                     |
| 1J   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)           |
| 1K   |          |                                                                     |
| 1L   | 25       |                                                                     |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |

Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF3  | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |

Ground Points

| Code | See Page | Ground Points Location     |
|------|----------|----------------------------|
| EC   | 70 (*2)  | Left Fender                |
| EG   | 58 (*1)  | Left Side of Cylinder Head |
|      | 70 (*2)  |                            |
| II   | 60 (LHD) | Cowl Side Panel LH         |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

Splice Points

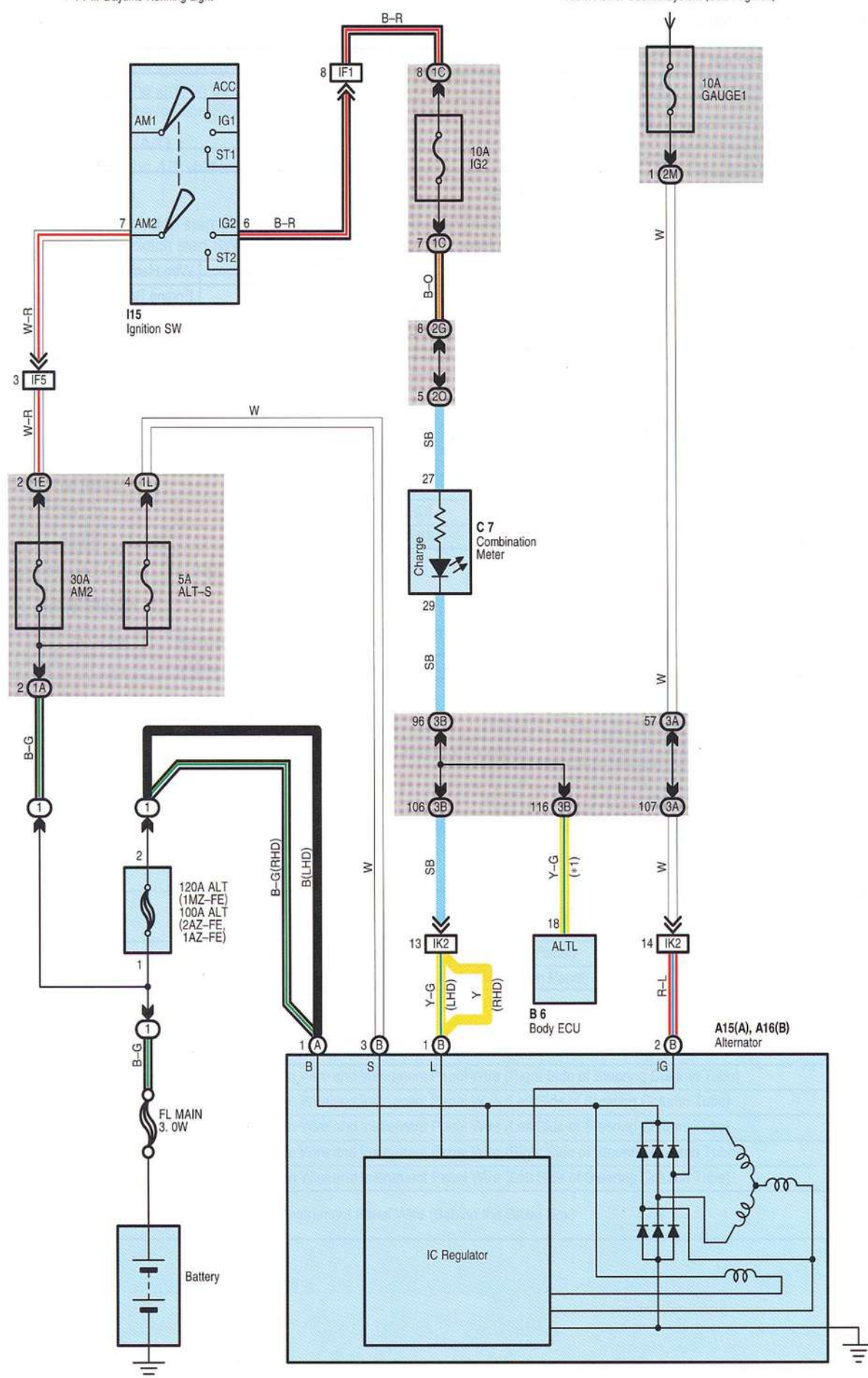
| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| E5   | 58 (*1)  | Engine Wire                     | I3   | 74 (RHD) | Engine Room Main Wire           |
|      | 70 (*2)  |                                 | I6   | 62 (LHD) | Engine Wire                     |
| I3   | 62 (LHD) | Engine Room Main Wire           | I8   | 74 (RHD) |                                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

## Charging

\* 1 : w/ Daytime Running Light

From Power Source System (See Page 82)



### Service Hints

### A16 (B) Alternator

(B) 3-Ground : 13.9–15.1 volts with the engine running at 2000 rpm and 25°C (77°F)  
13.5–14.3 volts with the engine running at 5000 rpm and 115°C (239°F)

(B) 1-Ground : 0-4 volts with the ignition SW at ON position and the engine not running

○ : Parts Location

| Code |   | See Page        |  | Code |   | See Page        |  | Code |     | See Page |  |
|------|---|-----------------|--|------|---|-----------------|--|------|-----|----------|--|
| A15  | A | 36 (LHD 1MZ-FE) |  | A16  | B | 38 (*1)         |  | C7   | I15 | 50 (RHD) |  |
|      |   | 38 (*1)         |  |      |   | 46 (RHD 1MZ-FE) |  |      |     | 41 (LHD) |  |
|      |   | 46 (RHD 1MZ-FE) |  |      |   | 48 (*2)         |  |      |     | 51 (RHD) |  |
|      |   | 48 (*2)         |  | B6   |   | 40 (LHD)        |  |      |     |          |  |
| A16  | B | 36 (LHD 1MZ-FE) |  | C7   |   | 40 (LHD)        |  |      |     |          |  |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

**○ : Relay Blocks**

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

 : Junction Block and Wire Harness Connector

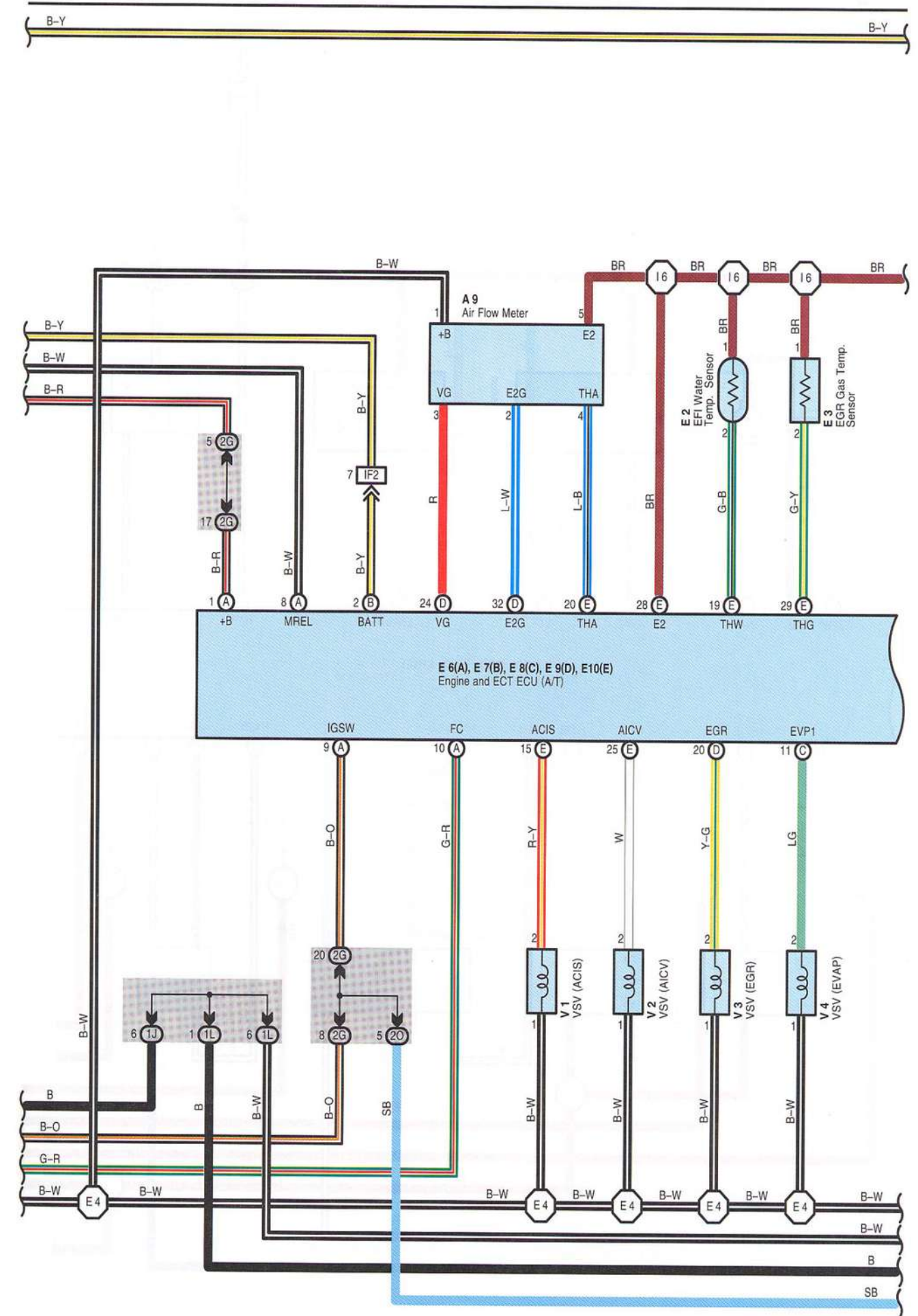
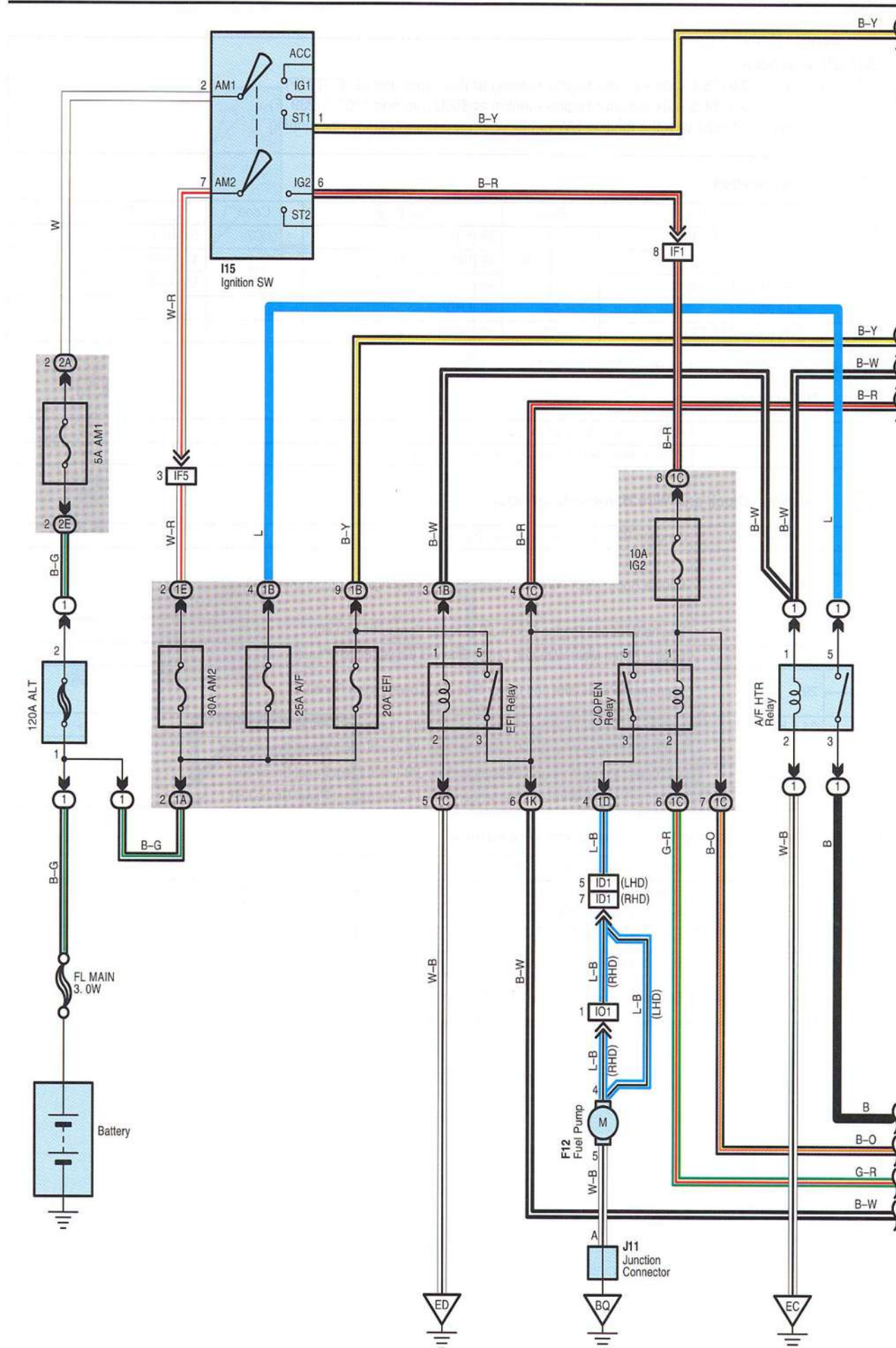
| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1A   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 1E   |          |                                                                          |
| 1L   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2O   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |

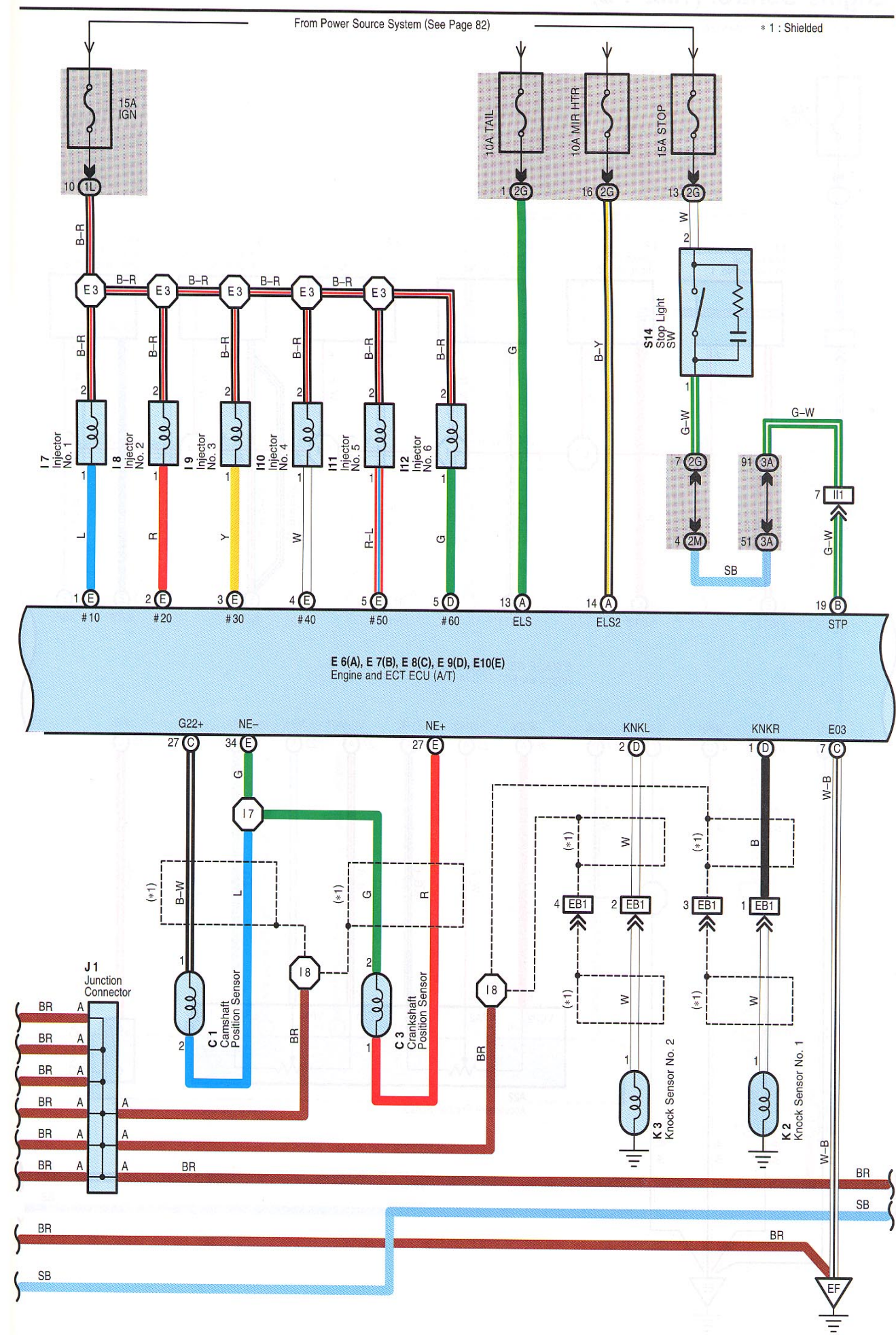
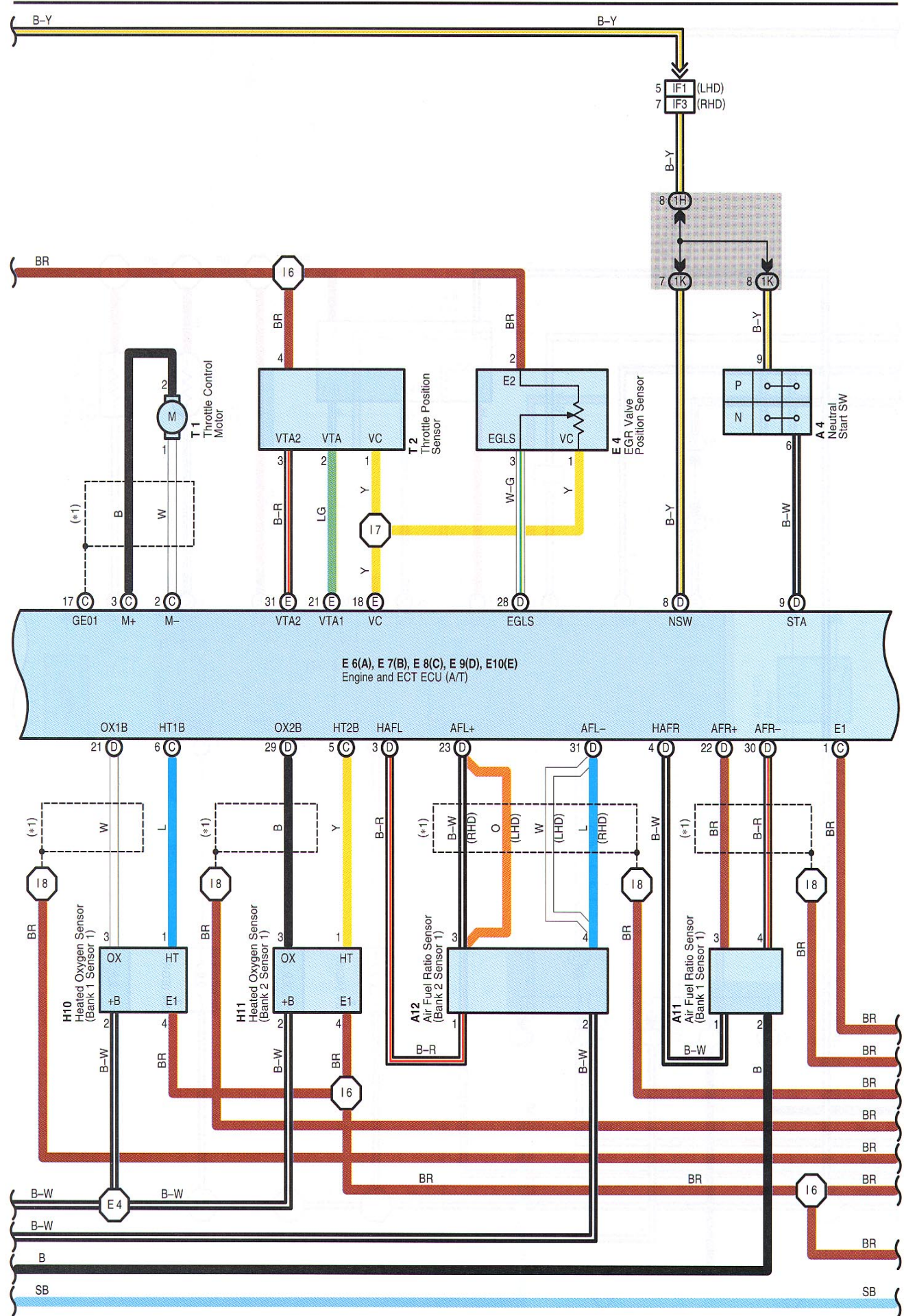


## Engine Control (1MZ-FE)





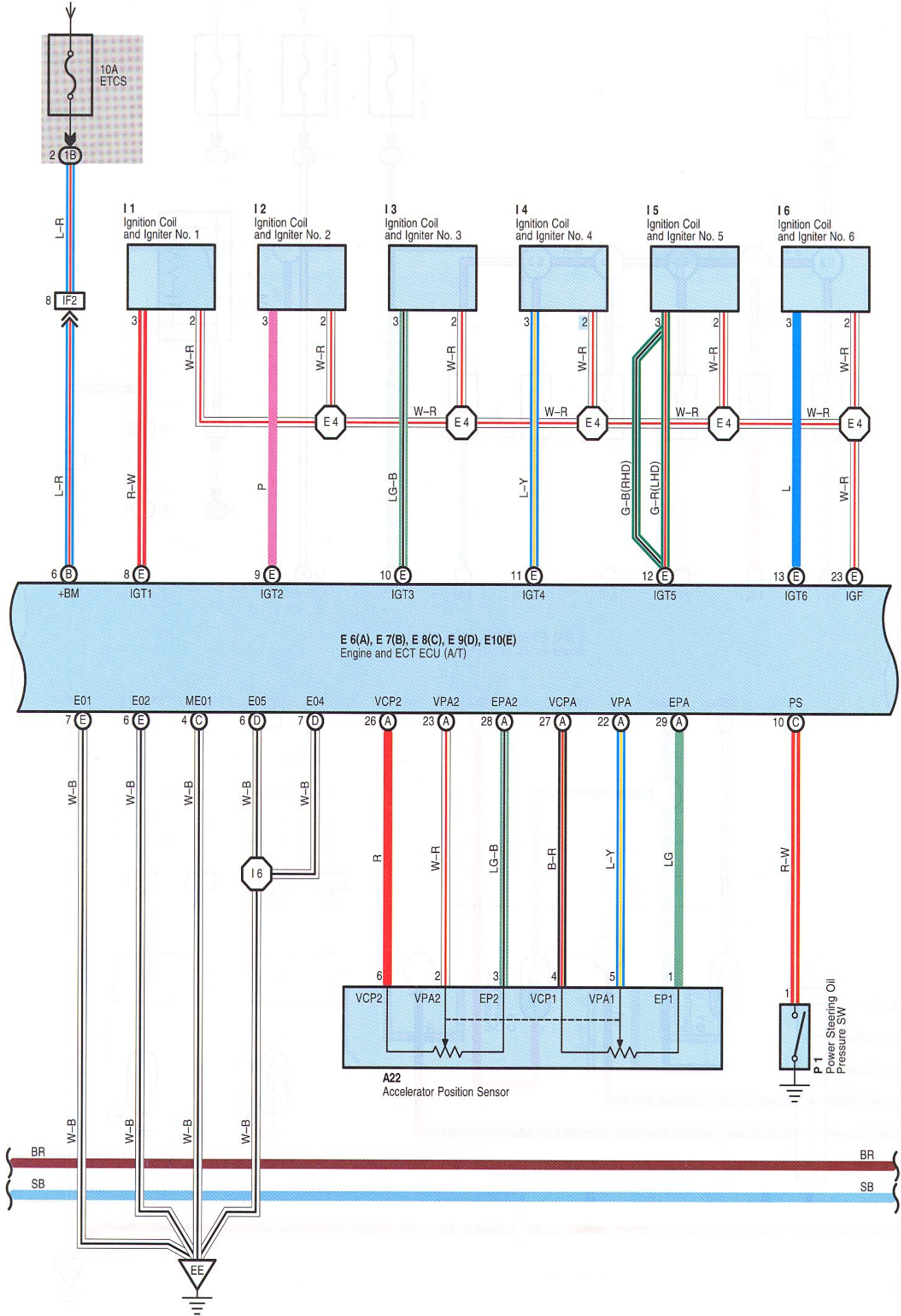
Engine Control (1MZ-FE)



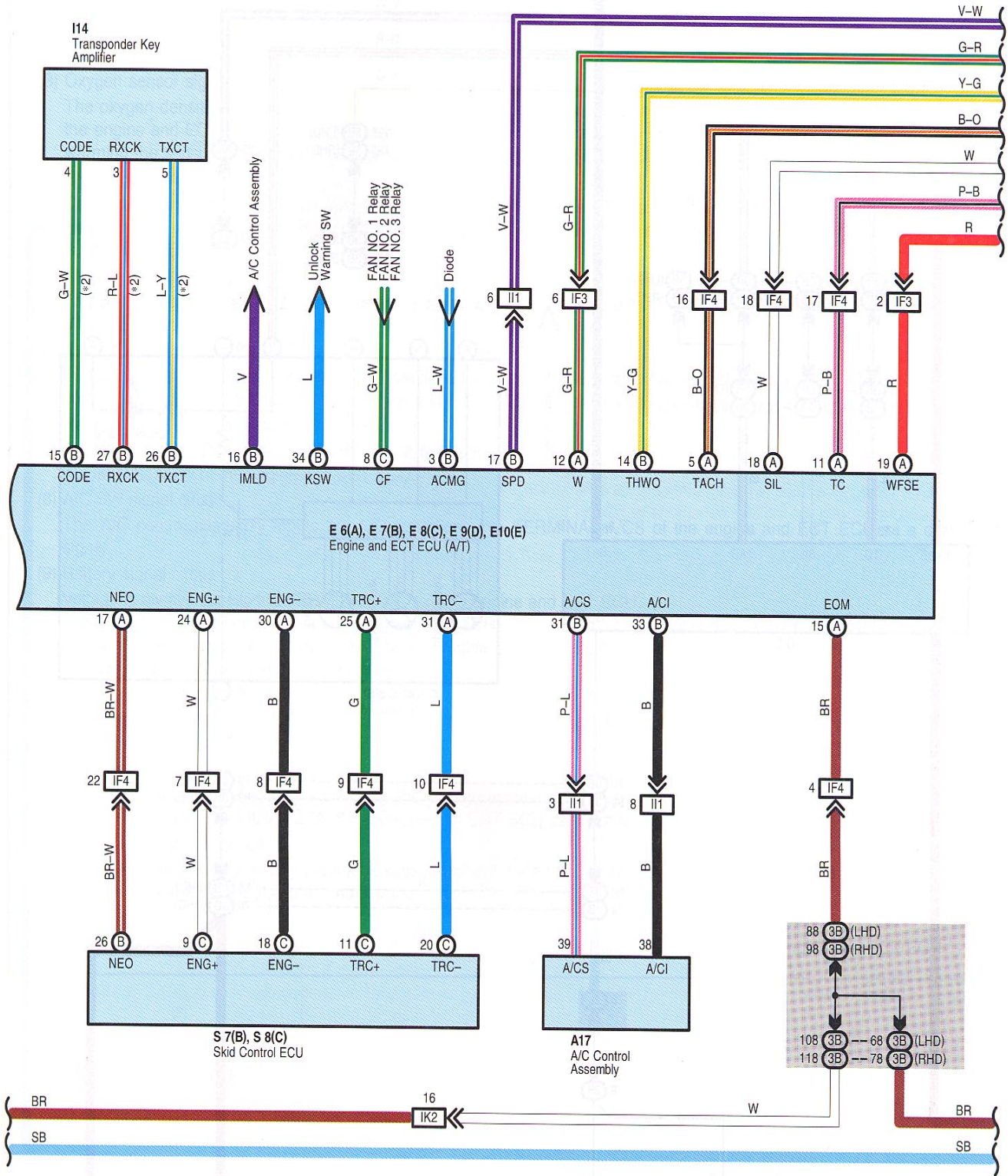


Engine Control (1MZ-FE)

From Power Source System (See Page 82)

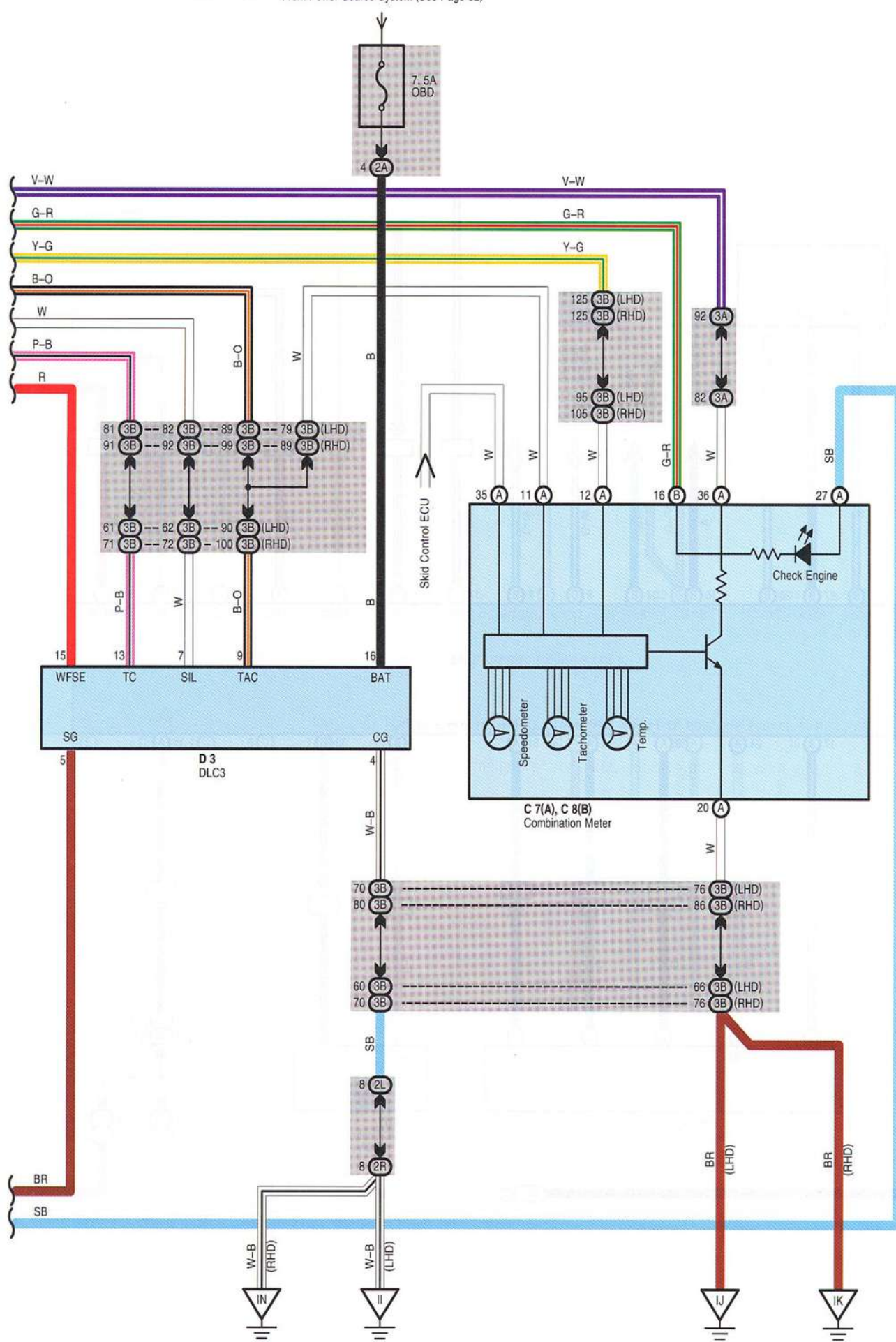


\* 2 : w/ Engine Immobiliser System





From Power Source System (See Page 82)



## System Outline

This system utilizes an engine and ECT ECU and maintains overall control of the engine, transmission and so on. An outline of the engine control is explained here.

### 1. Input Signals

- (1) Engine coolant temp. signal circuit  
The EFI water temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance which varies according to the water temp. is input into TERMINAL THW of the engine and ECT ECU as a control signal.
- (2) Intake air temp. signal circuit  
The intake air temp. sensor is installed in the air flow meter and detects the intake air temp., which is input as a control signal into TERMINAL THA of the engine and ECT ECU.
- (3) Oxygen sensor signal circuit  
The oxygen density in the exhaust gases is detected and input as a control signal into TERMINALS OX1B and OX2B of the engine and ECT ECU. To maintain stable detection performance by the heated oxygen sensor, a heater is used for warming the sensor. The heater is also controlled by the engine and ECT ECU (HT1B and HT2B).
- (4) RPM signal circuit  
Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor. The camshaft position is input as a control signal to TERMINAL G22+ of the engine and ECT ECU, and the engine RPM is input into TERMINAL NE+.
- (5) Throttle signal circuit  
The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA1 of the engine and ECT ECU.
- (6) Vehicle speed signal circuit  
The vehicle speed sensor, detects the vehicle speed and input to ABS speed sensor of the skid control ECU, from skid control ECU to TERMINAL SPD of the engine and ECT ECU, Via combination meter.
- (7) Neutral start SW signal circuit  
The neutral start SW detects whether the shift position is in neutral, parking or not, and inputs a control signal into TERMINAL NSW of the engine and ECT ECU.
- (8) A/C SW signal circuit  
The A/C control assembly inputs the A/C operations into TERMINAL A/CS of the engine and ECT ECU as a control signal.
- (9) Battery signal circuit  
Voltage is always supplies to TERMINAL BATT of the engine and ECT ECU.  
If you turn on the ignition SW, the current goes from TERMINAL MREL of the engine and ECT ECU to the EFI relay and put on the relay, and the voltage related to the engine and ECT ECU operation is supplied to TERMINAL +B of the engine and ECT ECU through the EFI relay.
- (10) Intake air volume signal circuit  
Intake air volume is detected by the air flow meter and a signal is input into TERMINAL VG of the engine and ECT ECU as a control signal.
- (11) Starter signal circuit  
To confirm whether the engine is cranking, the voltage applied to the starter motor during cranking is detected and the signal is input into TERMINAL STA of the engine and ECT ECU as a control signal.
- (12) Engine knock signal circuit  
Engine knocking is detected by the knock sensor 1 and 2, then the signals are input into TERMINALS KNKR and KNKL of the engine and ECT ECU as a control signal.
- (13) Air fuel ratio signal circuit  
The air fuel ratio is detected and input as a control signal into TERMINALS AFL+, AFR+ of the engine and ECT ECU.

## 2. Control System

### \* EFI system

The EFI system monitors the engine condition through the signals, which are input from each sensor to engine and ECT ECU. The best fuel injection volume is decided based on this data and the program memorized by the engine and ECT ECU, and the control signal is output to TERMINALS #10, #20, #30, #40, #50 and #60 of the engine and ECT ECU to operate the injector (Inject the fuel). The EFI system produces control of fuel injection operation by the engine and ECT ECU in response to the driving conditions.

### \* ESA system

The ESA system monitors the engine condition through the signals, which are input to the engine and ECT ECU from each sensor. The best ignition timing is decided according to this data and the memorized data in the engine and ECT ECU, and the control signal is output to TERMINALS IGT1, IGT2 and IGT3. This signal controls the igniter to provide the best ignition timing for the driving conditions.

### \* Heated oxygen sensor heater control system

The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensor to improve detection performance of the sensor. The engine and ECT ECU evaluates the signals from each sensor, current is output to TERMINALS HT1B and HT2B, controlling the heater.

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

The air fuel ratio sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emission is low), and warms up the air fuel ratio sensor to improve detection performance of the sensor. The engine and ECT ECU evaluates the signals from each sensor, current is output to TERMINALS HAFL and HAFL, controlling the heater.

### \* EGR control system

The EGR control system detects the signals from each sensor, and outputs current to TERMINAL EGR to control the VSV (EGR).

The EGR valve position sensor is mounted on the EGR valve. this sensor converts the EGR valve opening height into a voltage and sends it to the engine and ECT ECU as the EGR valve position signal.

### \* ACIS

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

The engine and ECT ECU judges the engine speed by the signals from each sensor and outputs current to the TERMINAL ACIS to control the VSV (ACIS).

## 3. Diagnosis System

With the diagnosis system, when there is a malfunction in the engine and ECT ECU signal system, the malfunctioning system is recorded in the memory.

## 4. Fail-Safe System

When a malfunction occurs in any systems, if there is a possibility of engine trouble being caused by continued control based on the signals from that system, the fail-safe system either controls the system by using data (Standard values) recorded in the engine and ECT ECU memory or else stops the engine.

## Service Hints

### E2 EFI Water Temp. Sensor

- 1-2 : Approx. 15.04 kΩ (-20°C, -4°F)
- Approx. 5.74 kΩ (0°C, 32°F)
- Approx. 2.45 kΩ (20°C, 68°F)
- Approx. 1.15 kΩ (40°C, 104°F)
- Approx. 0.584 kΩ (60°C, 140°F)
- Approx. 0.318 kΩ (80°C, 176°F)

### E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine and ECT ECU

Voltage at engine and ECT ECU wiring connector

- BATT-E1 : Always 9.0-14.0 volts
- +B-E1 : 9.0-14.0 volts (Ignition SW at ON position)
- VC-E2 : Always 4.5-5.5 volts (Ignition SW at ON position)
- VTA1-E2 : 0.3-0.8 volts (Ignition SW on and throttle valve fully closed)
- : 3.2-4.9 volts (Ignition SW on and throttle valve fully open)
- VG-E2G : 1.1-1.5 volts (Engine idling and A/C SW OFF position)
- THA-E2 : 0.5-3.4 volts (Engine idling and intake air temp. 20°C, 68°F)
- THW-E2 : 0.2-1.0 volts (Engine idling and engine coolant temp. 80°C, 176°F)
- IGF-E1 : 4.5-5.5 volts (Ignition SW at ON position)
- Pulse generation (Engine idling)
- G22+-NE- : Pulse generation (Engine idling)
- NE+-NE- : Pulse generation (Engine idling)
- NSW-E1 : 9.0-14.0 volts (Ignition SW on and other shift position in P or N position)
- Below 3.0 volts (Ignition SW on and shift position in P or N position)
- SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)
- W-E1 : Below 3.0 volts
- A/C-E1 : Below 2.0 volts (Engine idling and A/C SW on)
- 9.0-14.0 volts (A/C SW off)
- A/CS-E1 : 9.0-14.0 volts (Engine idling and A/C SW on)
- Below 2.0 volts (A/C SW off)
- ACIS-E01 : 9.0-14.0 volts (Ignition SW at ON position)
- STA-E1 : 6.0 volts or more (Engine cranking)
- ELS-E1 : 7.5-14.0 volts (Taillight SW at ON position)
- 0-1.5 volts (Taillight SW at OFF position)
- ELS2-E1 : 7.5-14.0 volts (Defogger SW at ON position)
- 0-1.5 volts (Defogger SW at OFF position)
- FC-E1 : 9.0-14.0 volts (Ignition SW at ON position)
- 0-3.0 volts (Engine idling)
- EVP1-E01 : 9.0-14.0 volts (Ignition SW at ON position)
- CF-E1 : 9.0-14.0 volts (Electric cooling fan is operating on high speed)
- 0-2.0 volts (Electric cooling fan is operating on low speed or off)
- TACH-E1 : Pulse generation (Engine idling)
- TBP-E1 : 9.0-14.0 volts (Ignition SW on and disconnect the vacuum hose from the vapor pressure sensor)
- PTNK-E1 : 3.0-3.6 volts (Ignition SW at ON position)
- 1.3-2.1 volts (Ignition SW on and apply vacuum 2.0 kpa (15.0 mmHg, 0.6 in.Hg))
- STP-E1 : 7.5-14.0 volts (Ignition SW on and brake pedal depressed)
- Below 1.5 volts (Ignition SW on and brake pedal released)
- SIL-E1 : Pulse generation (During transmission)
- KNKL, KNKR-E1 : Pulse generation (Engine idling)
- HT1B, HT2B-E03 : 9.0-14.0 volts (Ignition SW at ON position)
- 0-3.0 volts (Engine idling)
- OX1B, OX2B-E1 : Pulse generation (Maintain engine speed at 2500 rpm for two minutes after warning up)
- IGT1, IGT2, IGT3-E1 : Pulse generation (Engine idling)
- #10, #20, #30, #40, #50, #60-E01 : 9.0-14.0 volts (Ignition SW at ON position)
- Pulse generation (Engine idling)

### I7, I8, I9, I10, I11, I12 Injector

- 2-1 : Approx. 13.8 Ω

### C/OPN Relay

- 3-5 : Closed with starter running

### EFI Relay

- 3-5 : Closed with ignition SW at ON or ST position



# Engine Control (1MZ-FE)

## ○ : Parts Location

| Code | See Page        | Code | See Page | Code | See Page        |
|------|-----------------|------|----------|------|-----------------|
| A4   | 36 (LHD 1MZ-FE) | E9   | D        | I14  | 40 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      |          |      | 50 (RHD)        |
| A9   | 36 (LHD 1MZ-FE) | E10  | E        | I15  | 40 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      |          |      | 50 (RHD)        |
| A11  | 36 (LHD 1MZ-FE) | F12  |          | J1   | 41 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      |          |      | 51 (RHD)        |
| A12  | 36 (LHD 1MZ-FE) | H10  |          | J11  | 42 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      |          |      | 52 (RHD)        |
| A17  | 40 (LHD)        | H11  |          | K2   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      |          |      | 47 (RHD 1MZ-FE) |
| A22  | 40 (LHD)        | I1   |          | K3   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      |          |      | 47 (RHD 1MZ-FE) |
| C1   | 36 (LHD 1MZ-FE) | I2   |          | P1   | 37 (LHD 1MZ-FE) |
|      | 46 (RHD 1MZ-FE) |      |          |      | 47 (RHD 1MZ-FE) |
| C3   | 36 (LHD 1MZ-FE) | I3   |          | S7   | B               |
|      | 46 (RHD 1MZ-FE) |      |          |      |                 |
| C7   | A               | I4   |          | S8   | C               |
|      |                 |      |          |      |                 |
| C8   | B               | I5   |          | S14  |                 |
|      |                 |      |          |      |                 |
| D3   |                 | I6   |          | T1   |                 |
|      |                 |      |          |      |                 |
| E2   |                 | I7   |          | T2   |                 |
|      |                 |      |          |      |                 |
| E3   |                 | I8   |          | V1   |                 |
|      |                 |      |          |      |                 |
| E4   |                 | I9   |          | V2   |                 |
|      |                 |      |          |      |                 |
| E6   | A               | I10  |          | V3   |                 |
|      |                 |      |          |      |                 |
| E7   | B               | I11  |          | V4   |                 |
|      |                 |      |          |      |                 |
| E8   | C               | I12  |          |      |                 |
|      |                 |      |          |      |                 |

## ○ : Relay Blocks

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



## : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1A   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1B   |          |                                                                          |
| 1C   |          |                                                                          |
| 1D   |          |                                                                          |
| 1E   |          |                                                                          |
| 1H   |          |                                                                          |
| 1J   |          |                                                                          |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 1L   |          |                                                                          |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   |          |                                                                          |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |



## : Connector Joining Wire Harness and Wire Harness

| Code | See Page        | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|-----------------|--------------------------------------------------------------------------------------|
| EB1  | 56 (LHD 1MZ-FE) | Engine Wire and Sensor Wire (Left Bank of Cylinder Head)                             |
|      | 68 (RHD 1MZ-FE) |                                                                                      |
| ID1  | 60 (LHD)        | Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)                  |
|      | 72 (RHD)        |                                                                                      |
| IF1  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD)        | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF2  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD)        | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF3  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD)        | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF4  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD)        | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD)        | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD)        | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD)        | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK2  | 62 (LHD)        | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD)        |                                                                                      |
| IO1  | 74 (RHD)        | Floor Wire and Floor No.2 Wire (Under the Front Passenger's Seat)                    |

Engine Control (1MZ-FE)

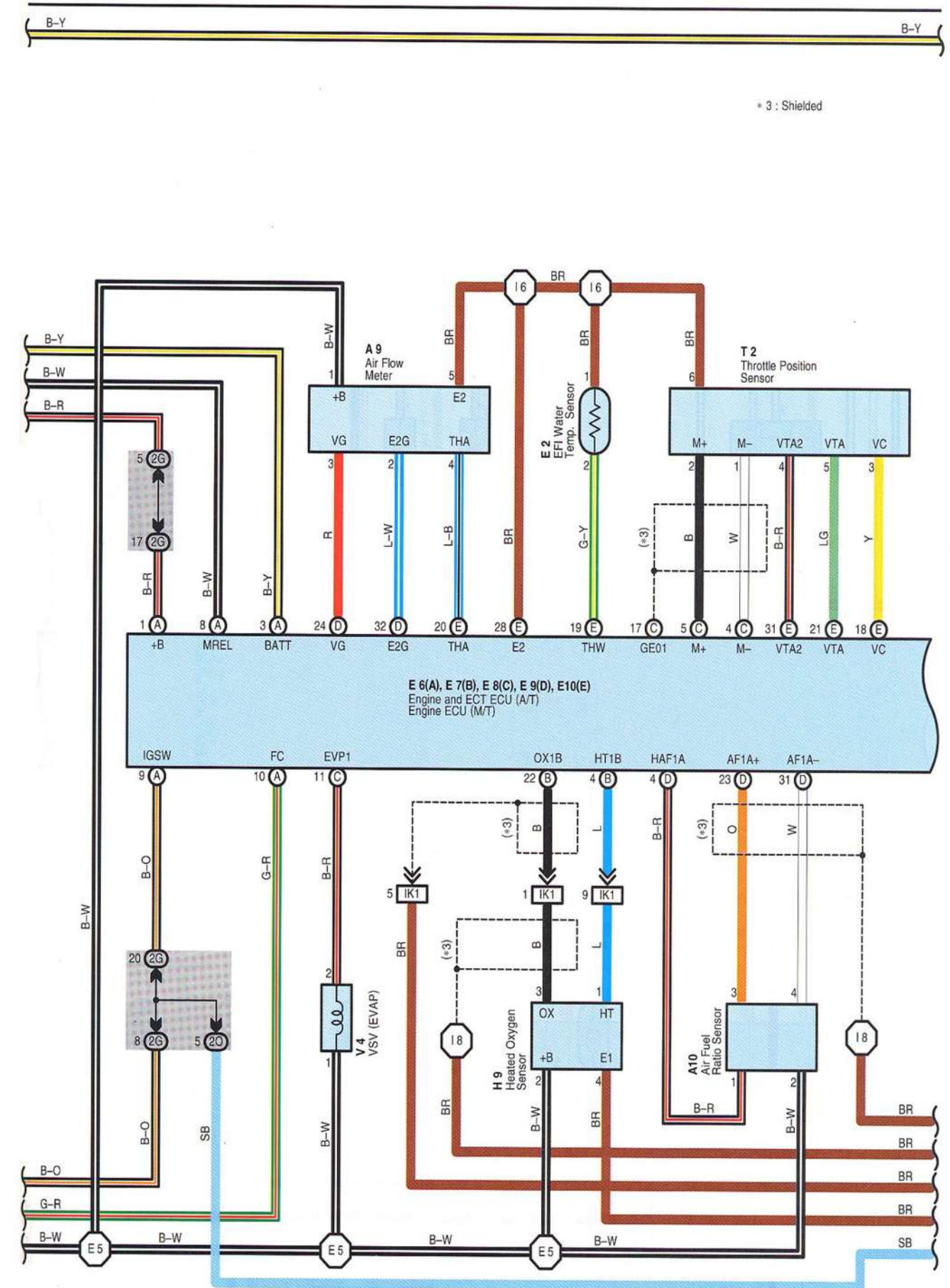
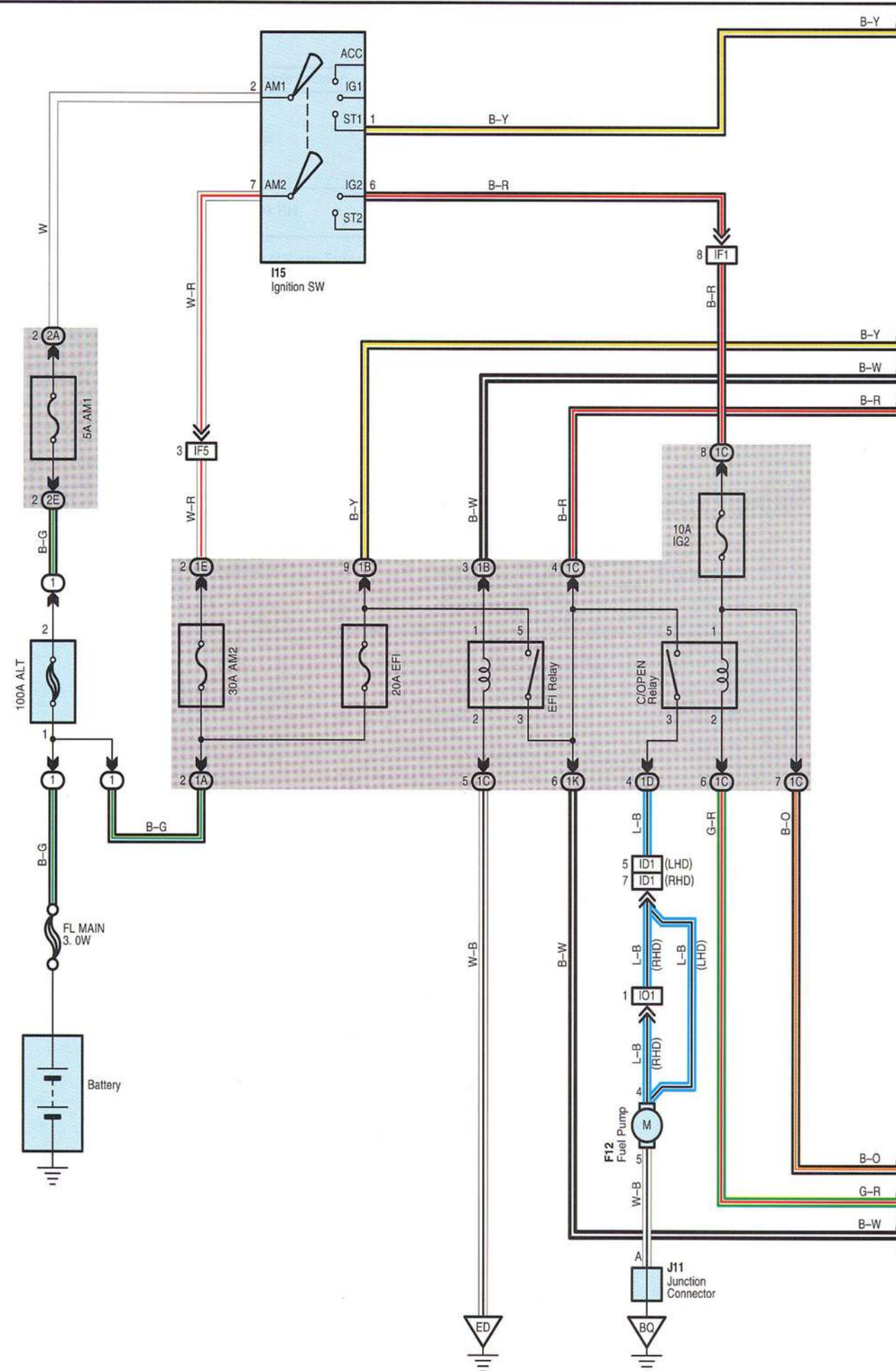
 : Ground Points

| Code | See Page        | Ground Points Location                    |
|------|-----------------|-------------------------------------------|
| EC   | 56 (LHD 1MZ-FE) | Left Fender                               |
|      | 68 (RHD 1MZ-FE) |                                           |
| ED   | 56 (LHD 1MZ-FE) |                                           |
|      | 68 (RHD 1MZ-FE) |                                           |
| EE   | 56 (LHD 1MZ-FE) | Surge Tank RH                             |
|      | 68 (RHD 1MZ-FE) |                                           |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank                   |
|      | 68 (RHD 1MZ-FE) |                                           |
| II   | 60 (LHD)        | Cowl Side Panel LH                        |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH                 |
| IK   | 72 (RHD)        |                                           |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH         |
| BQ   | 64 (LHD)        | Front Side of Rear Quarter Wheel House LH |
|      | 76 (RHD)        |                                           |

 : Splice Points

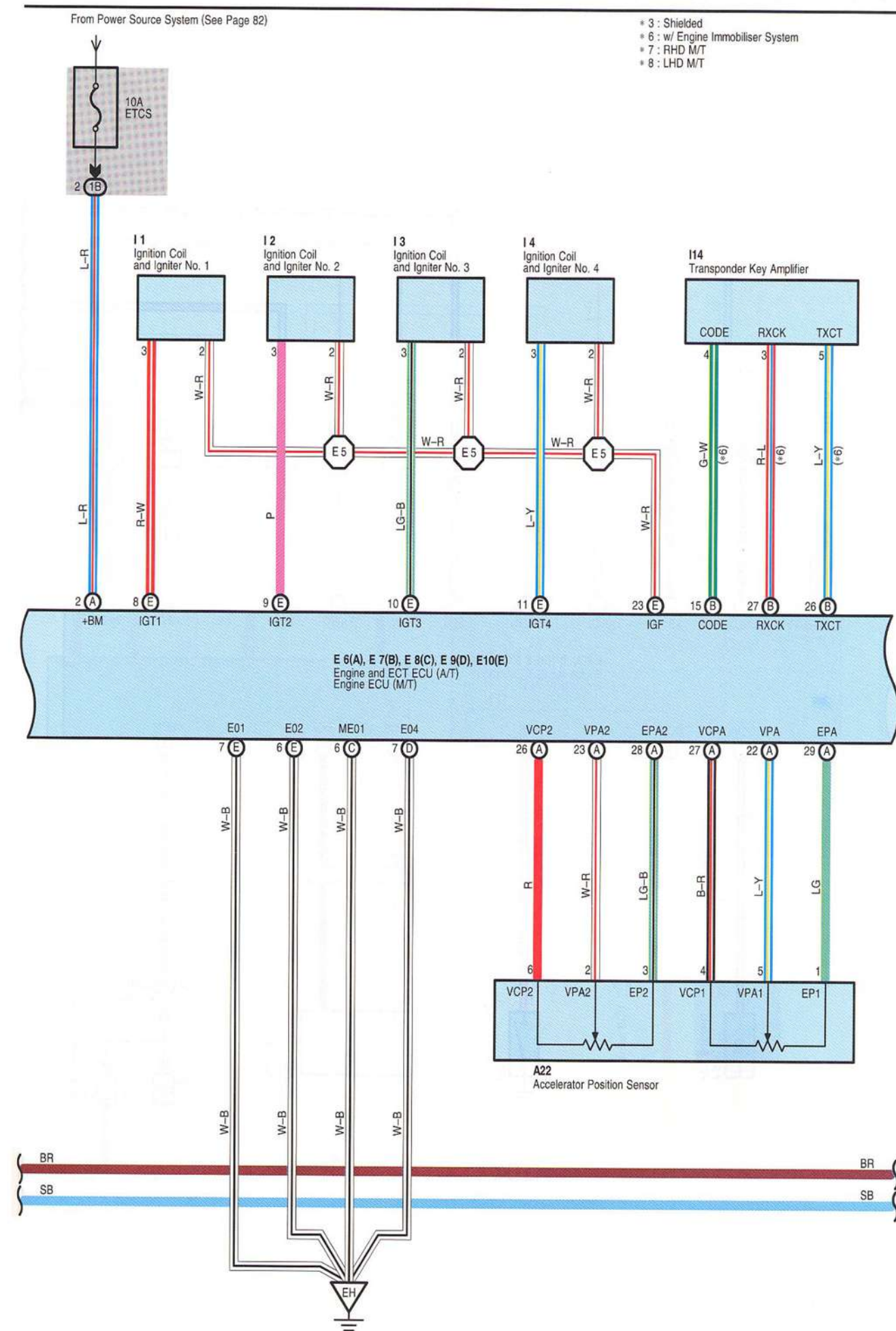
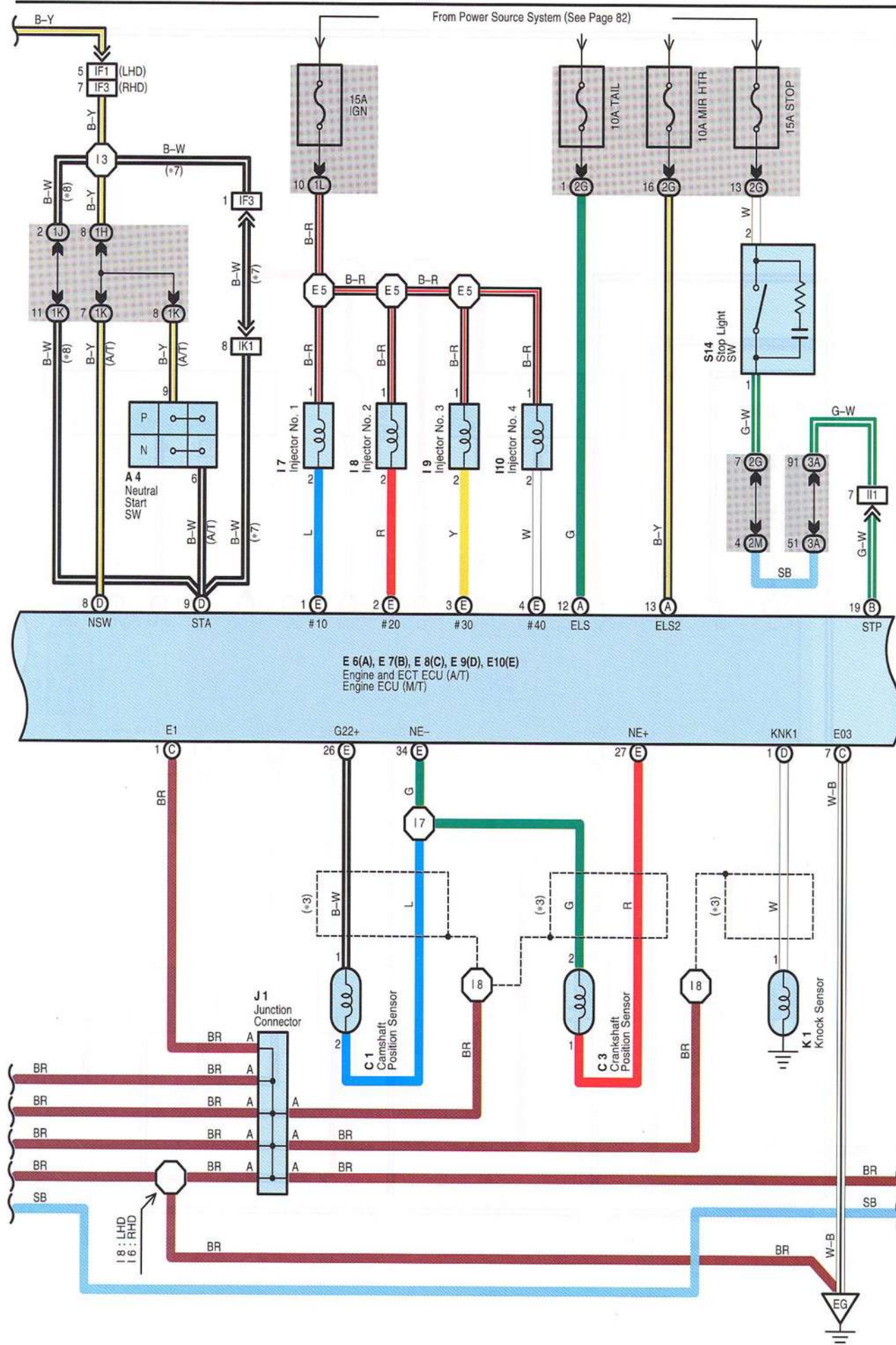
| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E3   | 56 (LHD 1MZ-FE) | Engine Wire                     | I6   | 74 (RHD) | Engine Wire                     |
|      | 68 (RHD 1MZ-FE) |                                 | I7   | 62 (LHD) |                                 |
| E4   | 56 (LHD 1MZ-FE) |                                 |      | 74 (RHD) |                                 |
|      | 68 (RHD 1MZ-FE) |                                 | I8   | 62 (LHD) |                                 |
| I6   | 62 (LHD)        |                                 |      | 74 (RHD) |                                 |

## Engine Control (2AZ-FE, 1AZ-FE)

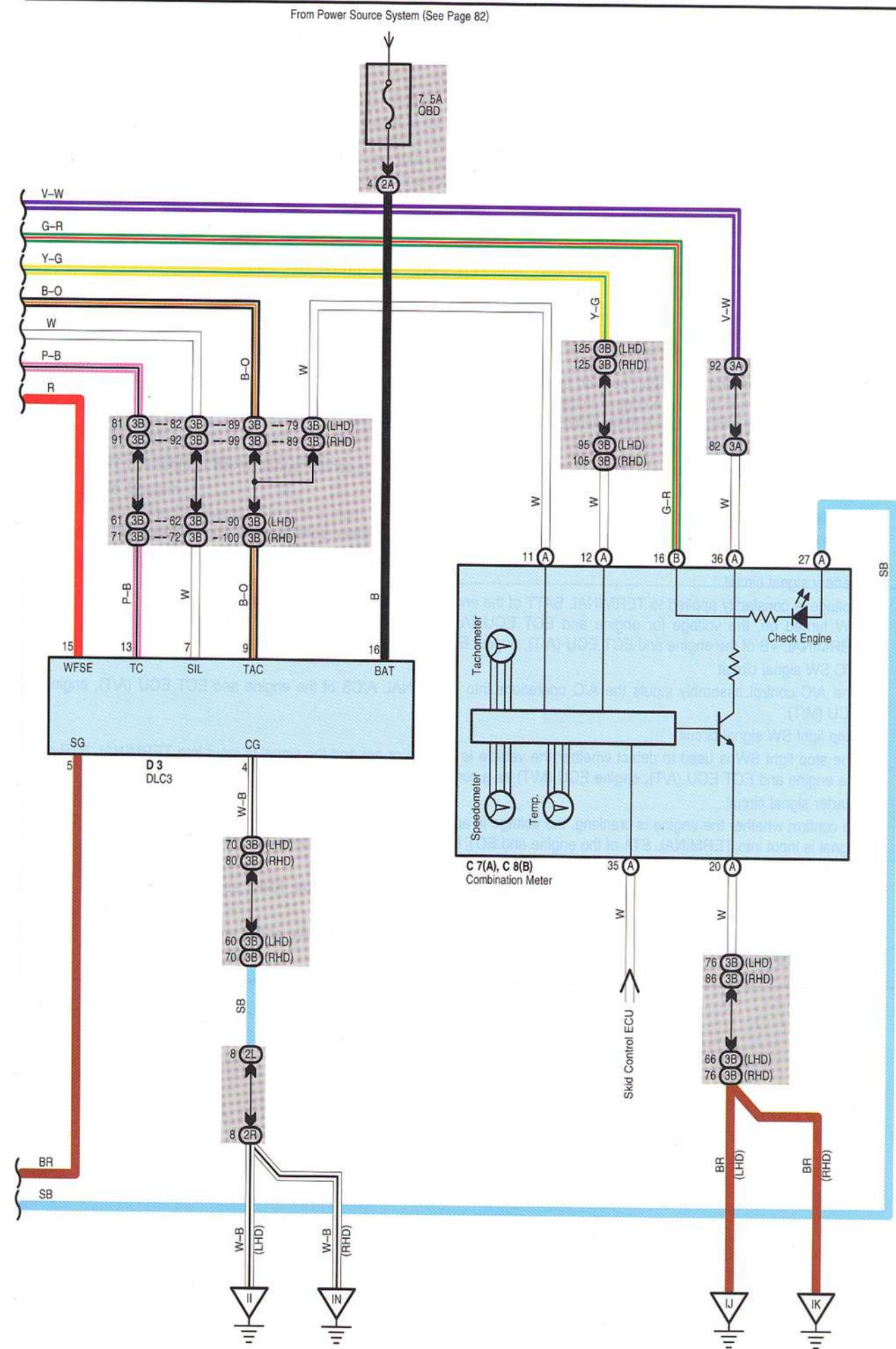
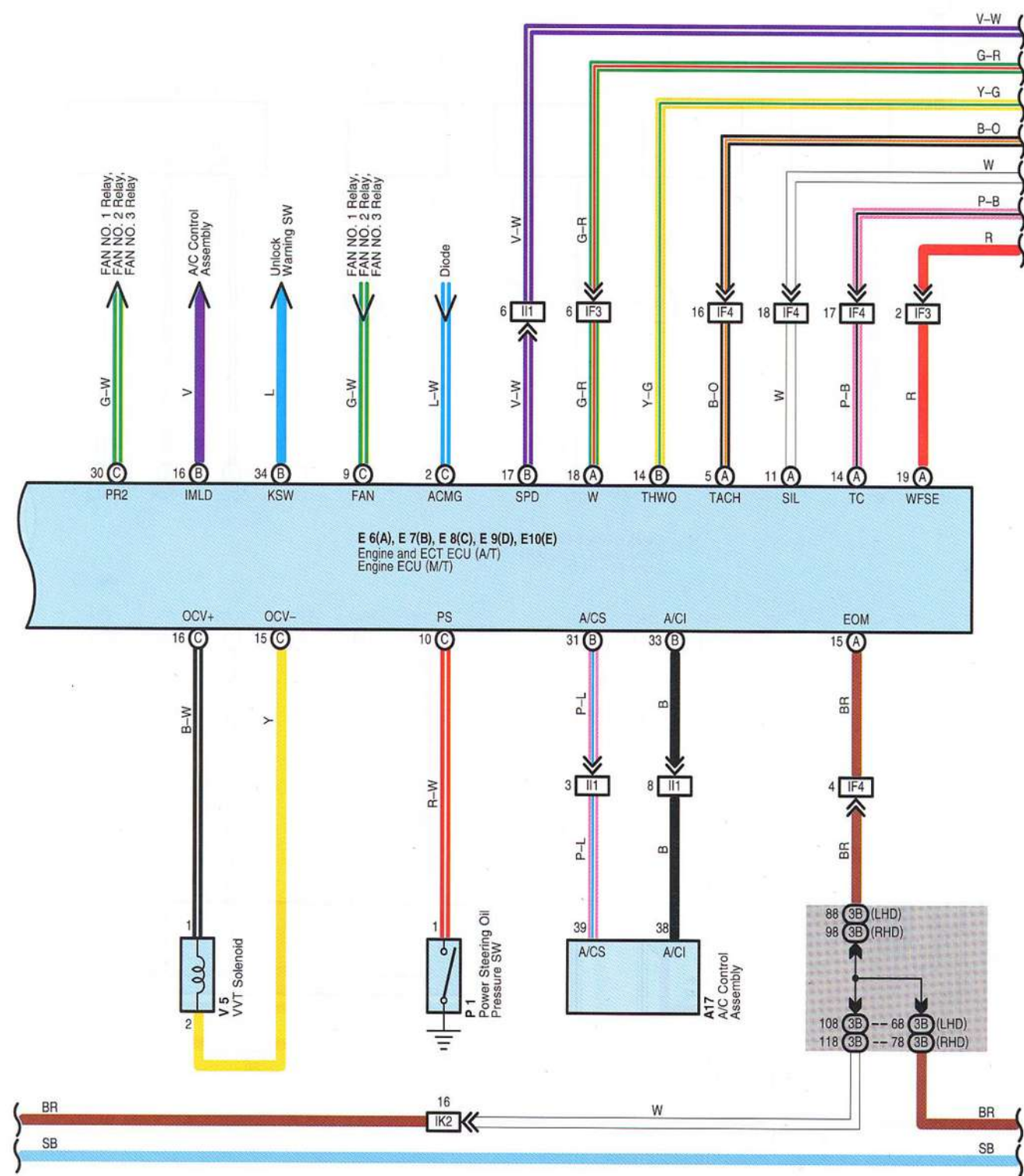




## Engine Control (2AZ-FE, 1AZ-FE)







System Outline

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

1. Input Signals

- (1) Engine coolant temp. signal circuit  
The EFI water temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance, which varies according to the engine coolant temp.. The engine coolant temp. which is input into TERMINAL THW of the engine and ECT ECU (A/T), engine ECU (M/T) as a control signal.
- (2) Intake air temp. signal circuit  
The intake air temp. sensor is installed in the air flow meter and detects the intake air temp. which is input as a control signal to TERMINAL THA of the engine and ECT ECU (A/T), engine ECU (M/T).
- (3) Oxygen density signal circuit  
The oxygen density in the exhaust emission is detected by the heated oxygen sensor and input as a control signal to TERMINAL OX1B of the engine and ECT ECU (A/T), engine ECU (M/T).
- (4) RPM signal circuit  
Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor. Camshaft position is input as a control signal to TERMINAL G22+ of the engine and ECT ECU (A/T), engine ECU (M/T), and engine RPM is input into TERMINAL NE+.
- (5) Throttle position signal circuit  
The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA of the engine and ECT ECU (A/T), engine ECU (M/T).
- (6) Vehicle speed circuit  
The vehicle speed sensor, detects the vehicle speed and input to ABS speed sensor of the skid control ECU, from skid control ECU to TERMINAL SPD of the engine and ECT ECU (A/T), engine ECU (M/T), Via combination meter.
- (7) Battery signal circuit  
Voltage is constantly applied to TERMINAL BATT of the engine and ECT ECU (A/T), engine ECU (M/T). With the ignition SW turned on, the voltage for engine and ECT ECU (A/T), engine ECU (M/T) start-up power supply is applied to TERMINAL +B of the engine and ECT ECU (A/T), engine ECU (M/T) via the EFI main relay.
- (8) A/C SW signal circuit  
The A/C control assembly inputs the A/C operations into TERMINAL A/CS of the engine and ECT ECU (A/T), engine ECU (M/T).
- (9) Stop light SW signal circuit  
The stop light SW is used to detect whether the vehicle is braking or not and the signal is input into TERMINAL STP of the engine and ECT ECU (A/T), engine ECU (M/T) as a control signal.
- (10) Starter signal circuit  
To confirm whether the engine is cranking, the voltage is applied to the starter motor during cranking is detected and the signal is input into TERMINAL STA of the engine and ECT ECU (A/T), engine ECU (M/T) as a control signal.
- (11) Engine knock signal circuit  
Engine knocking is detected by knock sensor and the signal is input into TERMINAL KNK1 as a control signal.
- (12) Air fuel ratio signal system  
The air fuel ratio is detected and input as a control signal into TERMINAL AF1A+ of the engine and ECT ECU (A/T), engine ECU (M/T).

2. Control System

- \* EFI system  
The EFI system monitors the engine condition through the signals input from each sensor to the engine and ECT ECU (A/T), engine ECU (M/T). And the control signal is output to TERMINALS #10, #20, #30, #40 of the engine and ECT ECU (A/T), engine ECU (M/T) to operate the injector (Inject the fuel). The EFI system controls the fuel injection operation by the engine and ECT ECU (A/T), engine ECU (M/T) in response to the driving conditions.
- \* ESA system  
The ESA system monitors the engine condition through the signals input to the engine and ECT ECU (A/T), engine ECU (M/T) from each sensor. The best ignition timing is decided according to this data and the memorized data in the engine and ECT ECU (A/T), engine ECU (M/T) and the control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.
- \* Heated oxygen sensor heater control system  
The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensor to improve detection performance of the sensor. The engine and ECT ECU (A/T), engine ECU (M/T) evaluates the signals from each sensor, and outputs current to TERMINAL HT1B to control the heater.

3. Diagnosis System

With the diagnosis system, when there is a malfunction in the engine and ECT ECU (A/T), engine ECU (M/T) signal system, the malfunctioning system is recorded in the memory. The malfunctioning system can be found by reading the code displayed by the malfunction indicator lamp.

4. Fail-Safe System

When a malfunction has occurred in any system, if there is a possibility of engine trouble being caused by continued control based on the signals from that system, the fail-safe system either controls the system by using data (Standard values) recorded in the engine and ECT ECU (A/T), engine ECU (M/T) memory or else stops the engine.



Service Hints

E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine and ECT ECU (A/T), Engine ECU (M/T)

BATT-E1 : Always 9.0-14.0 volts

VC-E2 : 4.5-5.5 volts (Ignition SW at ON position)

VTA-E2 : 0.3-1.0 volts (Ignition SW on and throttle valve fully closed)

3.2-4.9 volts (Ignition SW on and throttle valve fully open)

VG-E2G : 1.1-1.5 volts (Engine idling and A/C SW off)

THA-E2 : 0.5-3.4 volts (Engine idling and intake air temp. 20°C, 68°F)

THW-E2 : 0.2-1.0 volts (Engine idling and coolant temp. 80°C, 176°F)

IGF-E1 : 4.5-5.5 volts (Ignition SW at ON position)

Pulse generation (Engine idling)

SIL-E1 : Pulse generation (During transmission)

TACH-E1 : Pulse generation (Engine idling)

STA-E1 : 6.0 volts or more (Engine cranking)

FC-E01 : 9.0-14.0 volts (Ignition SW at ON position)

SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)

W-E01 : Below 3.0 volts (Ignition SW at ON position)

NSW-E1 : 9.0-14.0 volts (Ignition SW on and other shift position in P or N position)

0-3.0 volts (Ignition SW on and shift position in P or N position)

EVP1-E01 : 9.0-14.0 volts (Ignition SW at ON position)

STP-E1 : 7.5-14.0 volts (Ignition SW on and brake pedal depressed)

Below 1.5 volts (Ignition SW on and brake pedal released)

KNK1-E1 : Pulse generation (Engine idling)

PSW-E1 : 9.0-14.0 volts (Ignition SW at ON position)

HAF1A-E04 : Below 3.0 volts (Engine idling)

IGSW-E1 : 9.0-14.0 volts (Ignition SW at ON position)

MREL-E1 : 9.0-14.0 volts (Ignition SW at ON position)

G22+, NE+ -NE- : Pulse generation (Engine idling)

OCV+ -OCV- : Pulse generation (Ignition SW at ON position)

HT1B-E1 : 9.0-14.0 volts (Engine idling)

Below 3.0 volts (Ignition SW at ON position)

AF1A+ -E1 : 3.3 volts (Ignition SW at ON position)

AF1A- -E1 : 3.0 volts (Ignition SW at ON position)

OX1B-E1 : Pulse generation (Maintain engine speed at 2500 rpm for 90 sec. after warming up)

IGT1, IGT2, IGT3, IGT4-E1 : Pulse generation (Engine idling)

#10, #20, #30, #40-E01 : 9.0-14.0 volts (Ignition SW at ON position)

Pulse generation (Engine idling)

○ : Parts Location

| Code |   | See Page | Code |   | See Page | Code |  | See Page |
|------|---|----------|------|---|----------|------|--|----------|
| A4   |   | 38 (*1)  | E7   | B | 40 (LHD) | I9   |  | 39 (*1)  |
|      |   | 48 (*2)  |      |   | 50 (RHD) |      |  | 49 (*2)  |
| A9   |   | 38 (*1)  | E8   | C | 40 (LHD) | I10  |  | 39 (*1)  |
|      |   | 48 (*2)  |      |   | 50 (RHD) |      |  | 49 (*2)  |
| A10  |   | 38 (*1)  | E9   | D | 40 (LHD) | I14  |  | 41 (LHD) |
|      |   | 48 (*2)  |      |   | 50 (RHD) |      |  | 51 (RHD) |
| A17  |   | 40 (LHD) | E10  | E | 40 (LHD) | I15  |  | 41 (LHD) |
|      |   | 50 (RHD) |      |   | 50 (RHD) |      |  | 51 (RHD) |
| A22  |   | 40 (LHD) | F12  |   | 42 (LHD) | J1   |  | 41 (LHD) |
|      |   | 50 (RHD) |      |   | 52 (RHD) |      |  | 51 (RHD) |
| C1   |   | 38 (*1)  | H9   |   | 38 (*1)  | J11  |  | 42 (LHD) |
|      |   | 48 (*2)  |      |   | 48 (*2)  |      |  | 52 (RHD) |
| C3   |   | 38 (*1)  | I1   |   | 39 (*1)  | K1   |  | 39 (*1)  |
|      |   | 48 (*2)  |      |   | 49 (*2)  |      |  | 49 (*2)  |
| C7   | A | 40 (LHD) | I2   |   | 39 (*1)  | P1   |  | 39 (*1)  |
|      |   | 50 (RHD) |      |   | 49 (*2)  |      |  | 49 (*2)  |
| C8   | B | 40 (LHD) | I3   |   | 39 (*1)  | S14  |  | 41 (LHD) |
|      |   | 50 (RHD) |      |   | 49 (*2)  |      |  | 51 (RHD) |
| D3   |   | 40 (LHD) | I4   |   | 39 (*1)  | T2   |  | 39 (*1)  |
|      |   | 50 (RHD) |      |   | 49 (*2)  |      |  | 49 (*2)  |
| E2   |   | 38 (*1)  | I7   |   | 39 (*1)  | V4   |  | 39 (*1)  |
|      |   | 48 (*2)  |      |   | 49 (*2)  |      |  | 49 (*2)  |
| E6   | A | 40 (LHD) | I8   |   | 39 (*1)  | V5   |  | 39 (*1)  |
|      |   | 50 (RHD) |      |   | 49 (*2)  |      |  | 49 (*2)  |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Relay Blocks

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

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1A   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1B   |          |                                                                          |
| 1C   |          |                                                                          |
| 1D   |          |                                                                          |
| 1E   |          |                                                                          |
| 1H   |          |                                                                          |
| 1J   |          |                                                                          |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 1L   |          |                                                                          |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   |          |                                                                          |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

## Engine Control (2AZ-FE, 1AZ-FE)



### : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| ID1  | 60 (LHD) | Engine Room Main Wire and Floor Wire (Left Side of Driver Side J/B)                  |
|      | 72 (RHD) |                                                                                      |
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF3  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) |                                                                                      |
|      | 74 (RHD) |                                                                                      |
| IO1  | 74 (RHD) | Floor Wire and Floor No.2 Wire (Under the Front Passenger's Seat)                    |



### : Ground Points

| Code | See Page | Ground Points Location                    |
|------|----------|-------------------------------------------|
| ED   | 58 (*1)  | Left Fender                               |
|      | 70 (*2)  |                                           |
| EG   | 58 (*1)  | Left Side of Cylinder Head                |
|      | 70 (*2)  |                                           |
| EH   | 58 (*1)  | Intake Side of Cylinder Block             |
|      | 70 (*2)  |                                           |
| II   | 60 (LHD) | Cowl Side Panel LH                        |
| IJ   | 60 (LHD) | Instrument Panel Brace LH                 |
| IK   | 72 (RHD) |                                           |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH         |
| BQ   | 64 (LHD) | Front Side of Rear Quarter Wheel House LH |
|      | 76 (RHD) |                                           |

\* 1 : LHD 2AZ-FE, 1AZ-FE

\* 2 : RHD 2AZ-FE, 1AZ-FE



### : Splice Points

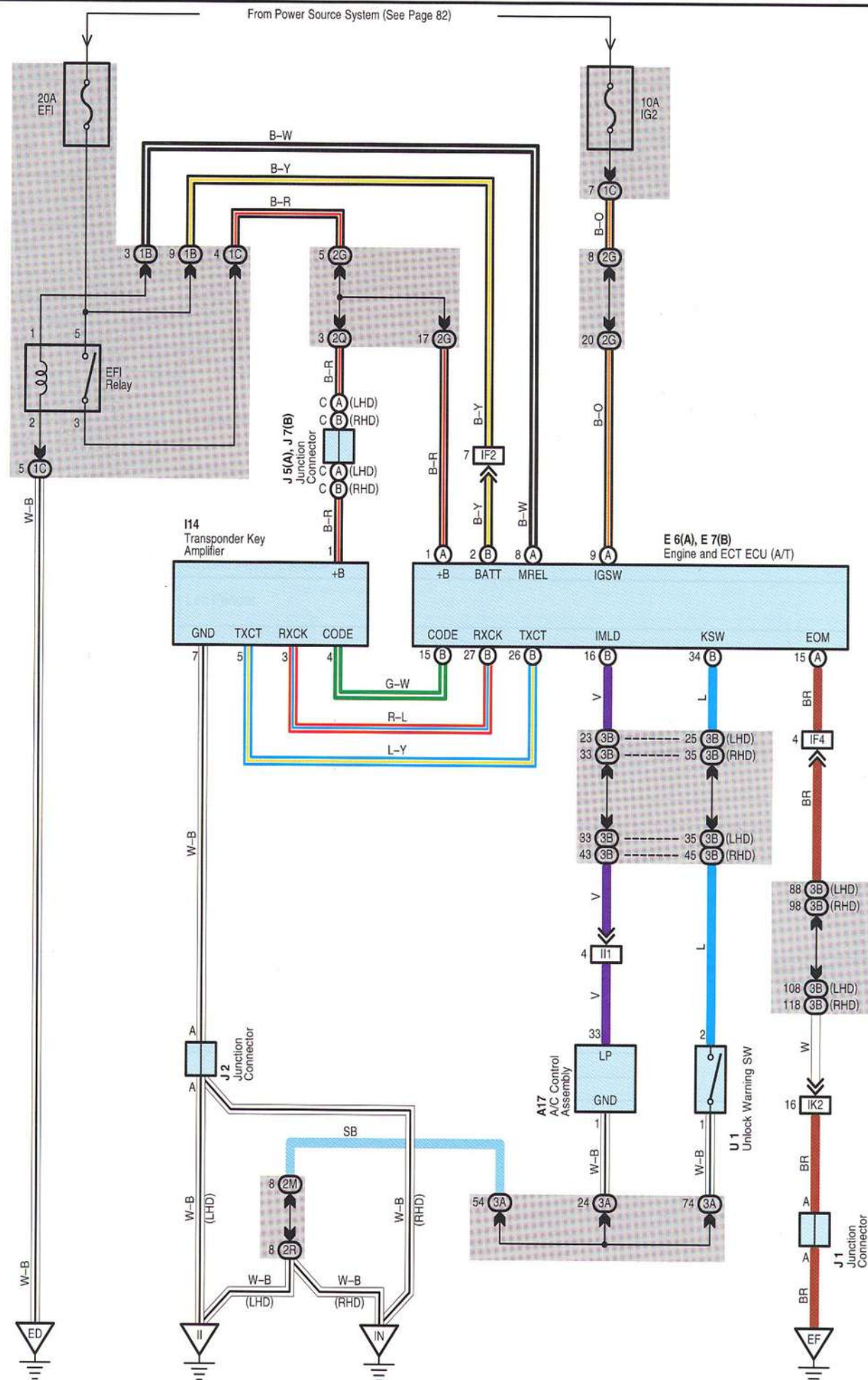
| Code | See Page | Wire Harness with Splice Points | Code     | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|----------|----------|---------------------------------|
| E5   | 58 (*1)  | Engine Wire                     | I6       | 74 (RHD) | Engine Wire                     |
|      | 70 (*2)  |                                 | I7       | 62 (LHD) |                                 |
| I3   | 62 (LHD) | Engine Room Main Wire           |          | I8       |                                 |
|      | 74 (RHD) |                                 | 62 (LHD) |          |                                 |
| I6   | 62 (LHD) | Engine Wire                     | 74 (RHD) |          |                                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE

\* 2 : RHD 2AZ-FE, 1AZ-FE

## Engine Immobiliser System (1MZ-FE)

From Power Source System (See Page 82)



## Service Hints

### E6 (A), E7 (B) Engine and ECT ECU

BATT-Ground : Always approx. 12 volts

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

EOM-Ground : Always continuity

KSW-Ground : Continuity with the key in cylinder

○ : Parts Location

| Code |   | See Page | Code | See Page | Code |   | See Page |
|------|---|----------|------|----------|------|---|----------|
| A17  |   | 40 (LHD) | I14  | 41 (LHD) | J5   | A | 41 (LHD) |
|      |   | 50 (RHD) |      | 51 (RHD) | J7   | B | 51 (RHD) |
| E6   | A | 40 (LHD) | J1   | 41 (LHD) | U1   |   | 41 (LHD) |
|      |   | 50 (RHD) |      | 51 (RHD) |      |   | 51 (RHD) |
| E7   | B | 40 (LHD) | J2   | 41 (LHD) |      |   |          |
|      |   | 50 (RHD) |      | 51 (RHD) |      |   |          |

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2Q   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF2  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |

 : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| ED   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 68 (RHD 1MZ-FE) |                                   |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank           |
|      | 68 (RHD 1MZ-FE) |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |



The diagram illustrates the electrical system for the 1990-1991 Honda Civic 1.6i 16V engine. It shows the power distribution from the battery (20A EFI and 10A IG2) through various relays and connectors to the engine control units (ECU) and other components.

**Key Components and Connections:**

- Power Source:** 20A EFI and 10A IG2.
- EFI Relay:** Controls the fuel injection system.
- Transponder Key Amplifier (I14):** Receives signals from the key fob (TXCT, RXCK, CODE) and sends them to the ECU.
- Engine and ECT ECU (A/T) and Engine ECU (M/T):** Receives signals from the key amplifier and the IMLD (Immobilizer) and sends signals to the EOM (Engine Output Module).
- ECU Connectors:** J5(A), J7(B) for the LHD and RHD engines.
- Wiring Colors:** B-W (Black-White), B-Y (Black-Yellow), B-R (Black-Red), B-O (Black-Orange), W-B (White-Black), G-W (Green-White), R-L (Red-Black), L-Y (Blue-Yellow), V (Violet), L (Blue), BR (Brown-Red), W (White), A (Amber), EG (Green).
- Other Components:** I11 (Immobilizer), LP (Locking Pin), U1 (Unlock Warning SW), J1 (Junction Connector), J2 (Junction Connector), J3 (Junction Connector), J4 (Junction Connector), J5 (Junction Connector), J6 (Junction Connector), J7 (Junction Connector), J8 (Junction Connector), J9 (Junction Connector), J10 (Junction Connector), J11 (Junction Connector), J12 (Junction Connector), J13 (Junction Connector), J14 (Junction Connector), J15 (Junction Connector), J16 (Junction Connector), J17 (Junction Connector), J18 (Junction Connector), J19 (Junction Connector), J20 (Junction Connector), J21 (Junction Connector), J22 (Junction Connector), J23 (Junction Connector), J24 (Junction Connector), J25 (Junction Connector), J26 (Junction Connector), J27 (Junction Connector), J28 (Junction Connector), J29 (Junction Connector), J30 (Junction Connector), J31 (Junction Connector), J32 (Junction Connector), J33 (Junction Connector), J34 (Junction Connector), J35 (Junction Connector), J36 (Junction Connector), J37 (Junction Connector), J38 (Junction Connector), J39 (Junction Connector), J40 (Junction Connector), J41 (Junction Connector), J42 (Junction Connector), J43 (Junction Connector), J44 (Junction Connector), J45 (Junction Connector), J46 (Junction Connector), J47 (Junction Connector), J48 (Junction Connector), J49 (Junction Connector), J50 (Junction Connector), J51 (Junction Connector), J52 (Junction Connector), J53 (Junction Connector), J54 (Junction Connector), J55 (Junction Connector), J56 (Junction Connector), J57 (Junction Connector), J58 (Junction Connector), J59 (Junction Connector), J60 (Junction Connector), J61 (Junction Connector), J62 (Junction Connector), J63 (Junction Connector), J64 (Junction Connector), J65 (Junction Connector), J66 (Junction Connector), J67 (Junction Connector), J68 (Junction Connector), J69 (Junction Connector), J70 (Junction Connector), J71 (Junction Connector), J72 (Junction Connector), J73 (Junction Connector), J74 (Junction Connector), J75 (Junction Connector), J76 (Junction Connector), J77 (Junction Connector), J78 (Junction Connector), J79 (Junction Connector), J80 (Junction Connector), J81 (Junction Connector), J82 (Junction Connector), J83 (Junction Connector), J84 (Junction Connector), J85 (Junction Connector), J86 (Junction Connector), J87 (Junction Connector), J88 (Junction Connector), J89 (Junction Connector), J90 (Junction Connector), J91 (Junction Connector), J92 (Junction Connector), J93 (Junction Connector), J94 (Junction Connector), J95 (Junction Connector), J96 (Junction Connector), J97 (Junction Connector), J98 (Junction Connector), J99 (Junction Connector), J100 (Junction Connector).

