

# FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 1994 TOYOTA CAMRY.

Applicable models:    SXV10 Series  
   MCV10 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.
• 1994 CAMRY Repair Manual	Volume 1 RM361U1
	Volume 2 RM361U2
• 1994 Model New Car Features	NCF099U

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.**

# INTRODUCTION

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This manual consists of the following 11 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	POWER SOURCE (Current Flow Chart)	Describes power distribution from the power supply to various electrical loads.
I	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.
J	GROUND POINTS	Shows ground positions of all parts described in this manual.
K	OVERALL 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.)

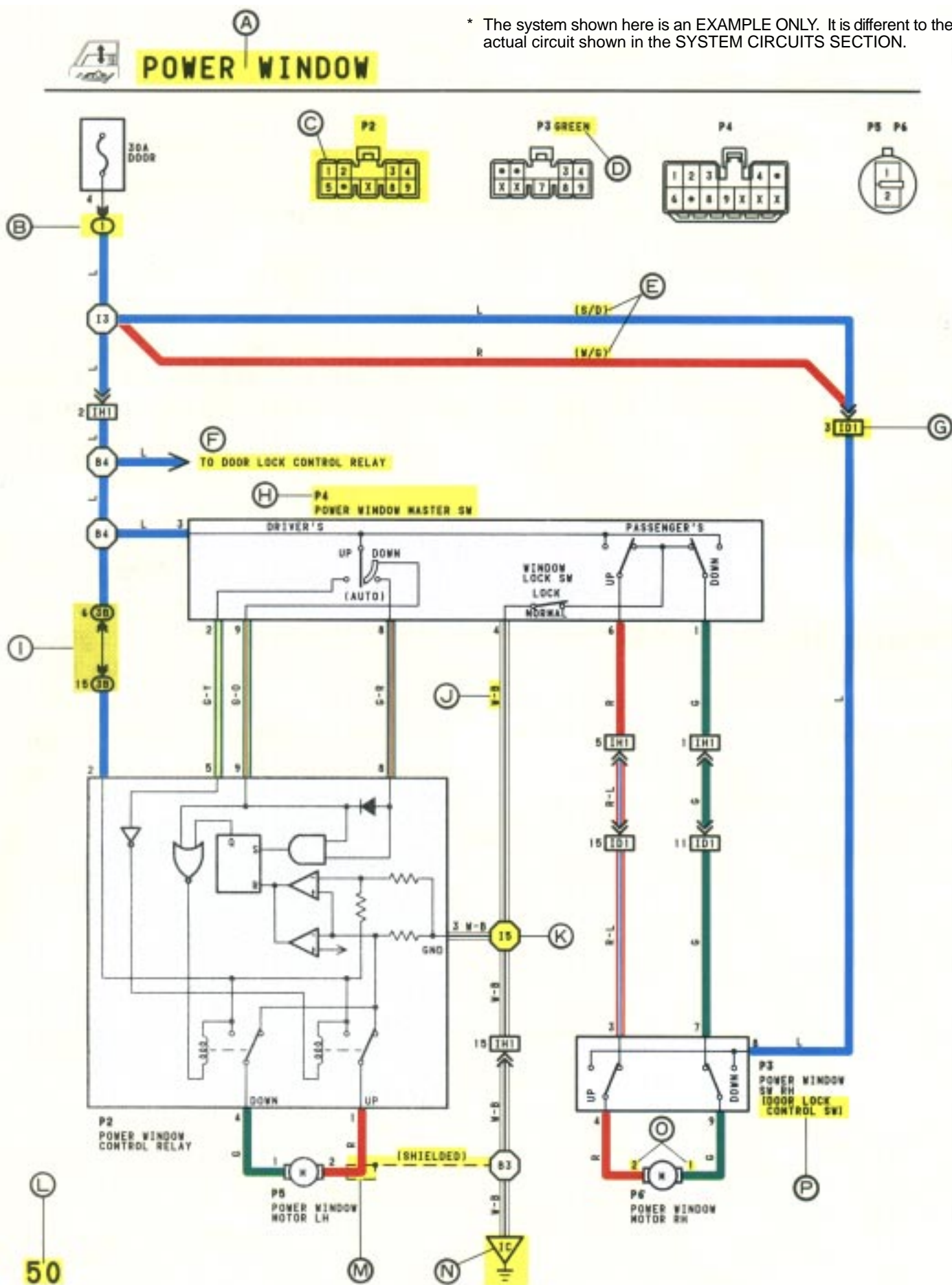
When troubleshooting any problem, first understand the operation of the circuit where the problem was detected (see System Circuit section), the power source supplying power to that circuit (see Power Source section), and the ground points (see Ground Points section). See the System Outline to understand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

When the circuit operation is understood, begin troubleshooting of the problem circuit to isolate the cause. Use Relay Location and Electrical Wire 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 Wiring Diagram at the end of this manual.

# HOW TO USE THIS MANUAL

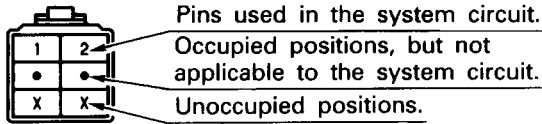
\* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.



- (A) : System Title
- (B) : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B.

Example:  Indicates Relay Block No. 1.

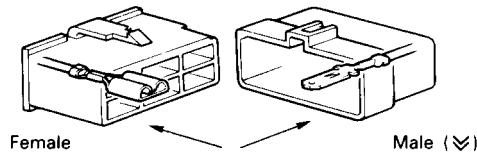
- (C) : Indicates the connector to be connected to a part (the numeral indicates the pin No.)
- Explanation of pin use.



The pins shown are only for the highest grade, or only include those in the specification.

- (D) : Connector Color
- Connectors not indicated are milky white in color.
- (E) : ( ) is used to indicate different wiring and connector, etc. when the vehicle model, engine type, or specification is different.
  - (F) : Indicates related system.
  - (G) : Indicates the wiring harness and wiring harness connector. The wiring harness with male terminal is shown with arrows (↗).

Outside numerals are pin numbers.

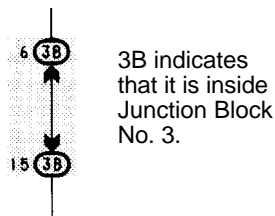


The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g., "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

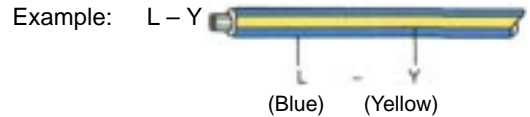
When more than one code has the first and second letters in common, followed by numbers (e.g., IH1, IH2), this indicates the same type of wiring harness and wiring harness connector.

- (H) : Represents a part (all parts are shown in sky blue). The code is the same as the code used in parts position.
- (I) : 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 (different junction blocks are shaded differently for further clarification).

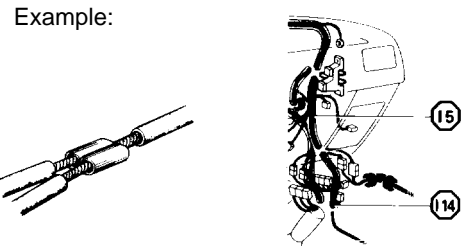
Example:



- (J) : Indicates the wiring color.
- Wire colors are indicated by an alphabetical code.
- B = Black L = Blue R = Red  
 BR = Brown LG = Light Green V = Violet  
 G = Green O = Orange W = White  
 GR = Gray P = Pink Y = Yellow
- The first letter indicates the basic wire color and the second letter indicates the color of the stripe.



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



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

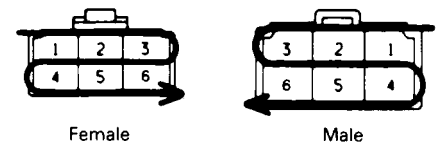
- (L) : Page No.
- (M) : Indicates a shielded cable.



- (N) : 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.

- (O) : 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



- (P) : When 2 parts both use one connector in common, the parts connector name used in the wire routing section is shown in square brackets [ ].

# HOW TO USE THIS MANUAL



## SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO TERMINAL 3 OF THE POWER WINDOW MASTER SW, TERMINAL 2 OF THE POWER WINDOW CONTROL RELAY AND TERMINAL 8 OF THE POWER WINDOW SW THROUGH THE DOOR FUSE.

### 1. DRIVER'S WINDOW "MANUAL UP" OPERATION BY MASTER SW

HOLDING MANUAL SW (DRIVER'S) ON "UP" POSITION LOCATED IN POWER WINDOW MASTER SW, THE CURRENT FLOWS TO TERMINAL 5 OF THE POWER WINDOW CONTROL RELAY THROUGH TERMINAL 3 OF THE MASTER SW → TERMINAL 2 TO OPERATE A POWER WINDOW CONTROL RELAY. THUS THE CURRENT INSIDE THE RELAY FLOWS FROM TERMINAL 2 OF THE RELAY → TERMINAL 1 → TERMINAL 2 OF THE POWER WINDOW MOTOR → TERMINAL 1 → TERMINAL 4 OF THE RELAY → TERMINAL 3 → TO GROUND. THE MOTOR TURNS TO ASCENT THE WINDOW. RELEASING THIS SW, THE ROTATION OF MOTOR IS STOPPED AND THE WINDOWS CAN STOP AT WILL POINT.

(FOR THE "MANUAL DOWN" OPERATION, CURRENT FLOWS IN THE REVERSE DIRECTION BECAUSE THE TERMINALS WHERE IT FLOWS ARE CHANGED).

### 2. DRIVER'S WINDOW "AUTO DOWN" OPERATION BY MASTER SW

ONCE THE "AUTO DOWN" BUTTON OF THE MASTER SW IS PUSHED, THE CURRENT FLOWS TERMINAL 9 OF THE POWER WINDOW CONTROL RELAY THROUGH TERMINAL 3 OF THE MASTER SW → TERMINALS 8 AND 9 TO OPERATE THE RELAY. THUS THE CURRENT INSIDE THE POWER WINDOW CONTROL RELAY FLOWS FROM TERMINAL 2 OF THE RELAY → TERMINAL 4 → TERMINAL 1 OF THE POWER WINDOW MOTOR → TERMINAL 2 → TERMINAL 1 OF THE RELAY → TERMINAL 3 → TO GROUND. THE MOTOR CONTINUES THE ROTATION ENABLING TO DESCENT THE WINDOW.

THE WINDOW DESCENDS TO THE END POSITION. THE CURRENT WILL BE CUT OFF TO RELEASE THE AUTO DOWN FUNCTION BASED ON THE INCREASING CURRENT BETWEEN TERMINAL 2 OF THE RELAY AND TERMINAL 1 IN RELAY.

### 3. DRIVER'S WINDOW AUTO DOWN RELEASE OPERATION BY MASTER SW

HOLDING THE MANUAL SW (DRIVER'S) ON "UP" POSITION IN OPERATING AUTO DOWN. THE CURRENT FROM TERMINAL 3 OF THE MASTER SW PASSING TERMINAL 2 FLOWS TERMINAL 5 OF THE RELAY AND RELEASES THE AUTO DOWN FUNCTION IN THE POWER WINDOW CONTROL RELAY. RELEASING THE HAND FROM SW, WINDOW STOPS AND CONTINUING ON TOUCHING SW, THE FUNCTION SWITCHES TO MANUAL UP OPERATION.

### 4. PASSENGER'S WINDOW UP OPERATION (MASTER SW) AND WINDOW LOCK SW OPERATION

HOLDING PASSENGER'S WINDOW SW (MASTER SW) ON "UP", THE CURRENT FLOWS FROM TERMINAL 3 OF THE MASTER SW PASSING TERMINAL 6 TO TERMINAL 3 OF THE POWER WINDOW SW (PASSENGER'S) → TERMINAL 4 → TERMINAL 2 OF THE MOTOR → TERMINAL 1 → TERMINAL 9 OF THE POWER WINDOW SW → TERMINAL 7 → TERMINAL 1 OF THE MASTER SW → TERMINAL 4 TO GROUND. THE MOTOR RUNS TO ASCENT THE WINDOW. RELEASING THIS SW, THE ROTATION OF MOTOR IS STOPPED AND WINDOW CAN STOP AT WILL PLACE.

SWITCHING THE WINDOW LOCK SW IN "LOCK" POSITION, THE CIRCUIT IS OPENED AND STOPPED THE MOTOR ROTATION.

(FOR THE DOWN OPERATION, CURRENT FLOWS IN THE REVERSE DIRECTION BECAUSE THE TERMINALS WHERE IT FLOWS ARE CHANGED).



## SERVICE HINTS

### P2 POWER WINDOW CONTROL RELAY

3-GROUND: ALWAYS CONTINUITY

2-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION

5-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION AND MASTER SW AT UP POSITION

8-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION AND MASTER SW AT AUTO DOWN POSITION

9-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION AND MASTER SW AT DOWN OR AUTO DOWN POSITION

### P4 POWER WINDOW MASTER SW

4-GROUND: ALWAYS CONTINUITY

3-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION

### WINDOW LOCK SW

OPEN WITH WINDOW LOCK SW AT LOCK POSITION



## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
P2	21	P4	21	P6	21
P3	21	P5	21		



## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCK (RELAY BLOCK LOCATION)
1	16	R/B NO. 1 (INSTRUMENT PANEL LEFT SIDE)



## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3B	14	J/B NO. 3 AND COWL WIRE (INSTRUMENT PANEL LEFT SIDE)



## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ID1	26	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
IH1	26	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)



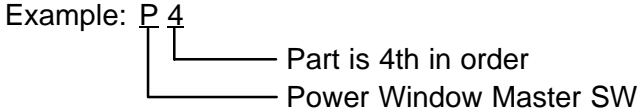
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINT LOCATION
IC	24	COWL LEFT

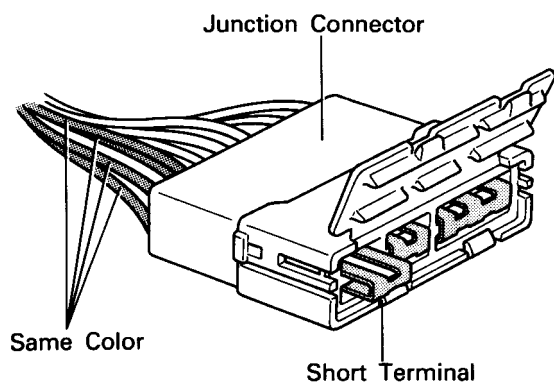


## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESSES WITH SPLICE POINTS
I5	24	COWL WIRE

- Ⓚ : Explains the system outline.
- Ⓡ : Indicates values or explains the function for reference during troubleshooting.
- Ⓢ : Indicates the reference page showing the position on the vehicle of the parts in the system circuit.  
 Example: Part “P4” (Power Window Master SW) is on page 21 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: P 4  

- Ⓣ : 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 16 of this manual and is installed on the left side of the instrument panel.
- Ⓤ : Indicates the reference page showing the position on the vehicle of J/B and Wire Harness in the system circuit.  
 Example: Connector “3B” connects the Cowl Wire and J/B No. 3. It is described on page 14 of this manual, and is installed on the instrument panel left side.
- Ⓥ : 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 “ID1” connects the front door RH wire (female) and cowl wire (male). It is described on page 26 of this manual, and is installed on the right side kick panel.
- Ⓦ : Indicates the reference page showing the position of the ground points on the vehicle.  
 Example: Ground point “IC” is described on page 24 of this manual and is installed on the cowl left side.
- Ⓧ : Indicates the reference page showing the position of the splice points on the vehicle.  
 Example: Splice point “I 5” is on the Cowl Wire Harness and is described on page 24 of this manual.

**HINT:**



Junction connector (code: J1, J2, J3, J4, J5, J6, J7) in this manual include a short terminal which is connected to a number of wire harnesses. Always perform inspection with the short terminal installed. (When installing the wire harnesses, the harnesses can be connected to any position within the short terminal grouping.

Accordingly, in other vehicles, the same wire harness from a different part.)

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

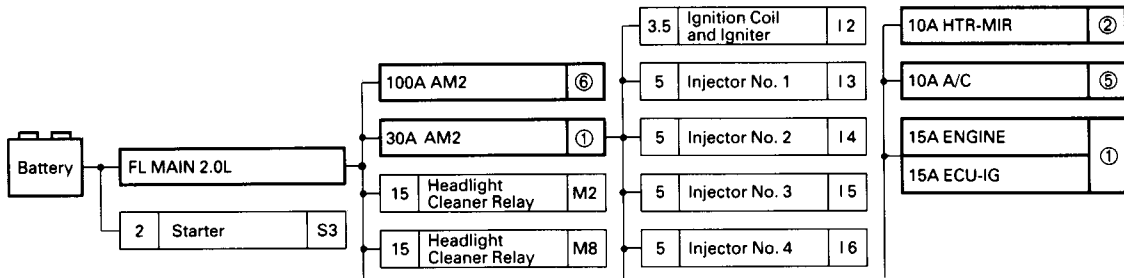
# HOW TO USE THIS MANUAL

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

## POWER SOURCE (Current Flow Chart)

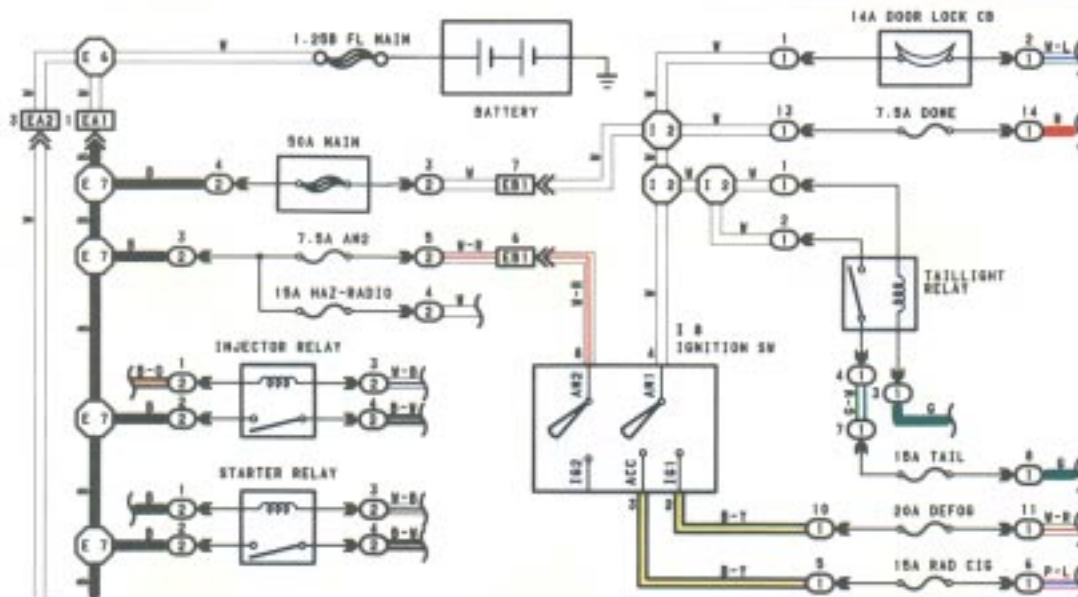
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.

The next page and following pages show the parts to which each electrical source outputs current.



Location	CB or Fuse	Page Nos. of Related Systems		Parts	Code or Location
		32	5		
	A1			A/C Idle-Up VSV	
	A4			Air Flow Meter	
	A5			Alternator	
	A7			Auto Antenna Motor	
	A8			A/C Amplifier	
	A9			A/C SW	
	A10			A/C SW Light	
	A11			A/C Pressure SW	
	A12			ADD Control Relay	
	O9			Auto Antenna Control Relay	
	B1			A/T Indicator Light	
	B3			Back-Up Light SW	
	B3			Back-Up Light Relay	
	B4			Blower Motor	
	B5			Blower Resistor	
	R5			Back-Up Light LH	
	R6			Back-Up Light RH	
	C2			Choke Heater	
	C3			Check Connector	
	C8			Cigarette Lighter	
	C8			Cigarette Lighter Light	
	C9			Circuit Opening Relay	
	10A ENGINE				
	20A WIPER				
	10A TURN				
	10A CAUSE				

## POWER SOURCE

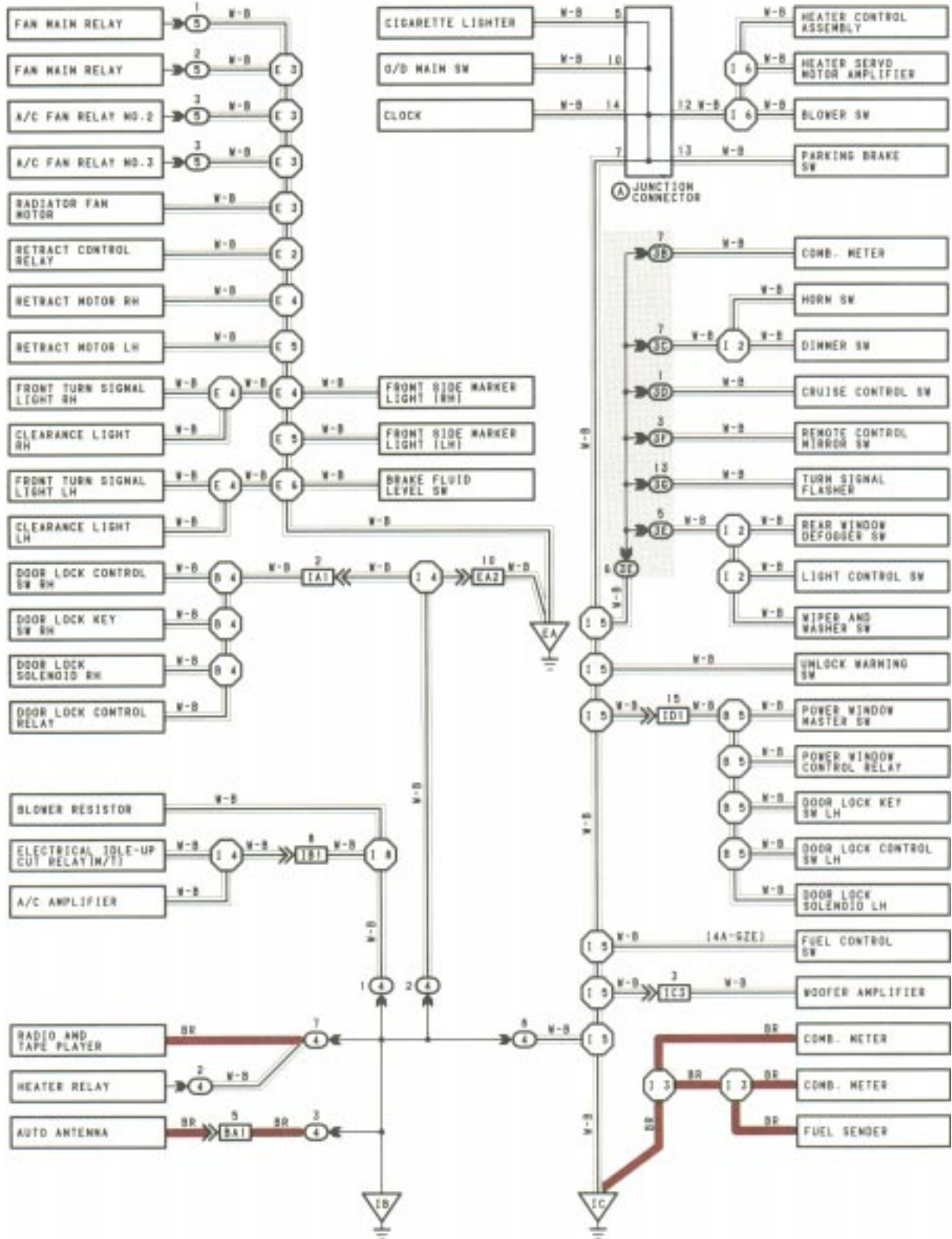


\* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.



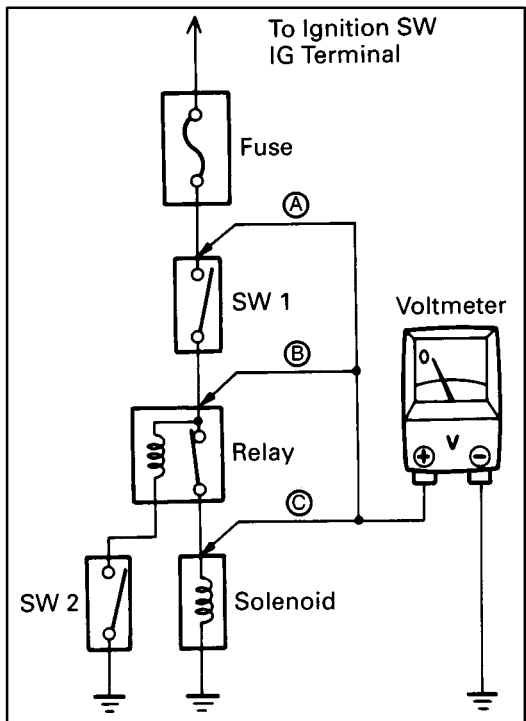
The ground points circuit diagram shows the connections from all major parts to the respective ground points. When troubleshooting a faulty ground point, checking the system circuits which use a common ground may help you identify the problem ground quickly. The relationship between ground points ( 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

## GROUND POINT



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

# TROUBLESHOOTING

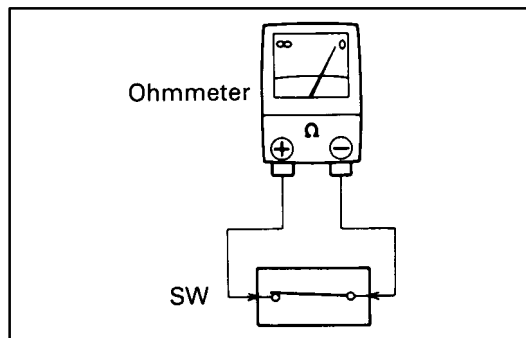


## VOLTAGE CHECK

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

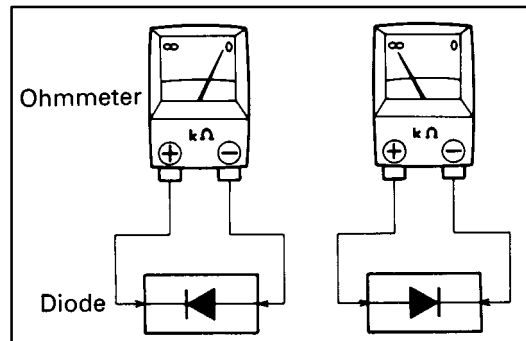
Example:

- Ⓐ – Ignition SW on
  - Ⓑ – Ignition SW and SW 1 on
  - Ⓒ – Ignition SW, SW 1 and Relay on (SW 2 off)
- (b) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal, and the positive lead to the connector or component terminal. This check can be done with a test light instead of a voltmeter.



## CONTINUITY AND RESISTANCE CHECK

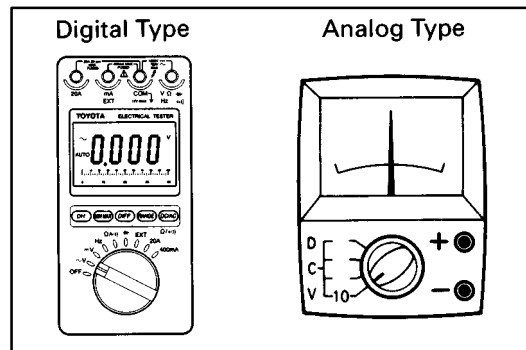
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.
- (b) Contact the two leads of an ohmmeter to each of the check points.



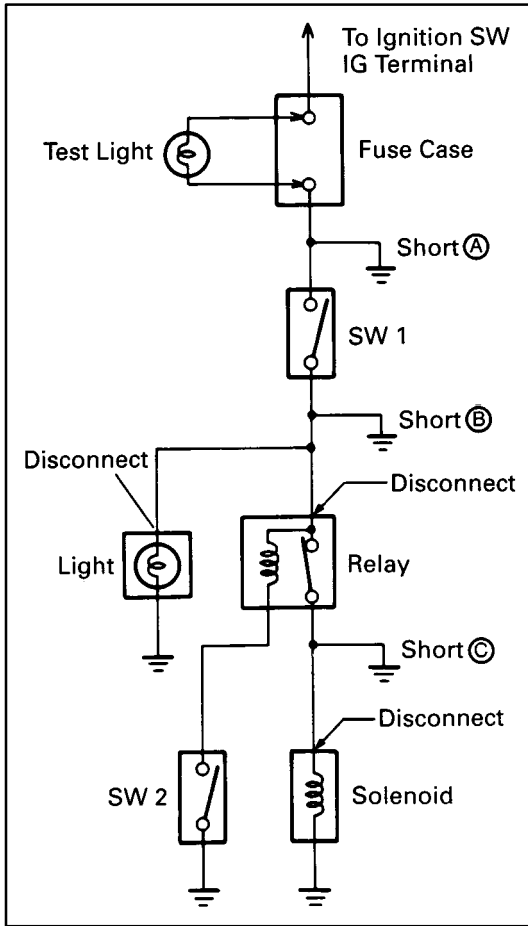
If the circuit has diodes, reverse the two leads and check again.

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

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



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



## FINDING A SHORT CIRCUIT

- (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:

- Ⓐ – Ignition SW on
  - Ⓑ – Ignition SW and SW 1 on
  - Ⓒ – 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.