BATT-Ground : Always approx. 12 volts  
IGSW-Ground : Approx. 12 volts with ignition SW at ON or ST position  
EOM-Ground : Always continuity  
KSW-Ground : Continuity with the key in cylinder

○ : Parts Location

| Code |   | See Page | Code | See Page | Code |          | See Page |
|------|---|----------|------|----------|------|----------|----------|
| A17  |   | 40 (LHD) | I14  | 41 (LHD) | J5   | A        | 41 (LHD) |
|      |   | 50 (RHD) |      | 51 (RHD) |      |          | 51 (RHD) |
| E6   | A | 40 (LHD) | J1   | 41 (LHD) | J7   | B        | 41 (LHD) |
|      |   | 50 (RHD) |      | 51 (RHD) |      |          | 51 (RHD) |
| E7   | B | 40 (LHD) | J2   | 41 (LHD) | U1   |          | 41 (LHD) |
|      |   | 50 (RHD) |      | 51 (RHD) |      | 51 (RHD) |          |

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2Q   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |

 : Ground Points

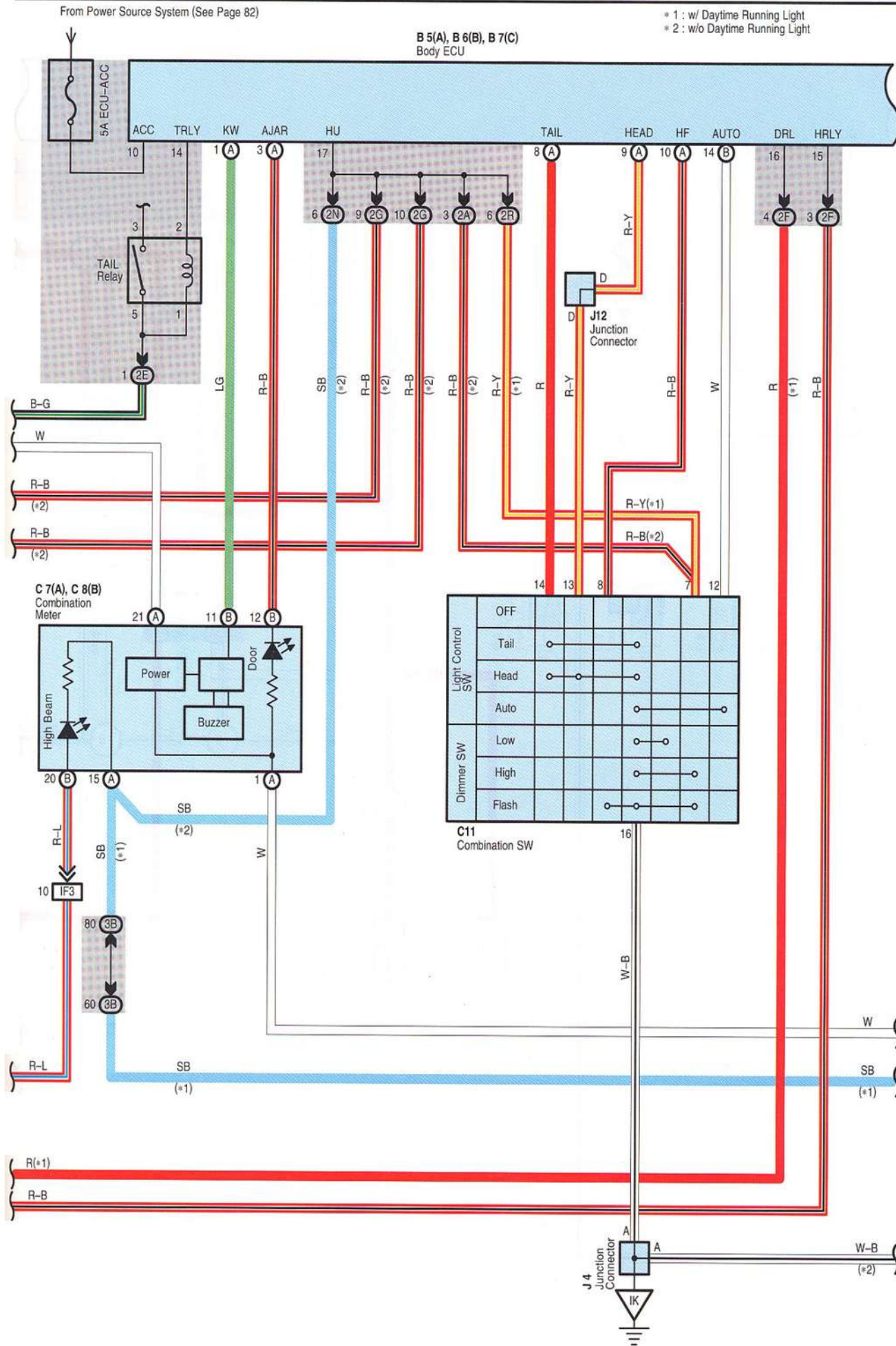
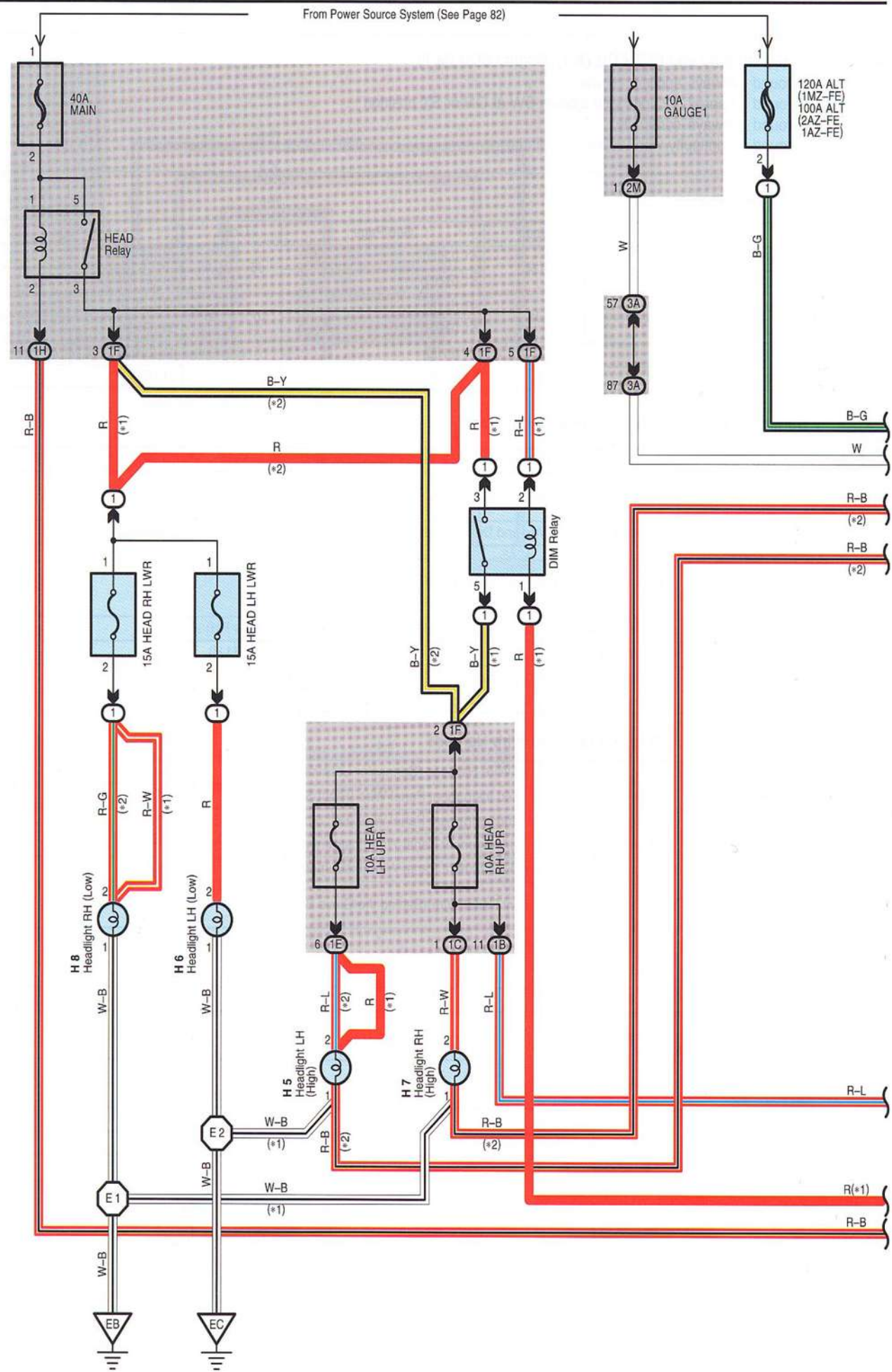
| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| ED   | 58 (*1)  | Left Fender                       |
|      | 70 (*2)  |                                   |
| EG   | 58 (*1)  | Left Side of Cylinder Head        |
|      | 70 (*2)  |                                   |
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

\*1 : LHD 2AZ-FE, 1AZ-FE

\* 2 : RHD 2AZ-FE, 1AZ-FE

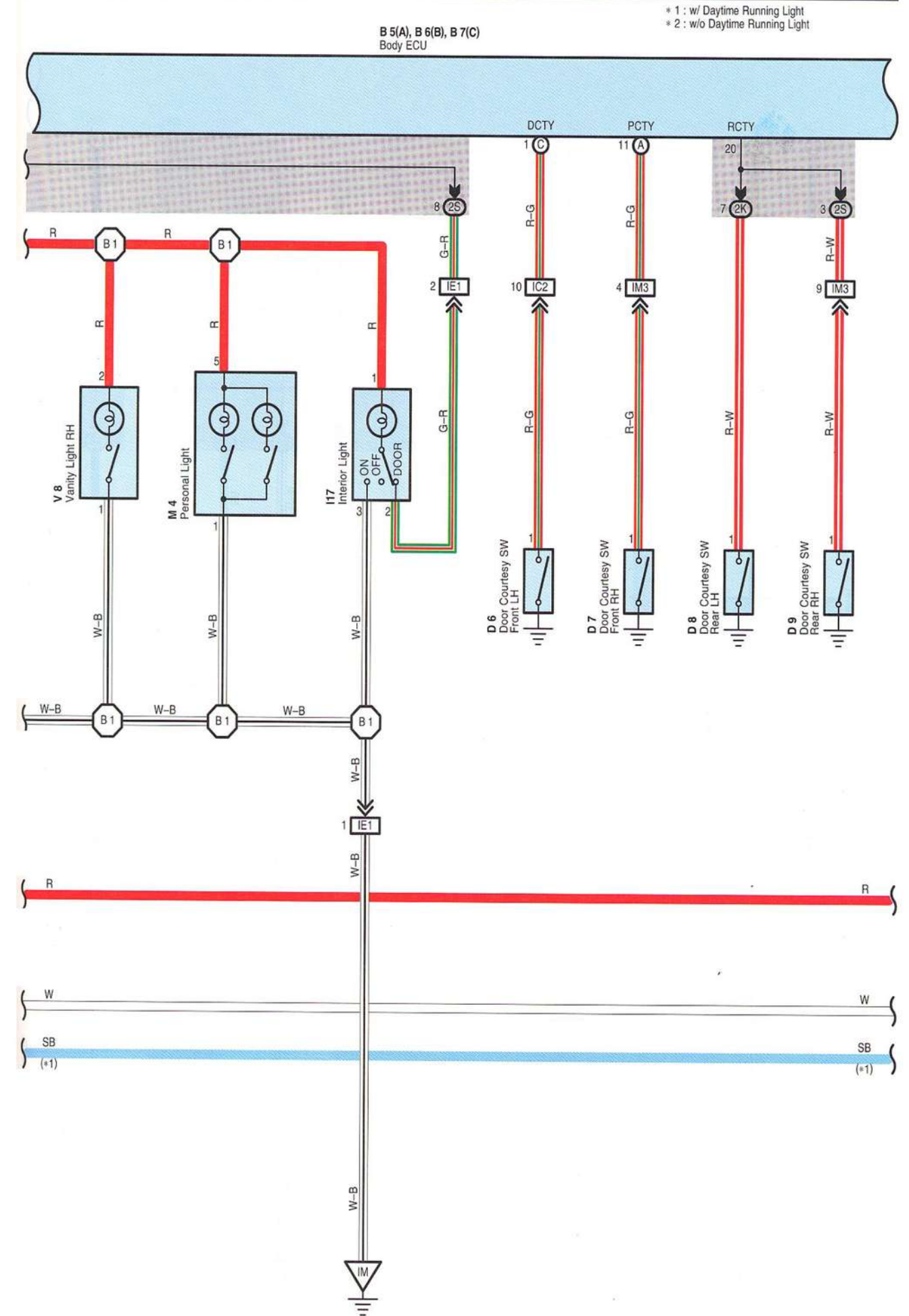
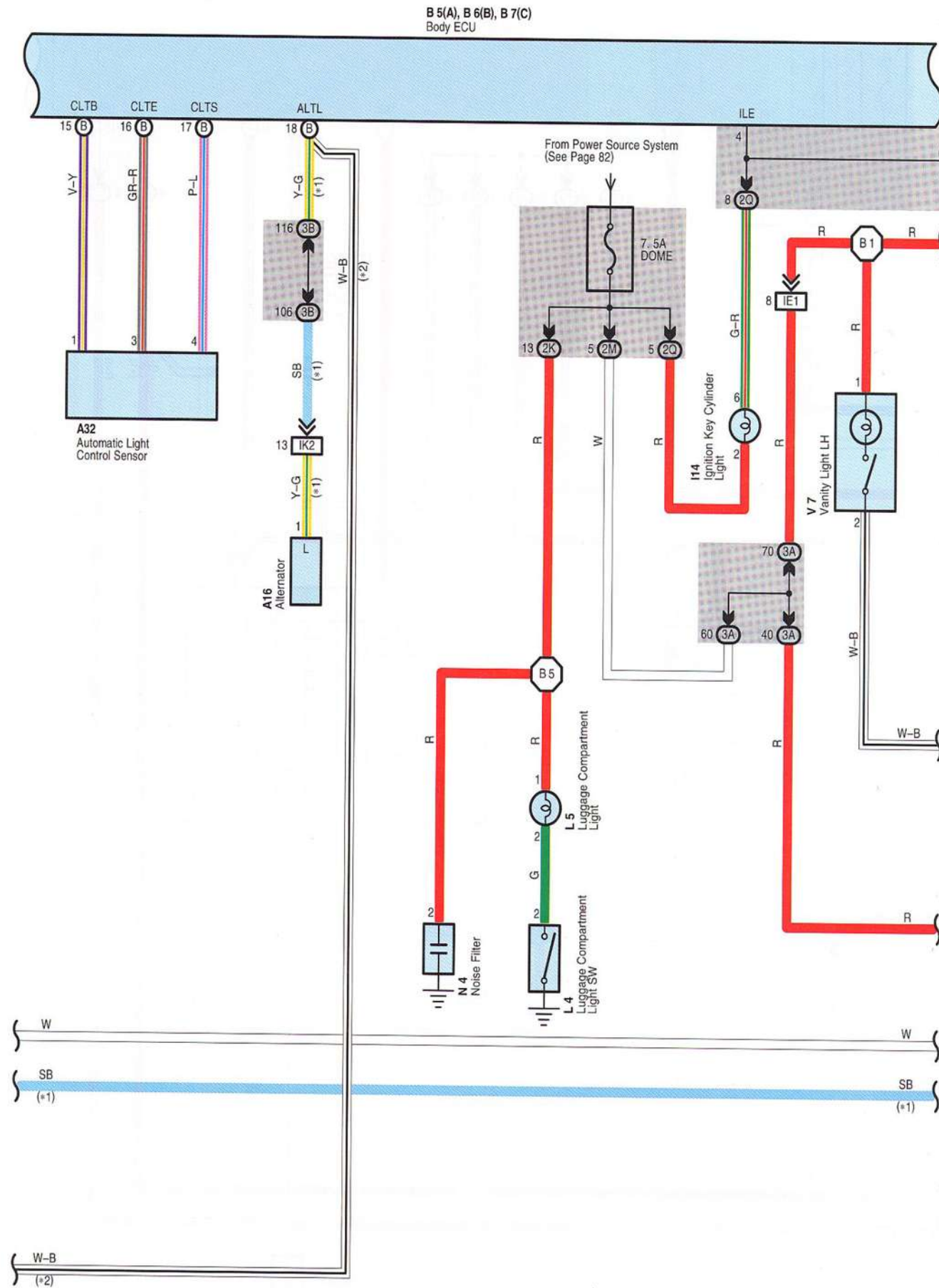


Multiplex Communication System (LHD)



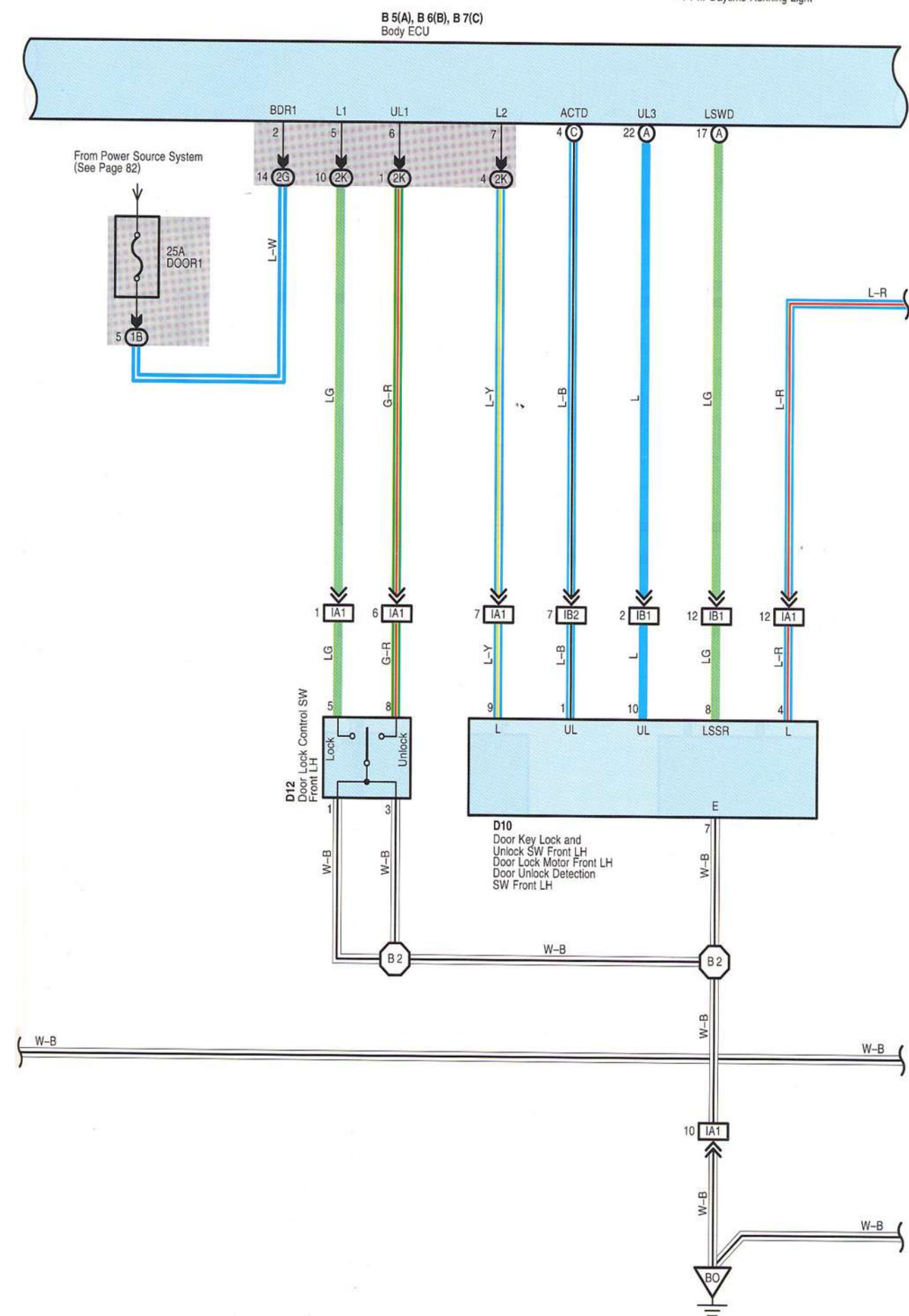
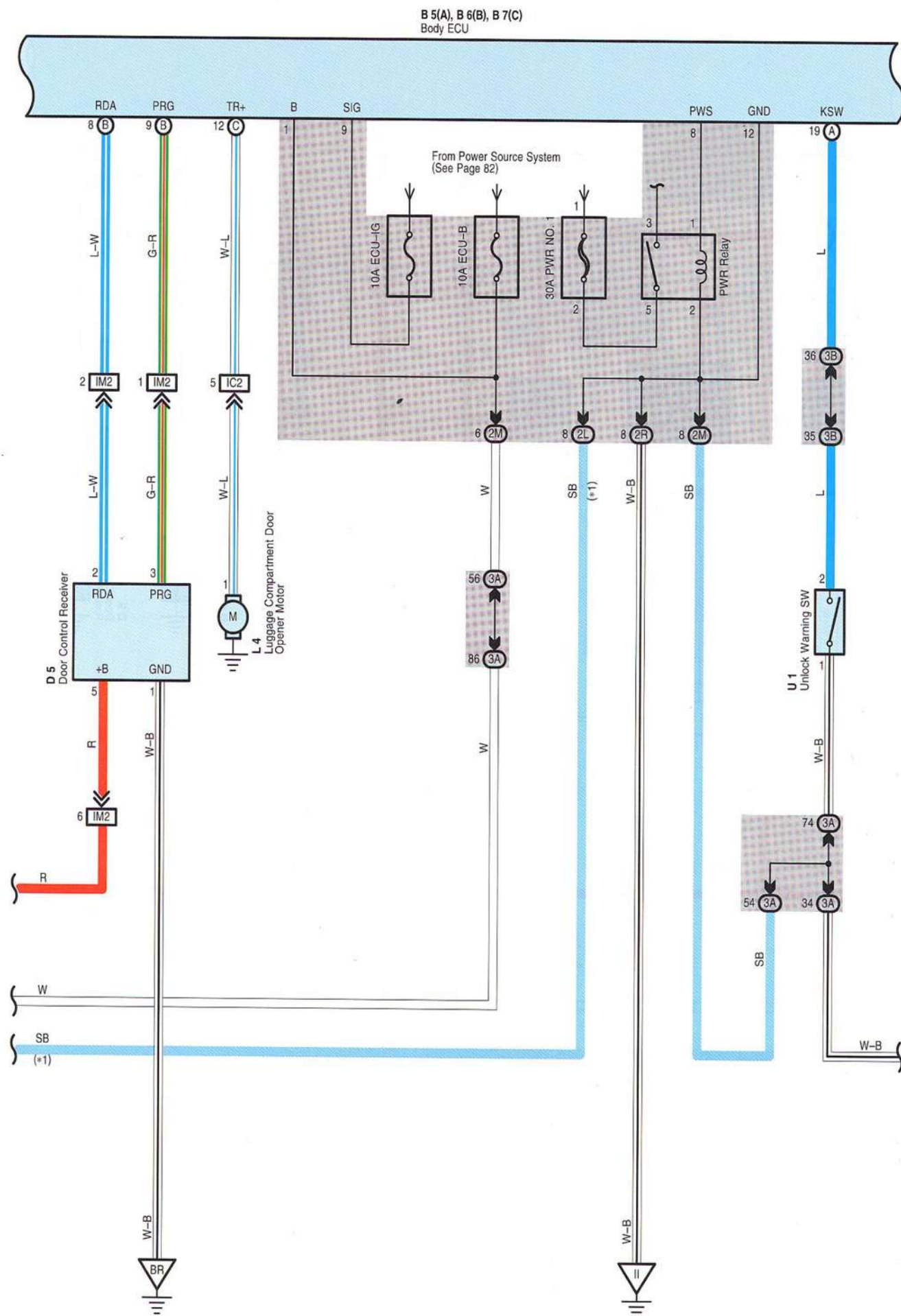


### Multiplex Communication System (LHD)



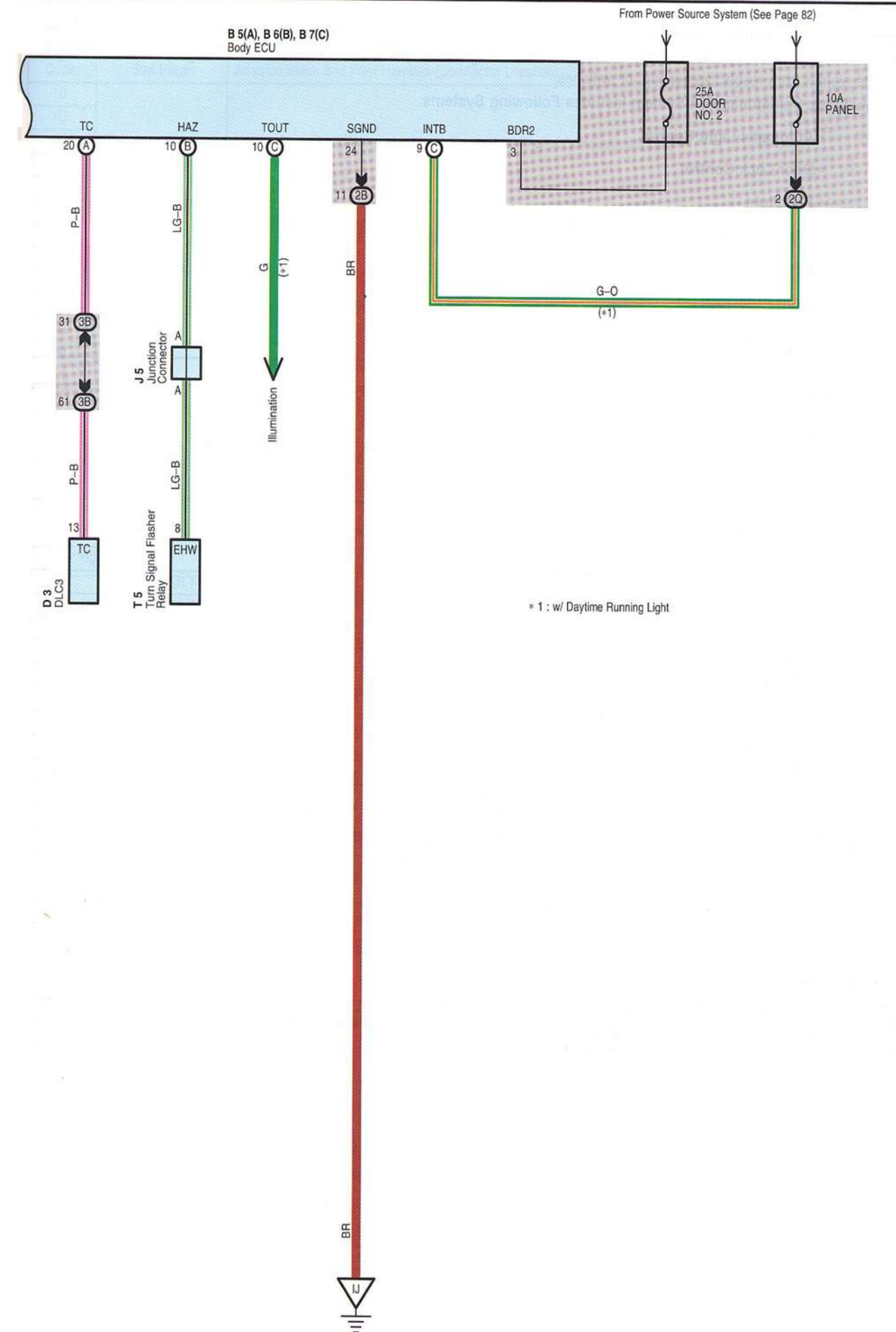
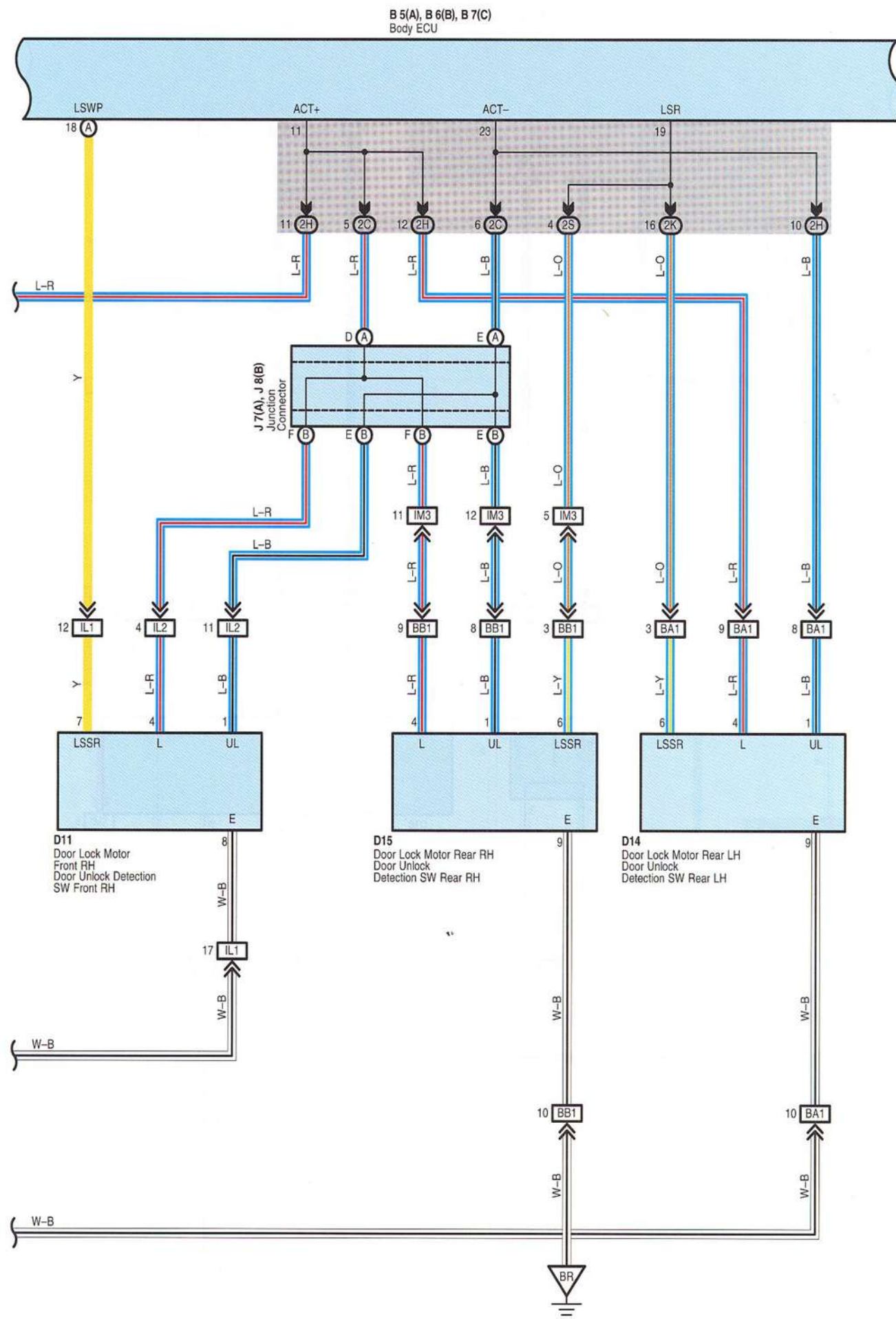


# Multiplex Communication System (LHD)





### Multiplex Communication System (LHD)



Multiplex Communication System (LHD)

System Outline

The multiplex communication system communicates among the body ECU and controls the following systems according to the signals from respective sensors or switches.

**Multiplex Communication System Includes Following Systems**

- \* Automatic Light Control
- \* Door Lock Control
- \* Headlight
- \* Interior Light
- \* Key Reminder
- \* Light Auto Turn Off
- \* Wireless Door Lock Control

Service Hints

**Body ECU**

9-Ground : Approx. 12 volts with Ignition SW at ON or ST position

12, 24-Ground : Always continuity

1-Ground : Always approx. 12 volts

Parts Location

| Code | See Page        | Code | See Page        | Code | See Page   |
|------|-----------------|------|-----------------|------|------------|
| A16  | 36 (LHD 1MZ-FE) | D10  | 42 (LHD)        | J4   | 41 (LHD)   |
|      | 38 (*1)         | D11  | 42 (LHD)        | J5   | 41 (LHD)   |
| A32  | 40 (LHD)        | D12  | 42 (LHD)        | J7   | A 41 (LHD) |
| B5   | A 40 (LHD)      | D14  | 42 (LHD)        | J8   | B 41 (LHD) |
| B6   | B 40 (LHD)      | D15  | 42 (LHD)        | J12  | 41 (LHD)   |
| B7   | C 40 (LHD)      | H5   | 36 (LHD 1MZ-FE) | L4   | 43 (LHD)   |
| C7   | A 40 (LHD)      |      | 38 (*1)         | L5   | 43 (LHD)   |
| C8   | B 40 (LHD)      | H6   | 36 (LHD 1MZ-FE) | M4   | 43 (LHD)   |
| C11  | 40 (LHD)        |      | 38 (*1)         | N4   | 43 (LHD)   |
| D3   | 40 (LHD)        | H7   | 36 (LHD 1MZ-FE) | T5   | 41 (LHD)   |
| D5   | 42 (LHD)        |      | 38 (*1)         | U1   | 41 (LHD)   |
| D6   | 42 (LHD)        | H8   | 36 (LHD 1MZ-FE) | V7   | 43 (LHD)   |
| D7   | 42 (LHD)        |      | 38 (*1)         | V8   | 43 (LHD)   |
| D8   | 42 (LHD)        | I14  | 41 (LHD)        |      |            |
| D9   | 42 (LHD)        | I17  | 42 (LHD)        |      |            |

\* 1 : LHD 2AZ-FE, 1AZ-FE

Relay Blocks

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

Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 1E   |          |                                                                          |
| 1F   |          |                                                                          |
| 1H   |          |                                                                          |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2B   |          |                                                                          |
| 2C   |          |                                                                          |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2F   |          |                                                                          |
| 2G   |          |                                                                          |
| 2H   |          |                                                                          |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2N   |          |                                                                          |
| 2Q   |          |                                                                          |
| 2R   |          |                                                                          |
| 2S   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
| 3B   |          |                                                                          |

Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IA1  | 60 (LHD) | Front Door LH Wire and Floor Wire (Left Kick Panel)                                  |
| IB1  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)                       |
| IB2  |          |                                                                                      |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)                               |
| IE1  | 60 (LHD) | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)                    |
| IF3  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
| IL1  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)                      |
| IL2  |          |                                                                                      |
| IM2  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)                         |
| IM3  |          |                                                                                      |
| BA1  | 64 (LHD) | Rear Door LH Wire and Floor Wire (Left Center Pillar)                                |
| BB1  | 64 (LHD) | Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)                          |

Ground Points

| Code | See Page        | Ground Points Location                    |
|------|-----------------|-------------------------------------------|
| EB   | 56 (LHD 1MZ-FE) | Right Fender                              |
|      | 58 (*1)         |                                           |
| EC   | 56 (LHD 1MZ-FE) | Left Fender                               |
|      | 58 (*1)         |                                           |
| II   | 60 (LHD)        | Cowl Side Panel LH                        |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH                 |
| IK   |                 |                                           |
| IM   | 60 (LHD)        | Instrument Panel Reinforcement RH         |
| BO   | 64 (LHD)        | Under the Driver's Seat                   |
| BR   | 64 (LHD)        | Front Side of Rear Quarter Wheel House RH |

\* 1 : LHD 2AZ-FE, 1AZ-FE



# Multiplex Communication System (LHD)

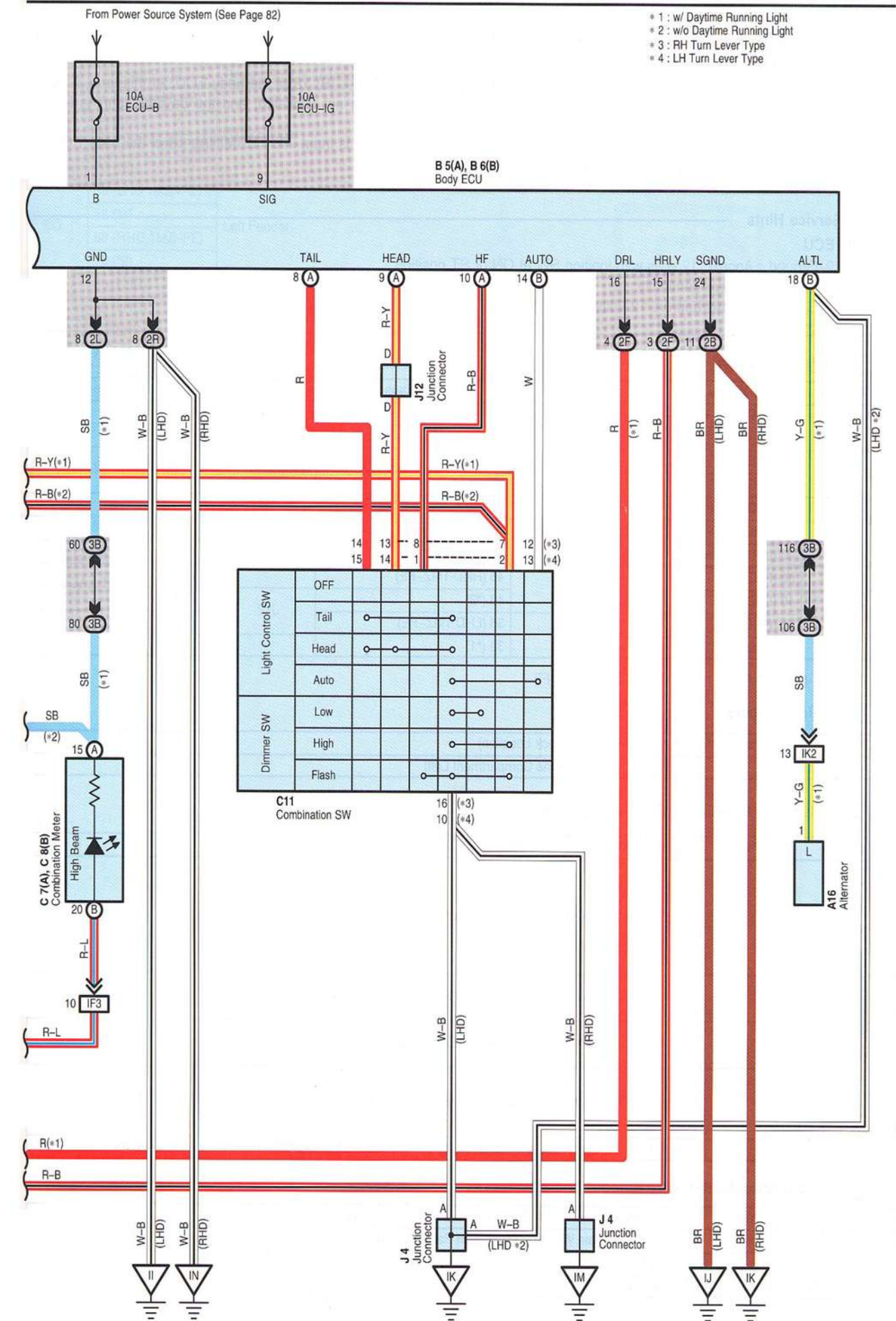
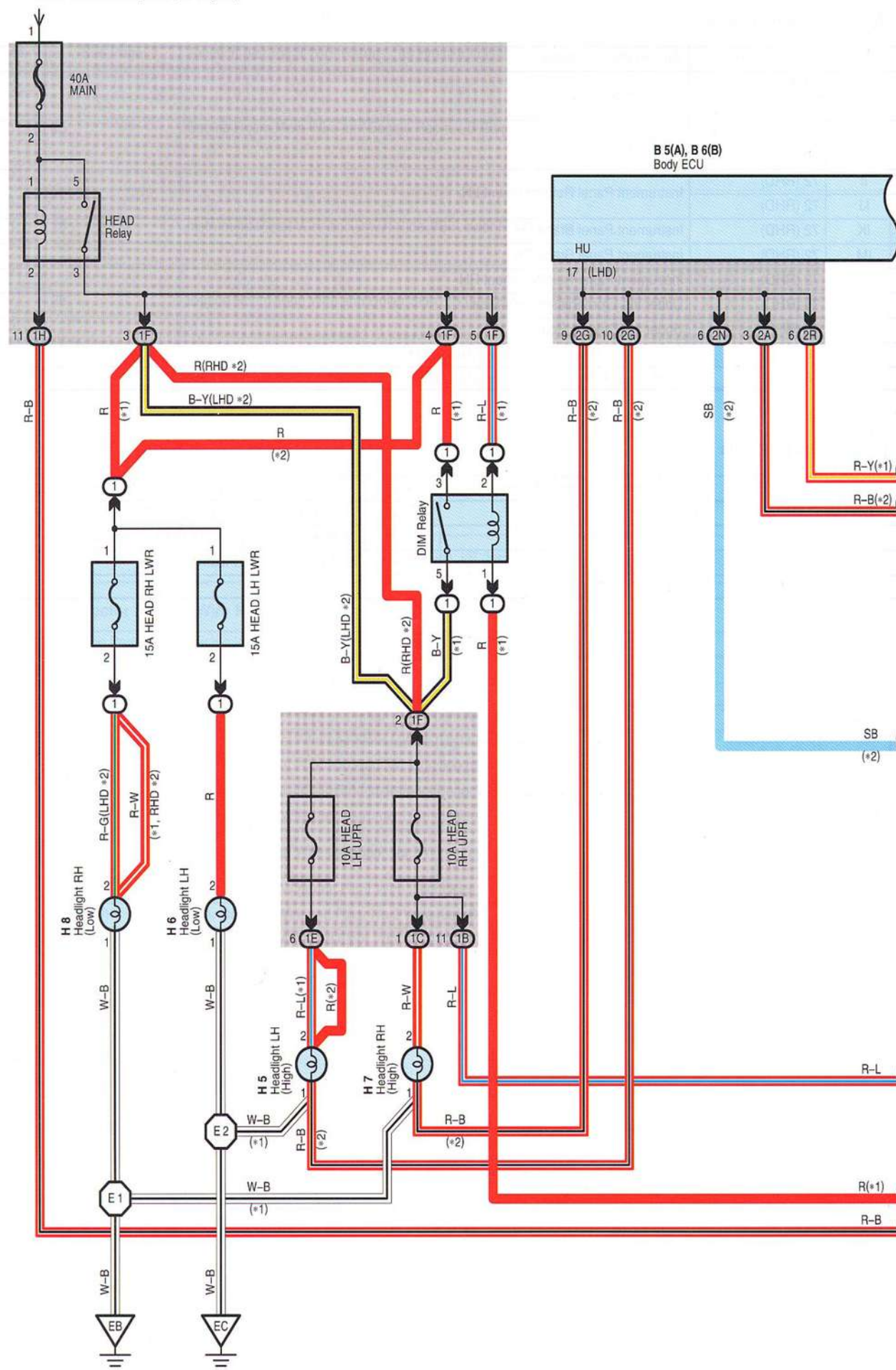
 : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E1   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | B1   | 64 (LHD) | Roof Wire                       |
|      | 58 (*1)         |                                 | B2   | 64 (LHD) | Front Door LH Wire              |
| E2   | 56 (LHD 1MZ-FE) |                                 | B5   | 64 (LHD) | Floor Wire                      |
|      | 58 (*1)         | Engine Wire                     |      |          |                                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE

## Headlight

From Power Source System (See Page 82)



## Headlight

### System Outline

#### Daytime Running Light Operation

When the engine is started, a signal from the alternator is input into TERMINAL (B) 18 of the body ECU. At this time, if the parking brake pedal is depressed (Parking brake SW ON), the body ECU is not activated, and the daytime running light system does not operate.

When the parking brake pedal is released (Parking brake SW OFF), a signal is input into TERMINAL 18 of the body ECU. This activates the body ECU and the headlight turns on.

### Service Hints

#### Body ECU

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

12, 24-Ground : Always continuity

1-Ground : Always approx. 12 volts

### ○ : Parts Location

| Code |   | See Page        | Code | See Page        | Code | See Page        |
|------|---|-----------------|------|-----------------|------|-----------------|
| A16  |   | 36 (LHD 1MZ-FE) | C11  | 50 (RHD)        | H7   | 46 (RHD 1MZ-FE) |
|      |   | 38 (*1)         |      | 36 (LHD 1MZ-FE) |      | 48 (*2)         |
| B5   | A | 40 (LHD)        | H5   | 38 (*1)         | H8   | 36 (LHD 1MZ-FE) |
|      |   | 50 (RHD)        |      | 46 (RHD 1MZ-FE) |      | 38 (*1)         |
| B6   | B | 40 (LHD)        |      | 48 (*2)         |      | 46 (RHD 1MZ-FE) |
|      |   | 50 (RHD)        |      |                 |      | 48 (*2)         |
| C7   | A | 40 (LHD)        | H6   | 38 (*1)         | J4   | 41 (LHD)        |
|      |   | 50 (RHD)        |      | 46 (RHD 1MZ-FE) |      | 51 (RHD)        |
| C8   | B | 40 (LHD)        |      | 48 (*2)         | J12  | 41 (LHD)        |
|      |   | 50 (RHD)        |      | 51 (RHD)        |      |                 |
| C11  |   | 40 (LHD)        | H7   | 36 (LHD 1MZ-FE) |      |                 |
|      |   |                 |      | 38 (*1)         |      |                 |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

### ○ : Relay Blocks

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

### ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 1E   |          |                                                                          |
| 1F   |          |                                                                          |
| 1H   |          |                                                                          |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2B   |          |                                                                          |
| 2F   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   |          |                                                                          |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2N   |          |                                                                          |
| 2R   |          |                                                                          |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF3  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |

### ▽ : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| EB   | 56 (LHD 1MZ-FE) | Right Fender                      |
|      | 58 (*1)         |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
|      | 70 (*2)         |                                   |
| EC   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 58 (*1)         |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
|      | 70 (*2)         |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH         |
| IK   | 60 (LHD)        | Instrument Panel Brace LH         |
|      | 72 (RHD)        |                                   |
| IM   | 72 (RHD)        | Instrument Panel Brace RH         |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

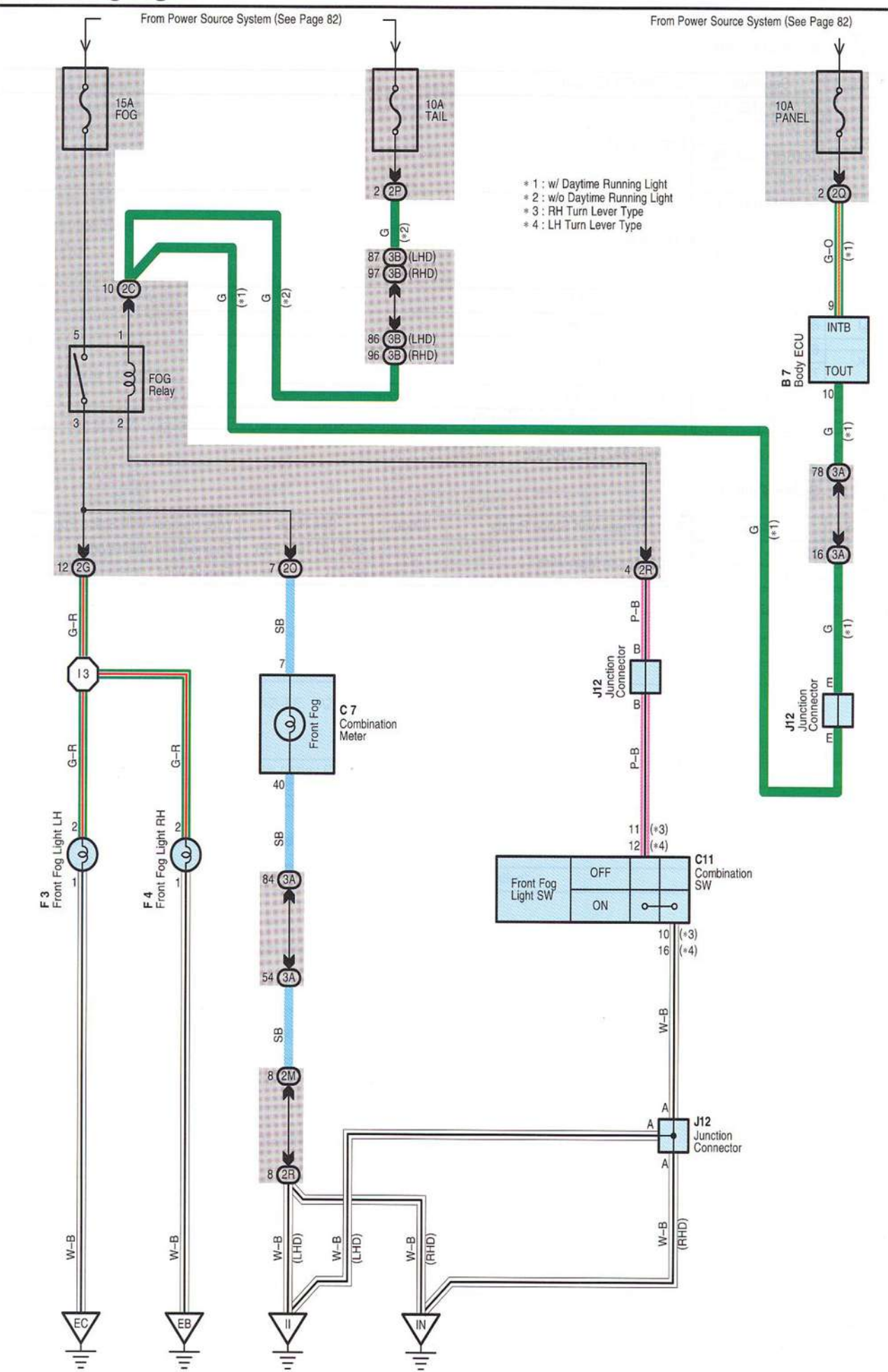
### ○ : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page        | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|-----------------|---------------------------------|
| E1   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | E2   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           |
|      | 58 (*1)         |                                 |      | 58 (*1)         | Engine Wire                     |

\*1 : LHD 2AZ-FE, 1AZ-FE



Front Fog Light



Service Hints

FOG Relay

5-3 : Closed with the light control SW at TAIL or HEAD position and front fog light SW on

○ : Parts Location

| Code | See Page | Code | See Page        | Code | See Page        |
|------|----------|------|-----------------|------|-----------------|
| B7   | 40 (LHD) | F3   | 36 (LHD 1MZ-FE) | F4   | 38 (*1)         |
| C7   | 40 (LHD) |      | 38 (*1)         |      | 46 (RHD 1MZ-FE) |
|      | 50 (RHD) |      | 46 (RHD 1MZ-FE) |      | 48 (*2)         |
| C11  | 40 (LHD) | F4   | 48 (*2)         | J12  | 41 (LHD)        |
|      | 50 (RHD) |      | 36 (LHD 1MZ-FE) |      |                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2C   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2O   |          |                                                                          |
| 2P   |          |                                                                          |
| 2Q   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

▽ : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| EB   | 56 (LHD 1MZ-FE) | Right Fender                      |
|      | 58 (*1)         |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
|      | 70 (*2)         |                                   |
| EC   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 58 (*1)         |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
|      | 70 (*2)         |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

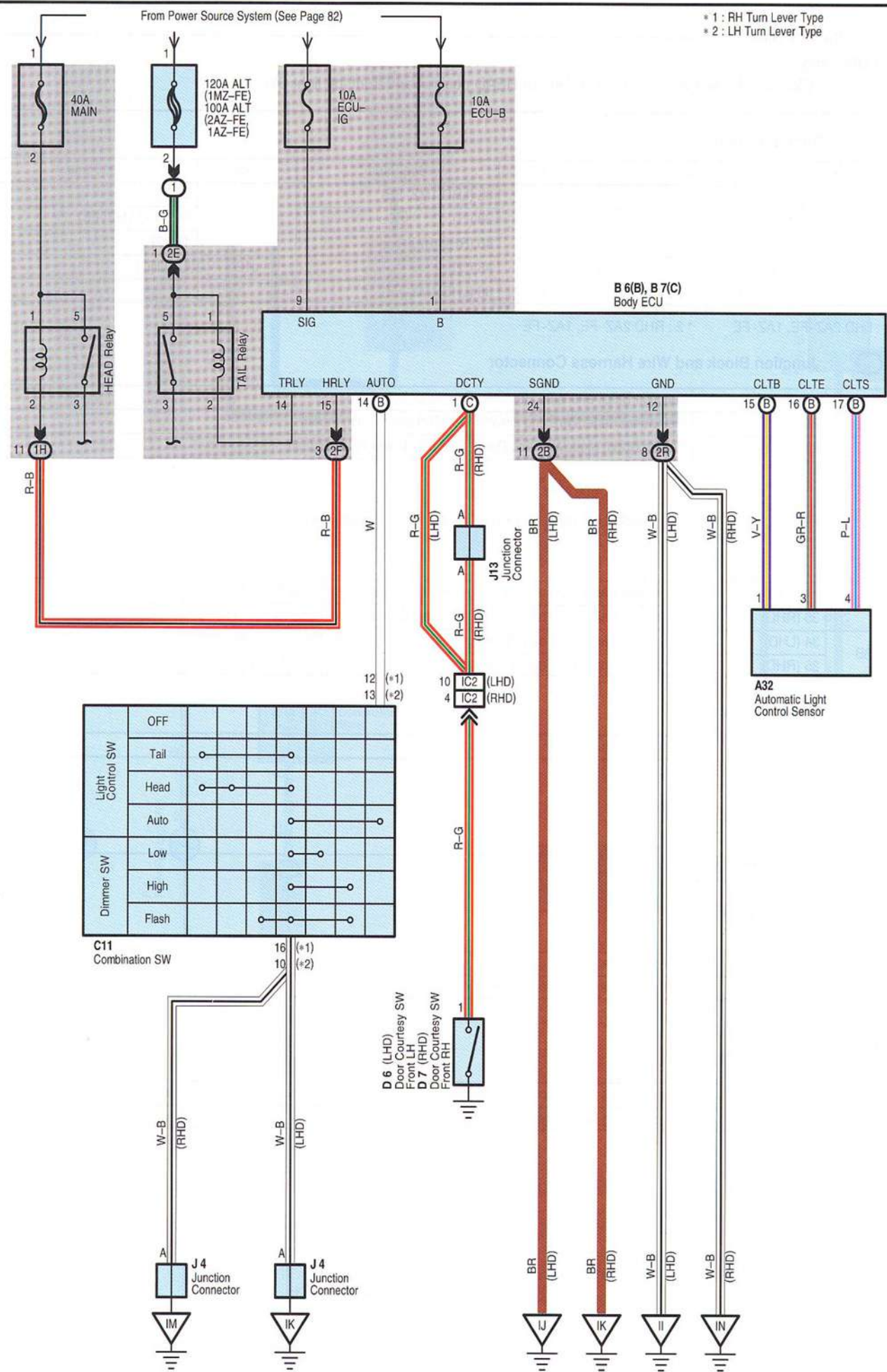
\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I3   | 62 (LHD) | Engine Room Main Wire           | I3   | 74 (RHD) | Engine Room Main Wire           |



Automatic Light Control



System Outline

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

Service Hints

Body ECU

- 9-Ground : Approx. 12 volts with ignition SW at ON or ST position
- 12, 24-Ground : Always continuity
- 1-Ground : Always approx. 12 volts

D6, D7 Door Courtesy SW Front LH, RH

- 1-Ground : Driver's door open

○ : Parts Location

| Code | See Page             | Code | See Page                         | Code | See Page             |
|------|----------------------|------|----------------------------------|------|----------------------|
| A32  | 40 (LHD)<br>50 (RHD) | B7 C | 50 (RHD)<br>40 (LHD)<br>50 (RHD) | J4   | 41 (LHD)<br>51 (RHD) |
| B6 B | 40 (LHD)<br>50 (RHD) | C11  | 42 (LHD)<br>52 (RHD)             | J13  | 51 (RHD)             |
| B7 C | 40 (LHD)             | D6   |                                  |      |                      |
|      |                      | D7   |                                  |      |                      |

○ : Relay Blocks

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

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1H   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |
| 2F   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |

□ : Connector Joining Wire Harness and Wire Harness

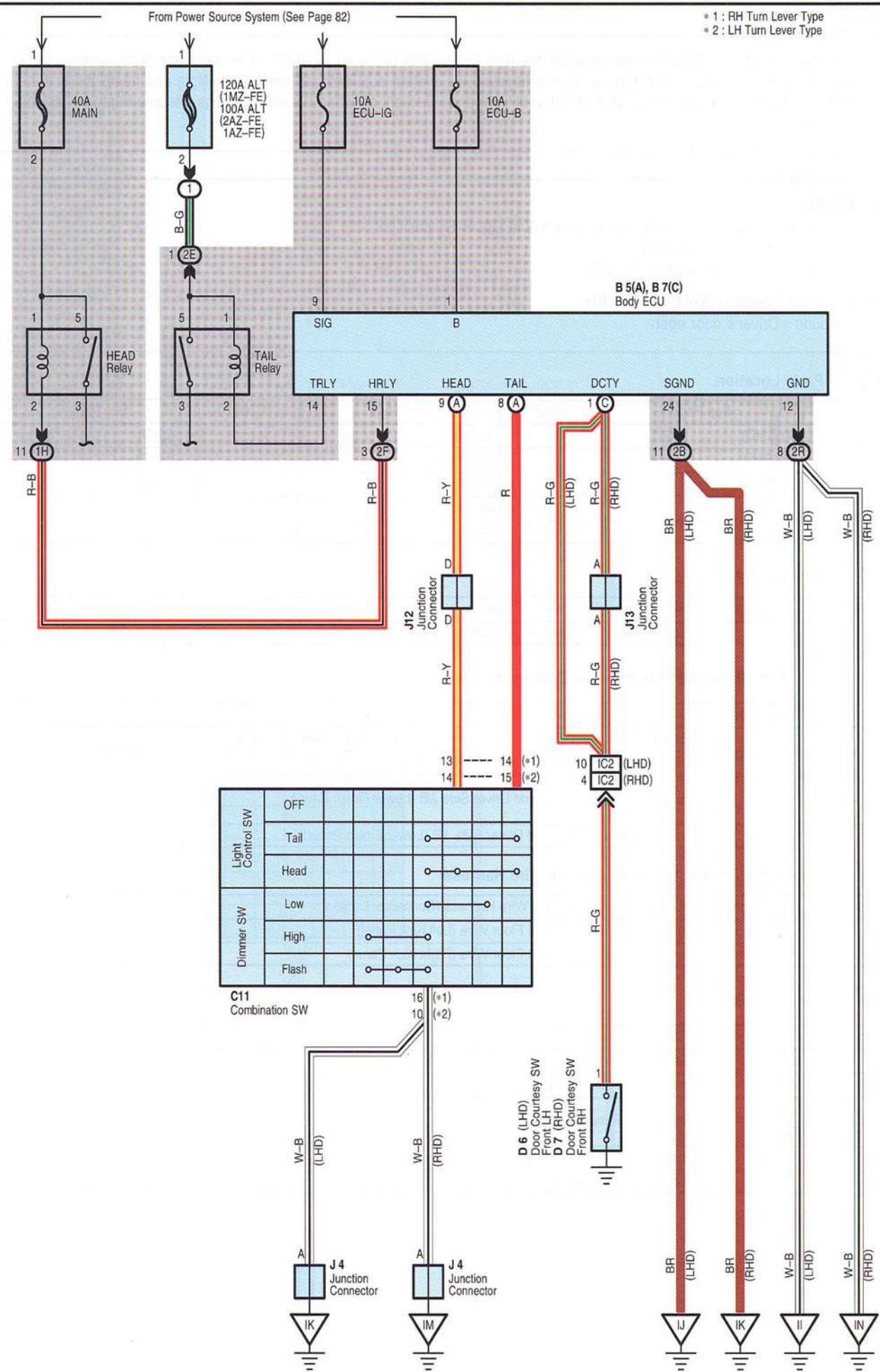
| Code | See Page             | Joining Wire Harness and Wire Harness (Connector Location)                                                        |
|------|----------------------|-------------------------------------------------------------------------------------------------------------------|
| IC2  | 60 (LHD)<br>72 (RHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)<br>Instrument Panel Wire and Floor Wire (Right Kick Panel) |

▽ : Ground Points

| Code | See Page             | Ground Points Location            |
|------|----------------------|-----------------------------------|
| II   | 60 (LHD)             | Cowl Side Panel LH                |
| IJ   | 60 (LHD)             | Instrument Panel Brace LH         |
| IK   | 60 (LHD)<br>72 (RHD) | Instrument Panel Brace LH         |
| IM   | 72 (RHD)             | Instrument Panel Brace RH         |
| IN   | 72 (RHD)             | Instrument Panel Reinforcement RH |



Light Auto Turn Off



System Outline

1. Normal Lighting Operation

<Turn taillight on>  
With the light control SW turned to TAIL position, a signal is input into TERMINAL (A) 8 of the body ECU. Due to this signal, the current flowing to TERMINAL 14 of the ECU flows to TERMINAL (A) 8 to TERMINAL 14 of the light control SW to TERMINAL 16 to GROUND, and TAIL relay causes taillights to turn on.

<Turn headlight on>  
With the light control SW turned to HEAD position, a signal is input into TERMINALS (A) 8 and (A) 9 of the body ECU. Due to this signal, the current flowing to TERMINAL 15 of the ECU flows to TERMINAL (A) 9 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND in the headlight circuit, and causes taillight and HEAD relay to turn the lights on. The taillight circuit is same as above.

2. Light Auto Turn Off Operation

With light on and ignition SW turned off (Input signal goes to TERMINAL 9 of the ECU), when the driver's door is opened (Input signal goes to TERMINAL (C) 1 of the ECU), the body ECU operates and the current is cut off which flows from TERMINAL 14 of the ECU to TERMINAL (A) 8 in taillight circuit and from TERMINAL 15 to TERMINAL (A) 9 in headlight circuit. As a result, all lights are turned off automatically.

Service Hints

TAIL Relay

5-3 : Closed with the light control SW at HEAD or TAIL position

HEAD Relay

5-3 : Closed with the light control SW at HEAD position or dimmer SW at FLASH position  
Closed with the engine running and parking brake released (Parking brake SW off)

Body ECU

9-Ground : Approx. 12 volts with ignition SW at ON or ST position  
12, 24-Ground : Always continuity  
1-Ground : Always approx. 12 volts

D6, D7 Door Courtesy SW Front LH, RH

1-Ground : Closed with the driver door open

○ : Parts Location

| Code | See Page | Code     | See Page | Code     | See Page |
|------|----------|----------|----------|----------|----------|
| B5   | A        | 40 (LHD) | C11      | 50 (RHD) | J12      |
|      |          | 50 (RHD) | D6       | 42 (LHD) |          |
| B7   | C        | 40 (LHD) | D7       | 52 (RHD) | J13      |
|      |          | 50 (RHD) | J4       | 41 (LHD) |          |
| C11  | 40 (LHD) |          | 51 (RHD) |          |          |

○ : Relay Blocks

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

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1H   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |
| 2F   |          |                                                                     |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |



# Light Auto Turn Off

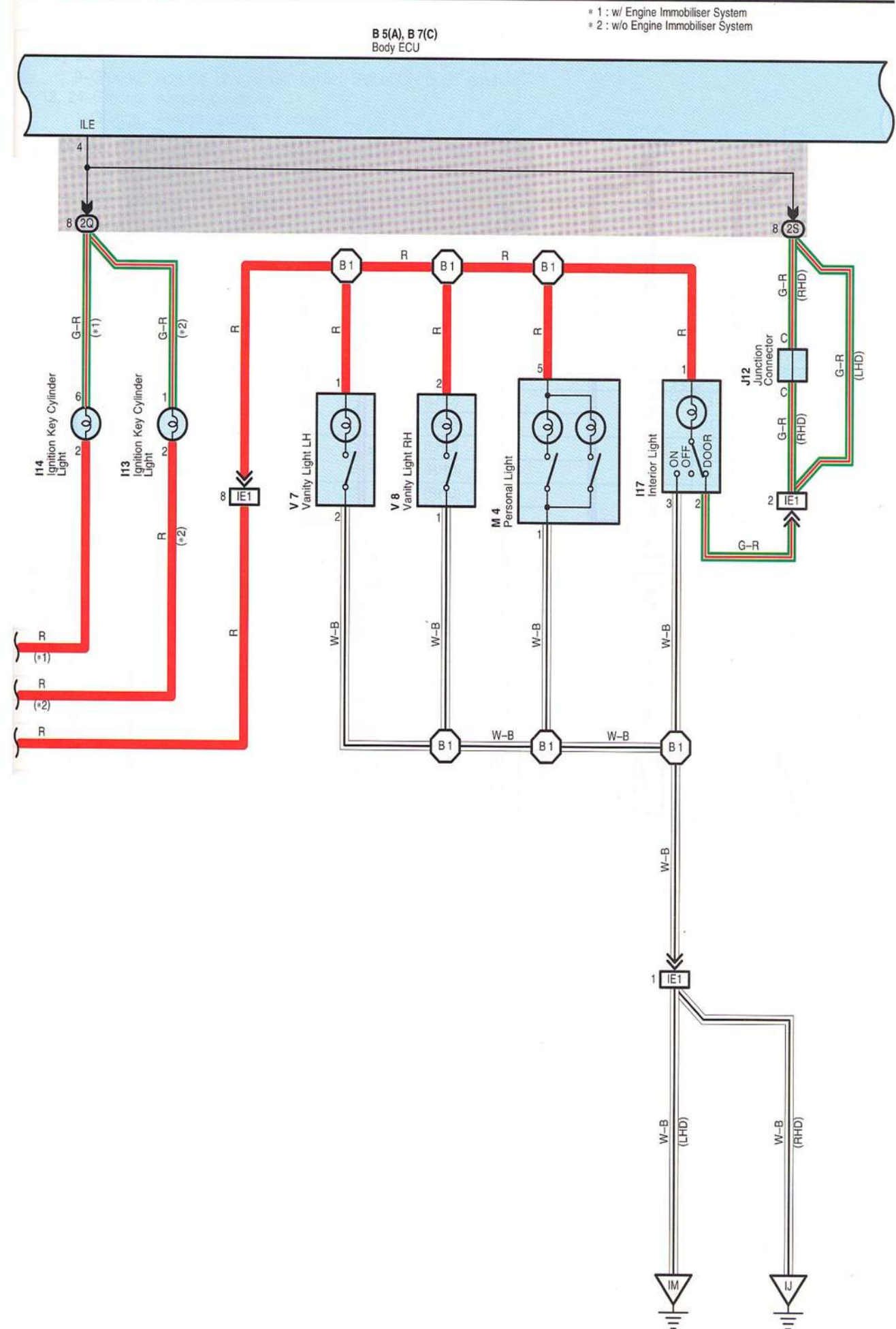
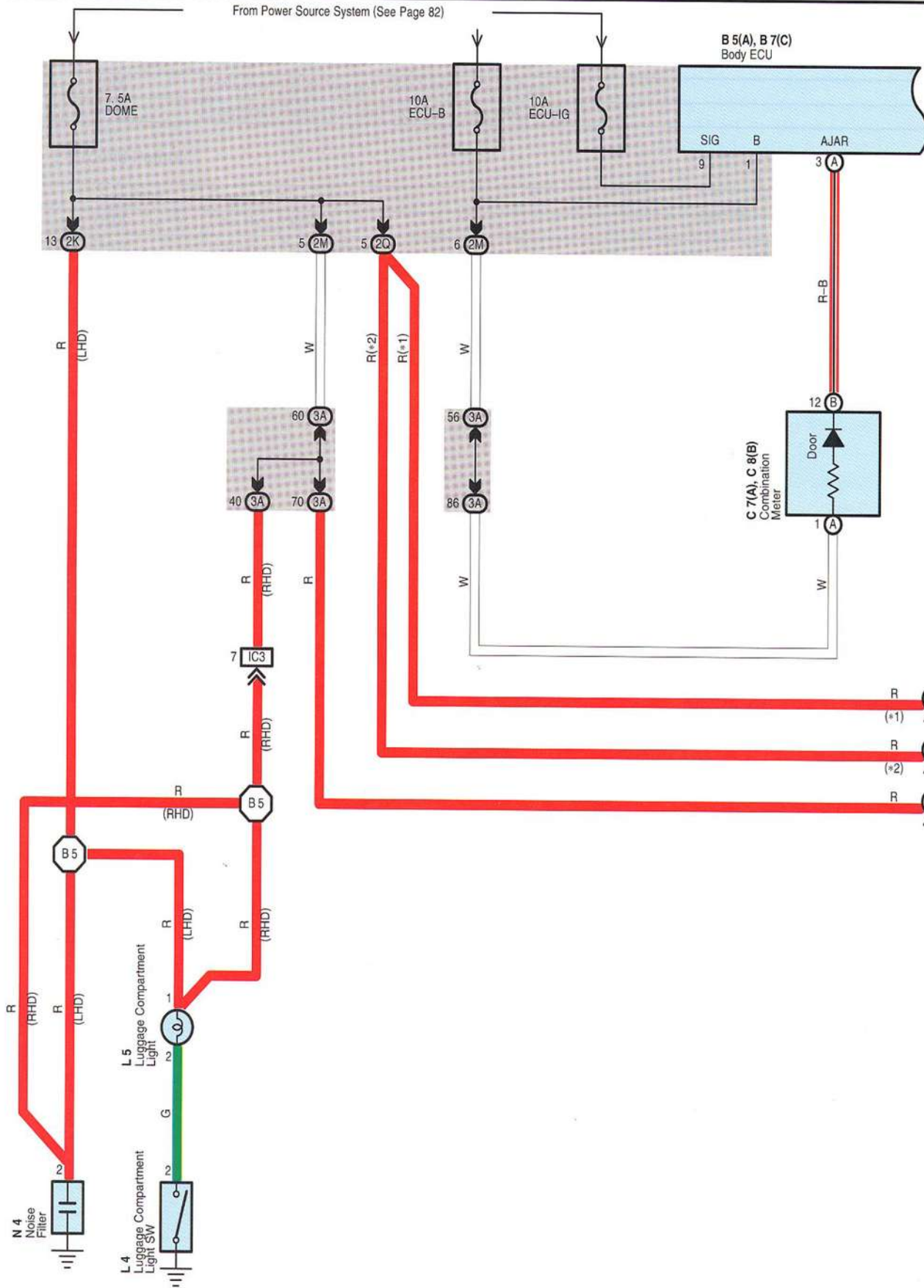
 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location) |
|------|----------|------------------------------------------------------------|
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)     |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)    |

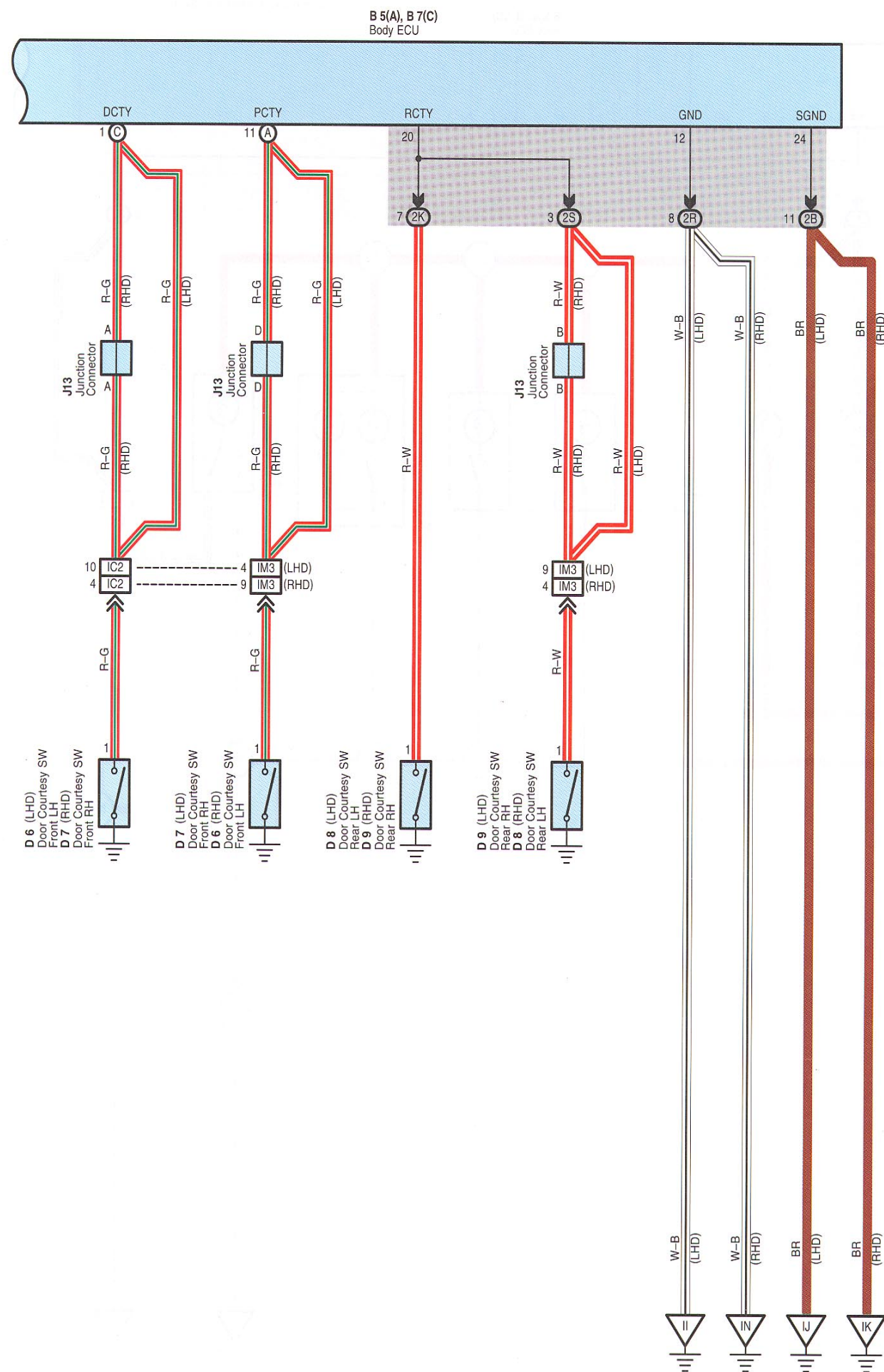
 : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) | Instrument Panel Brace LH         |
| IK   | 60 (LHD) | Instrument Panel Brace LH         |
|      | 72 (RHD) |                                   |
| IM   | 72 (RHD) | Instrument Panel Brace RH         |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

## Interior Light







**Service Hints**

**Body ECU**  
9-Ground : Approx. 12 volts with ignition SW at ON or ST position  
12, 24-Ground : Always continuity  
1-Ground : Always approx. 12 volts

**D6, D7, D8, D9 Door Courtesy SW Front LH, RH, Rear LH, RH**  
1-Ground : Closed with each of the door

○ : Parts Location

| Code |   | See Page | Code |          | See Page | Code     |          | See Page |
|------|---|----------|------|----------|----------|----------|----------|----------|
| B5   | A | 40 (LHD) | D8   | 42 (LHD) | L4       | 53 (RHD) |          |          |
|      |   | 50 (RHD) |      | 52 (RHD) |          |          |          |          |
| B7   | C | 40 (LHD) | D9   | 42 (LHD) | L5       | 43 (LHD) |          |          |
|      |   | 50 (RHD) |      | 52 (RHD) |          | 53 (RHD) |          |          |
| C7   | A | 40 (LHD) | I13  | 51 (RHD) | M4       | 43 (LHD) |          |          |
|      |   | 50 (RHD) |      | 41 (LHD) |          | 53 (RHD) |          |          |
| C8   | B | 40 (LHD) | I14  | 51 (RHD) | N4       | 43 (LHD) |          |          |
|      |   | 50 (RHD) |      | 42 (LHD) |          | 53 (RHD) |          |          |
| D6   |   | 42 (LHD) | I17  | 52 (RHD) | V7       | 43 (LHD) |          |          |
|      |   | 52 (RHD) |      | 51 (RHD) |          | 53 (RHD) |          |          |
| D7   |   | 42 (LHD) | J12  | 51 (RHD) | V8       | 43 (LHD) |          |          |
|      |   | 52 (RHD) |      | J13      |          | 51 (RHD) | 53 (RHD) |          |
|      |   |          | L4   | 43 (LHD) |          |          |          |          |

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

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2Q   |          |                                                                          |
| 2R   |          |                                                                          |
| 2S   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)         |
|------|----------|--------------------------------------------------------------------|
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)             |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)            |
| IC3  | 72 (RHD) | Instrument Panel Wire and Floor MWire (Right Kick Panel)           |
| IE1  | 60 (LHD) | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)  |
|      | 72 (RHD) | Instrument Panel Wire and Roof Wire (Inside of Front Right Pillar) |
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)       |
|      | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)        |

**▽ : Ground Points**

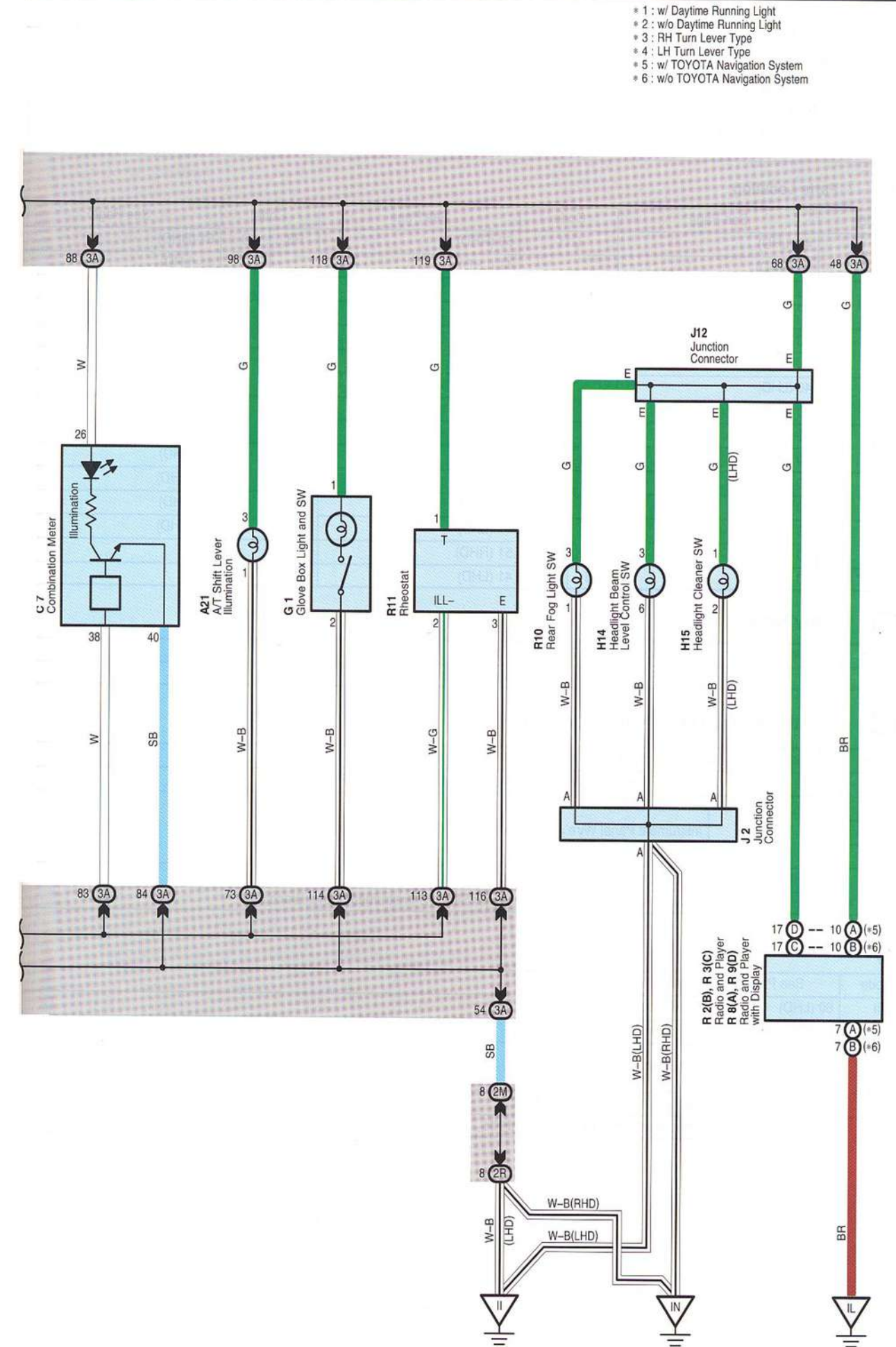
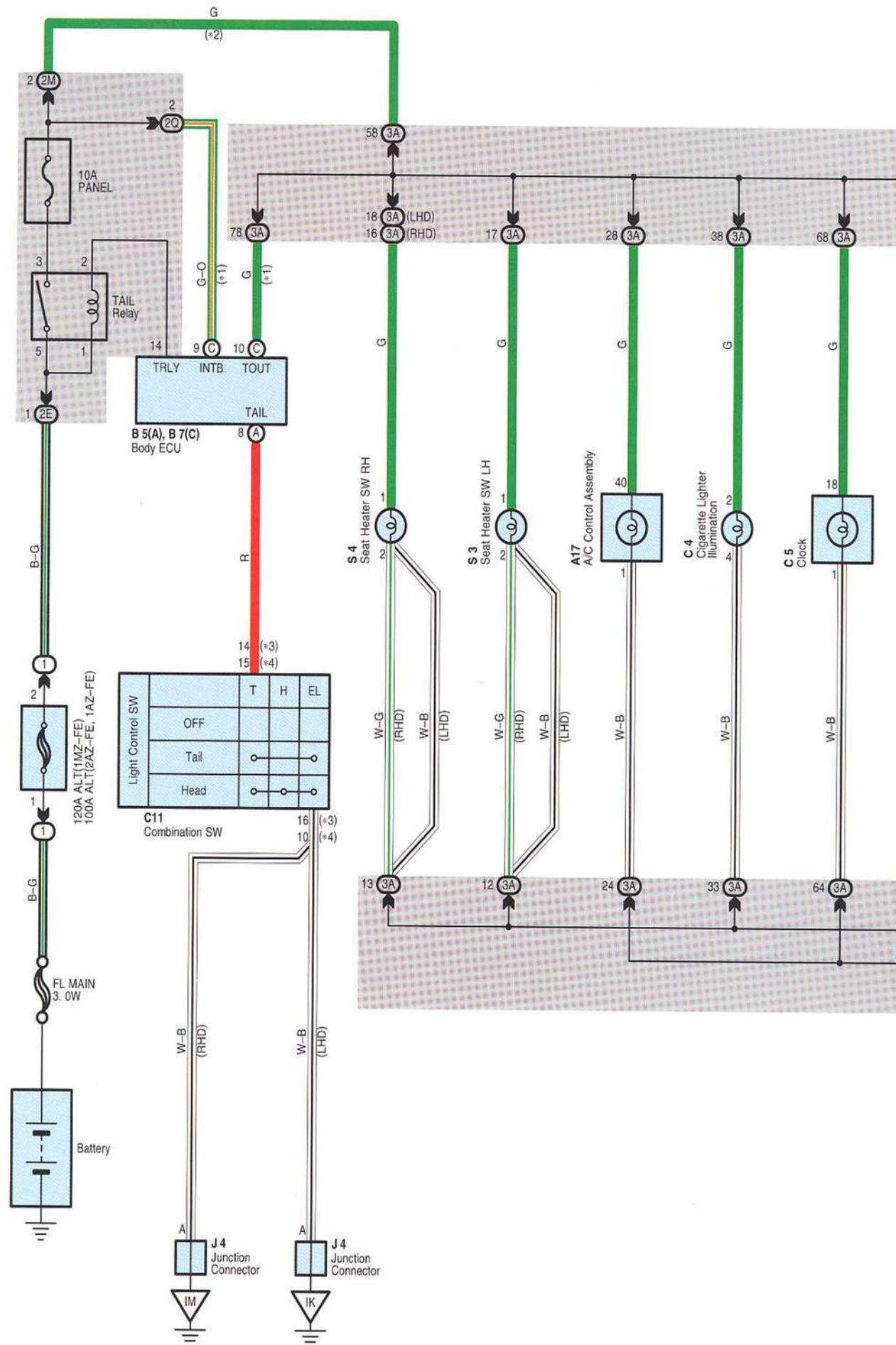
| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) | Instrument Panel Brace LH         |
|      | 72 (RHD) | Instrument Panel Reinforcement LH |
| IK   | 72 (RHD) | Instrument Panel Brace LH         |
| IM   | 60 (LHD) | Instrument Panel Reinforcement RH |
| IN   | 72 (RHD) |                                   |

# Interior Light

 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| B1   | 64 (LHD) | Roof Wire                       | B5   | 64 (LHD) | Floor Wire                      |
|      | 76 (RHD) |                                 |      | 76 (RHD) |                                 |





- \* 1 : w/ Daytime Running Light
- \* 2 : w/o Daytime Running Light
- \* 3 : RH Turn Lever Type
- \* 4 : LH Turn Lever Type
- \* 5 : w/ TOYOTA Navigation System
- \* 6 : w/o TOYOTA Navigation System

# Illumination

## Service Hints

### TAIL Relay

5-3 : Closed with the light control SW at TAIL or HEAD position

### C11 Combination SW

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

## ○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| A17  | 40 (LHD) | C11  | 50 (RHD) | R3   | C        |
|      | 50 (RHD) |      | 41 (LHD) |      |          |
| A21  | 40 (LHD) | G1   | 51 (RHD) | R8   | A        |
|      | 50 (RHD) |      | 41 (LHD) |      |          |
| B5   | 40 (LHD) | H14  | 51 (RHD) | R9   | D        |
|      | 50 (RHD) |      | 41 (LHD) |      |          |
| B7   | 40 (LHD) | H15  | 51 (RHD) | R10  | 41 (LHD) |
|      | 50 (RHD) |      | 41 (LHD) |      | 51 (RHD) |
| C4   | 40 (LHD) | J2   | 51 (RHD) | R11  | 41 (LHD) |
|      | 50 (RHD) |      | 41 (LHD) |      | 51 (RHD) |
| C5   | 40 (LHD) | J4   | 51 (RHD) | S3   | 41 (LHD) |
|      | 50 (RHD) |      | 41 (LHD) |      | 51 (RHD) |
| C7   | 40 (LHD) | J12  | 51 (RHD) | S4   | 41 (LHD) |
|      | 50 (RHD) |      | 41 (LHD) |      | 51 (RHD) |
| C11  | 40 (LHD) | R2   | B        |      |          |
|      |          | R3   | C        |      |          |

## ○ : Relay Blocks

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

## ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2Q   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

## ▽ : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IK   | 60 (LHD) | Instrument Panel Brace LH         |
| IL   | 60 (LHD) | Instrument Panel Brace RH         |
|      | 72 (RHD) |                                   |
| IM   | 72 (RHD) | Instrument Panel Brace RH         |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |



## 172



\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

# Turn Signal and Hazard Warning Light

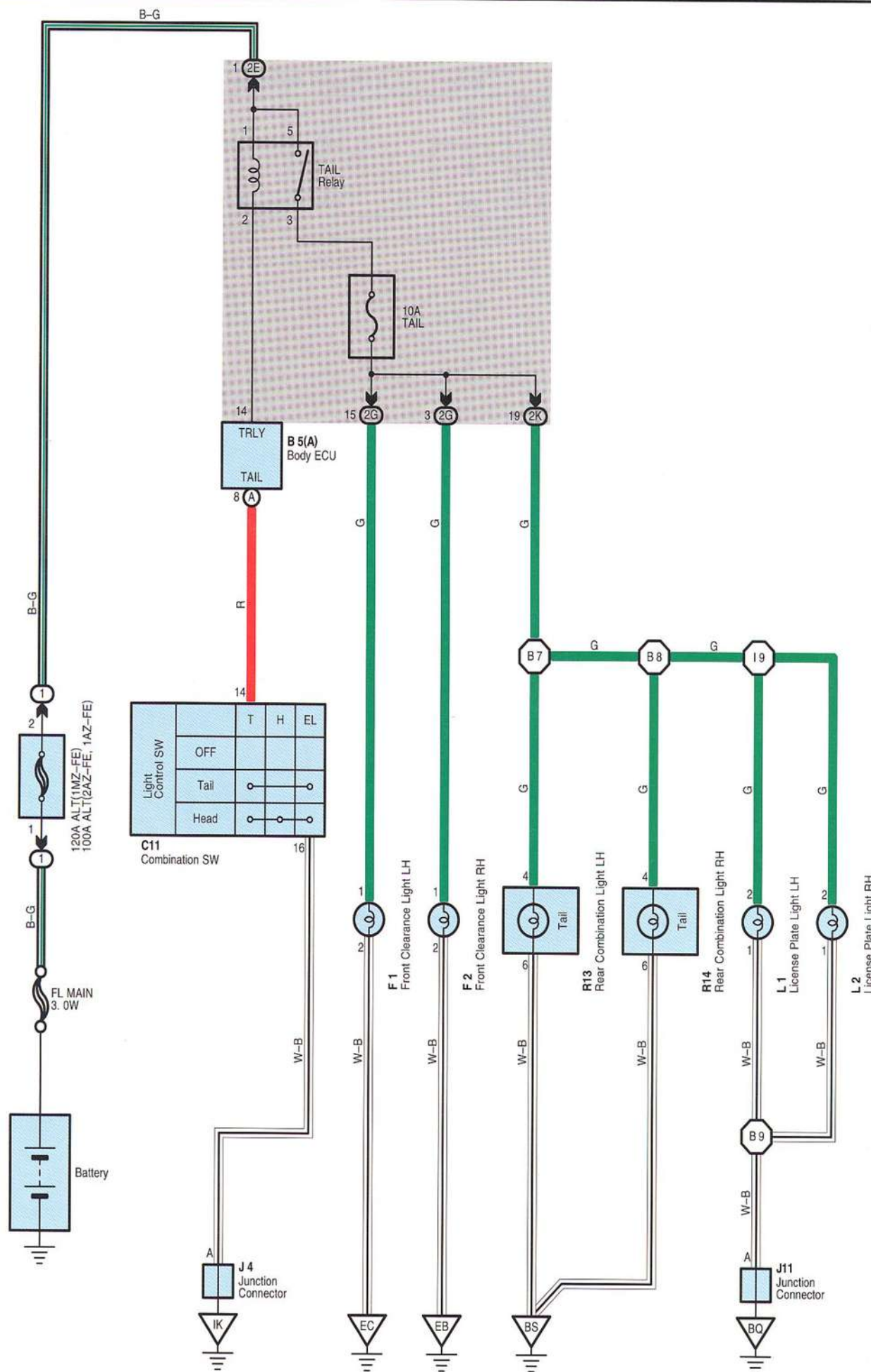
 : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page        | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|-----------------|---------------------------------|
| E1   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | E2   | 68 (RHD 1MZ-FE) | Engine Room Main Wire           |
|      | 58 (*1)         |                                 |      | 70 (*2)         |                                 |
|      | 68 (RHD 1MZ-FE) |                                 | I3   | 62 (LHD)        |                                 |
|      | 70 (*2)         |                                 |      | 74 (RHD)        |                                 |
| E2   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | I11  | 74 (RHD)        |                                 |
|      | 58 (*1)         | Engine Wire                     |      |                 |                                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE



### Taillight (LHD)



### Service Hints

## TAIL Relay

5-3 : Closed with the light control SW at TAIL or HEAD position

**C11 Combination SW**

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

○ : Parts Location

| Code |   | See Page        | Code | See Page        | Code | See Page |
|------|---|-----------------|------|-----------------|------|----------|
| B5   | A | 40 (LHD)        | F2   | 36 (LHD 1MZ-FE) | L1   | 43 (LHD) |
| C11  |   | 40 (LHD)        |      | 38 (*1)         | L2   | 43 (LHD) |
| F1   |   | 36 (LHD 1MZ-FE) | J4   | 41 (LHD)        | R13  | 43 (LHD) |
|      |   | 38 (*1)         | J11  | 42 (LHD)        | R14  | 43 (LHD) |

\*1 : LHD 2AZ-FE, 1AZ-FE

 : Relay Blocks

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

 : Junction Block and Wire Harness Connector

|      |          |                                                                |
|------|----------|----------------------------------------------------------------|
| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel) |
| 2G   |          |                                                                |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)            |

 : Ground Points

| Code | See Page        | Ground Points Location                    |
|------|-----------------|-------------------------------------------|
| EB   | 56 (LHD 1MZ-FE) | Right Fender                              |
|      | 58 (*1)         |                                           |
| EC   | 56 (LHD 1MZ-FE) | Left Fender                               |
|      | 58 (*1)         |                                           |
| IK   | 60 (LHD)        | Instrument Panel Brace LH                 |
| BQ   | 64 (LHD)        | Front Side of Rear Quarter Wheel House LH |
| BS   | 64 (LHD)        | Lower Back Panel Center                   |

\*1 : LHD 2AZ-FE, 1AZ-FE

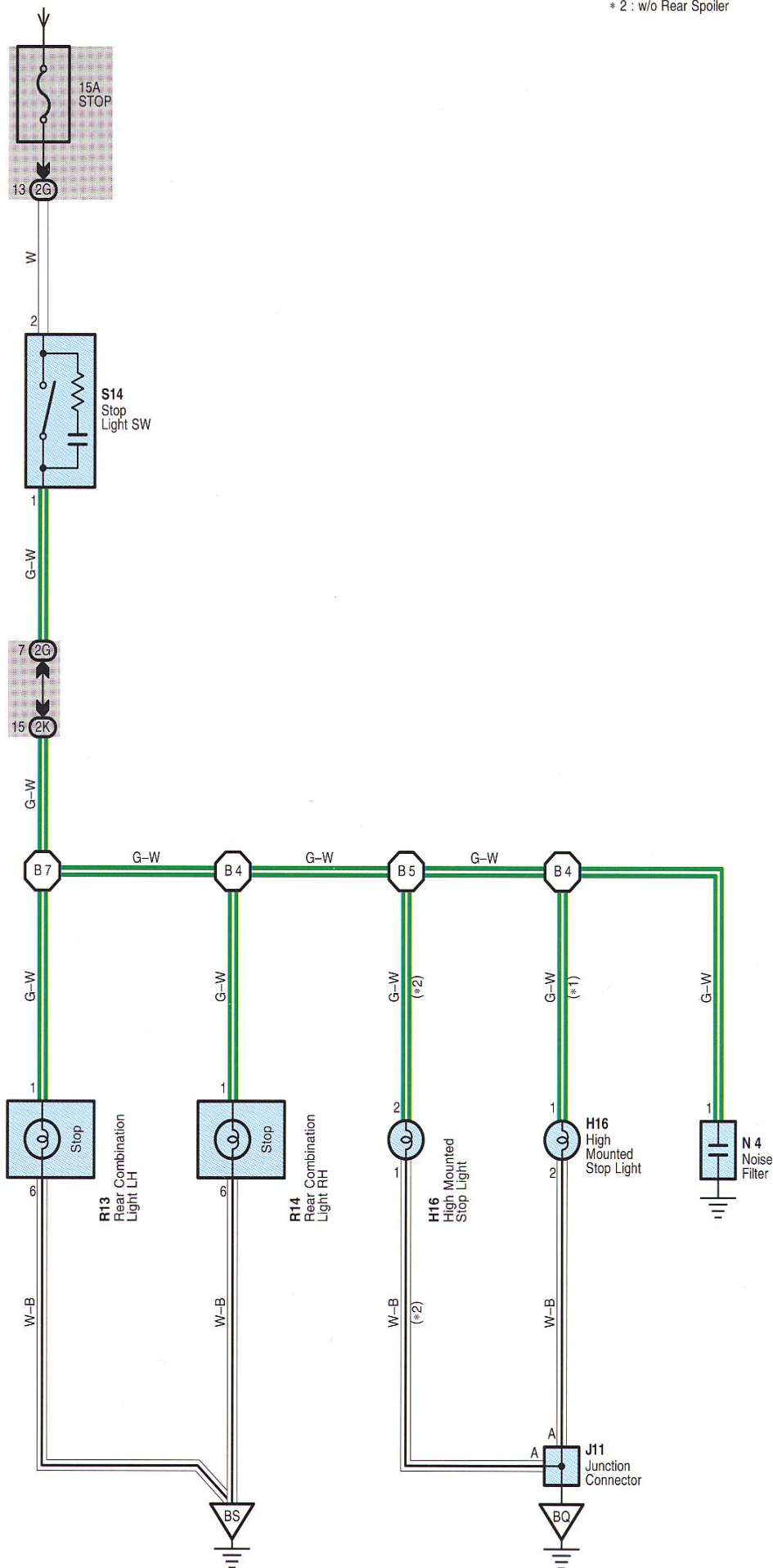
 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I9   | 62 (LHD) | Floor Wire                      | B8   | 64 (LHD) | Floor Wire                      |
| B7   | 64 (LHD) |                                 | B9   |          |                                 |

# Stop Light (LHD)

From Power Source System (See Page 82)

\* 1 : w/ Rear Spoiler  
\* 2 : w/o Rear Spoiler



## Service Hints

### S14 Stop Light SW

2-1 : Closed with the brake pedal depressed

### ○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| H16  | 42 (LHD) | N4   | 43 (LHD) | R14  | 43 (LHD) |
| J11  | 42 (LHD) | R13  | 43 (LHD) | S14  | 41 (LHD) |

### □ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel) |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)            |

### ▽ : Ground Points

| Code | See Page | Ground Points Location                    |
|------|----------|-------------------------------------------|
| BQ   | 64 (LHD) | Front Side of Rear Quarter Wheel House LH |
| BS   | 64 (LHD) | Lower Back Panel Center                   |

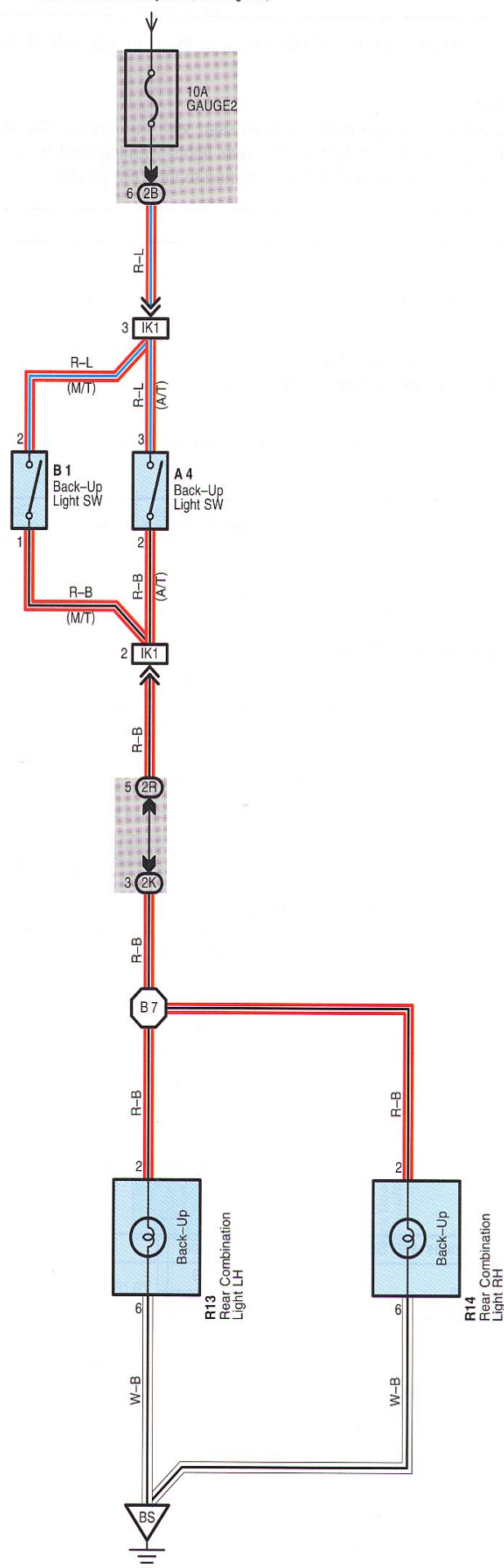
### ○ : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| B4   | 64 (LHD) | Floor Wire                      | B7   | 64 (LHD) | Floor Wire                      |
| B5   |          |                                 |      |          |                                 |



# Back-Up Light

From Power Source System (See Page 82)



## Service Hints

- B1 Back-Up Light SW (M/T)**  
1-2 : Closed with the shift lever at R position
- A4 Back-Up Light SW (A/T)**  
3-2 : Closed with the shift lever at R position

## Parts Location

| Code | See Page        | Code | See Page | Code | See Page |
|------|-----------------|------|----------|------|----------|
| A4   | 36 (LHD 1MZ-FE) | B1   | 38 (*1)  | R14  | 43 (LHD) |
|      | 38 (*1)         |      | 48 (*2)  |      | 53 (RHD) |
|      | 46 (RHD 1MZ-FE) | R13  | 43 (LHD) |      |          |
|      | 48 (*2)         |      | 53 (RHD) |      |          |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

## Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)            |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |

## Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)   |
|------|----------|--------------------------------------------------------------|
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box) |
|      | 74 (RHD) |                                                              |

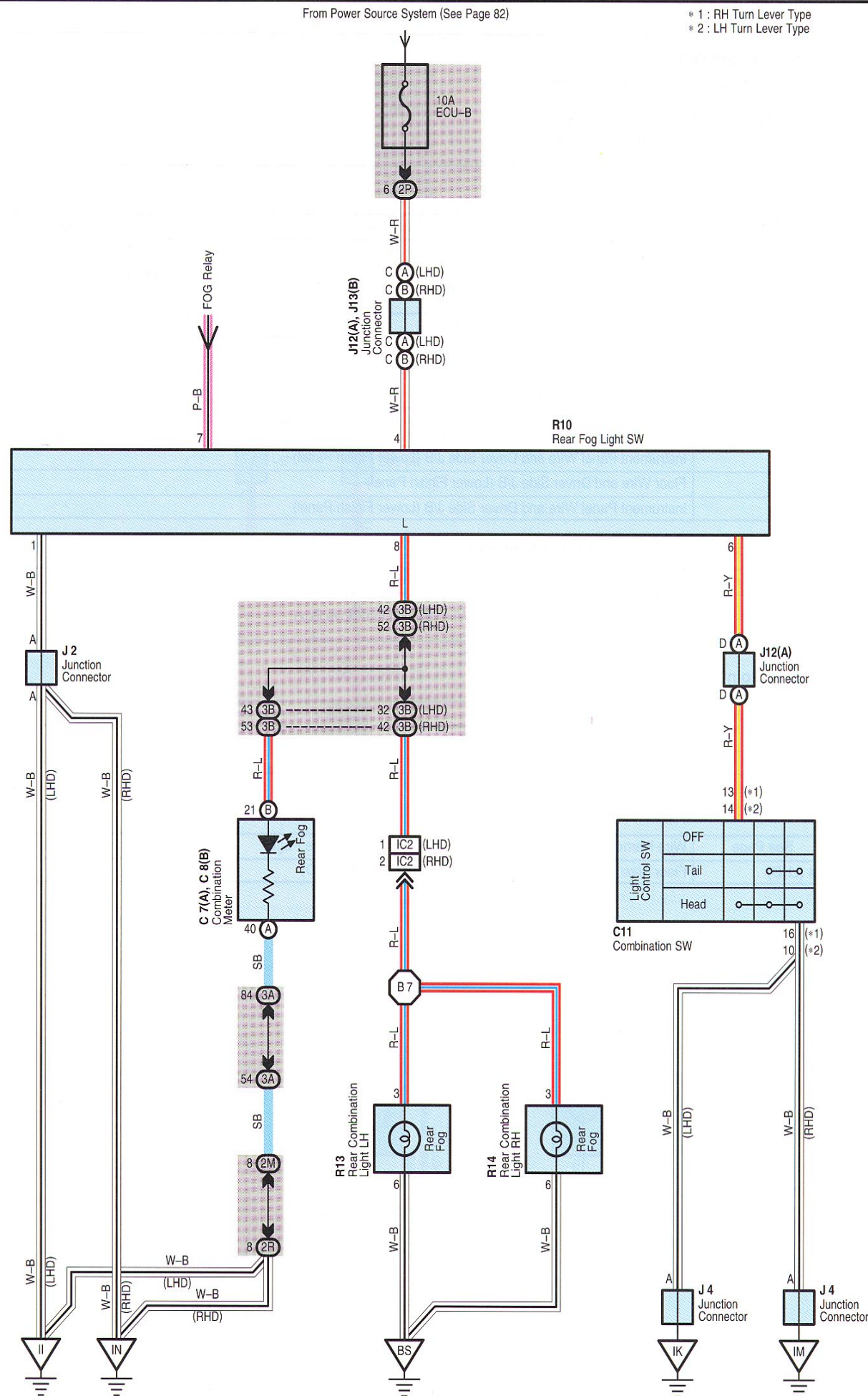
## Ground Points

| Code | See Page | Ground Points Location  |
|------|----------|-------------------------|
| BS   | 64 (LHD) | Lower Back Panel Center |
|      | 76 (RHD) |                         |

## Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| B7   | 64 (LHD) | Floor Wire                      | B7   | 76 (RHD) | Floor Wire                      |

## Rear Fog Light



### Service Hints

**R10 Rear Fog Light SW**

4-Ground : Always approx. 12 volts  
1-Ground : Always continuity

○ : Parts Location

| Code |   | See Page | Code |   | See Page | Code | See Page |
|------|---|----------|------|---|----------|------|----------|
| C7   | A | 40 (LHD) | J2   |   | 51 (RHD) | R10  | 51 (RHD) |
|      |   | 50 (RHD) |      |   | 41 (LHD) |      | 43 (LHD) |
| C8   | B | 40 (LHD) | J4   |   | 51 (RHD) | R13  | 53 (RHD) |
|      |   | 50 (RHD) |      |   | 41 (LHD) |      | 43 (LHD) |
| C11  |   | 40 (LHD) | J12  | A | 51 (RHD) | R14  | 53 (RHD) |
|      |   | 50 (RHD) |      |   | 51 (RHD) |      | 53 (RHD) |
|      |   |          | J13  | B | 51 (RHD) |      |          |
| J2   |   | 41 (LHD) | R10  |   | 41 (LHD) |      |          |

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2P   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

☐ : Connector Joining Wire Harness and Wire Harness

|      |          |                                                            |
|------|----------|------------------------------------------------------------|
| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location) |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)     |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)    |

 : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IK   | 60 (LHD) | Instrument Panel Brace LH         |
| IM   | 72 (RHD) | Instrument Panel Brace RH         |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |
| BS   | 64 (LHD) | Lower Back Panel Center           |
|      | 76 (RHD) |                                   |

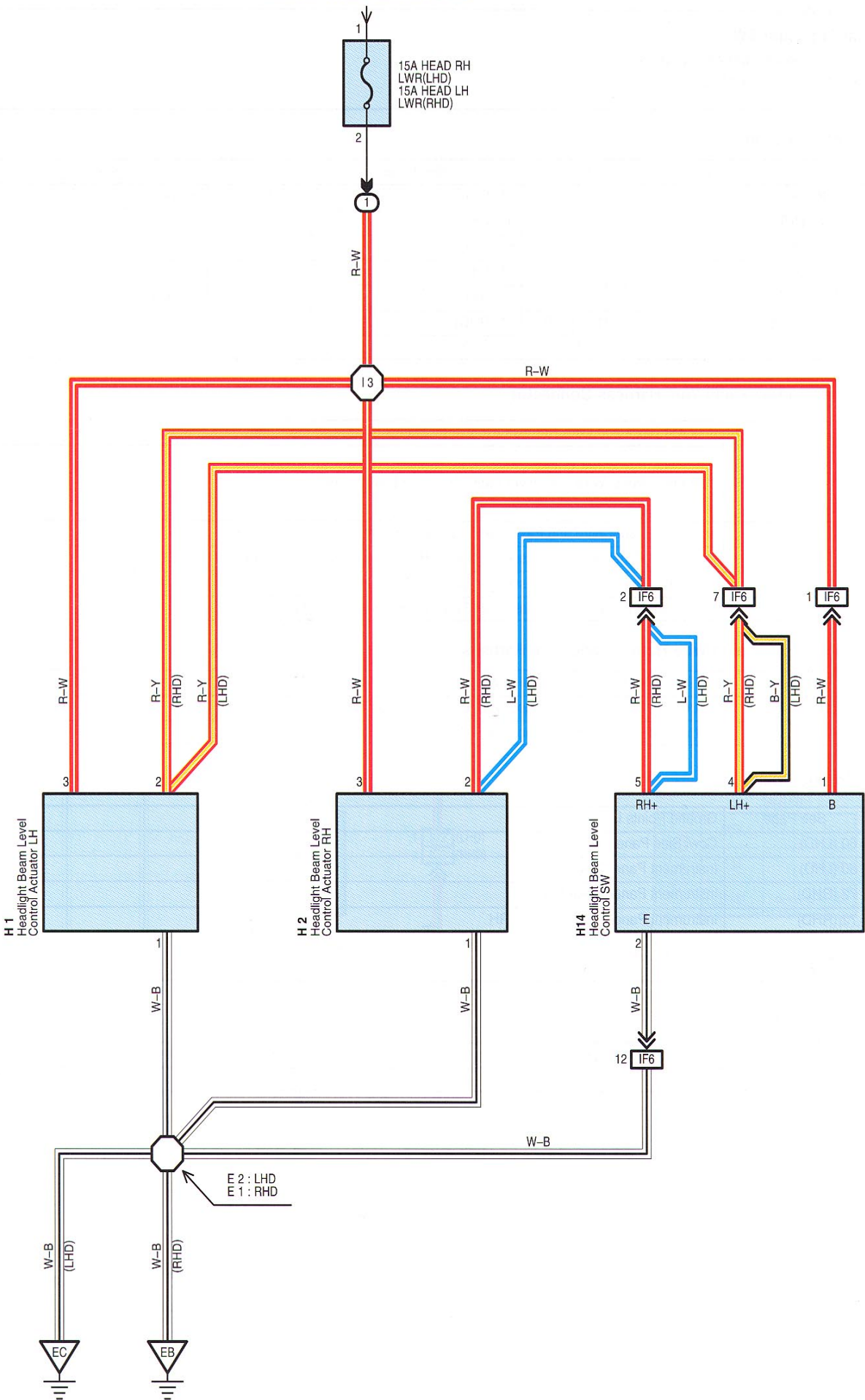
 : Splice Points

|      |          |                                 |      |          |                                 |
|------|----------|---------------------------------|------|----------|---------------------------------|
| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
| B7   | 64 (LHD) | Floor Wire                      | B7   | 76 (RHD) | Floor Wire                      |



# Headlight Beam Level Control

From Power Source System (See Page 82)



## Service Hints

### H1, H2 Headlight Beam Level Control Actuator LH, RH

- 3-Ground : Approx. 12 volts with the light control SW at HEAD position
- 1-Ground : Always continuity

### H14 Headlight Beam Level Control SW

- 1-Ground : Approx. 12 volts with the light control SW at HEAD position
- 2-Ground : Always continuity

## Parts Location

| Code | See Page        | Code | See Page        | Code | See Page |
|------|-----------------|------|-----------------|------|----------|
| H1   | 36 (LHD 1MZ-FE) | H2   | 36 (LHD 1MZ-FE) | H14  | 41 (LHD) |
|      | 38 (*1)         |      | 38 (*1)         |      | 51 (RHD) |
|      | 46 (RHD 1MZ-FE) |      | 46 (RHD 1MZ-FE) |      |          |
|      | 48 (*2)         |      | 48 (*2)         |      |          |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

## Relay Blocks

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

## Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF6  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |

## Ground Points

| Code | See Page        | Ground Points Location |
|------|-----------------|------------------------|
| EB   | 68 (RHD 1MZ-FE) | Right Fender           |
|      | 70 (*2)         |                        |
| EC   | 56 (LHD 1MZ-FE) | Left Fender            |
|      | 58 (*1)         |                        |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

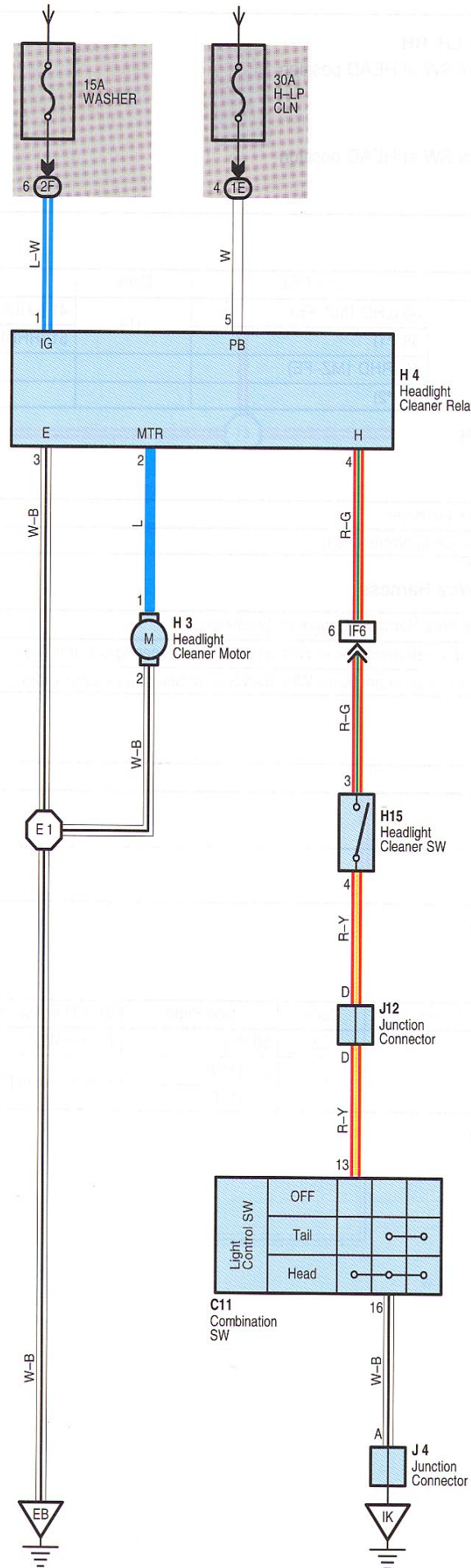
## Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E1   | 68 (RHD 1MZ-FE) | Engine Room Main Wire           | E2   | 58 (*1)  | Engine Wire                     |
|      | 70 (*2)         |                                 | I3   | 62 (LHD) | Engine Room Main Wire           |
| E2   | 56 (LHD 1MZ-FE) |                                 |      | 74 (RHD) |                                 |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

## Headlight Cleaner (LHD)

From Power Source System (See Page 82)



### Service Hints

#### H4 Headlight Cleaner Relay

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

### ○ : Parts Location

| Code | See Page        | Code | See Page        | Code | See Page |
|------|-----------------|------|-----------------|------|----------|
| C11  | 40 (LHD)        | H4   | 36 (LHD 1MZ-FE) | J4   | 41 (LHD) |
| H3   | 36 (LHD 1MZ-FE) |      | 38 (*1)         | J12  | 41 (LHD) |
|      | 38 (*1)         | H15  | 41 (LHD)        |      |          |

\*1 : LHD 2AZ-FE, 1AZ-FE

### ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1E   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 2F   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF6  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |

### ▽ : Ground Points

| Code | See Page                   | Ground Points Location    |
|------|----------------------------|---------------------------|
| EB   | 56 (LHD 1MZ-FE)<br>58 (*1) | Right Fender              |
| IK   | 60 (LHD)                   | Instrument Panel Brace LH |

\*1 : LHD 2AZ-FE, 1AZ-FE

### ○ : Splice Points

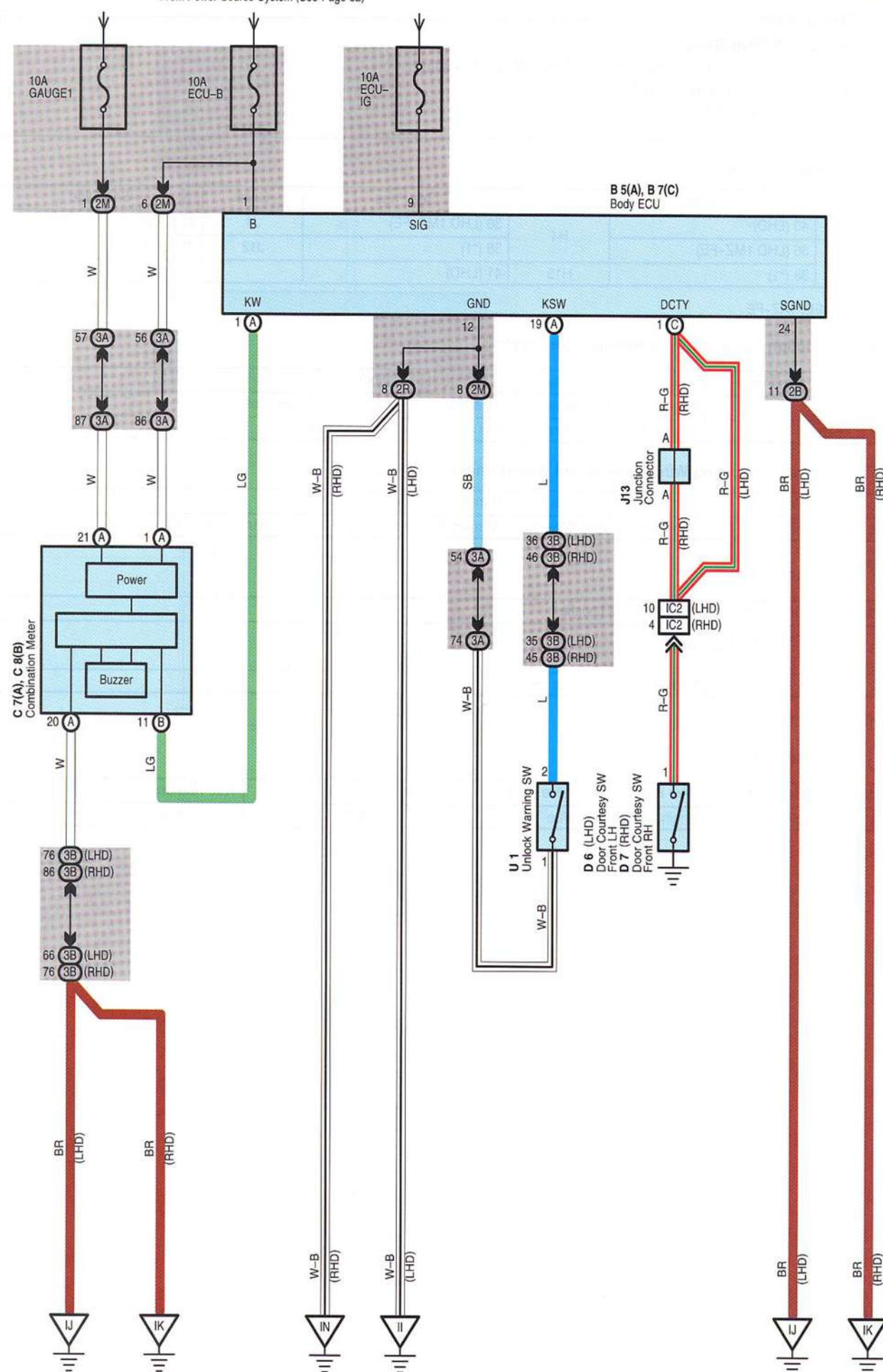
| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E1   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | E1   | 58 (*1)  | Engine Room Main Wire           |

\*1 : LHD 2AZ-FE, 1AZ-FE



### Key Reminder

From Power Source System (See Page 82)



## System Outline

### Key Reminder System

With the ignition key inserted in the key cylinder (Unlock warning SW on), the ignition SW still off and driver's door open (Door courtesy SW on), when a signal is input to TERMINAL (C) 1 of the body ECU, the body ECU operates, current flows from TERMINAL (A) 1 of the ECU to TERMINAL (B) 11 of the combination meter to GROUND and key reminder buzzer sounds.

## Service Hints

### Body ECU

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

12, 24-Ground : Always continuity

1-Ground : Always approx. 12 volts

**D6, D7 Door Courtesy SW Front LH, RH**

1-Ground : Closed with the driver door open

**U1 Unlock Warning SW**

1-2 : Closed with the ignition key in cylinder

○ : Parts Location

| Code |   | See Page | Code |          | See Page | Code | See Page |
|------|---|----------|------|----------|----------|------|----------|
| B5   | A | 40 (LHD) | C7   | A        | 50 (RHD) | J13  | 51 (RHD) |
|      |   | 50 (RHD) |      |          | 40 (LHD) |      | 41 (LHD) |
| B7   | C | 40 (LHD) | C8   | B        | 50 (RHD) | U1   | 51 (RHD) |
|      |   | 50 (RHD) |      |          | D6       |      | 42 (LHD) |
| C7   | A | 40 (LHD) | D7   | 52 (RHD) |          |      |          |

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

|      |          |                                                            |
|------|----------|------------------------------------------------------------|
| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location) |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)     |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)    |

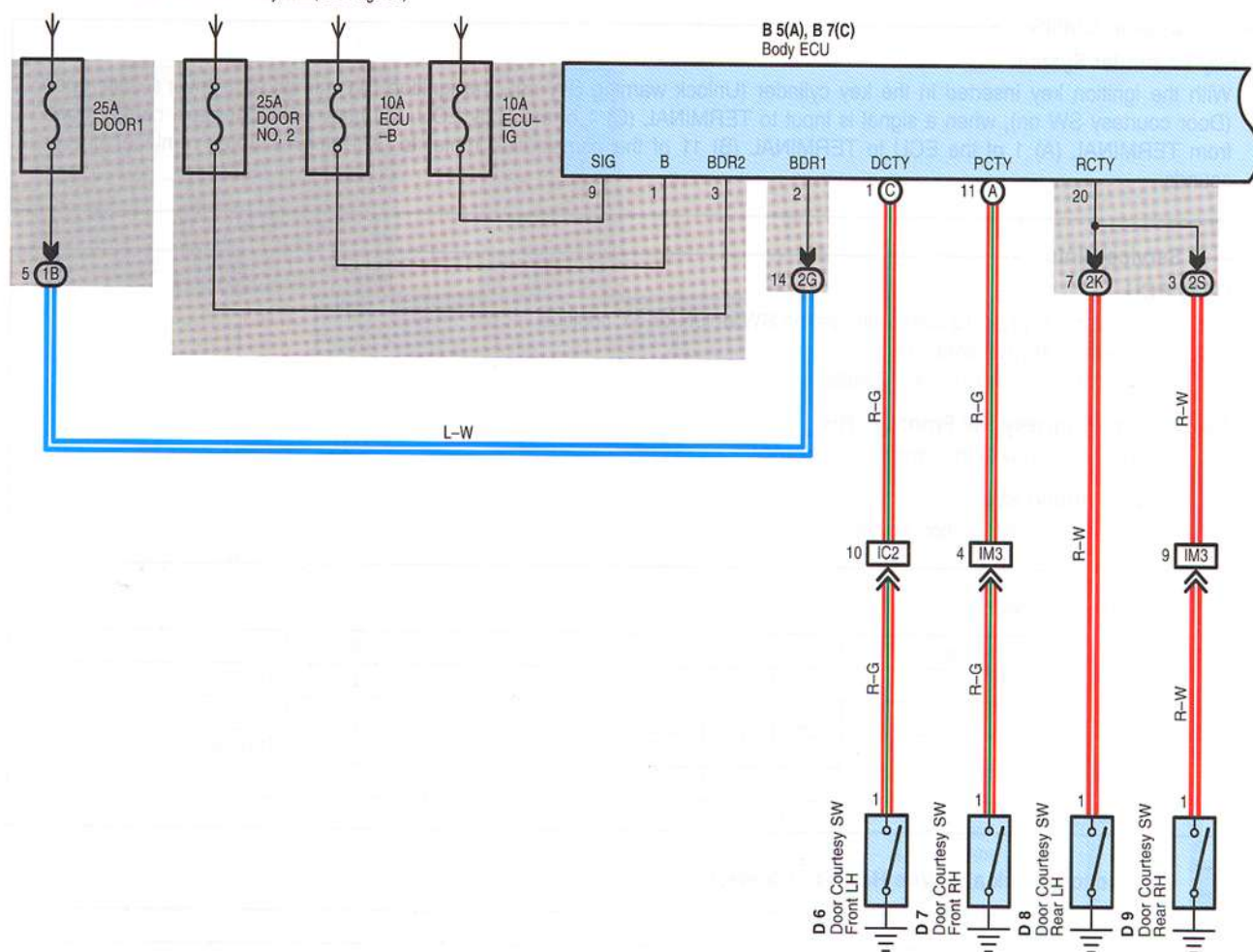
 : Ground Points

|      |          |                                   |
|------|----------|-----------------------------------|
| Code | See Page | Ground Points Location            |
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) | Instrument Panel Brace LH         |
| IK   | 72 (RHD) |                                   |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

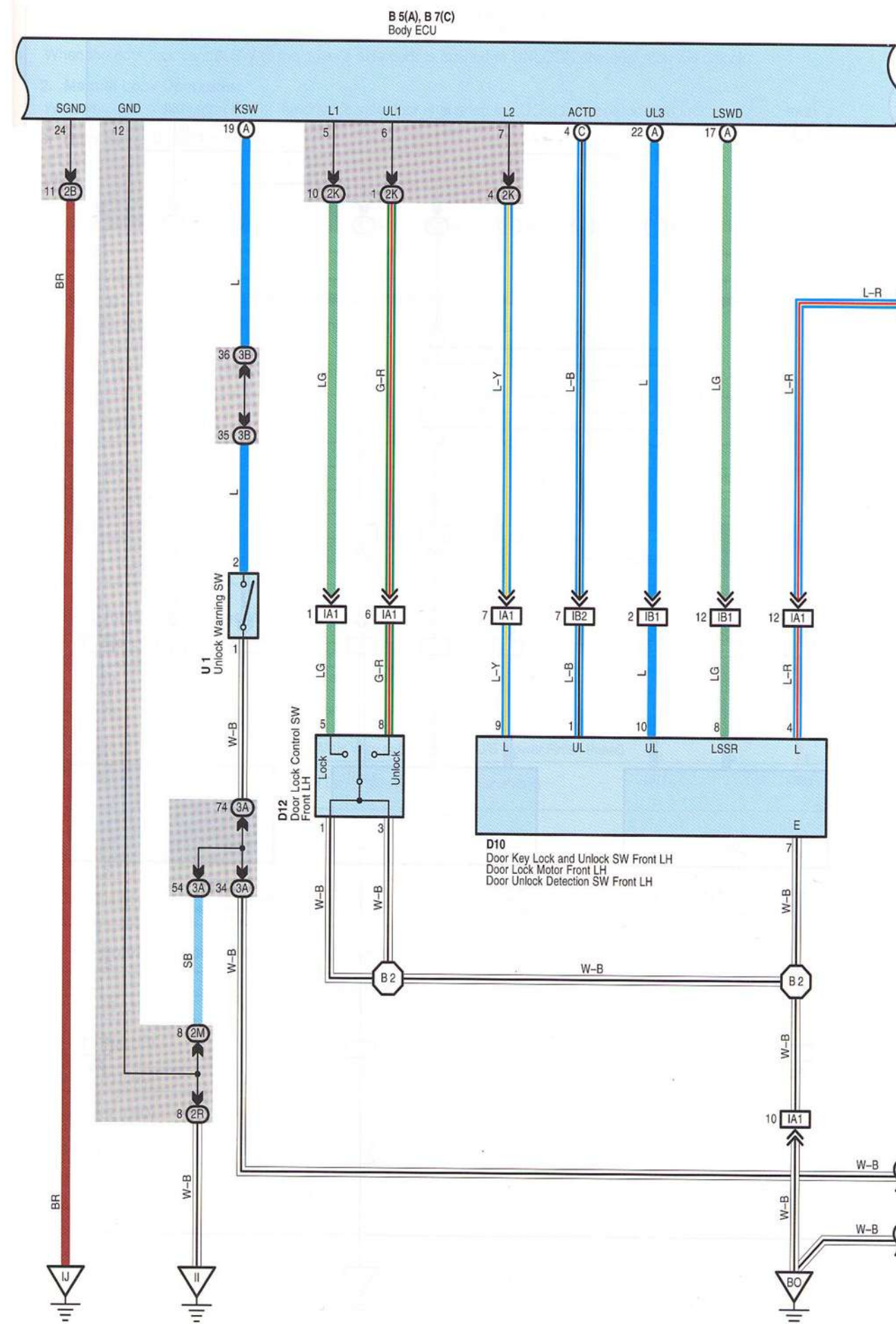


### Door Lock Control (LHD)

From Power Source System (See Page 82)

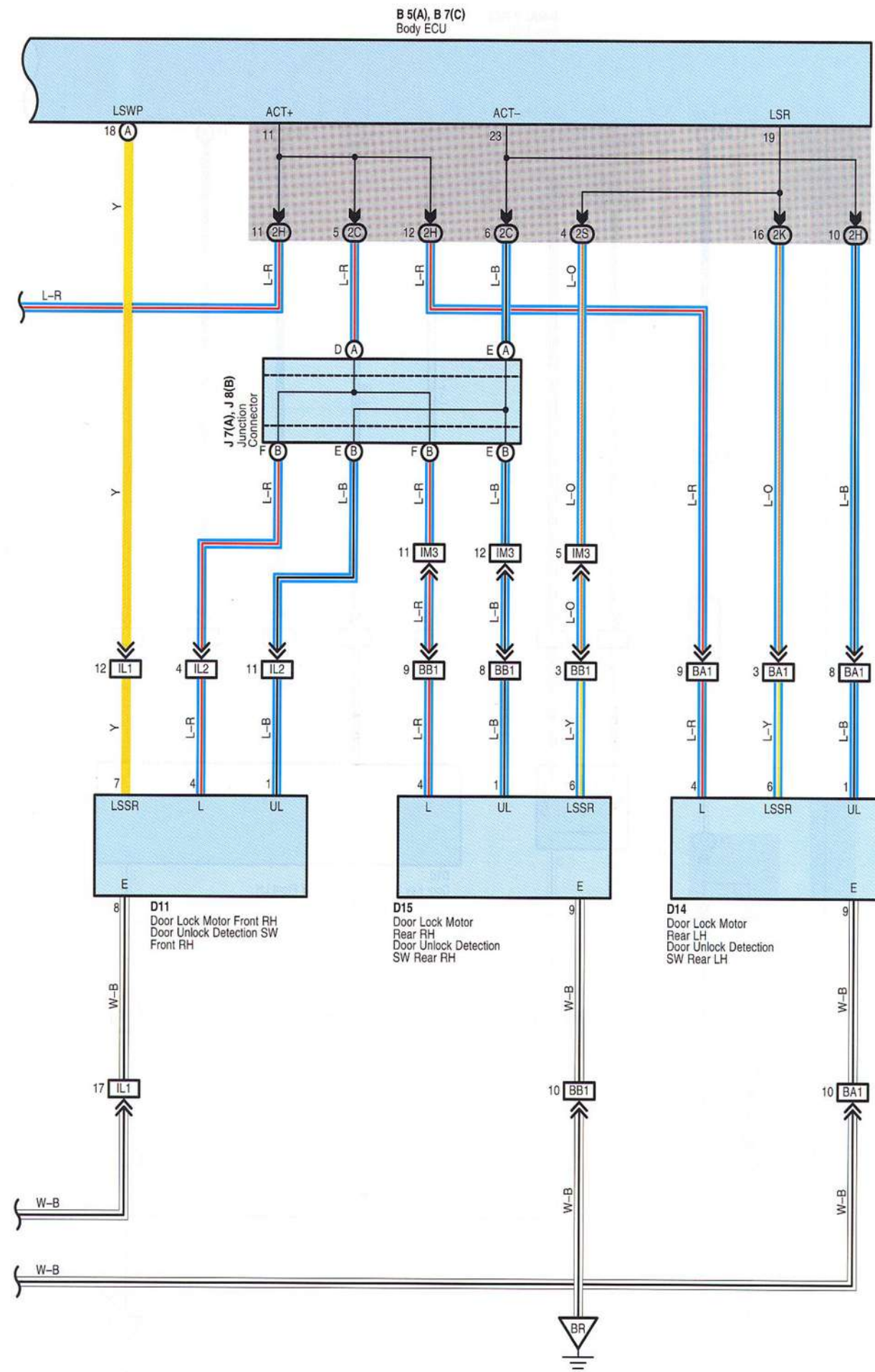


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## Door Lock Control (LHD)



### System Outline

#### 1. Manual Unlock Operation

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

#### 2. Manual Lock Operation

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

#### 3. Door Key Unlock Operation

\* Unlock operation from driver's side door

When the driver's side door is unlocked once using the ignition key, all the other doors are unlocked.

\* Unlock operation from front passenger's side door

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

### Service Hints

#### Body ECU

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

12, 24-Ground : Always continuity

1, 2-Ground : Always approx. 12 volts

### ○ : Parts Location

| Code | See Page   | Code | See Page | Code | See Page   |
|------|------------|------|----------|------|------------|
| B5   | A 40 (LHD) | D9   | 42 (LHD) | D15  | 42 (LHD)   |
| B7   | C 40 (LHD) | D10  | 42 (LHD) | J7   | A 41 (LHD) |
| D6   | 42 (LHD)   | D11  | 42 (LHD) | J8   | B 41 (LHD) |
| D7   | 42 (LHD)   | D12  | 42 (LHD) | U1   | 41 (LHD)   |
| D8   | 42 (LHD)   | D14  | 42 (LHD) |      |            |

### □ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2C   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2H   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2S   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)      |
|------|----------|-----------------------------------------------------------------|
| IA1  | 60 (LHD) | Front Door LH Wire and Floor Wire (Left Kick Panel)             |
| IB1  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
| IB2  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)          |
| IL1  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
| IL2  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)    |
| BA1  | 64 (LHD) | Rear Door LH Wire and Floor Wire (Left Center Pillar)           |
| BB1  | 64 (LHD) | Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)     |

# Door Lock Control (LHD)

 : Ground Points

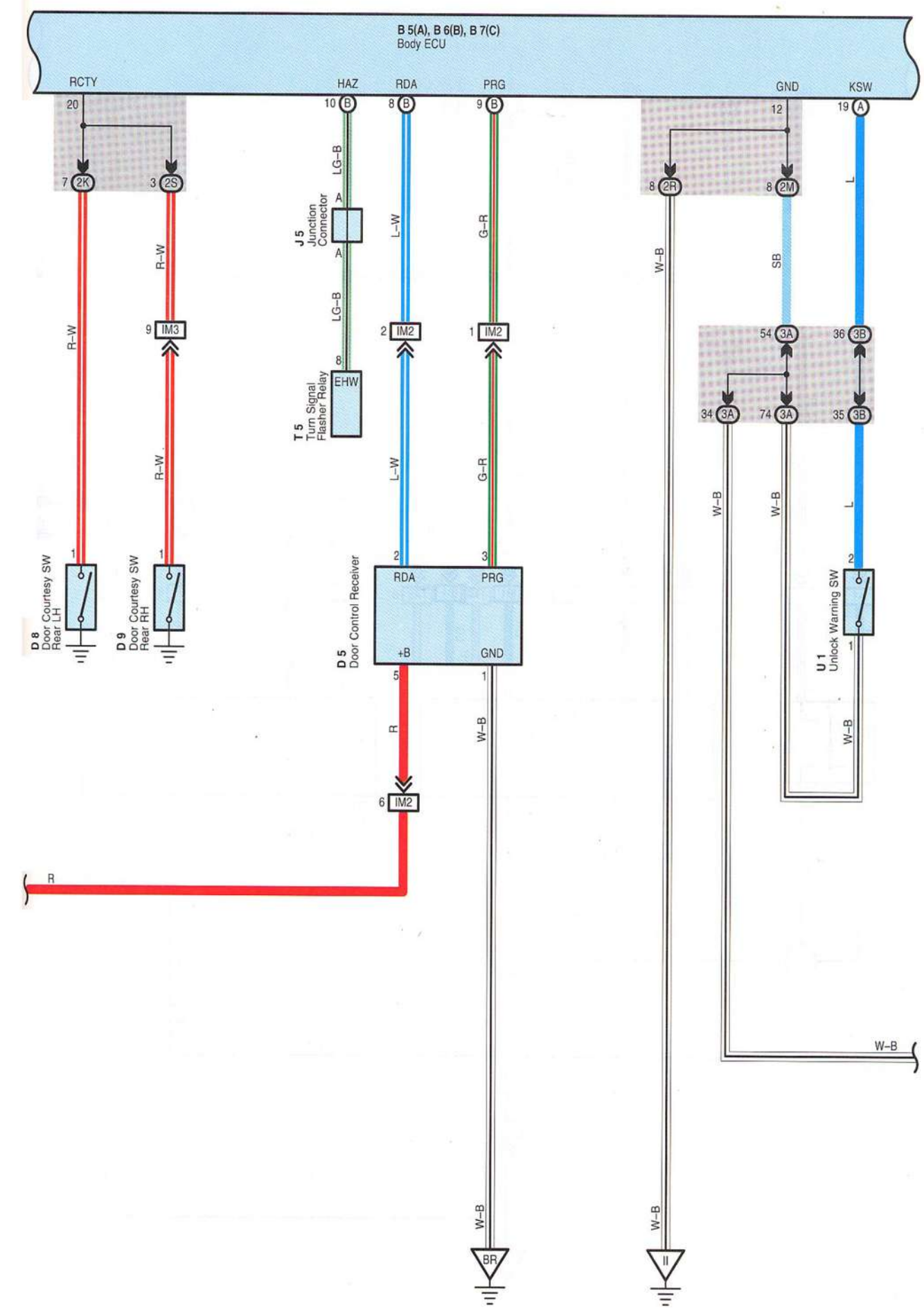
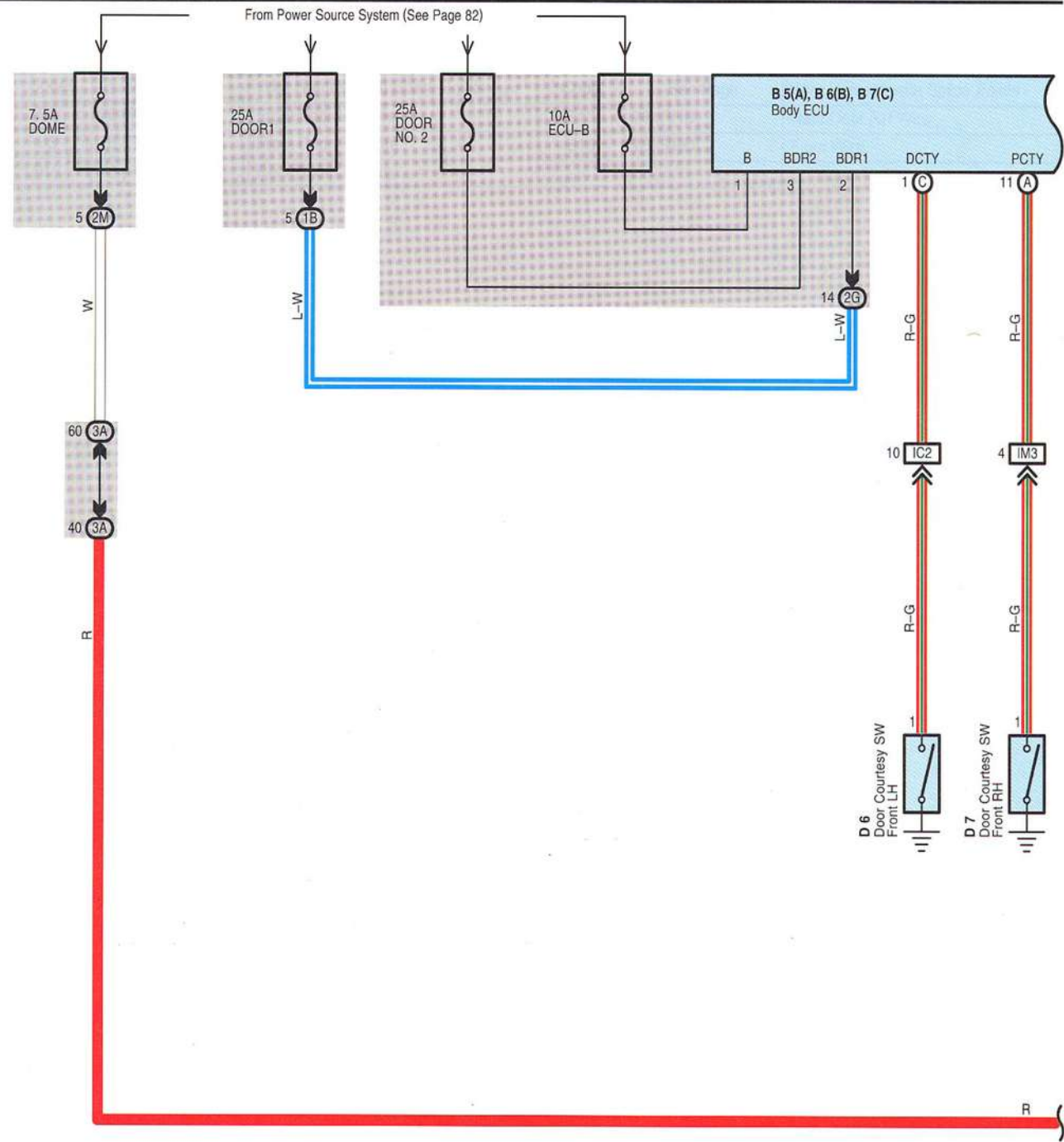
| Code | See Page | Ground Points Location                    |
|------|----------|-------------------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                        |
| IJ   | 60 (LHD) | Instrument Panel Brace LH                 |
| BO   | 64 (LHD) | Under the Driver's Seat                   |
| BR   | 64 (LHD) | Front Side of Rear Quarter Wheel House RH |

 : Splice Points

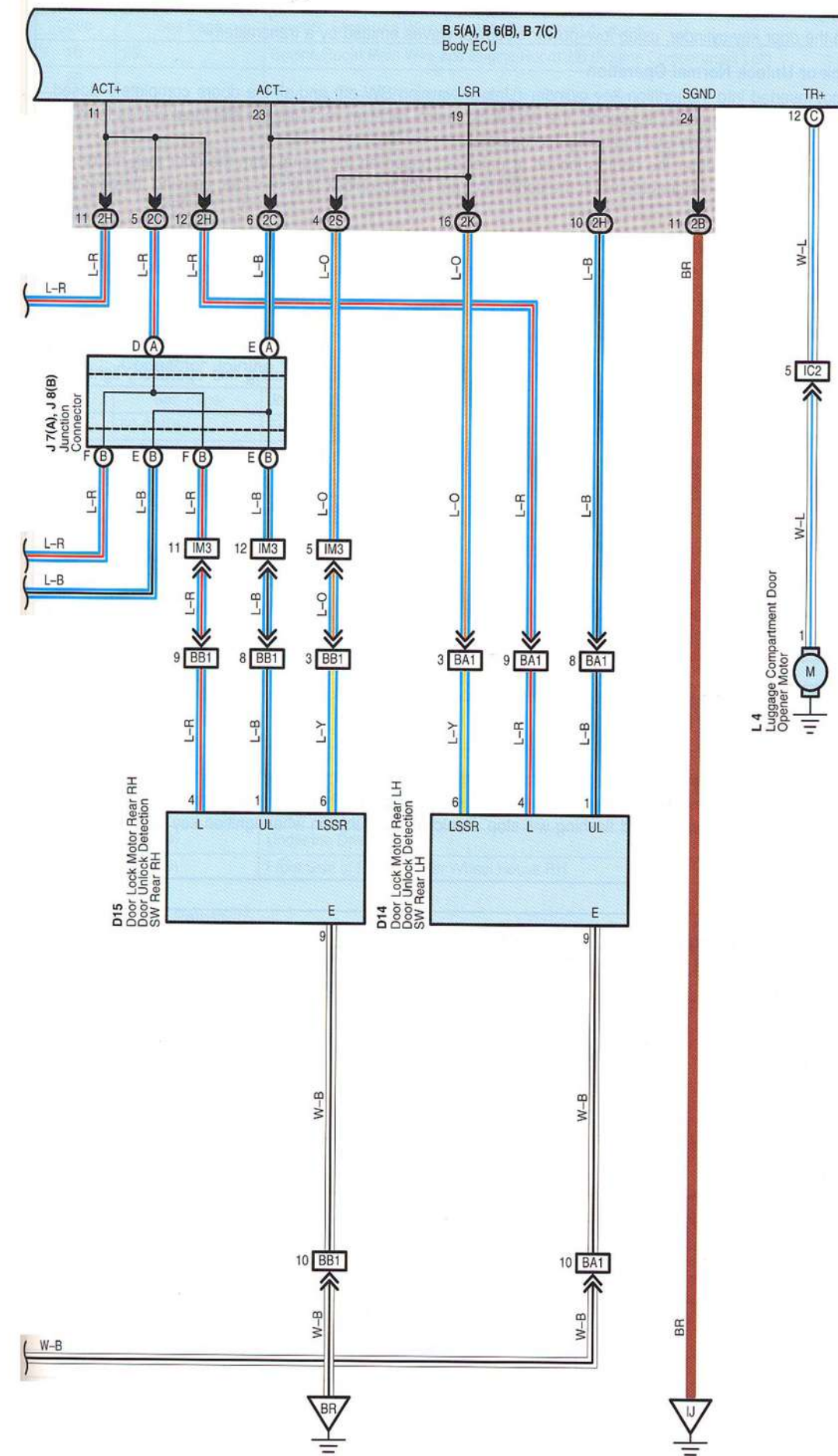
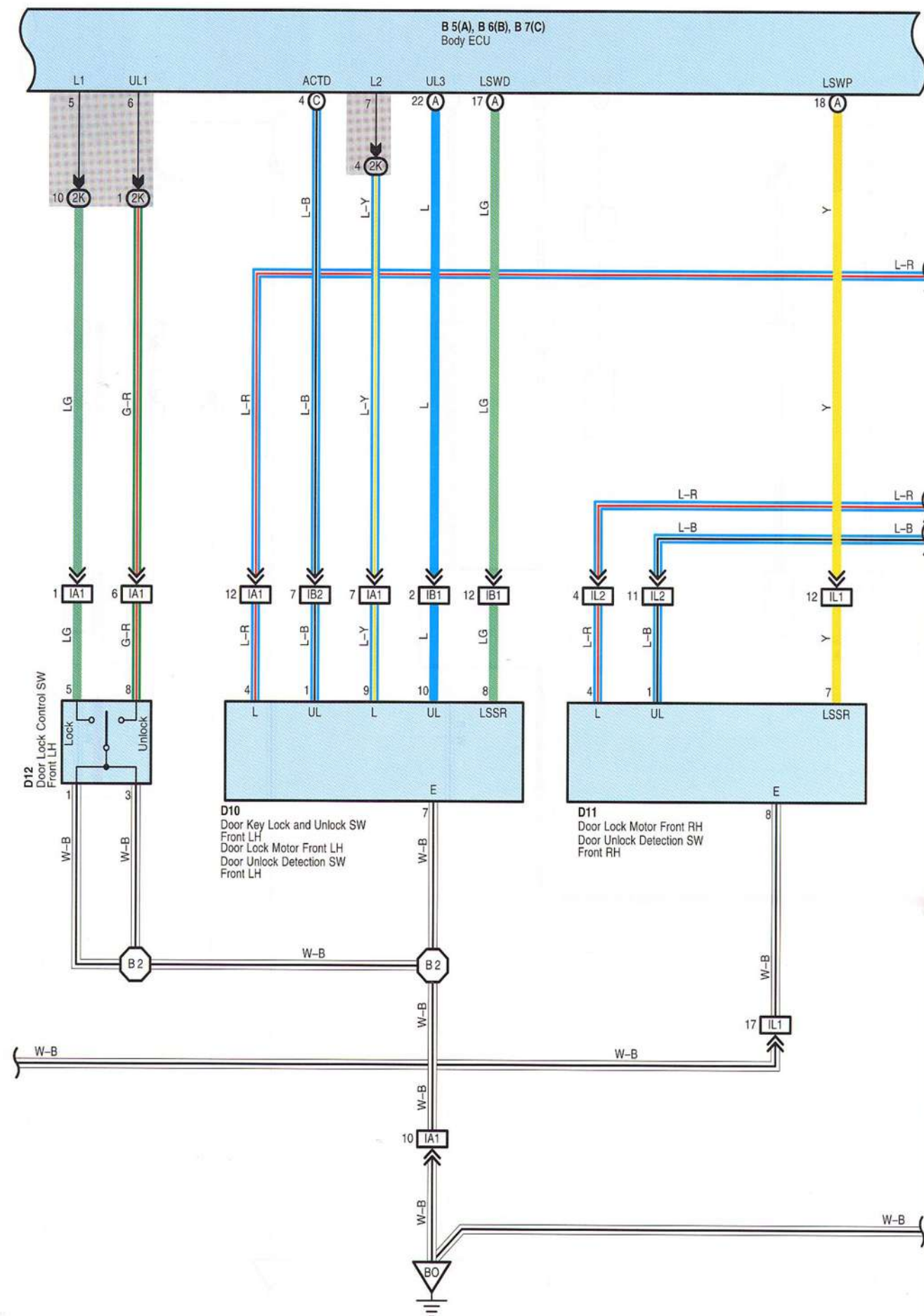
| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| B2   | 64 (LHD) | Front Door LH Wire              |      |          |                                 |



Wireless Door Lock Control (LHD)



### Wireless Door Lock Control (LHD)





# Wireless Door Lock Control (LHD)

## System Outline

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

### 1. Wireless Door Lock or Unlock Normal Operation

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

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

### 2. Visual Confirmation of Lock or Unlock

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

### 3. Illuminated Entry Function

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

### 4. Automatic Lock Operation

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

### 5. Wireless Control Stop Function

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

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

### 6. Repeat Function

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

### 7. Remote Panic Operation

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

## Service Hints

### D6, D7, D8, D9 Door Courtesy SW Front LH, RH, Rear LH, RH

1-Ground : Continuity with the door open

### U1 Unlock Warning SW

2-1 : Continuity with the ignition key in the cylinder

### D5 Door Control Receiver

5-Ground : Always approx. 12 volts

1-Ground : Always continuity

## Parts Location

| Code |   | See Page | Code | See Page | Code |   | See Page |
|------|---|----------|------|----------|------|---|----------|
| B5   | A | 40 (LHD) | D9   | 42 (LHD) | J7   | A | 41 (LHD) |
| B6   | B | 40 (LHD) | D10  | 42 (LHD) | J8   | B | 41 (LHD) |
| B7   | C | 40 (LHD) | D11  | 42 (LHD) | L4   |   | 43 (LHD) |
| D5   |   | 42 (LHD) | D12  | 42 (LHD) | T5   |   | 41 (LHD) |
| D6   |   | 42 (LHD) | D14  | 42 (LHD) | U1   |   | 41 (LHD) |
| D7   |   | 42 (LHD) | D15  | 42 (LHD) |      |   |          |
| D8   |   | 42 (LHD) | J5   | 41 (LHD) |      |   |          |

## ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 2B   |          |                                                                          |
| 2C   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2H   |          |                                                                          |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2M   |          |                                                                          |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2S   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
| 3B   |          |                                                                          |

## □ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)      |
|------|----------|-----------------------------------------------------------------|
| IA1  | 60 (LHD) | Front Door LH Wire and Floor Wire (Left Kick Panel)             |
| IB1  |          |                                                                 |
| IB2  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)          |
| IL1  |          |                                                                 |
| IL2  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
| IM2  |          |                                                                 |
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)    |
| BA1  | 64 (LHD) | Rear Door LH Wire and Floor Wire (Left Center Pillar)           |
| BB1  | 64 (LHD) | Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)     |

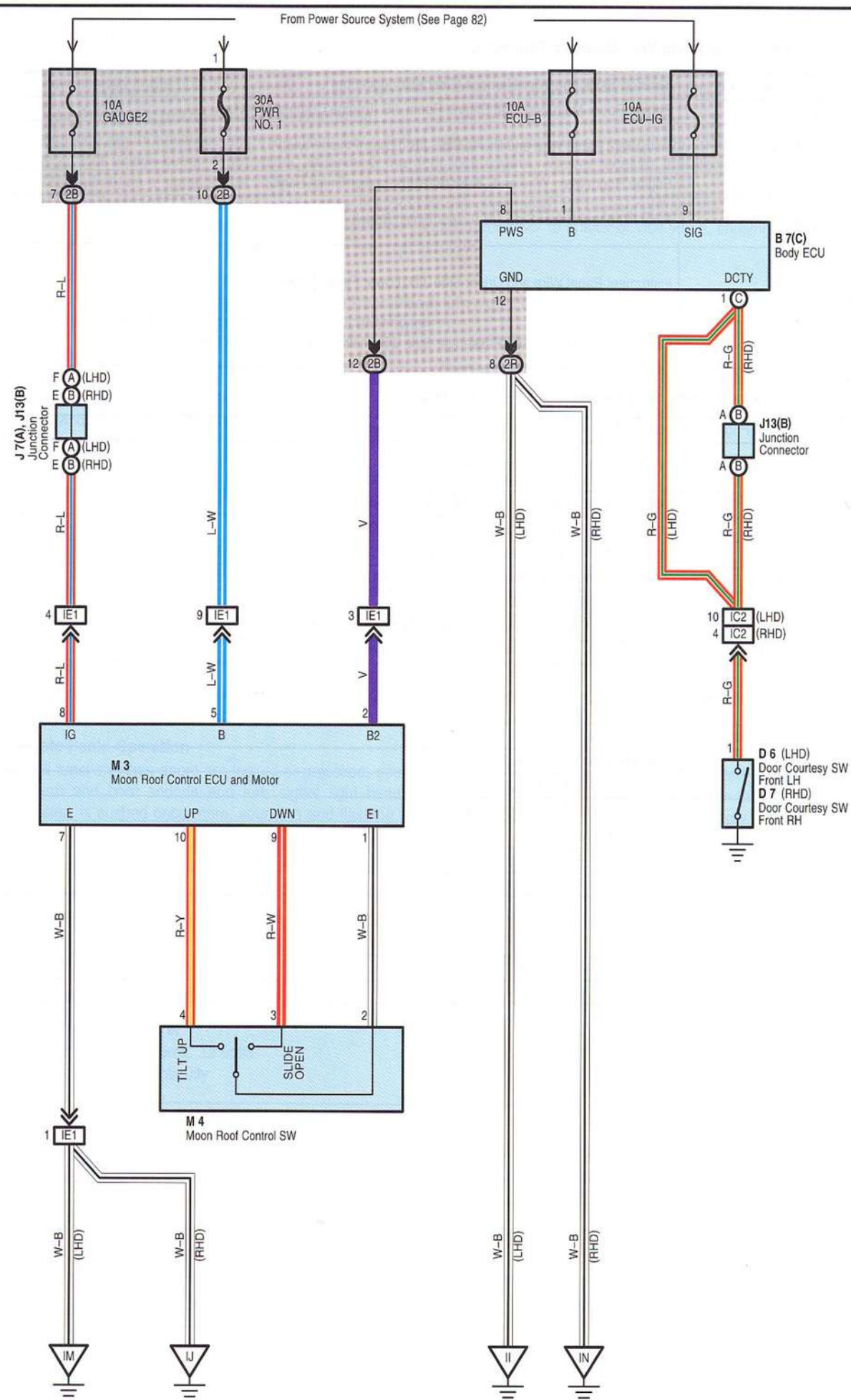
## ▽ : Ground Points

| Code | See Page | Ground Points Location                    |
|------|----------|-------------------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                        |
| IJ   | 60 (LHD) | Instrument Panel Brace LH                 |
| BO   | 64 (LHD) | Under the Driver's Seat                   |
| BR   | 64 (LHD) | Front Side of Rear Quarter Wheel House RH |

## ○ : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| B2   | 64 (LHD) | Front Door LH Wire              |      |          |                                 |

## Moon Roof



### Service Hints

#### M3 Moon Roof Control ECU and Motor

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

### ○ : Parts Location

| Code | See Page | Code     | See Page | Code | See Page |
|------|----------|----------|----------|------|----------|
| B7   | C        | 40 (LHD) | J7       | A    | 41 (LHD) |
|      |          | 50 (RHD) | J13      | B    | 51 (RHD) |
| D6   | 42 (LHD) |          |          |      |          |
| D7   | 52 (RHD) |          |          |      |          |

### □ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |
| 2R   | 29       |                                                                |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)         |
|------|----------|--------------------------------------------------------------------|
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)             |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)            |
| IE1  | 60 (LHD) | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)  |
|      | 72 (RHD) | Instrument Panel Wire and Roof Wire (Inside of Front Right Pillar) |

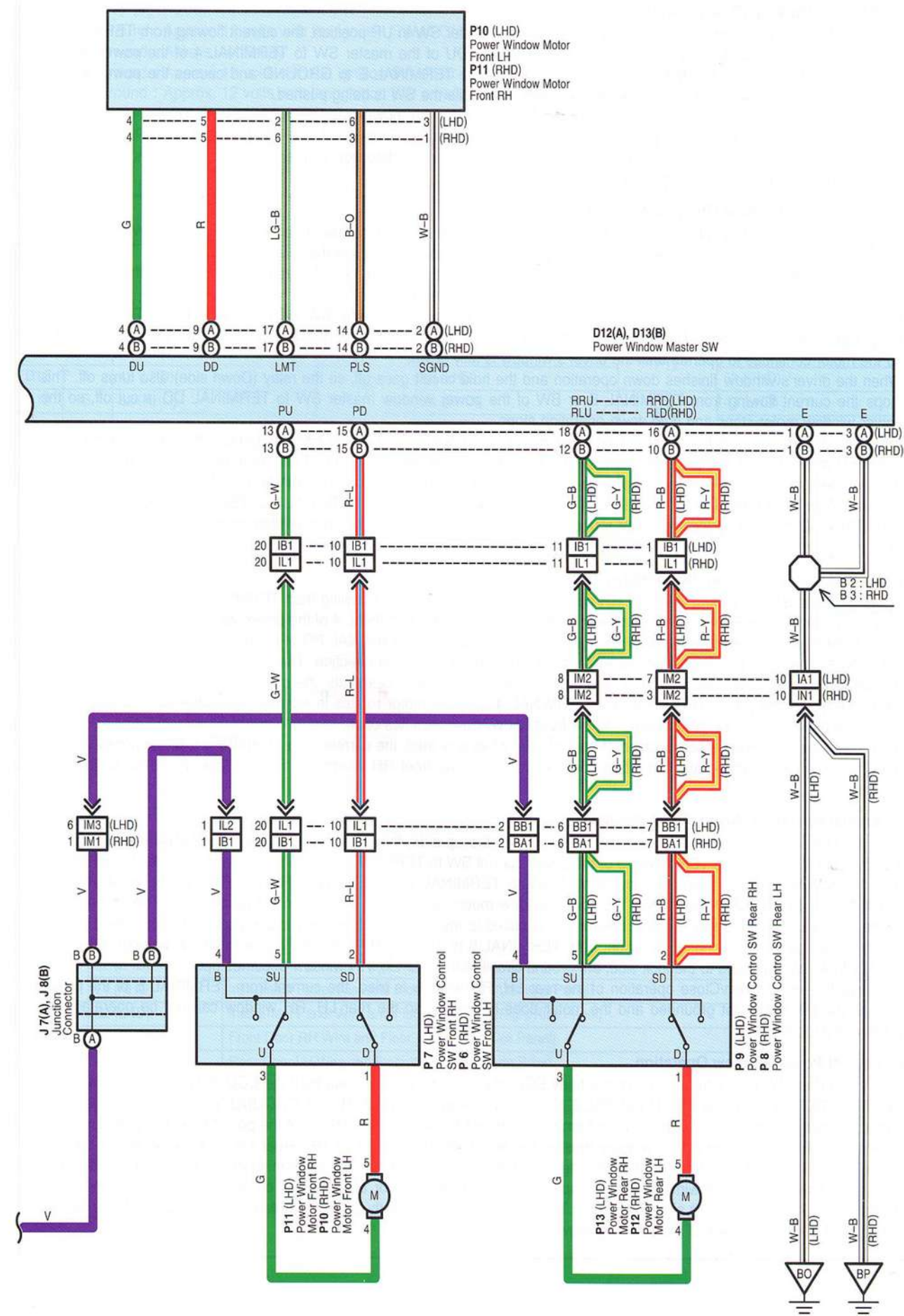
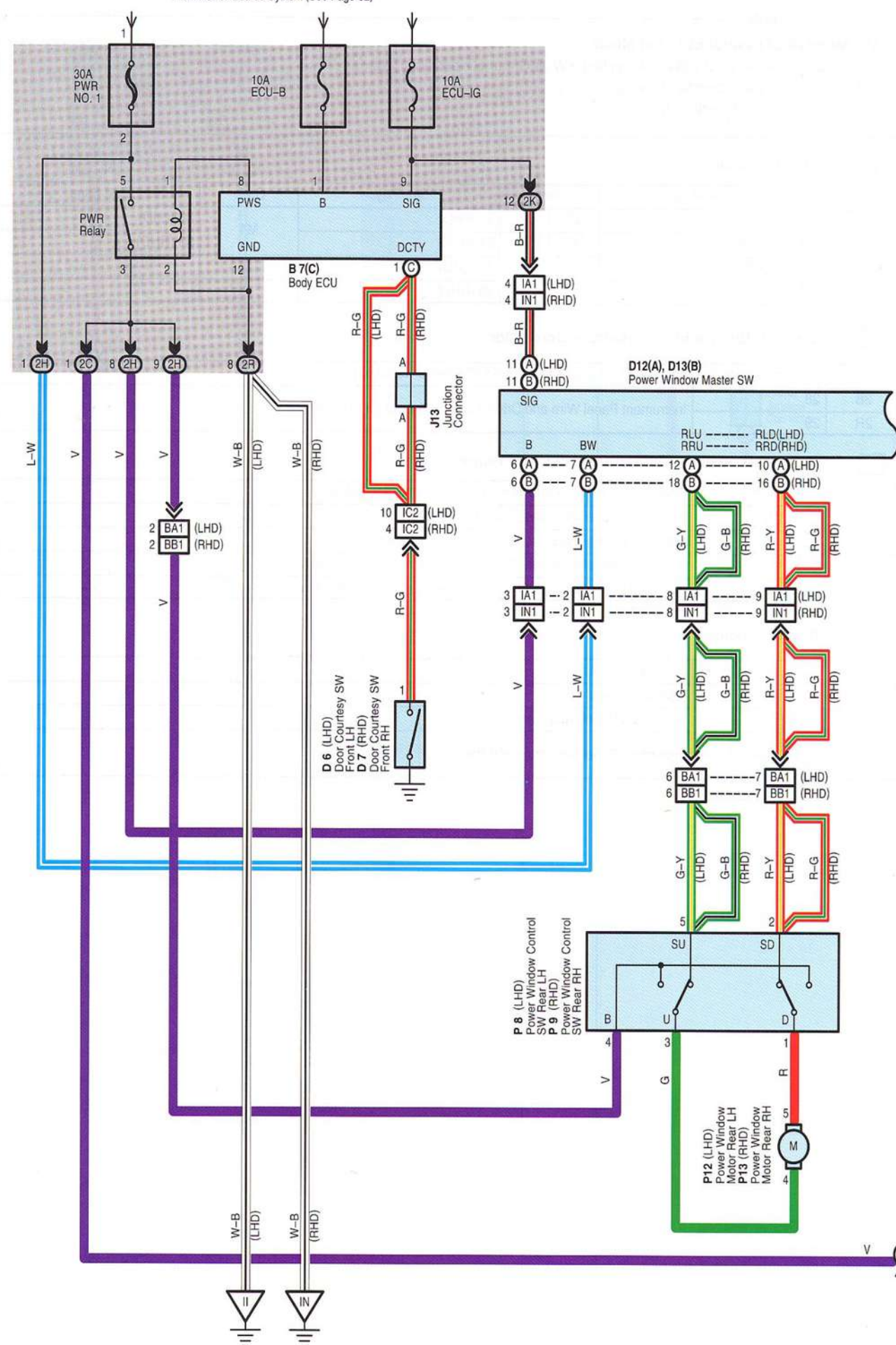
### ▽ : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 72 (RHD) | Instrument Panel Reinforcement LH |
| IM   | 60 (LHD) | Instrument Panel Reinforcement RH |
| IN   | 72 (RHD) |                                   |



# Power Window

From Power Source System (See Page 82)



System Outline

1. Manual Operation (Driver's Window)

With the ignition SW turned on and with the power window master SW in UP position, the current flowing from TERMINAL B or BW of the power window master SW flows to TERMINAL DU of the master SW to TERMINAL 4 of the power window motor to TERMINAL 5 to TERMINAL DD of the master SW to TERMINAL E to GROUND and causes the power window motor to rotate in the up direction. The window ascends only while the SW is being pushed.

In down operation, the flow of current from TERMINAL B or BW of the power window master SW to TERMINAL DD of the master SW causes the flow of current from TERMINAL 5 of the power window motor to TERMINAL 4 to TERMINAL DU of the master SW to TERMINAL E to GROUND, flowing in the opposite detection to manual up operation and causing the motor to rotate in reverse, lowering the window.

2. Auto Down Operation (Driver's Window)

When the driver's window SW is pushed strongly to the down side, the current flowing to TERMINAL B or BW of the power window master SW flows to the down contact point and auto down contact point of the driver's SW.

This activates the relay (Down side) inside the power window master SW and the hold circuit also turns on at the same time, so the relay (Down side) remains activated even when the SW is released.

Current flows at this time from TERMINAL B or BW of the power window master SW to TERMINAL DD to TERMINAL 5 of the power window motor to TERMINAL 4 to TERMINAL DU of the power window master SW to TERMINAL E to GROUND, so the motor continues to operate until the driver's window is fully down.

When the driver's window finishes down operation and the hold circuit goes off, so the relay (Down side) also turns off. This stops the current flowing from TERMINAL B or BW of the power window master SW to TERMINAL DD is cut off, so the power window motor stops and auto down operation stops.

When the driver's SW is pulled to the up side during auto down operation, the hold circuit is turned off so the current flowing from TERMINAL B or BW of the power window master SW to TERMINAL DD is cut off and the power window motor stops. If the SW remains pulled up the relay (Up side) is activated, so current flows from TERMINAL B or BW of the power window master SW to TERMINAL DU to TERMINAL 4 of the power window motor to TERMINAL 5 to TERMINAL DD to TERMINAL E to GROUND, the power window motor rotates in the up direction and manual up operation occurs while the SW is pulled up.

3. Manual Operation (Front RH Window)

With the power window control SW front RH pulled to the up side, the current flowing from TERMINAL 4 of the power window control SW flows to TERMINAL 3 of the power window control SW to TERMINAL 4 of the power window motor to TERMINAL 5 to TERMINAL 1 of the power window control SW to TERMINAL 2 to TERMINAL PD of the master SW to TERMINAL E to GROUND and causes the power window motor front RH to rotate in the up direction. The up operation continues only while the power window control SW is pulled to the up side. When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 5 to TERMINAL 4, and the motor rotates in reverse. When the window lock SW is pushed to the lock side, the ground circuit to the front RH window becomes open.

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

4. Manual Operation (Rear LH, RH Window)

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

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

5. Key Off Power Window Operation

With the ignition SW turned from on to off, the body ECU operates and current flows from the ECU-B fuse to TERMINAL 1 of the body ECU to TERMINAL 8 to TERMINAL 2 of the power relay to TERMINAL 1 to GROUND for about 43 seconds. The same as normal operation, the current flows from the PWR NO.1 fuse to TERMINAL 3 of the power relay to TERMINAL 5 to TERMINAL B or BW of the power window master SW and TERMINAL 4 (Front RH, Rear LH, RH) of the power window control SW. As a result, for about 43 seconds after the ignition SW is turned off, the functioning of this ECU makes it possible to raise and lower the power window. Also, by opening the front doors (Door courtesy SW on) within about 43 seconds after turning the ignition SW to off, a signal is input to TERMINAL (C) 1 of the body ECU. As a result, the POWER relay turned off, and up and down movement of the power window stops.

Service Hints

D12 (A), D13 (B) Power Window Master SW

B, BW-Ground : Approx. 12 volts with the ignition SW at ON position or key off power window operation  
E-Ground : Always continuity  
DU-Ground : Approx. 12 volts with the ignition SW on and the master SW (Driver's window) at UP position  
DD-Ground : Approx. 12 volts with the ignition SW on and the master SW (Driver's window) at DOWN or AUTO DOWN position

Window Lock SW

Open with the window lock SW at LOCK position

○ : Parts Location

| Code |   | See Page | Code |   | See Page | Code |  | See Page |
|------|---|----------|------|---|----------|------|--|----------|
| B7   | C | 40 (LHD) | J8   | B | 51 (RHD) | P10  |  | 53 (RHD) |
|      |   | 50 (RHD) |      |   | 51 (RHD) |      |  | 43 (LHD) |
| D6   |   | 42 (LHD) |      |   | 53 (RHD) | P11  |  | 53 (RHD) |
|      |   | 52 (RHD) |      |   | 43 (LHD) |      |  | 43 (LHD) |
| D12  | A | 42 (LHD) |      |   | 43 (LHD) | P12  |  | 53 (RHD) |
| D13  | B | 52 (RHD) |      |   | 53 (RHD) |      |  | 43 (LHD) |
| J7   | A | 41 (LHD) |      |   | 43 (LHD) | P13  |  | 53 (RHD) |
|      |   | 51 (RHD) |      |   | 53 (RHD) |      |  |          |
| J8   | B | 41 (LHD) |      |   | 43 (LHD) |      |  |          |

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2C   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |
| 2H   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)            |
| 2K   |          |                                                                |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)      |
|------|----------|-----------------------------------------------------------------|
| IA1  | 60 (LHD) | Front Door LH Wire and Floor Wire (Left Kick Panel)             |
| IB1  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
|      | 72 (RHD) |                                                                 |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)          |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)         |
| IL1  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
|      | 74 (RHD) |                                                                 |
| IL2  | 62 (LHD) |                                                                 |
| IM1  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)     |
| IM2  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)    |
|      | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)     |
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)    |
| IN1  | 74 (RHD) | Front Door RH Wire and Floor Wire (Right Kick Panel)            |
| BA1  | 64 (LHD) | Rear Door LH Wire and Floor Wire (Left Center Pillar)           |
|      | 76 (RHD) | Rear Door LH Wire and Floor No.2 Wire (Left Center Pillar)      |
| BB1  | 64 (LHD) | Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)     |
|      | 76 (RHD) | Rear Door RH Wire and Floor Wire (Right Center Pillar)          |



# Power Window

 : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |
| BO   | 64 (LHD) | Under the Driver's Seat           |
| BP   | 76 (RHD) |                                   |

 : Splice Points

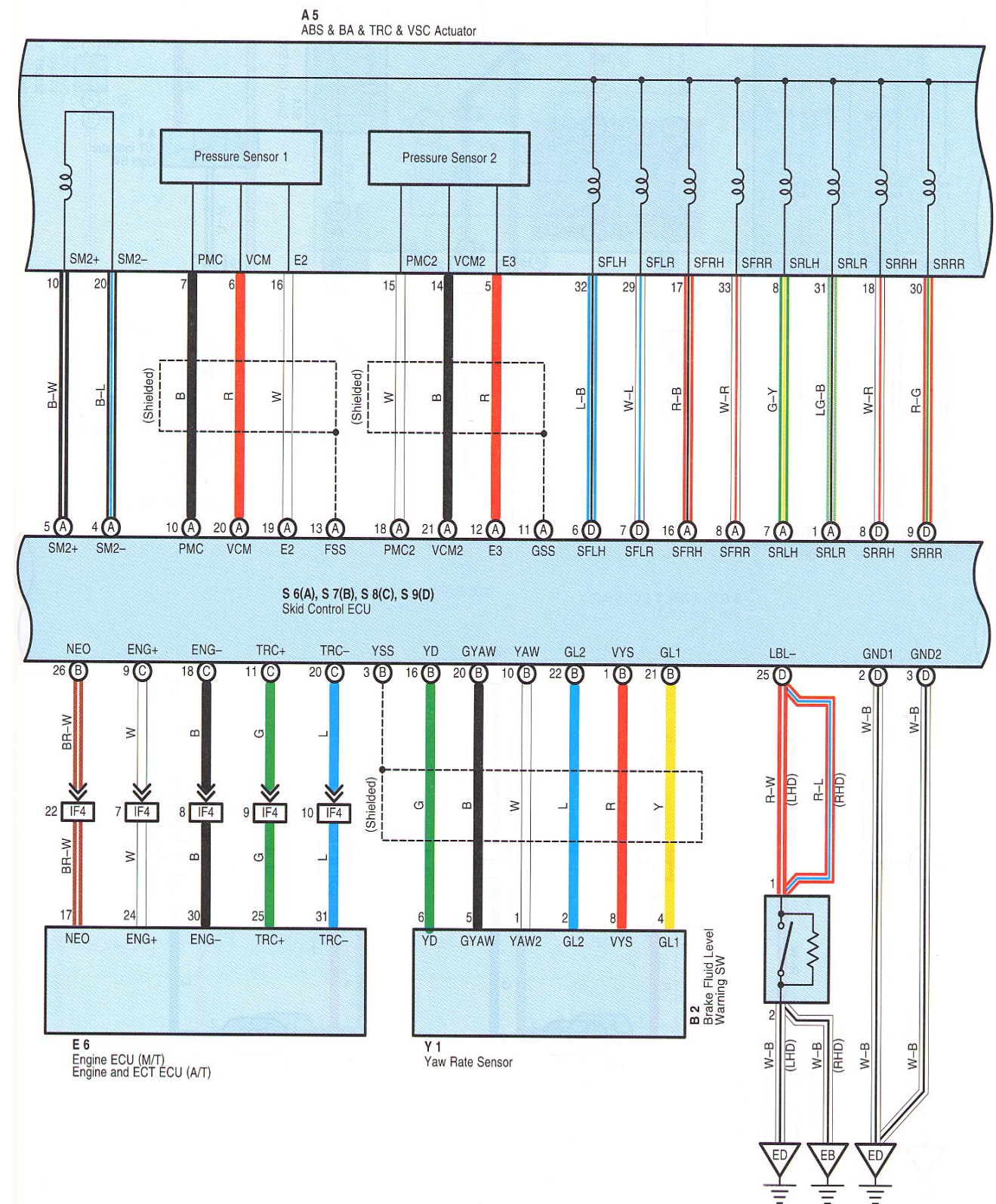
| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| B2   | 64 (LHD) | Front Door LH Wire              | B3   | 76 (RHD) | Front Door RH Wire              |



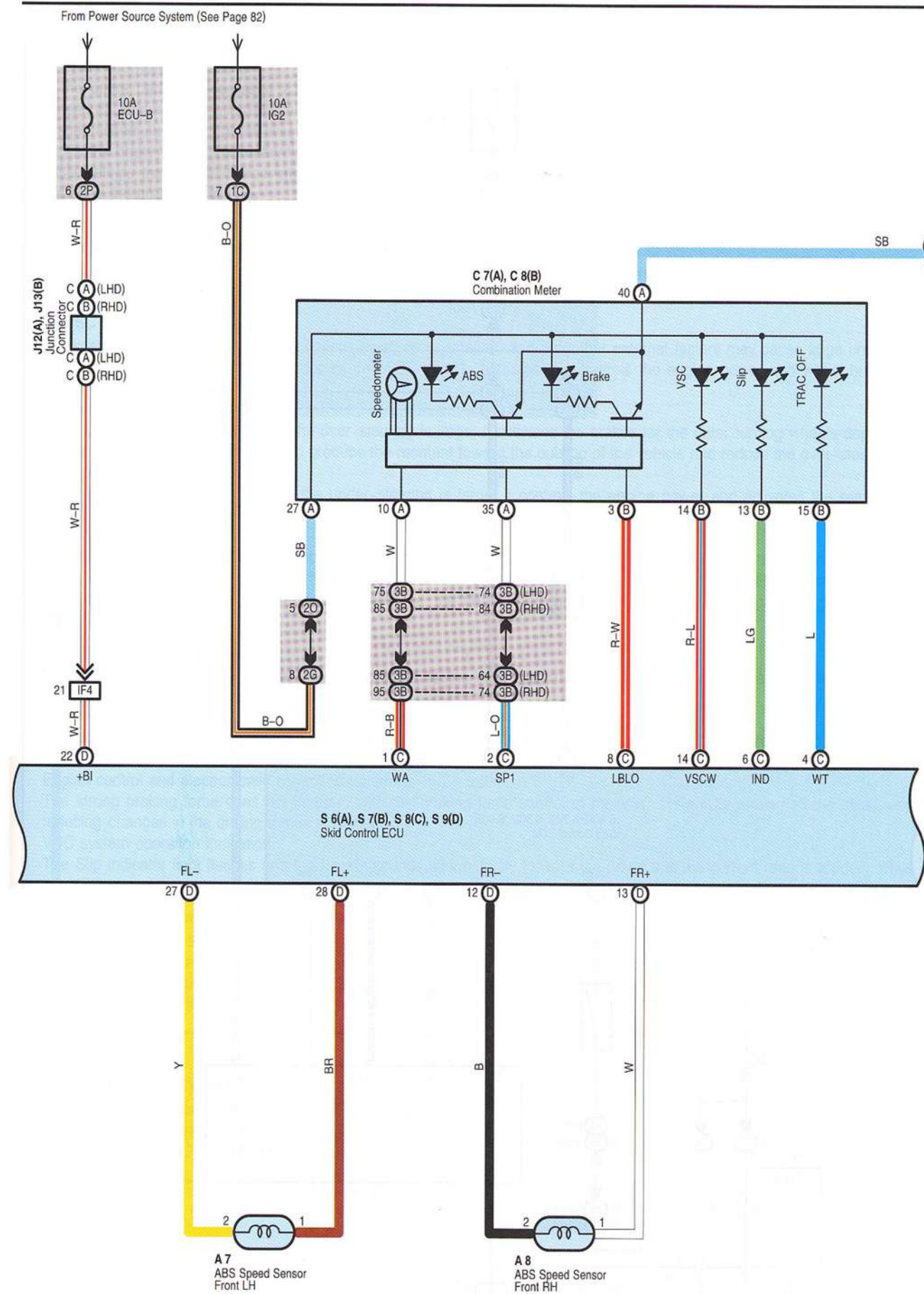
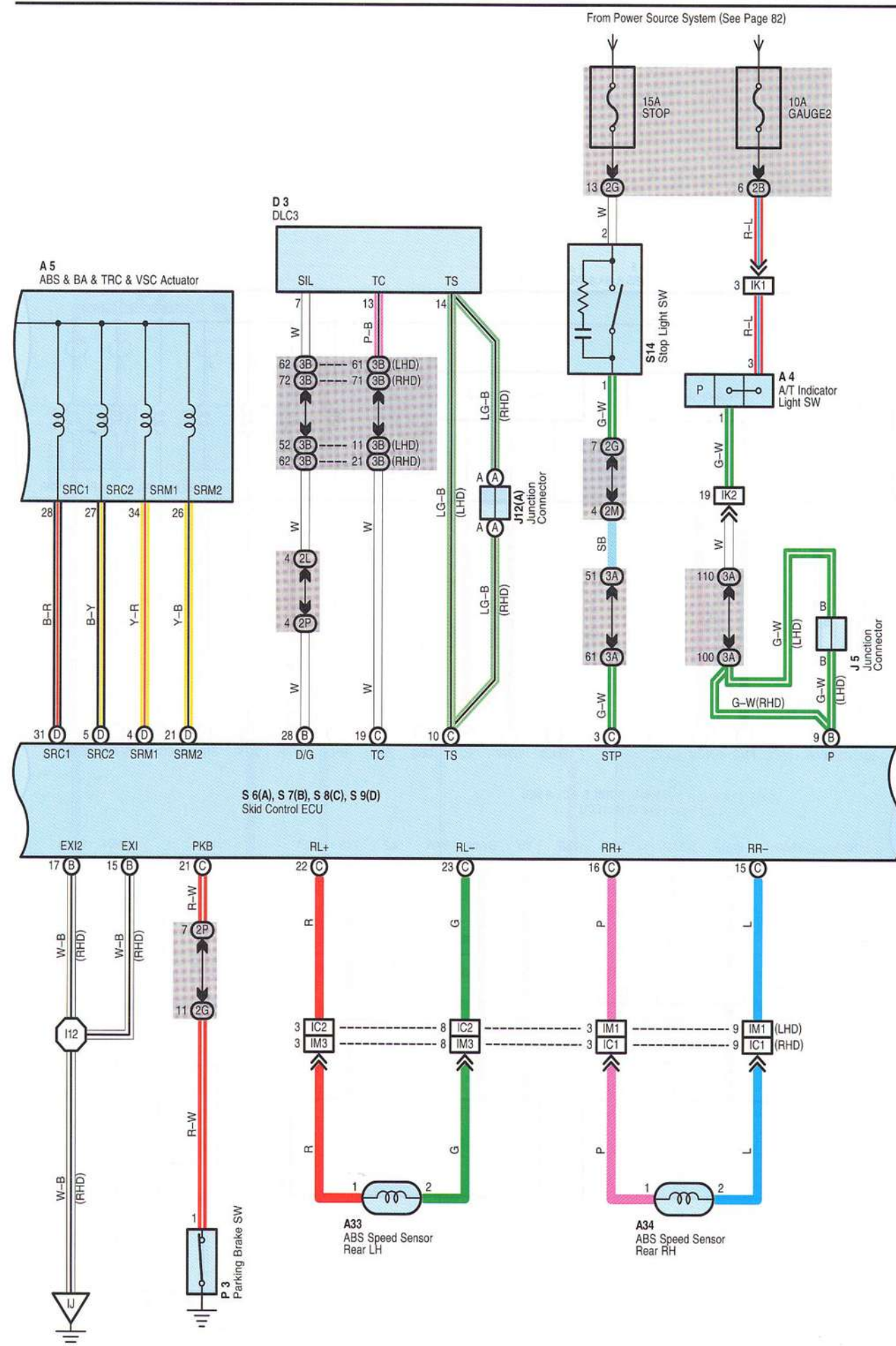
The diagram illustrates the electrical connections for the ABS system. Key components and their connections are as follows:

- ABS MTR Relay:**
  - Terminal 1: Connected to 40A ABS NO. 2.
  - Terminal 2: Connected to 40A ABS NO. 3.
  - Terminal 3: Connected to 7.5A ABS NO. 4.
  - Terminal 5: Connected to 40A ABS NO. 2.
- ABS SOL Relay:**
  - Terminal 1: Connected to 40A ABS NO. 2.
  - Terminal 2: Connected to 40A ABS NO. 3.
  - Terminal 3: Connected to 7.5A ABS NO. 4.
  - Terminal 5: Connected to 40A ABS NO. 2.
- ABS & BA & TRC & VSC Actuator (A5):**
  - Relay: Connected to +BM and GND.
  - BS: Connected to W-B.
  - AST: Connected to W-G.
  - MT: Connected to R-W.
  - MR: Connected to W-B.
  - SM1+: Connected to L-R.
  - SM1-: Connected to Y-G.
- Skid Control ECU (S 6(A), S 7(B), S 8(C), S 9(D)):**
  - AST: Connected to R.
  - R+: Connected to GR-R.
  - SR: Connected to GR.
  - MRF: Connected to GR-L.
  - GND3: Connected to W-B.
  - GND4: Connected to W-B.

The diagram uses color-coded wires to represent different circuits: W-L (White-Left), W-R (White-Right), GR-R (Green-Right), GR-L (Green-Left), W-B (White-Back), W-G (White-Green), R-W (Red-White), L-R (Left-Right), Y-G (Yellow-Green), R (Red), GR-R (Green-Right), GR (Green), GR-L (Green-Left), W-B (White-Back), and W-B (White-Back).

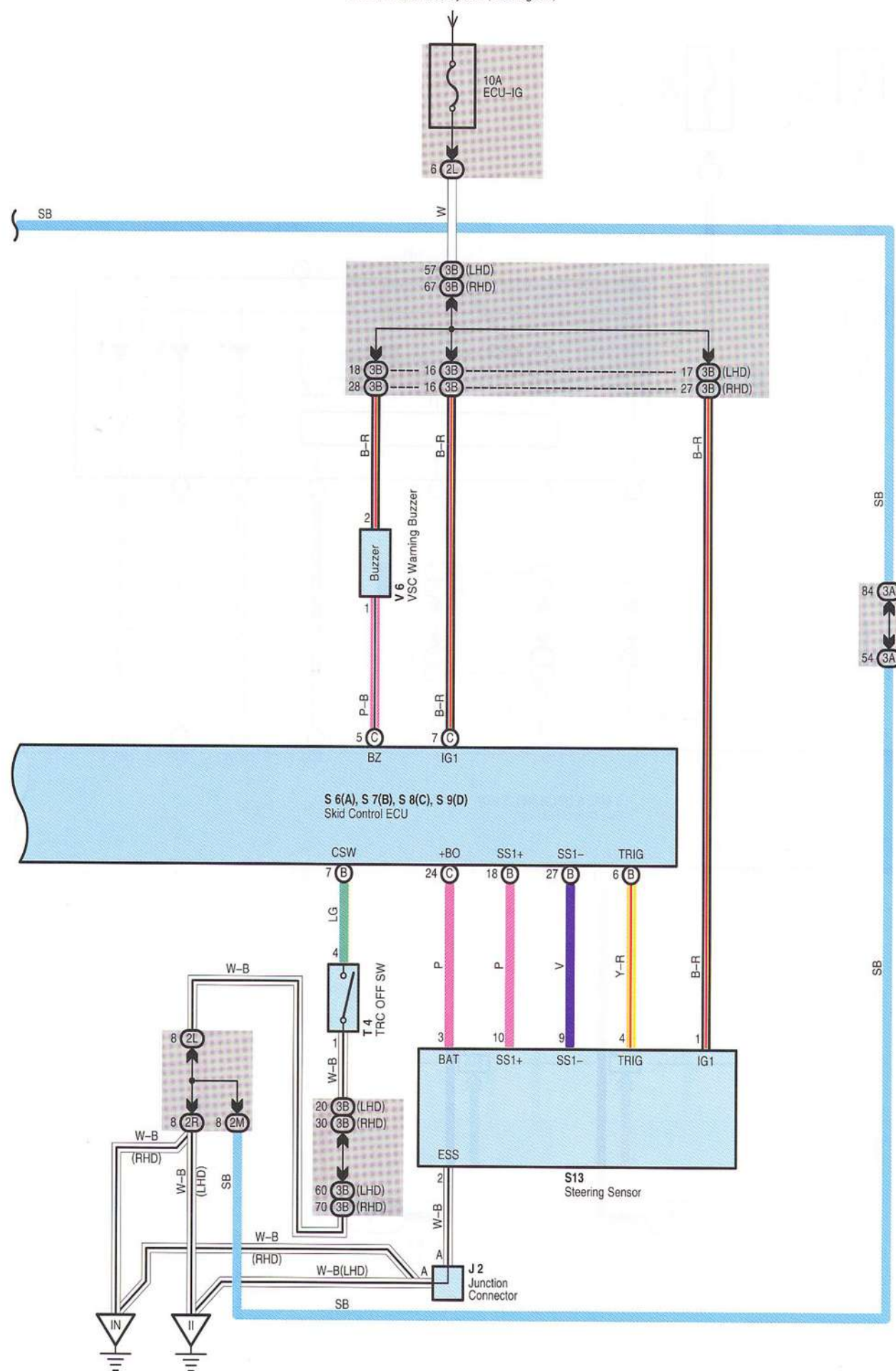








From Power Source System (See Page 82)



## System Outline

## 1. ABS Operation

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

## 2. Traction Control Operation

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

## 3. VSC Operation

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

To reduce large over-steering :

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

To reduce large under-steering :

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

Traction control SW

The traction control SW is used to stop the TRC function. After the engine is started, the TRC system is stopped (turned off) and the TRC OFF indicator light lights up. When the traction control SW is pressed again, the TRC system enters the stand-by mode. If the engine is stopped and restarted, the TRC system enters the stand-by mode regardless of the traction control SW.

## 4. Mutual System Control

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

Engine throttle control

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

Engine control and electronically controlled transmission control

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

VSC system operation indication

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

## 5. Fail Safe Function

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

## Service Hints

## S6 (A), S7 (B), S8 (C), S9 (D) Skid Control ECU

(C) 7-Ground : Approx. 12 volts with ignition SW at ON or ST position

(D)22-Ground : Always approx. 12 volts

(A) 15, (A) 22, (B) 17, (B) 15, (D) 2, (D) 3-Ground : Always continuity



 : Parts Location

| Code | See Page        | Code | See Page | Code | See Page |
|------|-----------------|------|----------|------|----------|
| A4   | 36 (LHD 1MZ-FE) | C8   | B        | S7   | B        |
|      | 46 (RHD 1MZ-FE) |      |          |      |          |
| A5   | 36 (LHD 1MZ-FE) | D3   |          | S8   | C        |
|      | 46 (RHD 1MZ-FE) |      |          |      |          |
| A7   | 36 (LHD 1MZ-FE) | E6   |          | S9   | D        |
|      | 46 (RHD 1MZ-FE) |      |          |      |          |
| A8   | 36 (LHD 1MZ-FE) | J2   |          | S13  |          |
|      | 46 (RHD 1MZ-FE) |      |          |      |          |
| A33  | 42 (LHD)        | J5   |          | S14  |          |
|      | 52 (RHD)        |      |          |      |          |
| A34  | 42 (LHD)        | J12  | A        | T4   |          |
|      | 52 (RHD)        |      |          |      |          |
| B2   | 36 (LHD 1MZ-FE) | P3   |          | V6   |          |
|      | 46 (RHD 1MZ-FE) |      |          |      |          |
| C7   | 40 (LHD)        | S6   | A        | Y1   |          |
|      | 50 (RHD)        |      |          |      |          |

 : Relay Blocks

| Code | See Page | Relay Blocks (Relay Block Location) |
|------|----------|-------------------------------------|
| 2    | 23       | ABS R/B (Radiator Side Support LH)  |

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1C   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1E   |          |                                                                          |
| 1G   |          |                                                                          |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2P   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IC1  | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)                              |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)                               |
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) |                                                                                      |
|      | 74 (RHD) |                                                                                      |
| IM1  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)                         |
| IM3  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)                          |

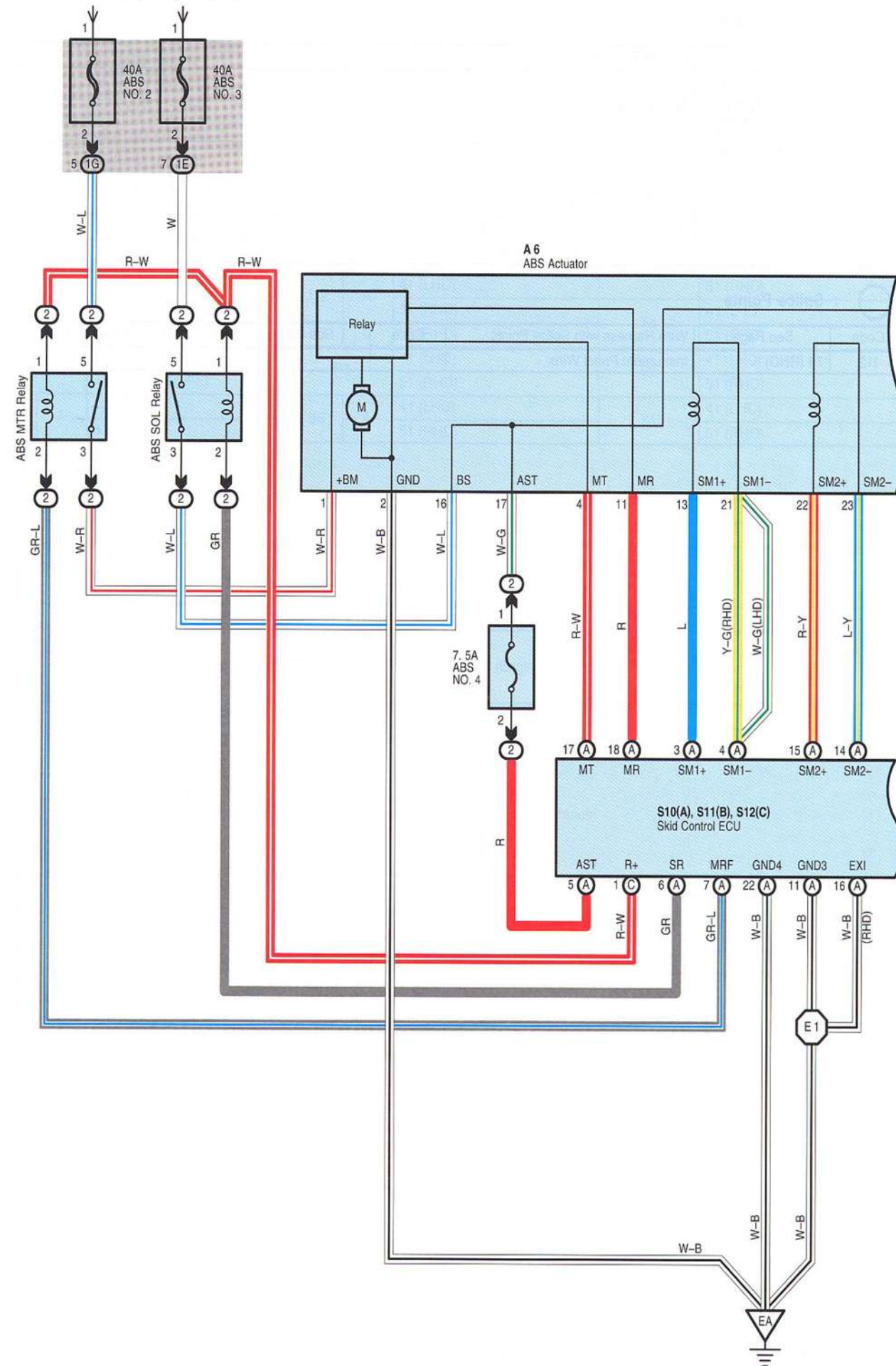
 : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| EA   | 56 (LHD 1MZ-FE) | Right Fender                      |
|      | 68 (RHD 1MZ-FE) |                                   |
| EB   | 68 (RHD 1MZ-FE) | Left Fender                       |
| ED   | 56 (LHD 1MZ-FE) |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IJ   | 72 (RHD)        | Instrument Panel Reinforcement LH |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

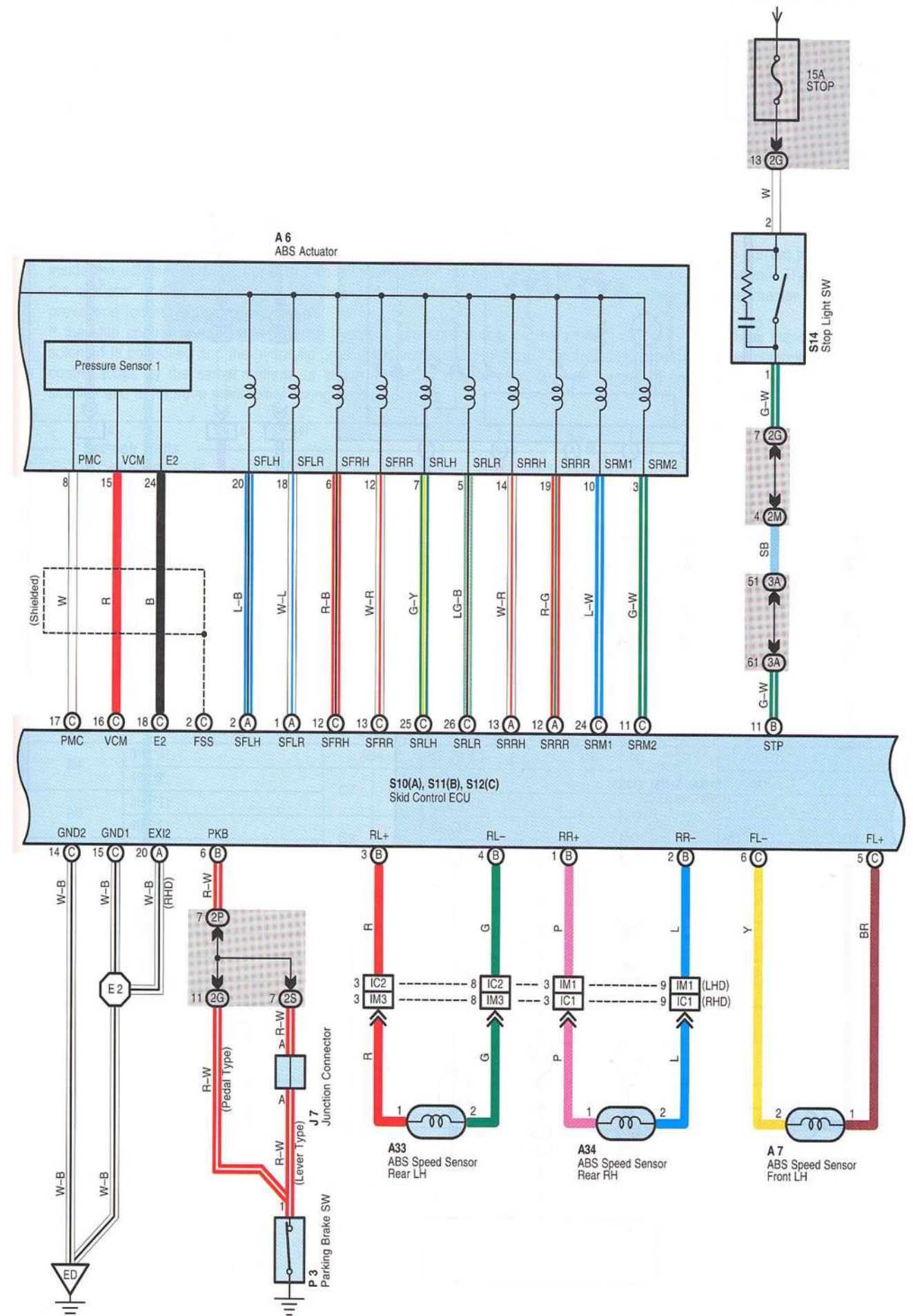
 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I12  | 74 (RHD) | Instrument Panel Wire           |      |          |                                 |

From Power Source System (See Page 82)

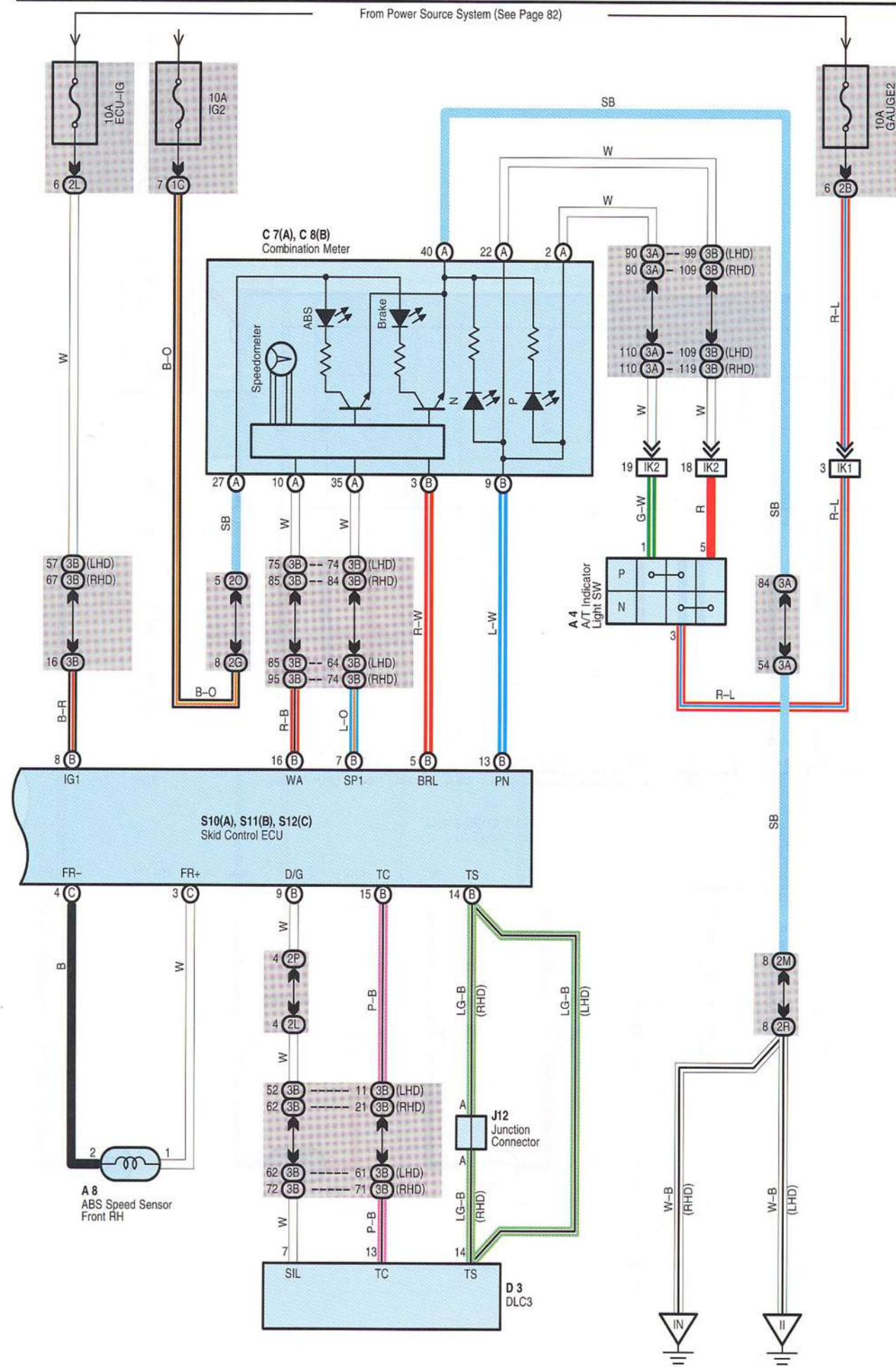


From Power Source System (See Page 82)





# ABS



## System Outline

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

### 1. Input Signals

#### (1) Speed sensor signal

The speed of the wheels is detected and input to TERMINALS (B) 5, (B) 3, (C) 3 and (C) 1 of the skid control ECU.