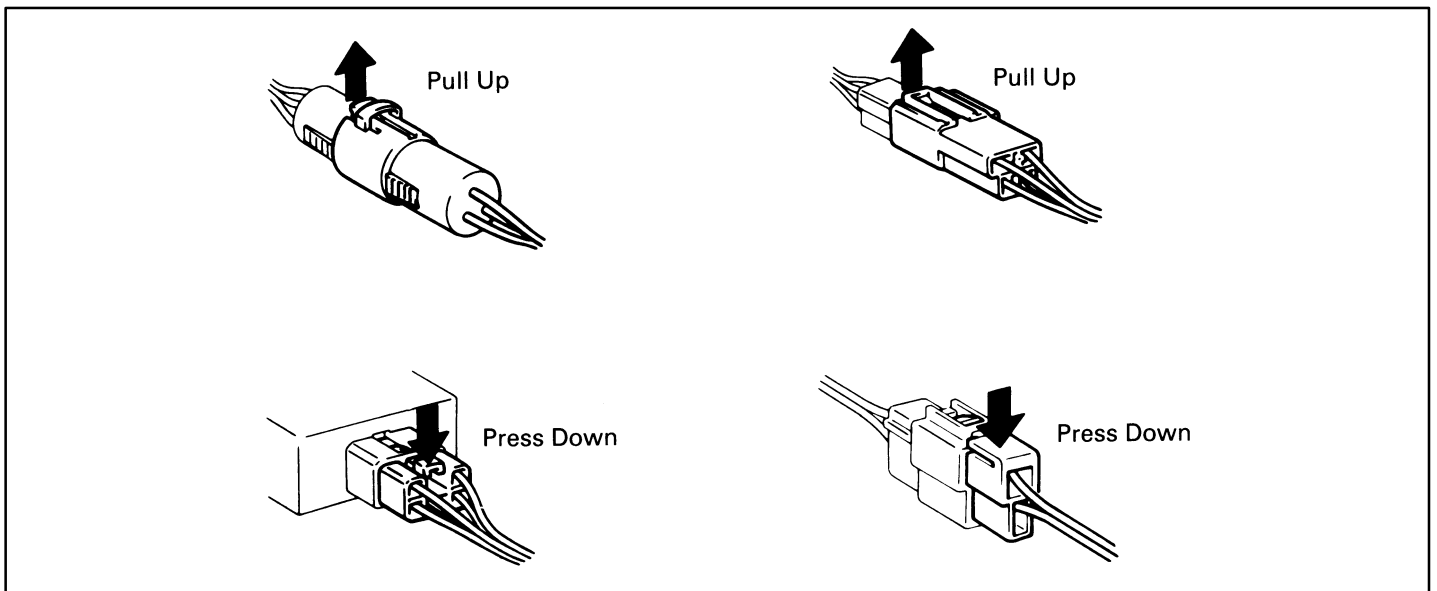
## CAUTION

- (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 internet 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).

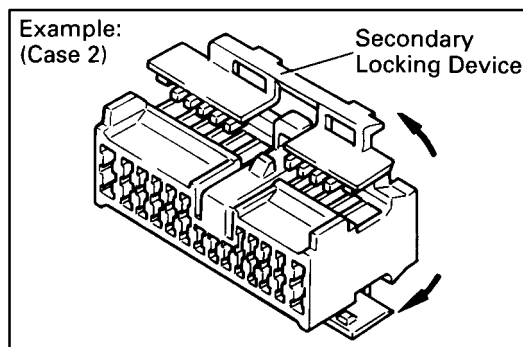
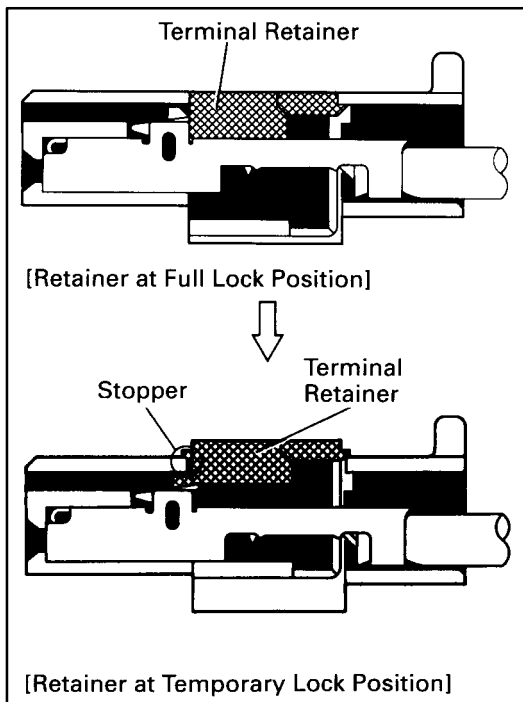
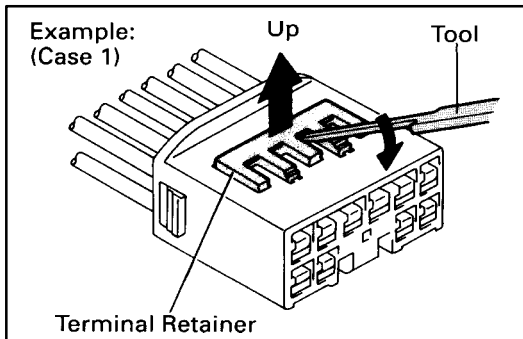
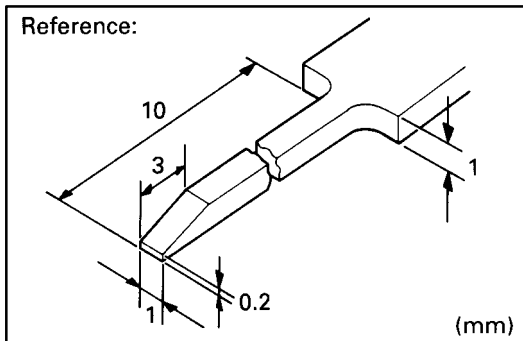
## DISCONNECTION OF MALE AND FEMALE CONNECTORS

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.



# TROUBLESHOOTING



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

1. PREPARE THE SPECIAL TOOL  
HINT: To remove the terminal from the connector, please construct and use the special tool or like object shown on the left.
2. DISCONNECT CONNECTOR
3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.
  - (a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.
  - (b) Use a special tool or the terminal pick to unlock the secondary locking device or terminal retainer.

### NOTICE:

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

- Ⓐ For Non-Waterproof Type Connector

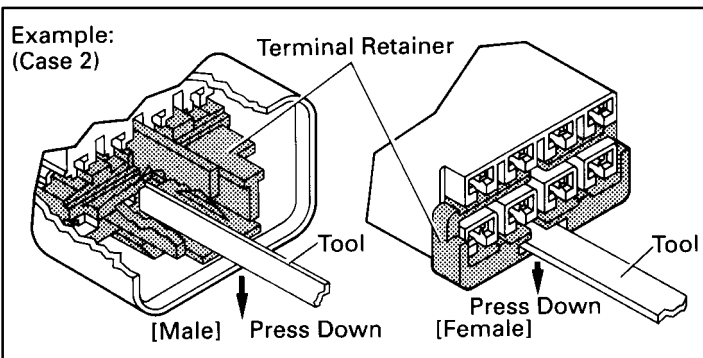
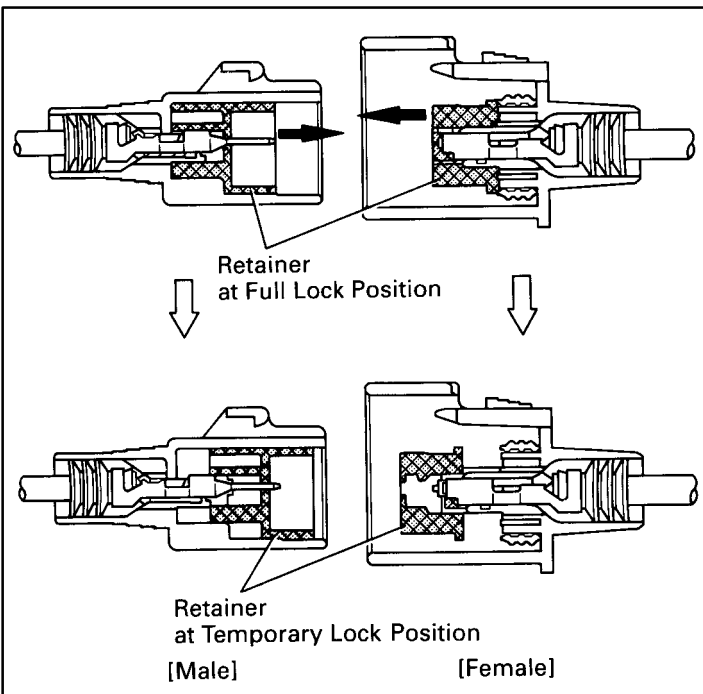
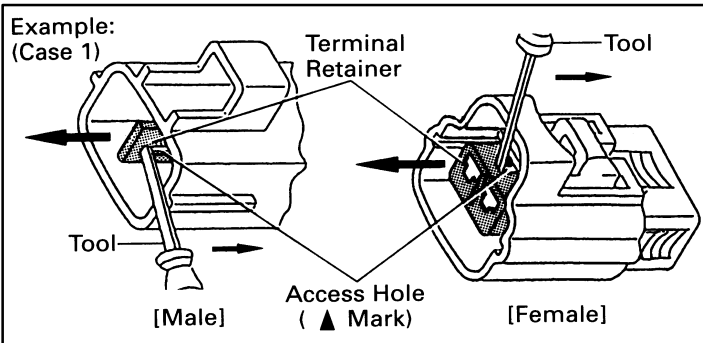
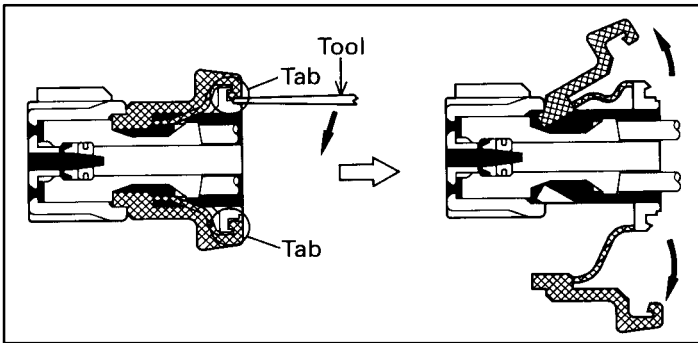
HINT: The needle insertion position varies according to the connector's shape (number of terminals etc.), so check the position before inserting it.

#### "Case 1"

Raise the terminal retainer up to the temporary lock position.

#### "Case 2"

Open the secondary locking device.



Ⓑ 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).

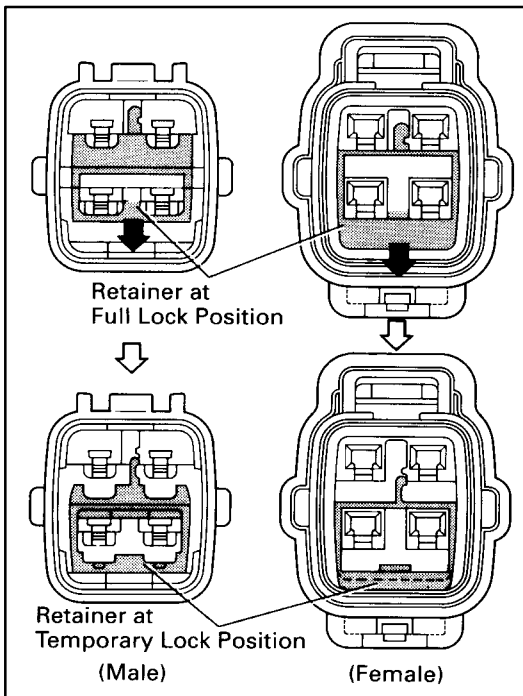
Insert the special tool into the terminal retainer access hole (▲ Mark) and pull the terminal retainer up to the temporary lock position.

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

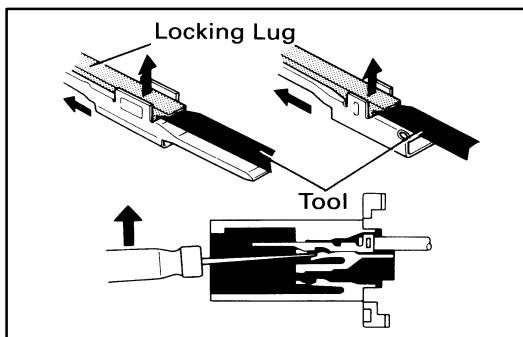
“Case 2”

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

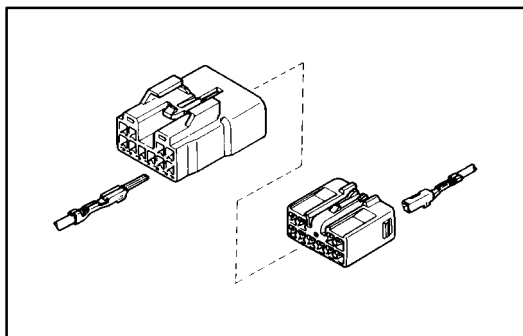
# TROUBLESHOOTING



Push the terminal retainer down to the temporary lock position.



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

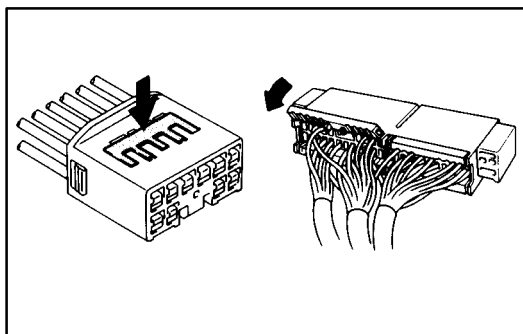


## 4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

### HINT:

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



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

## 5. CONNECT CONNECTOR

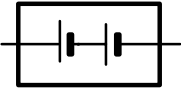
















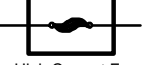


## ABBREVIATIONS

The following abbreviations are used in this manual.

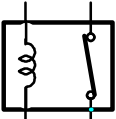
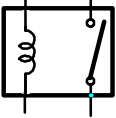

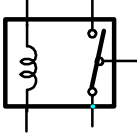

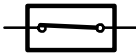

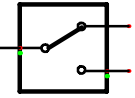
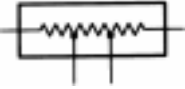
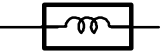
ABS	= Anti-Lock Brake System
ACIS	= Acoustic Control Induction System
A/C	= Air Conditioning
A/T	= Automatic Transmission
COMB.	= Combination
C/P	= Coupe
ECU	= Electronic Control Unit
EFI	= Electronic Fuel Injection
EGR	= Exhaust Gas Recirculation
ESA	= Electronic Spark Advance
Ex.	= Except
FL	= Fusible Link
IAC	= Idle Air Control
ISC	= Idle Speed Control
J/B	= Junction Block
LH	= Left-Hand
MFI	= Multiport Fuel Injection
M/T	= Manual Transmission
O/D	= Overdrive
R/B	= Relay Block
RH	= Right-Hand
RPM	= Engine Speed
S/D	= Sedan
SFI	= Sequential Multiport Fuel Injection
SRS	= Supplemental Restraint System
SW	= Switch
TEMP.	= Temperature
VSV	= Vacuum Switching Valve
W/G	= Wagon
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.

# GLOSSARY OF TERMS AND SYMBOLS

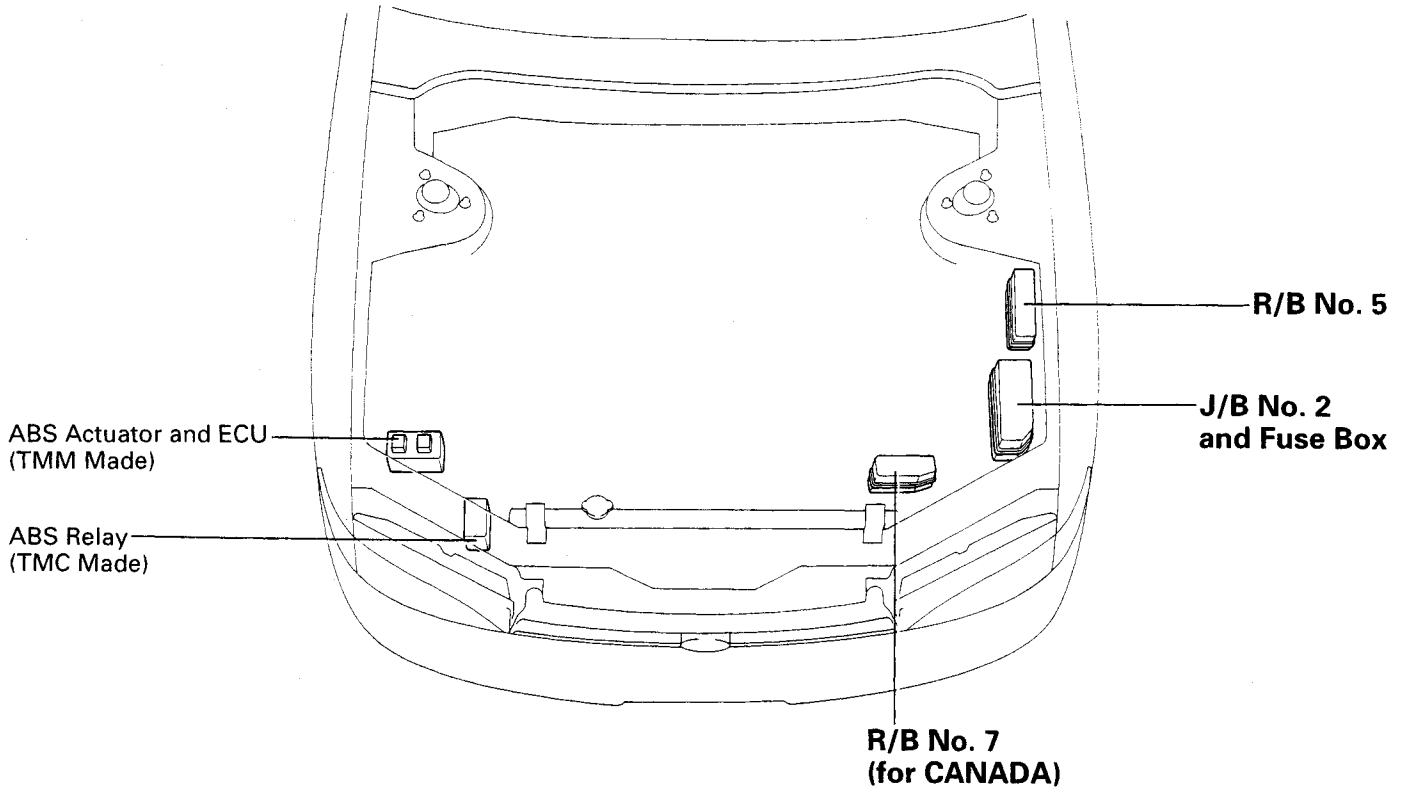
 <p><b>BATTERY</b> Stores chemical energy and converts it into electrical energy. Provides DC current for the auto's various electrical circuits.</p>	 <p><b>HEADLIGHTS</b> Current flow causes a headlight filament to heat up and emit light. A headlight may have either a single (1) filament or a double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



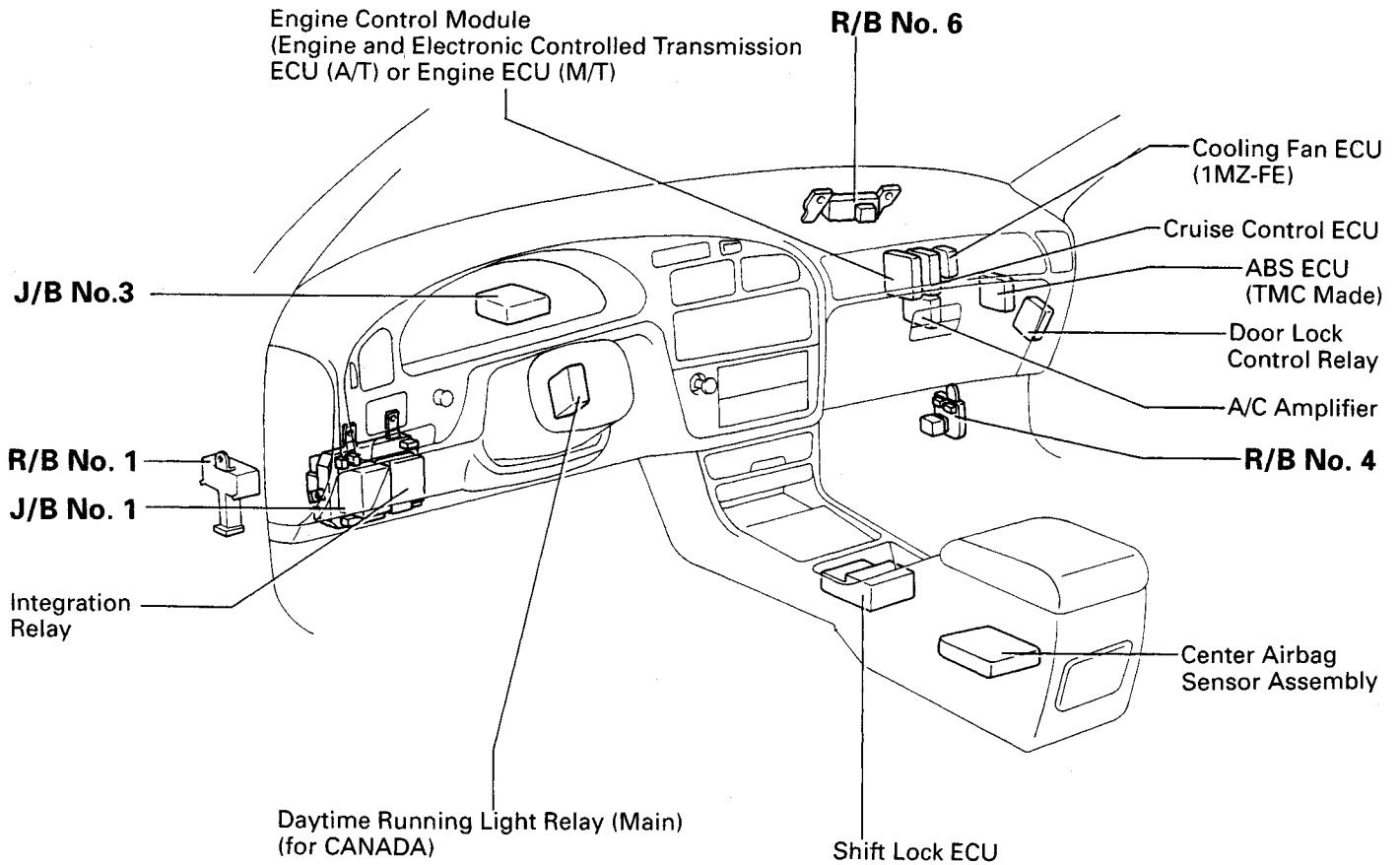
 <p><b>RELAY</b></p> <p>1. <b>NORMALLY CLOSED</b></p> <p>2. <b>NORMALLY OPEN</b></p> <p>Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p>	 <p><b>SPEAKER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

# RELAY LOCATIONS

## [Engine Compartment]



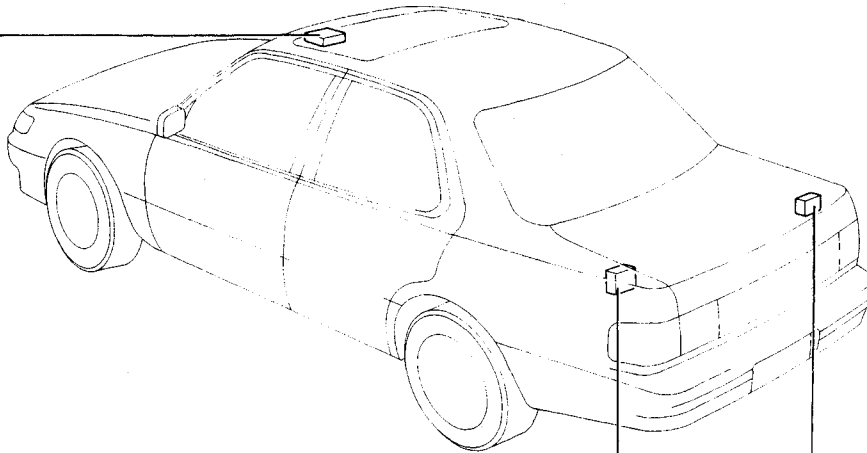
## [Instrument Panel]