#### (2) Stop light SW signal

A signal is input to TERMINAL (C) 11 of the skid control ECU when the brake pedal is depressed.

### 2. System Operation

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

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

## Service Hints

### A7, A8 ABS Speed Sensor Front LH, RH

2-1 : Approx. 1.6 kΩ

### A33, A34 ABS Speed Sensor Rear LH, RH

2-1 : Approx. 1.6 kΩ

### S10 (A), S11 (B), S12 (C) Skid Control ECU

(C) 7-Ground : Approx. 12 volts with the ignition SW at ON position

(C) 11-Ground : Approx. 12 volts with the brake pedal depressed

(A) 11, (A) 22, (B) 15, (B) 14, (A) 16, (A) 20-Ground : Always continuity

## ○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| A4   | 38 (*1)  | A34  | 52 (RHD) | P3   | 41 (LHD) |
|      | 48 (*2)  |      | 40 (LHD) |      | 51 (RHD) |
| A6   | 38 (*1)  | C7   | A        | S10  | A        |
|      | 48 (*2)  |      |          |      |          |
| A7   | 38 (*1)  | C8   | B        | S11  | B        |
|      | 48 (*2)  |      |          |      |          |
| A8   | 38 (*1)  | D3   |          | S12  | C        |
|      | 48 (*2)  |      |          |      |          |
| A33  | 42 (LHD) | J7   |          | S14  |          |
|      | 52 (RHD) |      |          |      |          |
| A34  | 42 (LHD) | J12  |          |      |          |

\*1 : LHD 2AZ-FE, 1AZ-FE

\*2 : RHD 2AZ-FE, 1AZ-FE

## ○ : Relay Blocks

| Code | See Page | Relay Blocks (Relay Block Location) |
|------|----------|-------------------------------------|
| 2    | 23       | ABS R/B (Radiator Side Support LH)  |

ABS

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1C   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1E   |          |                                                                          |
| 1G   |          |                                                                          |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2P   |          |                                                                          |
| 2R   |          |                                                                          |
| 2S   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)   |
|------|----------|--------------------------------------------------------------|
| IC1  | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)      |
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)       |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box) |
|      | 74 (RHD) |                                                              |
| IK2  | 62 (LHD) |                                                              |
|      | 74 (RHD) |                                                              |
| IM1  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel) |
| IM3  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)  |

 : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| EA   | 58 (*1)  | Right Fender                      |
|      | 70 (*2)  |                                   |
| ED   | 58 (*1)  | Left Fender                       |
|      | 70 (*2)  |                                   |
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

 : Splice Points

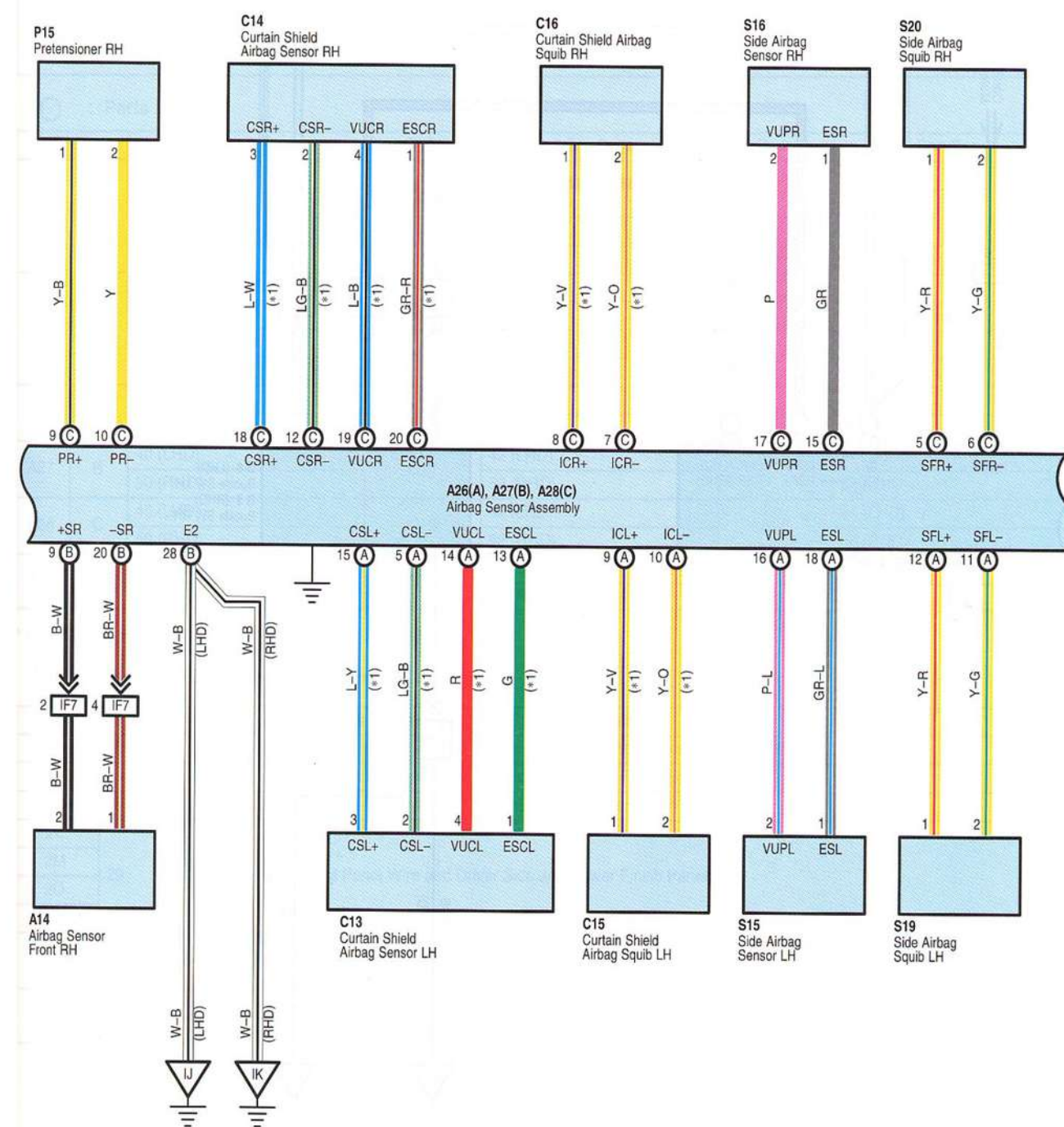
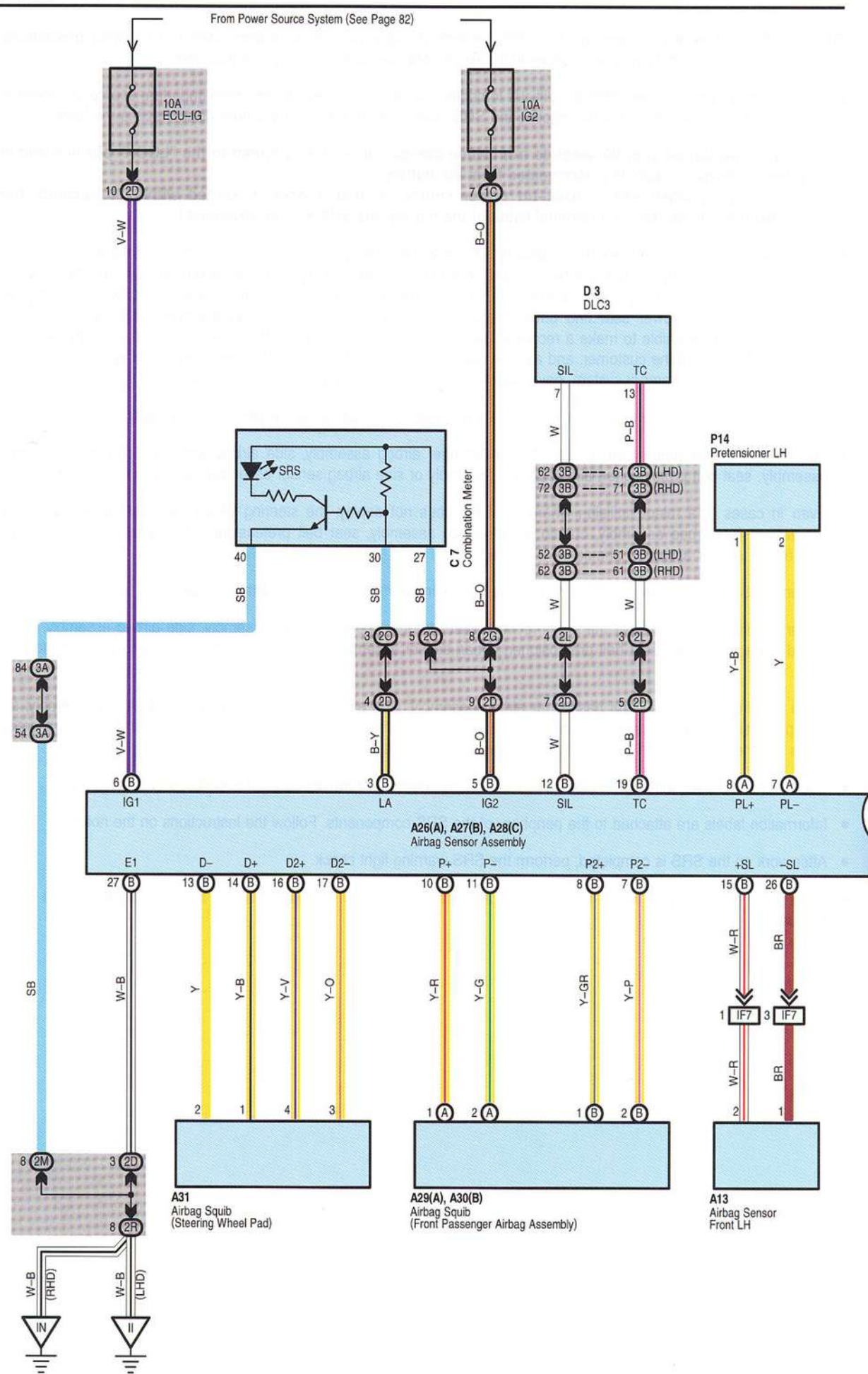
| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| E1   | 70 (*2)  | Engine Room Main Wire           | E2   | 70 (*2)  | Engine Room Main Wire           |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

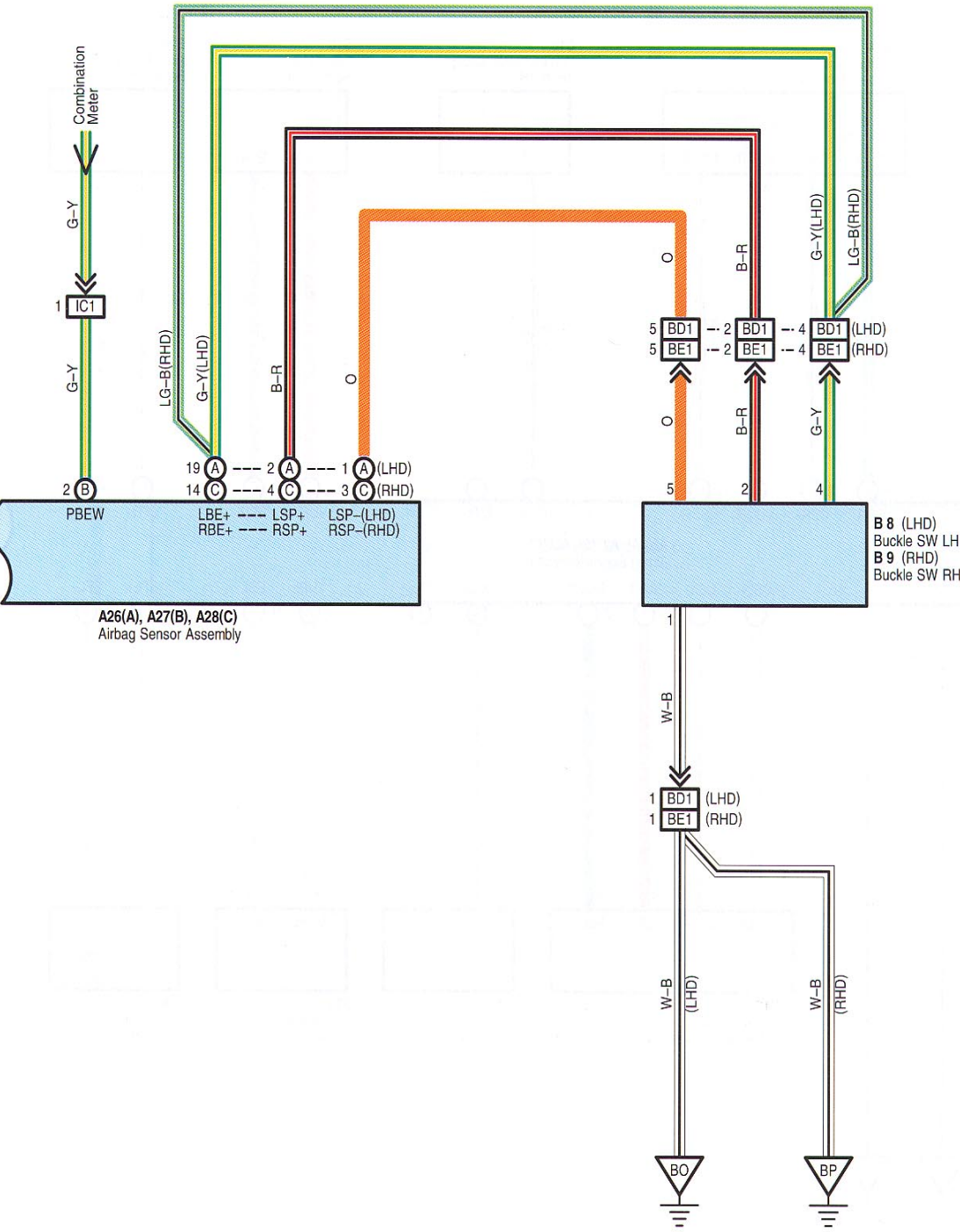


NOTICE: When inspecting or repairing the SRS, perform the operation in accordance with the following precautionary instructions and the procedure and precautions in the Repair Manual for the applicable model year.

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







System Outline

The SRS is a driver and front passenger protection device which has a supplemental role to the seat belts. When the ignition SW is turned to ON, the current from the ECU-IG fuse flows to TERMINAL (B) 6 of the airbag sensor assembly, and from the IG2 fuse to TERMINAL (B) 5 of the airbag sensor assembly. If an accident occurs while driving, when the frontal impact exceeds a set level, the current from the ECU-IG or IG2 fuse flows to TERMINALS (B) 14, (B) 16, (B) 10, (B) 8, (C) 8 and (A) 9 of the airbag sensor assembly to the airbag squibs and the pretensioners to TERMINALS (B) 13, (B) 17, (B) 11, (B) 7, (C) 7 and (A) 10 of the airbag sensor assembly to TERMINAL (B) 27, (B) 28 or BODY GROUND to GROUND, so that current flows to the airbag squibs and the pretensioners and causes them to operate. Moreover, the airbag sensor assembly detects whether the front passenger is seated or not and when not seated, the passenger's airbag will not be deployed. When the side impact also exceeds a set level, the current from the ECU-IG or IG2 fuse flows to TERMINALS (A) 8, (C) 9, (A) 5 and (C) 12 of the airbag sensor assembly to the side airbag squibs and the curtain shield airbag squibs TERMINALS (A) 7, (C) 10, (A) 16 and (C) 11 of the airbag sensor assembly to TERMINAL (B) 27, (B) 28 or BODY GROUND to GROUND, causing side airbag squibs and curtain shield airbag squibs to operate. The airbag stored inside the steering wheel pad is instantaneously expanded to soften the shock to the driver. The airbag stored inside the passenger's instrument panel is instantaneously expanded to soften the shock to the front passenger. Side airbags are instantaneously expanded to soften the shock of side to the driver and front passenger. The curtain shield airbag can ease an impact on the head of the front and rear passengers and reduce risks of injury. The pretensioners make sure of the seat belt restrainability.

Parts Location

| Code | See Page        | Code | See Page | Code     | See Page |
|------|-----------------|------|----------|----------|----------|
| A13  | 36 (LHD 1MZ-FE) | A30  | B        | 40 (LHD) | D3       |
|      | 38 (*1)         |      |          | 50 (RHD) | 50 (RHD) |
|      | 46 (RHD 1MZ-FE) | A31  |          | 40 (LHD) | P14      |
|      | 48 (*2)         |      |          | 50 (RHD) | 53 (RHD) |
| A14  | 36 (LHD 1MZ-FE) | B8   | 44 (LHD) | P15      | 43 (LHD) |
|      | 38 (*1)         | B9   | 54 (RHD) |          | 53 (RHD) |
|      | 46 (RHD 1MZ-FE) | C7   | 40 (LHD) | S15      | 43 (LHD) |
|      | 48 (*2)         |      | 50 (RHD) |          | 53 (RHD) |
| A26  | A               | C13  | 42 (LHD) | S16      | 43 (LHD) |
|      | 50 (RHD)        |      | 52 (RHD) |          | 53 (RHD) |
| A27  | B               | C14  | 42 (LHD) | S19      | 44 (LHD) |
|      | 50 (RHD)        |      | 52 (RHD) |          | 54 (RHD) |
| A28  | C               | C15  | 42 (LHD) | S20      | 44 (LHD) |
|      | 50 (RHD)        |      | 52 (RHD) |          | 54 (RHD) |
| A29  | A               | C16  | 42 (LHD) |          |          |
|      | 50 (RHD)        |      | 52 (RHD) |          |          |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1C   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 2D   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

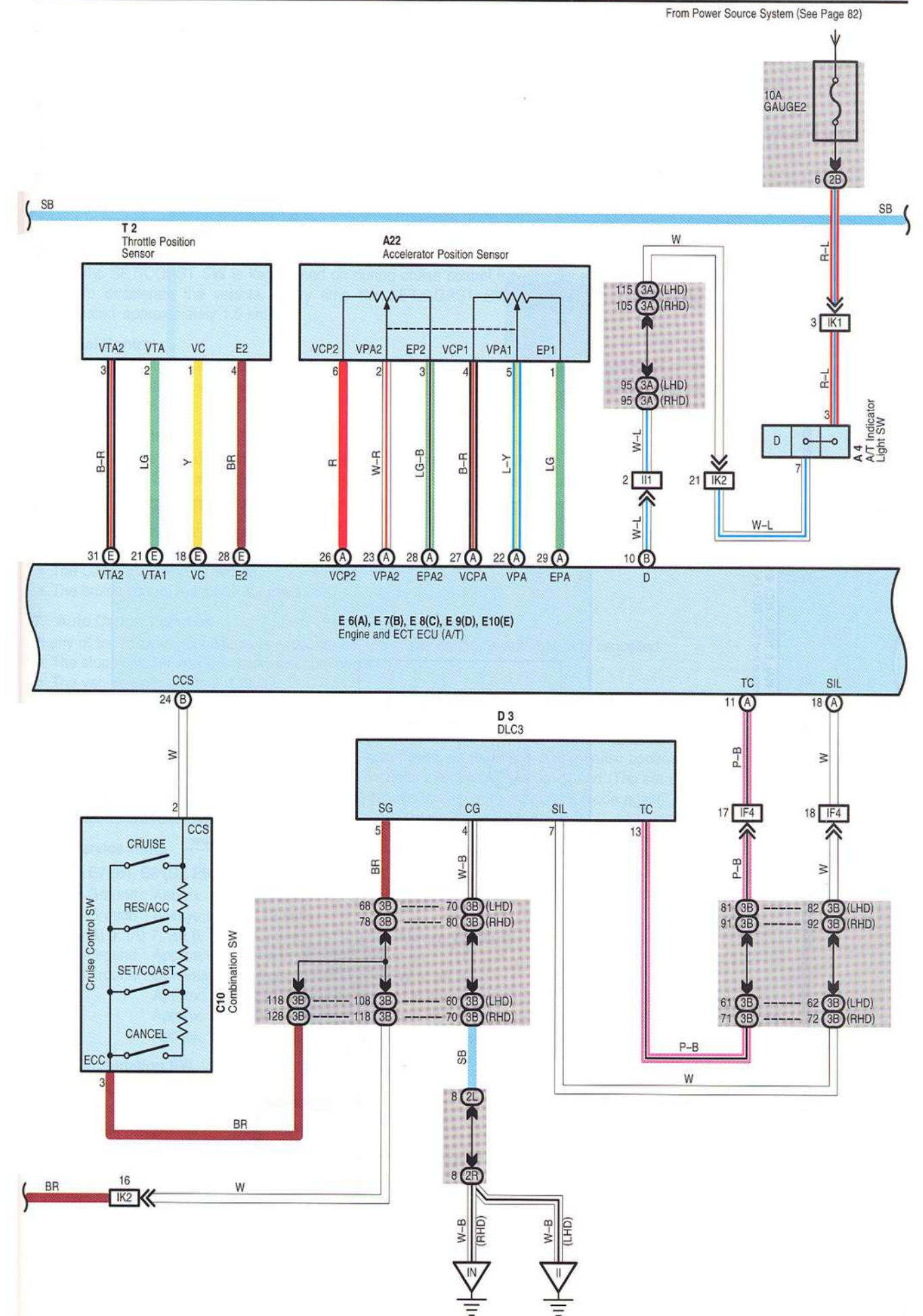
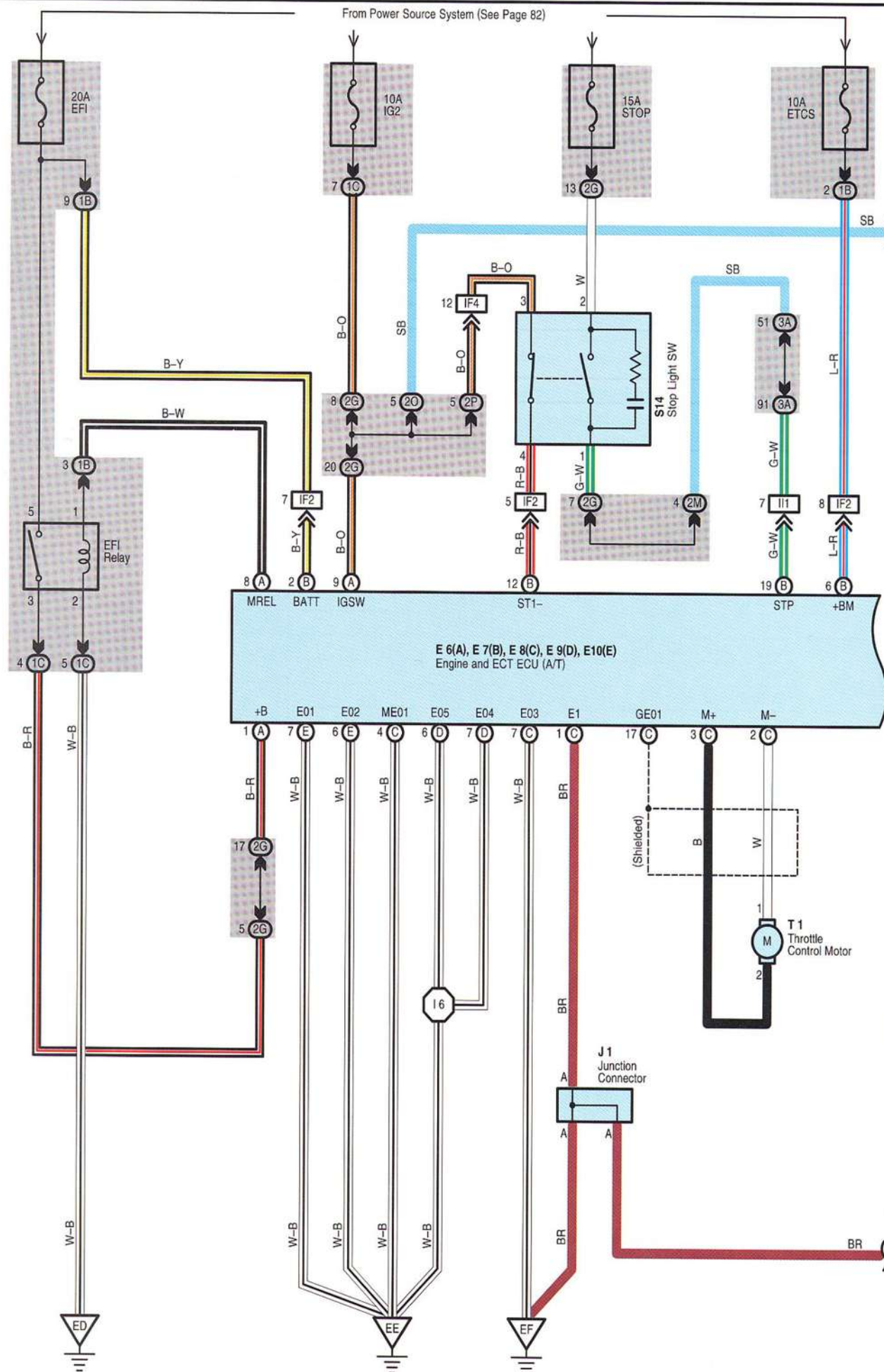
| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IC1  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)                               |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)                              |
| IF7  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| BD1  | 66 (LHD) | Floor Wire and Front Seat LH Wire (Under the Driver's Seat)                          |
| BE1  | 78 (RHD) | Floor Wire and Front Seat RH Wire (Under the Driver's Seat)                          |

 : Ground Points

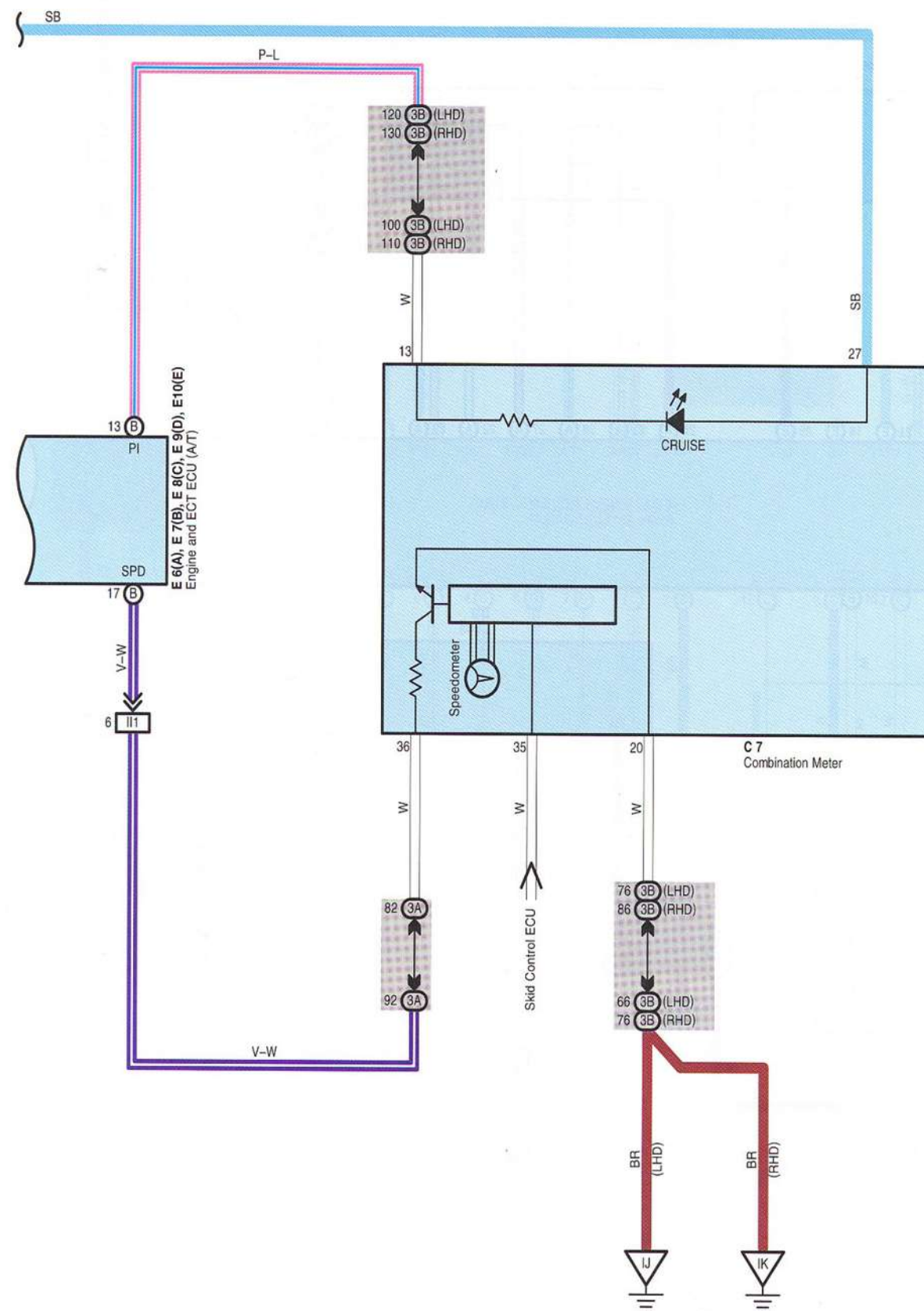
| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) |                                   |
| IK   | 72 (RHD) | Instrument Panel Brace LH         |
| IN   | 72 (RHD) |                                   |
| BO   | 64 (LHD) | Instrument Panel Reinforcement RH |
| BP   | 76 (RHD) |                                   |
|      |          | Under the Driver's Seat           |



# Cruise Control (1MZ-FE)







## System Outline

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

### 1. Set Operation

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

### 2. Set Speed Control

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

### 3. Coast Control

When the SET/COAST SW is kept turned on during cruise control travelling, the engine and ECT ECU controls the throttle valve to decelerate the vehicle. Every time the SET/COAST SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.5 km/h.

### 4. Accel Control

When the RES/ACC SW is kept turned on during cruise control travelling, the engine and ECT ECU controls the throttle valve to accelerate the vehicle. Every time the RES/ACC SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.5 km/h.

### 5. Resume Control

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

### 6. Manual Cancel Mechanism

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

- \* The stop light SW is turned on.
- \* The CANCEL SW is turned on.
- \* The cruise control main SW is turned off.

### 7. Auto Cancel Function

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

- \* The stop light SW wiring is faulty or short-circuited.
- \* The vehicle speed signal is faulty.
- \* The electronically controlled throttle malfunctions.

### 8. Overdrive Control Function

The overdrive control may be cancelled if the vehicle travels on the slope during cruise control travelling. After the overdrive control has been cancelled, if the vehicle speed exceeds the overdrive return speed (The set speed is 2 km/h, 1.2 mph) and it is decided that the slope is finished, the vehicle returns to the overdrive control mode again.

## Service Hints

### E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine and ECT ECU

- (D) 9-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (E) 2-Ground : Always approx. 12 volts
- (A) 1, (A) 4, (A) 7, (B) 6, (B) 7, (C) 6, (C) 7-Ground : Always continuity
- (E) 19-Ground : Approx. 12 volts with stop light SW at on
- (E) 24-Ground : Continuity with cruise control main SW at on
  - Approx. 1540  $\Omega$  with CANCEL SW on in cruise control SW
  - Approx. 240  $\Omega$  with RES/ACC SW on in cruise control SW
  - Approx. 630  $\Omega$  with SET/COAST SW on in cruise control SW

### C10 Combination SW

- 2-3 : Approx. 1540  $\Omega$  with CANCEL SW on
- Approx. 240  $\Omega$  with RES/ACC SW on
- Approx. 630  $\Omega$  with SET/COAST SW on



## Cruise Control (1MZ-FE)

### ○ : Parts Location

| Code | See Page        | Code | See Page | Code | See Page        |
|------|-----------------|------|----------|------|-----------------|
| A4   | 36 (LHD 1MZ-FE) | E6   | A        | J1   | 41 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      |          |      | 51 (RHD)        |
| A22  | 40 (LHD)        | E7   | B        | S14  | 41 (LHD)        |
|      | 50 (RHD)        |      |          |      | 51 (RHD)        |
| C7   | 40 (LHD)        | E8   | C        | T1   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      |          |      | 47 (RHD 1MZ-FE) |
| C10  | 40 (LHD)        | E9   | D        | T2   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      |          |      | 47 (RHD 1MZ-FE) |
| D3   | 40 (LHD)        | E10  | E        |      |                 |
|      | 50 (RHD)        |      |          |      |                 |

### ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2P   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF2  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) |                                                                                      |
|      | 74 (RHD) |                                                                                      |

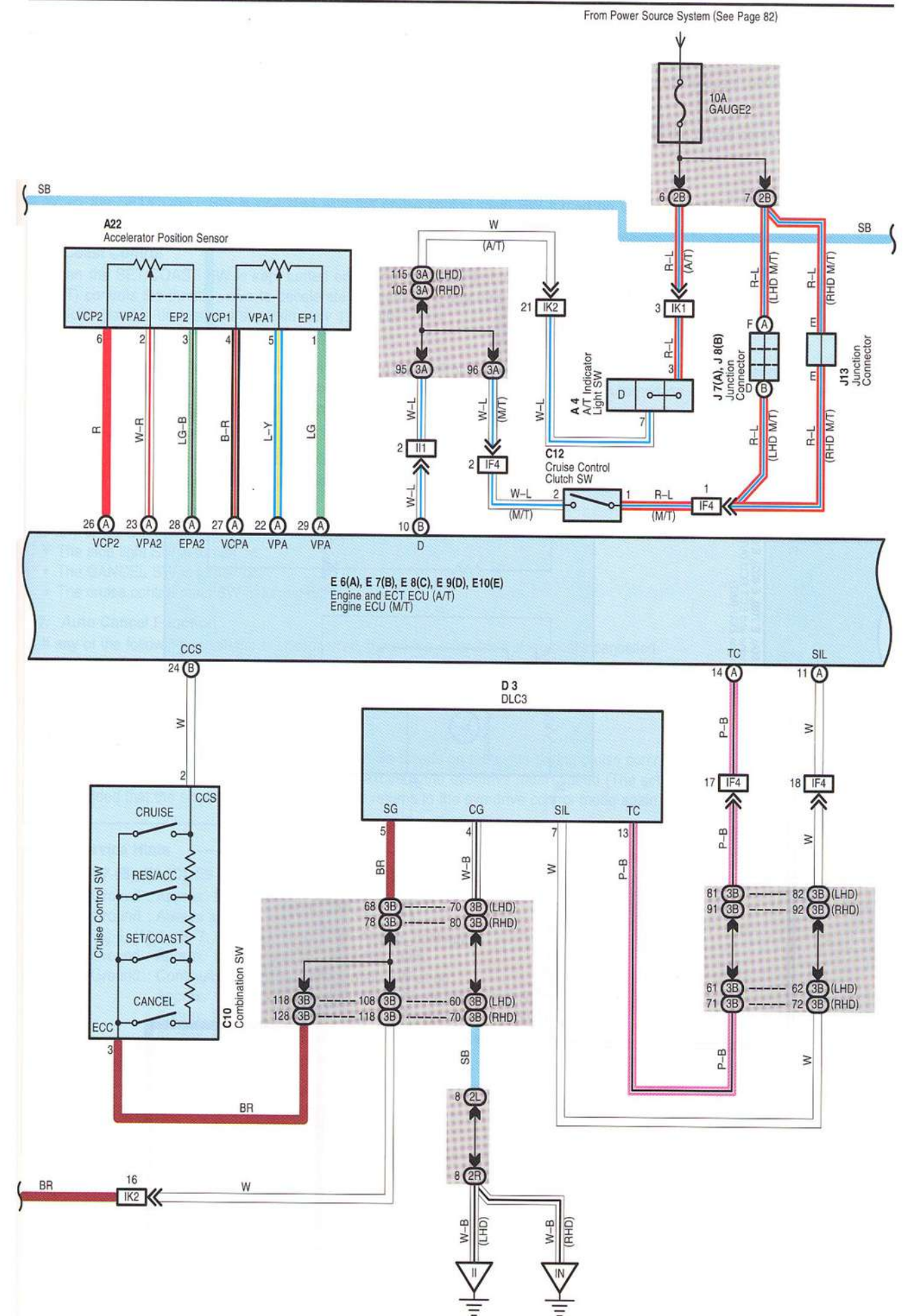
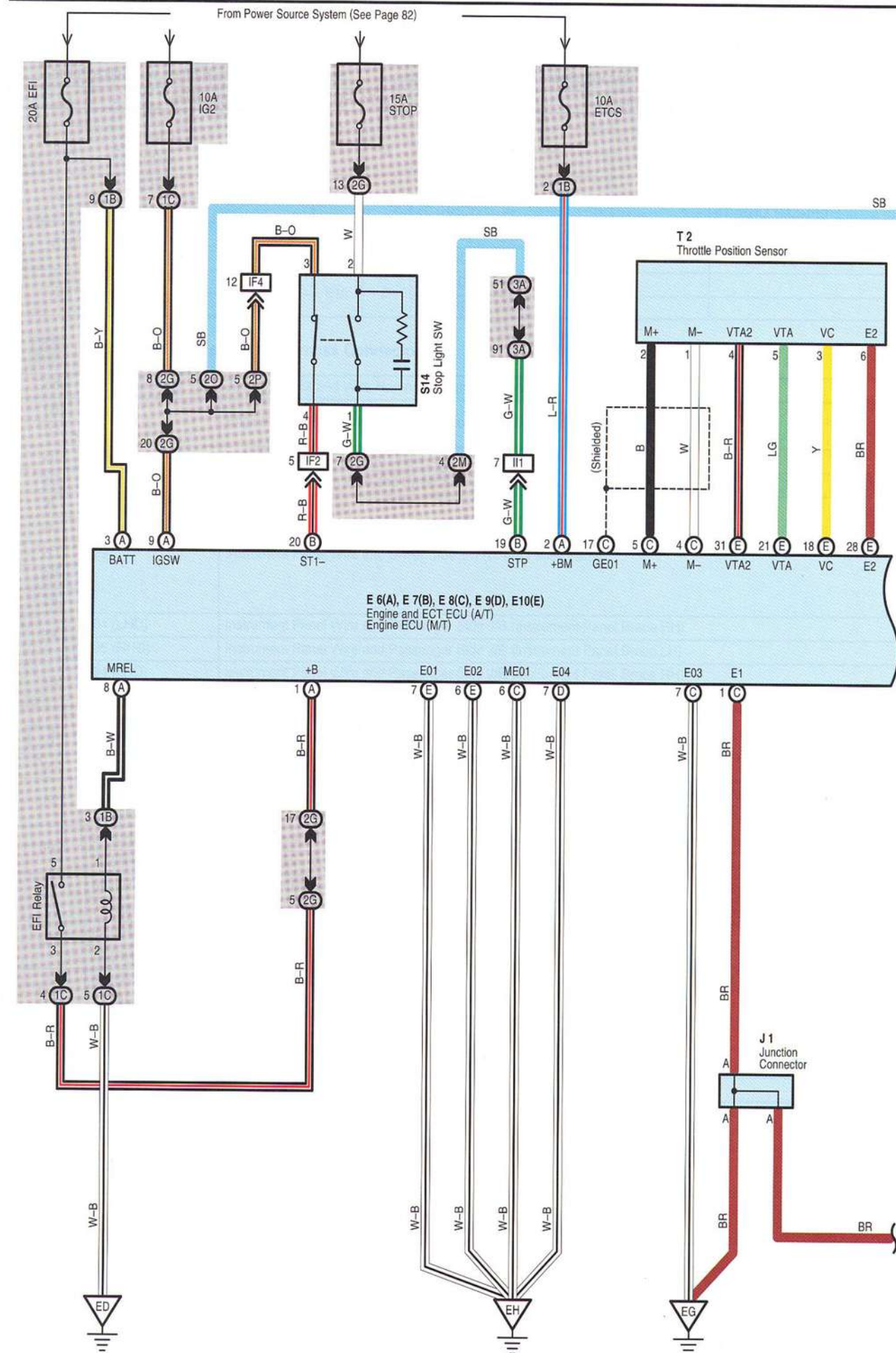
### ▽ : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| ED   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 68 (RHD 1MZ-FE) |                                   |
| EE   | 56 (LHD 1MZ-FE) | Surge Tank RH                     |
|      | 68 (RHD 1MZ-FE) |                                   |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank           |
|      | 68 (RHD 1MZ-FE) |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH         |
| IK   | 72 (RHD)        |                                   |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

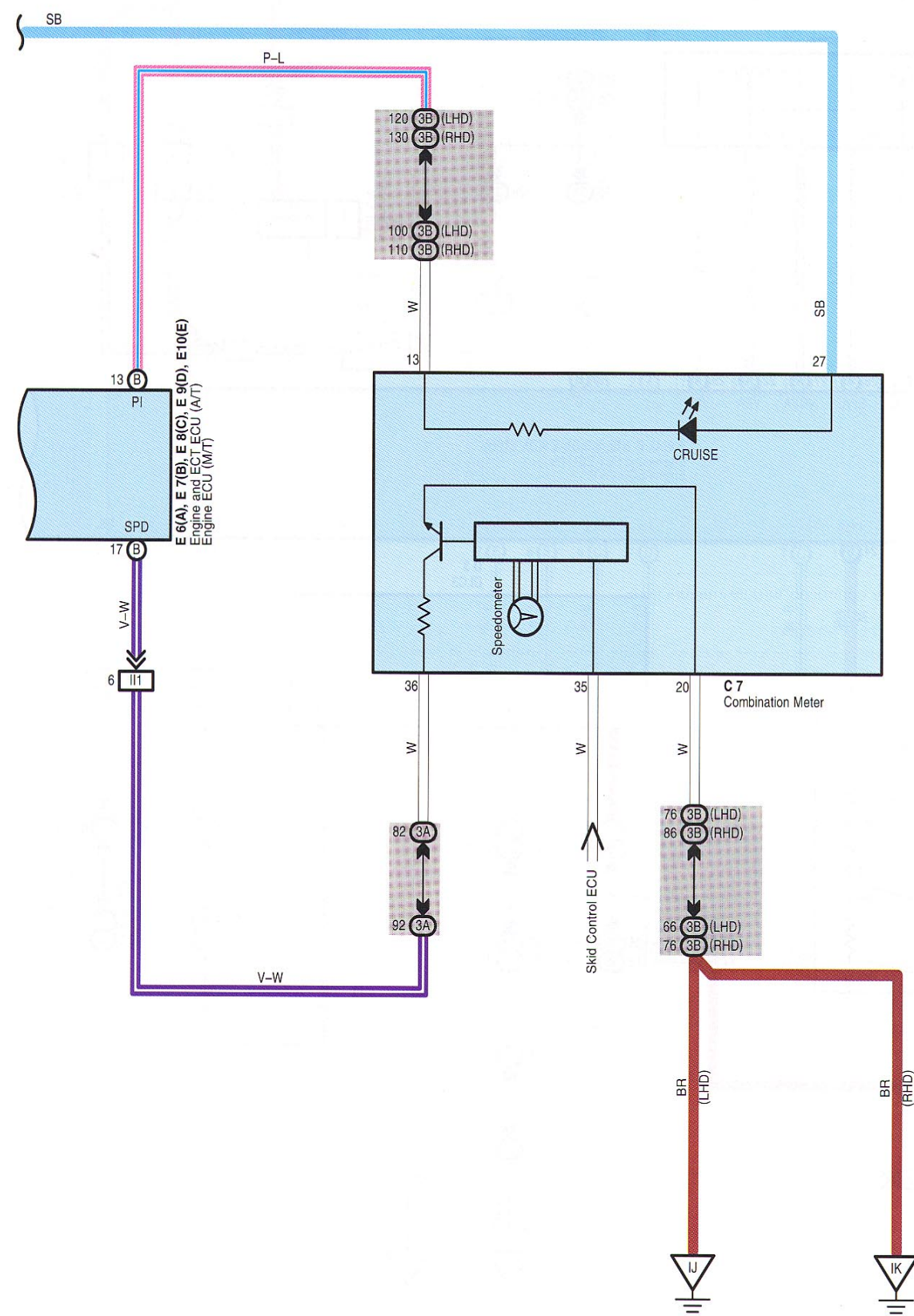
### ○ : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I6   | 62 (LHD) | Engine Wire                     | I6   | 74 (RHD) | Engine Wire                     |

### Cruise Control (2AZ-FE)







## System Outline

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

### 1. Set Operation

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

### 2. Set Speed Control

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

### 3. Coast Control

When the SET/COAST SW is kept turned on during cruise control travelling, the engine and ECT ECU (A/T), engine ECU (M/T) controls the throttle valve to decelerate the vehicle. Every time the SET/COAST SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.5 km/h.

### 4. Accel Control

When the RES/ACC SW is kept turned on during cruise control travelling, the engine and ECT ECU (A/T), engine ECU (M/T) controls the throttle valve to accelerate the vehicle. Every time the RES/ACC SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.5 km/h.

### 5. Resume Control

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

### 6. Manual Cancel Mechanism

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

- \* The stop light SW is turned on.
- \* The CANCEL SW is turned on.
- \* The cruise control main SW is turned off.

### 7. Auto Cancel Function

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

- \* The stop light SW wiring is faulty or short-circuited.
- \* The vehicle speed signal is faulty.
- \* The electronically controlled throttle malfunctions.

### 8. Overdrive Control Function

The overdrive control may be cancelled if the vehicle travels on the slope during cruise control travelling. After the overdrive control has been cancelled, if the vehicle speed exceeds the overdrive return speed (The set speed is 2 km/h, 1.2 mph) and it is decided that the slope is finished, the vehicle returns to the overdrive control mode again.

## Service Hints

### E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine and ECT ECU (A/T), Engine ECU (M/T)

- (D) 9-Ground : Approx. 12 volts with ignition SW at ON or ST position
- (D) 3-Ground : Always approx. 12 volts
- (A) 1, (A) 6, (A) 7, (B) 7, (C) 6, (C) 7-Ground : Always continuity
- (E) 19-Ground : Approx. 12 volts with stop light SW at on
- (E) 24-Ground : Continuity with cruise control main SW at on
- Approx. 1540  $\Omega$  with CANCEL SW on in cruise control SW
- Approx. 240  $\Omega$  with RES/ACC SW on in cruise control SW
- Approx. 630  $\Omega$  with SET/COAST SW on in cruise control SW

### C10 Combination SW

- 2-3 : Approx. 1540  $\Omega$  with CANCEL SW on
- Approx. 240  $\Omega$  with RES/ACC SW on
- Approx. 630  $\Omega$  with SET/COAST SW on

Cruise Control (2AZ-FE)

○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| A4   | 38 (*1)  | D3   | 50 (RHD) | J1   | 41 (LHD) |
|      | 48 (*2)  |      | 40 (LHD) |      | 51 (RHD) |
| A22  | 40 (LHD) | E6   | A        | J7   | A        |
|      | 50 (RHD) |      |          |      |          |
| C7   | 40 (LHD) | E7   | B        | J8   | B        |
|      | 50 (RHD) |      |          |      |          |
| C10  | 40 (LHD) | E8   | C        | J13  | 51 (RHD) |
|      | 50 (RHD) |      |          |      | 41 (LHD) |
| C12  | 40 (LHD) | E9   | D        | S14  | 51 (RHD) |
|      | 50 (RHD) |      |          |      | 39 (*1)  |
| D3   | 40 (LHD) | E10  | E        | T2   | 49 (*2)  |
|      |          |      |          |      |          |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2P   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF2  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) |                                                                                      |
|      | 74 (RHD) |                                                                                      |

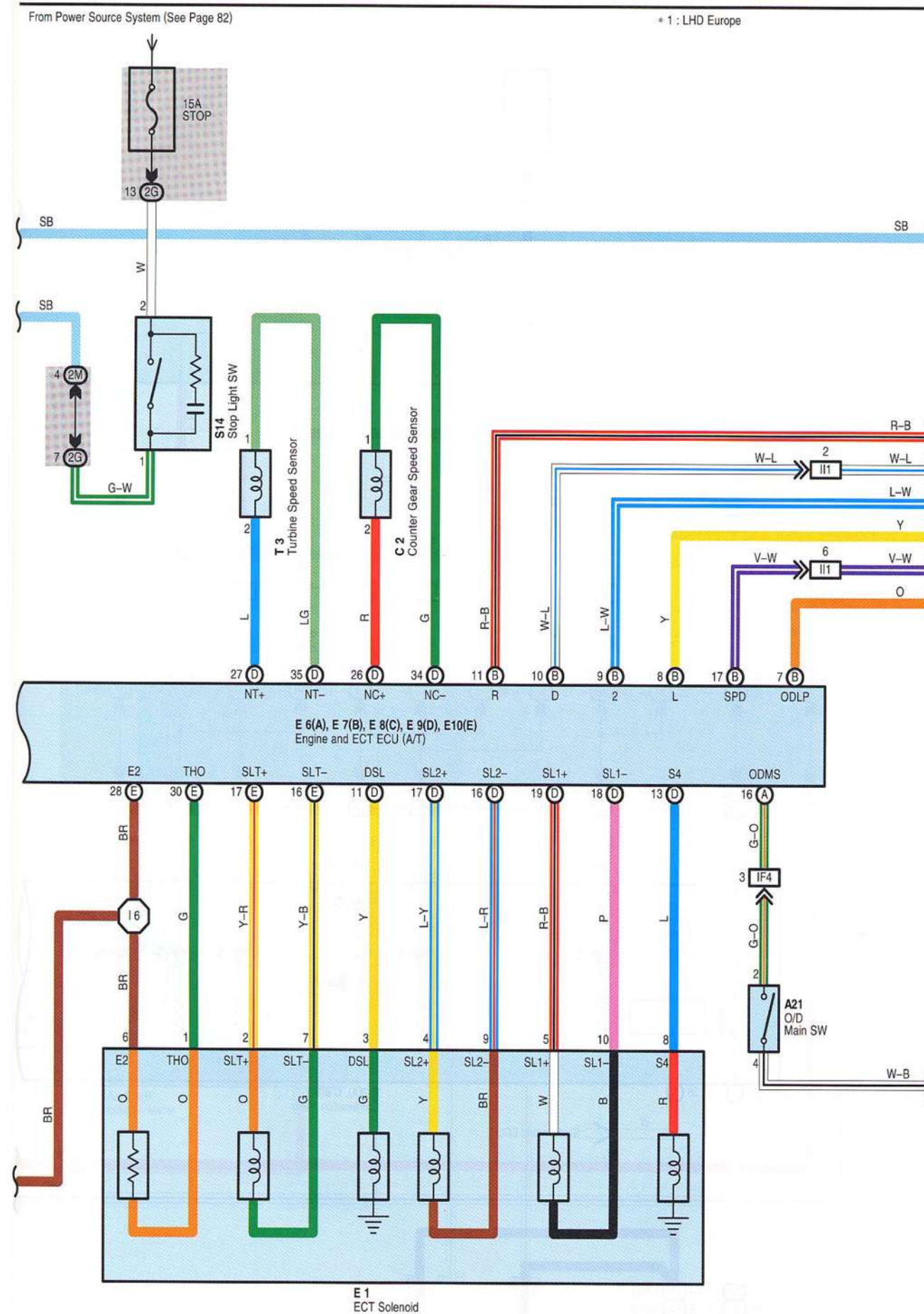
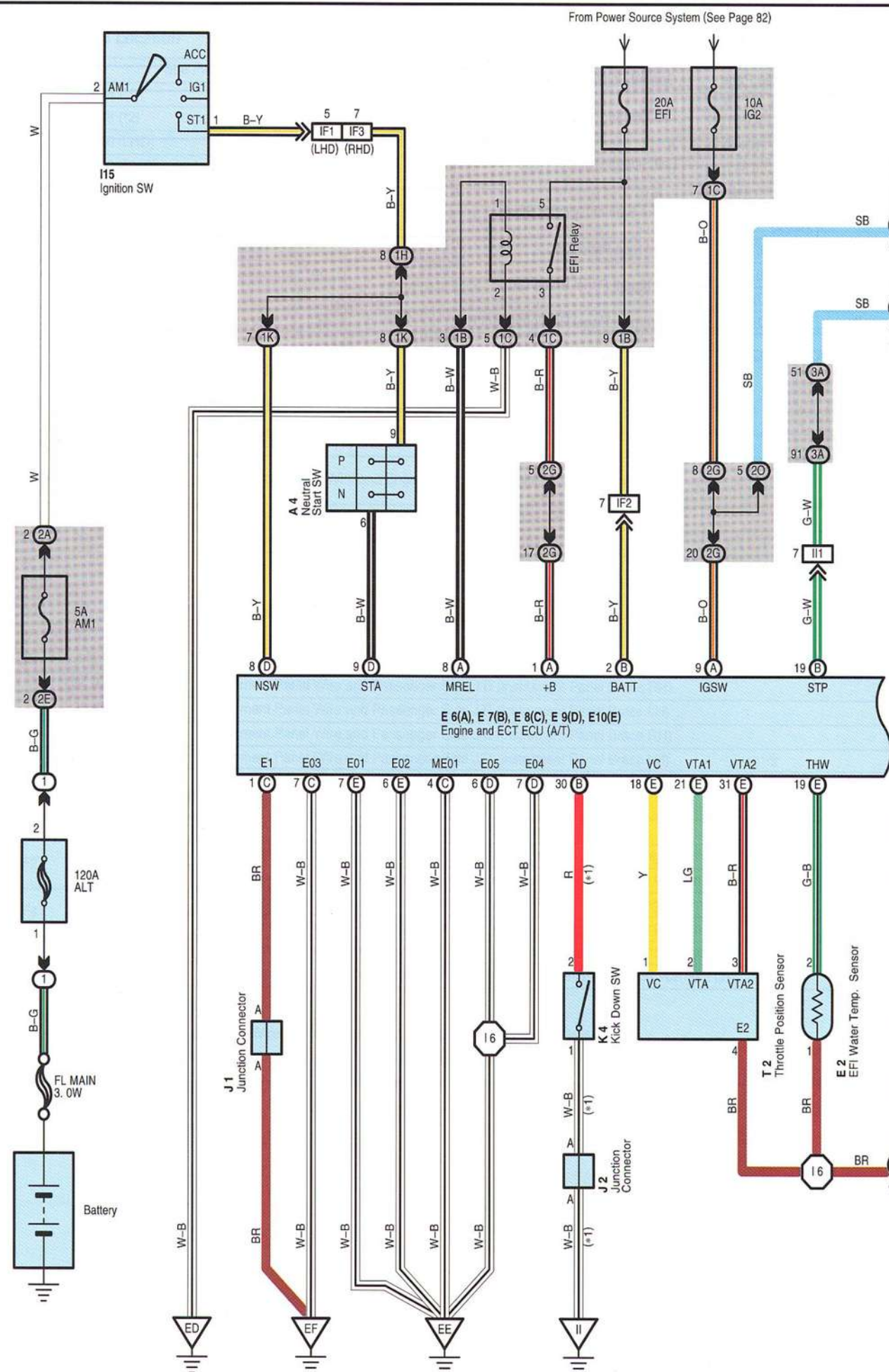
▽ : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| ED   | 58 (*1)  | Left Fender                       |
|      | 70 (*2)  |                                   |
| EG   | 58 (*1)  | Left Side of Cylinder Head        |
|      | 70 (*2)  |                                   |
| EH   | 58 (*1)  | Intake Side of Cylinder Block     |
|      | 70 (*2)  |                                   |
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) | Instrument Panel Brace LH         |
| IK   | 72 (RHD) |                                   |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE



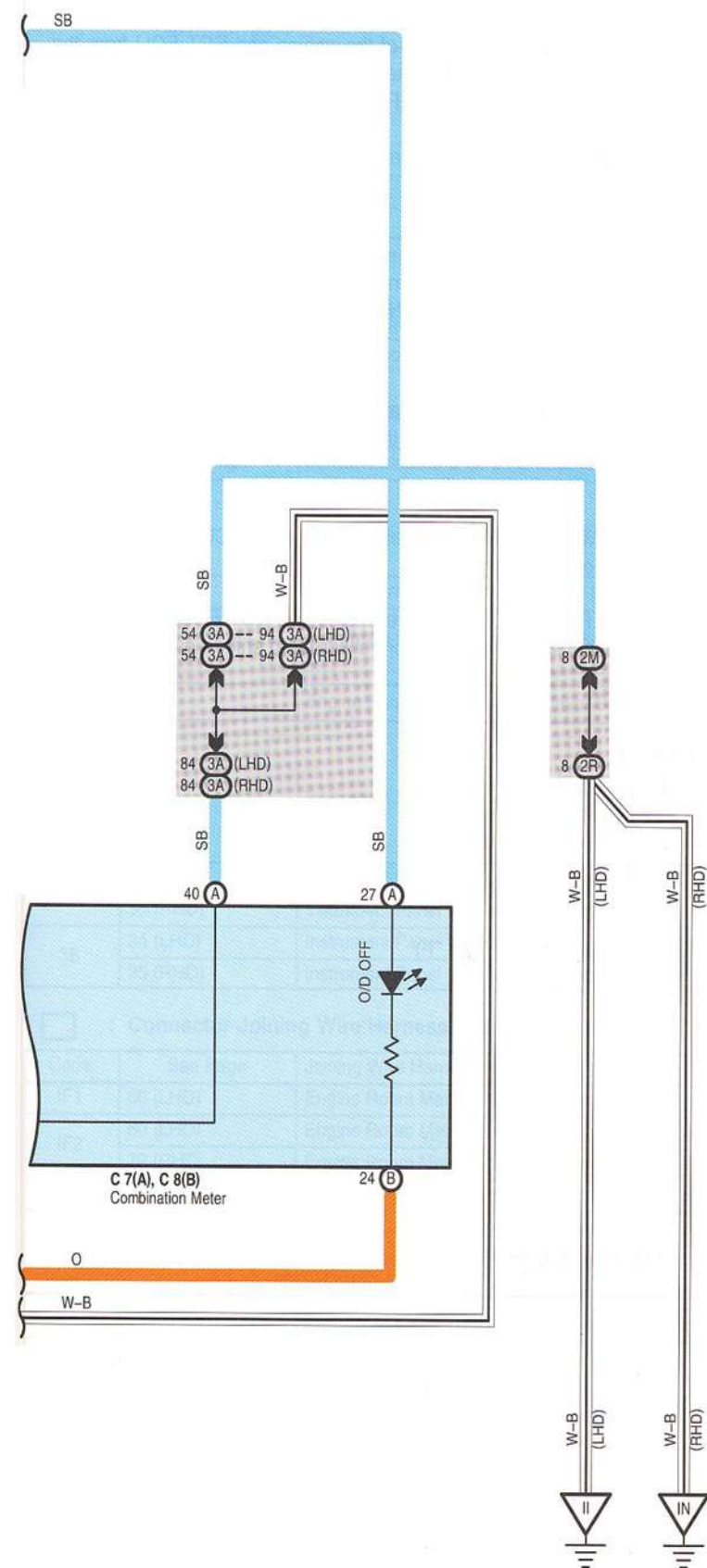
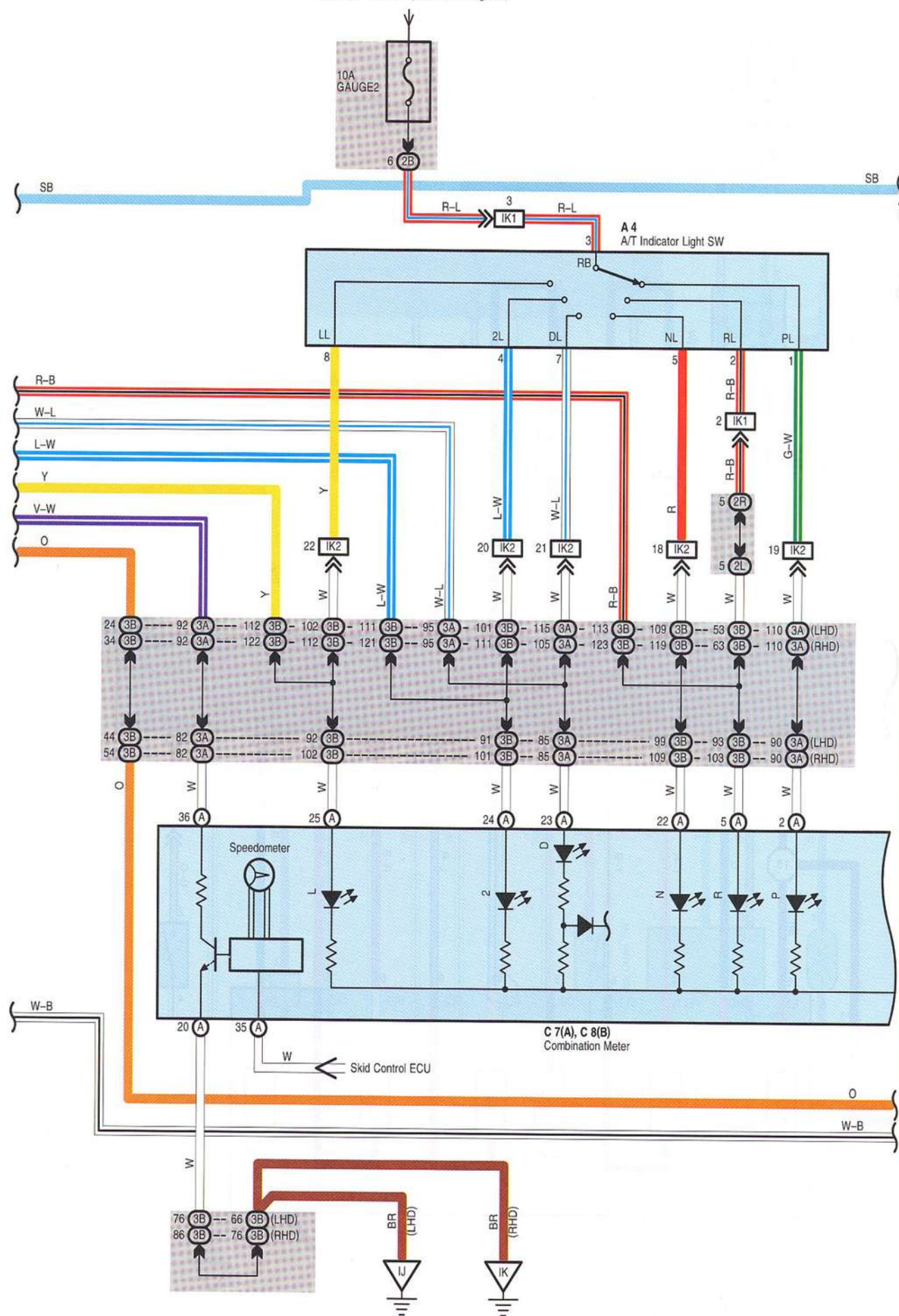
# ECT and A/T Indicator (1MZ-FE)





### ECT and A/T Indicator (1MZ-FE)

From Power Source System (See Page 82)





## ECT and A/T Indicator (1MZ-FE)

### System Outline

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

#### 1. Gear Shift Operation

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine and ECT ECU from the EFI water temp. sensor and the vehicle speed signal is input to TERMINAL SPD of the engine and ECT ECU. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINAL VTA of the engine and ECT ECU as throttle angle signal.

Based on these signals, the engine and ECT ECU selects the best shift position for the driving conditions and sends current to the ECT solenoid.

#### 2. Lock-Up Operation

When each signal makes engine and ECT ECU recognize that LOCK-UP condition is satisfied, the current flows from engine and ECT ECU TERMINAL DSL to ECT solenoid TERMINAL DSL. At the same time, the current flows engine and ECT ECU TERMINAL SL1+ to ECT solenoid TERMINAL SL1+ and from TERMINAL SL1- to engine and ECT ECU TERMINAL SL1-. This works LOCK-UP solenoid to perform LOCK-UP operation.

#### 3. Stop Light SW Circuit

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

#### 4. Overdrive Circuit

\* O/D main SW on

When the O/D main SW is turned on, a signal is input to TERMINAL ODMS of the engine and ECT ECU and engine and ECT ECU operation causes gear shift when the conditions for overdrive are met.

\* O/D main SW off

When the O/D main SW is turned off, a signal is input into TERMINAL ODMS of the engine and ECT ECU, and turns on the O/D off indicator light. This activates the ECU, and the transmission system is controlled not to shift to overdrive.

### Service Hints

#### E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine and ECT ECU

L-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at L position)

2-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at 2 position)

R-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at R position)

D-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at D position)

ODMS-E1 : 10.0-14.0 volts (O/D main SW on)

Below 1.0 volts (O/D main SW off)

THO-E2 : Below 1.0 volts (Ignition SW on and AFT temperature 110 °C (230 °F))

SLT+ -SLT- : 10.0-14.0 volts (Ignition SW on)

#### A4 A/T Indicator Light SW

3-1 : Closed with shift lever in P position

3-2 : Closed with shift lever in R position

3-5 : Closed with shift lever in N position

3-7 : Closed with shift lever in D position

3-8 : Closed with shift lever in L position

3-4 : Closed with shift lever in 2 position

#### A21 O/D Main SW

2-4 : Closed with the O/D main SW off, open with the O/D main SW on

### ○ : Parts Location

| Code | See Page        | Code | See Page        | Code | See Page        |
|------|-----------------|------|-----------------|------|-----------------|
| A4   | 36 (LHD 1MZ-FE) | E2   | 36 (LHD 1MZ-FE) | I15  | 41 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      | 46 (RHD 1MZ-FE) |      | 51 (RHD)        |
| A21  | 40 (LHD)        | E6   | A               | J1   | 41 (LHD)        |
|      | 50 (RHD)        |      |                 |      | 51 (RHD)        |
| C2   | 36 (LHD 1MZ-FE) | E7   | B               | J2   | 41 (LHD)        |
|      | 46 (RHD 1MZ-FE) |      |                 |      | 41 (LHD)        |
| C7   | 40 (LHD)        | E8   | C               | S14  | 41 (LHD)        |
|      | 50 (RHD)        |      |                 |      | 51 (RHD)        |
| C8   | 40 (LHD)        | E9   | D               | T2   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      |                 |      | 47 (RHD 1MZ-FE) |
| E1   | 36 (LHD 1MZ-FE) | E10  | E               | T3   | 37 (LHD 1MZ-FE) |
|      | 46 (RHD 1MZ-FE) |      |                 |      | 47 (RHD 1MZ-FE) |

### ○ : Relay Blocks

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

### ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 1H   |          |                                                                          |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2B   |          |                                                                          |
| 2E   |          |                                                                          |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2L   |          |                                                                          |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

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

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
| IF2  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF3  | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF4  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) |                                                                                      |
|      | 74 (RHD) |                                                                                      |

ECT and A/T Indicator (1MZ-FE)

 : Ground Points

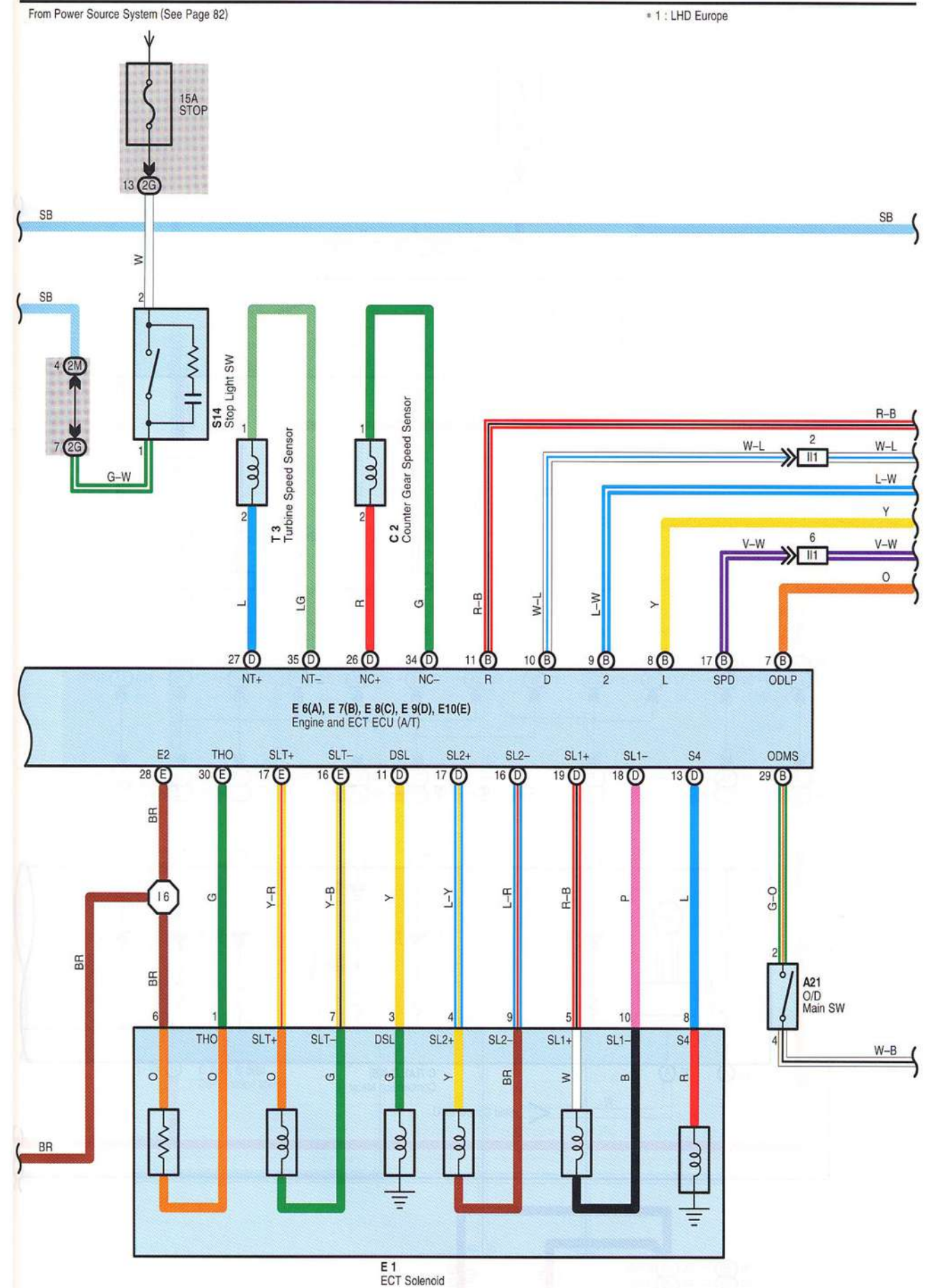
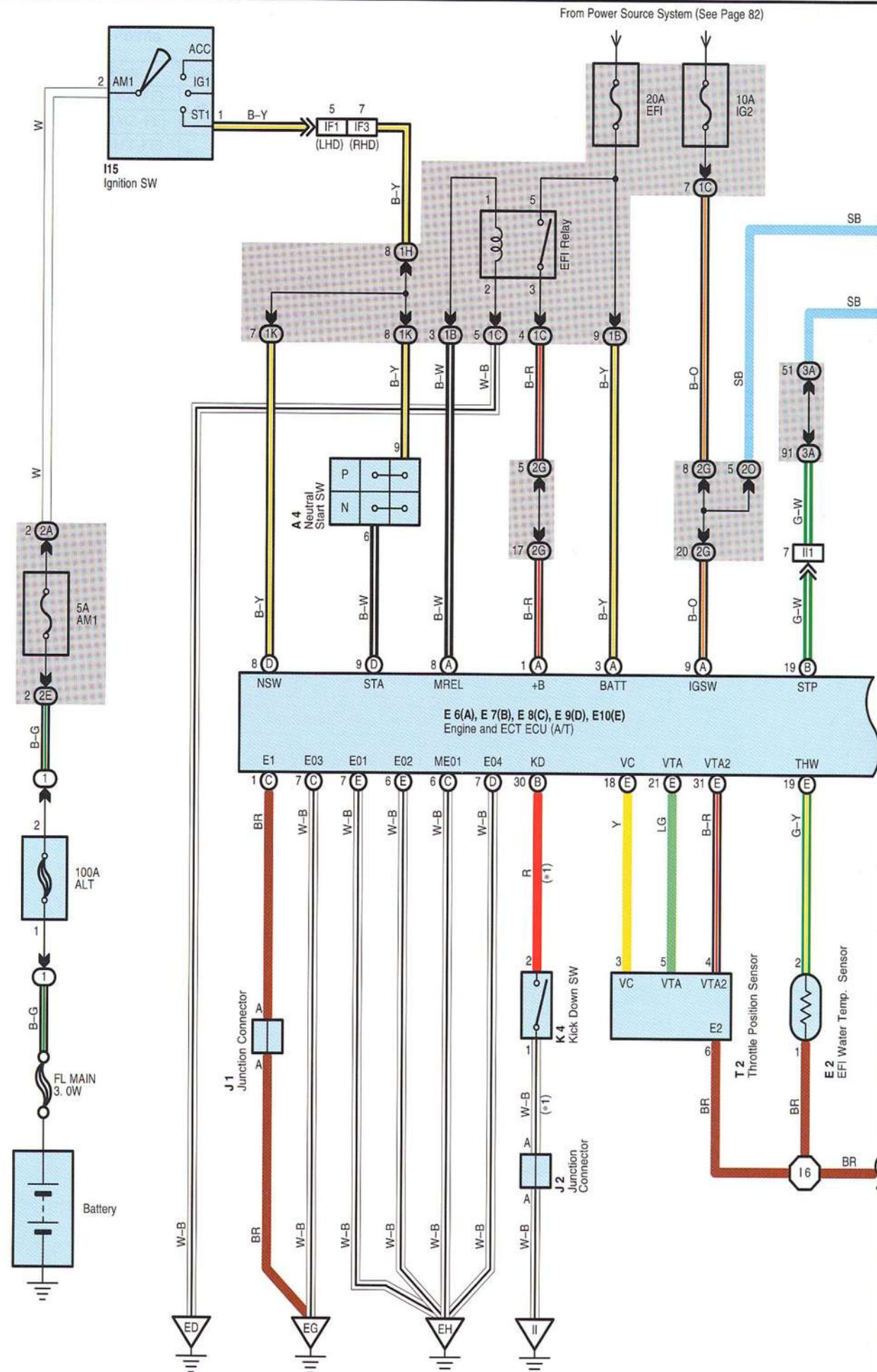
| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| ED   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 68 (RHD 1MZ-FE) |                                   |
| EE   | 56 (LHD 1MZ-FE) | Surge Tank RH                     |
|      | 68 (RHD 1MZ-FE) |                                   |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank           |
|      | 68 (RHD 1MZ-FE) |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH         |
| IK   | 72 (RHD)        |                                   |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I6   | 62 (LHD) | Engine Wire                     | I6   | 74 (RHD) | Engine Wire                     |



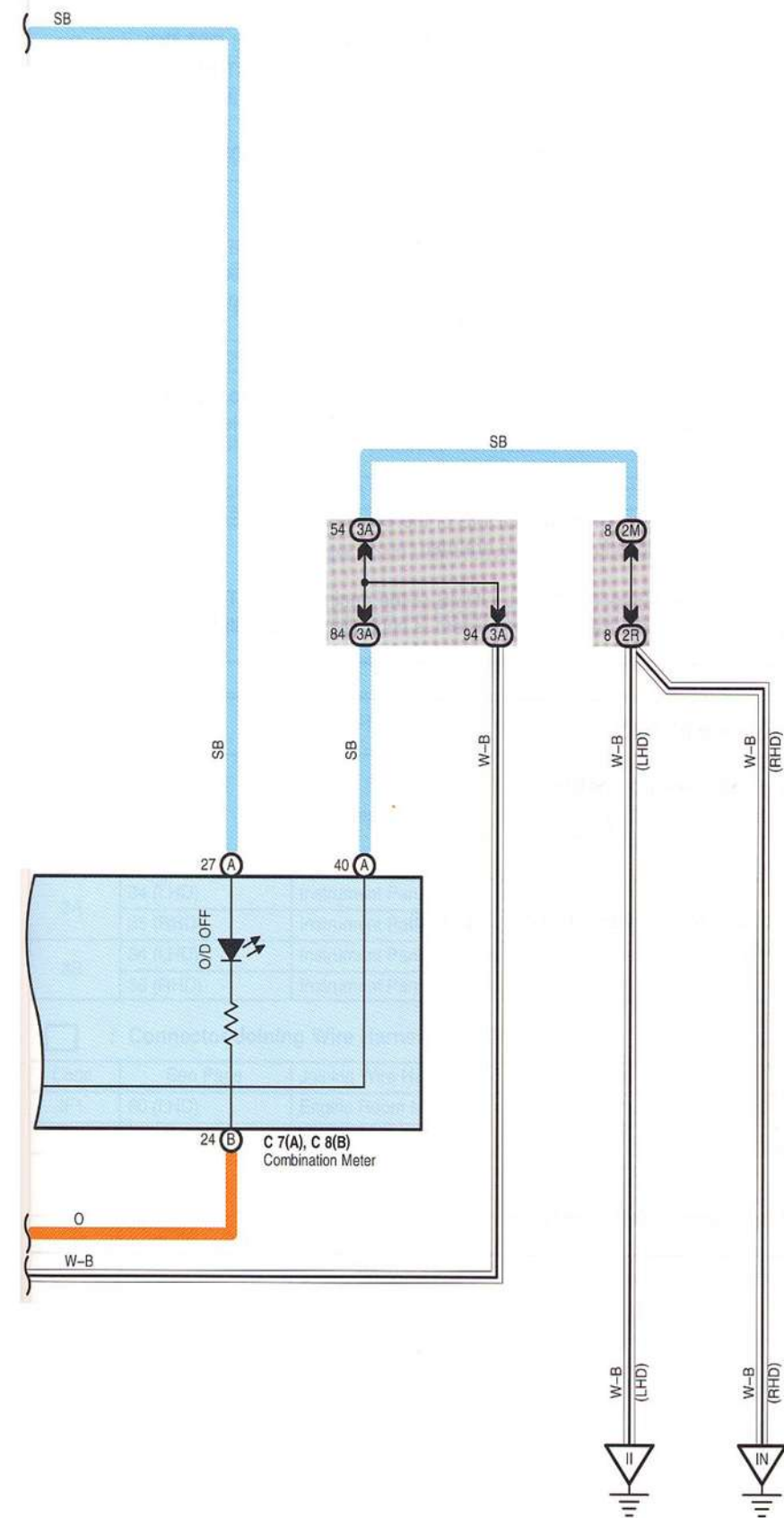
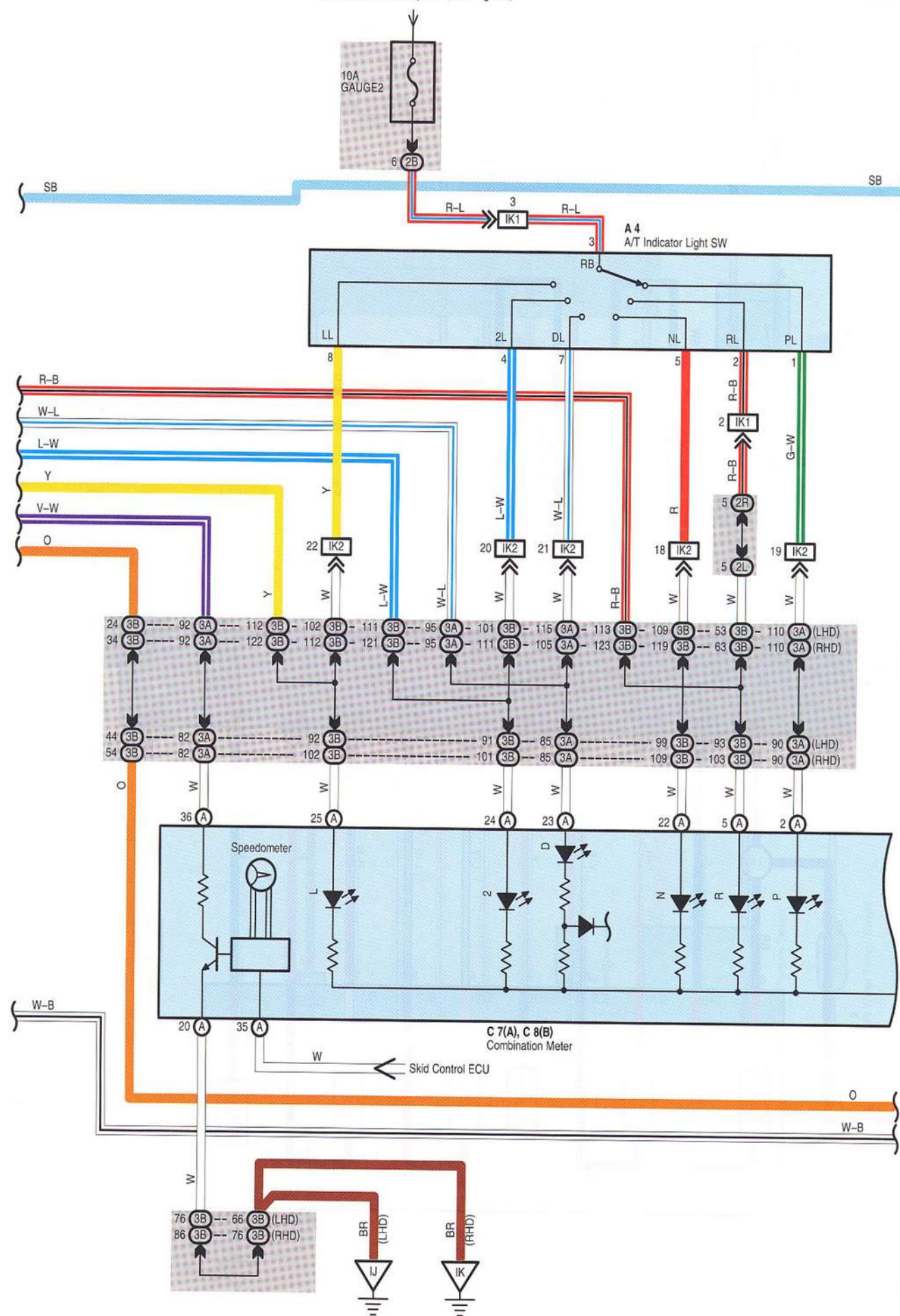
# ECT and A/T Indicator (2AZ-FE, 1AZ-FE)





### ECT and A/T Indicator (2AZ-FE, 1AZ-FE)

From Power Source System (See Page 82)





System Outline

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

**1. Gear Shift Operation**

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine and ECT ECU from the EFI water temp. sensor and the vehicle speed signal is input to TERMINAL SPD of the engine and ECT ECU. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINAL VTA of the engine and ECT ECU as throttle angle signal.

Based on these signals, the engine and ECT ECU selects the best shift position for the driving conditions and sends current to the ECT solenoid.

**2. Lock-Up Operation**

When each signal makes engine and ECT ECU recognize that LOCK-UP condition is satisfied, the current flows from engine and ECT ECU TERMINAL DSL to ECT solenoid TERMINAL DSL. At the same time, the current flows engine and ECT ECU TERMINAL SL1+ to ECT solenoid TERMINAL SL1+ and from TERMINAL SL1- to engine and ECT ECU TERMINAL SL1-. This works LOCK-UP solenoid to perform LOCK-UP operation.

**3. Stop Light SW Circuit**

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

**4. Overdrive Circuit**

\* O/D main SW on

When the O/D main SW is turned on, a signal is input to TERMINAL ODMS of the engine and ECT ECU and engine and ECT ECU operation causes gear shift when the conditions for overdrive are met.

\* O/D main SW off

When the O/D main SW is turned off, a signal is input into TERMINAL ODMS of the engine and ECT ECU, and turns on the O/D off indicator light. This activates the ECU, and the transmission system is controlled not to shift to overdrive.