**[Body]**

**[Sedan]**

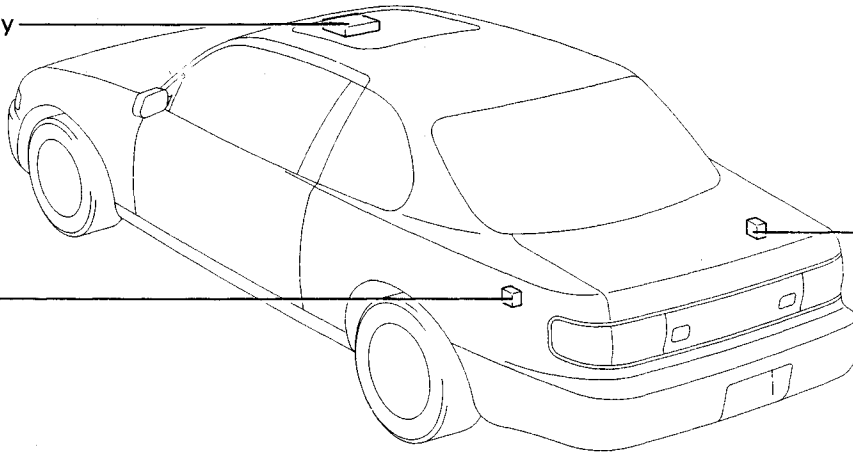
Moon Roof  
Control Relay



Light Failure Sensor      Auto Antenna  
Control Relay

**[Coupe]**

Moon Roof Control Relay



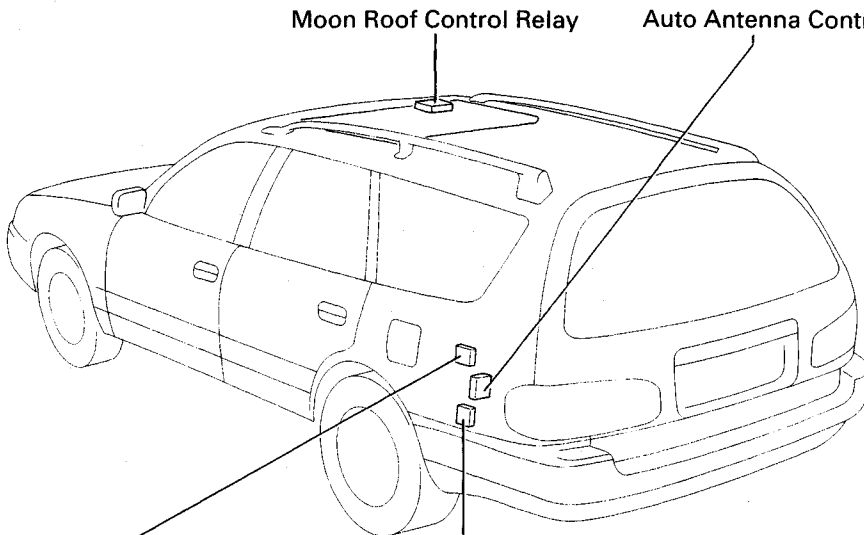
Auto Antenna  
Control Relay

Light Failure Sensor

**[Wagon]**

Moon Roof Control Relay

Auto Antenna Control Relay



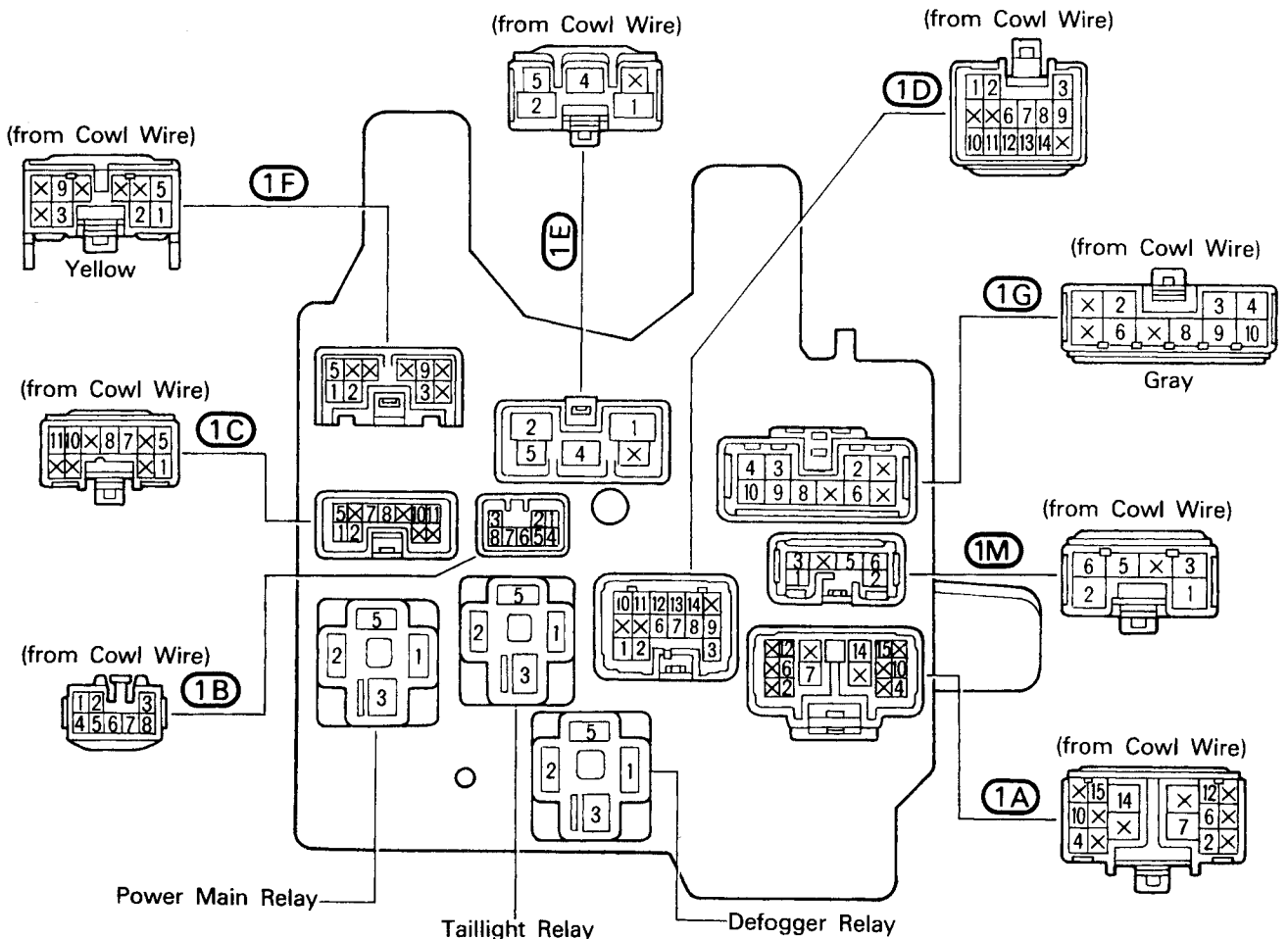
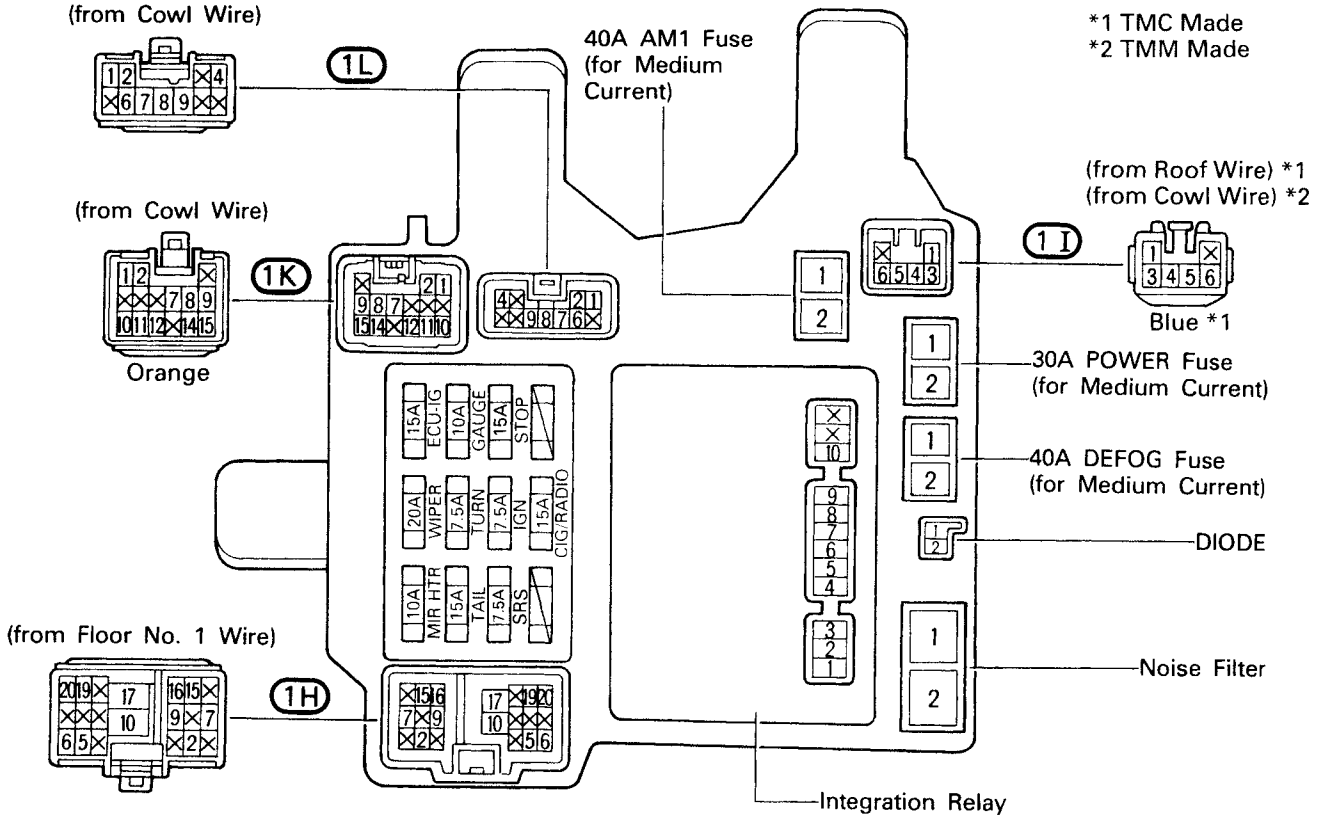
Rear Wiper Relay

Light Failure Sensor

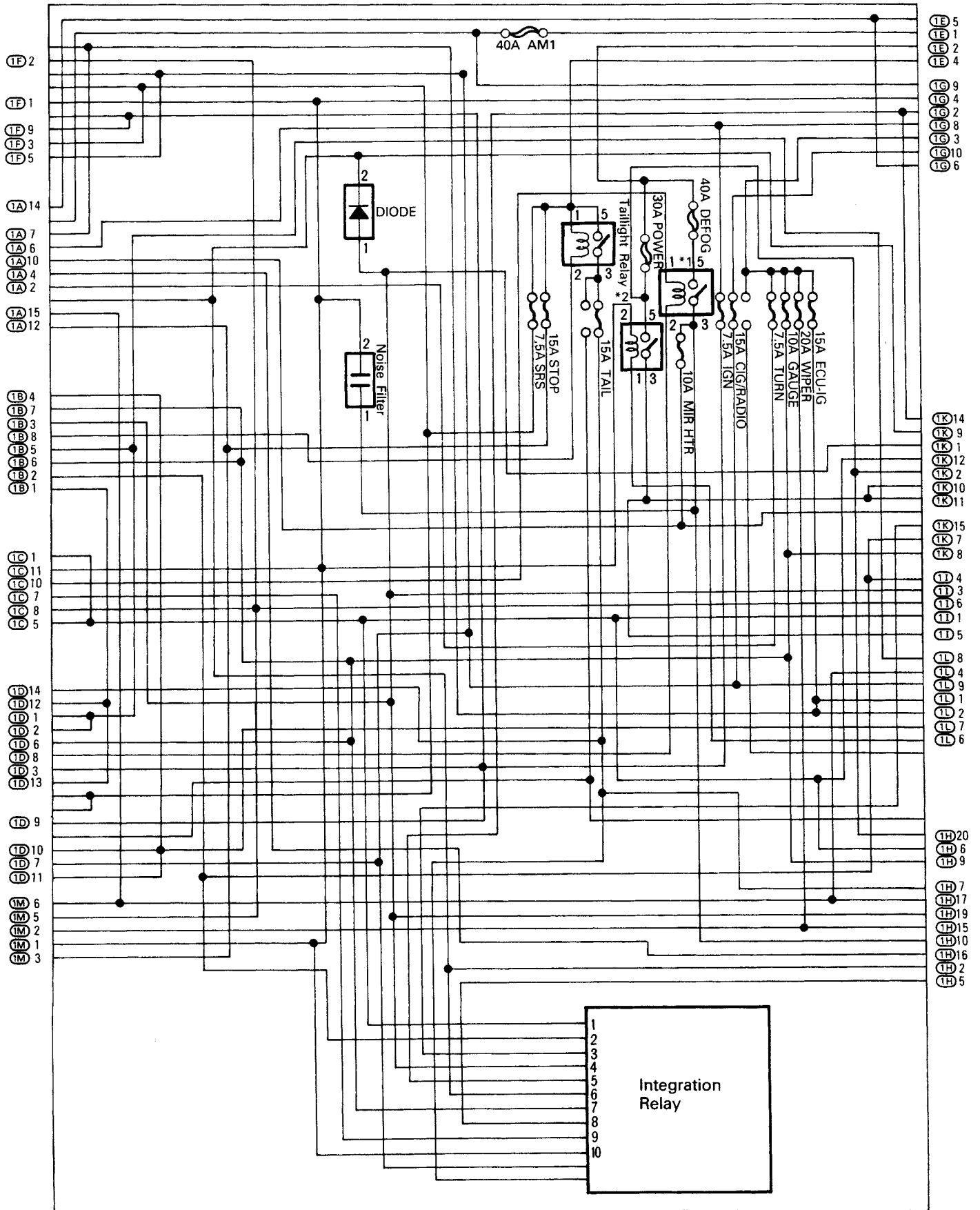
# RELAY LOCATIONS

○ : J/B No. 1      Instrument Panel Left      (See Page 18)

\*1 TMC Made  
\*2 TMM Made



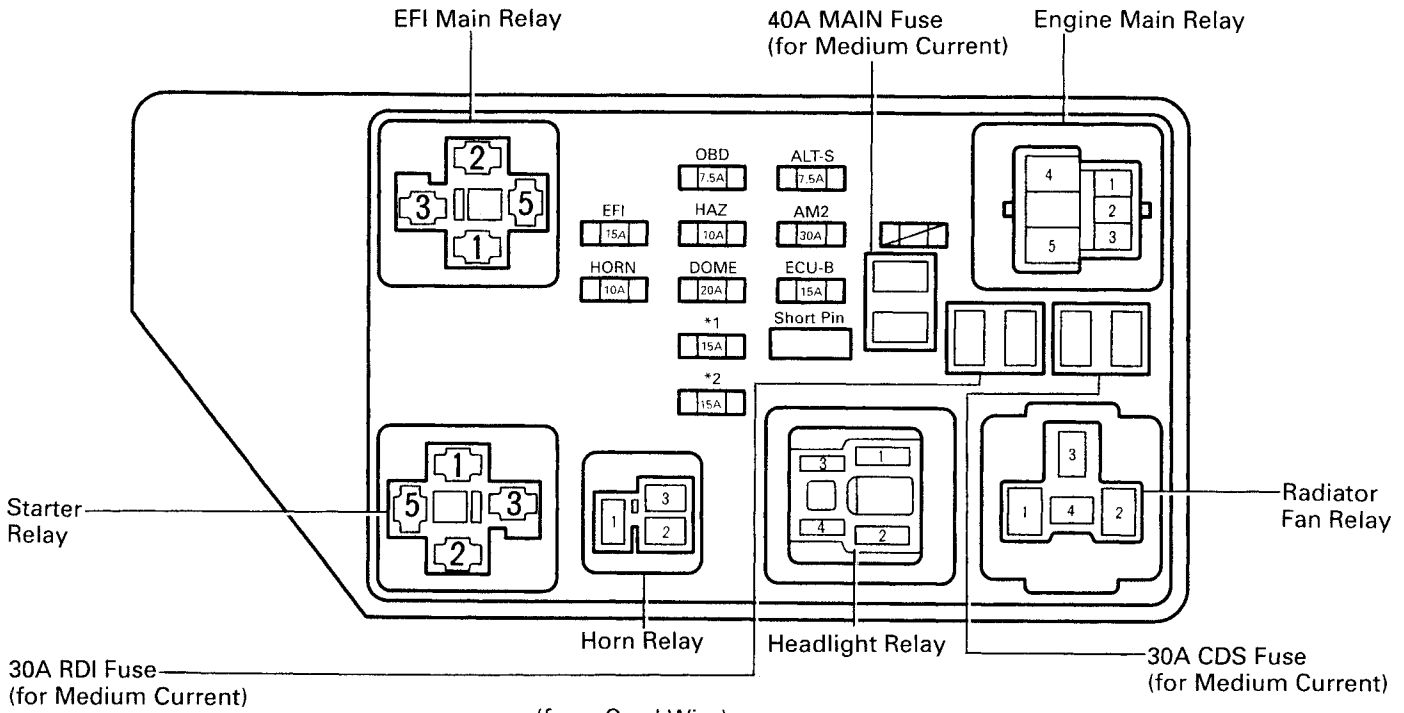
# [J/B No. 1 Inner Circuit]



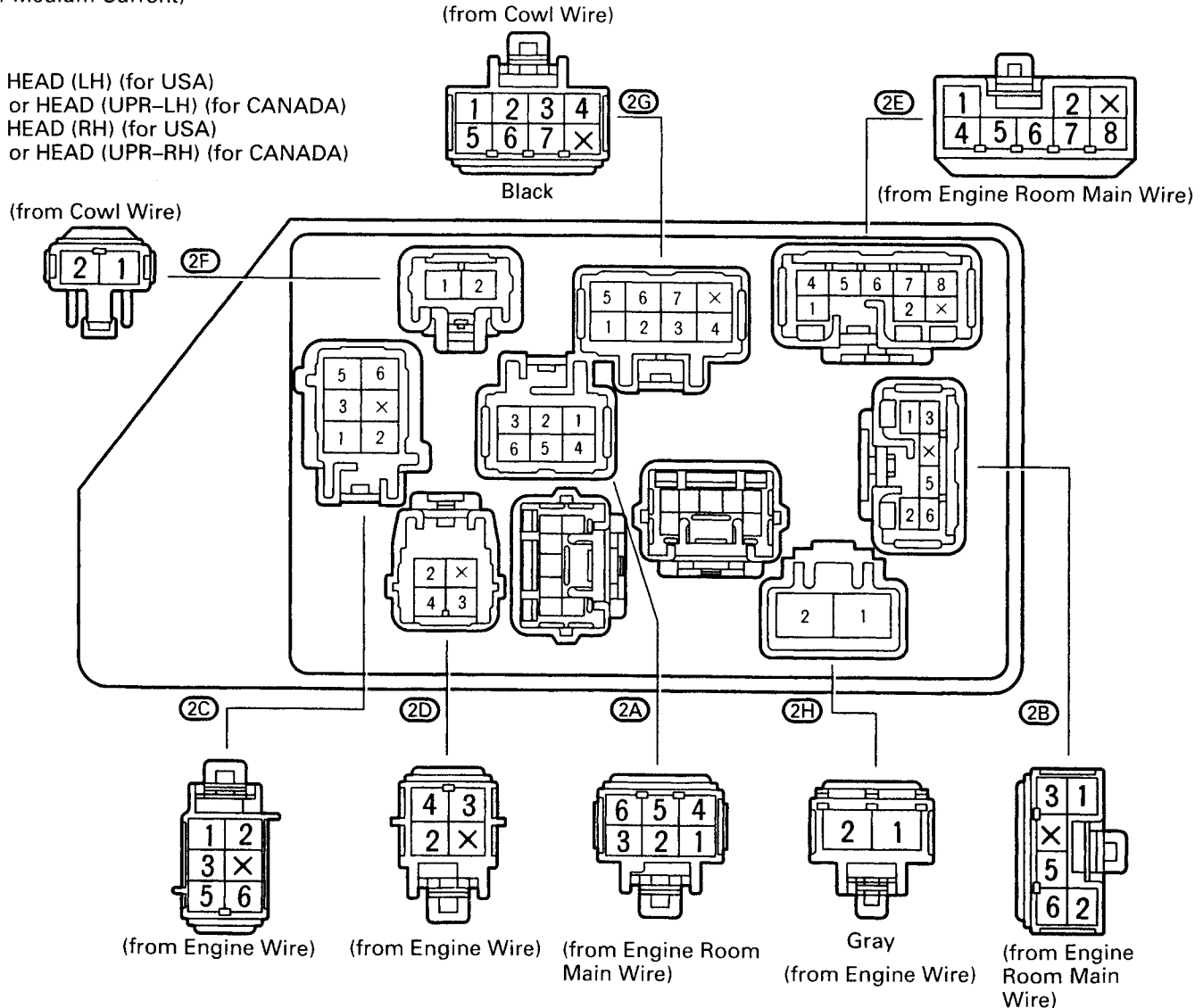
- \*1: Defogger Relay
- \*2: Power Main Relay

# RELAY LOCATIONS

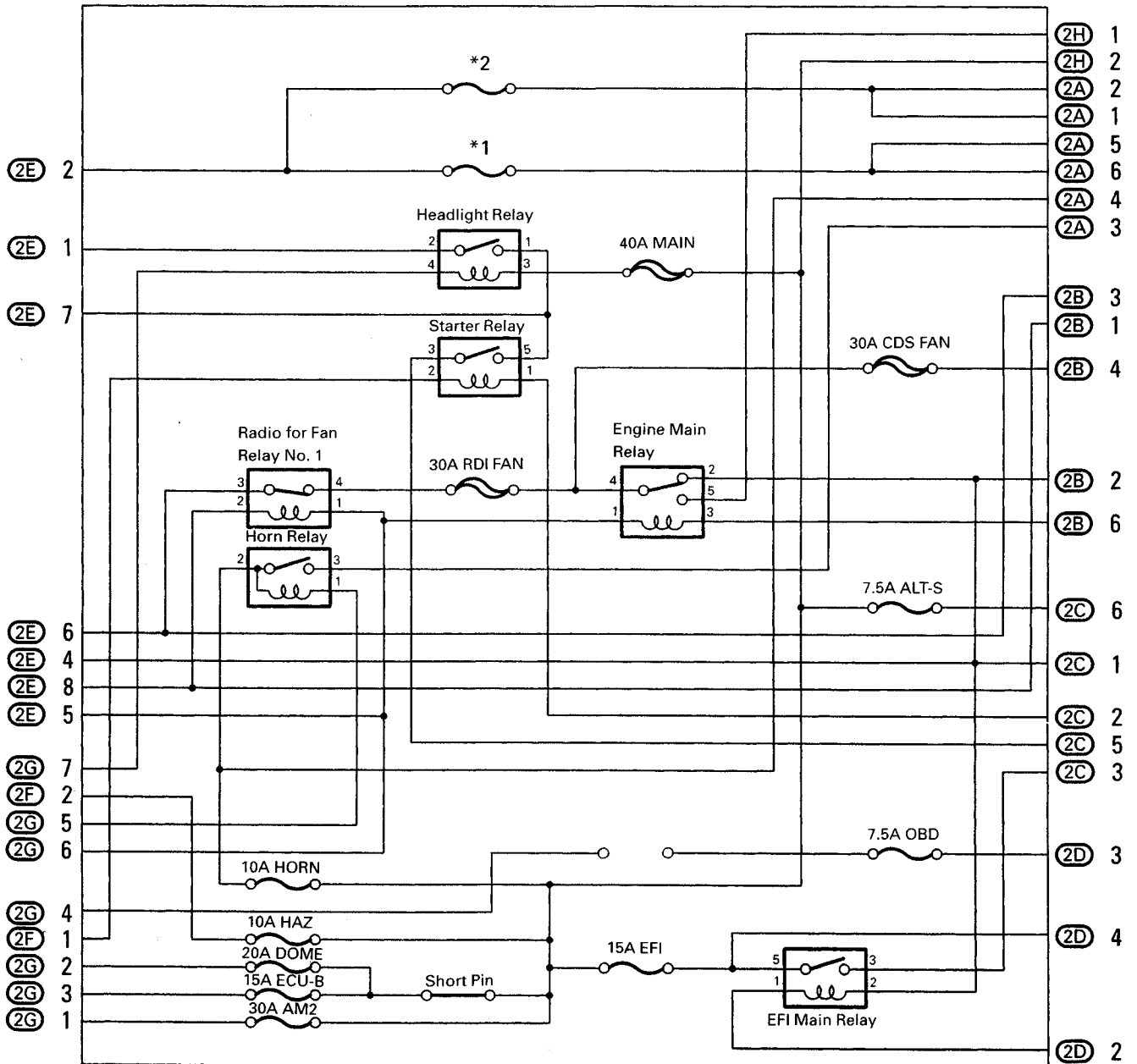
○ : J/B No. 2      **Engine Compartment Left**      (See Page 18)



\*1: HEAD (LH) (for USA)  
or HEAD (UPR-LH) (for CANADA)  
\*2: HEAD (RH) (for USA)  
or HEAD (UPR-RH) (for CANADA)



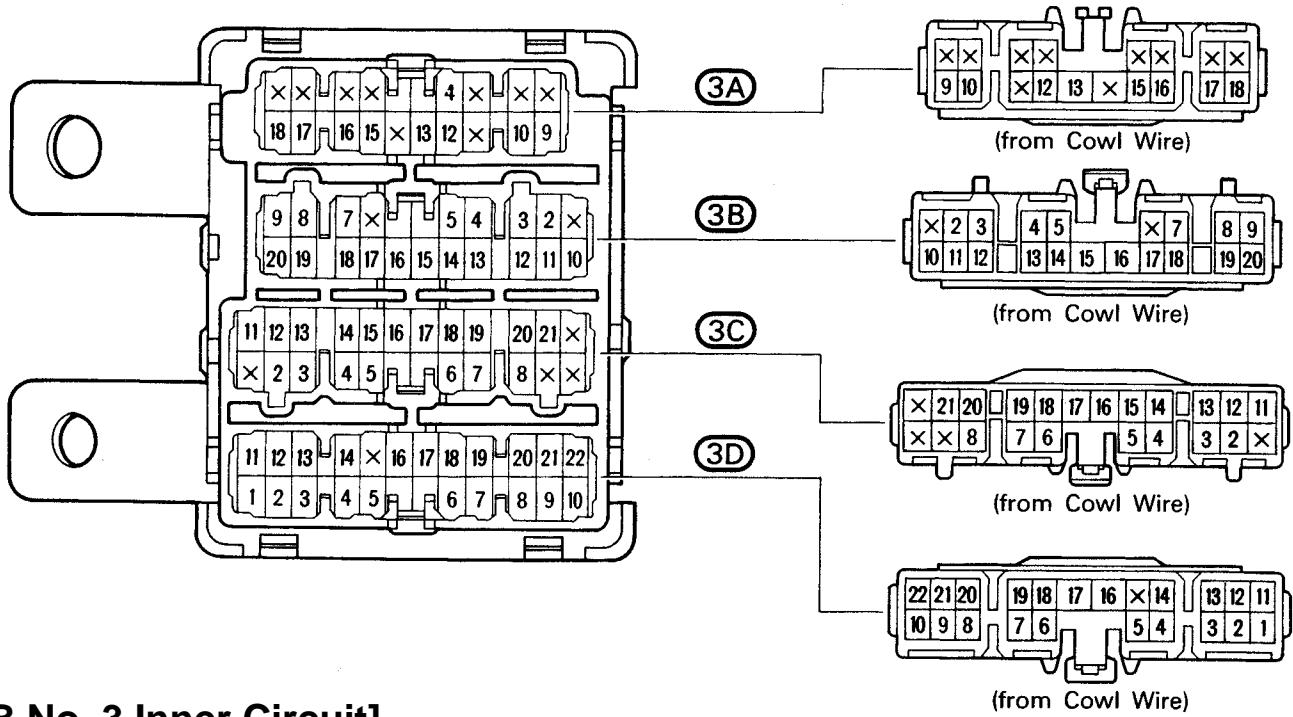
[J/B No. 2 Inner Circuit]



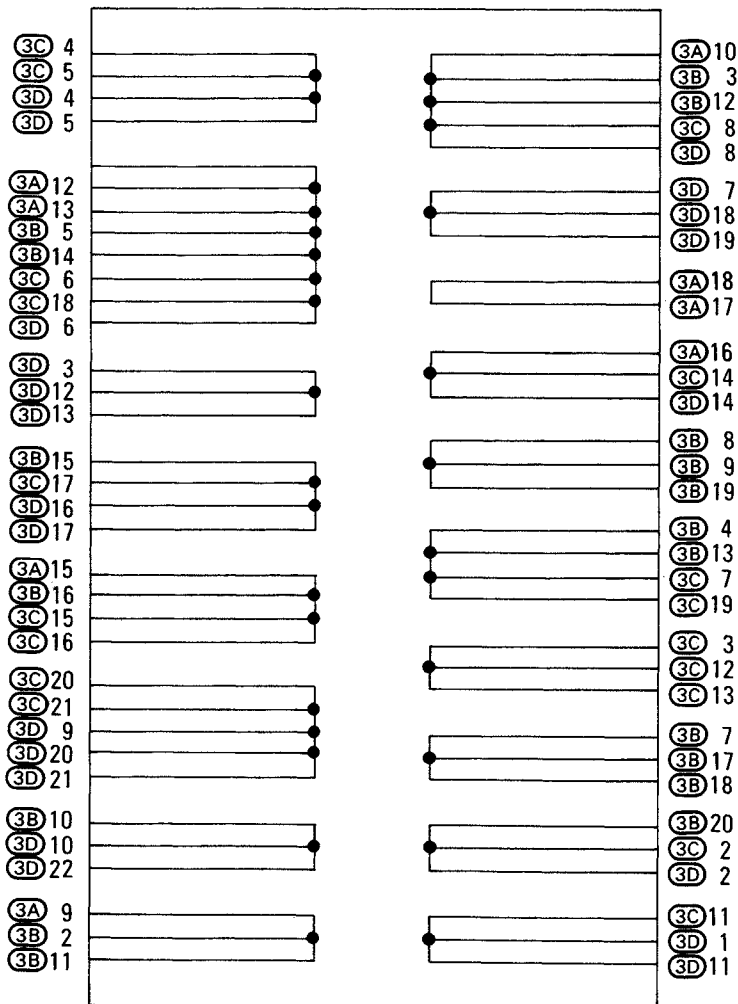
\*1: 15A HEAD (LH) (for USA) or 15A HEAD (UPR-LH) (for CANADA)  
 \*2: 15A HEAD (RH) (for USA) or 15A HEAD (UPR-RH) (for CANADA)

# RELAY LOCATIONS

○ : J/B No. 3      Behind Combination Meter      (See Page 18)

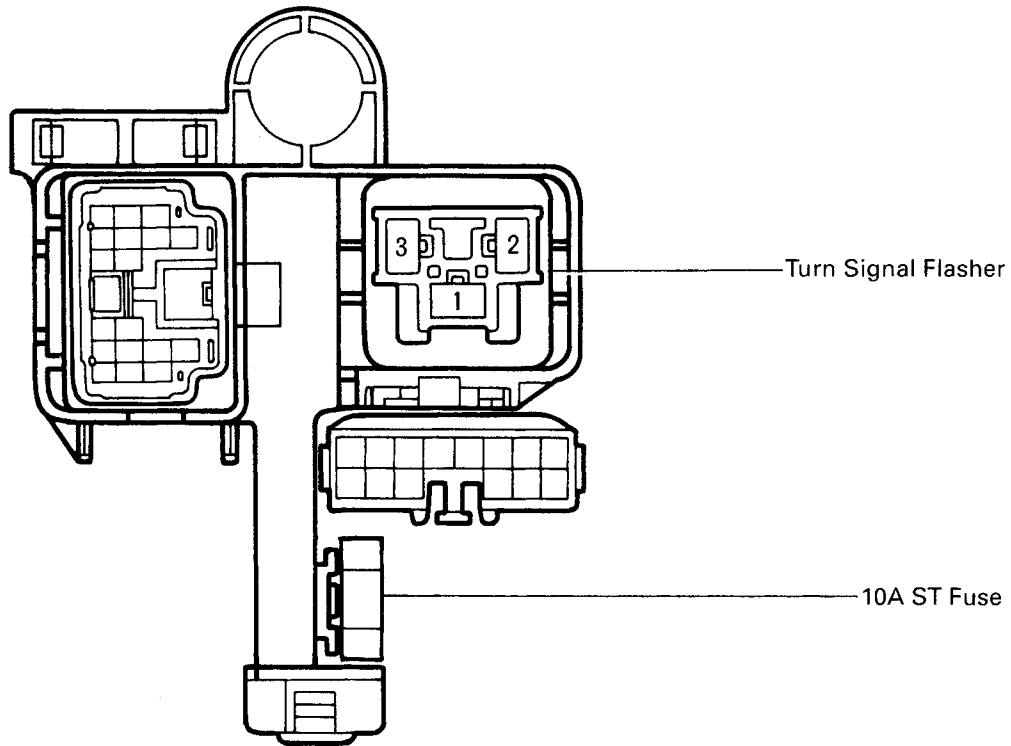


## [J/B No. 3 Inner Circuit]

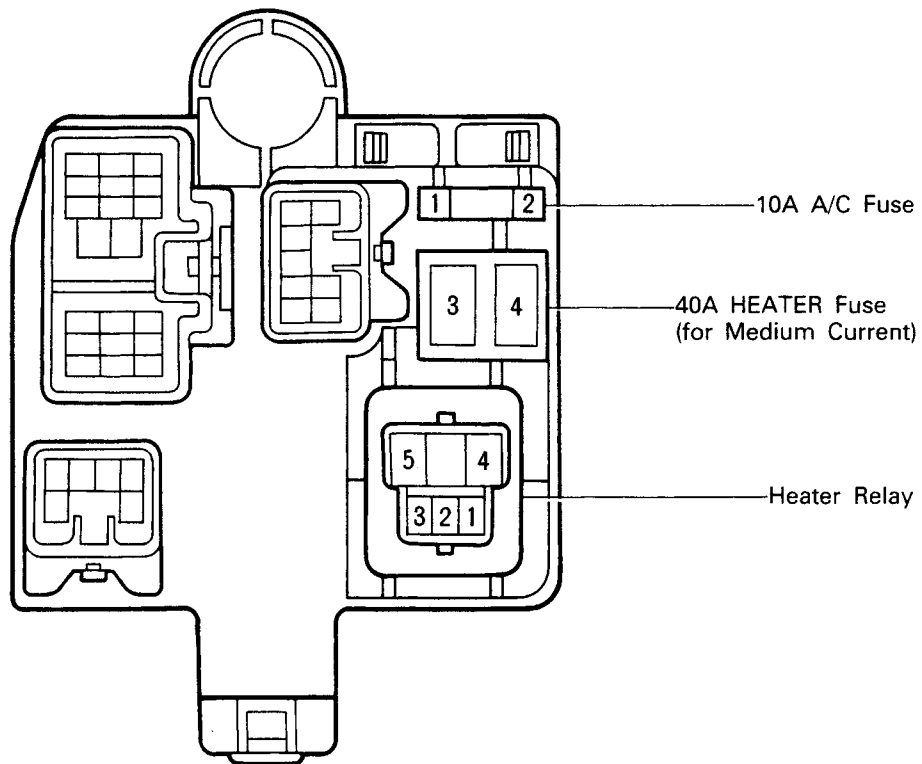




① : R/B No. 1      Left Kick Panel      (See Page 18)