Service Hints

**E6 (A), E7 (B), E8 (C), E9 (D), E10 (E) Engine and ECT ECU**

L-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at L position)

2-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at 2 position)

R-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at R position)

D-E1 : 10.0-14.0 volts (Ignition SW on and shift lever at D position)

ODMS-E1 : 10.0-14.0 volts (O/D main SW on)

Below 1.0 volts (O/D main SW off)

THO-E2 : Below 1.0 volts (Ignition SW on and AFT temperature 110 °C (230 °F)

SLT+ -SLT- : 10.0-14.0 volts (Ignition SW on)

**A4 A/T Indicator Light SW**

3-1 : Closed with shift lever in P position

3-2 : Closed with shift lever in R position

3-5 : Closed with shift lever in N position

3-7 : Closed with shift lever in D position

3-8 : Closed with shift lever in L position

3-4 : Closed with shift lever in 2 position

**A21 O/D Main SW**

2-4 : Closed with the O/D main SW off, open with the O/D main SW on

○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| A4   | 38 (*1)  | E2   | 38 (*1)  | I15  | 41 (LHD) |
|      | 48 (*2)  |      | 48 (*2)  |      | 51 (RHD) |
| A21  | 40 (LHD) | E6   | A        | J1   | 41 (LHD) |
|      | 50 (RHD) |      |          |      | 51 (RHD) |
| C2   | 38 (*1)  | E7   | B        | J2   | 41 (LHD) |
|      | 48 (*2)  |      |          |      | 41 (LHD) |
| C7   | 40 (LHD) | E8   | C        | S14  | 41 (LHD) |
|      | 50 (RHD) |      |          |      | 51 (RHD) |
| C8   | 40 (LHD) | E9   | D        | T2   | 39 (*1)  |
|      | 50 (RHD) |      |          |      | 49 (*2)  |
| E1   | 38 (*1)  | E10  | E        | T3   | 39 (*1)  |
|      | 48 (*2)  |      |          |      | 49 (*2)  |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Relay Blocks

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

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1B   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1C   |          |                                                                          |
| 1H   |          |                                                                          |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2B   |          |                                                                          |
| 2E   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2G   |          |                                                                          |
| 2L   |          |                                                                          |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
| IF3  | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) |                                                                                      |
|      | 74 (RHD) |                                                                                      |

ECT and A/T Indicator (2AZ-FE, 1AZ-FE)

 : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| ED   | 58 (*1)  | Left Fender                       |
|      | 70 (*2)  |                                   |
| EG   | 58 (*1)  | Left Side of Cylinder Head        |
|      | 70 (*2)  |                                   |
| EH   | 58 (*1)  | Intake Side of Cylinder Block     |
|      | 70 (*2)  |                                   |
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) | Instrument Panel Brace LH         |
| IK   | 72 (RHD) |                                   |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

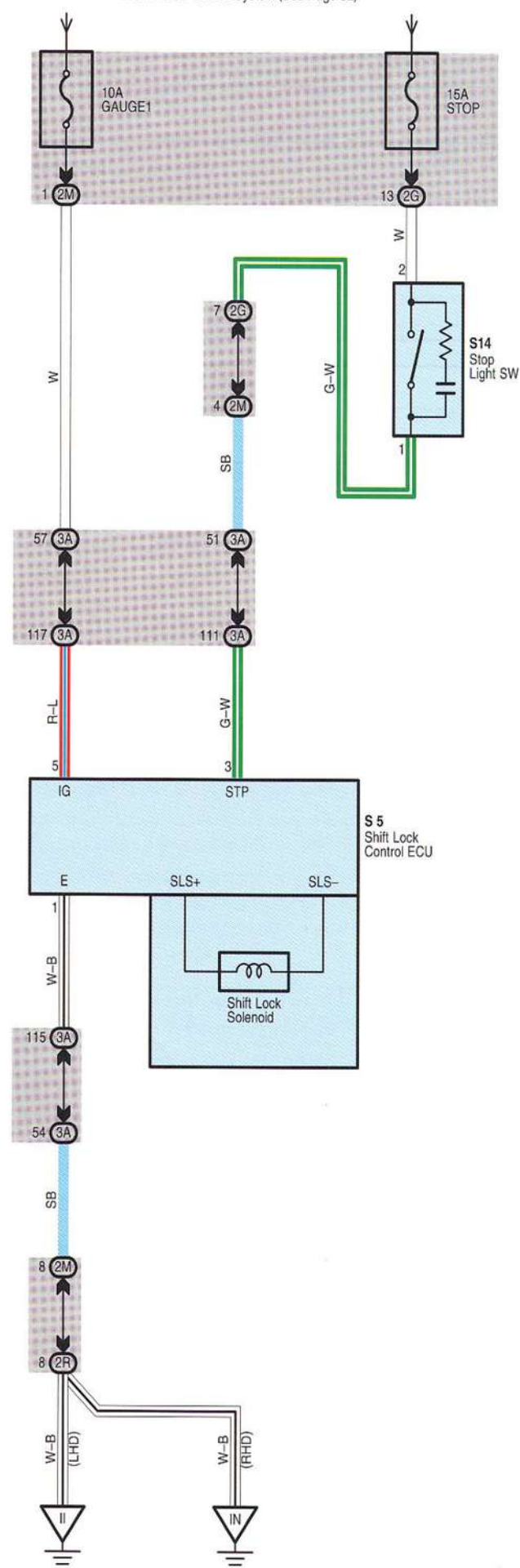
\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I6   | 62 (LHD) | Engine Wire                     | I6   | 74 (RHD) | Engine Wire                     |



From Power Source System (See Page 82)



## System Outline

### Shift Lock Mechanism

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

## Service Hints

### S5 Shift Lock Control ECU

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

1-Ground : Always continuity

## Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| S5   | 41 (LHD) | S14  | 41 (LHD) |      |          |
|      | 51 (RHD) |      | 51 (RHD) |      |          |

## Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

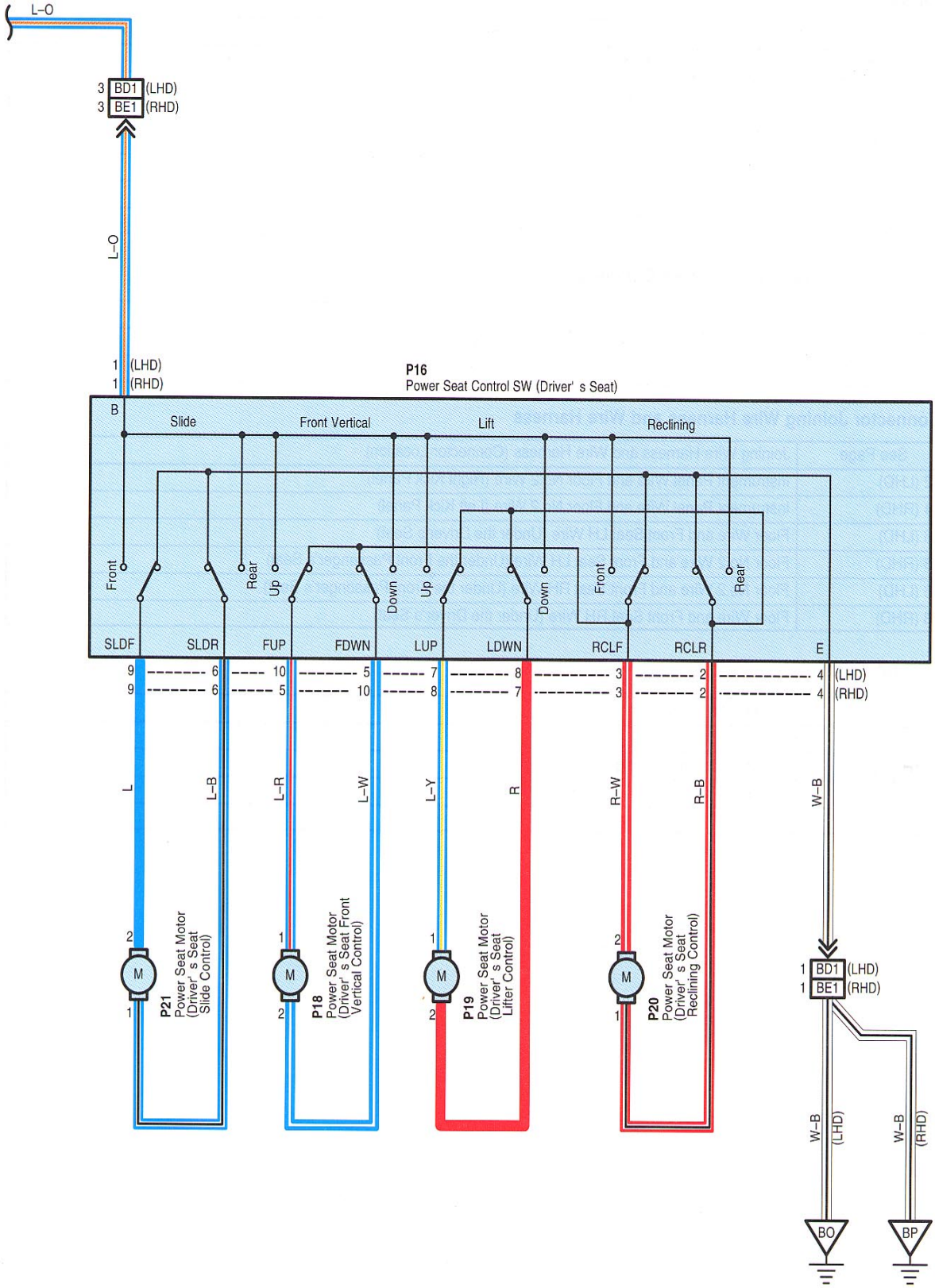
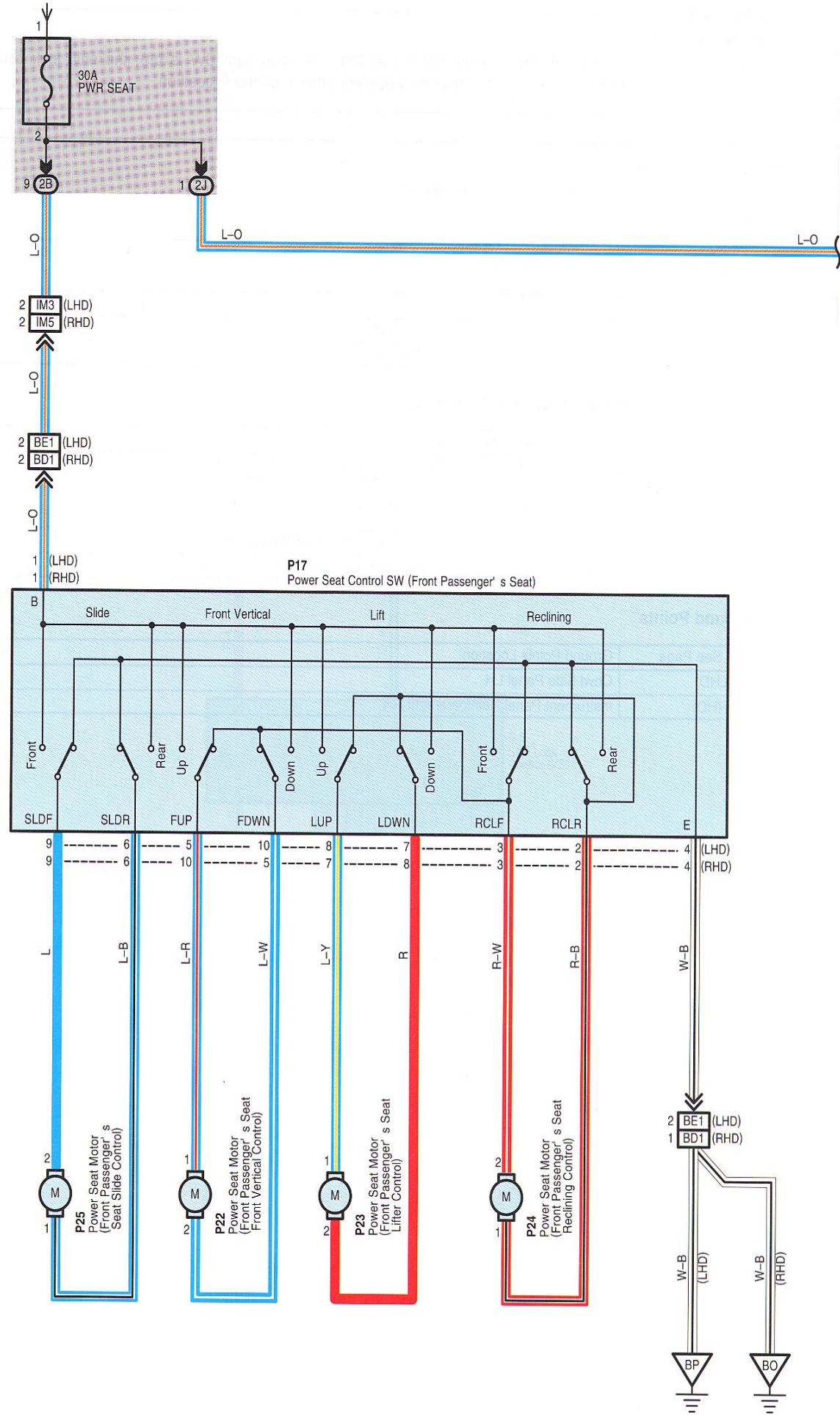
## Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |



Power Seat

From Power Source System (See Page 82)





Power Seat

Service Hints

**P16 Power Seat Control SW (Driver's Seat)**  
1-Ground : Always approx. 12 volts  
4-Ground : Always continuity

**P17 Power Seat Control SW (Front Passenger's Seat)**  
1-Ground : Always approx. 12 volts  
4-Ground : Always continuity

 : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| P16  | 44 (LHD) | P19  | 54 (RHD) | P23  | 44 (LHD) |
|      | 54 (RHD) |      | 44 (LHD) |      | 54 (RHD) |
| P17  | 44 (LHD) | P20  | 54 (RHD) | P24  | 44 (LHD) |
|      | 54 (RHD) |      | 44 (LHD) |      | 54 (RHD) |
| P18  | 44 (LHD) | P21  | 54 (RHD) | P25  | 44 (LHD) |
|      | 54 (RHD) |      | 44 (LHD) |      | 54 (RHD) |
| P19  | 44 (LHD) | P22  | 54 (RHD) |      |          |

 : Junction Block and Wire Harness Connector

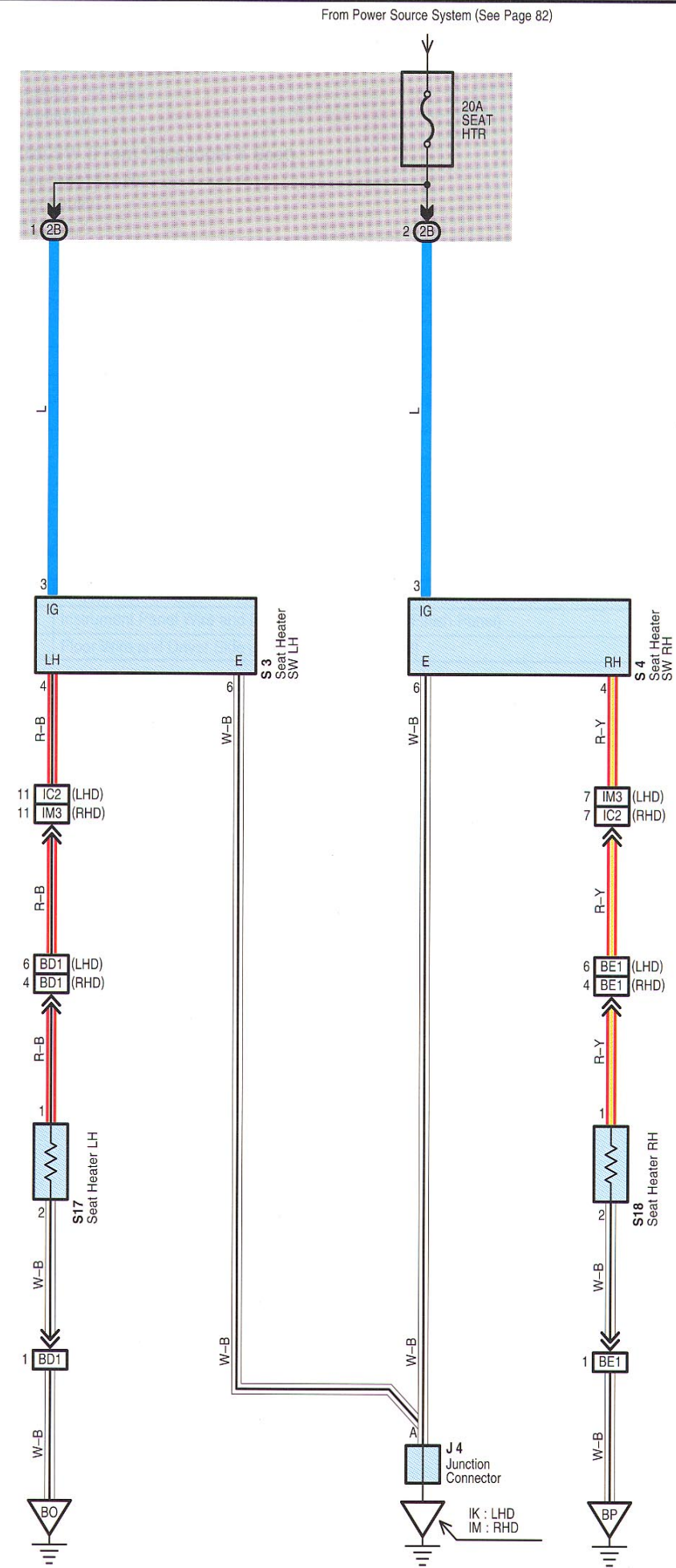
| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |
| 2J   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)            |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------------|
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)              |
| IM5  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)               |
| BD1  | 66 (LHD) | Floor Wire and Front Seat LH Wire (Under the Driver's Seat)               |
|      | 78 (RHD) | Floor No.2 Wire and Front Seat LH Wire (Under the Front Passenger's Seat) |
| BE1  | 66 (LHD) | Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat) |
|      | 78 (RHD) | Floor Wire and Front Seat RH Wire (Under the Driver's Seat)               |

 : Ground Points

| Code | See Page | Ground Points Location           |
|------|----------|----------------------------------|
| BO   | 64 (LHD) | Under the Driver's Seat          |
|      | 76 (RHD) | Under the Front Passenger's Seat |
| BP   | 64 (LHD) | Under the Front Passenger's Seat |
|      | 76 (RHD) | Under the Driver's Seat          |



Service Hints

S3, S4 Seat Heater SW LH, RH

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

○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| J4   | 41 (LHD) | S4   | 41 (LHD) | S18  | 44 (LHD) |
|      | 51 (RHD) |      | 51 (RHD) |      | 54 (RHD) |
| S3   | 41 (LHD) | S17  | 44 (LHD) |      |          |
|      | 51 (RHD) |      | 54 (RHD) |      |          |

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------------|
| IC2  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)                    |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)                   |
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)              |
|      | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)               |
| BD1  | 66 (LHD) | Floor Wire and Front Seat LH Wire (Under the Driver's Seat)               |
|      | 78 (RHD) | Floor No.2 Wire and Front Seat LH Wire (Under the Front Passenger's Seat) |
| BE1  | 66 (LHD) | Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat) |
|      | 78 (RHD) | Floor Wire and Front Seat RH Wire (Under the Driver's Seat)               |

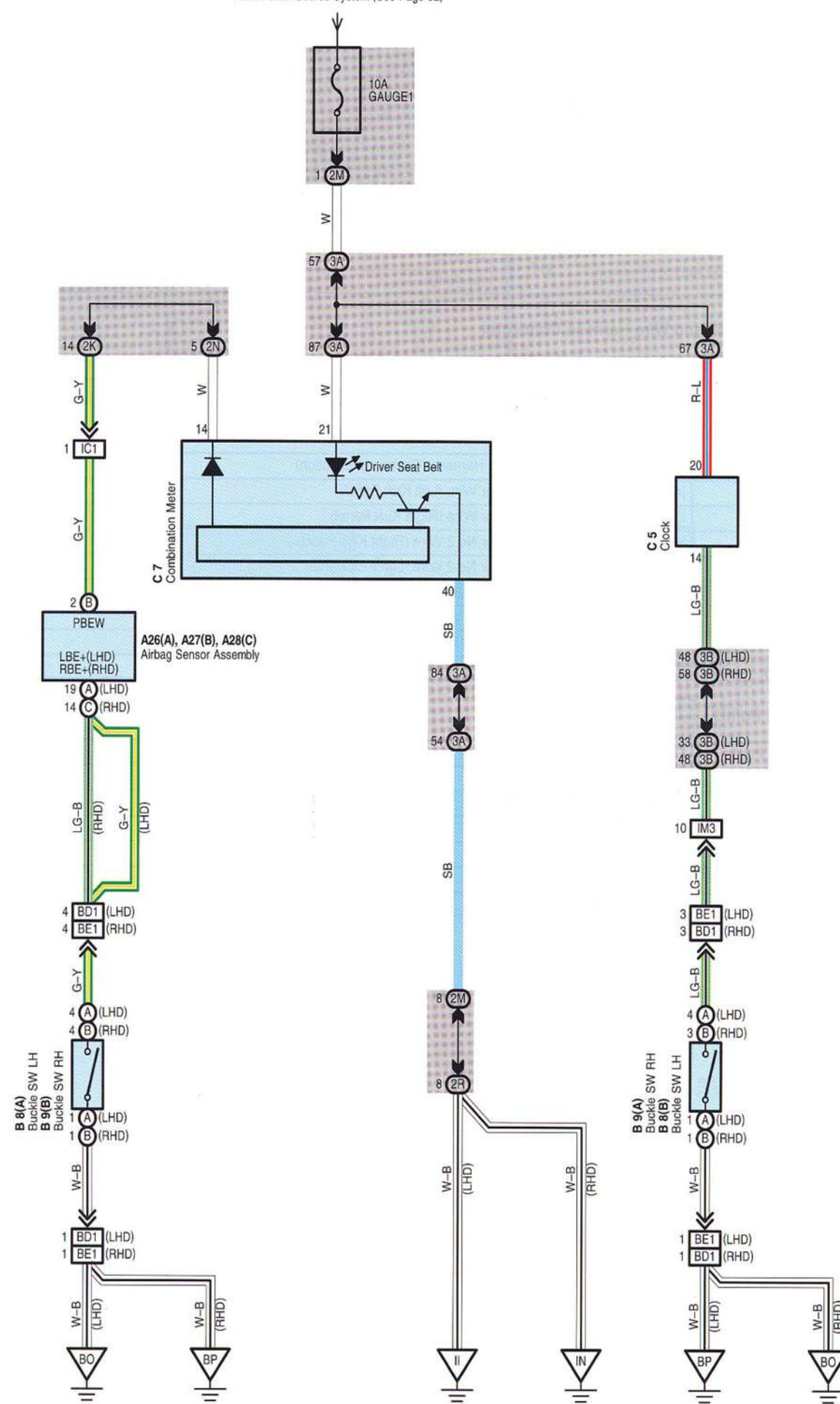
▽ : Ground Points

| Code | See Page | Ground Points Location           |
|------|----------|----------------------------------|
| IK   | 60 (LHD) | Instrument Panel Brace LH        |
| IM   | 72 (RHD) | Instrument Panel Brace RH        |
| BO   | 64 (LHD) | Under the Driver's Seat          |
|      | 76 (RHD) | Under the Front Passenger's Seat |
| BP   | 64 (LHD) | Under the Front Passenger's Seat |
|      | 76 (RHD) | Under the Driver's Seat          |



# Seat Belt Warning

From Power Source System (See Page 82)



## Service Hints

### B8 Buckle SW LH

4-1 : Closed with seat belt in use

### B9 Buckle SW RH

4 (LHD), 2 (RHD)-1 : Closed with seat belt in use

## ○ : Parts Location

| Code | See Page | Code     | See Page | Code | See Page |
|------|----------|----------|----------|------|----------|
| A26  | A        | 40 (LHD) | A28      | C    | 50 (RHD) |
|      |          | 50 (RHD) | B8       | A    | 44 (LHD) |
| A27  | B        | 40 (LHD) |          | B    | 54 (RHD) |
|      |          | 50 (RHD) | B9       | A    | 44 (LHD) |
| A28  | C        | 40 (LHD) |          | B    | 54 (RHD) |
|      |          |          |          |      |          |

## ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2M   |          |                                                                          |
| 2N   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

## □ : Connector Joining Wire Harness and Wire Harness

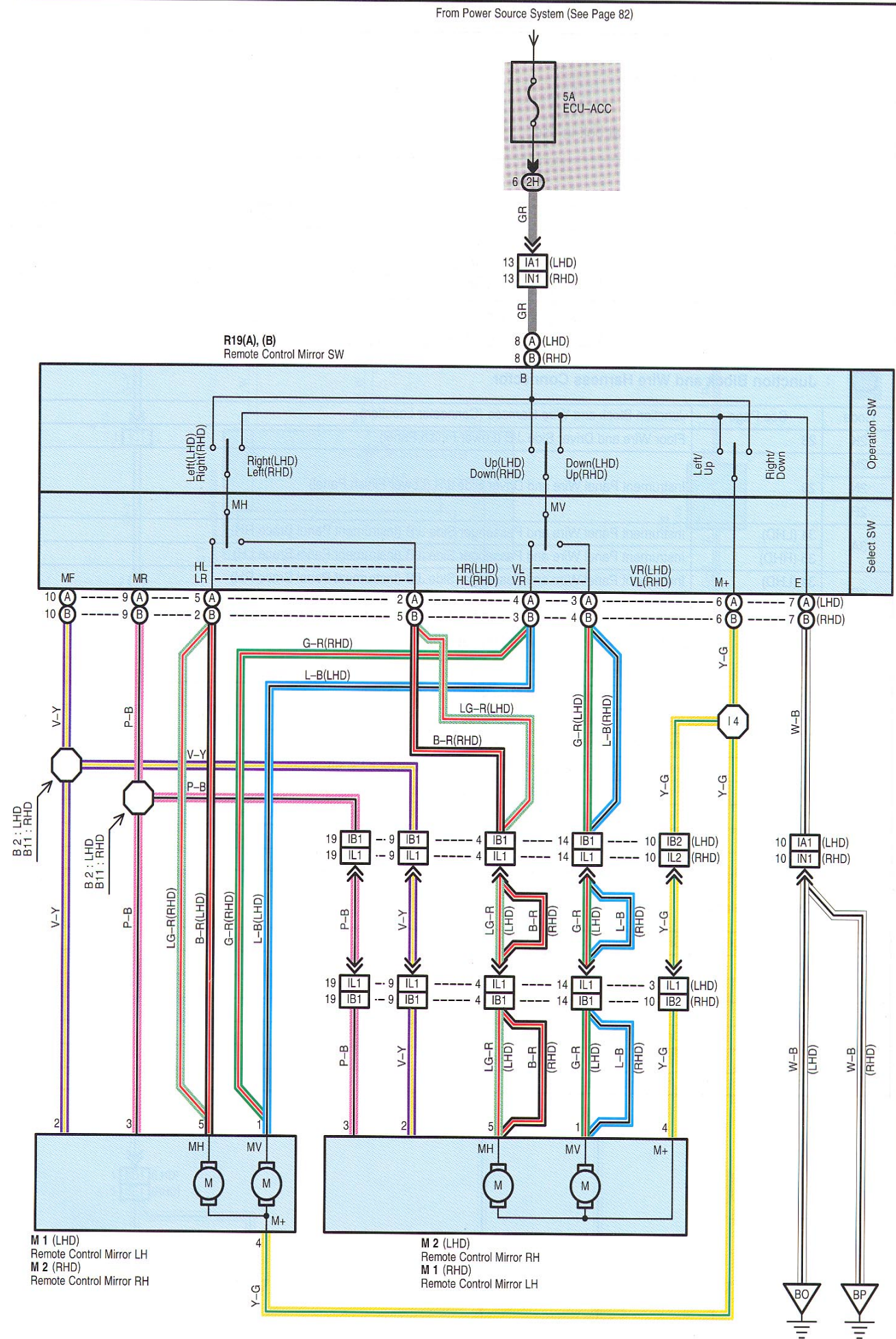
| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------------|
| IC1  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)                    |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)                   |
| IM3  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)              |
|      | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)               |
| BD1  | 66 (LHD) | Floor Wire and Front Seat LH Wire (Under the Driver's Seat)               |
|      | 78 (RHD) | Floor No.2 Wire and Front Seat LH Wire (Under the Front Passenger's Seat) |
| BE1  | 66 (LHD) | Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat) |
|      | 78 (RHD) | Floor Wire and Front Seat RH Wire (Under the Driver's Seat)               |

## ▽ : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |
| BO   | 64 (LHD) | Under the Driver's Seat           |
|      | 76 (RHD) | Under the Front Passenger's Seat  |
| BP   | 64 (LHD) | Under the Front Passenger's Seat  |
|      | 76 (RHD) | Under the Driver's Seat           |



Remote Control Mirror



Service Hints

R19 Remote Control Mirror SW

- 8-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- 7-Ground : Always continuity
- 8-6 : Continuity with the operation SW at DOWN or RIGHT position
- 6-7 : Continuity with the operation SW at UP or LEFT position

○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page   |
|------|----------|------|----------|------|------------|
| M1   | 43 (LHD) | M2   | 43 (LHD) | R19  | A 43 (LHD) |
|      | 53 (RHD) |      | 53 (RHD) |      | B 53 (RHD) |

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location) |
|------|----------|------------------------------------------------------|
| 2H   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)  |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)      |
|------|----------|-----------------------------------------------------------------|
| IA1  | 60 (LHD) | Front Door LH Wire and Floor Wire (Left Kick Panel)             |
| IB1  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
|      | 72 (RHD) |                                                                 |
| IB2  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
|      | 72 (RHD) |                                                                 |
| IL1  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
|      | 74 (RHD) |                                                                 |
| IL2  | 74 (RHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
| IN1  | 74 (RHD) | Front Door RH Wire and Floor Wire (Right Kick Panel)            |

▽ : Ground Points

| Code | See Page | Ground Points Location  |
|------|----------|-------------------------|
| BO   | 64 (LHD) | Under the Driver's Seat |
| BP   | 76 (RHD) |                         |

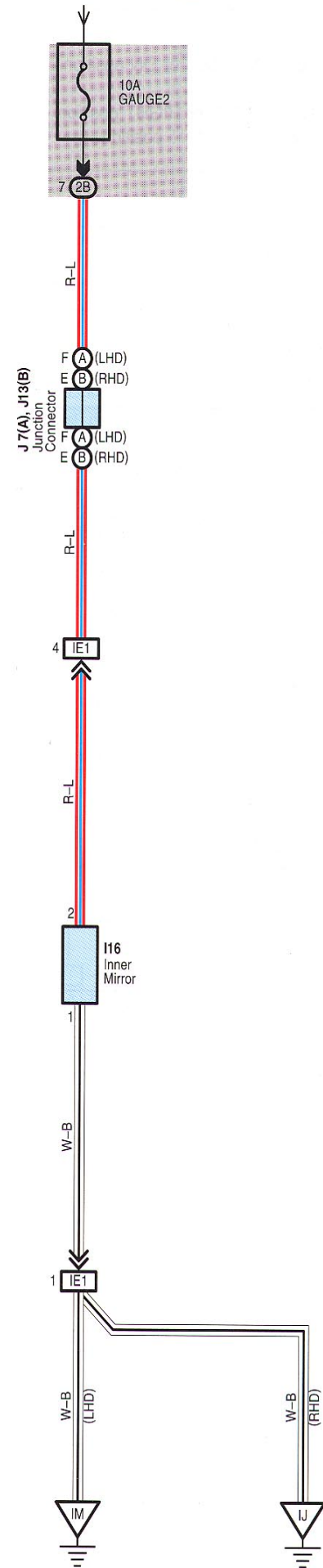
○ : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I4   | 62 (LHD) | Instrument Panel Wire           | B2   | 64 (LHD) | Front Door LH Wire              |
|      | 74 (RHD) |                                 | B11  | 76 (RHD) | Front Door RH Wire              |



Automatic Glare-Resistant EC Mirror

From Power Source System (See Page 82)



Service Hints

I16 Inner Mirror

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

○ : Parts Location

| Code | See Page | Code | See Page | Code     | See Page |
|------|----------|------|----------|----------|----------|
| I16  | 42 (LHD) | J7   | A        | 41 (LHD) |          |
|      | 52 (RHD) | J13  | B        | 51 (RHD) |          |

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |

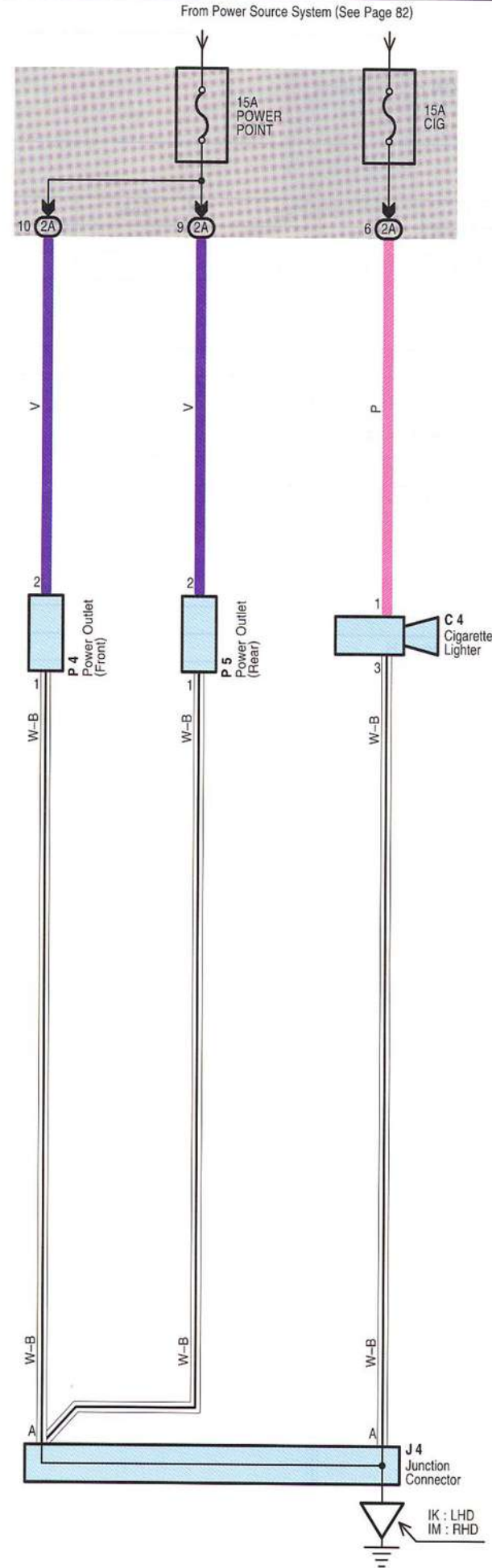
□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)         |
|------|----------|--------------------------------------------------------------------|
| IE1  | 60 (LHD) | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)  |
|      | 72 (RHD) | Instrument Panel Wire and Roof Wire (Inside of Front Right Pillar) |

▽ : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| IJ   | 72 (RHD) | Instrument Panel Reinforcement LH |
| IM   | 60 (LHD) | Instrument Panel Reinforcement RH |

Power Outlet and Cigarette Lighter



Service Hints

C4 Cigarette Lighter

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

P4 Power Outlet (Front)

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

P5 Power Outlet (Rear)

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

○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| C4   | 40 (LHD) | J4   | 51 (RHD) | P5   | 41 (LHD) |
|      | 50 (RHD) | P4   | 41 (LHD) |      | 51 (RHD) |
| J4   | 41 (LHD) |      | 51 (RHD) |      |          |

○ : Junction Block and Wire Harness Connector

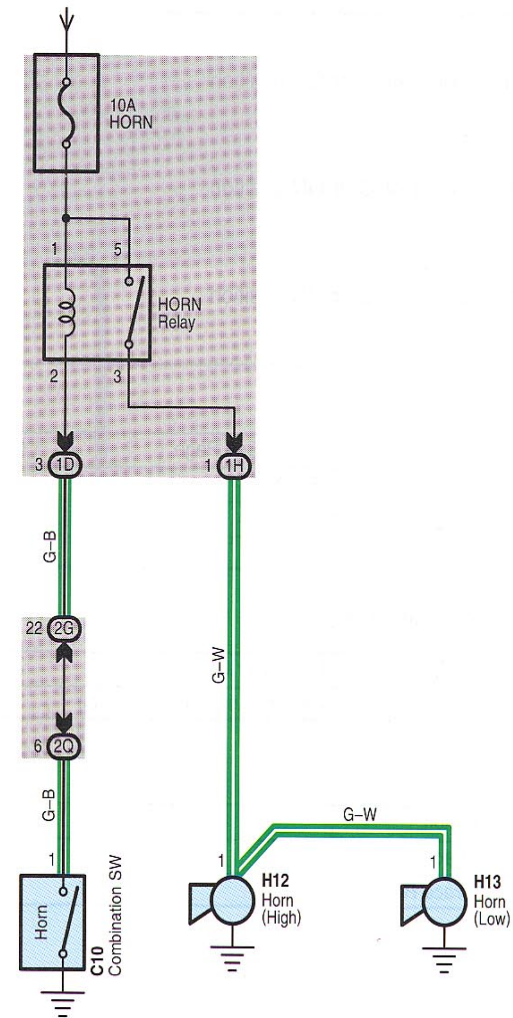
| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |

▽ : Ground Points

| Code | See Page | Ground Points Location    |
|------|----------|---------------------------|
| IK   | 60 (LHD) | Instrument Panel Brace LH |
| IM   | 72 (RHD) | Instrument Panel Brace RH |



From Power Source System (See Page 82)



### - Service Hints

### HORN Relay

5-3 : Closed with the horn SW on

○ : Parts Location

| Code | See Page        | Code | See Page        | Code | See Page        |
|------|-----------------|------|-----------------|------|-----------------|
| C10  | 40 (LHD)        | H12  | 46 (RHD 1MZ-FE) | H13  | 46 (RHD 1MZ-FE) |
|      | 50 (RHD)        |      | 48 (*2)         |      | 48 (*2)         |
| H12  | 36 (LHD 1MZ-FE) | H13  | 36 (LHD 1MZ-FE) |      |                 |
|      | 38 (*1)         |      | 38 (*1)         |      |                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

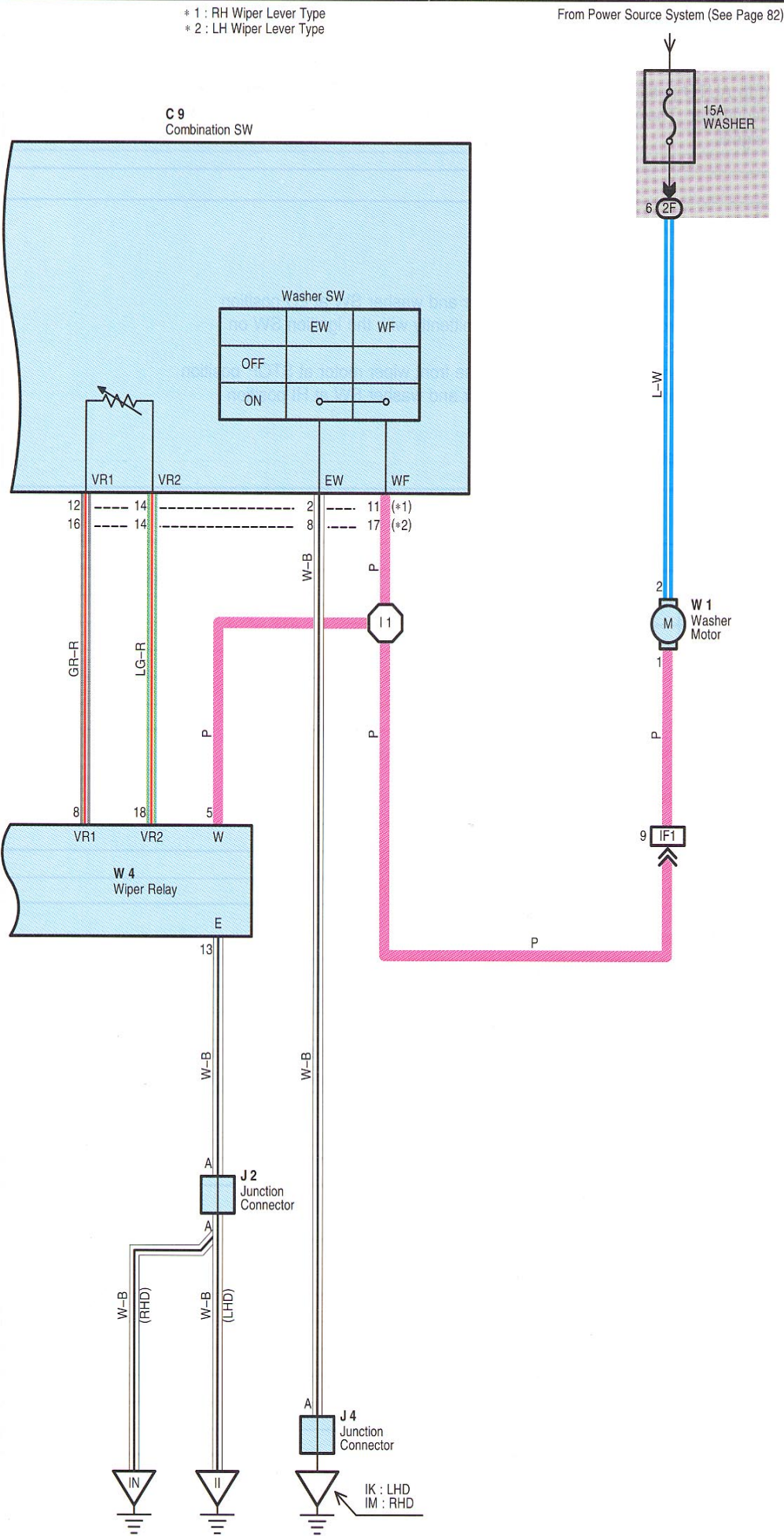
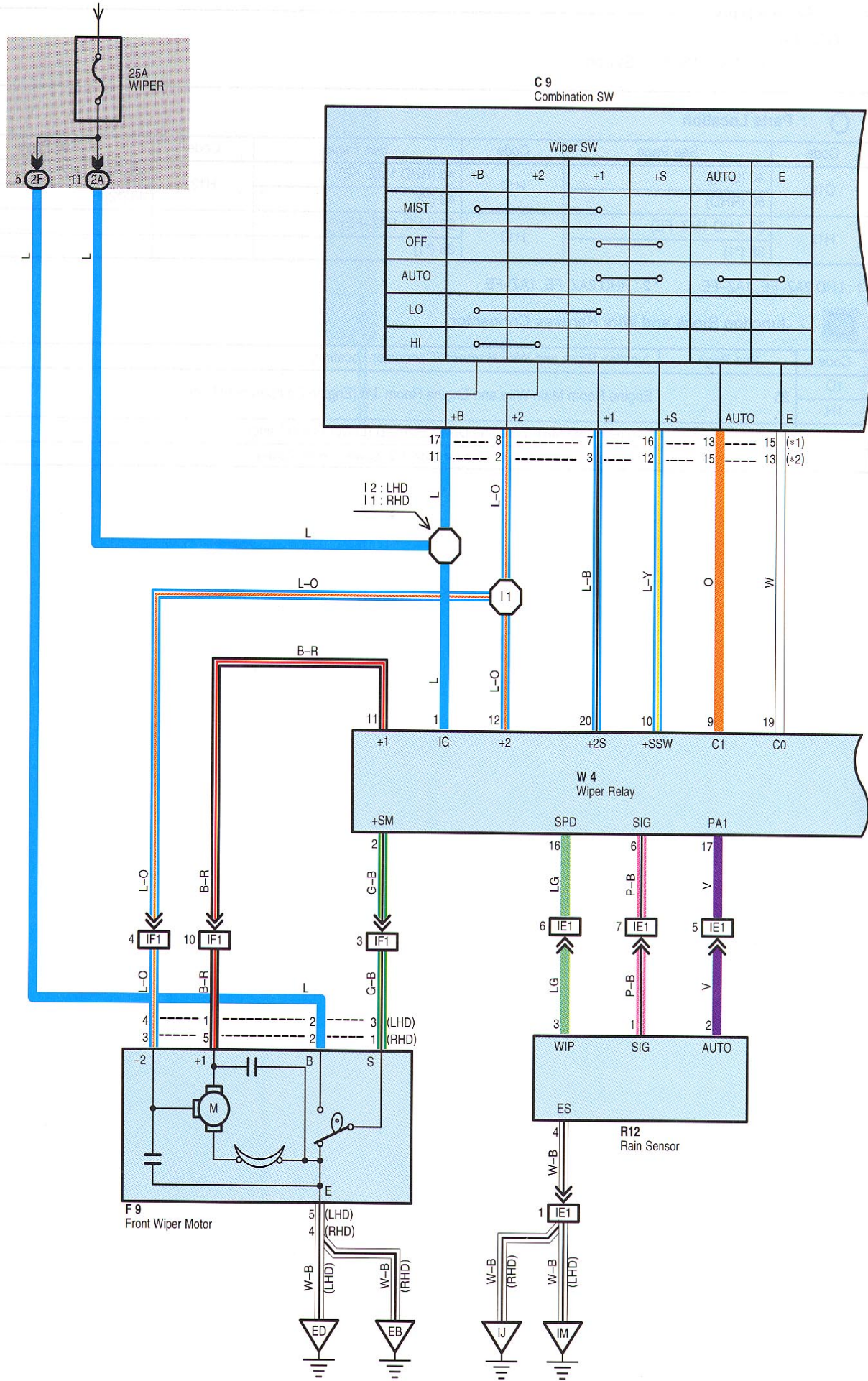
 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1D   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 1H   |          |                                                                     |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |
| 2Q   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)      |



Wiper and Washer

From Power Source System (See Page 82)





# Wiper and Washer

|                                                                                                                                                                                                                                                                                            |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>System Outline</b>                                                                                                                                                                                                                                                                      |  |
| <b>Auto Wiper Operation</b>                                                                                                                                                                                                                                                                |  |
| When the wiper SW is placed to AUTO position, the rain sensor detects the amount of rain on the front windshield, and a signal is output to the wiper controller. The wiper controller automatically controls the intermittent time and operates the wiper, in accordance with the signal. |  |
| <b>Service Hints</b>                                                                                                                                                                                                                                                                       |  |
| <b>C9 Combination SW</b>                                                                                                                                                                                                                                                                   |  |
| 2-Ground : Always continuity                                                                                                                                                                                                                                                               |  |
| 17-Ground : Approx. 12 volts with the ignition SW at ON position                                                                                                                                                                                                                           |  |
| 7-Ground : Approx. 12 volts with the ignition SW on and the wiper and washer SW at LO position                                                                                                                                                                                             |  |
| Approx. 12 volts every approx. 1 to 10 seconds intermittently with the ignition SW on and the wiper and washer SW at INT position                                                                                                                                                          |  |
| 16-Ground : Approx. 12 volts with the ignition SW on and unless the front wiper motor at STOP position                                                                                                                                                                                     |  |
| 8-Ground : Approx. 12 volts with the ignition SW on and the wiper and washer SW at HI position                                                                                                                                                                                             |  |
| <b>F9 Front Wiper Motor</b>                                                                                                                                                                                                                                                                |  |
| 2-3 : Closed unless the front wiper motor at STOP position                                                                                                                                                                                                                                 |  |

## ○ : Parts Location

| Code | See Page        | Code | See Page | Code | See Page        |
|------|-----------------|------|----------|------|-----------------|
| C9   | 40 (LHD)        | J2   | 41 (LHD) | W1   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      | 51 (RHD) |      | 39 (*1)         |
| F9   | 36 (LHD 1MZ-FE) | J4   | 41 (LHD) |      | 47 (RHD 1MZ-FE) |
|      | 38 (*1)         |      | 51 (RHD) |      | 49 (*2)         |
|      | 46 (RHD 1MZ-FE) | R12  | 43 (LHD) | W4   | 41 (LHD)        |
|      | 48 (*2)         |      | 53 (RHD) |      | 51 (RHD)        |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

## ○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |
| 2F   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel) |

## □ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IE1  | 60 (LHD) | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)                    |
|      | 72 (RHD) | Instrument Panel Wire and Roof Wire (Inside of Front Right Pillar)                   |
| IF1  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |

## ▽ : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| EB   | 68 (RHD 1MZ-FE) | Right Fender                      |
|      | 70 (*2)         |                                   |
| ED   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 58 (*1)         |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IJ   | 72 (RHD)        | Instrument Panel Reinforcement LH |
| IK   | 60 (LHD)        | Instrument Panel Brace LH         |
| IM   | 60 (LHD)        | Instrument Panel Reinforcement RH |
|      | 72 (RHD)        | Instrument Panel Brace RH         |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

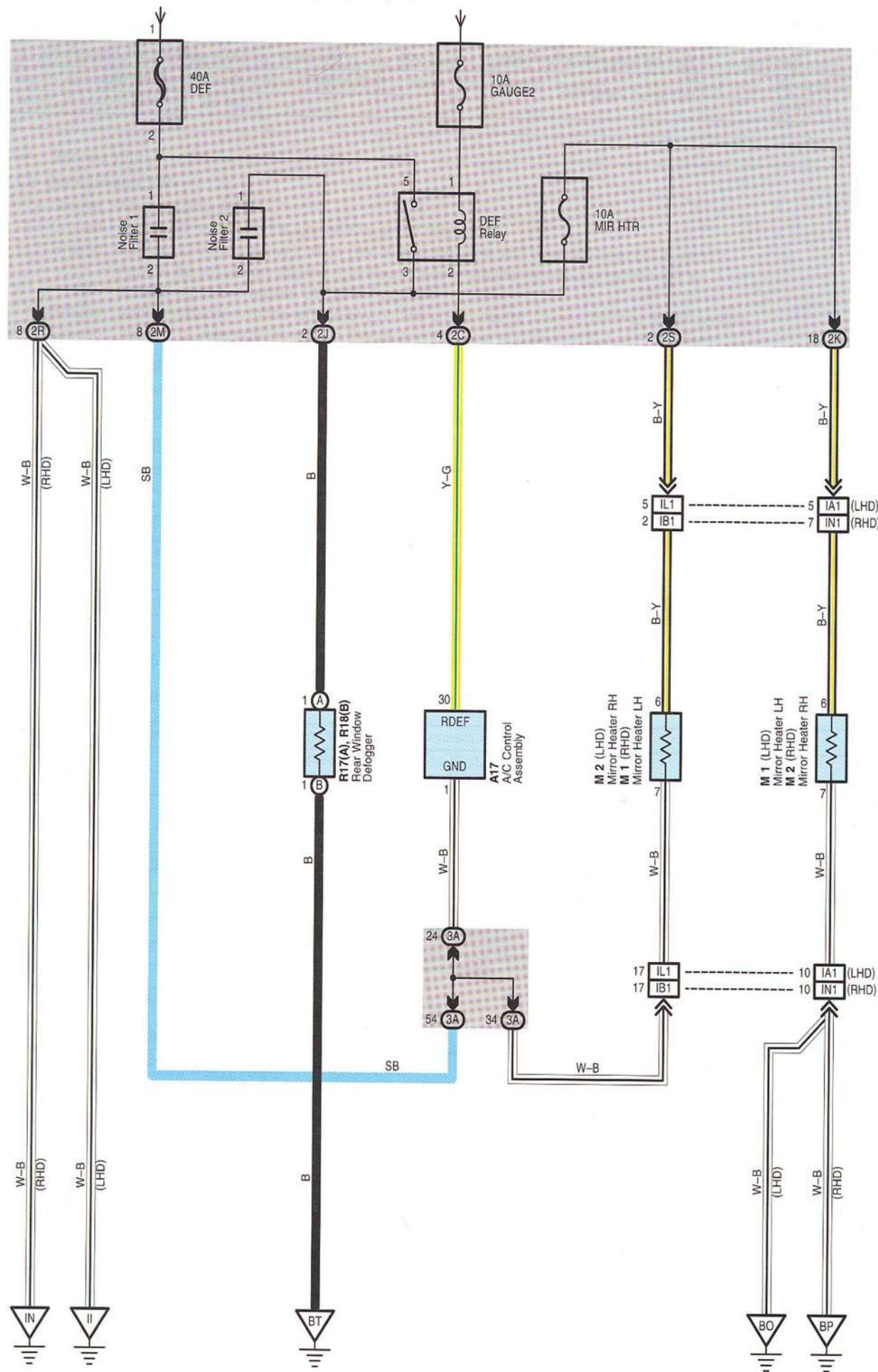
\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

## ○ : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I1   | 62 (LHD) | Instrument Panel Wire           | I2   | 62 (LHD) | Instrument Panel Wire           |
|      | 74 (RHD) |                                 |      |          |                                 |

Rear Window Defogger and Mirror Heater

From Power Source System (See Page 82)



Service Hints

- DEF Relay
  - 5-3 : Closed with the ignition SW at on and rear window defogger SW (A/C control assembly) on
- M1, M2 Mirror Heater LH, RH
  - 6-Ground : Approx. 12 volts with the rear window defogger SW (A/C control assembly) on
  - 7-Ground : Always continuity

Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| A17  | 40 (LHD) | M2   | 43 (LHD) | R18  | B        |
|      | 50 (RHD) |      | 53 (RHD) |      |          |
| M1   | 43 (LHD) | R17  | A        |      |          |
|      | 53 (RHD) |      |          |      |          |

Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2C   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2J   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2K   |          |                                                                          |
| 2M   |          |                                                                          |
| 2R   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2S   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)      |
|------|----------|-----------------------------------------------------------------|
| IA1  | 60 (LHD) | Front Door LH Wire and Floor Wire (Left Kick Panel)             |
| IB1  | 72 (RHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
| IL1  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
| IN1  | 74 (RHD) | Front Door RH Wire and Floor Wire (Right Kick Panel)            |

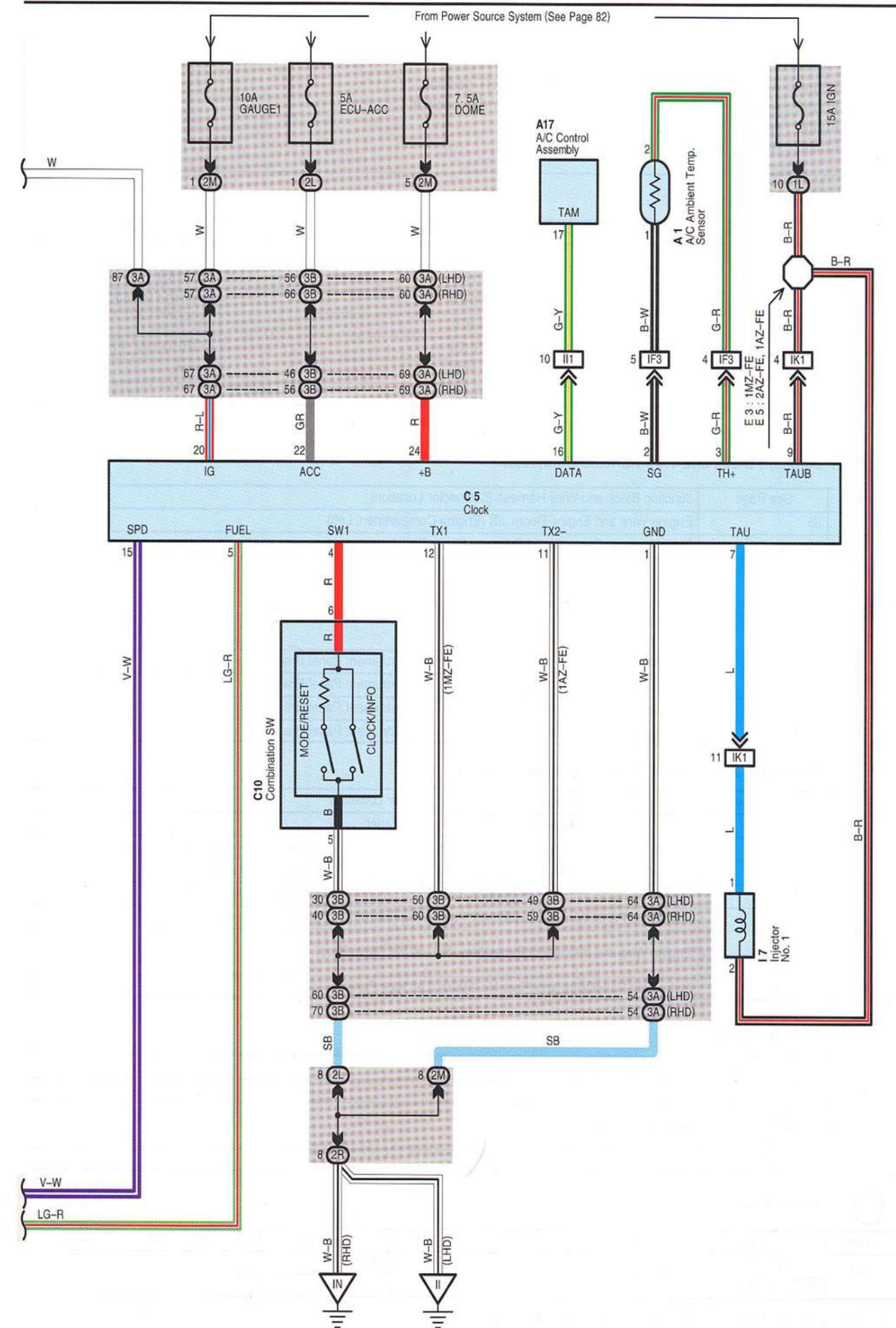
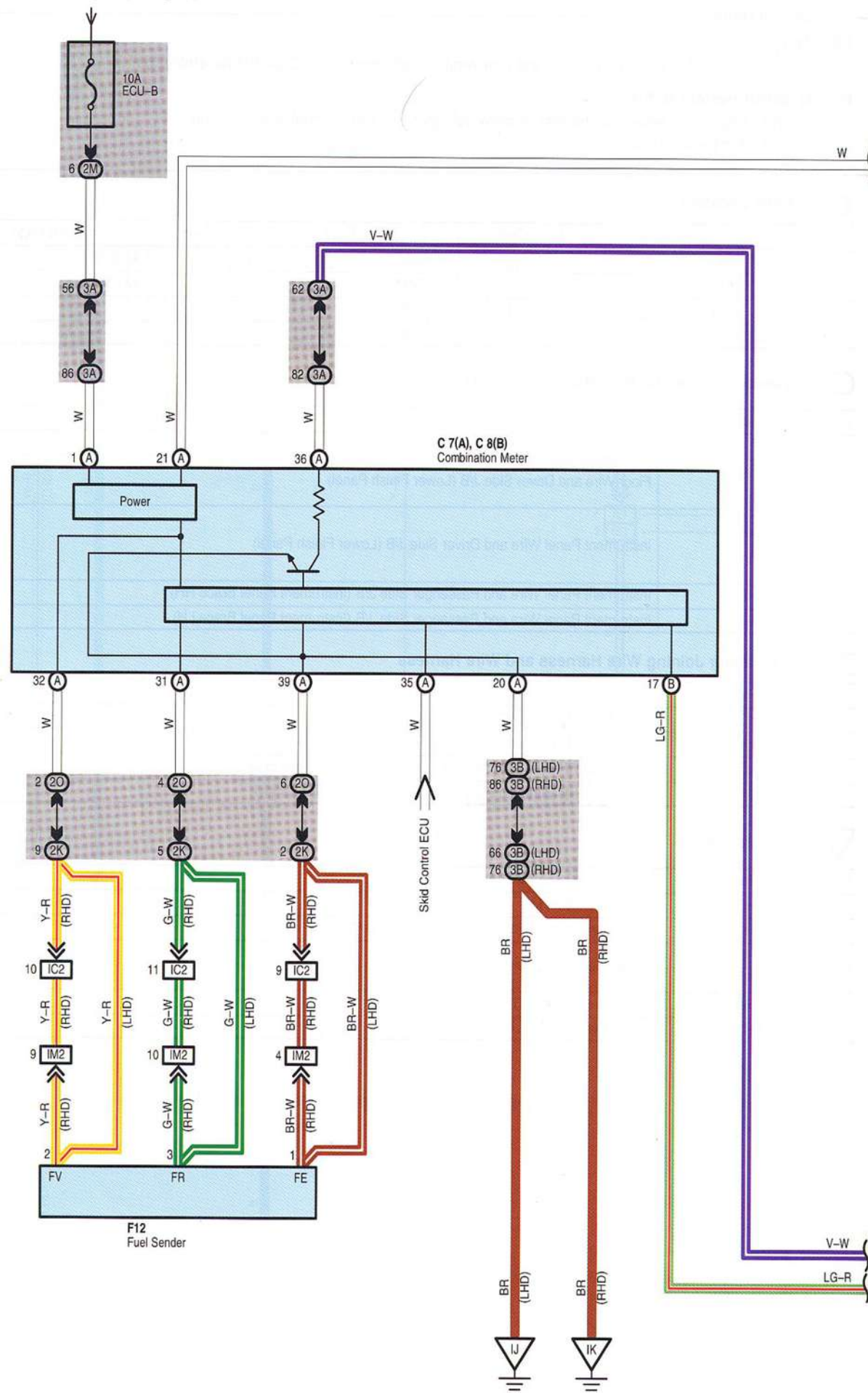
Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |
| BO   | 64 (LHD) | Under the Driver's Seat           |
| BP   | 76 (RHD) |                                   |
| BT   | 64 (LHD) | Rear Quarter Panel RH             |
|      | 76 (RHD) | Rear Quarter Panel LH             |



## Clock

From Power Source System (See Page 82)



Clock

Service Hints

C5 Clock

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

 : Parts Location

| Code     | See Page        | Code |   | See Page        | Code | See Page        |
|----------|-----------------|------|---|-----------------|------|-----------------|
| A1       | 36 (LHD 1MZ-FE) | C5   |   | 50 (RHD)        | F12  | 42 (LHD)        |
|          | 38 (*1)         | C7   | A | 40 (LHD)        |      | 52 (RHD)        |
|          | 46 (RHD 1MZ-FE) |      |   | 50 (RHD)        | I7   | 37 (LHD 1MZ-FE) |
|          | 48 (*2)         | C8   | B | 40 (LHD)        |      | 39 (*1)         |
| 40 (LHD) | 50 (RHD)        |      |   | 47 (RHD 1MZ-FE) |      |                 |
| A17      | 50 (RHD)        | C10  |   | 40 (LHD)        |      | 49 (*2)         |
| C5       | 40 (LHD)        |      |   | 50 (RHD)        |      |                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1L   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IC2  | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)                              |
| IF3  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |
| IM2  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)                          |

 : Ground Points

| Code | See Page | Ground Points Location            |
|------|----------|-----------------------------------|
| II   | 60 (LHD) | Cowl Side Panel LH                |
| IJ   | 60 (LHD) | Instrument Panel Brace LH         |
| IK   | 72 (RHD) |                                   |
| IN   | 72 (RHD) | Instrument Panel Reinforcement RH |

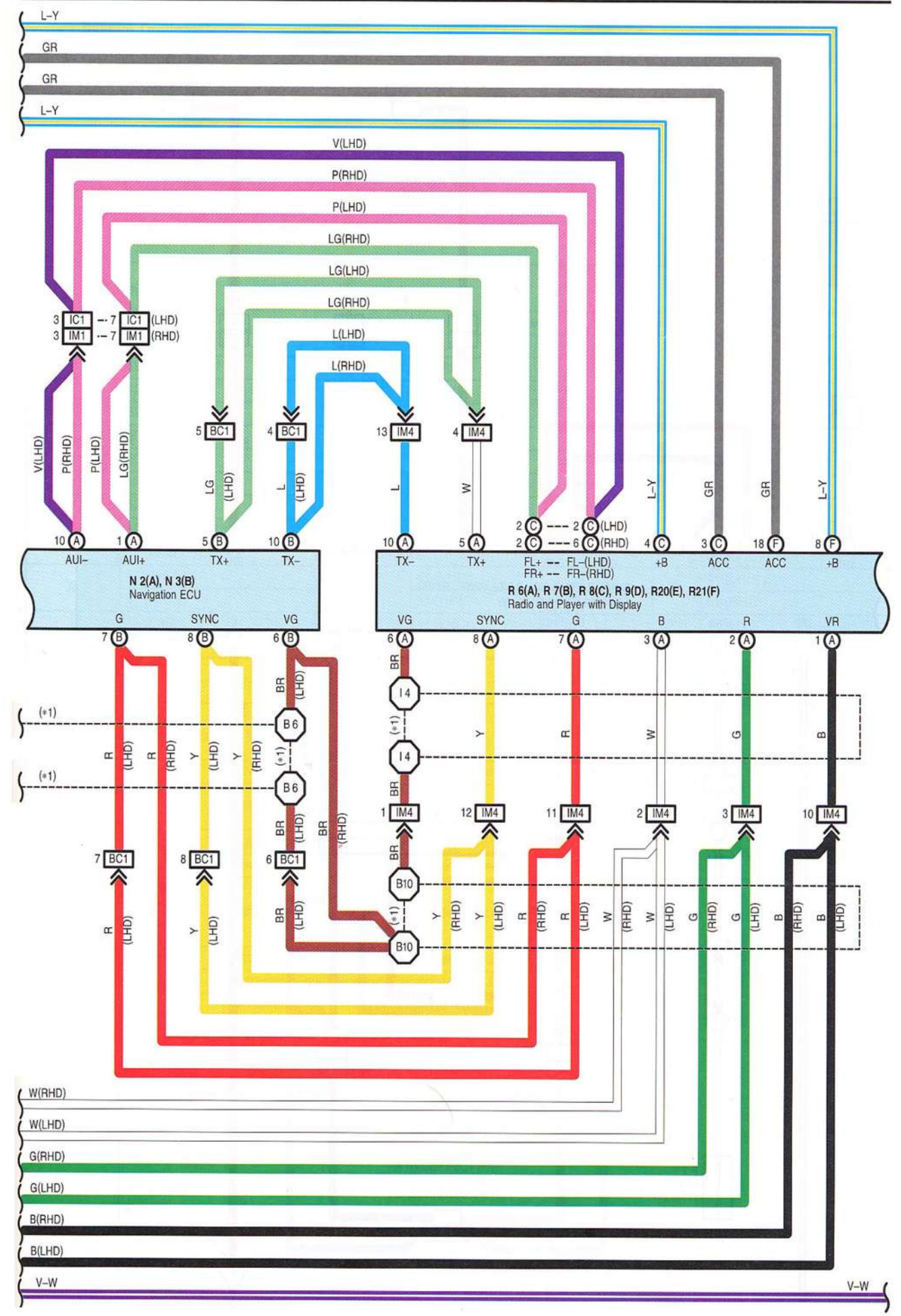
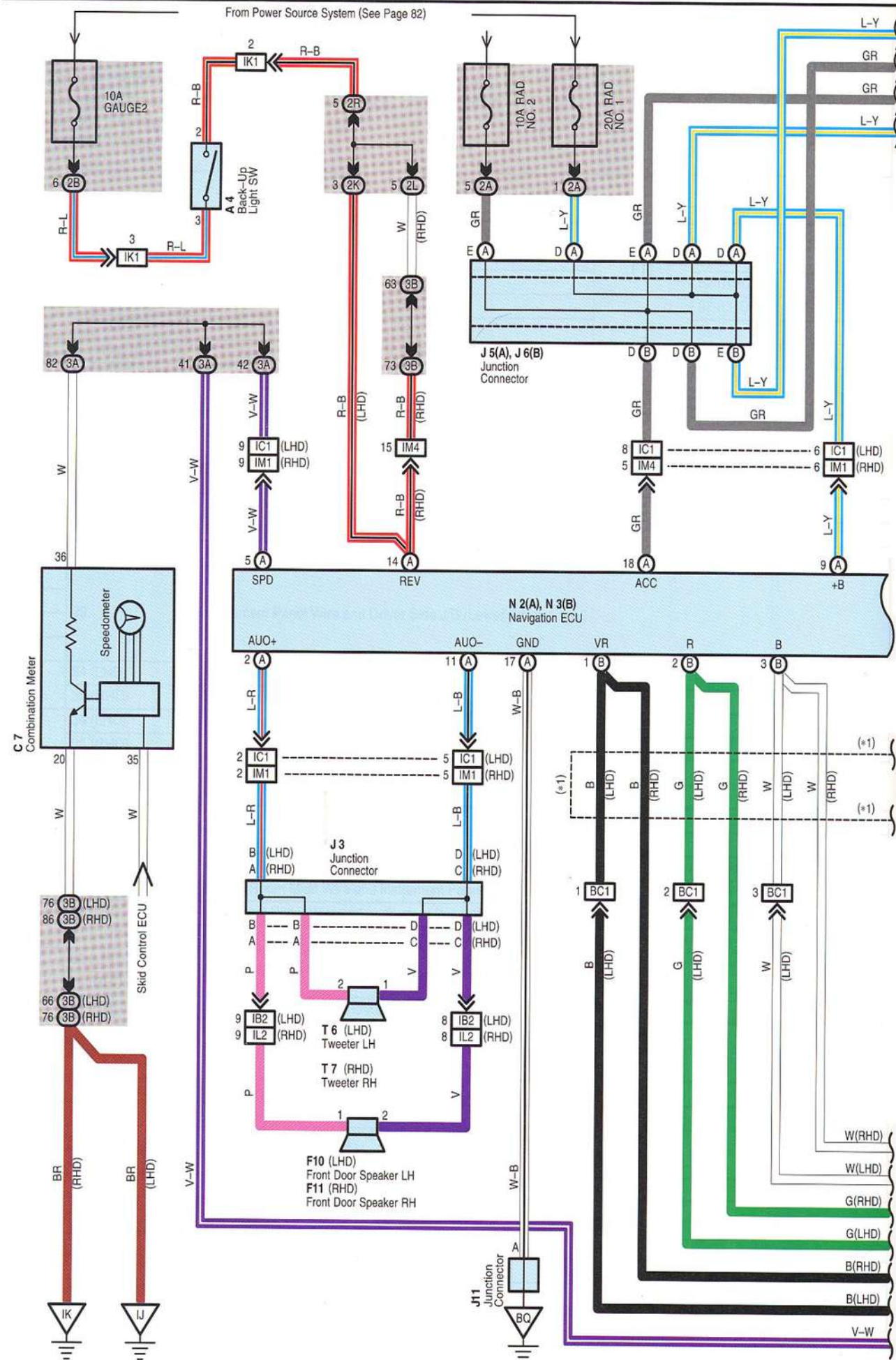
 : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E3   | 56 (LHD 1MZ-FE) | Engine Wire                     | E5   | 58 (*1)  | Engine Wire                     |
|      | 68 (RHD 1MZ-FE) |                                 |      | 70 (*2)  |                                 |

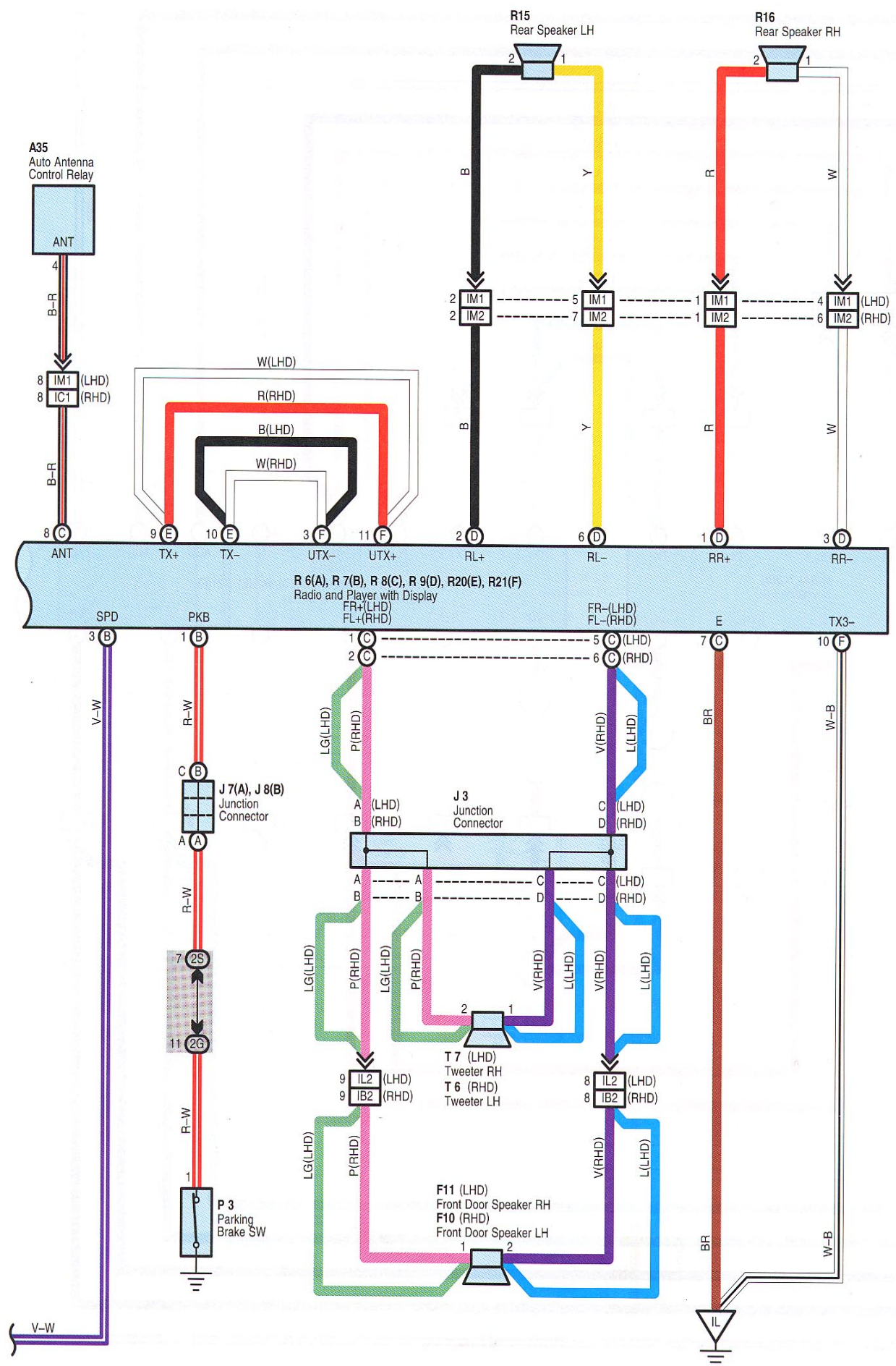
\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE



## TOYOTA Navigation System, Radio and Player







System Outline

The TOYOTA navigation system displays the operating status and instructions for the radio and player. Additionally, the navigation system precisely measures the current vehicle position, displays the map obtained from the map database on the screen, and informs the route to the destination shown on the map using voice guidance.

Service Hints

- N2 (A) Navigation ECU
- (A) 18-Ground : Approx. 12 volts with ignition SW at ON or ACC position
- (A) 9-Ground : Always approx. 12 volts
- (A) 17-Ground : Always continuity

○ : Parts Location

| Code |   | See Page                           |  | Code |   | See Page             |  | Code |   | See Page             |  |
|------|---|------------------------------------|--|------|---|----------------------|--|------|---|----------------------|--|
| A4   |   | 36 (LHD 1MZ-FE)<br>46 (RHD 1MZ-FE) |  | J7   | A | 41 (LHD)<br>51 (RHD) |  | R8   | C | 41 (LHD)<br>51 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| A35  |   | 42 (LHD)<br>52 (RHD)               |  | J8   | B | 41 (LHD)<br>51 (RHD) |  | R9   | D | 41 (LHD)<br>51 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| C7   |   | 40 (LHD)<br>50 (RHD)               |  | J11  |   | 42 (LHD)<br>52 (RHD) |  | R15  |   | 43 (LHD)<br>53 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| F10  |   | 42 (LHD)<br>52 (RHD)               |  | N2   | A | 43 (LHD)<br>53 (RHD) |  | R16  |   | 43 (LHD)<br>53 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| F11  |   | 42 (LHD)<br>52 (RHD)               |  | N3   | B | 43 (LHD)<br>53 (RHD) |  | R20  | E | 41 (LHD)<br>51 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| J3   |   | 41 (LHD)<br>51 (RHD)               |  | P3   |   | 41 (LHD)<br>51 (RHD) |  | R21  | F | 41 (LHD)<br>51 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| J5   | A | 41 (LHD)<br>51 (RHD)               |  | R6   | A | 41 (LHD)<br>51 (RHD) |  | T6   |   | 41 (LHD)<br>51 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |
| J6   | B | 41 (LHD)<br>51 (RHD)               |  | R7   | B | 41 (LHD)<br>51 (RHD) |  | T7   |   | 41 (LHD)<br>51 (RHD) |  |
|      |   |                                    |  |      |   |                      |  |      |   |                      |  |

○ : Junction Block and Wire Harness Connector

| Code | See Page             | Junction Block and Wire Harness (Connector Location)                                                                                                 |
|------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2A   | 28                   | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)                                                                                       |
| 2B   |                      | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)                                                                                       |
| 2G   |                      | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)                                                                                       |
| 2K   | 28                   | Floor Wire and Driver Side J/B (Lower Finish Panel)                                                                                                  |
| 2L   | 29                   | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)                                                                                       |
| 2R   |                      |                                                                                                                                                      |
| 2S   |                      |                                                                                                                                                      |
| 3A   | 34 (LHD)<br>35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)<br>Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD)<br>35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH)<br>Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |



TOYOTA Navigation System, Radio and Player

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------------|
| IB2  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)            |
|      | 72 (RHD) |                                                                           |
| IC1  | 60 (LHD) | Instrument Panel Wire and Floor Wire (Left Kick Panel)                    |
|      | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)                   |
| IK1  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)              |
|      | 74 (RHD) |                                                                           |
| IL2  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)           |
|      | 74 (RHD) |                                                                           |
| IM1  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)              |
|      | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)               |
| IM2  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)               |
| IM4  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)              |
|      | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)               |
| BC1  | 64 (LHD) | Floor No.4 Wire and Floor No.2 Wire (Behind the Rear Passenger's Seat RH) |

 : Ground Points

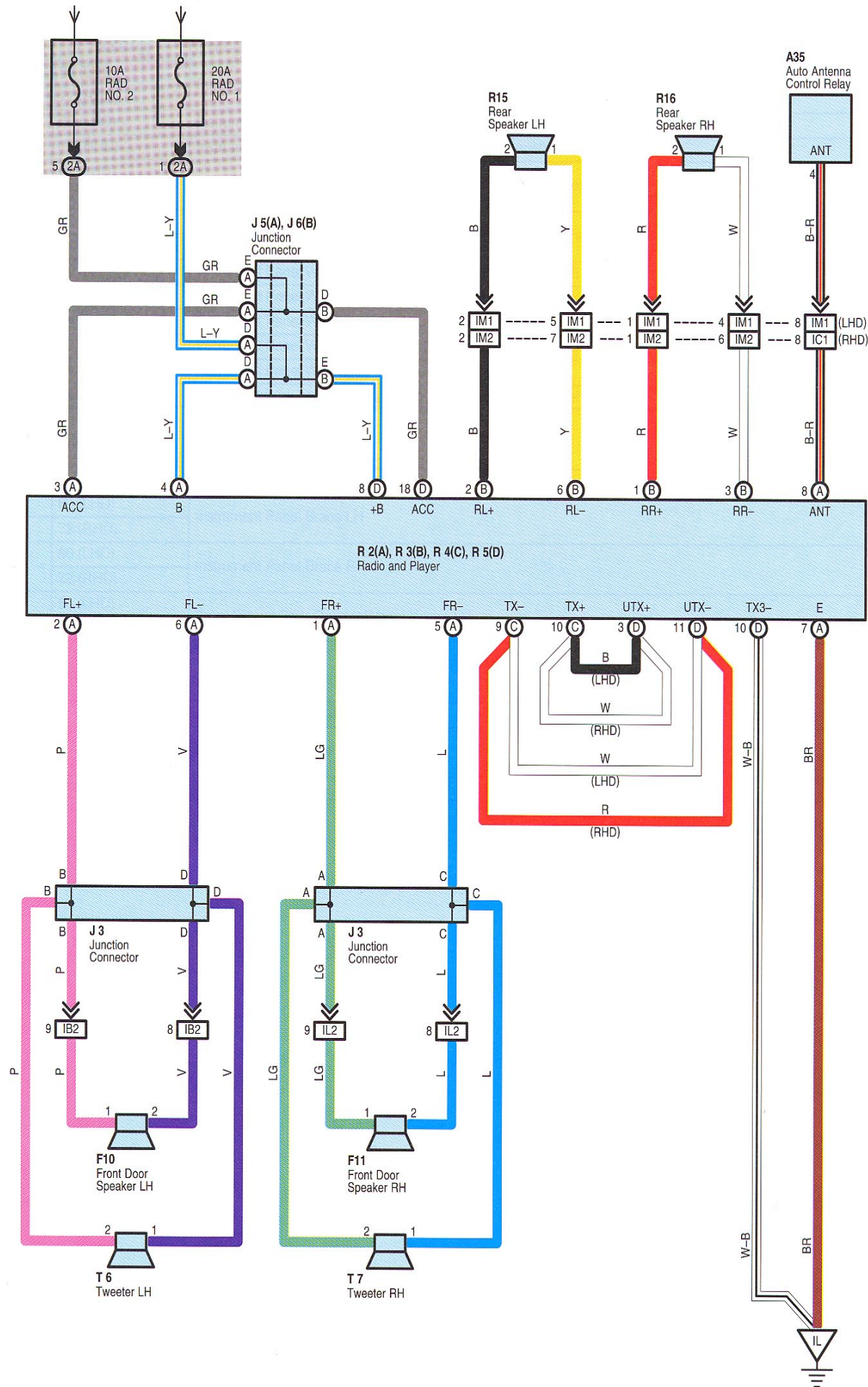
| Code | See Page | Ground Points Location                    |
|------|----------|-------------------------------------------|
| IJ   | 60 (LHD) | Instrument Panel Brace LH                 |
| IK   | 72 (RHD) |                                           |
| IL   | 60 (LHD) | Instrument Panel Brace RH                 |
|      | 72 (RHD) |                                           |
| BQ   | 64 (LHD) | Front Side of Rear Quarter Wheel House LH |
|      | 76 (RHD) |                                           |

 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I4   | 62 (LHD) | Instrument Panel Wire           | B10  | 64 (LHD) | Floor No.2 Wire                 |
|      | 74 (RHD) |                                 |      | 76 (RHD) |                                 |
| B6   | 64 (LHD) | Floor No.4 Wire                 |      |          |                                 |

Radio and Player (w/o TOYOTA Navigation System)

From Power Source System (See Page 82)



Service Hints

R2 (A), R5 (D) Radio and Player

- (A) 3, (D) 18-Ground : Approx. 12 volts with ignition SW at ACC or ON position
- (A) 4, (D) 8-Ground : Always approx. 12 volts
- (A) 7, (D) 10-Ground : Always continuity

○ : Parts Location

| Code | See Page | Code | See Page | Code     | See Page |
|------|----------|------|----------|----------|----------|
| A35  | 42 (LHD) | J6   | B        | 41 (LHD) | R15      |
|      | 52 (RHD) |      |          |          |          |
| F10  | 42 (LHD) | R2   | A        | 41 (LHD) | R16      |
|      | 52 (RHD) |      |          |          |          |
| F11  | 42 (LHD) | R3   | B        | 41 (LHD) | T6       |
|      | 52 (RHD) |      |          |          |          |
| J3   | 41 (LHD) | R4   | C        | 41 (LHD) | T7       |
|      | 51 (RHD) |      |          |          |          |
| J5   | 41 (LHD) | R5   | D        | 41 (LHD) |          |
|      | 51 (RHD) |      |          |          |          |

○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)           |
|------|----------|----------------------------------------------------------------|
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)      |
|------|----------|-----------------------------------------------------------------|
| IB2  | 60 (LHD) | Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)  |
|      | 72 (RHD) |                                                                 |
| IC1  | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)         |
| IL2  | 62 (LHD) | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel) |
|      | 74 (RHD) |                                                                 |
| IM1  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel)    |
| IM2  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)     |

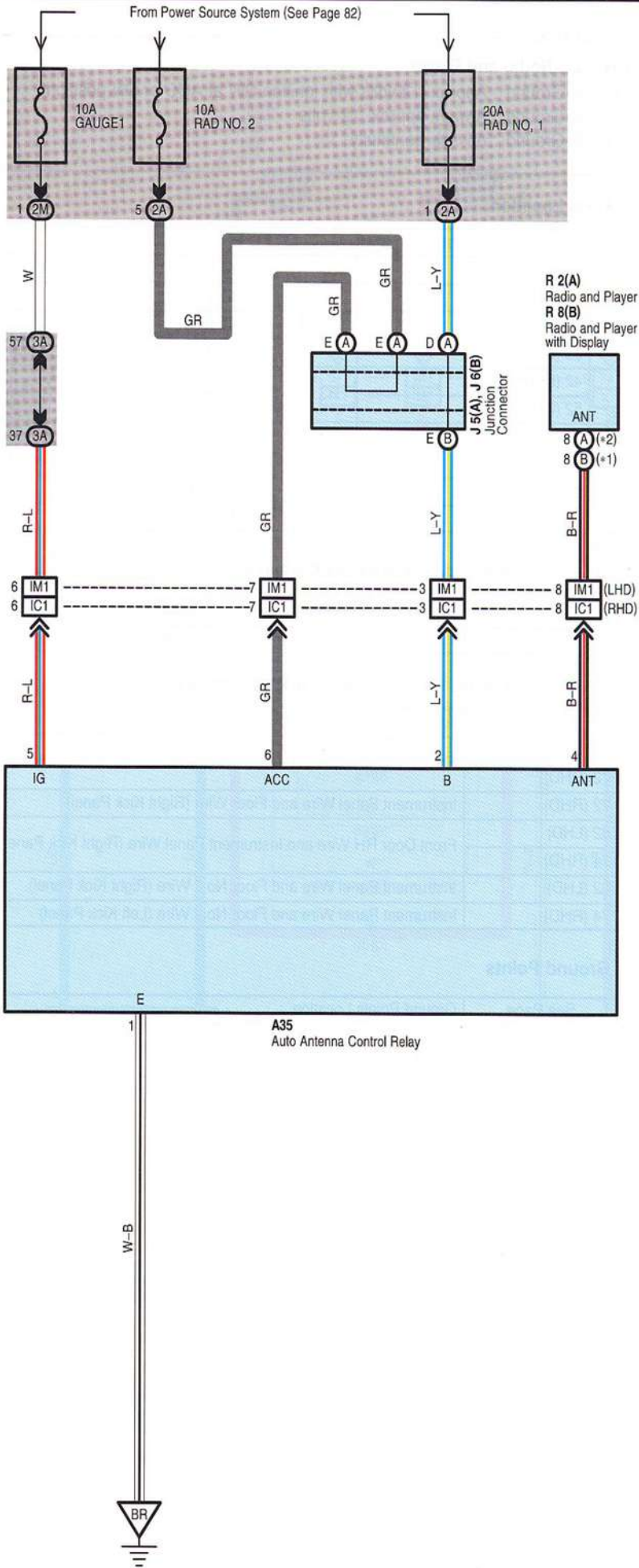
▽ : Ground Points

| Code | See Page | Ground Points Location    |
|------|----------|---------------------------|
| IL   | 60 (LHD) | Instrument Panel Brace RH |
|      | 72 (RHD) |                           |



Auto Antenna

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



Service Hints

A35 Auto Antenna Control Relay

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

○ : Parts Location

| Code |   | See Page |  | Code |   | See Page |  | Code |   | See Page |  |
|------|---|----------|--|------|---|----------|--|------|---|----------|--|
| A35  |   | 42 (LHD) |  | J6   | B | 41 (LHD) |  | R8   | B | 41 (LHD) |  |
|      |   | 52 (RHD) |  |      |   | 51 (RHD) |  |      |   | 51 (RHD) |  |
| J5   | A | 41 (LHD) |  | R2   | A | 41 (LHD) |  |      |   |          |  |
|      |   | 51 (RHD) |  |      |   | 51 (RHD) |  |      |   |          |  |

□ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 2A   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)   |
|------|----------|--------------------------------------------------------------|
| IC1  | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)      |
| IM1  | 62 (LHD) | Instrument Panel Wire and Floor No.2 Wire (Right Kick Panel) |

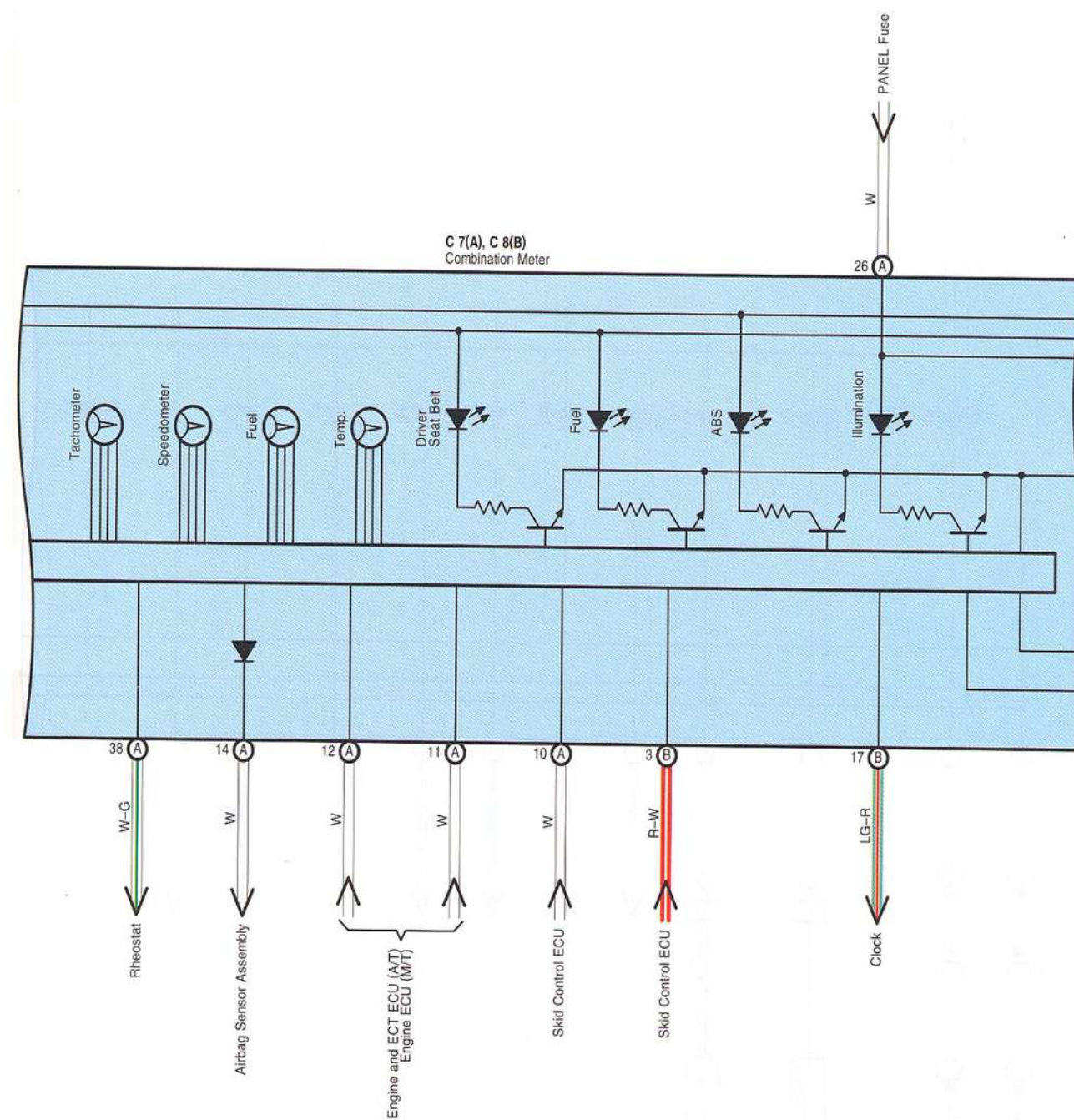
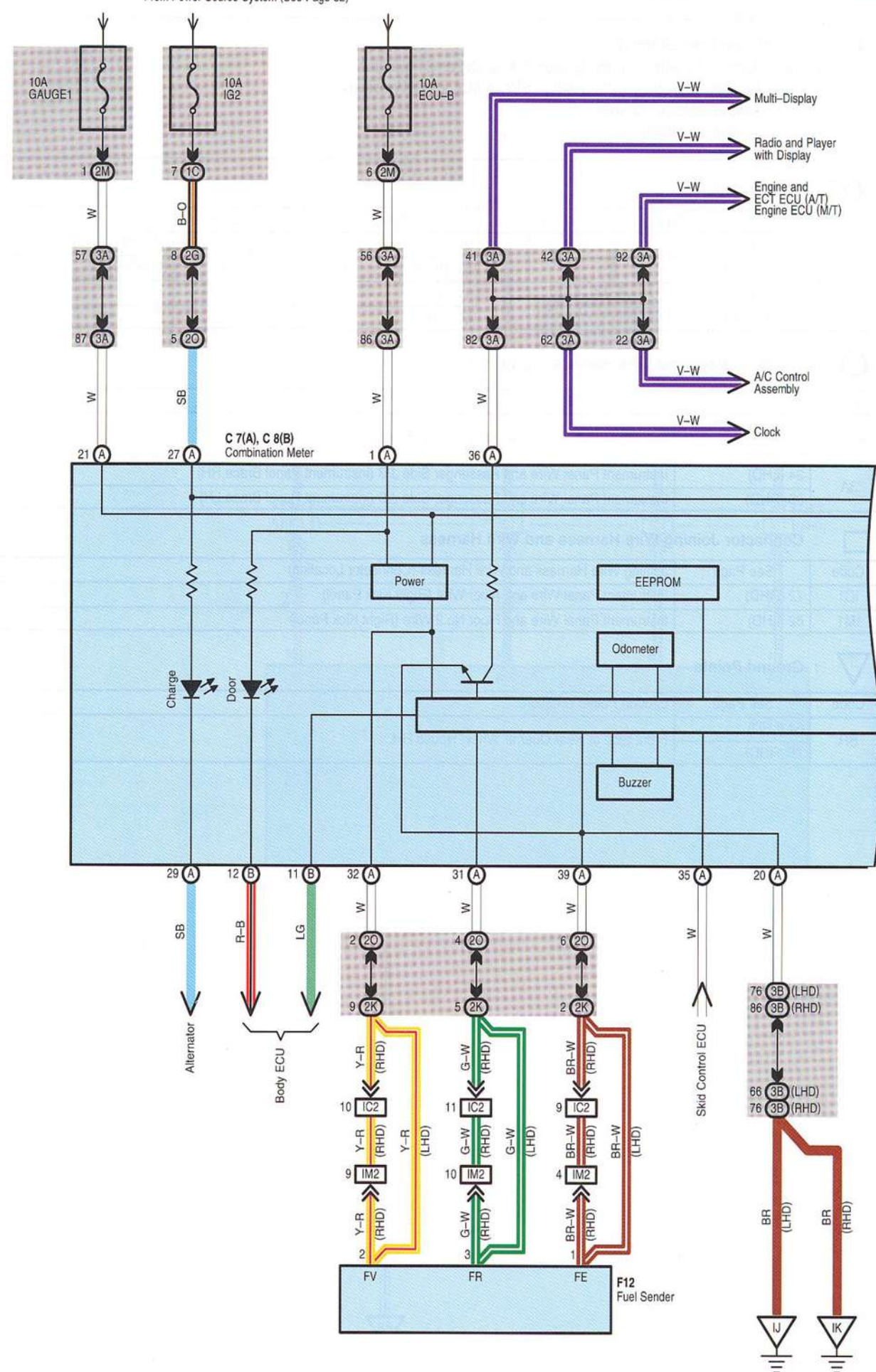
▽ : Ground Points

| Code | See Page | Ground Points Location                    |
|------|----------|-------------------------------------------|
| BR   | 64 (LHD) | Front Side of Rear Quarter Wheel House RH |
|      | 76 (RHD) |                                           |

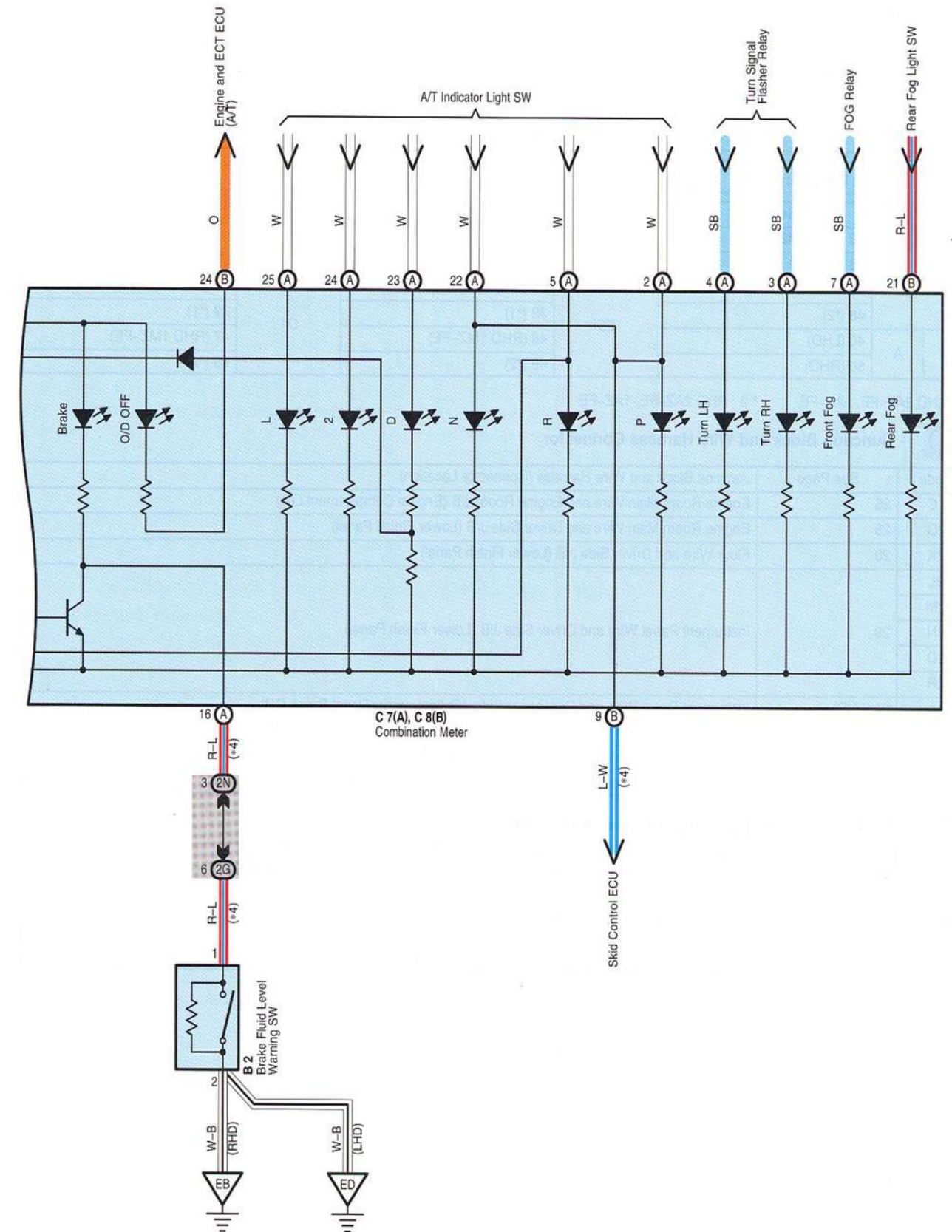
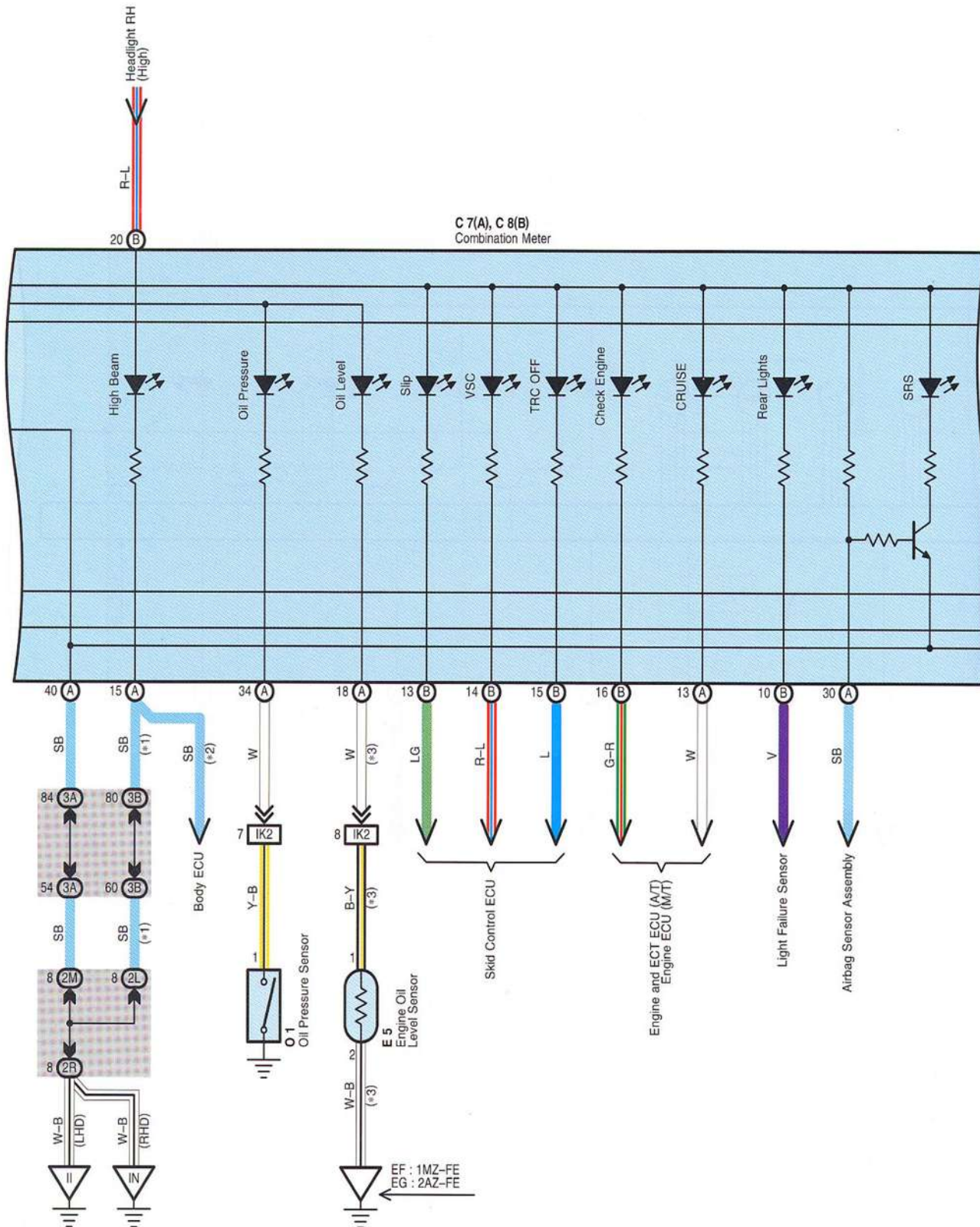


### Combination Meter

From Power Source System (See Page 82)







- \* 1 : w/ Daytime Running Light
- \* 2 : w/o Daytime Running Light
- \* 3 : 1MZ-FE, 2AZ-FE
- \* 4 : w/o VSC

Combination Meter

Service Hints

B2 Brake Fluid Level Warning SW

1-2 : Closed with the float down

C7 (A) Combination Meter

(A) 21, (A) 27-Ground : Approx. 12 volts with ignition SW at ON or ST position

(A) 1-Ground : Always approx. 12 volts

(A) 20, (A) 40-Ground : Always continuity

O1 Oil Pressure SW

1-Ground : Continuity with the oil pressure above approx. 20 kpa (2.8 psi, 0.2 kgf/cm<sup>2</sup>)

P3 Parking Brake SW

1-Ground : Continuity with the parking brake pedal depressed (Pedal type)

Continuity with the parking brake lever pulled up (Lever type)

Parts Location

| Code |   | See Page        |  | Code    |   | See Page        |  | Code |                 | See Page |  |
|------|---|-----------------|--|---------|---|-----------------|--|------|-----------------|----------|--|
| B2   |   | 36 (LHD 1MZ-FE) |  | C8      | B | 40 (LHD)        |  | F12  | 42 (LHD)        |          |  |
|      |   | 38 (*1)         |  |         |   | 50 (RHD)        |  |      | 52 (RHD)        |          |  |
|      |   | 46 (RHD 1MZ-FE) |  | E5      |   | 36 (LHD 1MZ-FE) |  | O1   | 37 (LHD 1MZ-FE) |          |  |
|      |   | 48 (*2)         |  |         |   | 38 (*1)         |  |      | 39 (*1)         |          |  |
| C7   | A | 40 (LHD)        |  |         |   | 46 (RHD 1MZ-FE) |  |      | 47 (RHD 1MZ-FE) |          |  |
|      |   | 50 (RHD)        |  | 48 (*2) |   | 49 (*2)         |  |      |                 |          |  |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1C   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2K   | 28       | Floor Wire and Driver Side J/B (Lower Finish Panel)                      |
| 2L   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   |          |                                                                          |
| 2N   |          |                                                                          |
| 2O   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)   |
|------|----------|--------------------------------------------------------------|
| IC2  | 72 (RHD) | Instrument Panel Wire and Floor Wire (Right Kick Panel)      |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box) |
|      | 74 (RHD) |                                                              |
| IM2  | 74 (RHD) | Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)  |

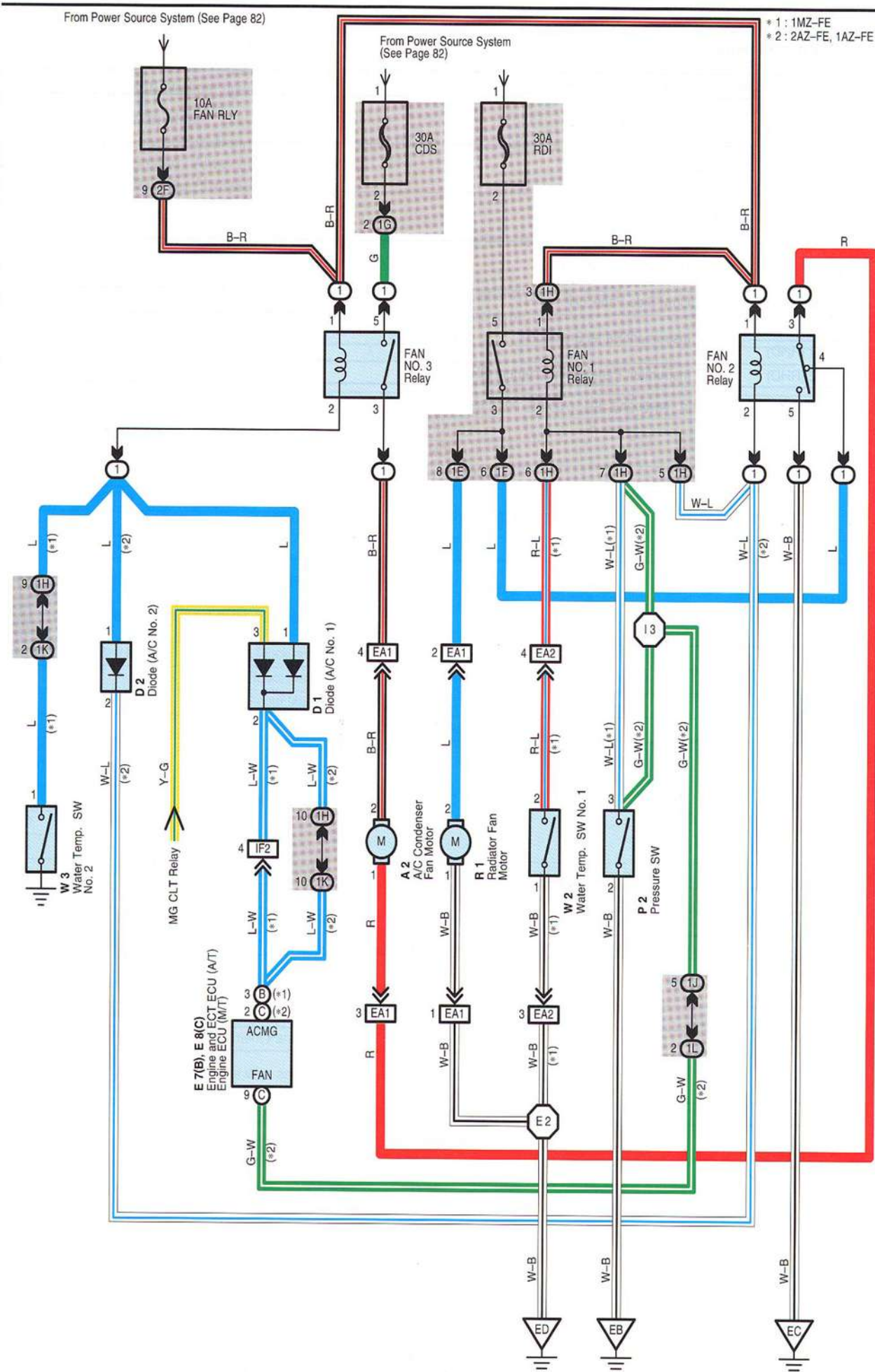
Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| EB   | 68 (RHD 1MZ-FE) | Right Fender                      |
|      | 70 (*2)         |                                   |
| ED   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 58 (*1)         |                                   |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank           |
|      | 68 (RHD 1MZ-FE) |                                   |
| EG   | 58 (*1)         | Left Side of Cylinder Head        |
|      | 70 (*2)         |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH         |
| IK   | 72 (RHD)        |                                   |
| IN   | 72 (RHD)        | Instrument Panel Reinforcement RH |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE



## Radiator Fan and Condenser Fan



## System Outline

### Fan Motor Operation (1MZ-FE)

With the ignition SW turned on, the current through the FAN RLY fuse flows to the FAN NO.1 relay (Coil side), FAN NO.2 relay (Coil side) and FAN NO.3 relay (Coil side).