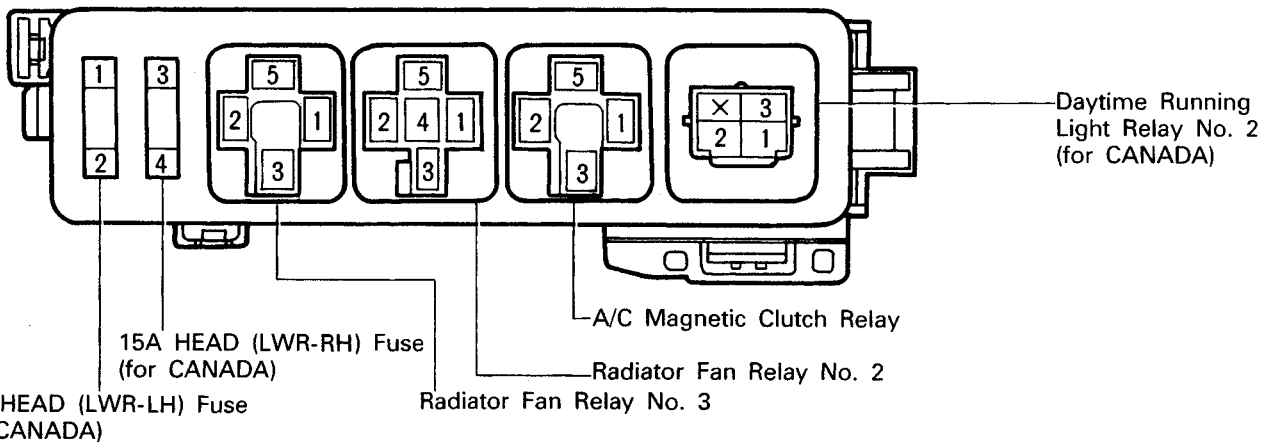
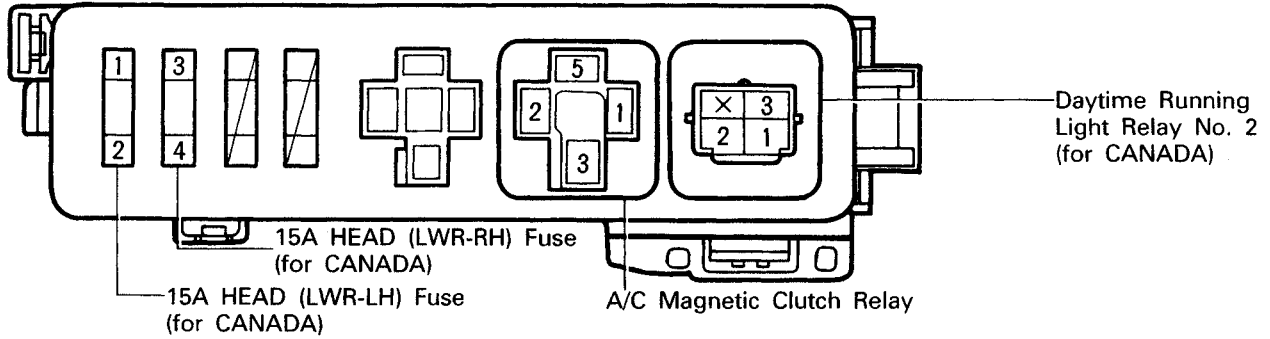
④ : R/B No. 4      Right Kick Panel      (See Page 18)



# RELAY LOCATIONS

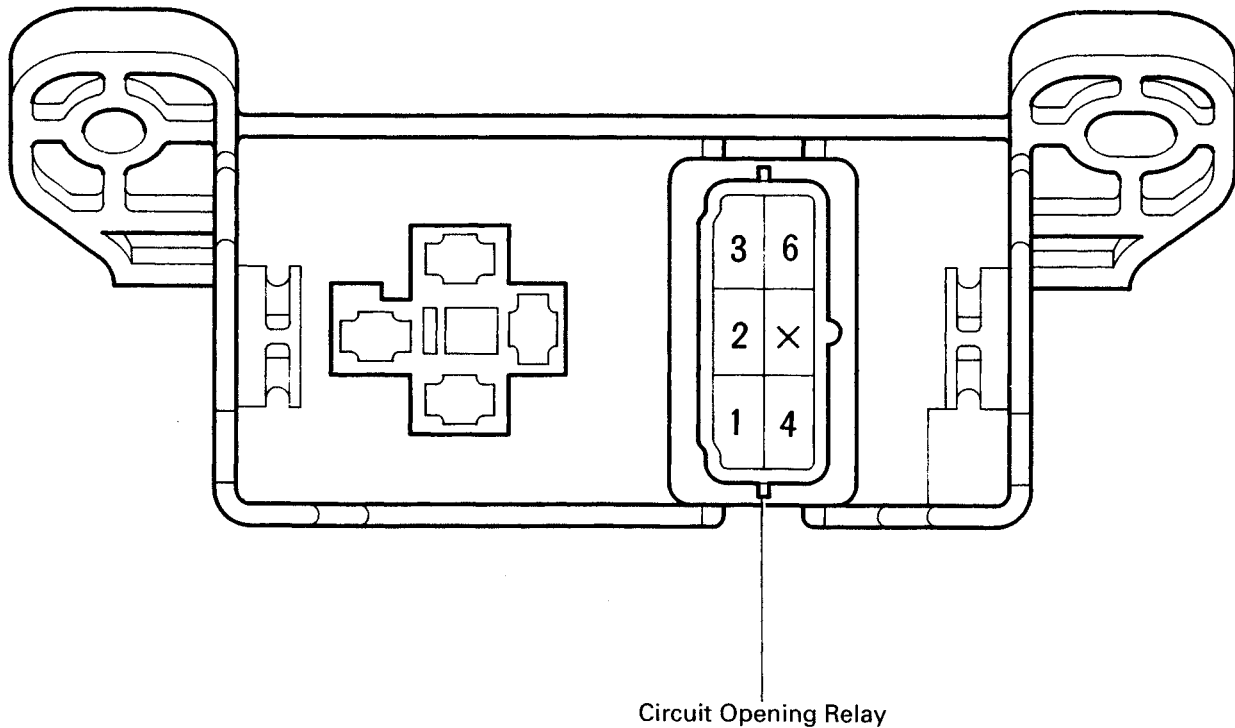
⑤ : R/B No. 5      Engine Compartment Left      (See Page 18)

(for 1MZ-FE)

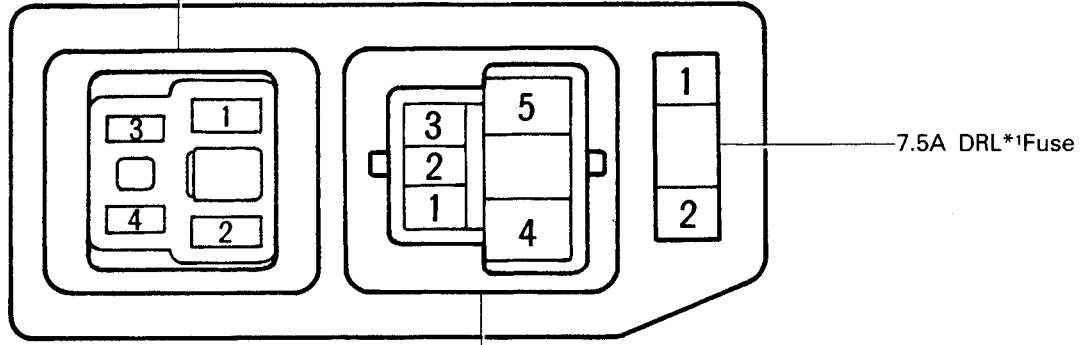


⑥ : J/B No. 6      Behind Glove Box      (See Page 18)

(for 5S-FE)



Daytime Running Light Relay No. 4



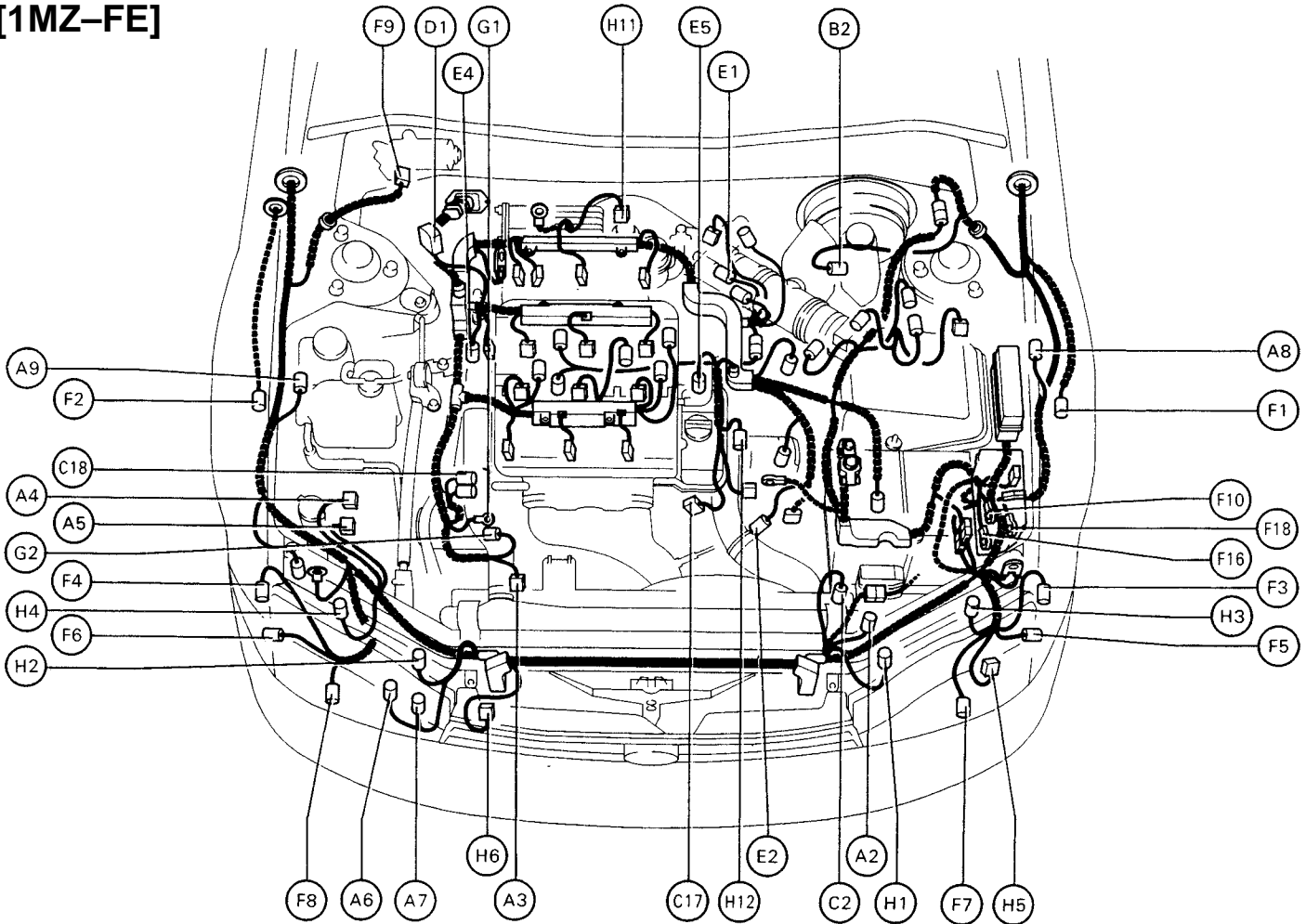
Daytime Running Light Relay No. 3

(\*1: Daytime Running Light)

# ELECTRICAL WIRING ROUTING

## Position of Parts in Engine Compartment

[1MZ-FE]

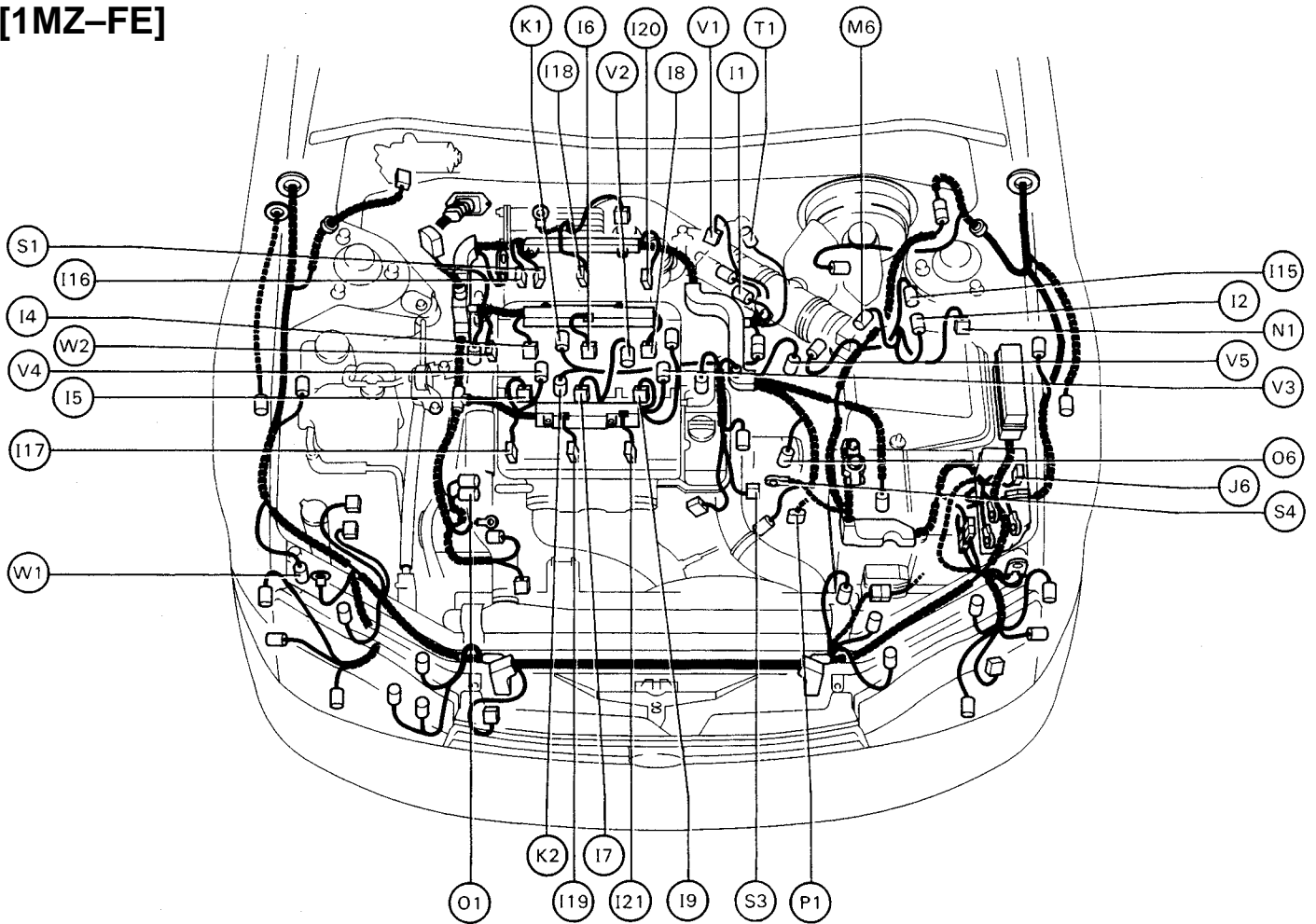


- A 2 A/C Triple Pressure SW (A/C Dual and Single Pressure SW)
- A 3 A/C Magnetic Clutch and Lock Sensor
- A 4 ABS Actuator
- A 5 ABS Actuator
- A 6 ABS Relay
- A 7 ABS Relay
- A 8 ABS Speed Sensor Front LH
- A 9 ABS Speed Sensor Front RH
  