#### 1. Low Speed Operation

Only when the A/C system is activated or the water temp. SW No.2 is turned on, the A/C condenser fan motor and the radiator fan motor rotates at low speed.

When the A/C system is activated, the current from FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode to TERMINAL 2 to TERMINAL (E) 3 of the engine and ECT ECU causing the FAN NO.3 relay to turn on. As a result, the current through the CDS fuse flows to TERMINAL 5 of the FAN NO.3 relay to TERMINAL 3 to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 4 to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND. As this flowing in series for the motors, the motors rotate at low speed.

When the water temp. SW No.2 is turned on, the current from FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the water temp. SW No.2 to GROUND, causing the FAN NO.3 relay to turn on. As a result, the current through the CDS fuse flows the same route as above, rotating the motors at low speed.

#### 2. High Speed Operation

With the pressure SW is turned on and/or the water temp. SW No.1 is turned on, the A/C condenser fan motor and the radiator fan motor rotate at high speed.

When the pressure SW is turned on, the current through the FAN RLY fuse flows to the FAN NO.1 and NO.2 relay (Coil side) to TERMINAL 3 of the pressure SW to TERMINAL 2 to GROUND, and the current through the FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode (A/C No.1) to TERMINAL 2 to TERMINAL ACMG of the engine and ECT ECU (A/T), engine ECU (M/T) to GROUND. As a result, FAN NO.1, NO.2. and NO.3 relay is turned on. At the same time, the current from the RDI fuse flows to FAN NO.1 relay (Point side) to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND, and the current from the CDS fuse flows to FAN NO.3 relay (Point side) to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 5 to GROUND.

As the current flowing in parallel for motors as above, the motors rotate at high speed.

When the water temp. SW No.1 is turned on, the current through the FAN RLY fuse flows to the FAN NO.1 and NO.2 relay (Coil side) to TERMINAL 2 of the water temp. SW No.1 to GROUND, and the current through the FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode (A/C No.1) to TERMINAL 2 to TERMINAL ACMG of the engine and ECT ECU (A/T), engine ECU (M/T) to GROUND. As a result, FAN NO.1, NO.2 and NO.3 relay is turned on. At the same time, the current from the RDI fuse flows to FAN NO.1 relay (Point side) to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND, and the current from the CDS fuse flows to FAN NO.3 relay (Point side) to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 5 to GROUND.

As the current flowing in parallel for motors as above, the motors rotate at high speed.

### Fan Motor Operation (2AZ-FE, 1AZ-FE)

With the ignition SW turned on, the current through the FAN RLY fuse flows to the FAN NO.1 relay (Coil side), FAN NO.2 relay (Coil side) and FAN NO.3 relay (Coil side).

#### 1. Low Speed Operation

When the ignition SW is turned on and the A/C system is activated, the A/C condenser fan motor and the radiator fan motor rotates at low speed.

When the A/C system is activated, the current from FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode (A/C No.1) to TERMINAL 2 to TERMINAL ACMG of the engine and ECT ECU (A/T), engine ECU (M/T) causing the FAN NO.3 relay to turn on. As a result, the current through the CDS fuse flows to TERMINAL 5 of the FAN NO.3 relay to TERMINAL 3 to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 4 to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND. As this flowing in series for the motors, the motors rotate at low speed.



Radiator Fan and Condenser Fan

2. High Speed Operation

When the pressure SW is turned on, the current through the FAN RLY fuse flows to the FAN NO.1 and NO.2 relay (Coil side) to TERMINAL 3 of the pressure SW to GROUND, and the current through the FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode (A/C No.2) to TERMINAL 2 to GROUND. As a result, FAN NO.1, NO.2. and NO.3 relay is turned on. At the same time, the current from the RDI fuse flows to FAN NO.1 relay (Point side) to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND, and the current from the CDS fuse flows to FAN NO.3 relay (Point side) to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 5 to GROUND.

As the current flowing in parallel for motors as above, the motors rotate at high speed.

When the engine coolant is too high, the current through the FAN RLY fuse flows to the FAN NO.1 and NO.2 relay (Coil side) to TERMINAL FAN of the engine and ECT ECU (A/T), engine ECU (M/T) to GROUND, and the current through the FAN RLY fuse flows to the FAN NO.3 relay (Coil side) to TERMINAL 1 of the diode (A/C No.1) to TERMINAL 2 to TERMINAL ACMG of the engine and ECT ECU (A/T), engine ECU (M/T) to GROUND. As a result, FAN NO.1, NO.2 and NO.3 relay is turned on. At the same time, the current from the RDI fuse flows to FAN NO.1 relay (Point side) to TERMINAL 2 of the radiator fan motor to TERMINAL 1 to GROUND, and the current from the CDS fuse flows to FAN NO.3 relay (Point side) to TERMINAL 2 of the A/C condenser fan motor to TERMINAL 1 to TERMINAL 3 of the FAN NO.2 relay to TERMINAL 5 to GROUND.

As the current flowing in parallel for motors as above, the motors rotate at high speed.

Service Hints

- P2 Pressure SW**  
3-2 : Close above approx. 15.5 kgf/cm<sup>2</sup> (224 psi, 1520 kpa)  
Open below approx. 12.5 kgf/cm<sup>2</sup> (181 psi, 1225 kpa)
- W2 Water Temp. SW No.1**  
2-1 : Close above approx. 95°C (203° F)
- W3 Water Temp. SW No.2**  
1-Ground : Close above approx. 90°C (194°F)

○ : Parts Location

| Code            | See Page        | Code            |                 | See Page        | Code | See Page        |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|-----------------|
| A2              | 36 (LHD 1MZ-FE) | D2              |                 | 48 (*2)         | R1   | 37 (LHD 1MZ-FE) |
|                 | 38 (*1)         | E7              | B               | 40 (LHD)        |      | 39 (*1)         |
|                 | 46 (RHD 1MZ-FE) |                 |                 | 50 (RHD)        |      | 47 (RHD 1MZ-FE) |
|                 | 48 (*2)         | E8              | C               | 40 (LHD)        |      | 49 (*2)         |
| 36 (LHD 1MZ-FE) | P2              |                 |                 | 50 (RHD)        | W2   | 37 (LHD 1MZ-FE) |
| 38 (*1)         |                 | 37 (LHD 1MZ-FE) | 47 (RHD 1MZ-FE) |                 |      |                 |
| 46 (RHD 1MZ-FE) |                 | 39 (*1)         | W3              | 37 (LHD 1MZ-FE) |      |                 |
| 48 (*2)         |                 | 47 (RHD 1MZ-FE) |                 | 47 (RHD 1MZ-FE) |      |                 |
| D2              | 38 (*1)         |                 |                 | 49 (*2)         |      |                 |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

○ : Relay Blocks

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

 : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                |
|------|----------|---------------------------------------------------------------------|
| 1E   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left) |
| 1F   |          |                                                                     |
| 1G   |          |                                                                     |
| 1H   |          |                                                                     |
| 1J   |          |                                                                     |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)           |
| 1L   |          |                                                                     |
| 2F   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)      |

 : Connector Joining Wire Harness and Wire Harness

| Code | See Page        | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|-----------------|--------------------------------------------------------------------------------------|
| EA1  | 56 (LHD 1MZ-FE) | Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH)           |
|      | 58 (*1)         |                                                                                      |
|      | 68 (RHD 1MZ-FE) |                                                                                      |
|      | 70 (*2)         |                                                                                      |
| EA2  | 56 (LHD 1MZ-FE) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 68 (RHD 1MZ-FE) |                                                                                      |
| IF2  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
|      | 72 (RHD)        |                                                                                      |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

 : Ground Points

| Code | See Page        | Ground Points Location |
|------|-----------------|------------------------|
| EB   | 56 (LHD 1MZ-FE) | Right Fender           |
|      | 58 (*1)         |                        |
|      | 68 (RHD 1MZ-FE) |                        |
|      | 70 (*2)         |                        |
| EC   | 56 (LHD 1MZ-FE) | Left Fender            |
|      | 58 (*1)         |                        |
|      | 68 (RHD 1MZ-FE) |                        |
|      | 70 (*2)         |                        |
| ED   | 56 (LHD 1MZ-FE) |                        |
|      | 58 (*1)         |                        |
|      | 68 (RHD 1MZ-FE) |                        |
|      | 70 (*2)         |                        |

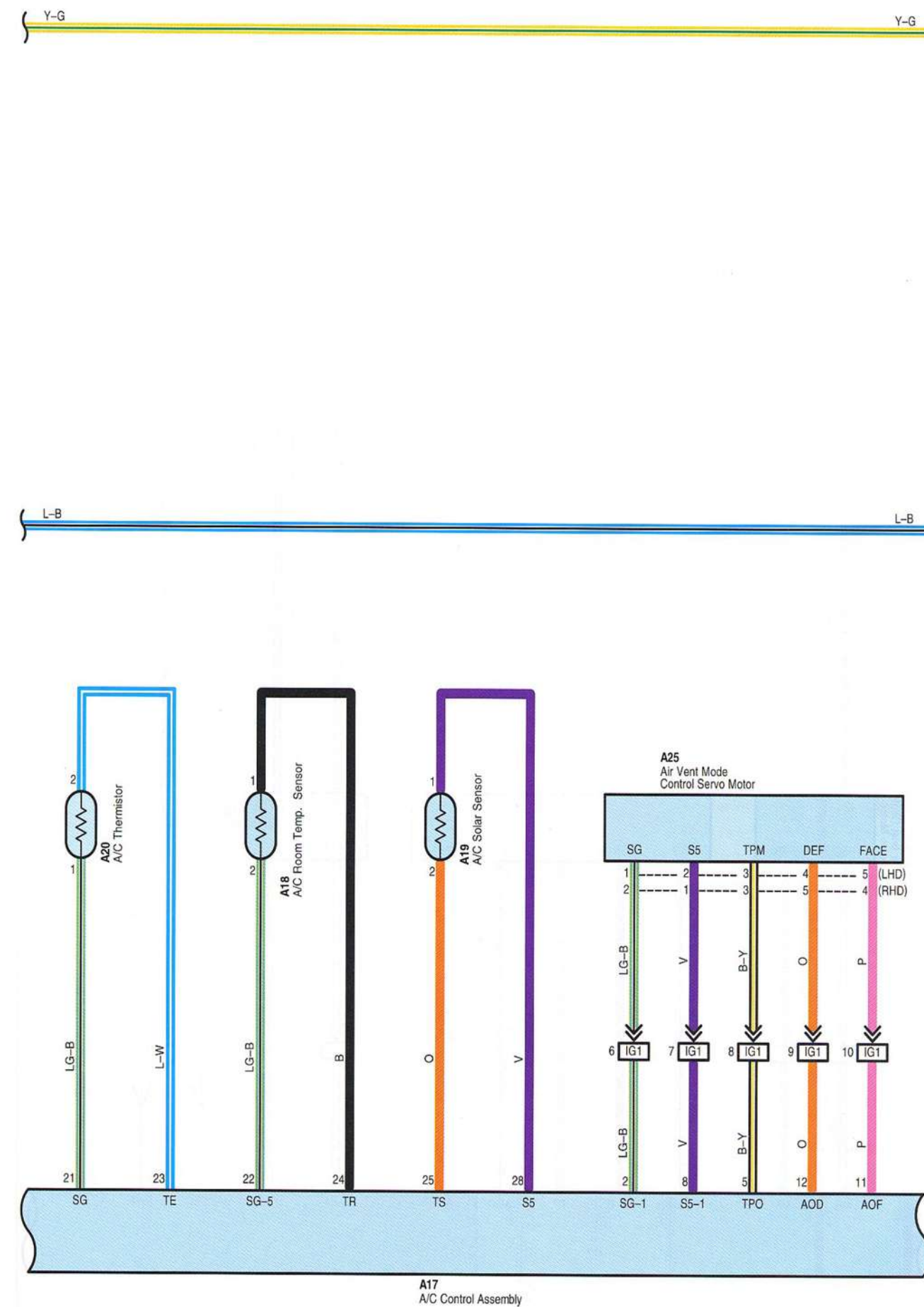
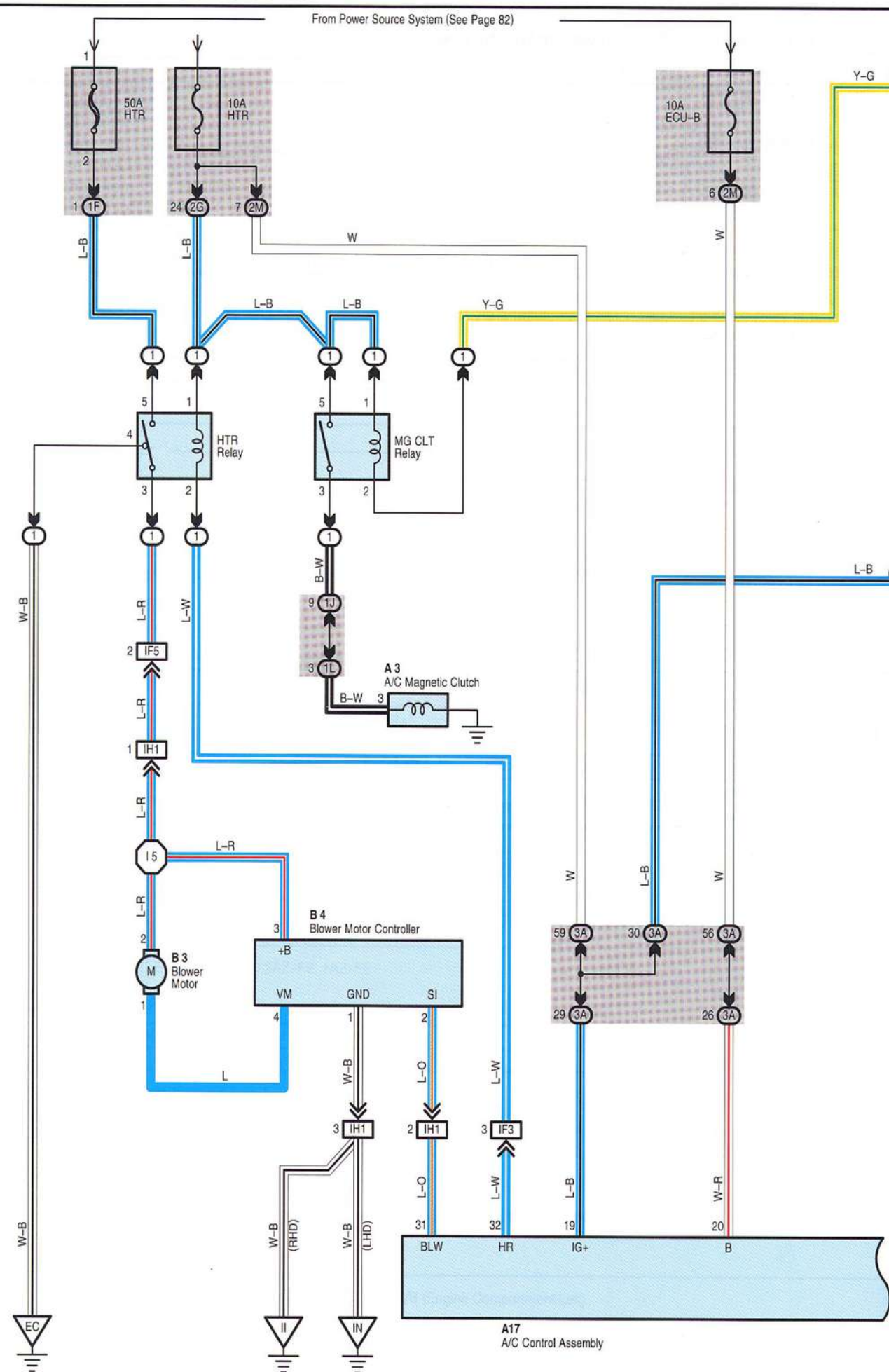
\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

 : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|-----------------|---------------------------------|------|----------|---------------------------------|
| E2   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | I3   | 62 (LHD) | Engine Room Main Wire           |
|      | 68 (RHD 1MZ-FE) |                                 |      | 74 (RHD) |                                 |



## Automatic Air Conditioner





A horizontal line representing a linear chromosome, composed of alternating yellow and blue segments. The line is flanked by two curly braces, each labeled 'Y-G'.





System Outline

1. Heater Blower Operation

Manual operation

When the blower speed is set to a certain level using the blower control SW, the A/C control assembly sends the signals to the blower control to control the blower motor speed.

Auto operation

When the auto SW is turned on, the A/C control assembly sends the signals from various sensors and temperature SW to the blower control to automatically control the blower motor speed.

2. Air Inlet Control Servo Motor Control

When the FRESH/RECIRC select SW is set to RECIRC, the motor in the air inlet control servo motor starts rotating to move the damper toward the RECIRC side. When the FRESH/RECIRC select SW is set to FRESH, the motor in the air inlet control servo motor starts rotating to move the damper toward the FRESH side.

3. Air Vent Mode Control Servo Motor Control

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

4. Air Mix Control Servo Motor Control

When the temperature control SW is pressed, the ECU in the A/C control assembly sends a signal to the air mix control servo motor. This signal drives the motor to reach the temperature set by the temperature control SW, and moves the damper.

5. Air Conditioner Operation

The A/C control assembly receives various signals, I.E., the engine RPM from the engine and ECT ECU (A/T), engine ECU (M/T), out side air temperature signal from the A/C ambient temp. sensor, coolant temperature from the engine and ECT ECU (A/T), engine ECU (M/T) and the lock signal from the A/C compressor, etc.

When the engine is started and the A/C SW (A/C control assembly) is on, a signal is input to the A/C control assembly. As a result, the ground circuit in A/C control assembly is closed and current flows from HTR (10A) fuse to TERMINAL 1 of the MG CLT relay to TERMINAL 3 of the diode to TERMINAL MGCL of the engine and ECT ECU (A/T), engine ECU (M/T) to TERMINAL PRE to GROUND, turning the MG CLT relay on, so that the magnetic clutch is on and the A/C compressor operates.

At the same time, the engine and ECT ECU (A/T), engine ECU (M/T). Detects the magnetic clutch is on and the A/C compressor operates.

If the A/C control assembly detects the following conditions, it stops the air conditioner:

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

Service Hints

P2 Pressure SW

1-4 : Open with the refrigerant pressure at less than approx. 216 kpa (2.2 kgf/cm<sup>2</sup>, 31 psi) or more than approx. 3138 kpa (32 kgf/cm<sup>2</sup>, 455 psi)

A17 (A) A/C Control Assembly

B-Ground : Always approx. 12 volts

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

AIF-Ground : Approx. 12 volts with FRESH SW on

AIR-Ground : Approx. 12 volts with RECIRC SW on

GND-Ground : Always continuity

○ : Parts Location

| Code | See Page        | Code | See Page | Code |   | See Page        |
|------|-----------------|------|----------|------|---|-----------------|
| A1   | 36 (LHD 1MZ-FE) | A20  | 40 (LHD) | D1   |   | 36 (LHD 1MZ-FE) |
|      | 38 (*1)         |      | 50 (RHD) |      |   | 38 (*1)         |
|      | 46 (RHD 1MZ-FE) | A23  | 40 (LHD) |      |   | 46 (RHD 1MZ-FE) |
|      | 48 (*2)         |      | 50 (RHD) |      |   | 48 (*2)         |
| A3   | 36 (LHD 1MZ-FE) | A24  | 40 (LHD) | E7   | B | 40 (LHD)        |
|      | 38 (*1)         |      | 50 (RHD) |      |   | 50 (RHD)        |
|      | 46 (RHD 1MZ-FE) | A25  | 40 (LHD) | E8   | C | 40 (LHD)        |
|      | 48 (*2)         |      | 50 (RHD) |      |   | 50 (RHD)        |
| A17  | 40 (LHD)        | B3   | 40 (LHD) | J1   |   | 41 (LHD)        |
|      | 50 (RHD)        |      | 50 (RHD) |      |   | 51 (RHD)        |
| A18  | 40 (LHD)        | B4   | 40 (LHD) | P2   |   | 37 (LHD 1MZ-FE) |
|      | 50 (RHD)        |      | 50 (RHD) |      |   | 39 (*1)         |
| A19  | 40 (LHD)        | C5   | 40 (LHD) |      |   | 47 (RHD 1MZ-FE) |
|      | 50 (RHD)        |      | 50 (RHD) |      |   | 49 (*2)         |

\*1 : LHD 2AZ-FE, 1AZ-FE      \*2 : RHD 2AZ-FE, 1AZ-FE

○ : Relay Blocks

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



○ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1F   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1H   |          |                                                                          |
| 1J   |          |                                                                          |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 1L   |          |                                                                          |
| 2G   | 28       | Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)           |
| 2M   | 29       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |
| 3B   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
|      | 35 (RHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace LH) |

□ : Connector Joining Wire Harness and Wire Harness

| Code | See Page | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|----------|--------------------------------------------------------------------------------------|
| IF2  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF3  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IF5  | 60 (LHD) | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
|      | 72 (RHD) | Engine Room Main Wire and Instrument Panel Wire (Left Side of Steering Column Tube)  |
| IG1  | 62 (LHD) | Instrument Panel Wire and Engine Room Main Wire (Instrument Panel Brace LH)          |
|      | 74 (RHD) | Instrument Panel Wire and Engine Room Main Wire (Left Side of Steering Column Tube)  |
| IH1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)          |
|      | 74 (RHD) |                                                                                      |
| II1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement RH)  |
|      | 74 (RHD) | Instrument Panel Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)  |
| IJ1  | 62 (LHD) | Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)          |
|      | 74 (RHD) |                                                                                      |
| IK2  | 62 (LHD) | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
|      | 74 (RHD) |                                                                                      |

# Automatic Air Conditioner

 : Ground Points

| Code | See Page        | Ground Points Location            |
|------|-----------------|-----------------------------------|
| EB   | 56 (LHD 1MZ-FE) | Right Fender                      |
|      | 58 (*1)         |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
|      | 70 (*2)         |                                   |
| EC   | 56 (LHD 1MZ-FE) | Left Fender                       |
|      | 58 (*1)         |                                   |
|      | 68 (RHD 1MZ-FE) |                                   |
|      | 70 (*2)         |                                   |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank           |
|      | 68 (RHD 1MZ-FE) |                                   |
| EG   | 58 (*1)         | Left Side of Cylinder Head        |
|      | 70 (*2)         |                                   |
| II   | 60 (LHD)        | Cowl Side Panel LH                |
|      | 72 (RHD)        | Instrument Panel Reinforcement LH |
| IN   | 60 (LHD)        | Instrument Panel Reinforcement RH |
|      | 72 (RHD)        |                                   |

\* 1 : LHD 2AZ-FE, 1AZ-FE      \* 2 : RHD 2AZ-FE, 1AZ-FE

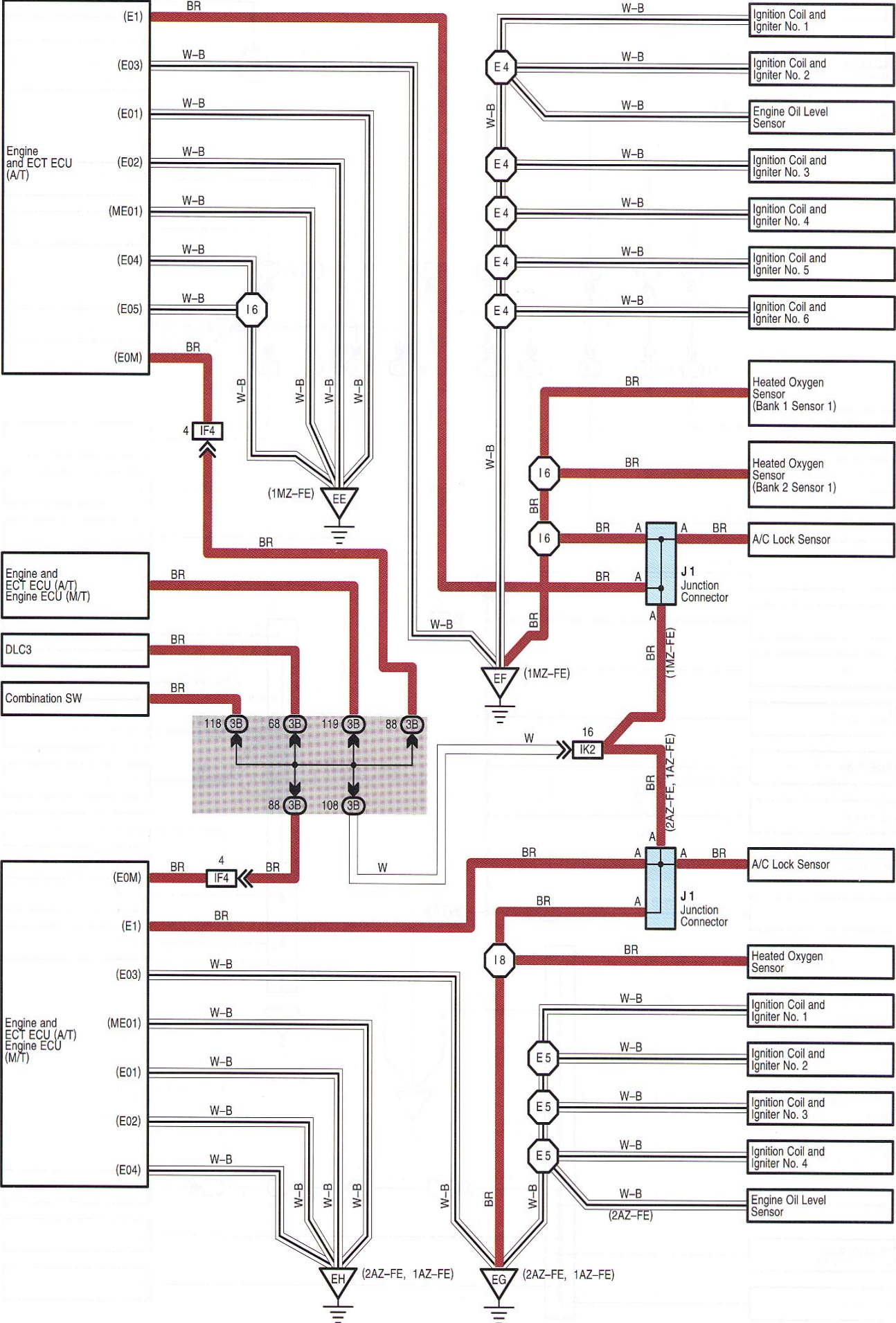
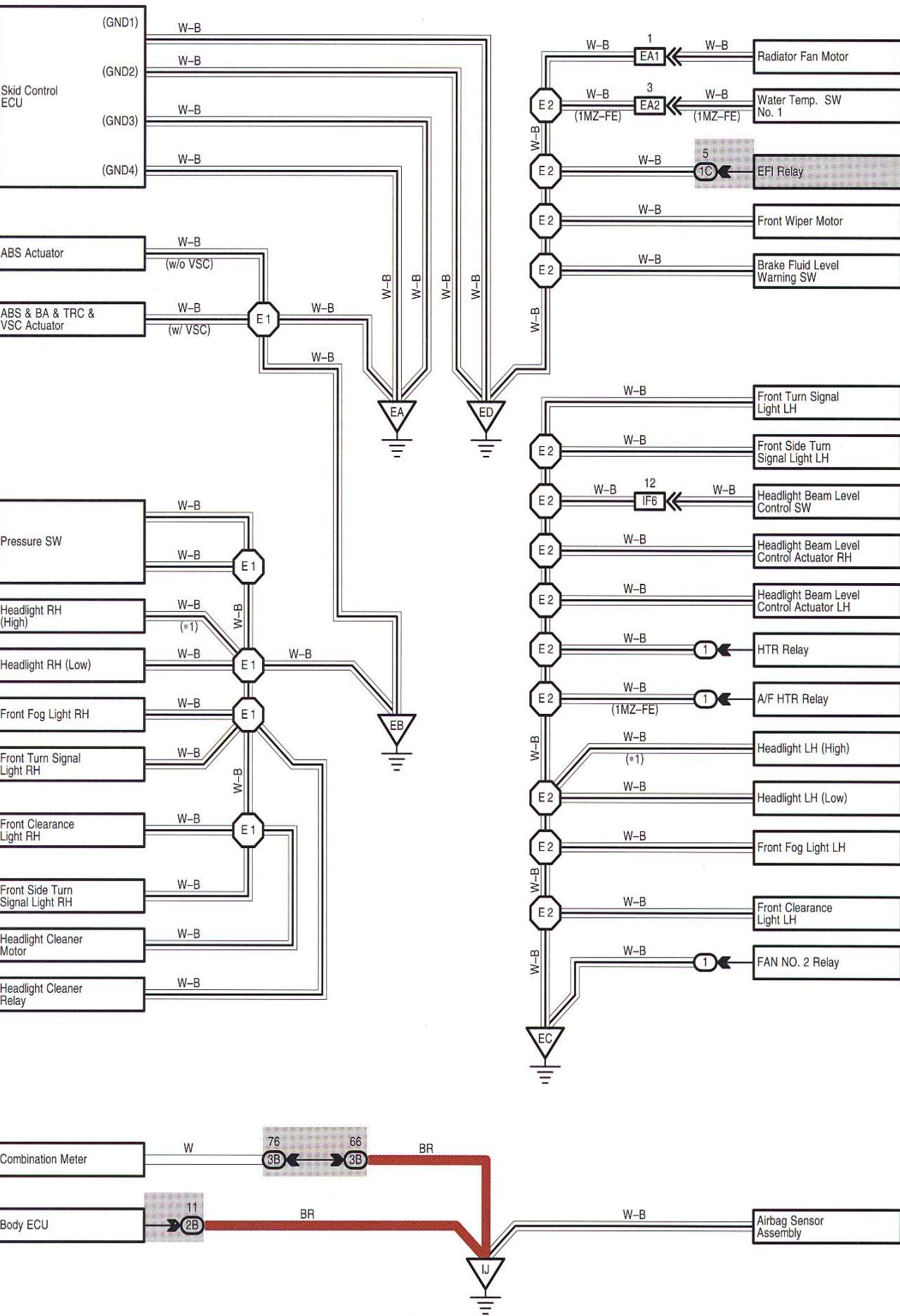
 : Splice Points

| Code | See Page | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |
|------|----------|---------------------------------|------|----------|---------------------------------|
| I5   | 62 (LHD) | A/C Sub Wire                    | I5   | 74 (RHD) | A/C Sub Wire                    |



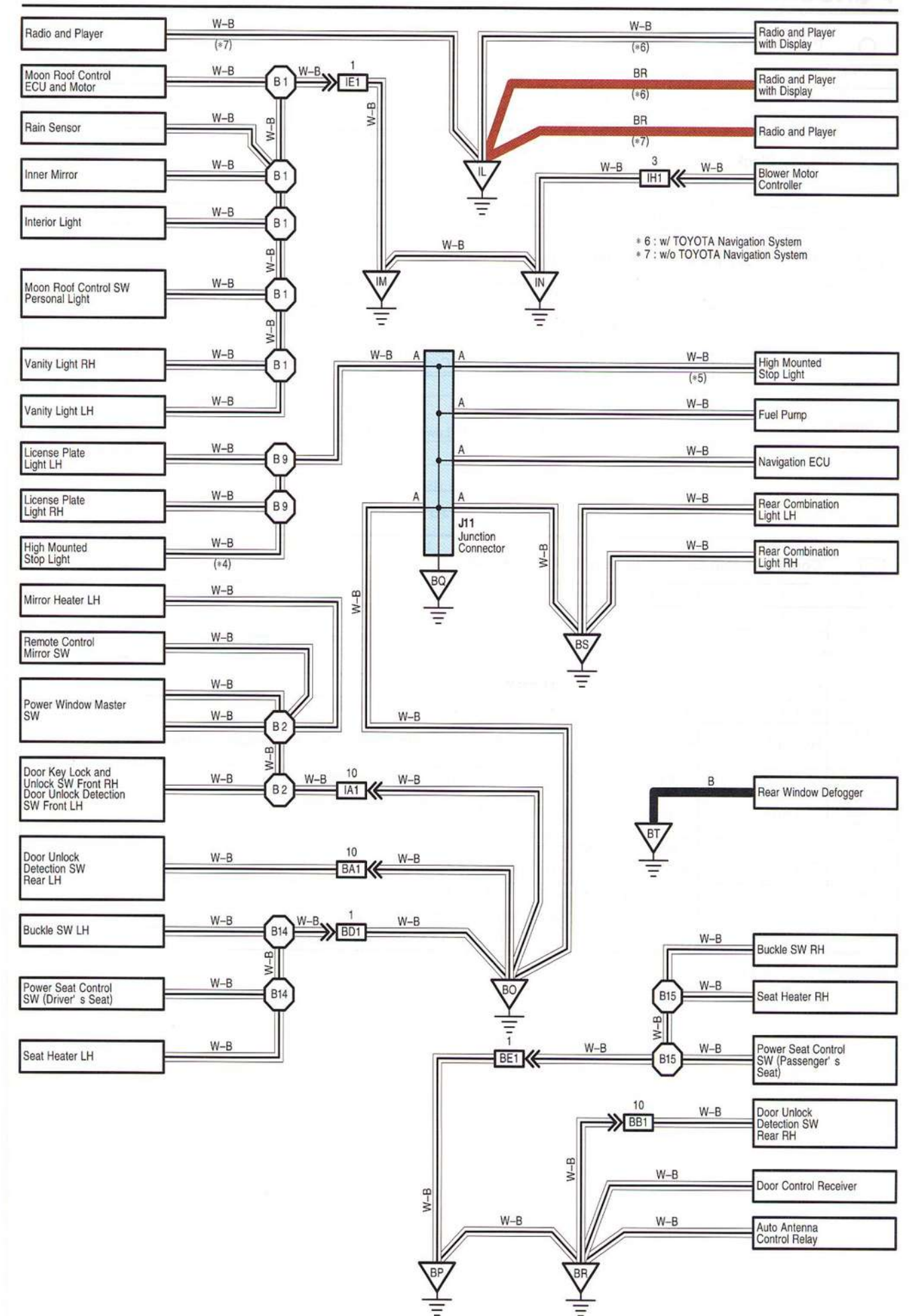
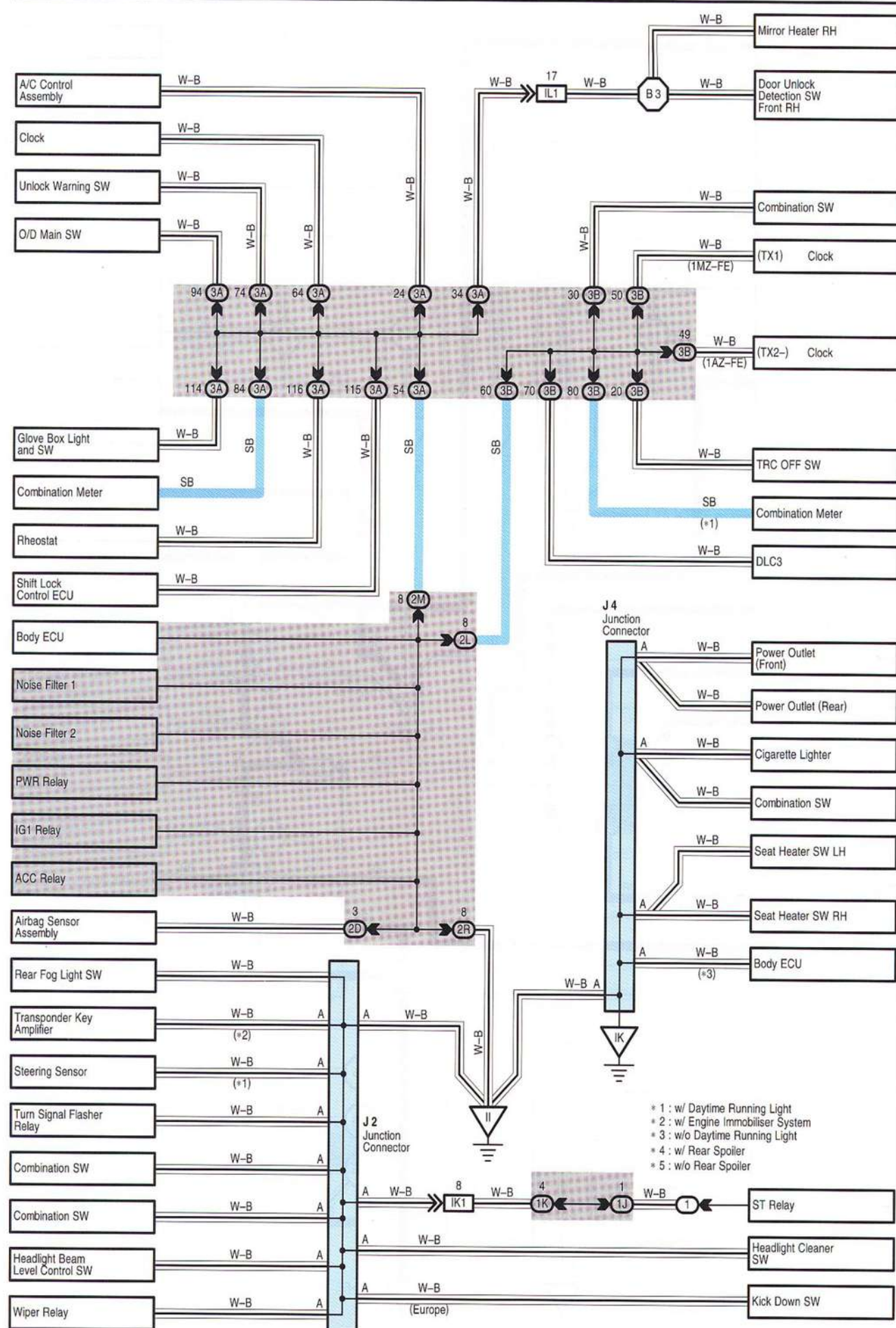
I GROUND POINT (LHD)

\* 1 : w/ Daytime Running Light





# I GROUND POINT (LHD)





# I GROUND POINT (LHD)

## ○ : Parts Location

| Code | See Page | Code | See Page | Code | See Page |
|------|----------|------|----------|------|----------|
| J1   | 41 (LHD) | J4   | 41 (LHD) |      |          |
| J2   | 41 (LHD) | J11  | 42 (LHD) |      |          |

## □ : Relay Blocks

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

## ⊙ : Junction Block and Wire Harness Connector

| Code | See Page | Junction Block and Wire Harness (Connector Location)                     |
|------|----------|--------------------------------------------------------------------------|
| 1C   | 25       | Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)      |
| 1J   |          |                                                                          |
| 1K   | 25       | Engine Wire and Engine Room J/B (Engine Compartment Left)                |
| 2B   | 28       | Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)           |
| 2D   |          |                                                                          |
| 2L   | 29       |                                                                          |
| 2M   |          |                                                                          |
| 2R   |          |                                                                          |
| 3A   | 34 (LHD) | Instrument Panel Wire and Passenger Side J/B (Instrument Panel Brace RH) |
| 3B   |          |                                                                          |

## □ : Connector Joining Wire Harness and Wire Harness

| Code | See Page        | Joining Wire Harness and Wire Harness (Connector Location)                           |
|------|-----------------|--------------------------------------------------------------------------------------|
| EA1  | 56 (LHD 1MZ-FE) | Engine Room Main Wire and Engine Room No.2 Wire (Radiator Side Support LH)           |
|      | 58 (*1)         |                                                                                      |
| EA2  | 56 (LHD 1MZ-FE) |                                                                                      |
| IA1  | 60 (LHD)        | Front Door LH Wire and Floor Wire (Left Kick Panel)                                  |
| IE1  | 60 (LHD)        | Instrument Panel Wire and Roof Wire (Inside of Front Left Pillar)                    |
| IF4  | 60 (LHD)        | Engine Room Main Wire and Instrument Panel Wire (Right Side of Steering Column Tube) |
| IF6  |                 |                                                                                      |
| IH1  | 62 (LHD)        | Instrument Panel Wire and Instrument Panel No.3 Wire (Behind the Glove Box)          |
| IK1  | 62 (LHD)        | Engine Wire and Instrument Panel Wire (Behind the Glove Box)                         |
| IK2  |                 |                                                                                      |
| IL1  | 62 (LHD)        | Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)                      |
| BA1  | 64 (LHD)        | Rear Door LH Wire and Floor Wire (Left Center Pillar)                                |
| BB1  | 64 (LHD)        | Rear Door RH Wire and Floor No.2 Wire (Right Center Pillar)                          |
| BD1  | 66 (LHD)        | Floor Wire and Front Seat LH Wire (Under the Driver's Seat)                          |
| BE1  | 66 (LHD)        | Floor No.2 Wire and Front Seat RH Wire (Under the Front Passenger's Seat)            |

\*1 : LHD 2AZ-FE, 1AZ-FE

## ▽ : Ground Points

| Code | See Page        | Ground Points Location                    |
|------|-----------------|-------------------------------------------|
| EA   | 56 (LHD 1MZ-FE) | Right Fender                              |
|      | 58 (*1)         |                                           |
| EB   | 56 (LHD 1MZ-FE) |                                           |
|      | 58 (*1)         |                                           |
| EC   | 56 (LHD 1MZ-FE) | Left Fender                               |
|      | 58 (*1)         |                                           |
| ED   | 56 (LHD 1MZ-FE) |                                           |
|      | 58 (*1)         |                                           |
| EE   | 56 (LHD 1MZ-FE) | Surge Tank RH                             |
| EF   | 56 (LHD 1MZ-FE) | Rear Side of Surge Tank                   |
| EG   | 58 (*1)         | Left Side of Cylinder Head                |
| EH   | 58 (*1)         | Intake Side of Cylinder Block             |
| II   | 60 (LHD)        | Cowl Side Panel LH                        |
| IJ   | 60 (LHD)        | Instrument Panel Brace LH                 |
| IK   |                 |                                           |
| IL   | 60 (LHD)        | Instrument Panel Brace RH                 |
| IM   | 60 (LHD)        | Instrument Panel Reinforcement RH         |
| IN   |                 |                                           |
| BO   | 64 (LHD)        | Under the Driver's Seat                   |
| BP   | 64 (LHD)        | Under the Front Passenger's Seat          |
| BQ   | 64 (LHD)        | Front Side of Rear Quarter Wheel House LH |
| BR   | 64 (LHD)        | Front Side of Rear Quarter Wheel House RH |
| BS   | 64 (LHD)        | Lower Back Panel Center                   |
| BT   | 64 (LHD)        | Rear Quarter Panel RH                     |

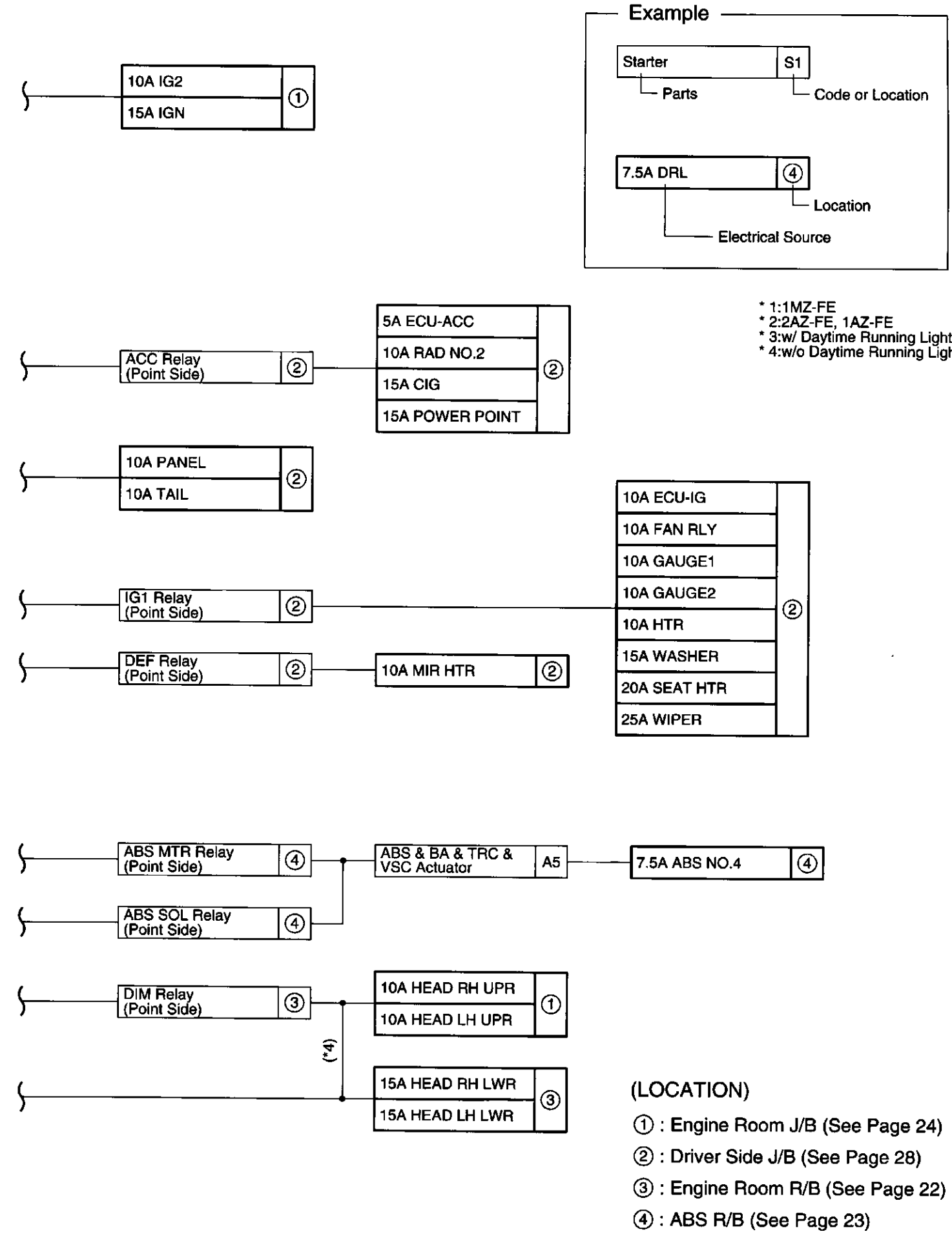
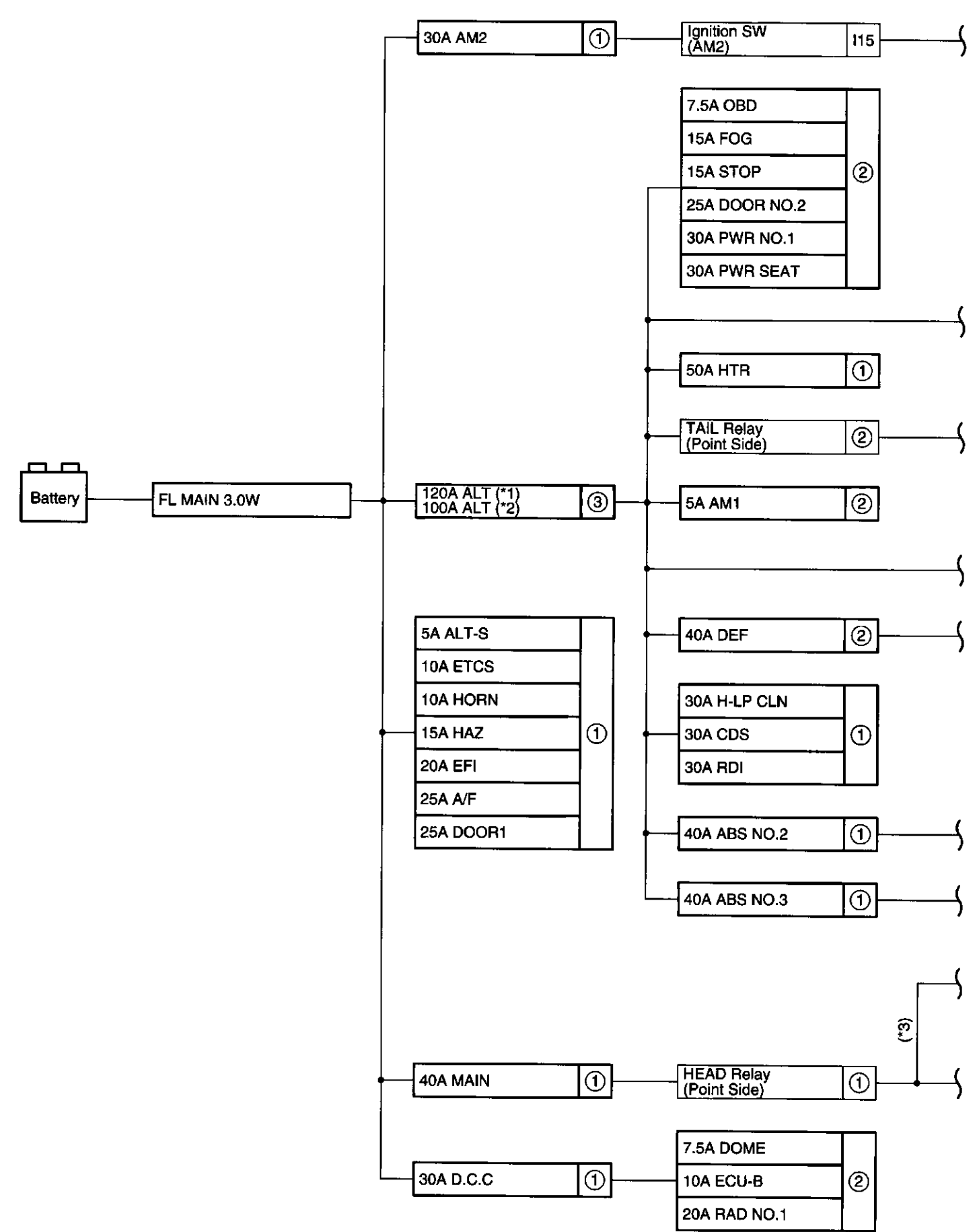
\*1 : LHD 2AZ-FE, 1AZ-FE

## ⬡ : Splice Points

| Code | See Page        | Wire Harness with Splice Points | Code | See Page | Wire Harness with Splice Points |  |
|------|-----------------|---------------------------------|------|----------|---------------------------------|--|
| E1   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | I8   | 62 (LHD) | Engine Wire                     |  |
|      | 58 (*1)         |                                 | B1   | 64 (LHD) | Roof Wire                       |  |
| E2   | 56 (LHD 1MZ-FE) | Engine Room Main Wire           | B2   | 64 (LHD) | Front Door LH Wire              |  |
|      | 58 (*1)         | Engine Wire                     | B3   | 64 (LHD) | Front Door RH Wire              |  |
| E4   | 56 (LHD 1MZ-FE) | Engine Wire                     | B9   | 64 (LHD) | Floor Wire                      |  |
| E5   | 58 (*1)         |                                 | B14  | 66 (LHD) | Front Seat LH Wire              |  |
| I6   | 62 (LHD)        |                                 | B15  | 66 (LHD) | Front Seat RH Wire              |  |
|      |                 |                                 |      |          |                                 |  |

\*1 : LHD 2AZ-FE, 1AZ-FE

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 J/B (See Page 24)**

| Fuse |             | System                                     | Page |
|------|-------------|--------------------------------------------|------|
| 5A   | ALT-S       | Charging                                   | 94   |
| 10A  | ETCS        | Cruise Control (1MZ-FE)                    | 258  |
|      |             | Cruise Control (2AZ-FE, 1AZ-FE)            | 264  |
|      |             | Engine Control (1MZ-FE)                    | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)            | 110  |
| 10A  | HEAD LH UPR | Headlight                                  | 150  |
|      |             | Multiplex Communication System (LHD)       | 126  |
|      |             | Multiplex Communication System (RHD)       | 138  |
| 10A  | HEAD RH UPR | Headlight                                  | 150  |
|      |             | Multiplex Communication System (LHD)       | 126  |
|      |             | Multiplex Communication System (RHD)       | 138  |
| 10A  | HORN        | Horn                                       | 302  |
| 10A  | IG2         | ABS                                        | 244  |
|      |             | Charging                                   | 94   |
|      |             | Combination Meter                          | 324  |
|      |             | Cruise Control (1MZ-FE)                    | 258  |
|      |             | Cruise Control (2AZ-FE, 1AZ-FE)            | 264  |
|      |             | ECT and A/T Indicator (1MZ-FE)             | 270  |
|      |             | ECT and A/T Indicator (2AZ-FE, 1AZ-FE)     | 278  |
|      |             | Engine Control (1MZ-FE)                    | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)            | 110  |
|      |             | Engine Immobiliser System (1MZ-FE)         | 122  |
|      |             | Engine Immobiliser System (2AZ-FE, 1AZ-FE) | 124  |
|      |             | SRS                                        | 251  |
|      |             | Stop Light (RHD)                           | 184  |
|      |             | Taillight (RHD)                            | 178  |
|      |             | VSC                                        | 236  |
| 15A  | HAZ         | Turn Signal and Hazard Warning Light       | 172  |
| 15A  | IGN         | Clock                                      | 310  |
|      |             | Engine Control (1MZ-FE)                    | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)            | 110  |
|      |             | Starting and Ignition (1MZ-FE)             | 86   |
|      |             | Starting and Ignition (2AZ-FE, 1AZ-FE)     | 90   |
| 20A  | EFI         | Cruise Control (1MZ-FE)                    | 258  |
|      |             | Cruise Control (2AZ-FE, 1AZ-FE)            | 264  |
|      |             | ECT and A/T Indicator (1MZ-FE)             | 270  |
|      |             | ECT and A/T Indicator (2AZ-FE, 1AZ-FE)     | 278  |
|      |             | Engine Control (1MZ-FE)                    | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)            | 110  |
|      |             | Engine Immobiliser System (1MZ-FE)         | 122  |
|      |             | Engine Immobiliser System (2AZ-FE, 1AZ-FE) | 124  |
| 25A  | A/F         | Engine Control (1MZ-FE)                    | 96   |

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

| Fuse |          | System                                 | Page |
|------|----------|----------------------------------------|------|
| 25A  | DOOR1    | Door Lock Control (LHD)                | 196  |
|      |          | Door Lock Control (RHD)                | 202  |
|      |          | Double Locking                         | 208  |
|      |          | Multiplex Communication System (LHD)   | 126  |
|      |          | Multiplex Communication System (RHD)   | 138  |
|      |          | Wireless Door Lock Control (LHD)       | 216  |
|      |          | Wireless Door Lock Control (RHD)       | 222  |
| 30A  | AM2      | Charging                               | 94   |
|      |          | Engine Control (1MZ-FE)                | 96   |
|      |          | Engine Control (2AZ-FE, 1AZ-FE)        | 110  |
|      |          | Starting and Ignition (1MZ-FE)         | 86   |
|      |          | Starting and Ignition (2AZ-FE, 1AZ-FE) | 90   |
| 30A  | CDS      | Radiator Fan and Condenser Fan         | 330  |
| 30A  | H-LP CLN | Headlight Cleaner (LHD)                | 192  |
| 30A  | RDI      | Radiator Fan and Condenser Fan         | 330  |
| 40A  | ABS NO.2 | ABS                                    | 244  |
|      |          | VSC                                    | 236  |
| 40A  | ABS NO.3 | ABS                                    | 244  |
|      |          | VSC                                    | 236  |
| 40A  | MAIN     | Automatic Light Control                | 156  |
|      |          | Headlight                              | 150  |
|      |          | Light Auto Turn Off                    | 158  |
|      |          | Multiplex Communication System (LHD)   | 126  |
|      |          | Multiplex Communication System (RHD)   | 138  |
| 50A  | HTR      | Automatic Air Conditioner              | 334  |

**Driver Side J/B (See Page 28)**

| Fuse |         | System                                 | Page |
|------|---------|----------------------------------------|------|
| 5A   | AM1     | ECT and A/T Indicator (1MZ-FE)         | 270  |
|      |         | ECT and A/T Indicator (2AZ-FE, 1AZ-FE) | 278  |
|      |         | Engine Control (1MZ-FE)                | 96   |
|      |         | Engine Control (2AZ-FE, 1AZ-FE)        | 110  |
|      |         | Starting and Ignition (1MZ-FE)         | 86   |
|      |         | Starting and Ignition (2AZ-FE, 1AZ-FE) | 90   |
| 5A   | ECU-ACC | Clock                                  | 310  |
|      |         | Multiplex Communication System (LHD)   | 126  |
|      |         | Multiplex Communication System (RHD)   | 138  |
| 7.5A | DOME    | Remote Control Mirror                  | 296  |
|      |         | Clock                                  | 310  |
|      |         | Double Locking                         | 208  |
|      |         | Interior Light                         | 162  |
|      |         | Multiplex Communication System (LHD)   | 126  |
|      |         | Multiplex Communication System (RHD)   | 138  |

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

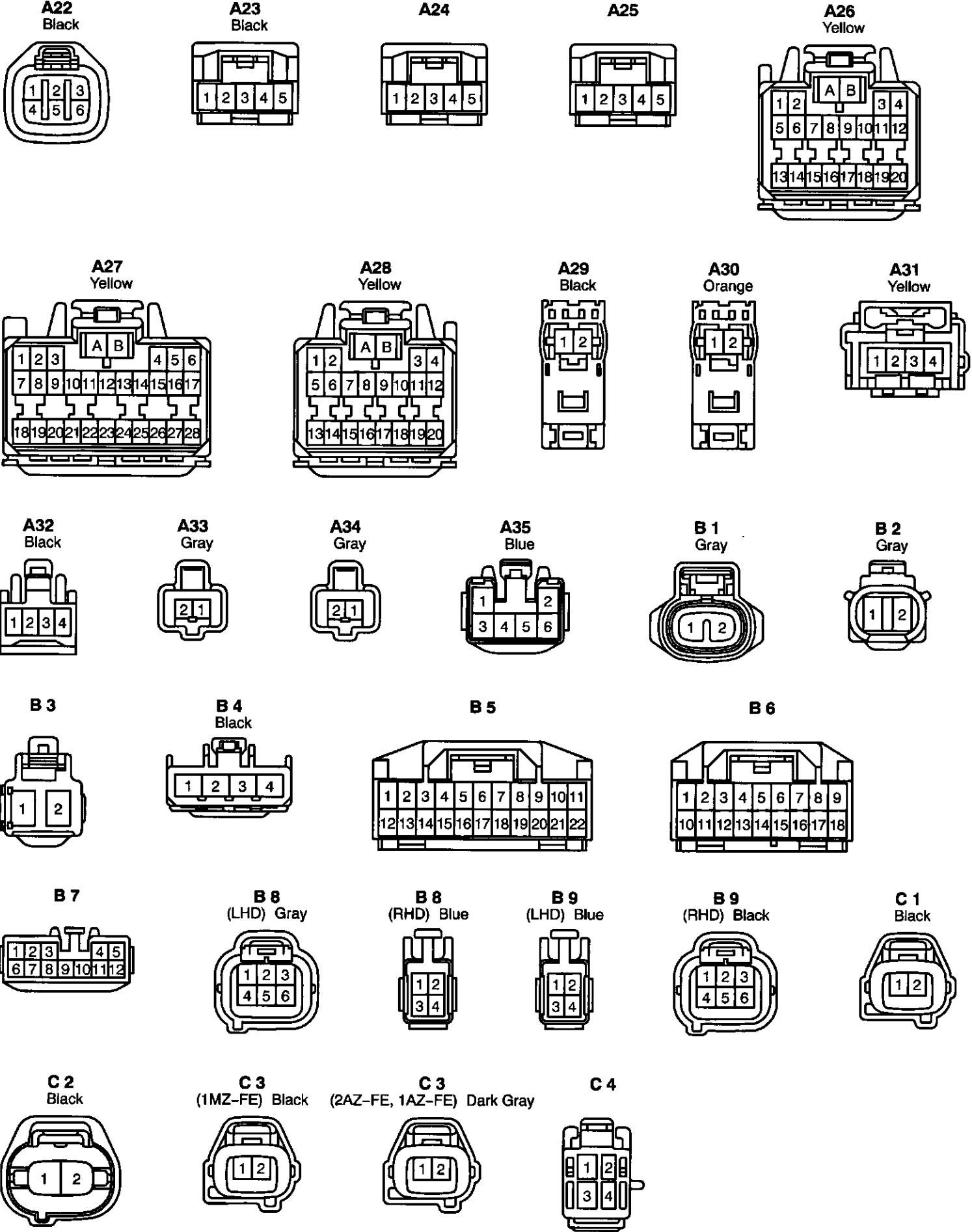
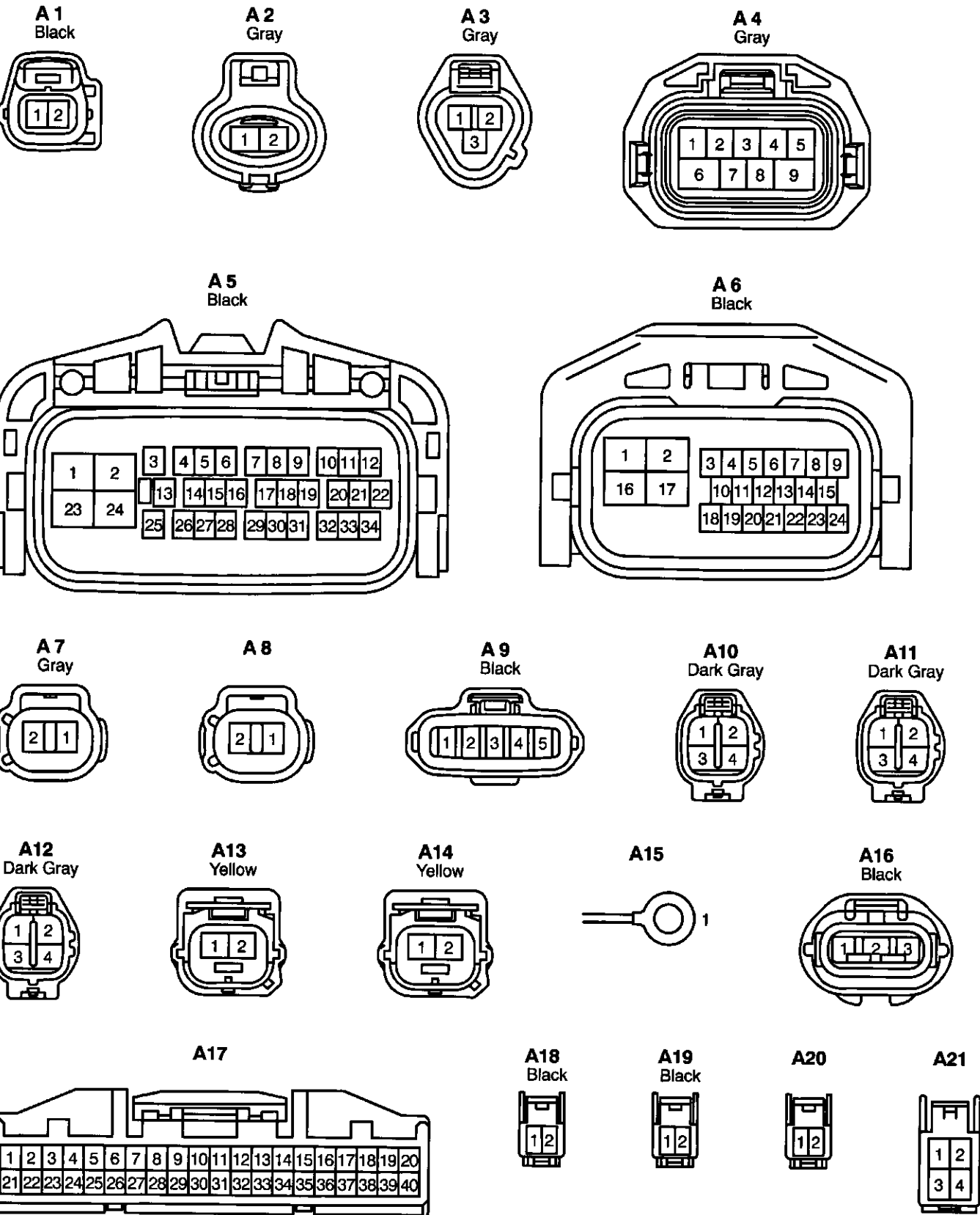
| Fuse |         | System                               | Page |
|------|---------|--------------------------------------|------|
| 7.5A | DOME    | Wireless Door Lock Control (LHD)     | 216  |
|      |         | Wireless Door Lock Control (RHD)     | 222  |
| 7.5A | OBD     | Engine Control (1MZ-FE)              | 96   |
|      |         | Engine Control (2AZ-FE, 1AZ-FE)      | 110  |
| 10A  | ECU-B   | Automatic Air Conditioner            | 334  |
|      |         | Automatic Light Control              | 156  |
|      |         | Clock                                | 310  |
|      |         | Combination Meter                    | 324  |
|      |         | Door Lock Control (LHD)              | 196  |
|      |         | Door Lock Control (RHD)              | 202  |
|      |         | Double Locking                       | 208  |
|      |         | Headlight                            | 150  |
|      |         | Interior Light                       | 162  |
|      |         | Key Reminder                         | 194  |
|      |         | Light Auto Turn Off                  | 158  |
|      |         | Moon Roof                            | 228  |
|      |         | Multiplex Communication System (LHD) | 126  |
|      |         | Multiplex Communication System (RHD) | 138  |
|      |         | Power Window                         | 230  |
|      |         | Rear Fog Light                       | 188  |
|      |         | VSC                                  | 236  |
|      |         | Wireless Door Lock Control (LHD)     | 216  |
|      |         | Wireless Door Lock Control (RHD)     | 222  |
| 10A  | ECU-IG  | ABS                                  | 244  |
|      |         | Automatic Light Control              | 156  |
|      |         | Door Lock Control (LHD)              | 196  |
|      |         | Door Lock Control (RHD)              | 202  |
|      |         | Double Locking                       | 208  |
|      |         | Headlight                            | 150  |
|      |         | Interior Light                       | 162  |
|      |         | Key Reminder                         | 194  |
|      |         | Light Auto Turn Off                  | 158  |
|      |         | Moon Roof                            | 228  |
|      |         | Multiplex Communication System (LHD) | 126  |
|      |         | Multiplex Communication System (RHD) | 138  |
|      |         | Power Window                         | 230  |
|      |         | SRS                                  | 251  |
|      |         | VSC                                  | 236  |
| 10A  | FAN RLY | Radiator Fan and Condenser Fan       | 330  |
| 10A  | GAUGE1  | Auto Antenna                         | 322  |
|      |         | Charging                             | 94   |
|      |         | Clock                                | 310  |
|      |         | Combination Meter                    | 324  |
|      |         | Key Reminder                         | 194  |

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

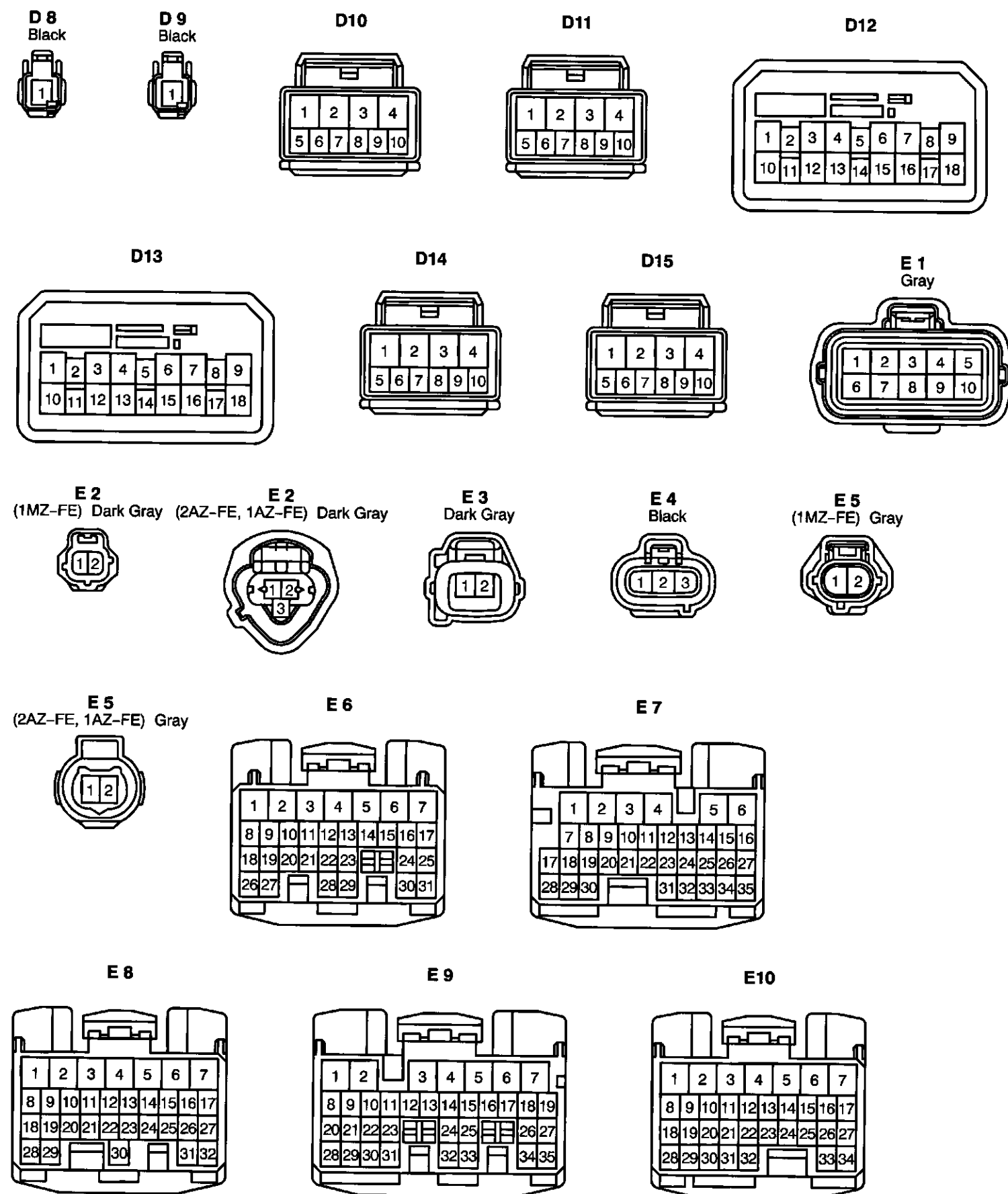
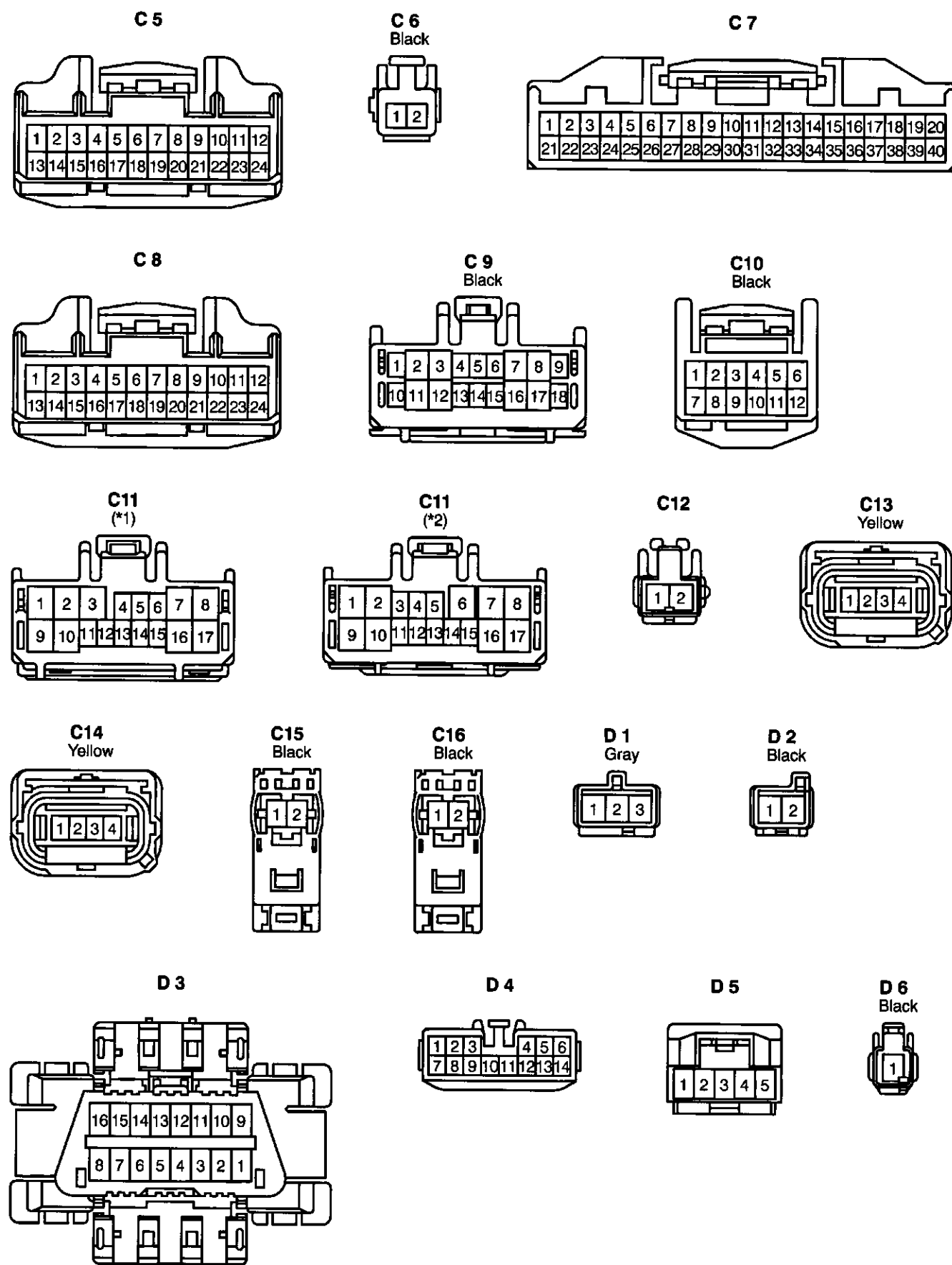
| Fuse |             | System                                          | Page |
|------|-------------|-------------------------------------------------|------|
| 10A  | GAUGE1      | Multiplex Communication System (LHD)            | 126  |
|      |             | Multiplex Communication System (RHD)            | 138  |
|      |             | Seat Belt Warning                               | 294  |
|      |             | Shift Lock                                      | 286  |
|      |             | Stop Light (RHD)                                | 184  |
|      |             | Taillight (RHD)                                 | 178  |
|      |             | Turn Signal and Hazard Warning Light            | 172  |
| 10A  | GAUGE2      | ABS                                             | 244  |
|      |             | Automatic Glare-Resistant EC Mirror             | 298  |
|      |             | Back-Up Light                                   | 186  |
|      |             | Cruise Control (1MZ-FE)                         | 258  |
|      |             | Cruise Control (2AZ-FE, 1AZ-FE)                 | 264  |
|      |             | ECT and A/T Indicator (1MZ-FE)                  | 270  |
|      |             | ECT and A/T Indicator (2AZ-FE, 1AZ-FE)          | 278  |
|      |             | Moon Roof                                       | 228  |
|      |             | Rear Window Defogger and Mirror Heater          | 308  |
|      |             | TOYOTA Navigation System, Radio and Player      | 314  |
|      |             | VSC                                             | 236  |
| 10A  | HTR         | Automatic Air Conditioner                       | 334  |
| 10A  | MIR HTR     | Engine Control (1MZ-FE)                         | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)                 | 110  |
|      |             | Rear Window Defogger and Mirror Heater          | 308  |
| 10A  | PANEL       | Front Fog Light                                 | 154  |
|      |             | Illumination                                    | 168  |
|      |             | Multiplex Communication System (LHD)            | 126  |
| 10A  | RAD NO.2    | Auto Antenna                                    | 322  |
|      |             | Radio and Player (w/o TOYOTA Navigation System) | 320  |
|      |             | TOYOTA Navigation System, Radio and Player      | 314  |
| 10A  | TAIL        | Engine Control (1MZ-FE)                         | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)                 | 110  |
|      |             | Front Fog Light                                 | 154  |
|      |             | Taillight (LHD)                                 | 176  |
|      |             | Taillight (RHD)                                 | 178  |
| 15A  | CIG         | Power Outlet and Cigarette Lighter              | 300  |
| 15A  | FOG         | Front Fog Light                                 | 154  |
| 15A  | POWER POINT | Power Outlet and Cigarette Lighter              | 300  |
| 15A  | STOP        | ABS                                             | 244  |
|      |             | Cruise Control (1MZ-FE)                         | 258  |
|      |             | Cruise Control (2AZ-FE, 1AZ-FE)                 | 264  |
|      |             | ECT and A/T Indicator (1MZ-FE)                  | 270  |
|      |             | ECT and A/T Indicator (2AZ-FE, 1AZ-FE)          | 278  |
|      |             | Engine Control (1MZ-FE)                         | 96   |
|      |             | Engine Control (2AZ-FE, 1AZ-FE)                 | 110  |

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

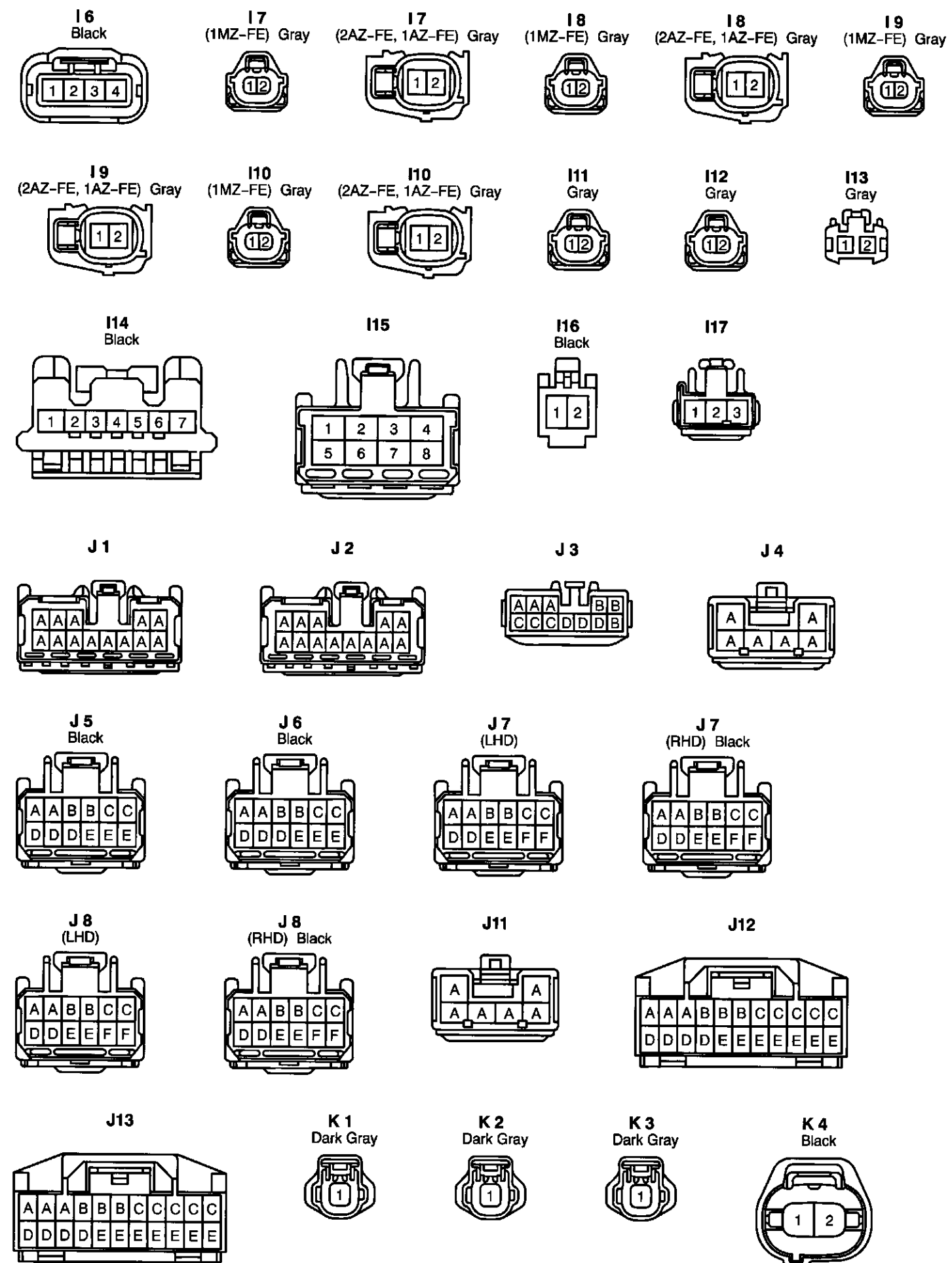
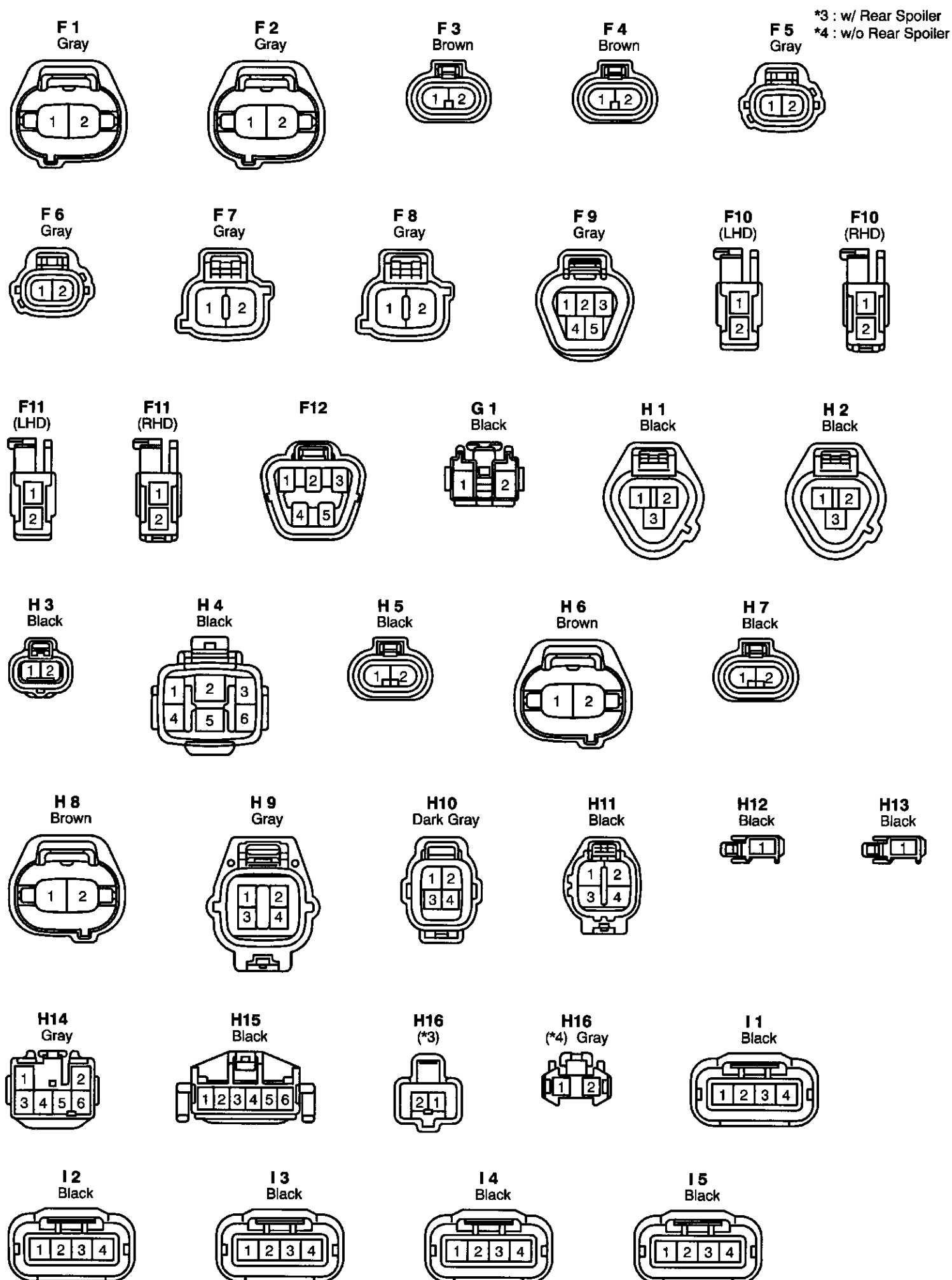


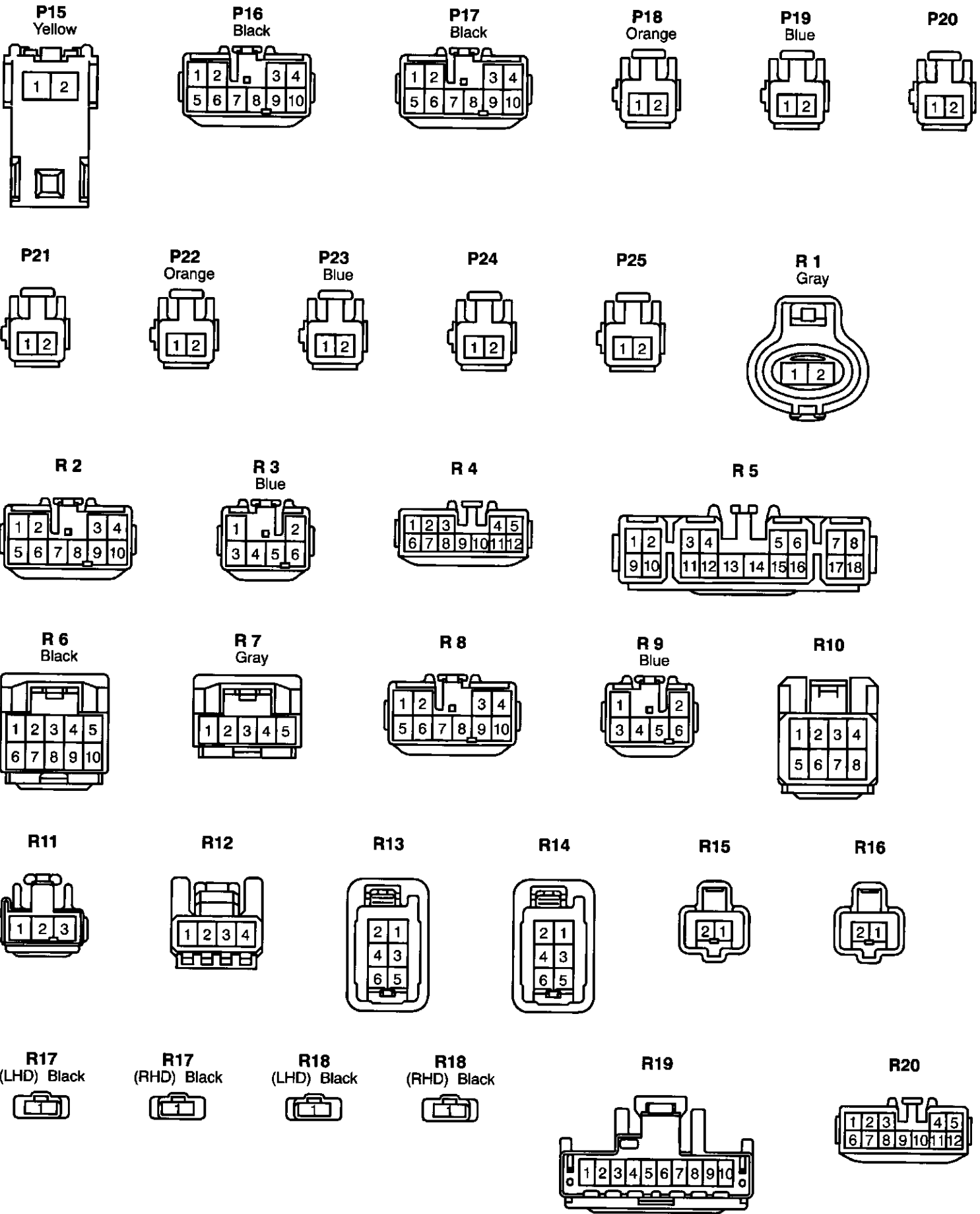
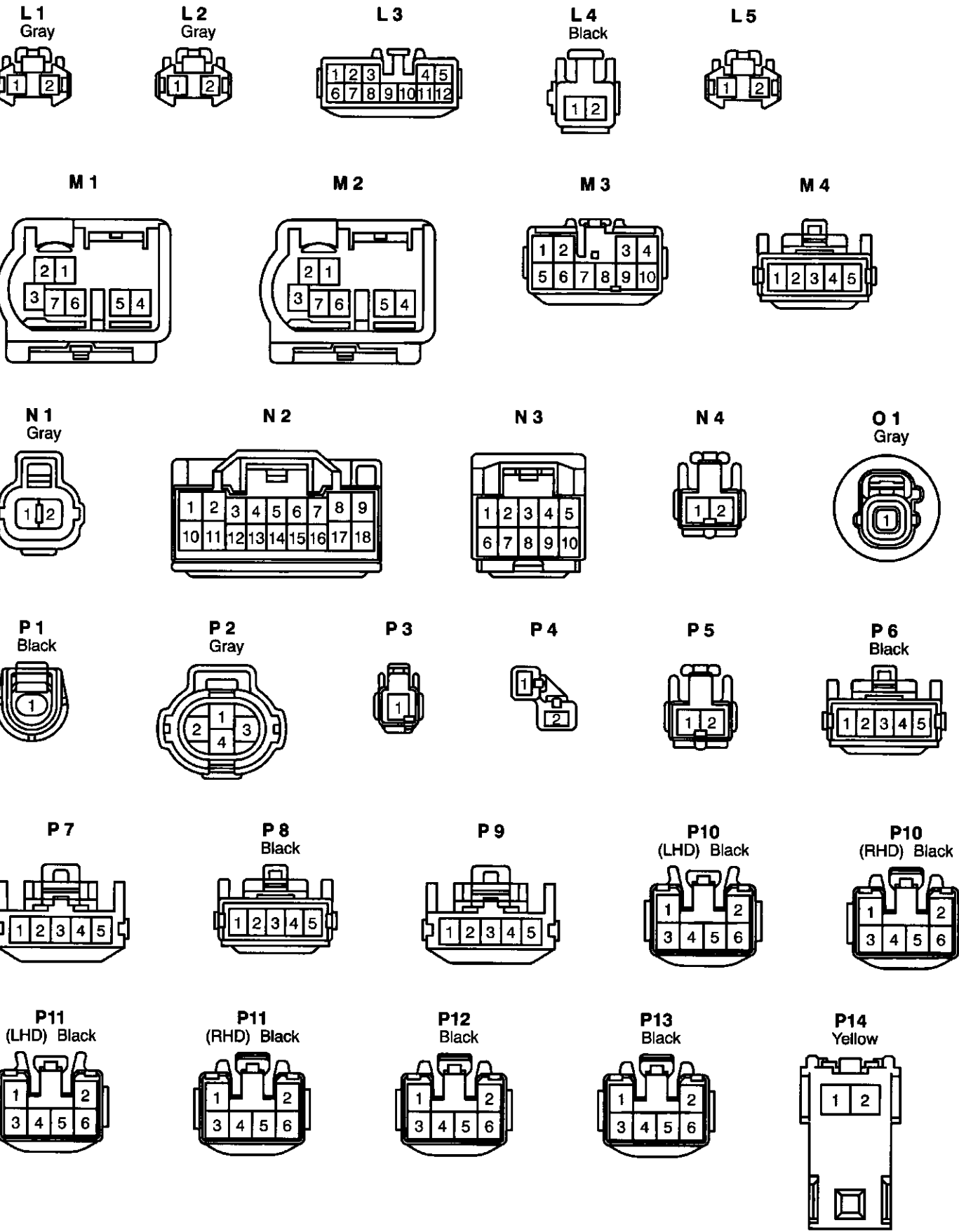


\*1 : LH Turn Lever Type  
\*2 : RH Turn Lever Type

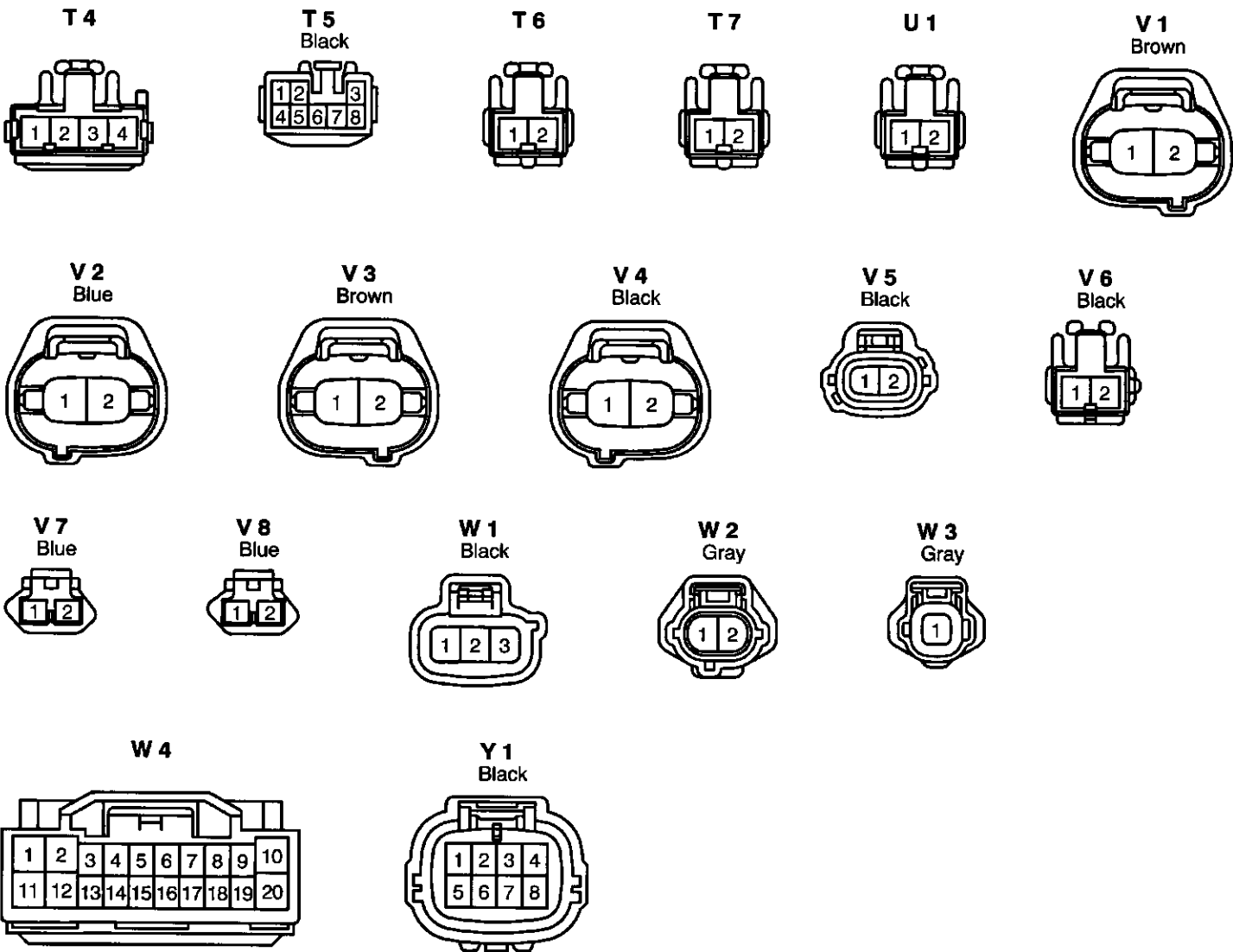
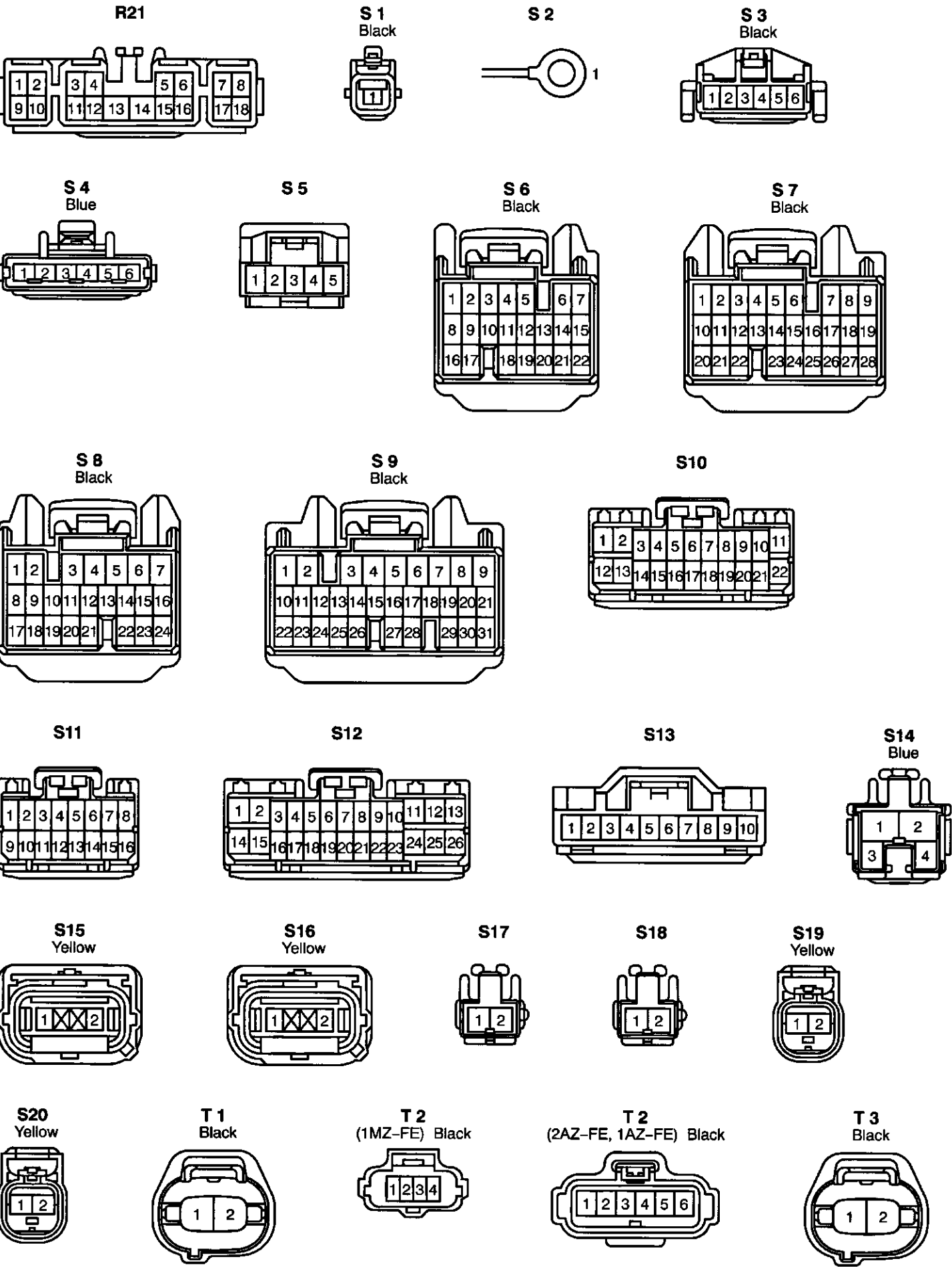












L PART NUMBER OF CONNECTORS

| Code | Part Name                                      | Part Number | Code | Part Name                            | Part Number |
|------|------------------------------------------------|-------------|------|--------------------------------------|-------------|
| A 1  | A/C Ambient Temp. Sensor                       | 90980-11070 | B 7  | Body ECU                             | 90980-10803 |
| A 2  | A/C Condenser Fan Motor                        | 90980-10928 | B 8  | Buckle SW LH (LHD)                   | 90980-11034 |
| A 3  | A/C Lock Sensor                                | 90980-11016 |      | Buckle SW LH (RHD)                   | 90980-10795 |
|      | A/C Magnetic Clutch                            |             |      | Occupant Detection Sensor            |             |
| A 4  | A/T Indicator Light SW                         | 90980-11784 | B 9  | Buckle SW RH (LHD)                   | 90980-10795 |
|      | Back-Up Light SW                               |             |      | Buckle SW RH (RHD)                   | 90980-11034 |
|      | Neutral Start SW                               |             |      | Occupant Detection Sensor            | 90980-10795 |
| A 5  | ABS & BA & TRC & VSC Actuator                  | 90980-12020 | C 1  | Camshaft Position Sensor             | 90980-10947 |
| A 6  | ABS Actuator                                   | 90980-12116 | C 2  | Counter Gear Speed Sensor            | 90980-11156 |
| A 7  | ABS Speed Sensor Front LH                      | 90980-11002 | C 3  | Crankshaft Position Sensor           | 90980-10947 |
| A 8  | ABS Speed Sensor Front RH                      |             | C 4  | Cigarette Lighter                    | 90980-11606 |
| A 9  | Air Flow Meter                                 | 90980-11317 | C 5  | Clock                                | 90980-12200 |
| A10  | Air Fuel Ratio Sensor                          | 90980-11178 | C 6  | Clutch Start SW                      | 90980-10825 |
| A11  | Air Fuel Ratio Sensor (Bank 1 Sensor 1)        |             | C 7  | Combination Meter                    | 90980-12170 |
| A12  | Air Fuel Ratio Sensor (Bank 2 Sensor 1)        |             | C 8  | Combination Meter                    | 90980-12200 |
| A13  | Airbag Sensor Front LH                         | 90980-11856 | C 9  | Combination SW                       | 90980-11594 |
| A14  | Airbag Sensor Front RH                         |             | C10  | Combination SW                       | 90980-12183 |
| A15  | Alternator                                     | 90980-09213 | C11  | Combination SW (LH Turn Lever Type)  | 90980-11672 |
| A16  | Alternator                                     | 90980-11349 |      | Combination SW (RH Turn Lever Type)  | 90980-11671 |
| A17  | A/C Control Assembly                           | 90980-12169 | C12  | Cruise Control Clutch SW             | 90980-10906 |
| A18  | A/C Room Temp. Sensor                          | 90980-11918 | C13  | Curtain Shield Airbag Sensor LH      | 90980-12225 |
| A19  | A/C Solar Sensor                               |             | C14  | Curtain Shield Airbag Sensor RH      |             |
| A20  | A/C Thermistor                                 |             | C15  | Curtain Shield Airbag Squib LH       | 90980-12219 |
| A21  | A/T Shift Lever Illumination                   | 90980-12211 | C16  | Curtain Shield Airbag Squib RH       |             |
|      | O/D Main SW                                    |             | D 1  | Diode (A/C No.1)                     | 90980-11071 |
| A22  | Accelerator Position Sensor                    | 90980-11144 | D 2  | Diode (A/C No.2)                     | 90980-10962 |
| A23  | Air Inlet Control Servo Motor                  | 90980-11909 | D 3  | DLC3                                 | 90980-11665 |
| A24  | Air Mix Control Servo Motor                    |             | D 4  | Double Door Lock ECU                 | 90980-10807 |
| A25  | Air Vent Mode Control Servo Motor              |             | D 5  | Door Control Receiver                | 90980-11909 |
| A26  | Airbag Sensor Assembly                         | 82824-50160 | D 6  | Door Courtesy SW Front LH            | 90980-10871 |
| A27  | Airbag Sensor Assembly                         | 90980-11872 | D 7  | Door Courtesy SW Front RH            |             |
| A28  | Airbag Sensor Assembly                         | 82824-50150 | D 8  | Door Courtesy SW Rear LH             |             |
| A29  | Airbag Squib (Front Passenger Airbag Assembly) | 90980-12219 | D 9  | Door Courtesy SW Rear RH             |             |
| A30  | Airbag Squib (Front Passenger Airbag Assembly) | 90980-12224 | D10  | Door Key Lock and Unlock SW Front LH | 90980-12226 |
|      | Airbag Squib (Front Passenger Airbag Assembly) |             |      | Door Lock Motor Front LH             |             |
| A31  | Airbag Squib (Steering Wheel Pad)              | 90980-12160 |      | Door Unlock Detection SW Front LH    |             |
| A32  | Automatic Light Control Sensor                 | 90980-11107 |      | Double Door Lock Motor Front LH      |             |
| A33  | ABS Speed Sensor Rear LH                       | 90980-11060 |      | Position SW Front LH                 |             |
| A34  | ABS Speed Sensor Rear RH                       |             | D11  | Door Key Lock and Unlock SW Front RH |             |
| A35  | Auto Antenna Control Relay                     | 90980-10797 |      | Door Lock Motor Front RH             |             |
| B 1  | Back-Up Light SW                               | 90980-11250 |      | Door Unlock Detection SW Front RH    |             |
| B 2  | Brake Fluid Level Warning SW                   | 90980-11207 |      | Double Door Lock Motor Front RH      |             |
| B 3  | Blower Motor                                   | 90980-10903 |      | Position SW Front RH                 |             |
| B 4  | Blower Motor Controller                        | 90980-11676 |      |                                      |             |
| B 5  | Body ECU                                       | 90980-11915 |      |                                      |             |
| B 6  | Body ECU                                       | 90980-11913 |      |                                      |             |

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

L

| Code | Part Name                                | Part Number | Code | Part Name                                                | Part Number |
|------|------------------------------------------|-------------|------|----------------------------------------------------------|-------------|
| D12  | Door Lock Control SW Front LH            | 90980-12122 | H 1  | Headlight Beam Level Control Actuator LH                 | 90980-11016 |
|      | Power Window Master SW                   |             | H 2  | Headlight Beam Level Control Actuator RH                 |             |
| D13  | Door Lock Control SW Front RH            | 90980-12122 | H 3  | Headlight Cleaner Motor                                  | 90980-11410 |
|      | Power Window Master SW                   |             | H 4  | Headlight Cleaner Relay                                  | 90980-10939 |
| D14  | Door Lock Motor Rear LH                  | 90980-12226 | H 5  | Headlight LH (High)                                      | 90980-11095 |
|      | Door Unlock Detection SW Rear LH         |             | H 6  | Headlight LH (Low)                                       | 90980-11149 |
|      | Double Door Lock Motor Rear LH           |             | H 7  | Headlight RH (High)                                      | 90980-11095 |
|      | Position SW Rear LH                      |             | H 8  | Headlight RH (Low)                                       | 90980-11149 |
| D15  | Door Lock Motor Rear RH                  | 90980-12226 | H 9  | Heated Oxygen Sensor                                     | 90980-11930 |
|      | Door Unlock Detection SW Rear RH         |             | H10  | Heated Oxygen Sensor (Bank 1 Sensor 1)                   | 90980-10869 |
|      | Double Door Lock Motor Rear RH           |             | H11  | Heated Oxygen Sensor (Bank 2 Sensor 1)                   | 90980-11028 |
|      | Position SW Rear RH                      |             | H12  | Horn (High)                                              | 90980-10619 |
| E 1  | ECT Solenoid                             | 90980-11658 | H13  | Horn (Low)                                               |             |
| E 2  | EFI Water Temp. Sensor (1MZ-FE)          | 90980-10737 | H14  | Headlight Beam Level Control SW                          | 90980-10996 |
|      | EFI Water Temp. Sensor (2AZ-FE, 1AZ-FE)  | 90980-11451 | H15  | Headlight Cleaner SW                                     | 90980-10964 |
| E 3  | EGR Gas Temp. Sensor                     | 90980-10899 | H16  | High Mounted Stop Light (w/ Rear Spoiler)                | 90980-11060 |
| E 4  | EGR Valve Position Sensor                | 90980-11143 |      | High Mounted Stop Light (w/o Rear Spoiler)               | 90980-11148 |
| E 5  | Engine Oil Level Sensor (1MZ-FE)         | 90980-11235 | I 1  | Ignition Coil and Igniter No.1                           | 90980-11885 |
|      | Engine Oil Level Sensor (2AZ-FE, 1AZ-FE) | 90980-10532 | I 2  | Ignition Coil and Igniter No.2                           |             |
| E 6  | Engine and ECT ECU (A/T)                 | 90980-12142 | I 3  | Ignition Coil and Igniter No.3                           |             |
|      | Engine ECU (M/T)                         |             | I 4  | Ignition Coil and Igniter No.4                           |             |
| E 7  | Engine and ECT ECU (A/T)                 | 90980-12146 | I 5  | Ignition Coil and Igniter No.5                           |             |
|      | Engine ECU (M/T)                         |             | I 6  | Ignition Coil and Igniter No.6                           |             |
| E 8  | Engine and ECT ECU (A/T)                 | 90980-12143 | I 7  | Injector No.1 (1MZ-FE)                                   | 90980-11153 |
|      | Engine ECU (M/T)                         |             |      | Injector No.1 (2AZ-FE, 1AZ-FE)                           | 90980-11875 |
| E 9  | Engine and ECT ECU (A/T)                 | 90980-12145 | I 8  | Injector No.2 (1MZ-FE)                                   | 90980-11153 |
|      | Engine ECU (M/T)                         |             |      | Injector No.2 (2AZ-FE, 1AZ-FE)                           | 90980-11875 |
| E10  | Engine and ECT ECU (A/T)                 | 90980-12144 | I 9  | Injector No.3 (1MZ-FE)                                   | 90980-11153 |
|      | Engine ECU (M/T)                         |             |      | Injector No.3 (2AZ-FE, 1AZ-FE)                           | 90980-11875 |
| F 1  | Front Clearance Light LH                 | 90980-11156 | I10  | Injector No.4 (1MZ-FE)                                   | 90980-11153 |
| F 2  | Front Clearance Light RH                 |             |      | Injector No.4 (2AZ-FE, 1AZ-FE)                           | 90980-11875 |
| F 3  | Front Fog Light LH                       | 90980-11096 | I11  | Injector No.5                                            | 90980-11153 |
| F 4  | Front Fog Light RH                       |             | I12  | Injector No.6                                            |             |
| F 5  | Front Side Turn Signal Light LH          | 90980-11162 | I13  | Ignition Key Cylinder Light                              | 90980-10679 |
| F 6  | Front Side Turn Signal Light RH          |             | I14  | Ignition Key Cylinder Light<br>Transponder Key Amplifier | 90980-12092 |
| F 7  | Front Turn Signal Light LH               | 90980-11019 | I15  | Ignition SW                                              | 90980-11615 |
| F 8  | Front Turn Signal Light RH               |             | I16  | Inner Mirror                                             | 90980-12039 |
| F 9  | Front Wiper Motor                        | 90980-11599 | I17  | Interior Light                                           | 90980-10908 |
| F10  | Front Door Speaker LH (LHD)              | 82824-12260 | J 1  | Junction Connector                                       | 90980-11542 |
|      | Front Door Speaker LH (RHD)              | 90980-10935 | J 2  | Junction Connector                                       |             |
| F11  | Front Door Speaker RH (LHD)              | 82824-12260 | J 3  | Junction Connector                                       | 90980-10803 |
|      | Front Door Speaker RH (RHD)              | 90980-10935 | J 4  | Junction Connector                                       | 90980-10976 |
| F12  | Fuel Pump                                | 90980-11077 | J 5  | Junction Connector                                       | 90980-11661 |
|      | Fuel Sender                              |             | J 6  | Junction Connector                                       |             |
| G 1  | Glove Box Light and SW                   | 90980-11098 |      |                                                          |             |



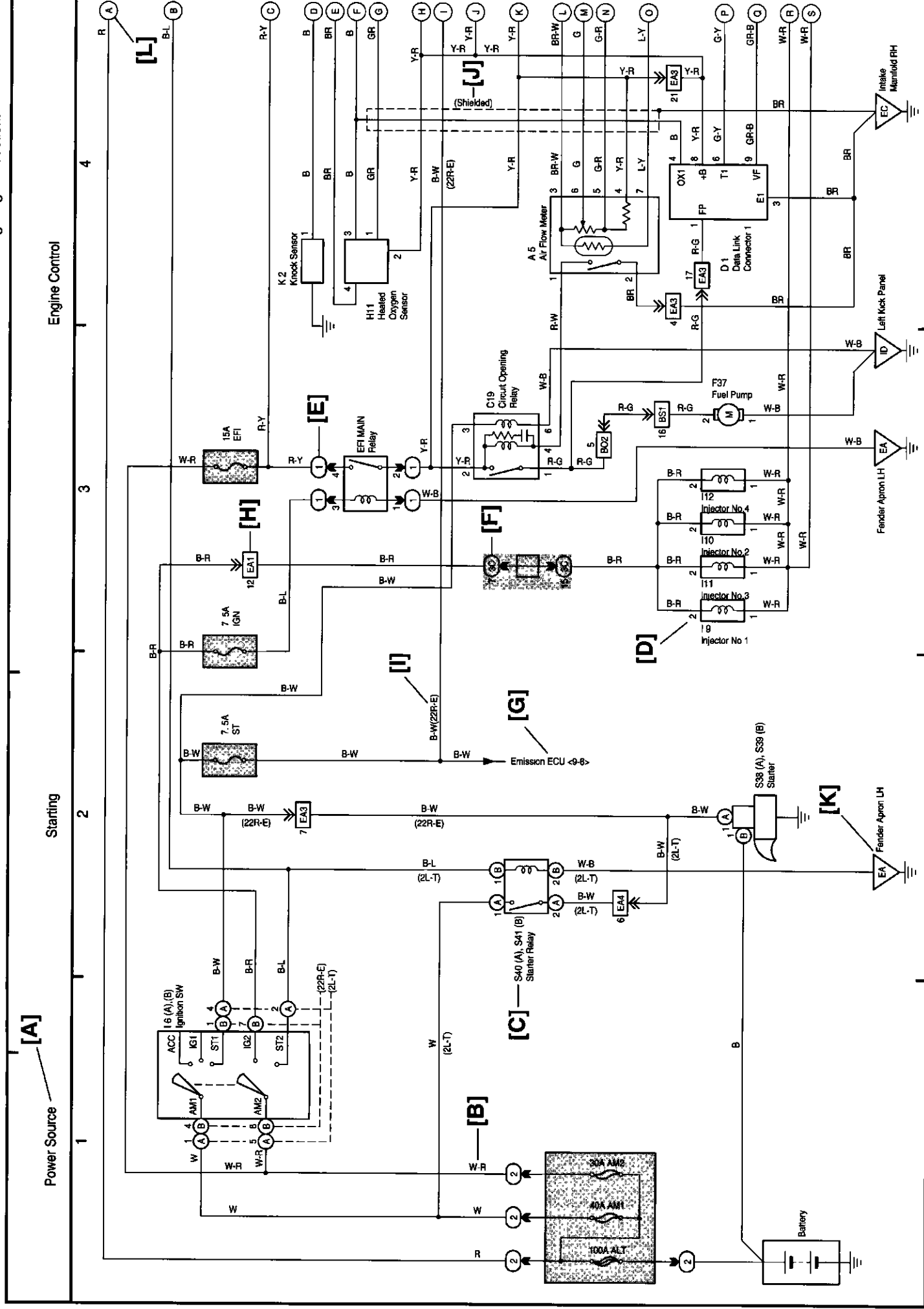
# L PART NUMBER OF CONNECTORS

| Code | Part Name                                      | Part Number | Code | Part Name                                                        | Part Number |
|------|------------------------------------------------|-------------|------|------------------------------------------------------------------|-------------|
| J 7  | Junction Connector                             | 90980-11661 | P18  | Power Seat Motor (Driver's Seat Front Vertical Control)          | 90980-10825 |
| J 8  | Junction Connector                             |             | P19  | Power Seat Motor (Driver's Seat Lifter Control)                  |             |
| J11  | Junction Connector                             | 90980-10976 | P20  | Power Seat Motor (Driver's Seat Reclining Control)               |             |
| J12  | Junction Connector                             | 90980-11915 | P21  | Power Seat Motor (Driver's Seat Slide Control)                   |             |
| J13  | Junction Connector                             |             | P22  | Power Seat Motor (Front Passenger's Seat Front Vertical Control) |             |
| K 1  | Knock Sensor                                   | 90980-11166 | P23  | Power Seat Motor (Front Passenger's Seat Lifter Control)         |             |
| K 2  | Knock Sensor No.1                              |             | P24  | Power Seat Motor (Front Passenger's Seat Reclining Control)      |             |
| K 3  | Knock Sensor No.2                              |             | P25  | Power Seat Motor (Front Passenger's Seat Slide Control)          |             |
| K 4  | Kick Down SW                                   | 90980-11156 | R 1  | Radiator Fan Motor                                               | 90980-10928 |
| L 1  | License Plate Light LH                         | 90980-11148 | R 2  | Radio and Player                                                 | 90980-10997 |
| L 2  | License Plate Light RH                         |             | R 3  | Radio and Player                                                 | 90980-10996 |
| L 3  | Light Failure Sensor                           | 90980-10803 | R 4  | Radio and Player                                                 | 90980-10803 |
| L 4  | Luggage Compartment Door Opener Motor          | 90980-10825 | R 5  | Radio and Player                                                 | 90980-10819 |
|      | Luggage Compartment Light SW                   |             | R 6  | Radio and Player with Display                                    | 90980-11923 |
| L 5  | Luggage Compartment Light                      | 90980-11148 | R 7  | Radio and Player with Display                                    | 90980-11909 |
| M 1  | Mirror Heater LH                               | 90980-12059 | R 8  | Radio and Player with Display                                    | 90980-10997 |
|      | Remote Control Mirror LH                       |             | R 9  | Radio and Player with Display                                    | 90980-10996 |
| M 2  | Mirror Heater RH                               |             | R10  | Rear Fog Light SW                                                | 90980-12113 |
|      | Remote Control Mirror RH                       |             | R11  | Rheostat                                                         | 90980-10908 |
| M 3  | Moon Roof Control ECU and Motor                | 90980-10997 | R12  | Rain Sensor                                                      | 82824-50130 |
| M 4  | Moon Roof Control SW                           | 90980-10789 | R13  | Rear Combination Light LH                                        | 90980-11587 |
|      | Personal Light                                 |             | R14  | Rear Combination Light RH                                        |             |
| N 1  | Noise Filter (Ignition)                        | 90980-10843 | R15  | Rear Speaker LH                                                  | 90980-11060 |
| N 2  | Navigation ECU                                 | 90980-11973 | R16  | Rear Speaker RH                                                  |             |
| N 3  | Navigation ECU                                 | 90980-11923 | R17  | Rear Window Defogger (LHD)                                       | 90980-10913 |
| N 4  | Noise Filter                                   | 90980-10860 |      | Rear Window Defogger (RHD)                                       | 90980-10914 |
| O 1  | Oil Pressure Sensor                            | 90980-11363 | R18  | Rear Window Defogger (LHD)                                       | 90980-10914 |
| P 1  | Power Steering Oil Pressure SW                 | 90980-11428 |      | Rear Window Defogger (RHD)                                       | 90980-10913 |
| P 2  | Pressure SW                                    | 90980-10943 | R19  | Remote Control Mirror SW                                         | 90980-11657 |
| P 3  | Parking Brake SW                               | 90980-10871 | R20  | Radio and Player with Display                                    | 90980-10803 |
| P 4  | Power Outlet (Front)                           | 90980-10760 | R21  | Radio and Player with Display                                    | 90980-10819 |
| P 5  | Power Outlet (Rear)                            | 90980-10860 | S 1  | Starter                                                          | 90980-11400 |
| P 6  | Power Window Control SW Front LH               | 90980-10789 | S 2  | Starter                                                          | 90980-09463 |
| P 7  | Power Window Control SW Front RH               | 82824-12230 | S 3  | Seat Heater SW LH                                                | 90980-10964 |
| P 8  | Power Window Control SW Rear LH                | 90980-10789 | S 4  | Seat Heater SW RH                                                | 90980-10933 |
| P 9  | Power Window Control SW Rear RH                | 82824-12230 | S 5  | Shift Lock Control ECU                                           | 90980-11909 |
| P10  | Power Window Motor Front LH (LHD)              | 82824-12270 | S 6  | Skid Control ECU                                                 | 90980-11638 |
|      | Power Window Motor Front LH (RHD)              | 90980-10797 | S 7  | Skid Control ECU                                                 | 90980-11637 |
| P11  | Power Window Motor Front RH (LHD)              | 82824-12270 | S 8  | Skid Control ECU                                                 | 90980-11476 |
|      | Power Window Motor Front RH (RHD)              | 90980-10797 | S 9  | Skid Control ECU                                                 | 90980-11421 |
| P12  | Power Window Motor Rear LH                     | 90980-10797 | S10  | Skid Control ECU                                                 | 90980-11392 |
| P13  | Power Window Motor Rear RH                     |             |      |                                                                  |             |
| P14  | Pretensioner LH                                | 90980-12138 |      |                                                                  |             |
| P15  | Pretensioner RH                                |             |      |                                                                  |             |
| P16  | Power Seat Control SW (Driver's Seat)          | 90980-10997 |      |                                                                  |             |
| P17  | Power Seat Control SW (Front Passenger's Seat) |             |      |                                                                  |             |

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 |
|------|-------------------------------------------|-------------|------|---------------------|-------------|
| S11  | Skid Control ECU                          | 90980-11391 | T 6  | Tweeter LH          | 90980-10860 |
| S12  | Skid Control ECU                          | 90980-11390 | T 7  | Tweeter RH          |             |
| S13  | Steering Sensor                           | 90980-12162 | U 1  | Unlock Warning SW   |             |
| S14  | Stop Light SW                             | 90980-11118 | V 1  | VSV (ACIS)          | 90980-11149 |
| S15  | Side Airbag Sensor LH                     | 90980-12241 | V 2  | VSV (AICV)          | 90980-11156 |
| S16  | Side Airbag Sensor RH                     |             | V 3  | VSV (EGR)           | 90980-11149 |
| S17  | Seat Heater LH                            | 90980-10906 | V 4  | VSV (EVAP)          | 90980-11156 |
| S18  | Seat Heater RH                            |             | V 5  | VVT Solenoid        | 90980-11162 |
| S19  | Side Airbag Squib LH                      | 90980-11864 | V 6  | VSC Warning Buzzer  | 90980-10906 |
| S20  | Side Airbag Squib RH                      |             | V 7  | Vanity Light LH     | 90980-10621 |
| T 1  | Throttle Control Motor                    | 90980-11156 | V 8  | Vanity Light RH     |             |
| T 2  | Throttle Position Sensor (1MZ-FE)         | 90980-10711 | W 1  | Washer Motor        | 90980-10981 |
|      | Throttle Position Sensor (2AZ-FE, 1AZ-FE) | 90980-11858 | W 2  | Water Temp. SW No.1 | 90980-11235 |
| T 3  | Turbine Speed Sensor                      | 90980-11156 | W 3  | Water Temp. SW No.2 | 90980-11243 |
| T 4  | TRC OFF SW                                | 90980-11013 | W 4  | Wiper Relay         | 90980-12166 |
| T 5  | Turn Signal Flasher Relay                 | 90980-10799 | Y 1  | Yaw Rate Sensor     | 90980-12080 |

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



[A] : System Title

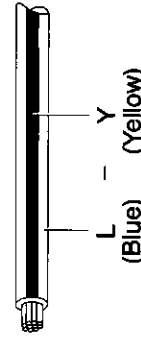
[B] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

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

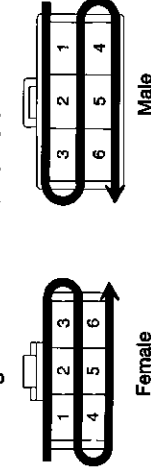
Example: L - Y



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

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

Example : Numbered in order from upper left to lower right



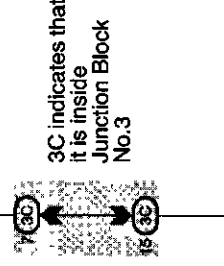
The numbering system for the overall wiring diagram is the same as above

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

Example : Indicates Relay Block No.1

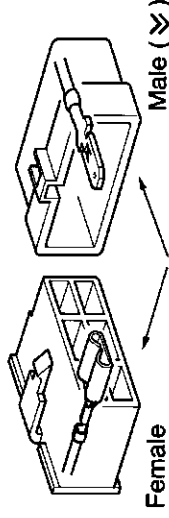
[F] : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts.

Example:



[G] : Indicates related system.

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



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

[J] : Indicates a shielded cable.



[K] : Indicates and located on ground point.

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



SYSTEM INDEX

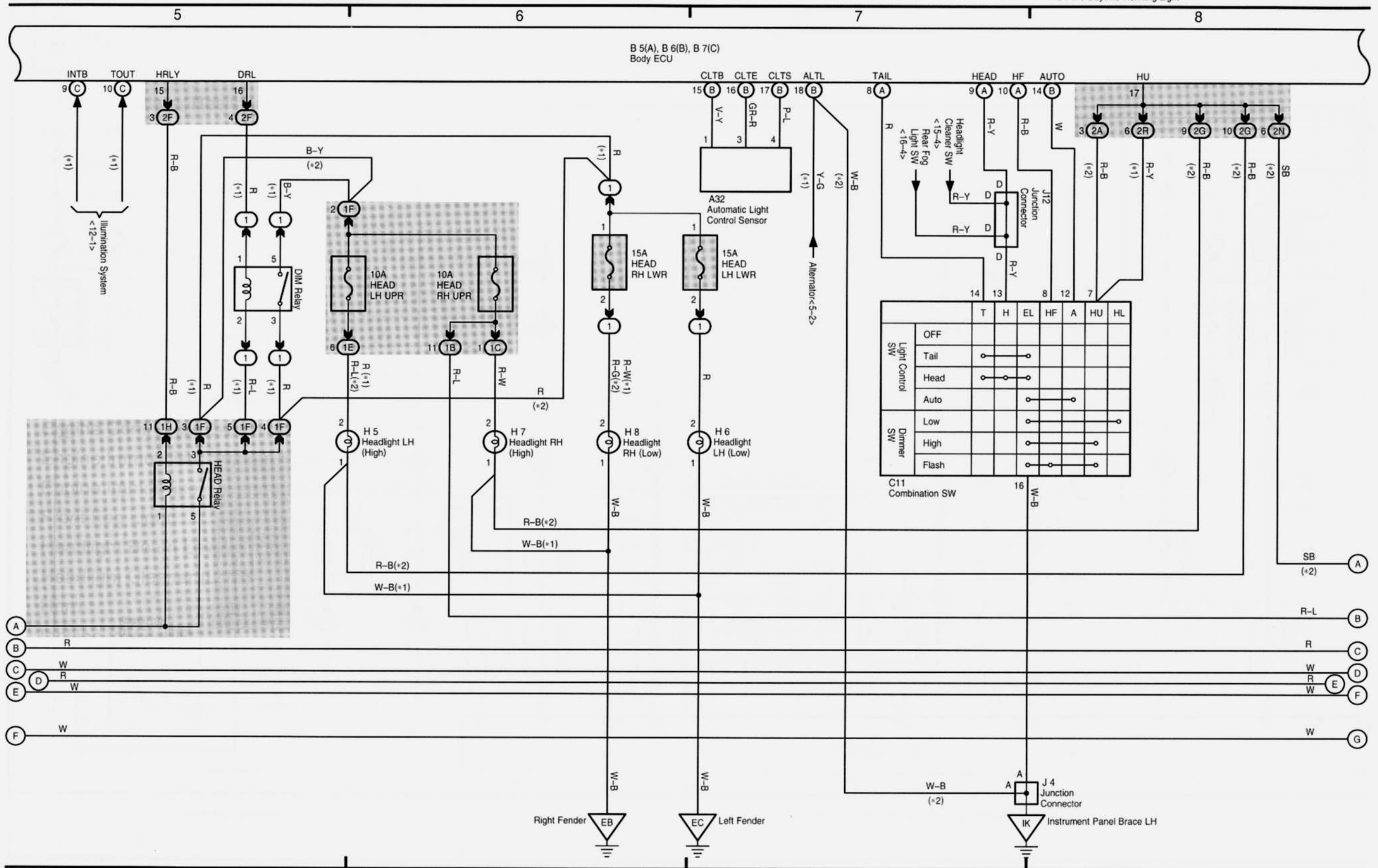
| SYSTEMS                                          | LOCATION | SYSTEMS                                               | LOCATION |
|--------------------------------------------------|----------|-------------------------------------------------------|----------|
| ABS .....                                        | 18-2     | * Double Locking                                      |          |
| Auto Antenna .....                               | 31-3     | * Headlight                                           |          |
| Automatic Air Conditioner .....                  | 34-3     | * Interior Light                                      |          |
| Automatic Glare-Resistant EC Mirror .....        | 25-3     | * Key Reminder                                        |          |
| Back-Up Light .....                              | 14-2     | * Light Auto Turn Off                                 |          |
| Charging .....                                   | 5-2      | * Wireless Door Lock Control                          |          |
| Cigarette Lighter .....                          | 26-2     | Power Outlet .....                                    | 26-2     |
| Clock .....                                      | 28-3     | Power Seat .....                                      | 27-3     |
| Combination Meter .....                          | 32-3     | Power Source .....                                    | 1~34-1   |
| Cruise Control (1MZ-FE) .....                    | 6-14     | Power Window .....                                    | 22-3     |
| Cruise Control (2AZ-FE, 1AZ-FE) .....            | 7-10     | Radiator Fan and Condenser Fan .....                  | 33-2     |
| ECT and A/T Indicator (1MZ-FE) .....             | 8-2      | Radio and Player (w/ TOYOTA Navigation System) .....  | 29-3     |
| ECT and A/T Indicator (2AZ-FE, 1AZ-FE) .....     | 9-2      | Radio and Player (w/o TOYOTA Navigation System) ..... | 30-3     |
| Engine Control (1MZ-FE) .....                    | 6-5      | Rear Fog Light .....                                  | 16-3     |
| Engine Control (2AZ-FE, 1AZ-FE) .....            | 7-4      | Rear Window Defogger .....                            | 24-3     |
| Engine Immobiliser System (1MZ-FE) .....         | 6-3      | Remote Control Mirror .....                           | 23-3     |
| Engine Immobiliser System (2AZ-FE, 1AZ-FE) ..... | 7-2      | Seat Belt Warning .....                               | 21-3     |
| Front Fog Light .....                            | 16-2     | Seat Heater .....                                     | 26-4     |
| Headlight Beam Level Control .....               | 14-4     | Shift Lock .....                                      | 26-3     |
| Headlight Cleaner (LHD) .....                    | 15-2     | SRS .....                                             | 19-3     |
| Horn .....                                       | 21-4     | Starting (1MZ-FE) .....                               | 3-2      |
| Ignition (1MZ-FE) .....                          | 3-2      | Starting (2AZ-FE, 1AZ-FE) .....                       | 4-2      |
| Ignition (2AZ-FE, 1AZ-FE) .....                  | 4-2      | Stop Light (LHD) .....                                | 10-3     |
| Illumination .....                               | 12-2     | Stop Light (RHD) .....                                | 11-5     |
| Mirror Heater .....                              | 24-4     | Taillight (LHD) .....                                 | 10-2     |
| Moon Roof .....                                  | 25-4     | Taillight (RHD) .....                                 | 11-3     |
| Multiplex Communication System (LHD) .....       | 1-2      | TOYOTA Navigation System .....                        | 29-3     |
| Multiplex Communication System (RHD) .....       | 2-2      | Turn Signal and Hazard Warning Light .....            | 13-2     |
| * Automatic Light Control                        |          | VSC .....                                             | 17-2     |
| * Door Lock Control                              |          | Wiper and Washer .....                                | 20-3     |





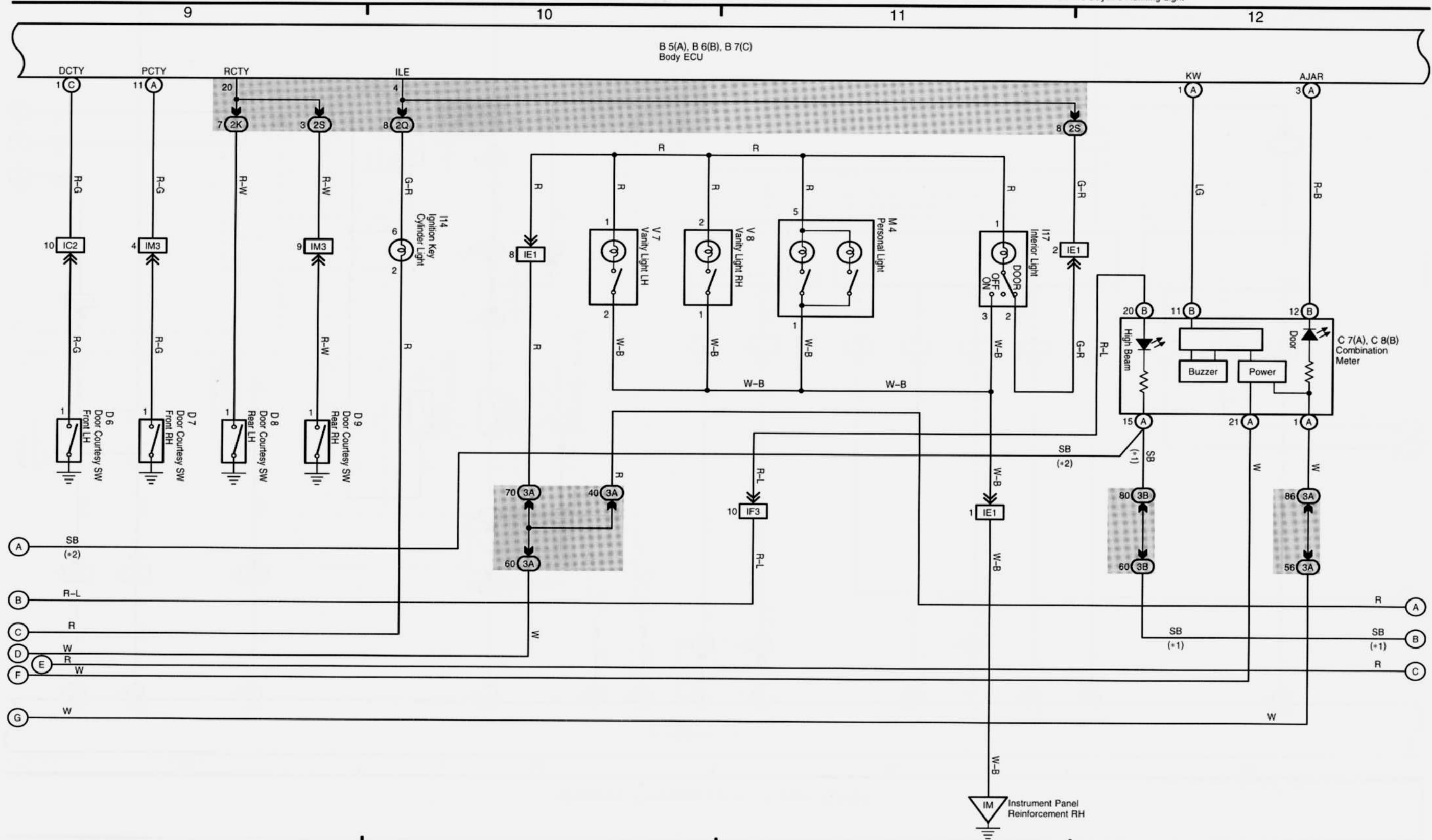
## Multiplex Communication System (LHD)

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

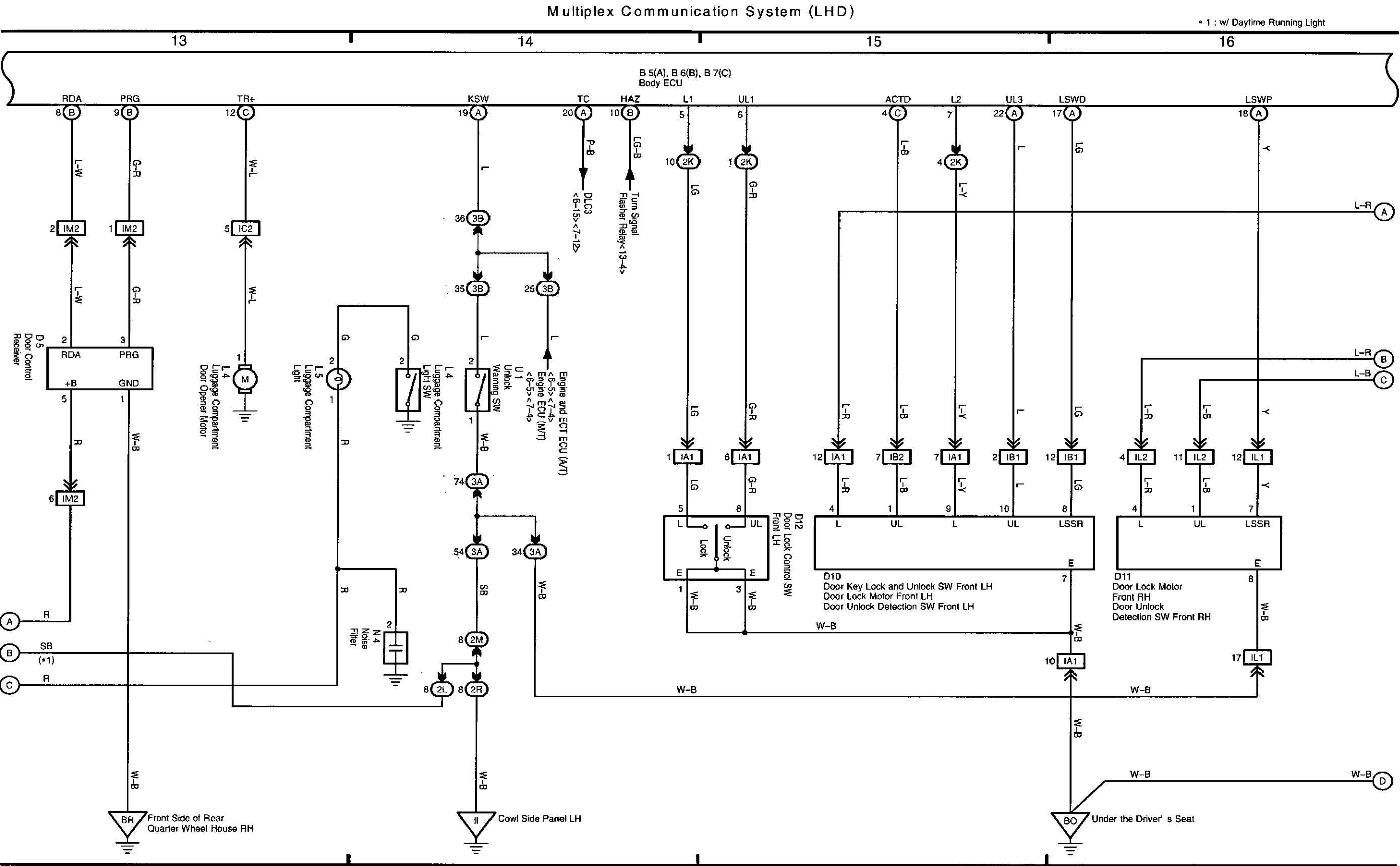


## Multiplex Communication System (LHD)

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

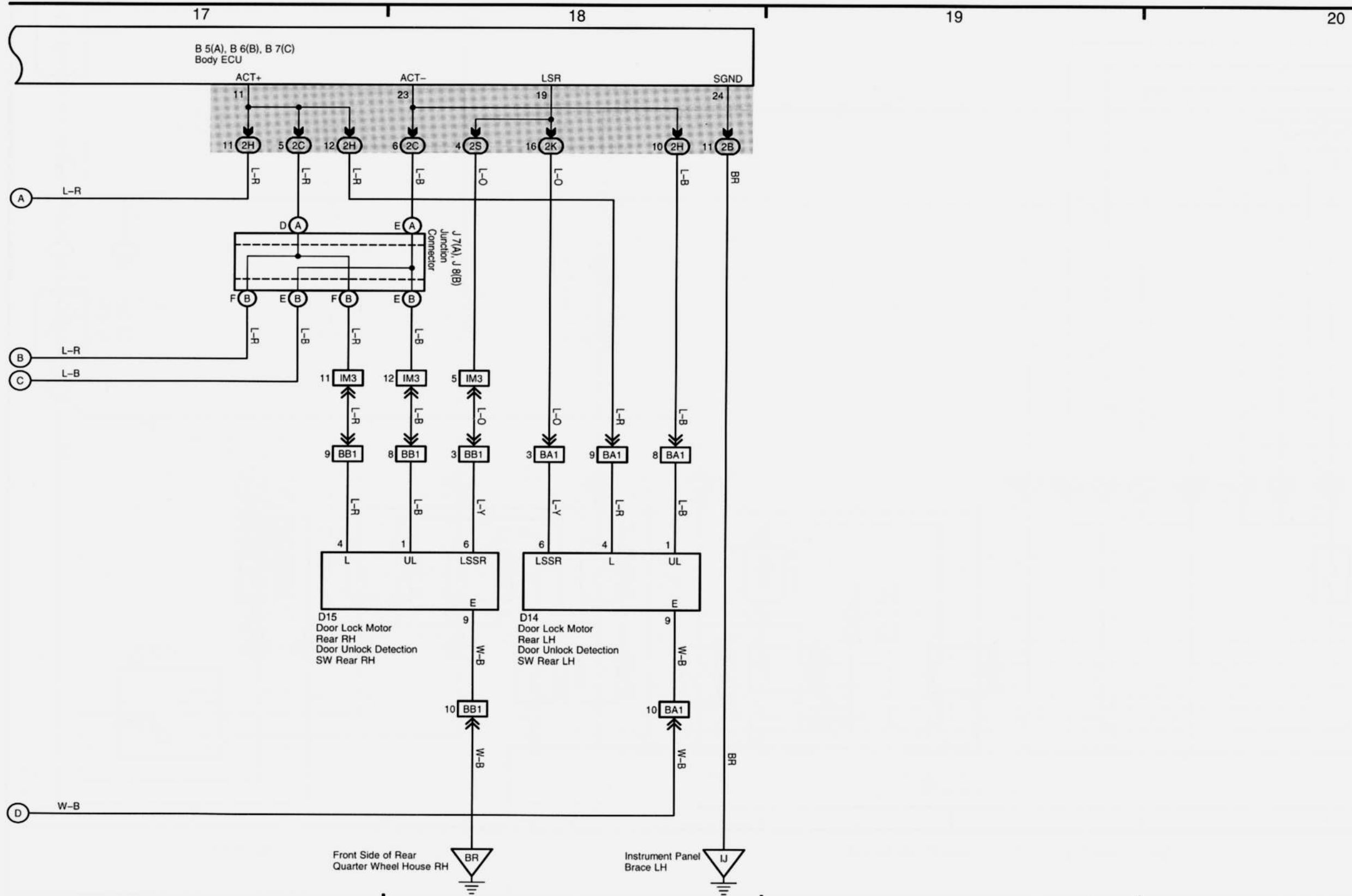






# 1 CAMRY (Cont' d)

## Multiplex Communication System (LHD)





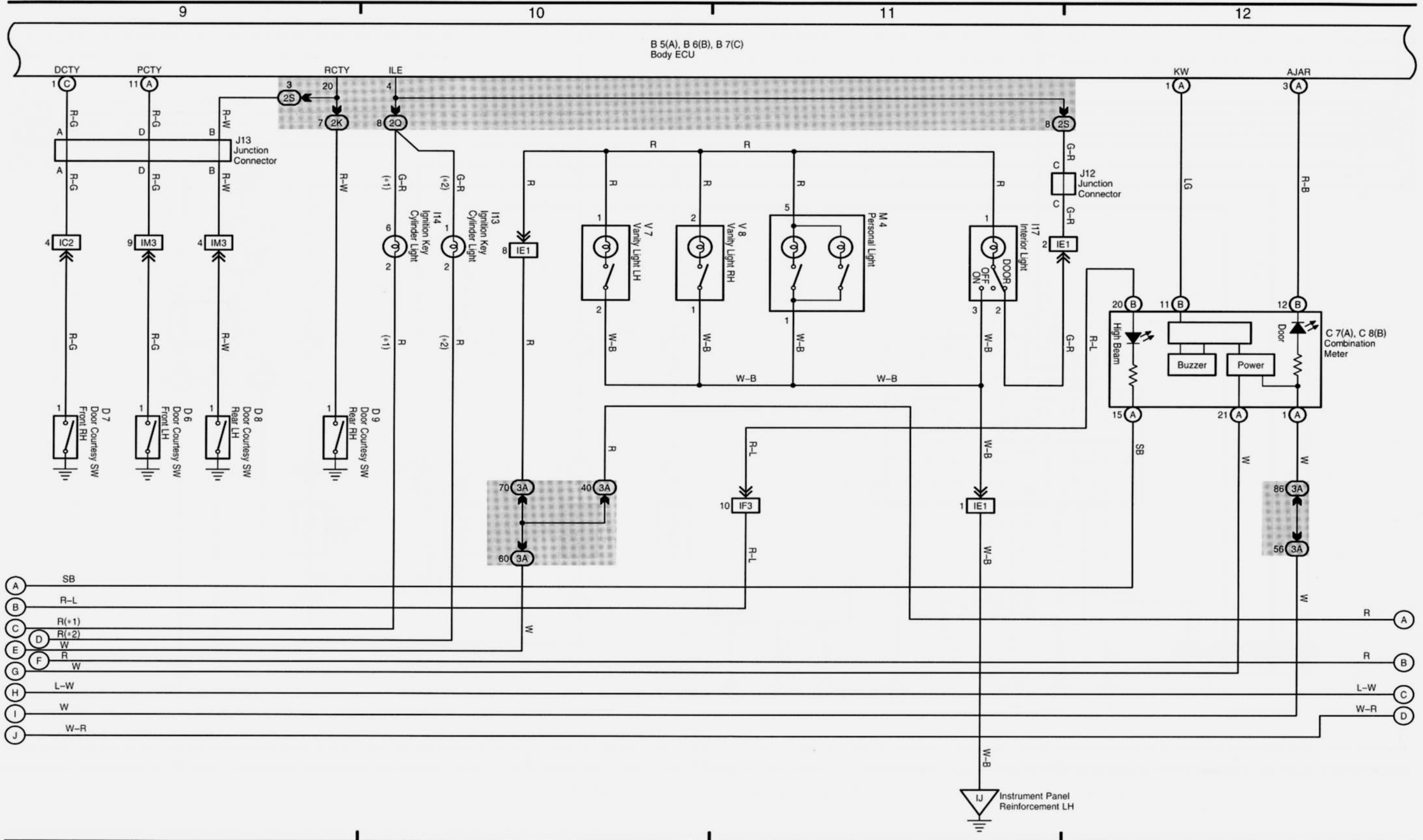
[illegible]





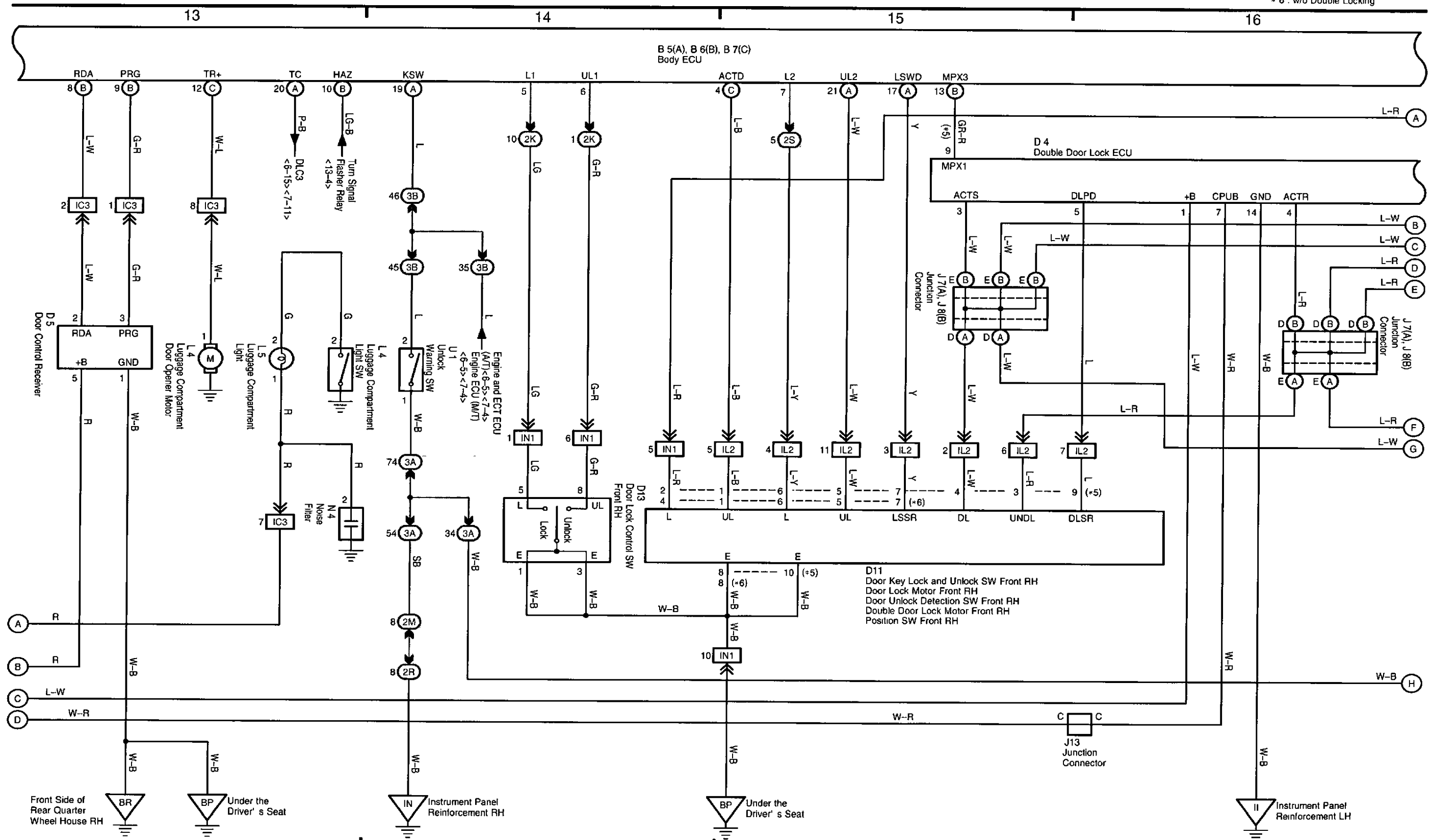
## Multiplex Communication System (RHD)

- \* 1 : w/ Engine Immobiliser System
- \* 2 : w/o Engine Immobiliser System

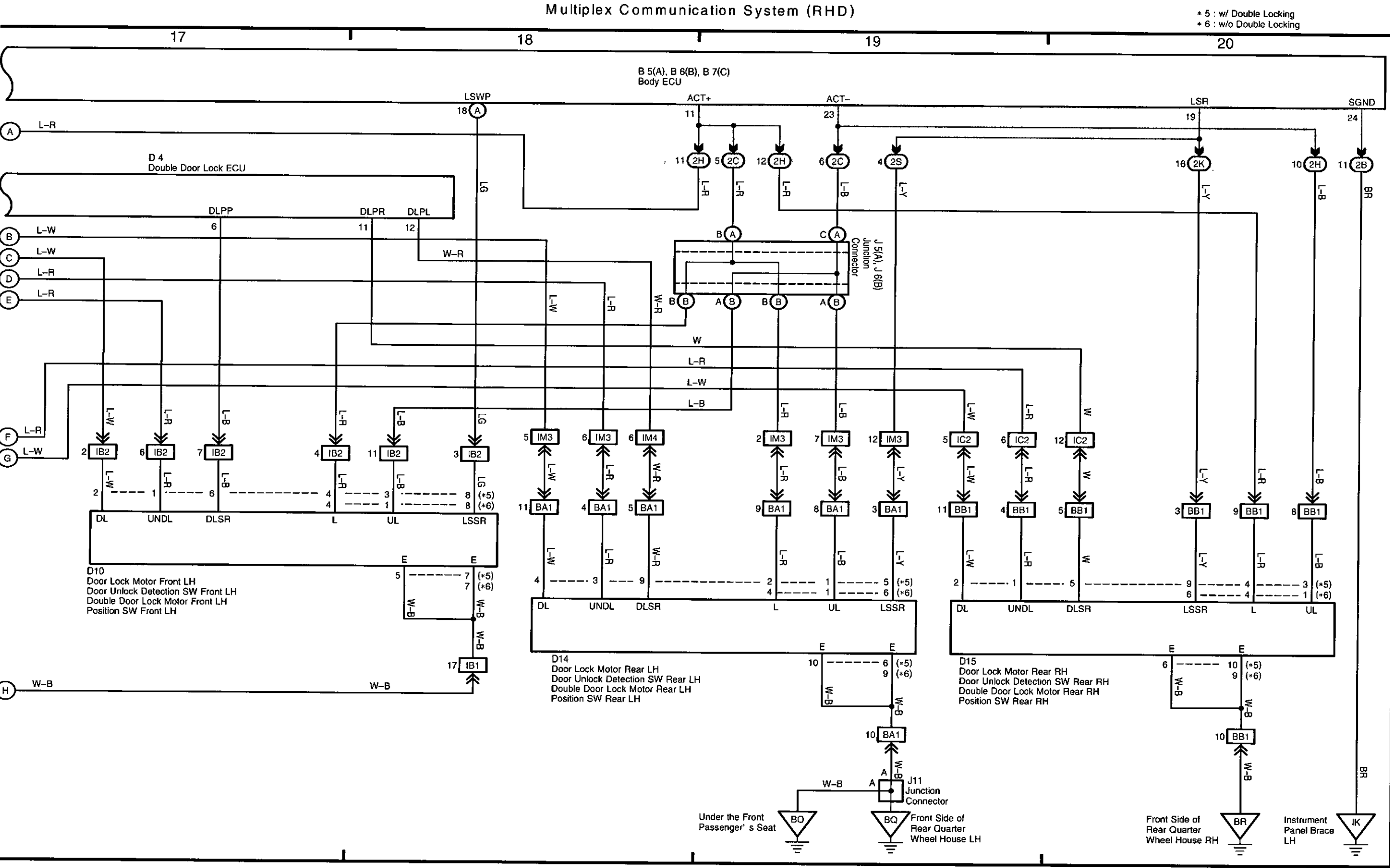


### Multiplex Communication System (RHD)

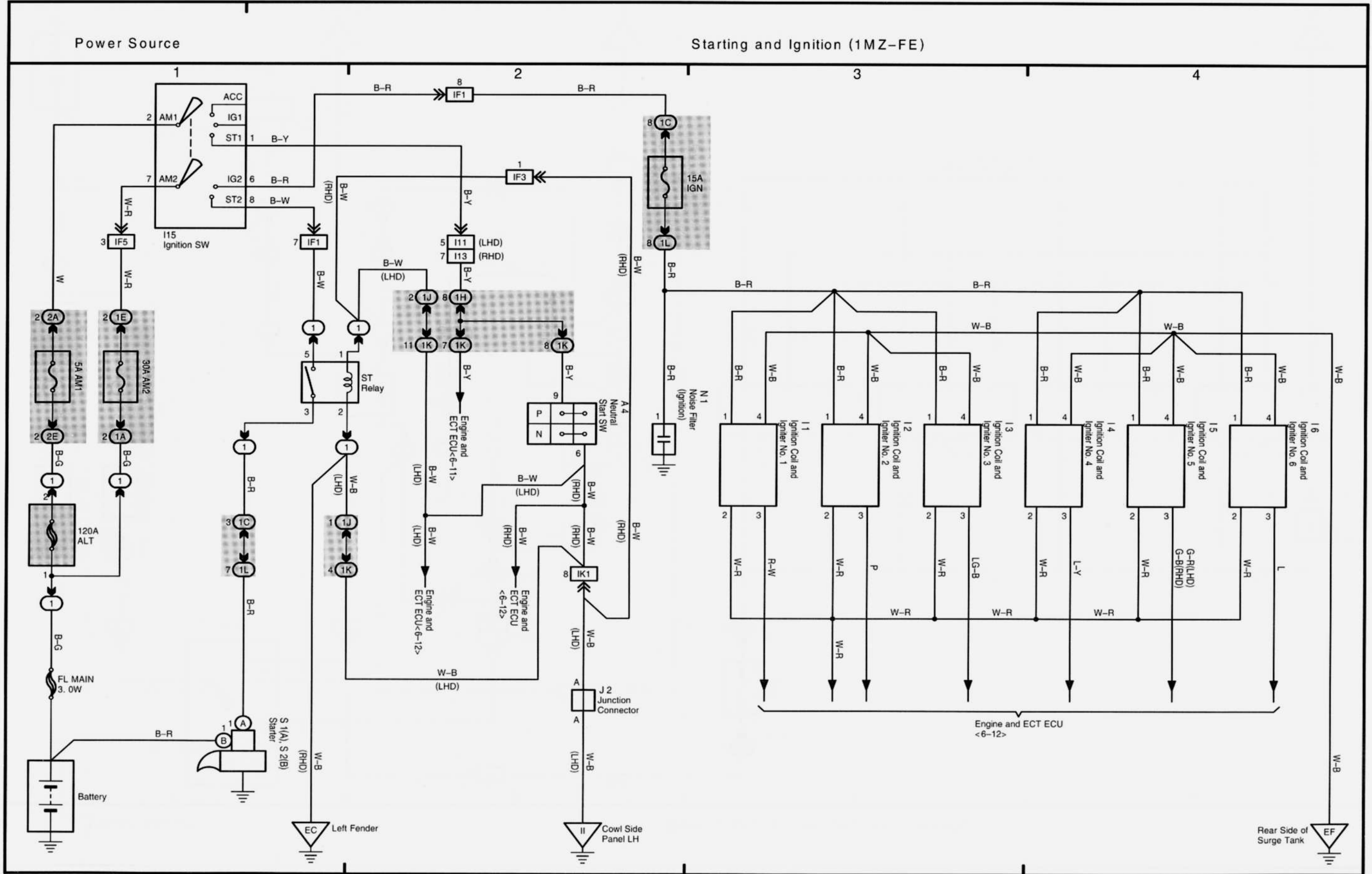
- \* 5 : w/ Double Locking
- \* 6 : w/o Double Locking





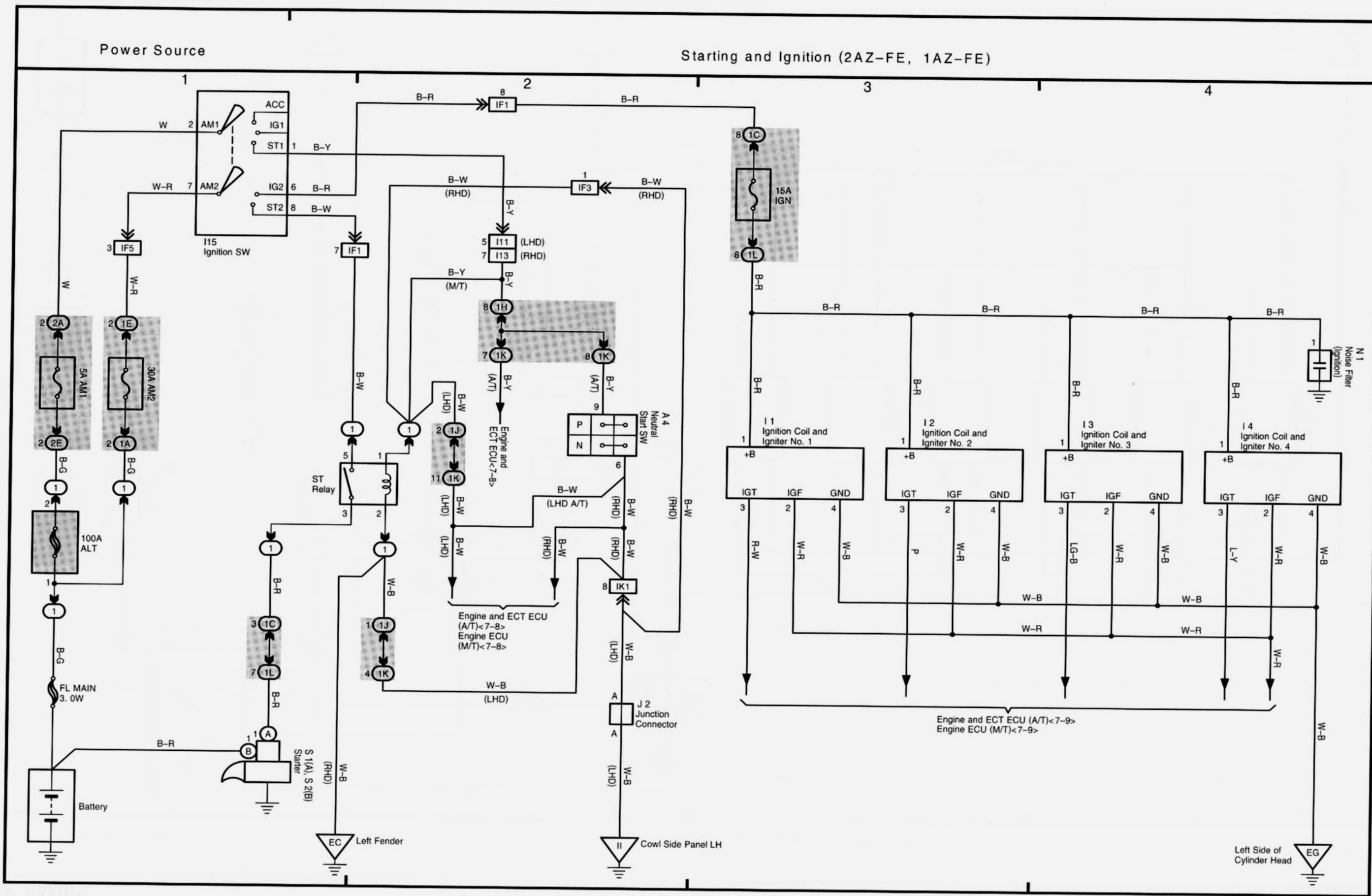


### 3 CAMRY



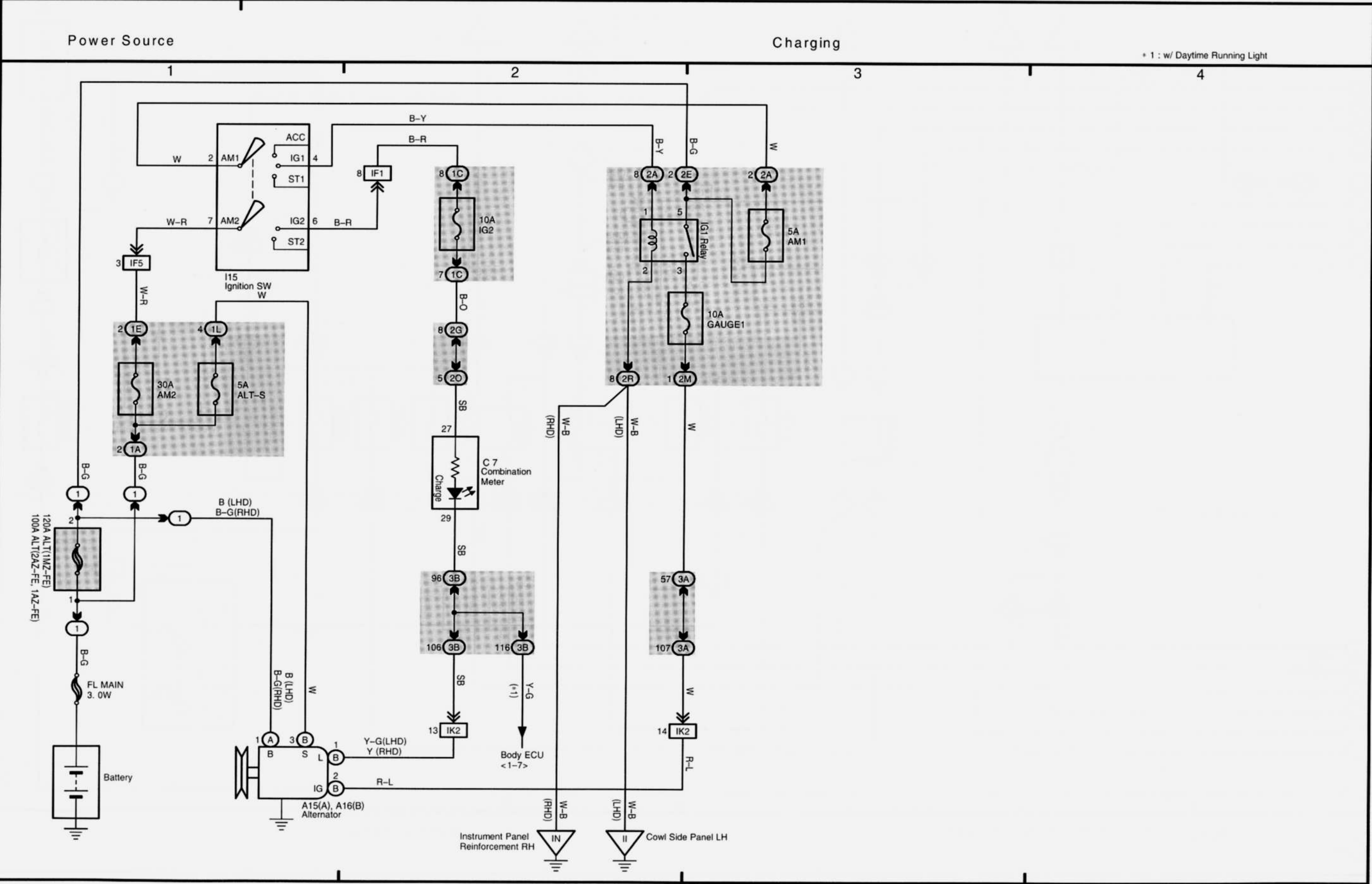


## 4 CAMRY

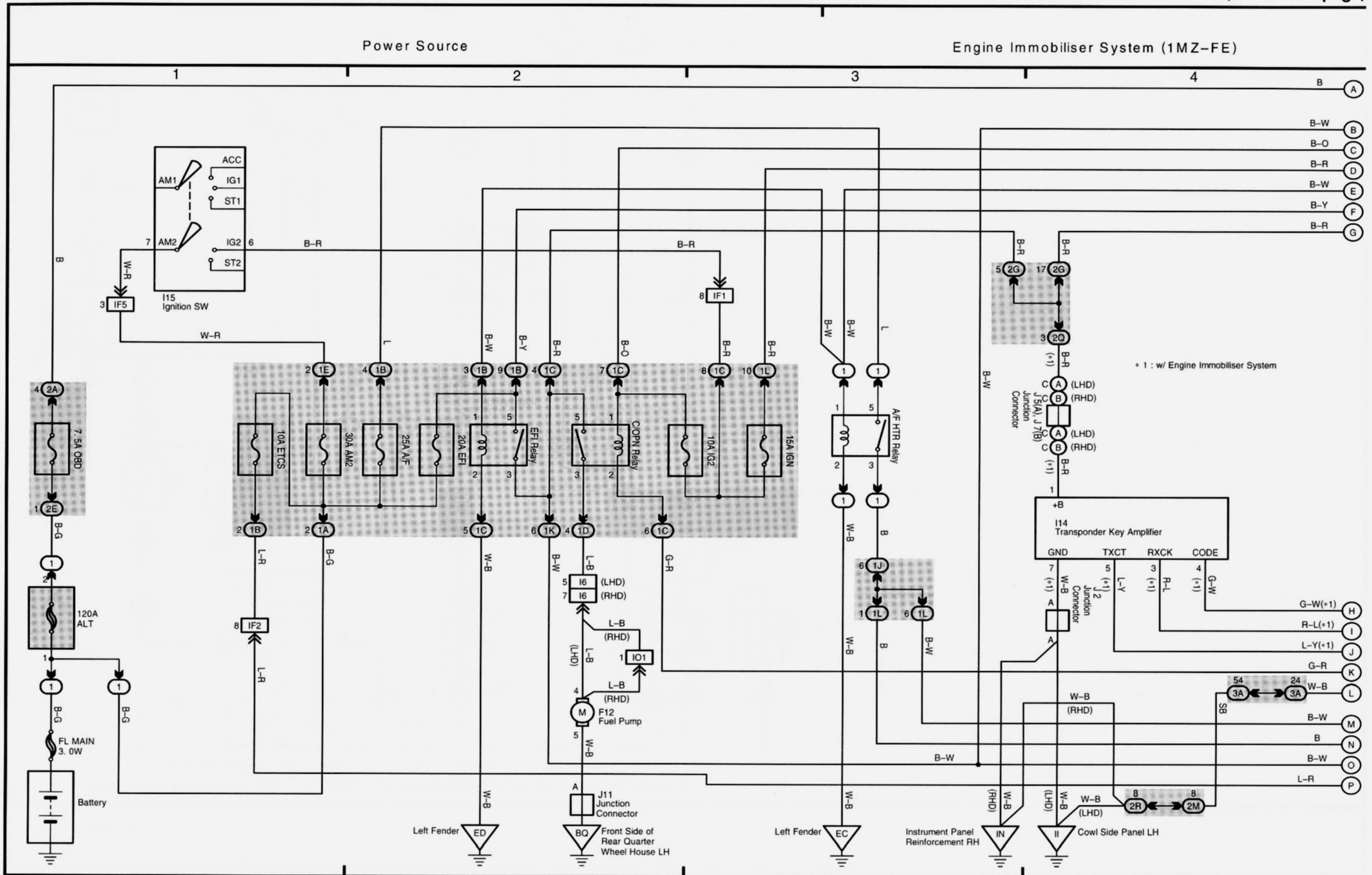


## **M OVERALL ELECTRICAL WIRING DIAGRAM**

5 CAMRY

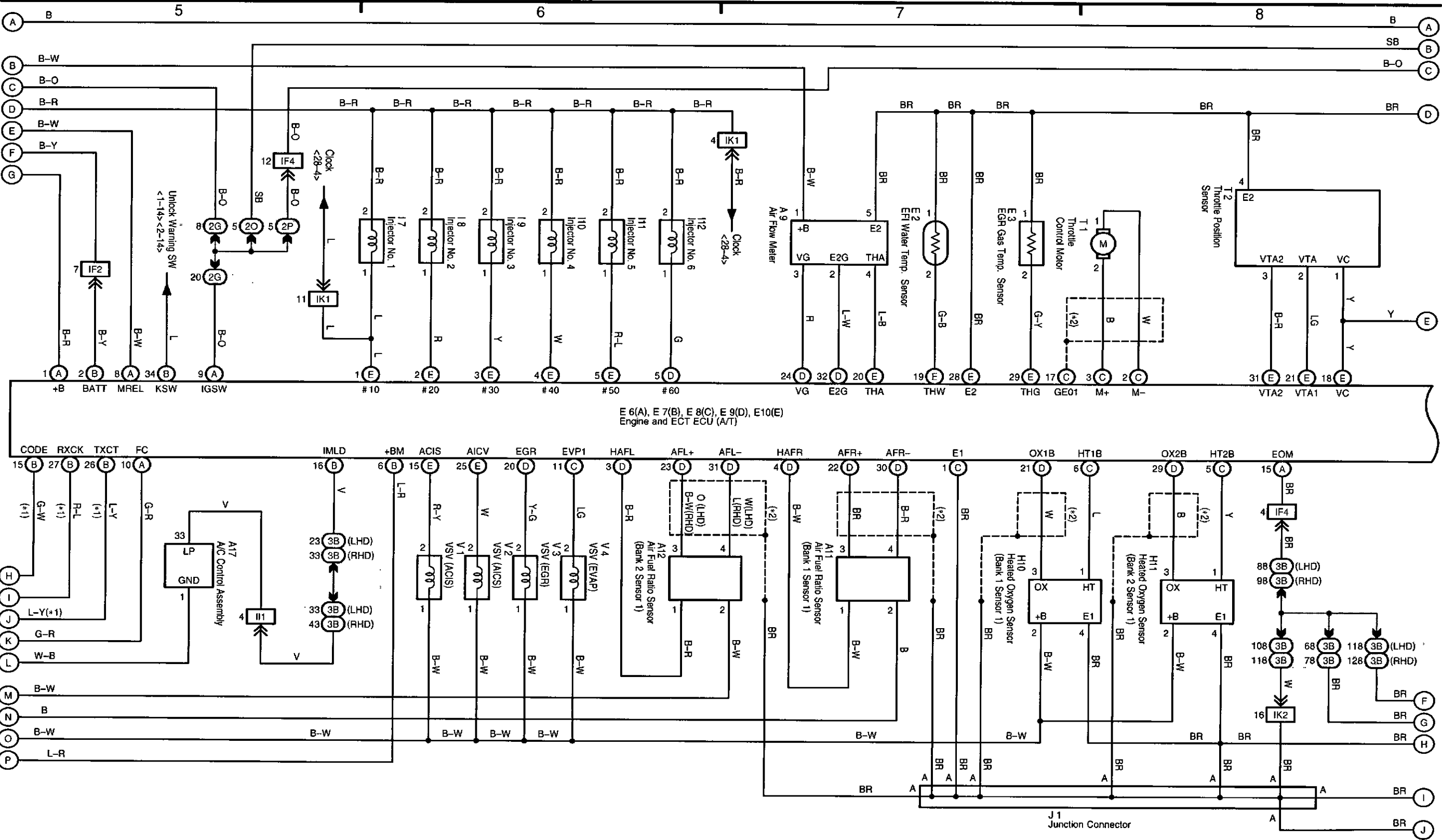






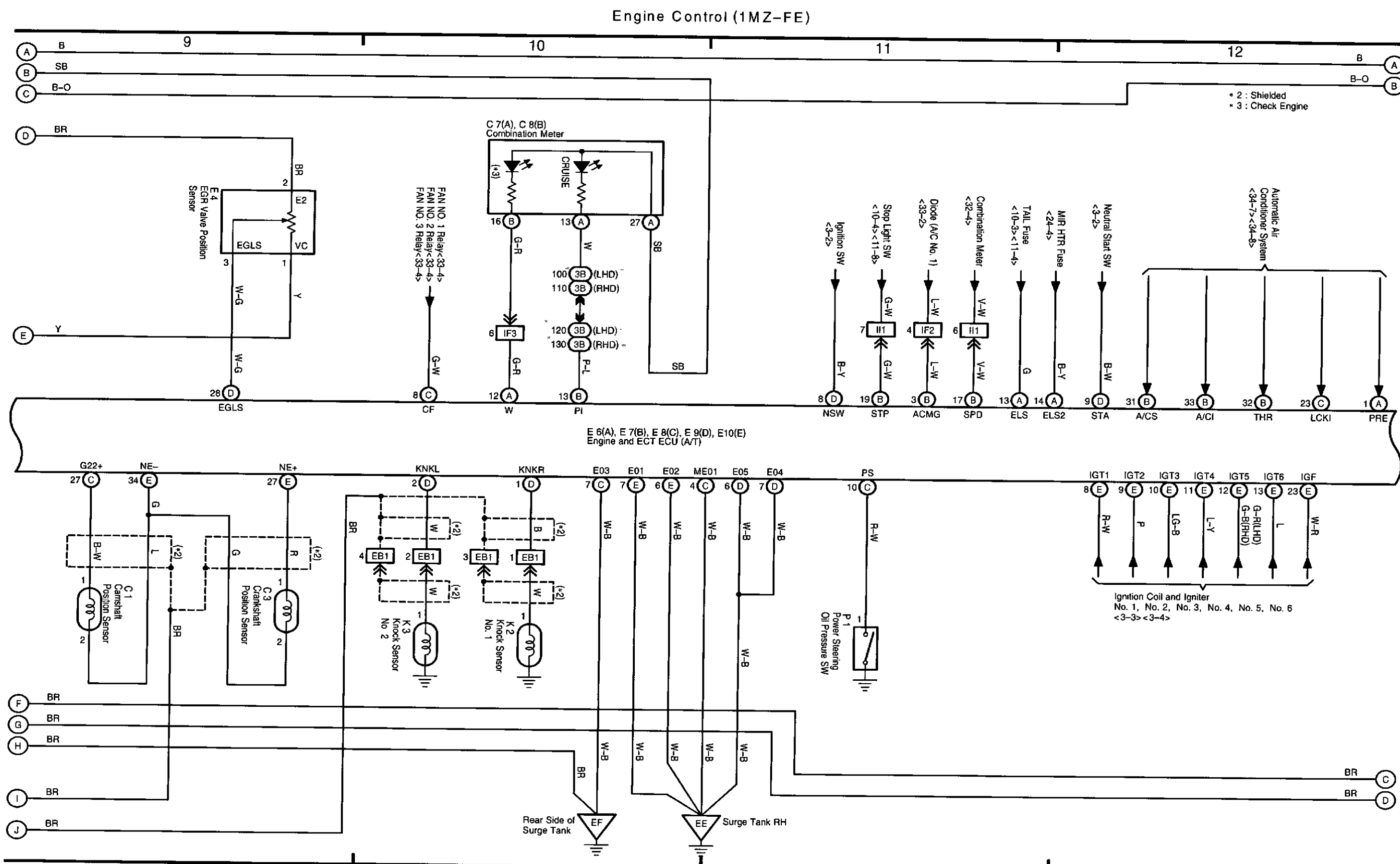
Engine Control (1MZ-FE)

\* 1 : w/ Engine Immobiliser System  
\* 2 : Shielded



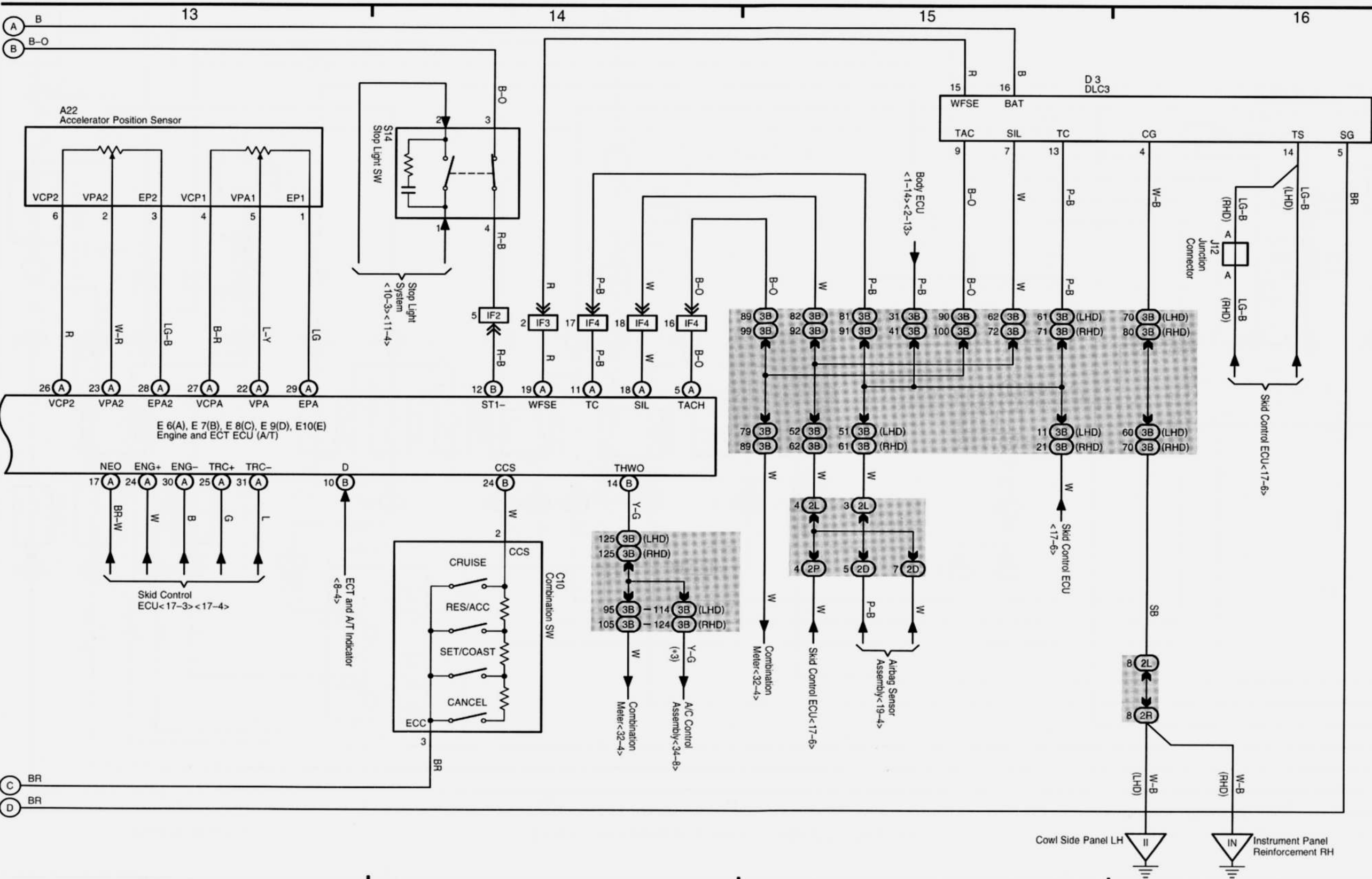


## OVERALL ELECTRICAL WIRING DIAGRAM



6 CAMRY (Cont' d)

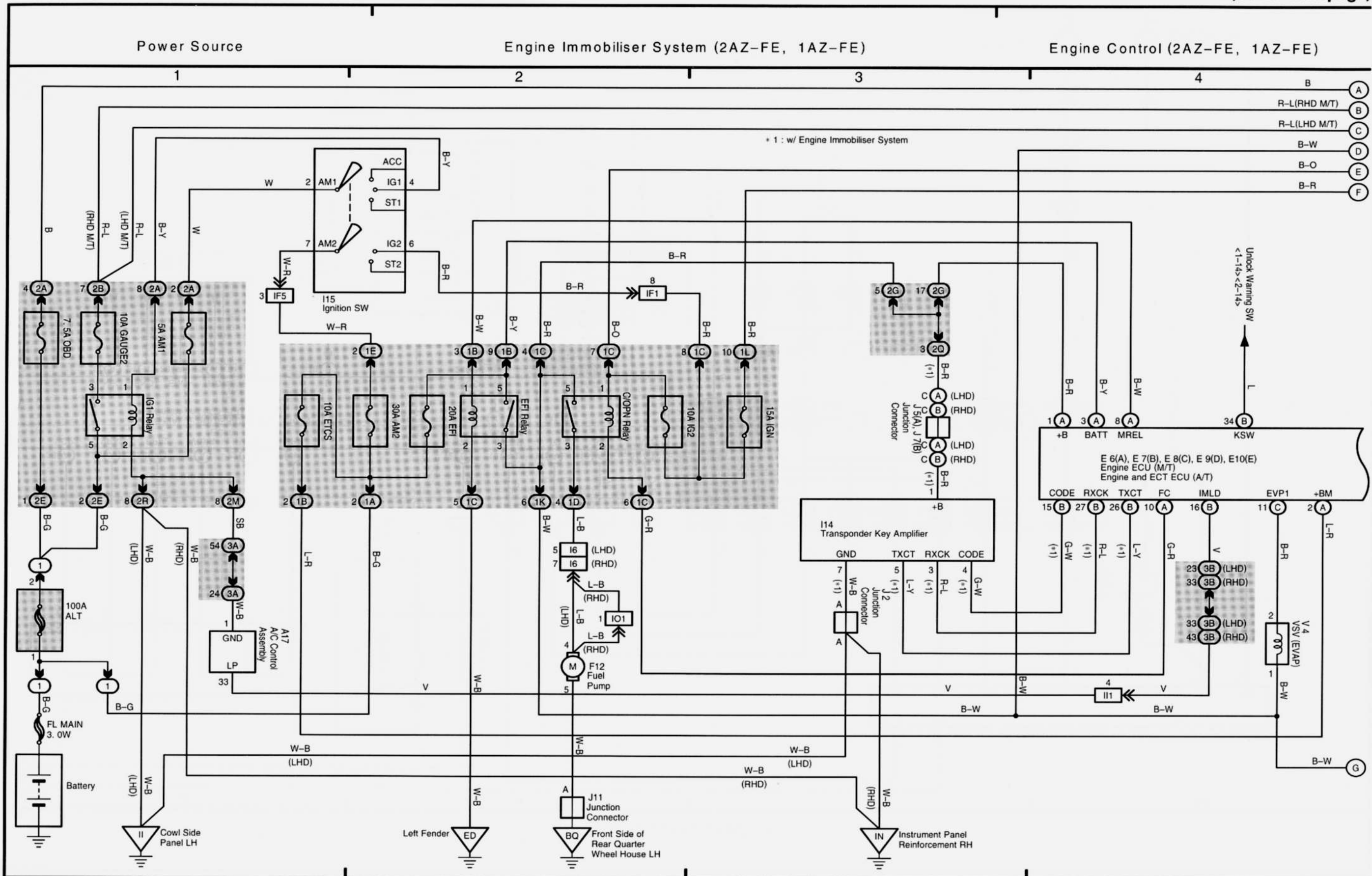
Cruise Control (1MZ-FE)



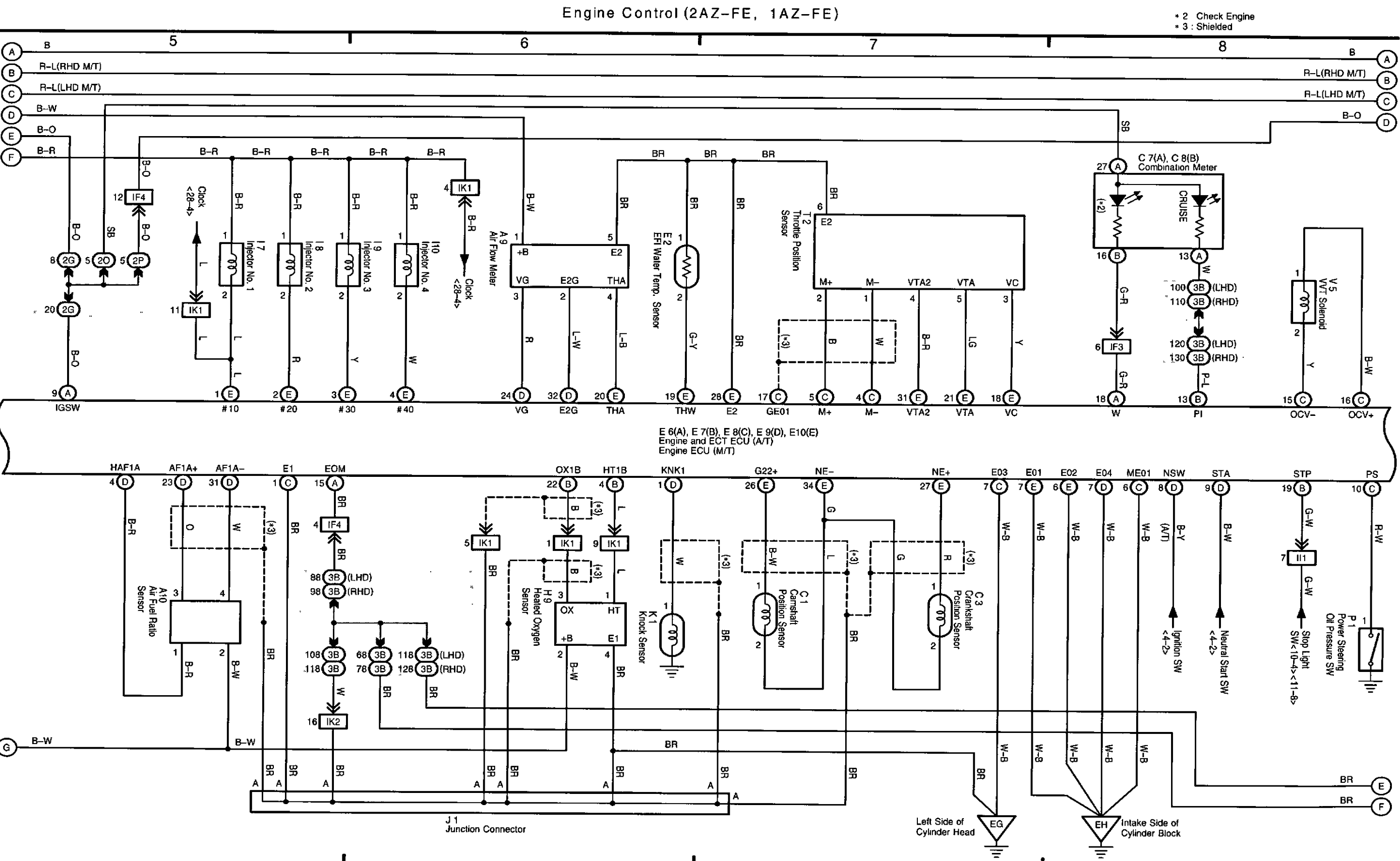




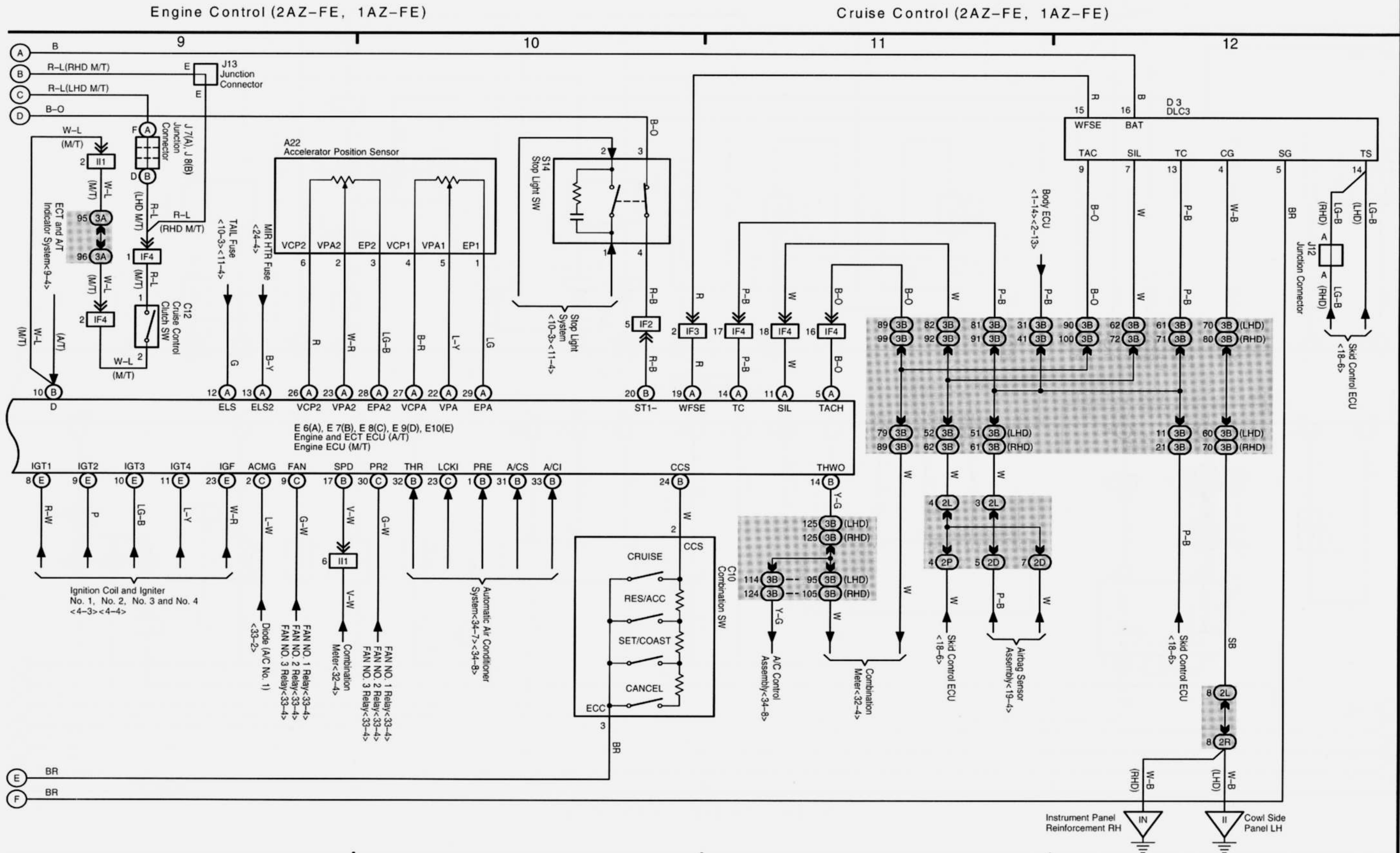
## OVERALL ELECTRICAL WIRING DIAGRAM





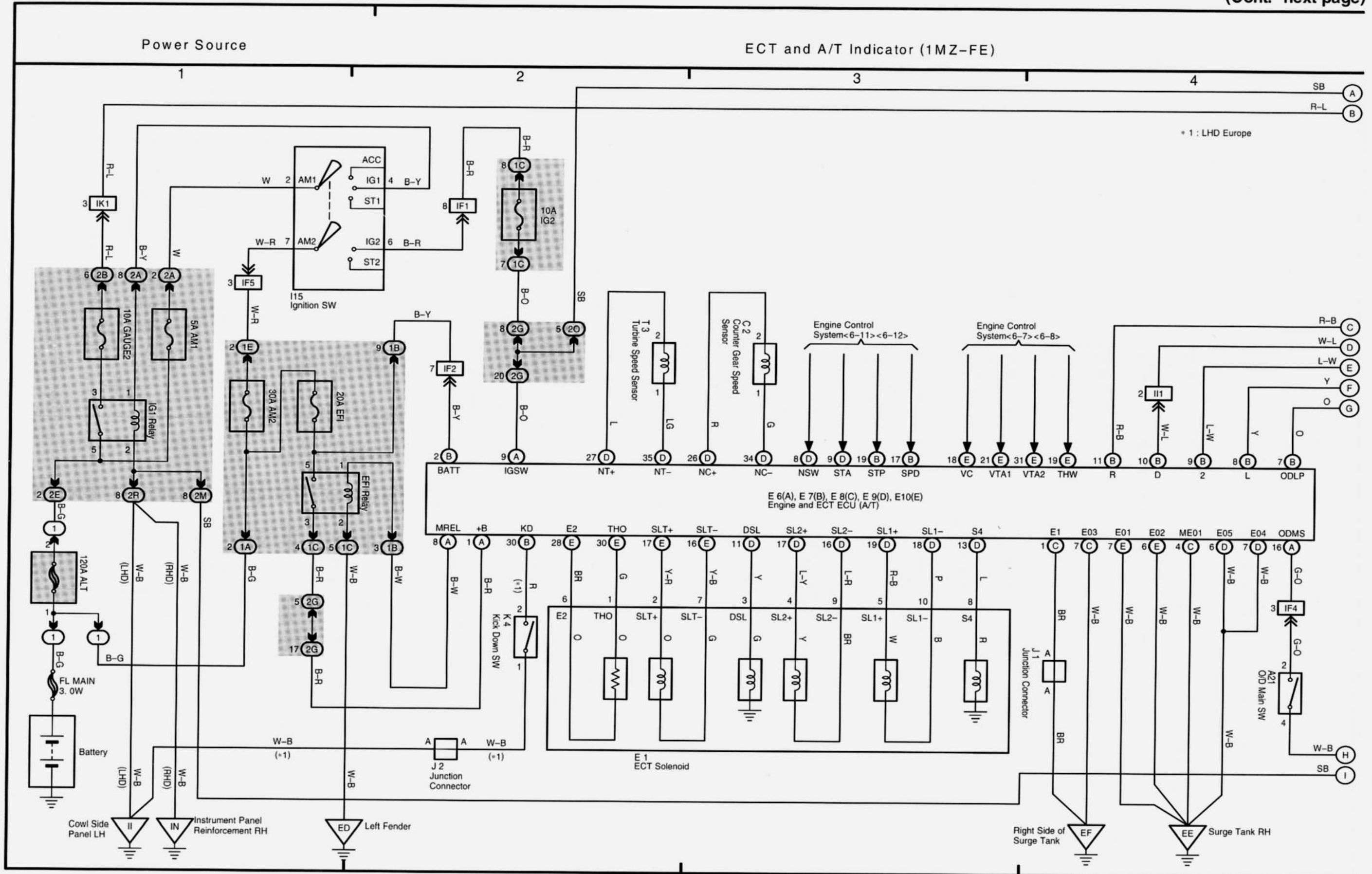


# 7 CAMRY (Cont' d)



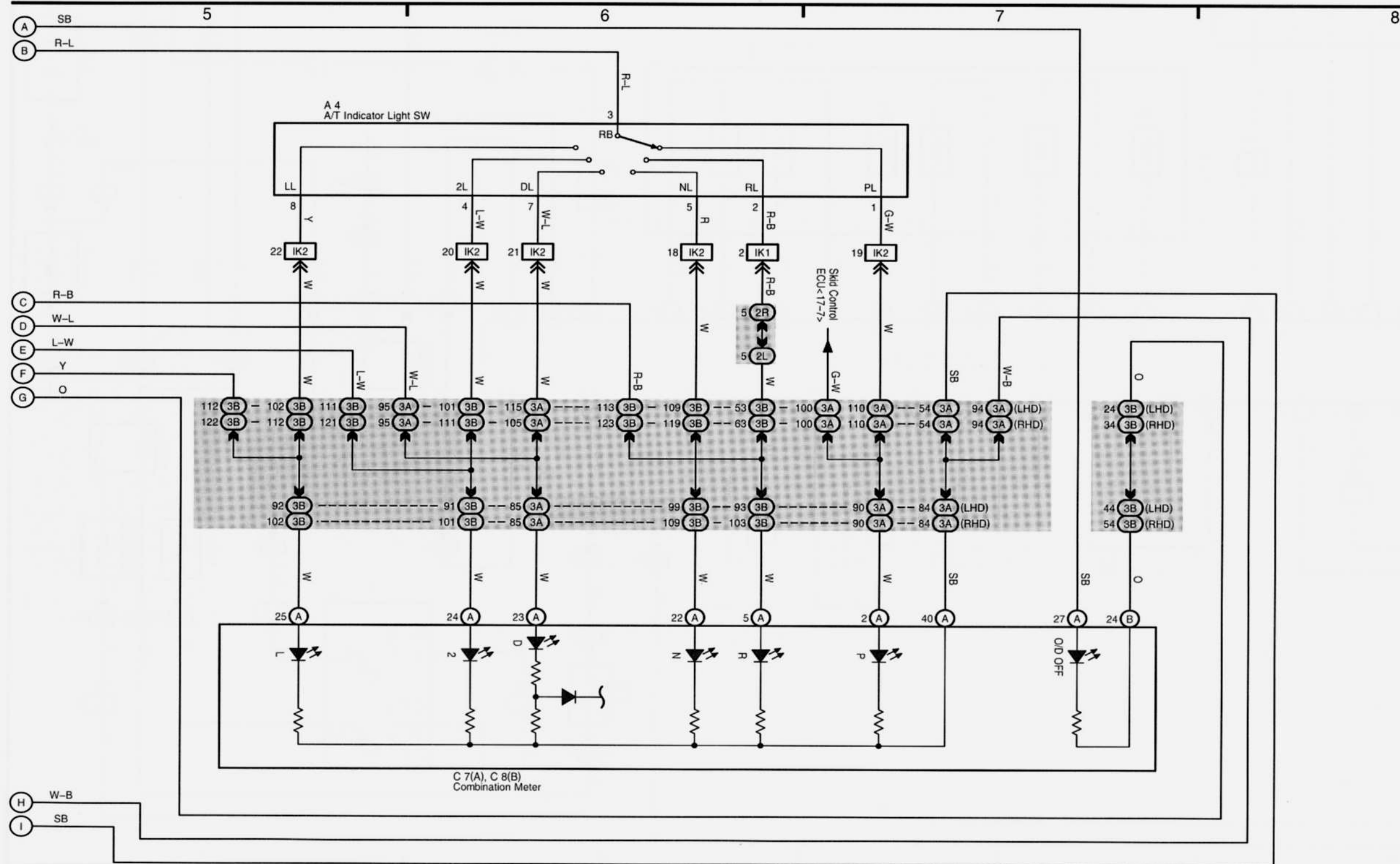
## OVERALL ELECTRICAL WIRING DIAGRAM





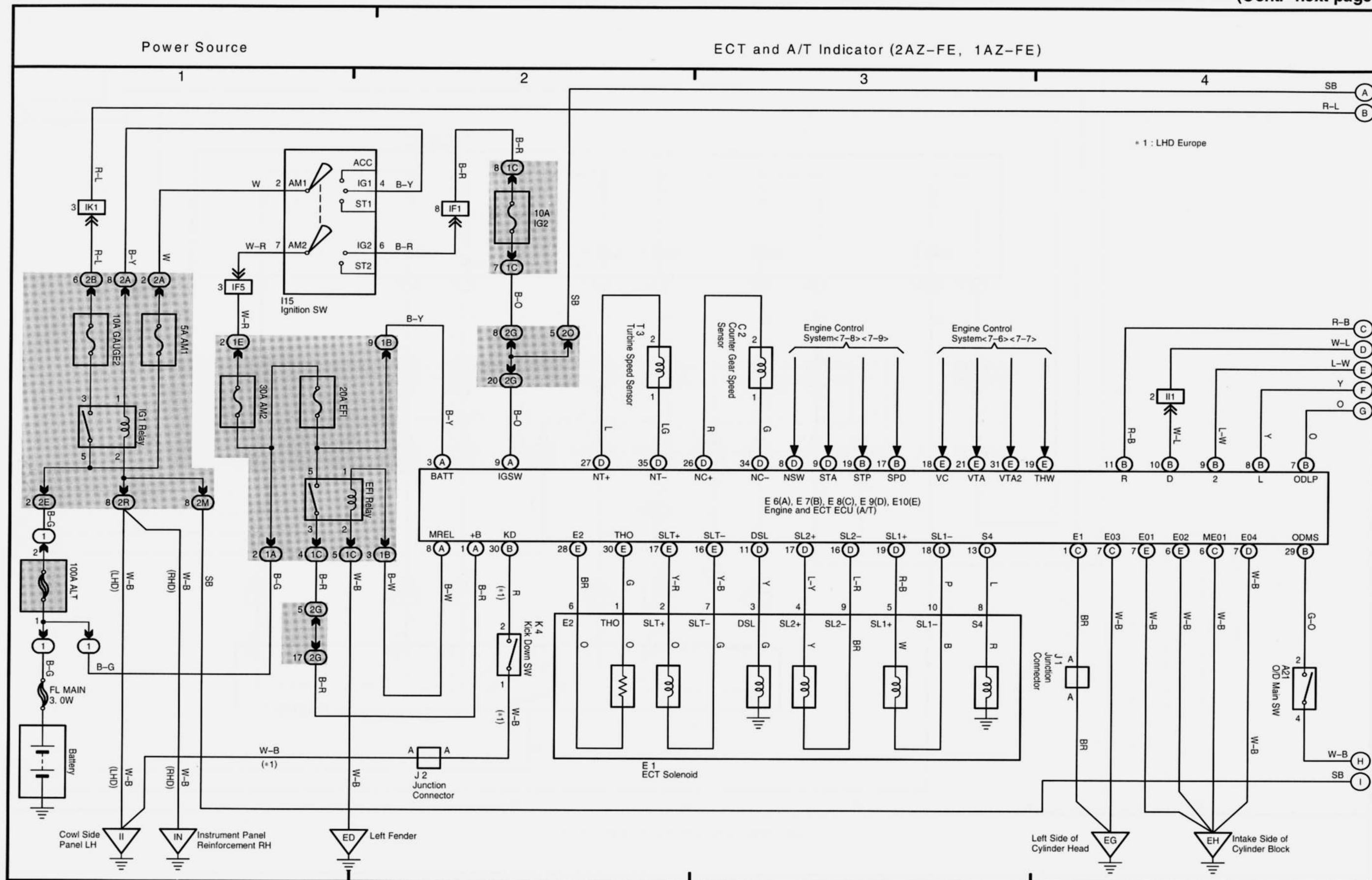
# 8 CAMRY (Cont' d)

## ECT and A/T Indicator (1MZ-FE)



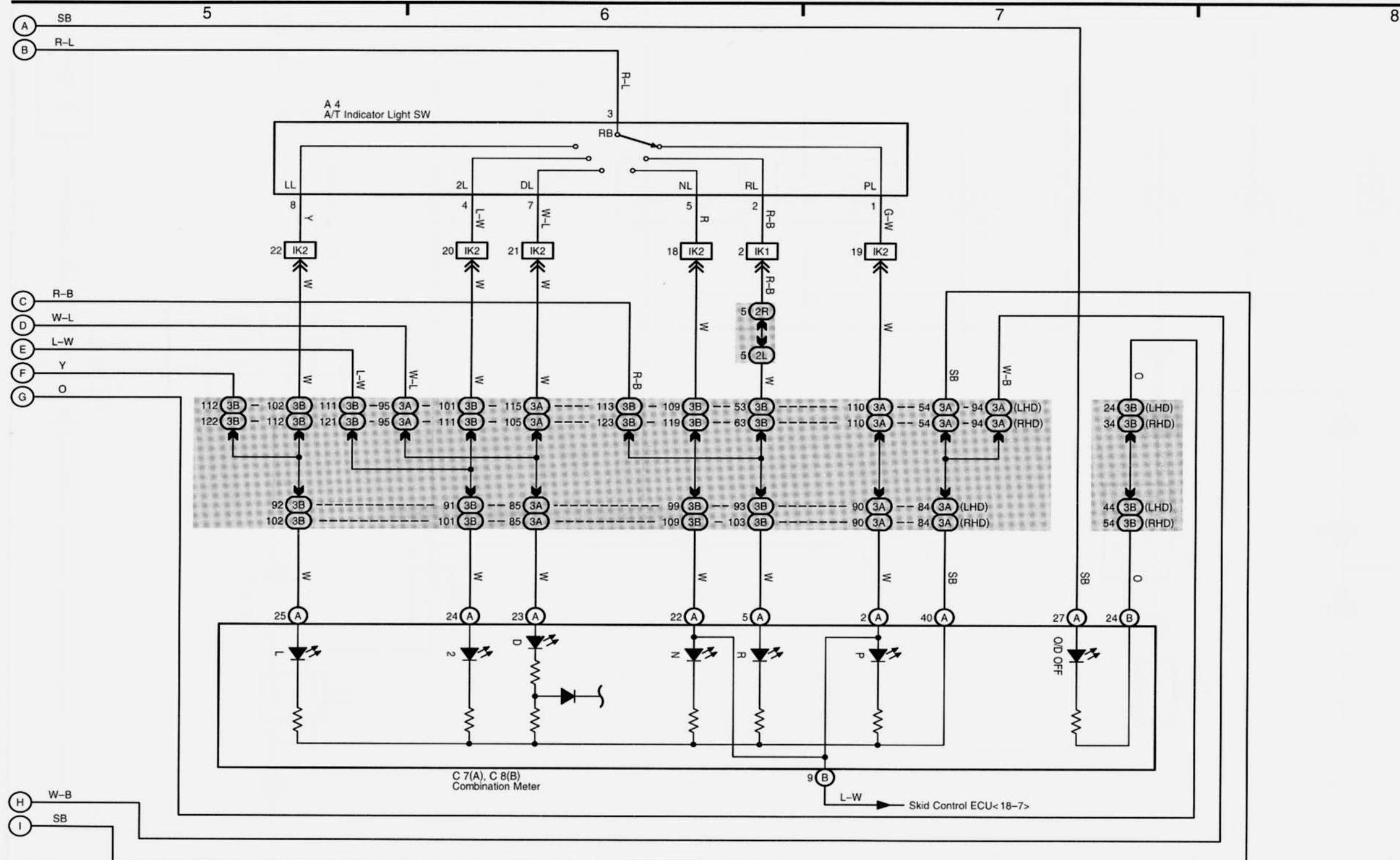


## OVERALL ELECTRICAL WIRING DIAGRAM



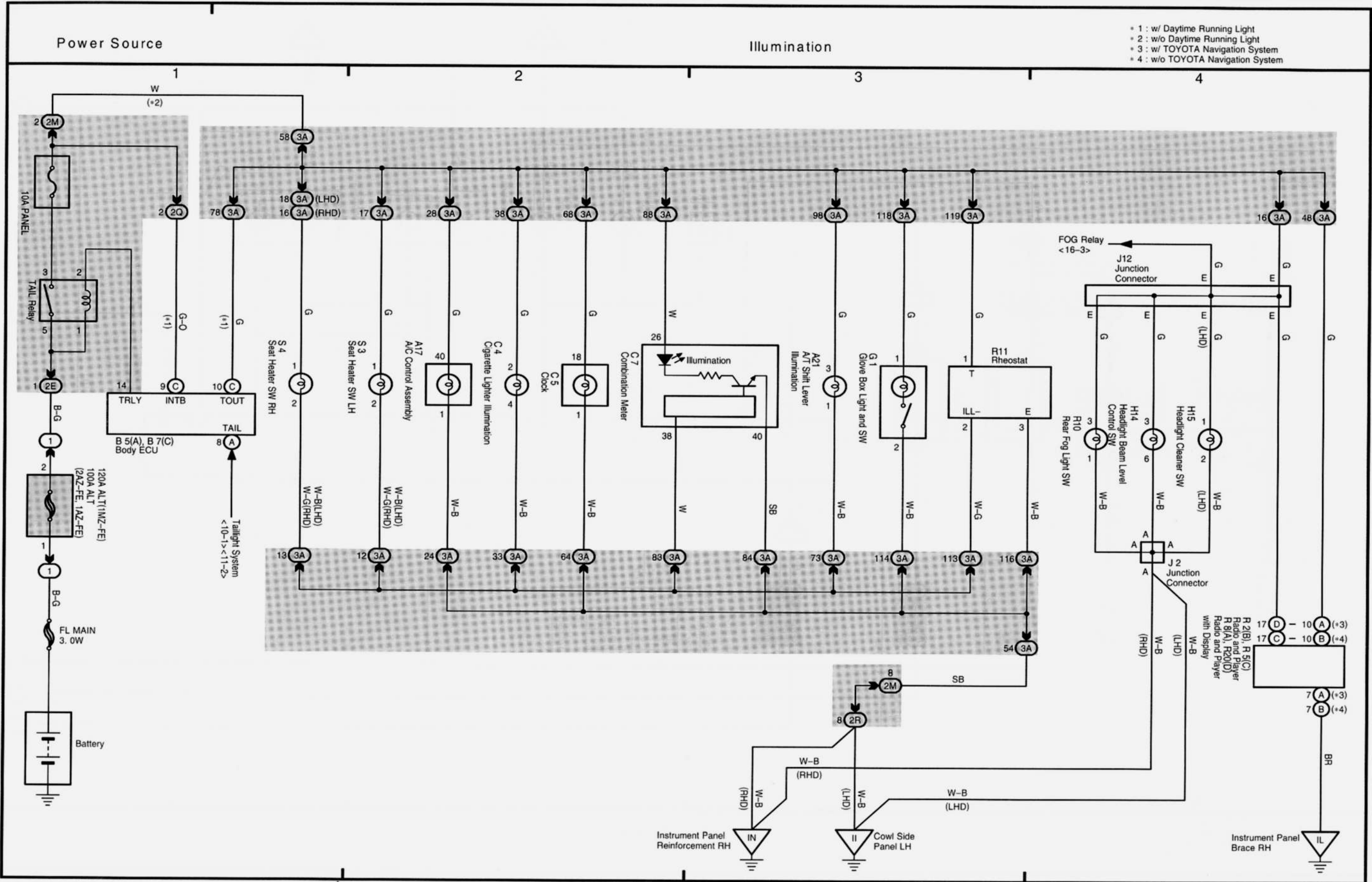
# 9 CAMRY (Cont' d)

## ECT and A/T Indicator (2AZ-FE, 1AZ-FE)





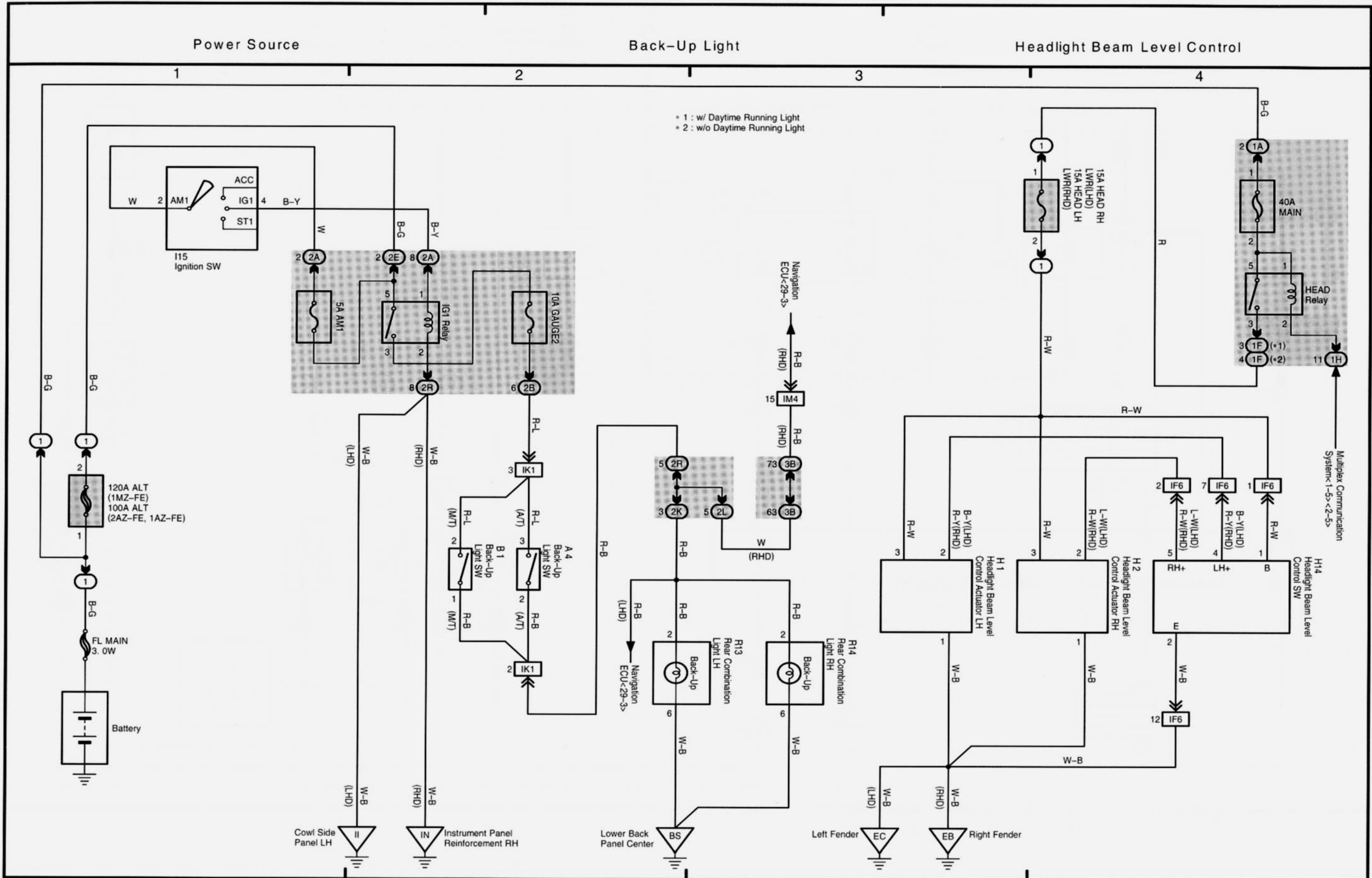
## 12 CAMRY

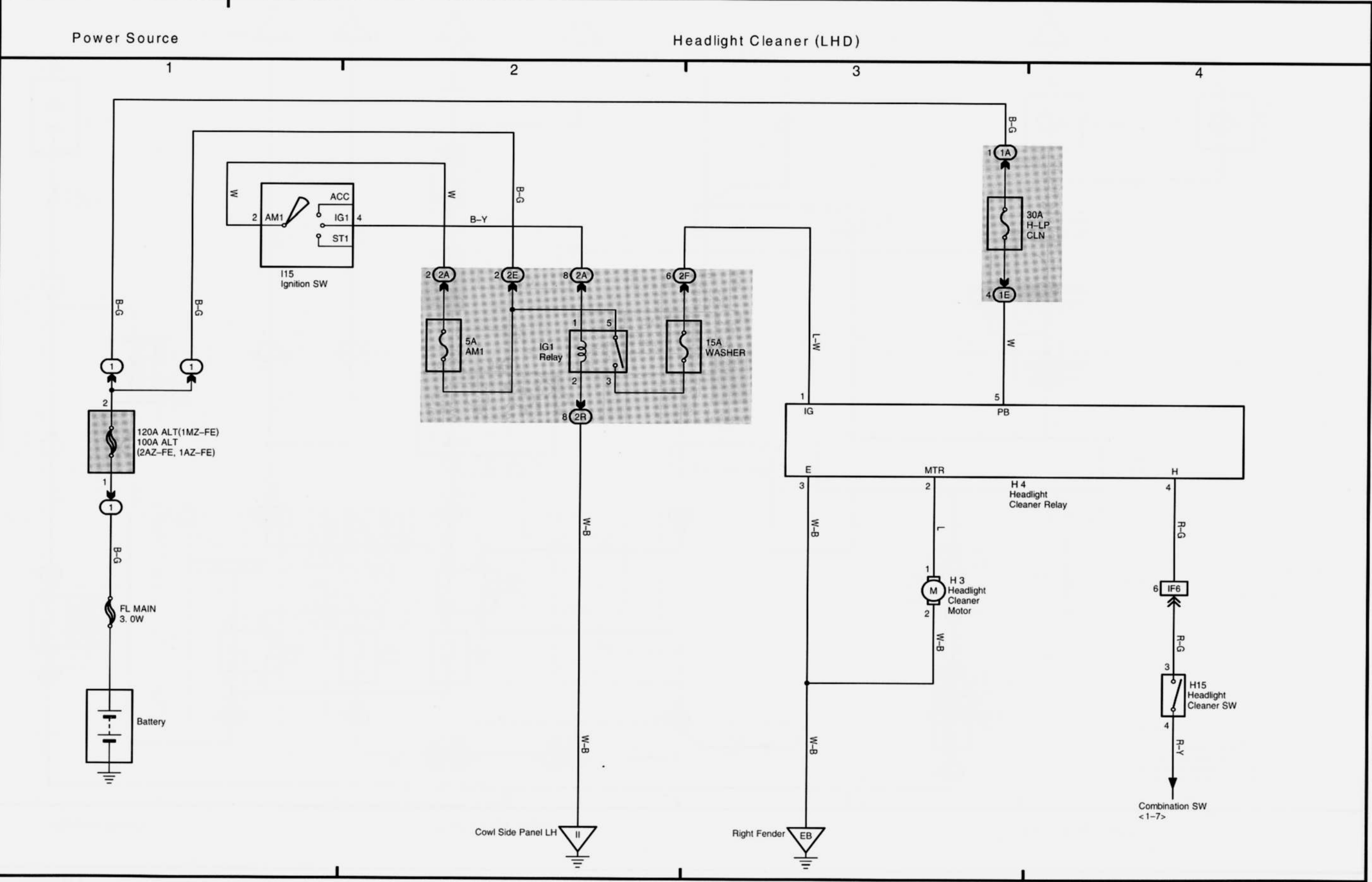


## OVERALL ELECTRICAL WIRING DIAGRAM



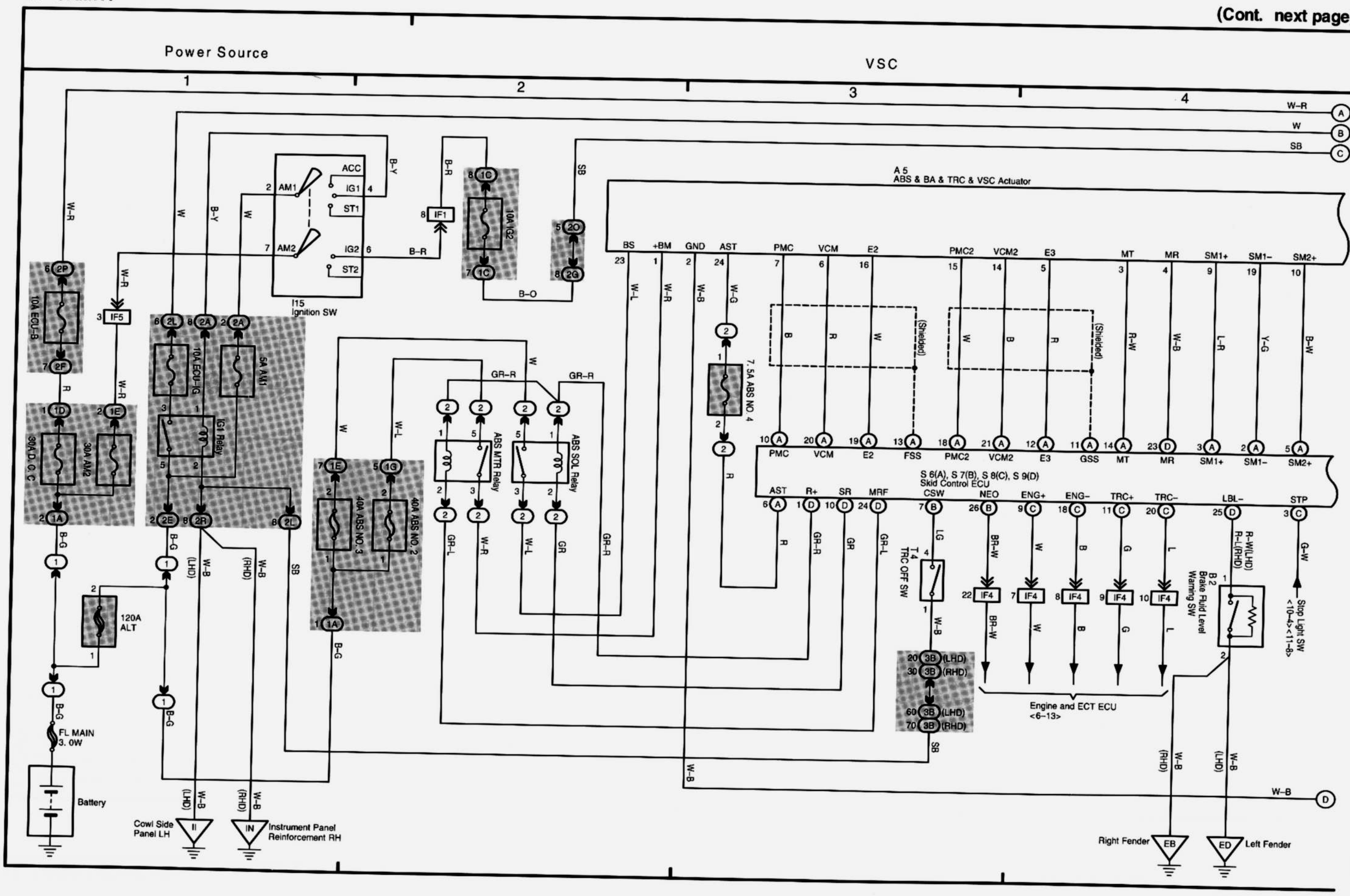








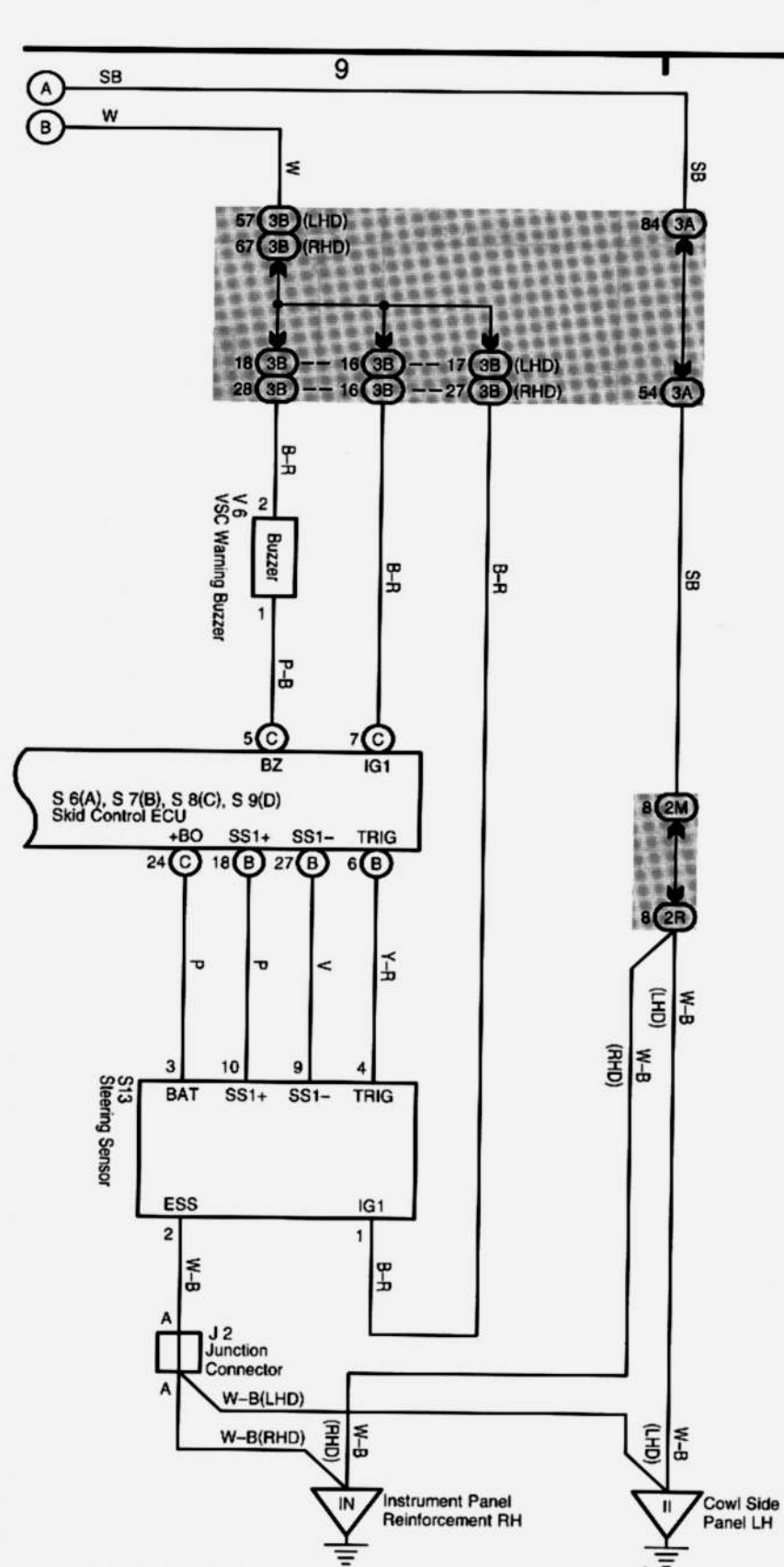


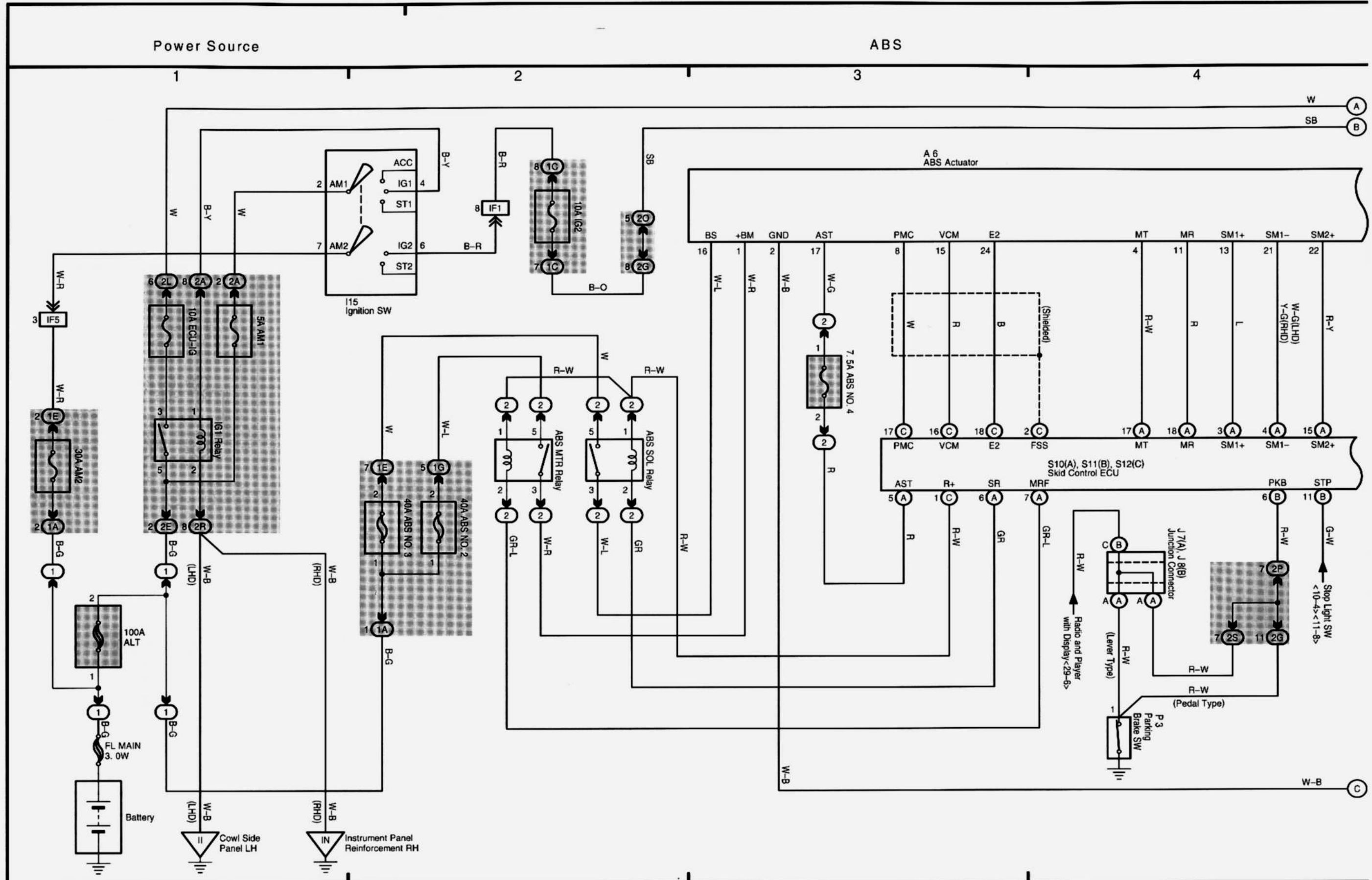






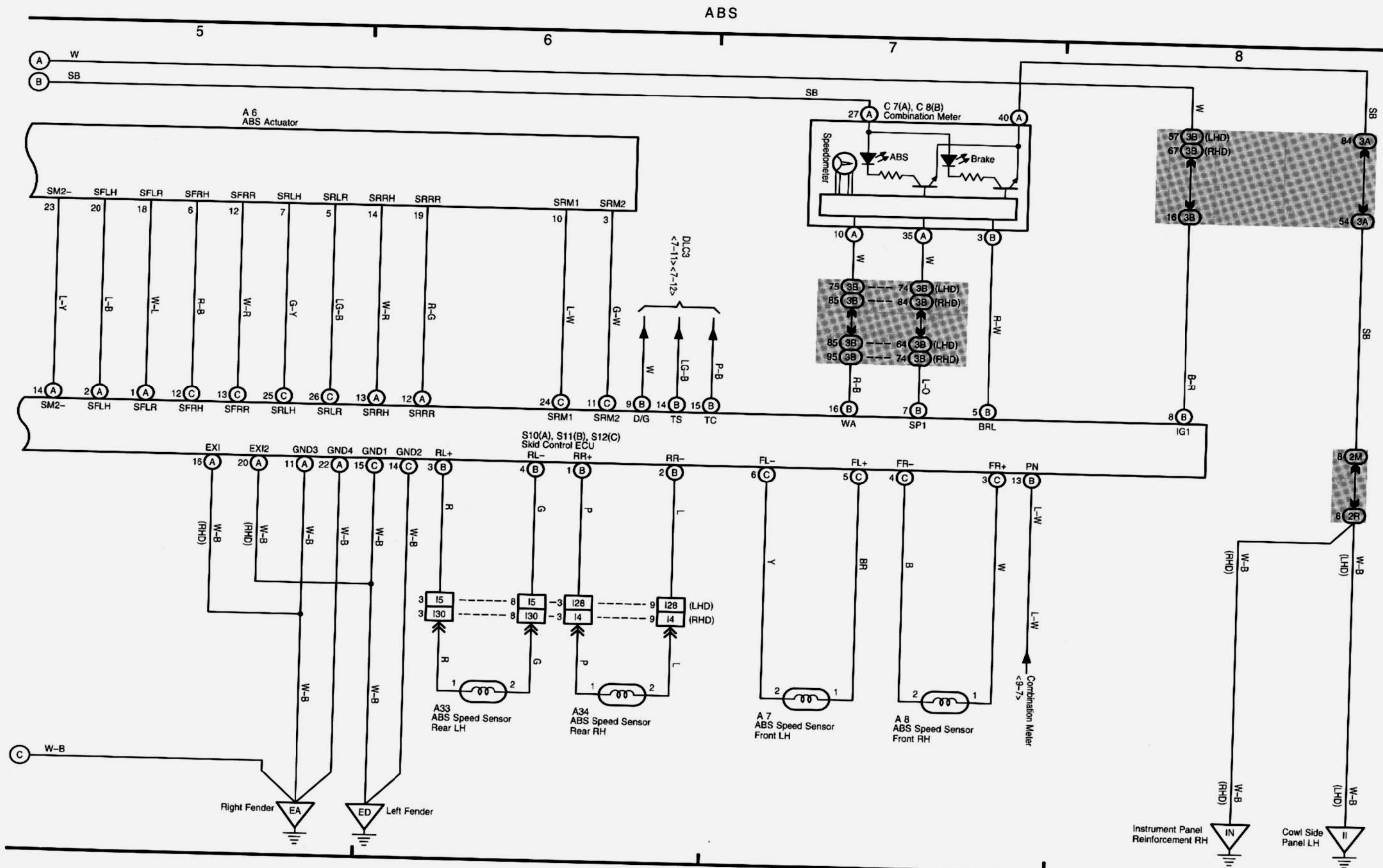
# 17 CAMRY (Cont' d)



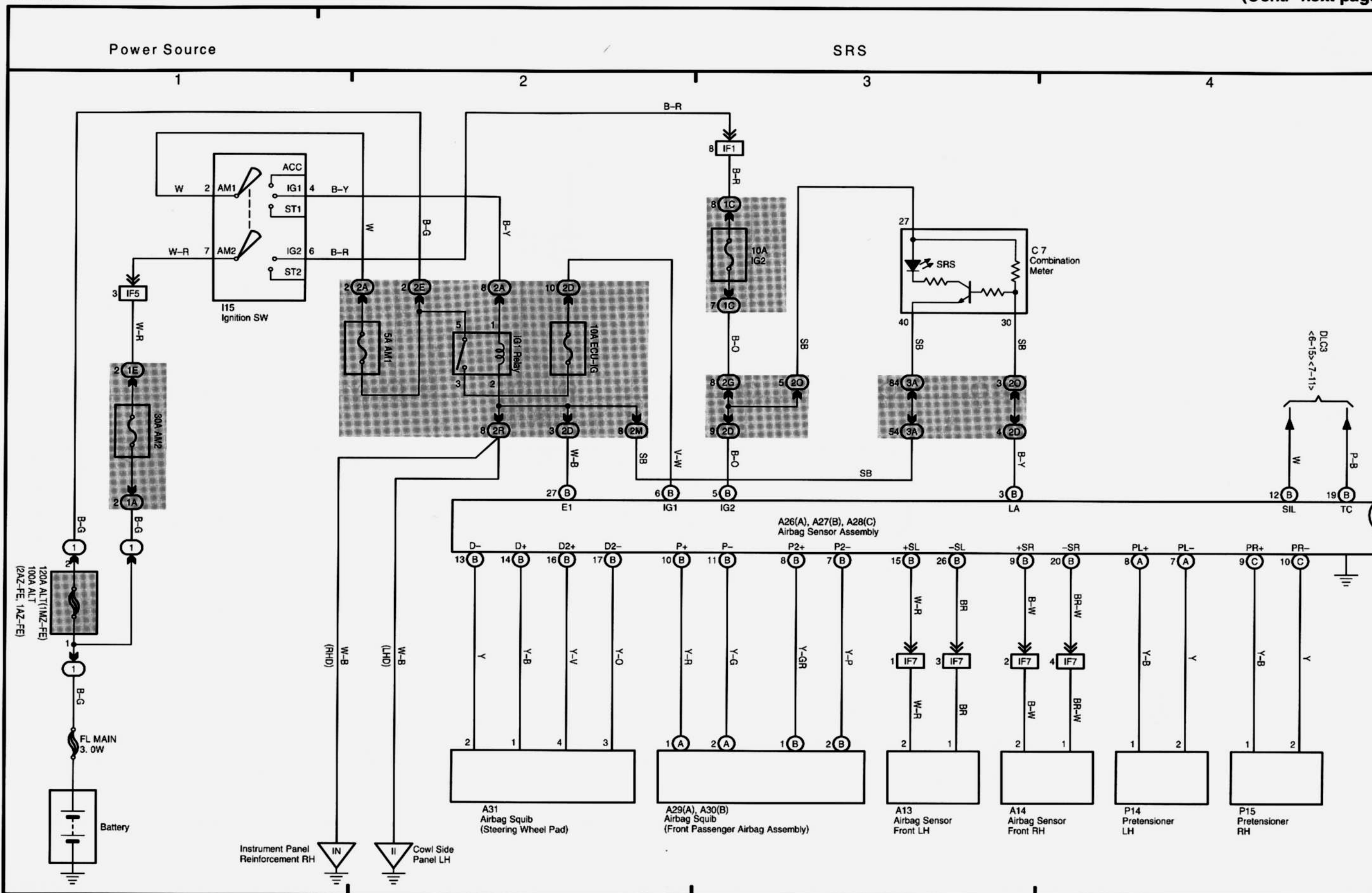




# 18 CAMRY (Cont' d)

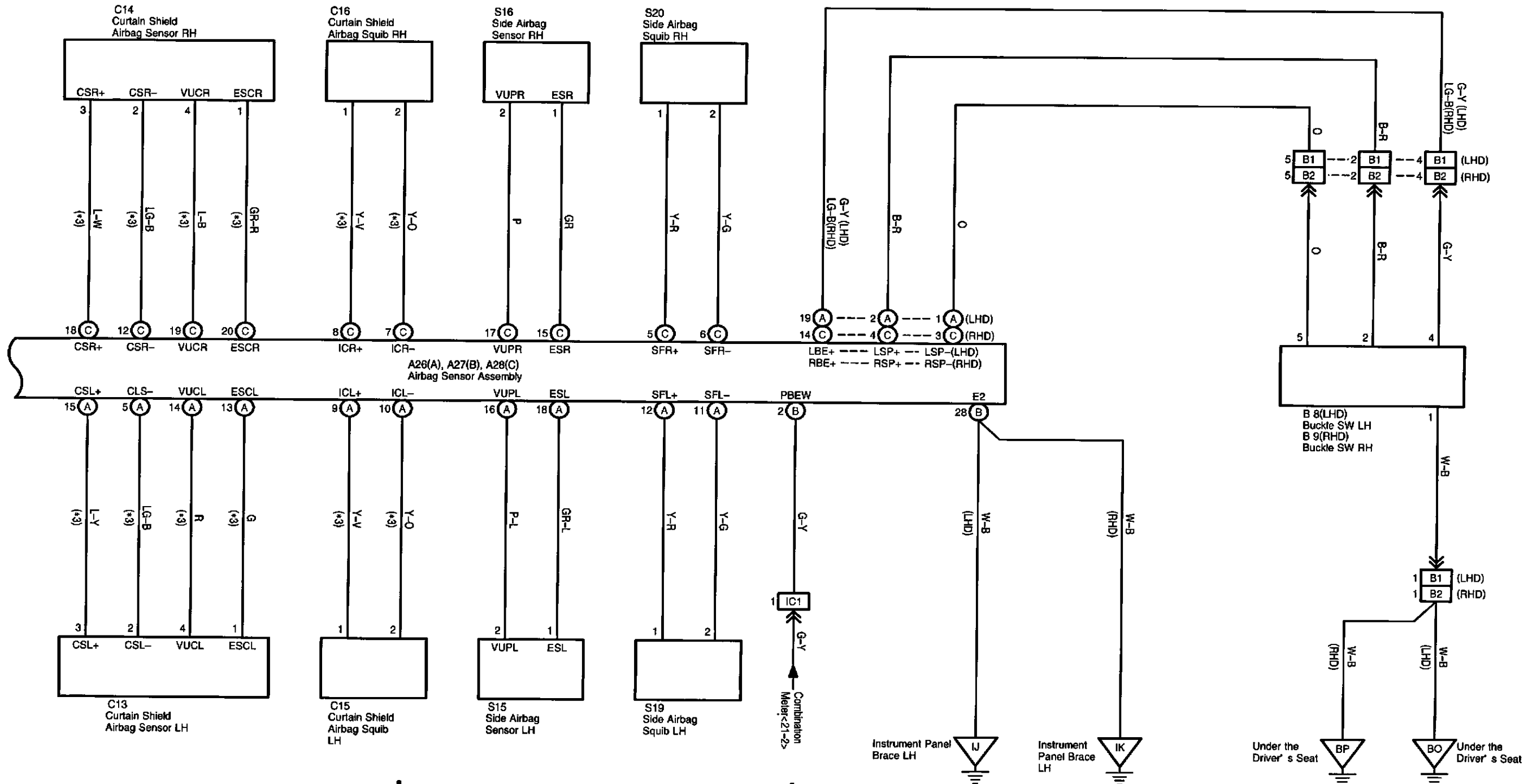


## OVERALL ELECTRICAL WIRING DIAGRAM



SRS

\* 3 : w/ Curtain Shield Airbag



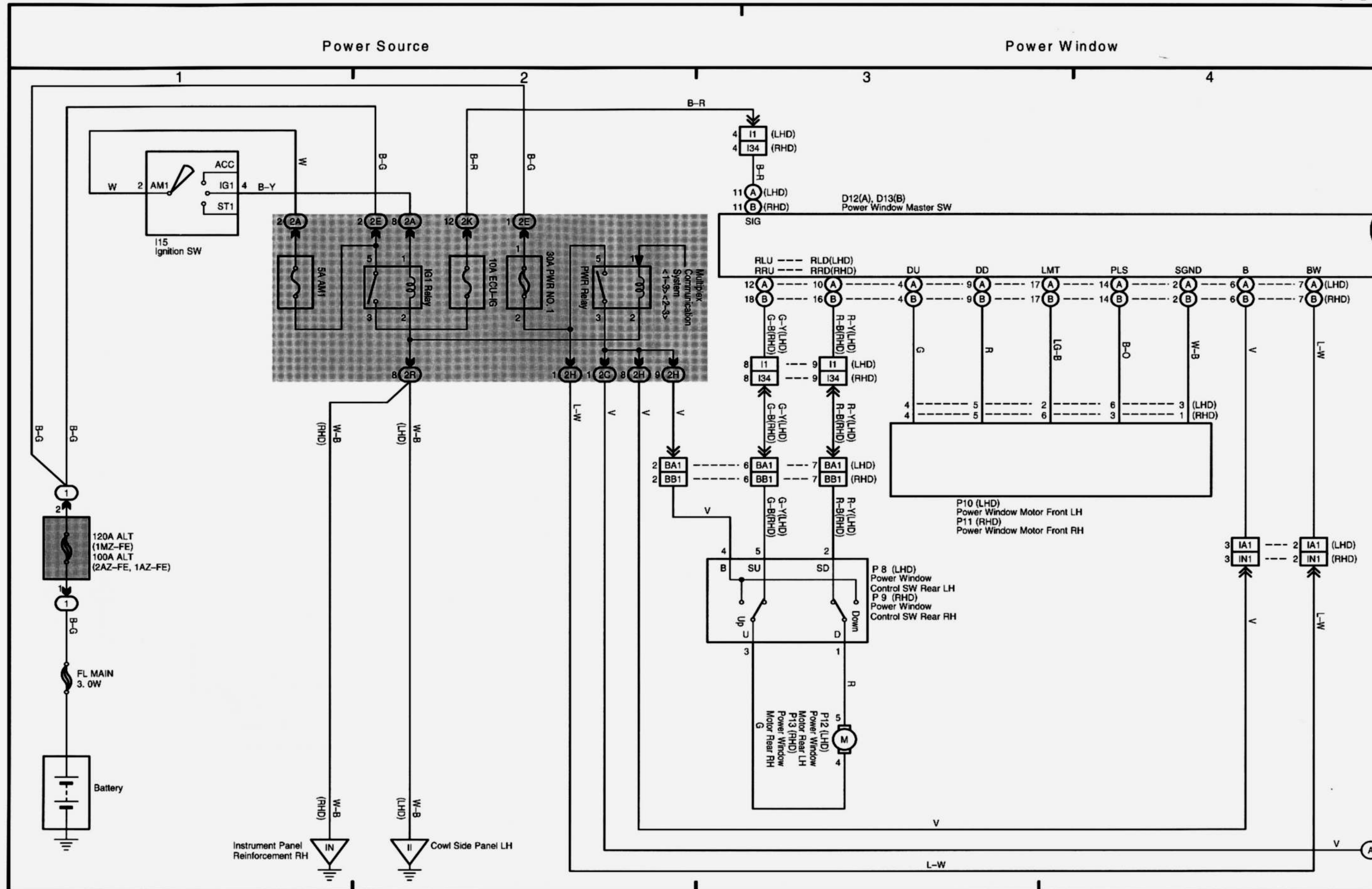




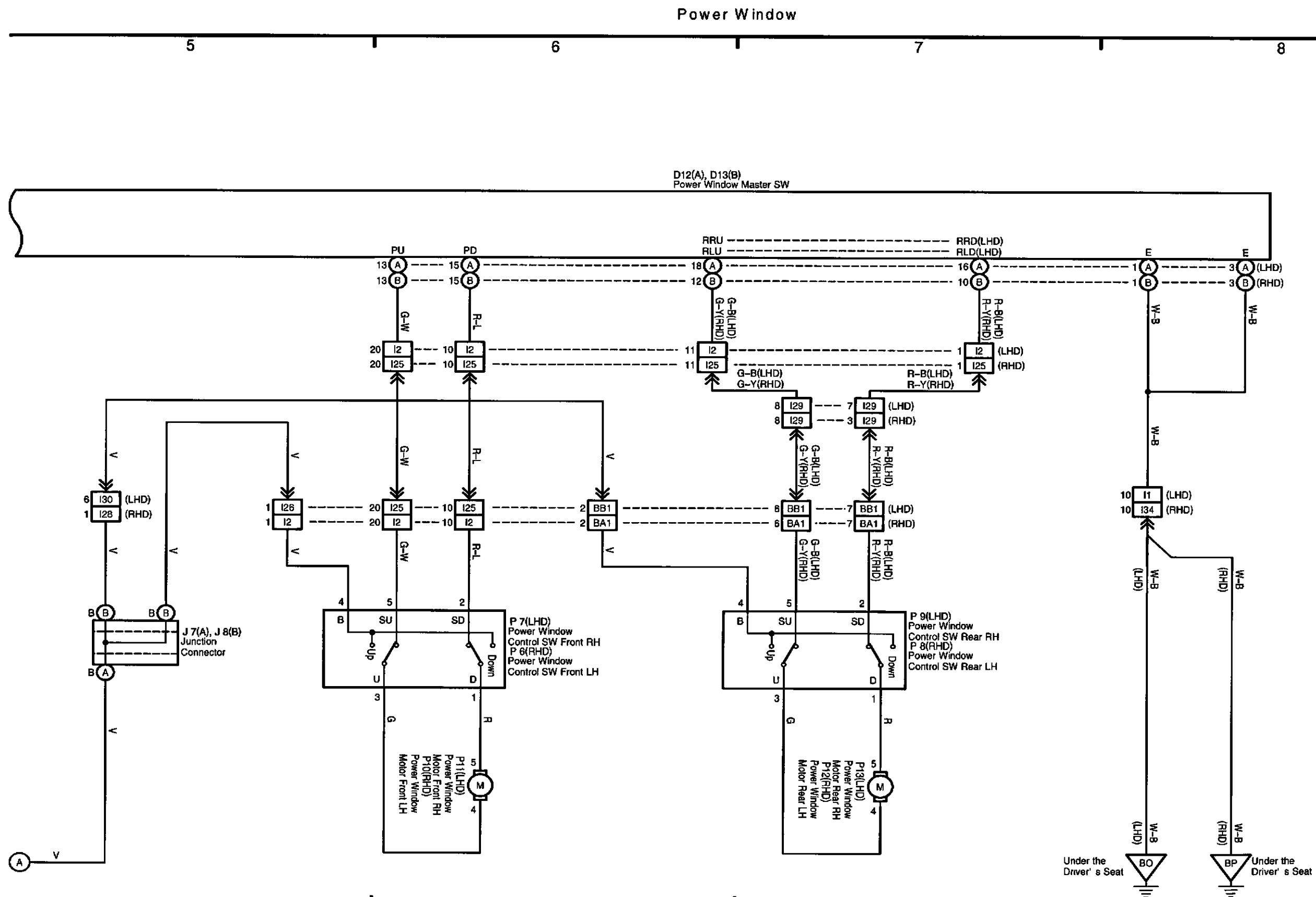
## 21 CAMRY



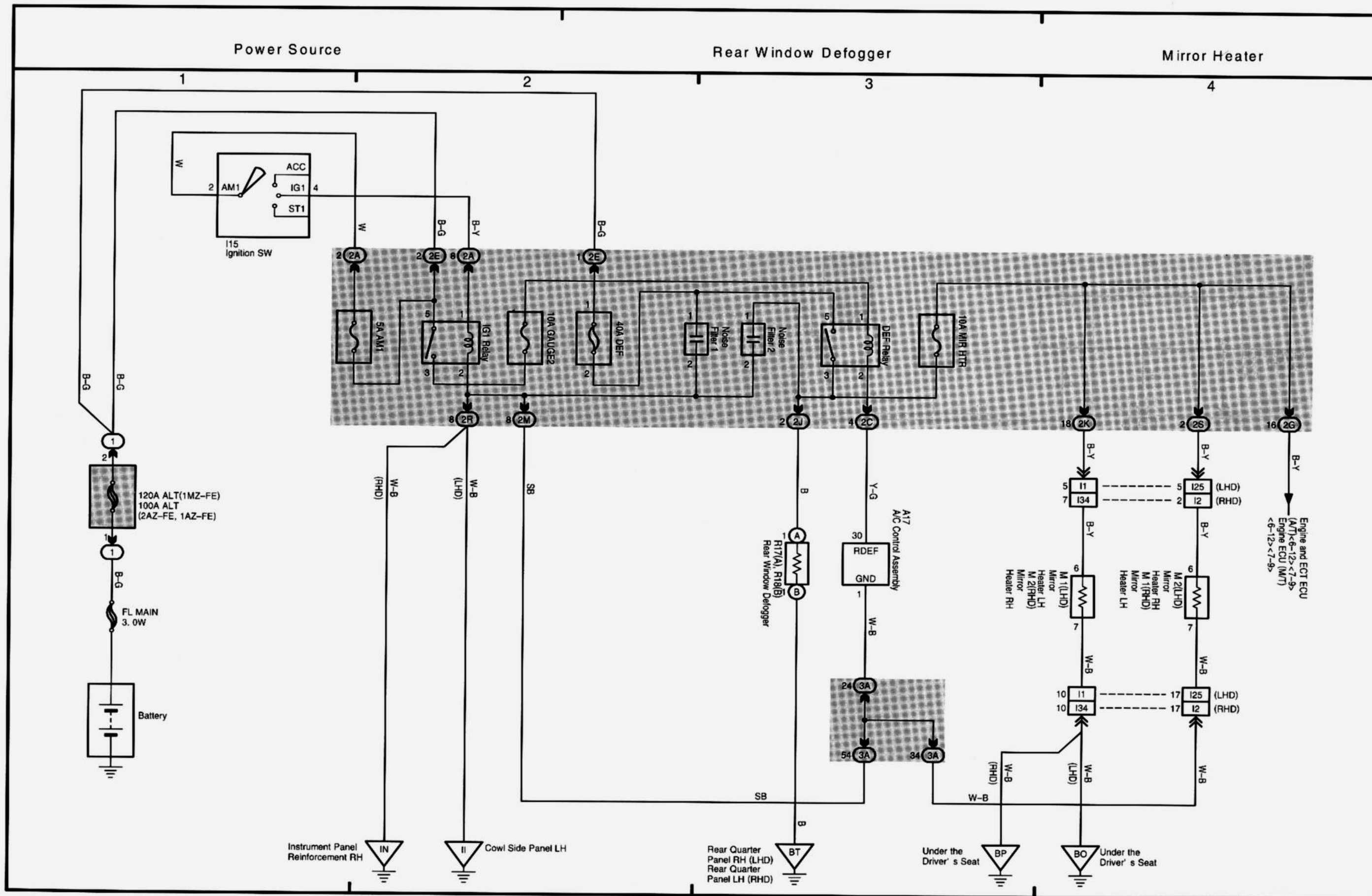
## OVERALL ELECTRICAL WIRING DIAGRAM



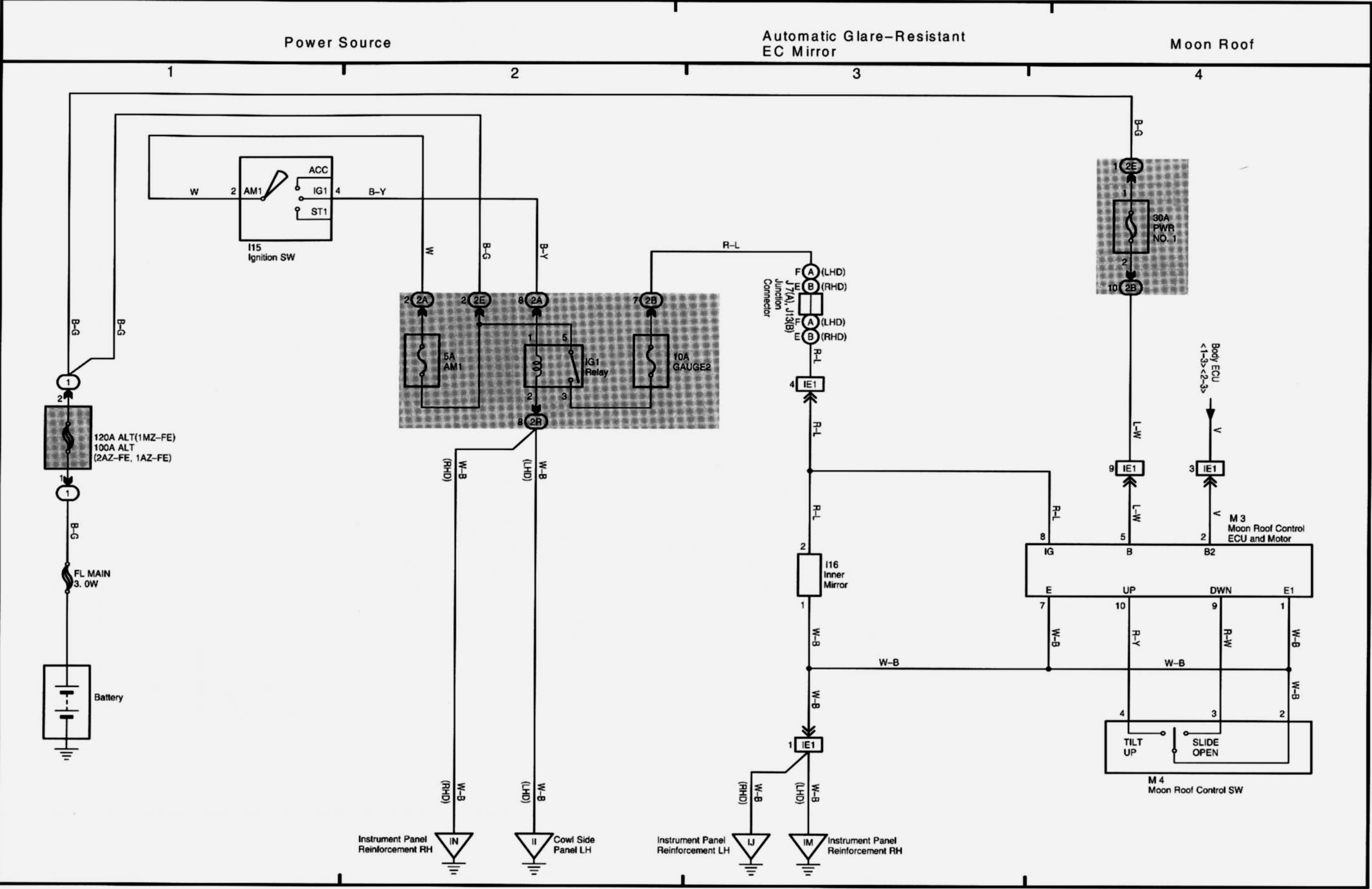










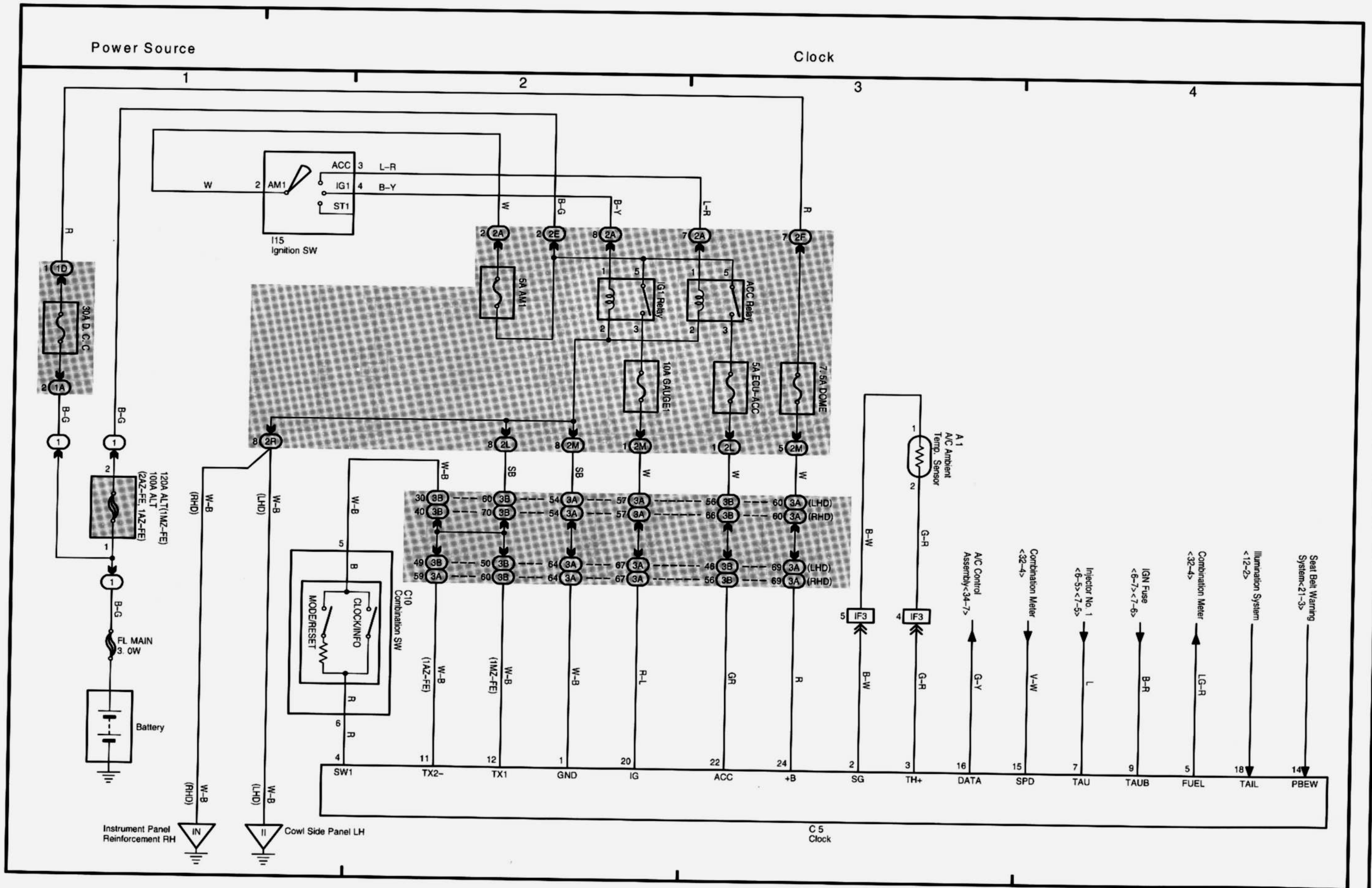


M OVERALL ELECTRICAL WIRING DIAGRAM

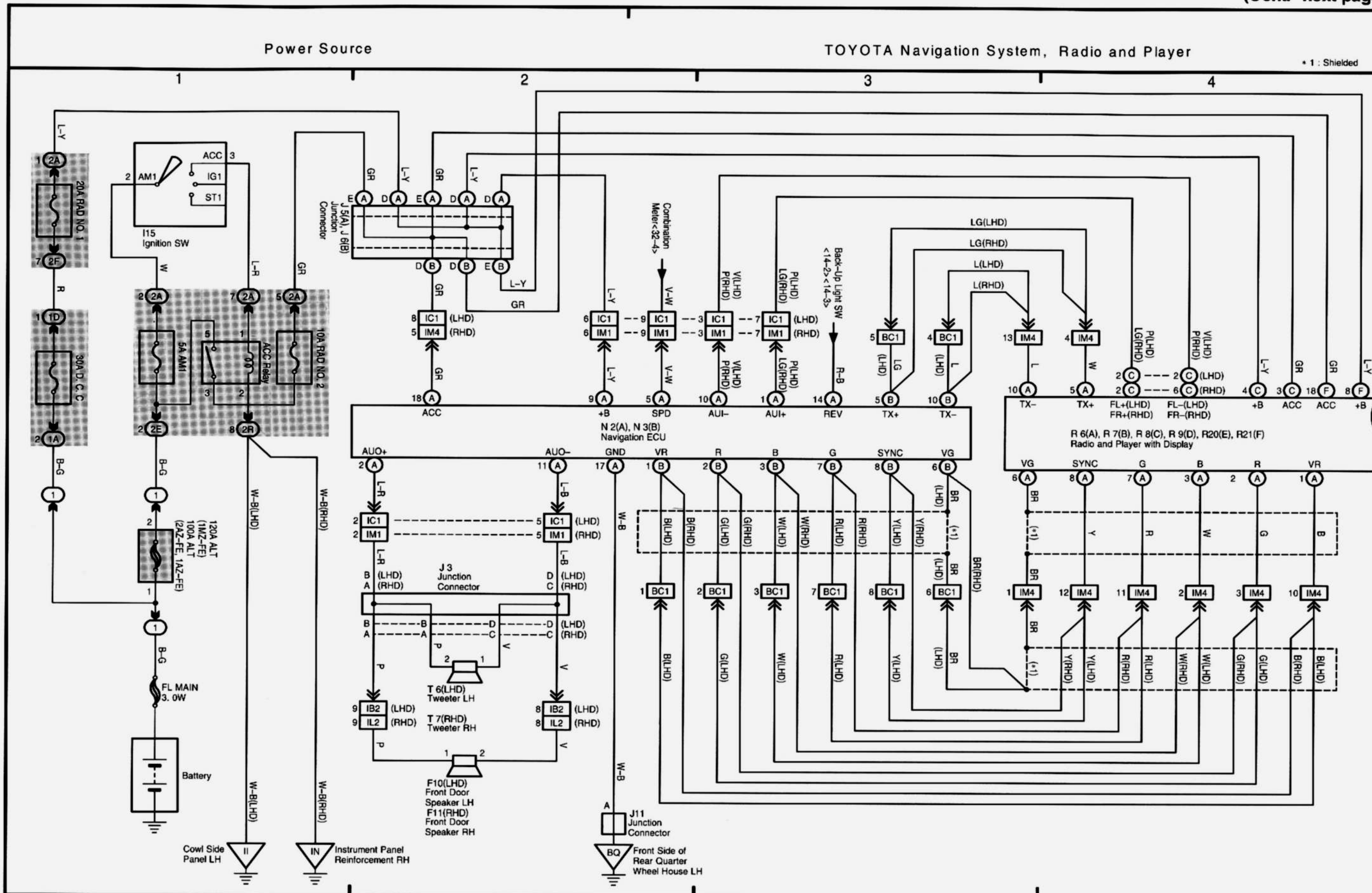




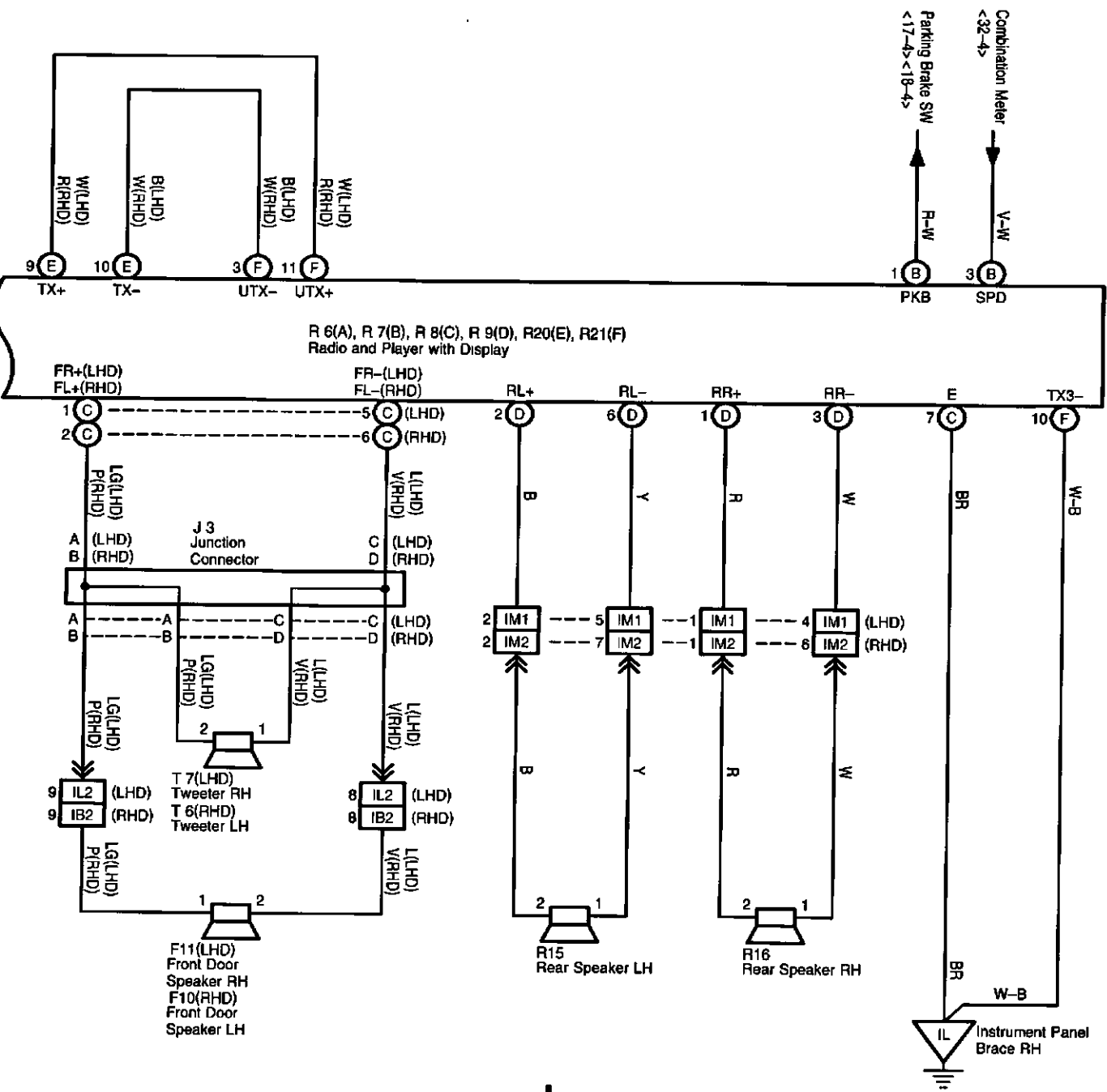




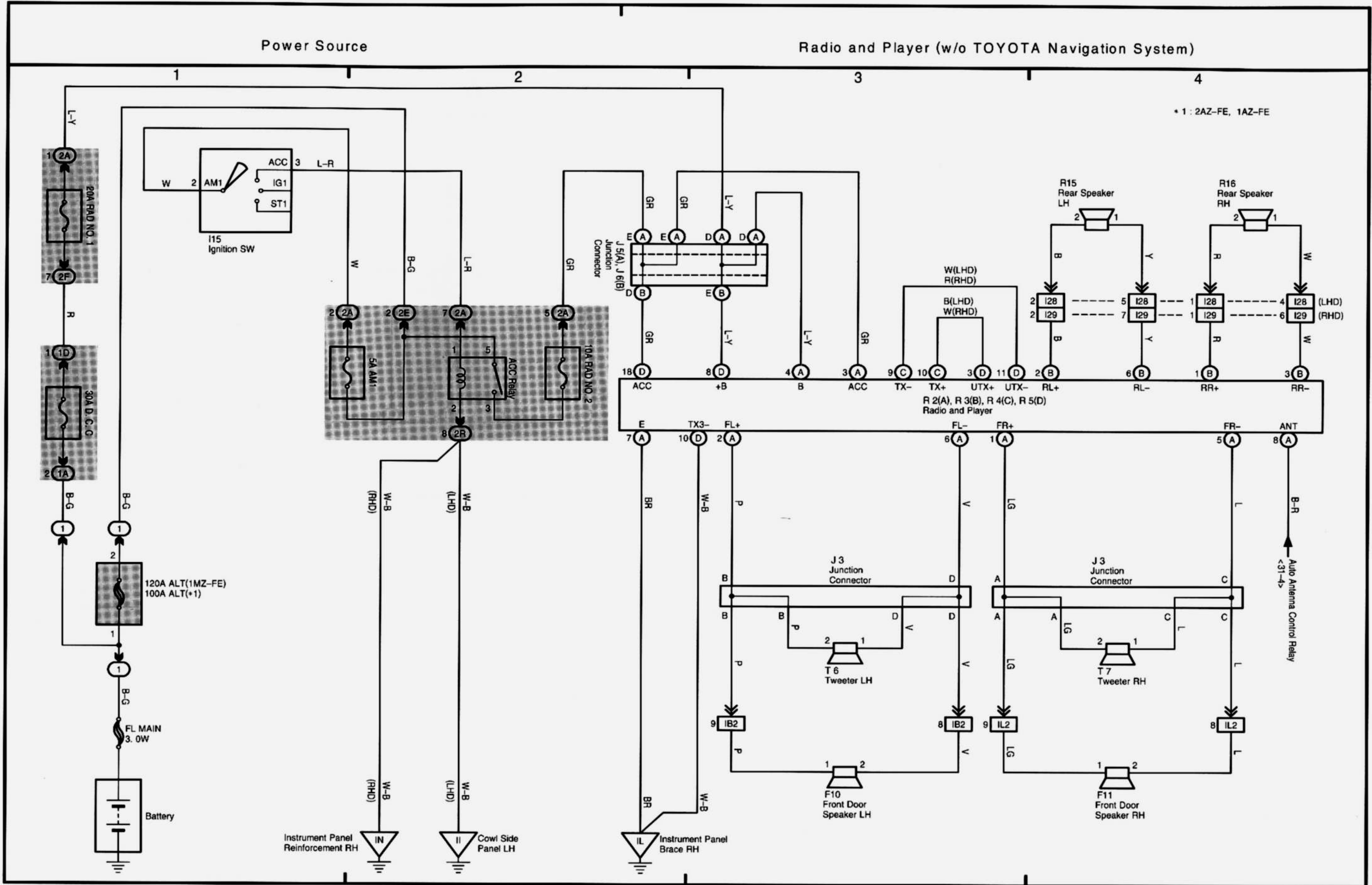
## OVERALL ELECTRICAL WIRING DIAGRAM



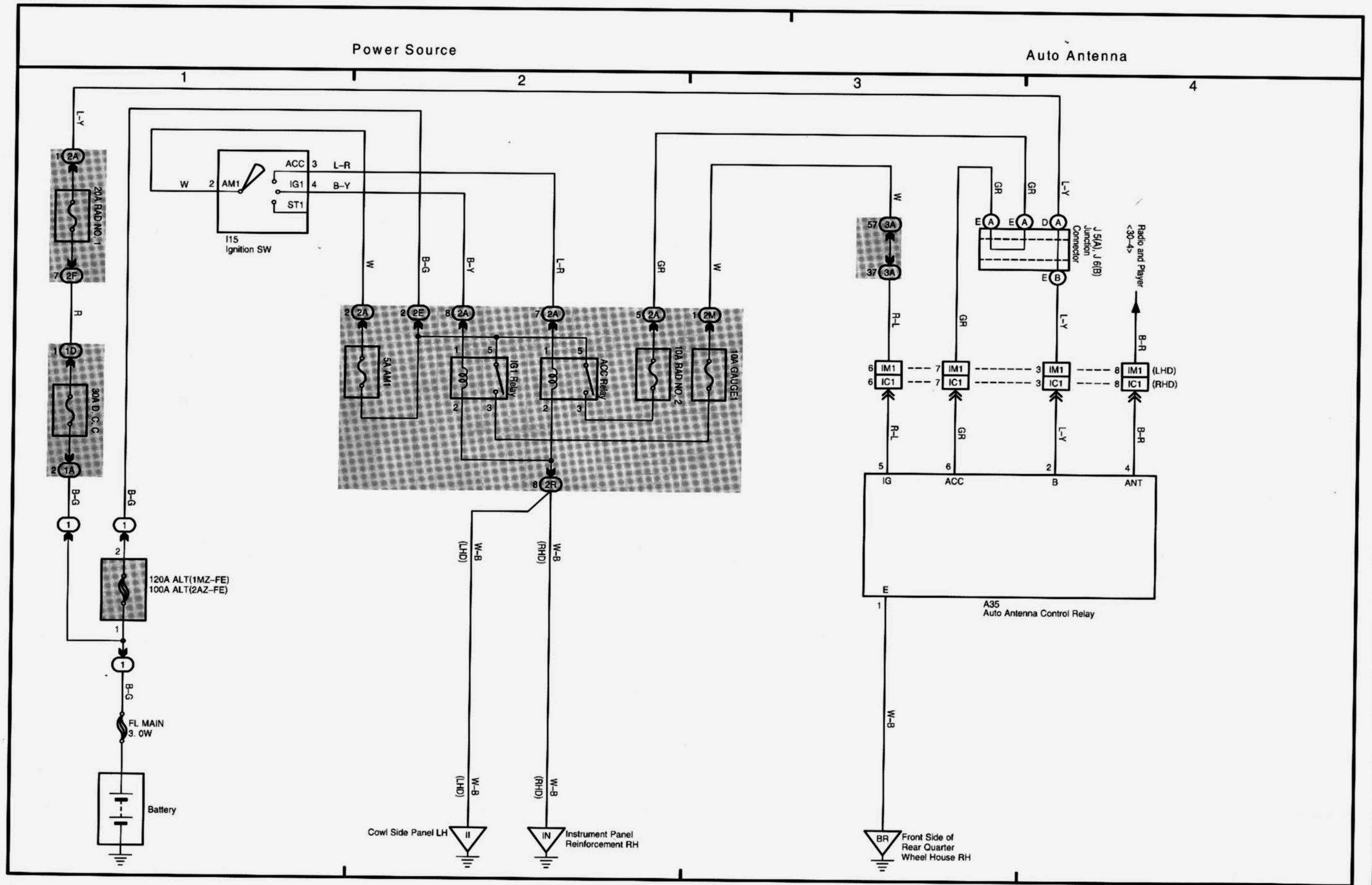
TOYOTA Navigation System, Radio and Player







# 31 CAMRY

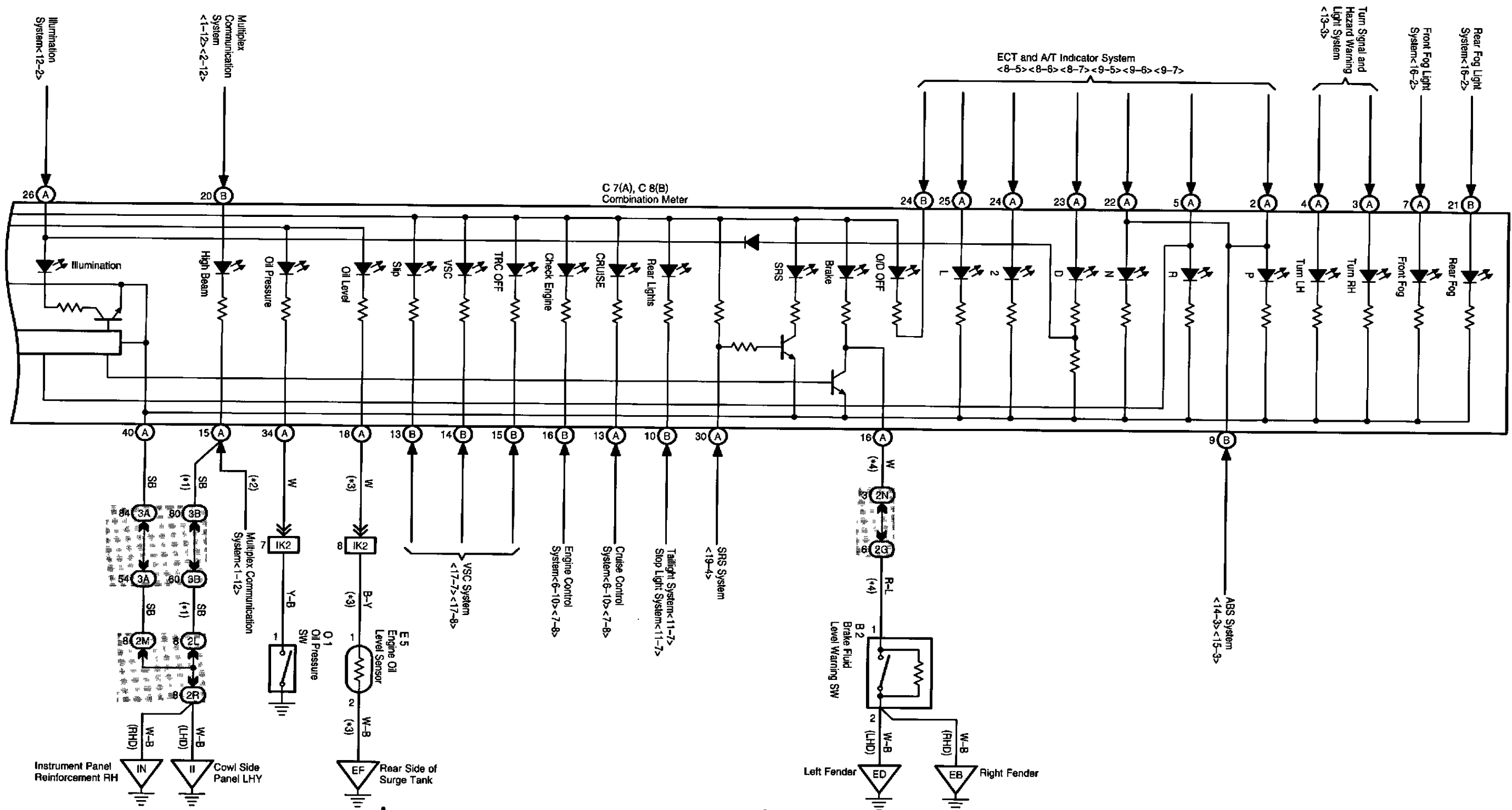


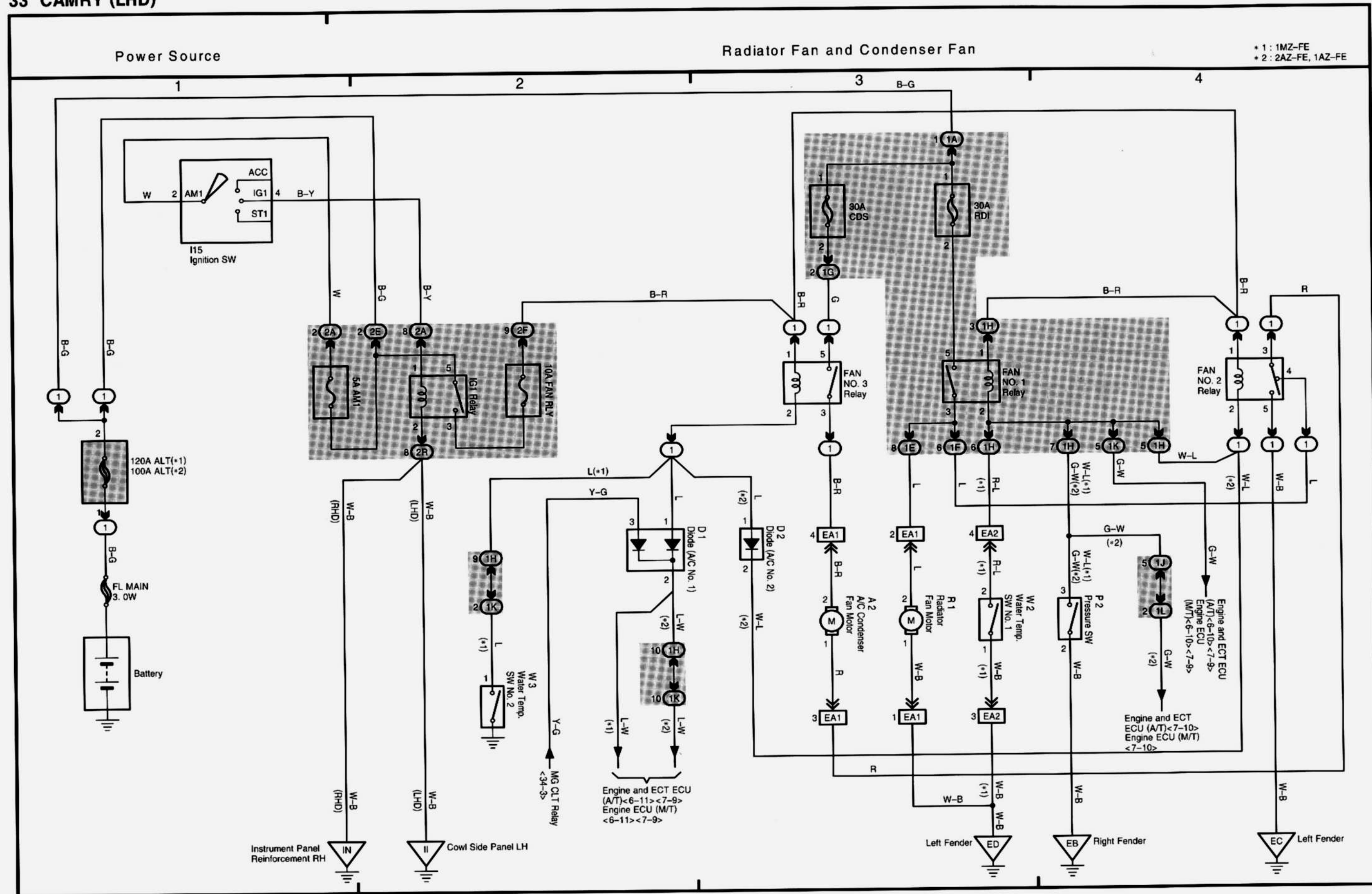




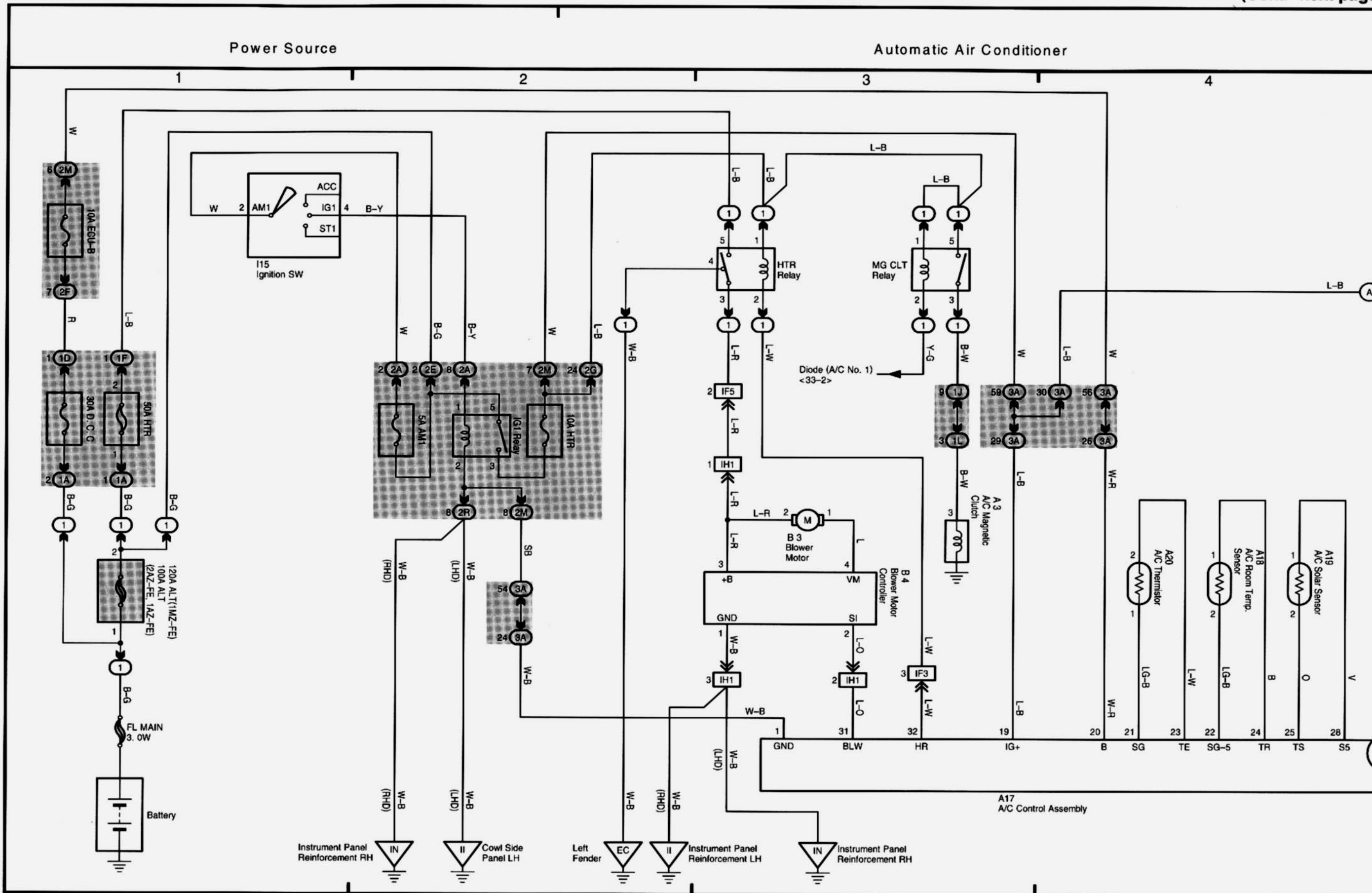
Combination Meter

- \* 1 : w/ Daytime Running Light
- \* 2 : w/o Daytime Running Light
- \* 3 : 1MZ-FE, 2AZ-FE
- \* 4 : w/o VSC





## OVERALL ELECTRICAL WIRING DIAGRAM





Automatic Air Conditioner