- B 2 Brake Fluid Level SW
  
- C 2 Cruise Control Actuator
- C 17 Camshaft Position Sensor
- C 18 Crankshaft Position Sensor
  
- D 1 Data Link Connector 1 (Check Connector)
- D 2 Distributor
  
- E 1 EGR Gas Temp. Sensor
- E 2 Electronic Controlled Transmission Solenoid
- E 4 Engine Coolant Temp. Sensor (EFI Water Temp. Sensor)
- E 5 Engine Coolant Temp. Sensor (Water Temp. Sensor) (for Cooling Fan)

- F 1 Front Airbag Sensor LH
- F 2 Front Airbag Sensor RH
- F 3 Front Clearance Light LH
- F 4 Front Clearance Light RH
- F 5 Front Side Marker LH
- F 6 Front Side Marker RH
- F 7 Front Turn Signal Light LH
- F 8 Front Turn Signal Light RH
- F 9 Front Wiper Motor
- F 10 Fuse Box
- F 16 Fuse Box
- F 18 Fuse Box
  
- G 1 Generator (Alternator)
- G 2 Generator (Alternator)
  
- H 1 Headlight Hi LH
- H 2 Headlight Hi RH
- H 3 Headlight Lo LH
- H 4 Headlight Lo RH
- H 5 Horn LH
- H 6 Horn RH
- H 11 Heated Oxygen Sensor (Bank 1 Sensor 1)
- H 12 Heated Oxygen Sensor (Bank 2 Sensor 1)

## Position of Parts in Engine Compartment

**[1MZ-FE]**



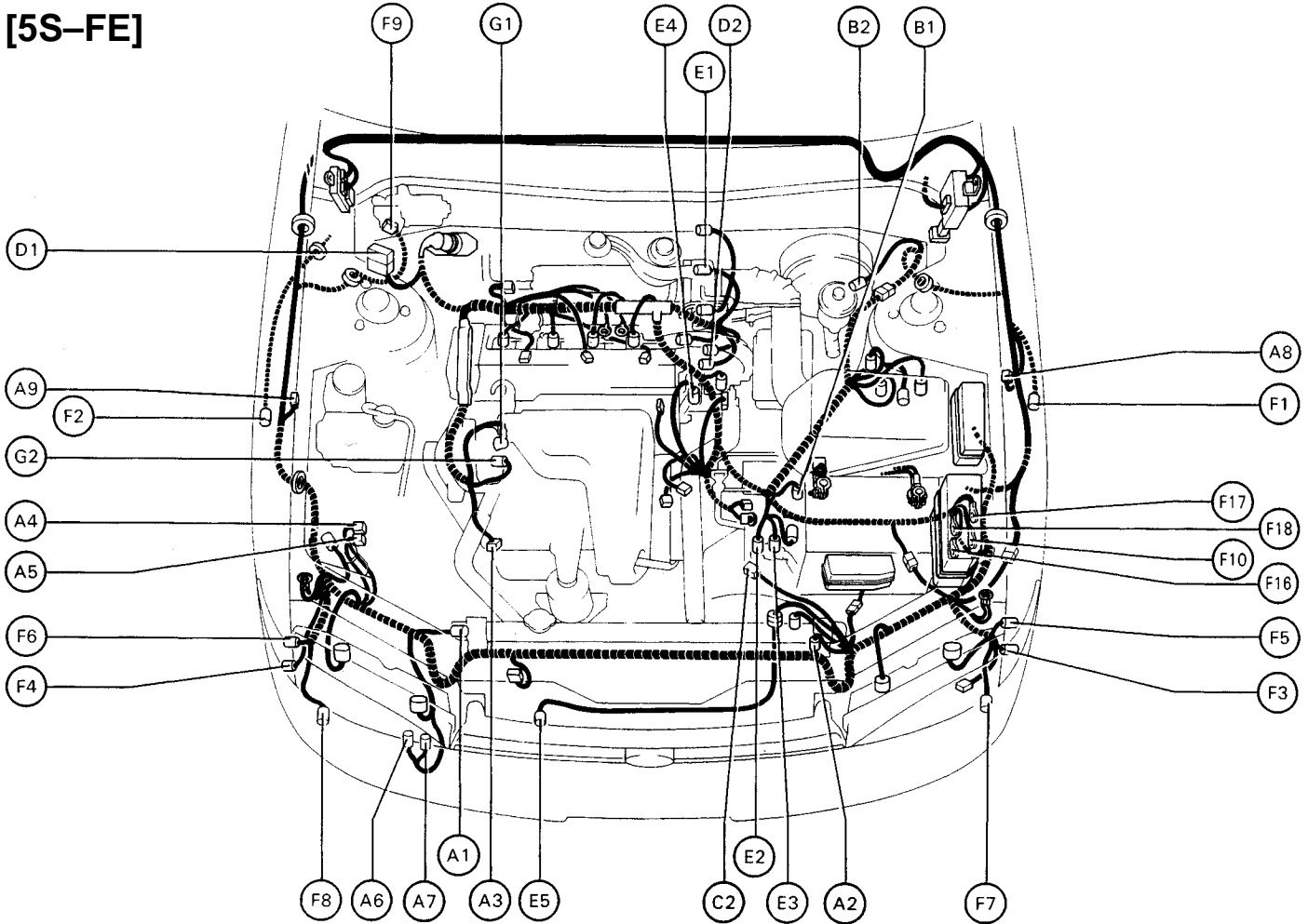
- I 1 Idle Air Control Valve (ISC Valve)
- I 2 Igniter
- I 4 Injector No. 1
- I 5 Injector No. 2
- I 6 Injector No. 3
- I 7 Injector No. 4
- I 8 Injector No. 5
- I 9 Injector No. 6
- I 15 Igniter
- I 16 Ignition Coil No. 1
- I 17 Ignition Coil No. 2
- I 18 Ignition Coil No. 3
- I 19 Ignition Coil No. 4
- I 20 Ignition Coil No. 5
- I 21 Ignition Coil No. 6
  
- J 6 Junction Connector
  
- K 1 Knock Sensor 1
- K 2 Knock Sensor 2
  
- M 6 Mass Air Flow (Air Flow Meter)

- N 1 Noise Filter (for Ignition System)
  
- O 1 Oil Pressure SW
- O 6 O/D Direct Clutch Speed Sensor
  
- P 1 Park/Neutral Position SW (Neutral Start SW) (A/T)
  
- S 1 Solenoid Valve (for Hydraulic Motor)
- S 3 Starter
- S 4 Starter
  
- T 1 Throttle Position Sensor
  
- V 1 VSV (for A/C Idle-Up)
- V 2 VSV (for EGR System)
- V 3 VSV (for Fuel Pressure Up)
- V 4 VSV (for Intake Air Control)
- V 5 Vehicle Speed Sensor (Speed Sensor)
  
- W 1 Washer Motor
- W 2 Water Temp. Sender

# ELECTRICAL WIRING ROUTING

## Position of Parts in Engine Compartment

[5S-FE]



- A 1 A/C Condenser Fan Motor
- A 2 A/C Triple Pressure SW (A/C Dual and Single Pressure SW)
- A 3 A/C Magnetic Clutch and Lock Sensor
- A 4 ABS Actuator
- A 5 ABS Actuator
- A 6 ABS Relay
- A 7 ABS Relay
- A 8 ABS Speed Sensor Front LH
- A 9 ABS Speed Sensor Front RH

- B 1 Back-Up Light SW (M/T)
- B 2 Brake Fluid Level SW

- C 2 Cruise Control Actuator

- D 1 Data Link Connector 1 (Check Connector)
- D 2 Distributor

- E 1 EGR Gas Temp. Sensor
- E 2 Electronic Controlled Transmission Solenoid
- E 3 Electronic Controlled Transmission Solenoid
- E 4 Engine Coolant Temp. Sensor (EFI Water Temp. Sensor)
- E 5 Water Temp. SW (for Cooling Fan)

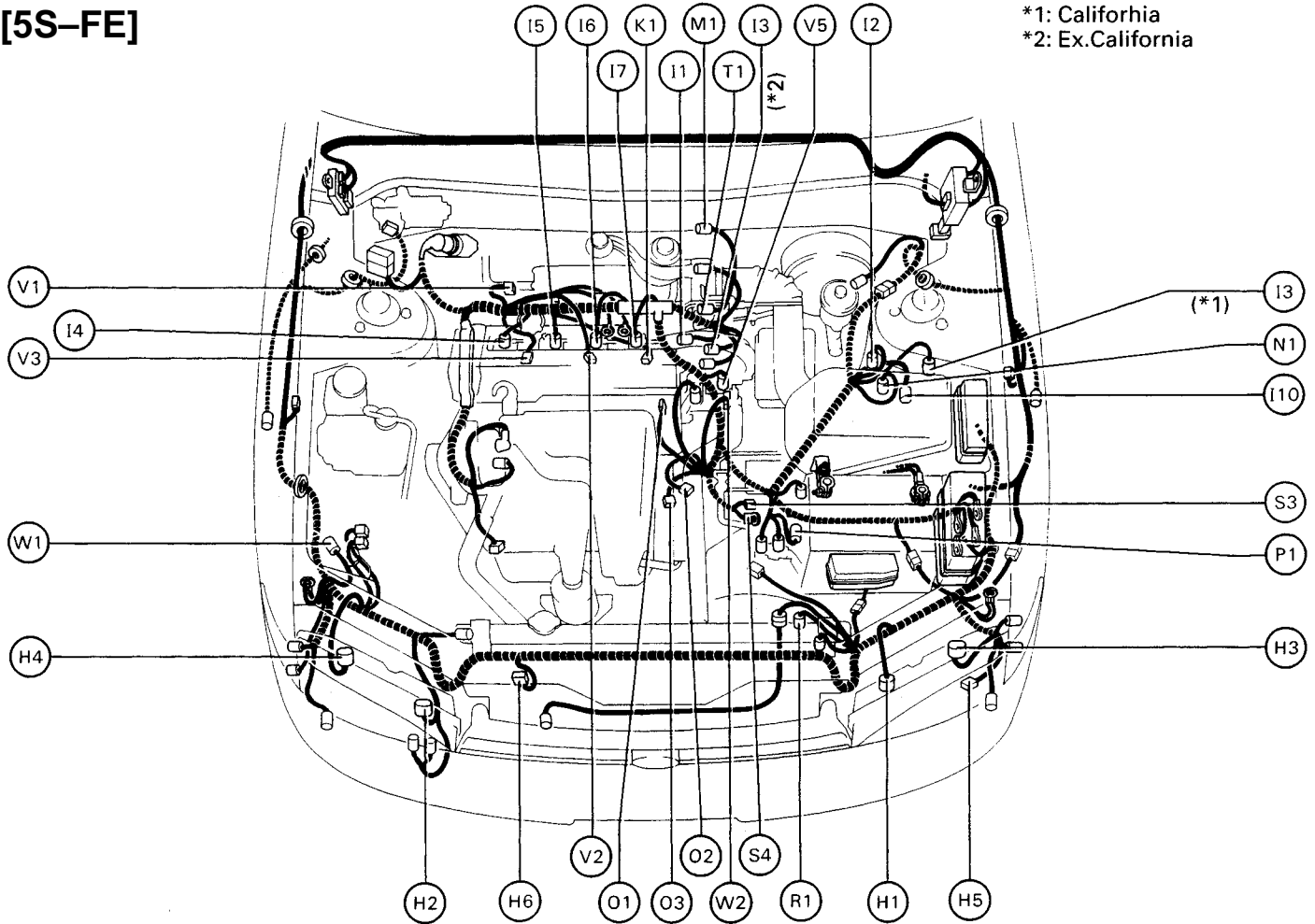
- F 1 Front Airbag Sensor LH
- F 2 Front Airbag Sensor RH
- F 3 Front Clearance Light LH
- F 4 Front Clearance Light RH
- F 5 Front Side Marker LH
- F 6 Front Side Marker RH
- F 7 Front Turn Signal Light LH
- F 8 Front Turn Signal Light RH
- F 9 Front Wiper Motor
- F 10 Fuse Box
- F 16 Fuse Box
- F 17 Fuse Box
- F 18 Fuse Box

- G 1 Generator (Alternator)
- G 2 Generator (Alternator)

## Position of Parts in Engine Compartment

**[5S-FE]**

\*1: California  
\*2: Ex. California



H 1 Headlight Hi LH  
H 2 Headlight Hi RH  
H 3 Headlight Lo LH  
H 4 Headlight Lo RH  
H 5 Horn LH  
H 6 Horn RH

I 1 Idle Air Control Valve (ISC Valve)  
I 2 Igniter  
I 3 Ignition Coil  
I 4 Injector No. 1  
I 5 Injector No. 2  
I 6 Injector No. 3  
I 7 Injector No. 4  
I 10 Intake Air Temp. Sensor (In-Air Temp. Sensor)

K 1 Knock Sensor

M 1 Manifold Absolute Pressure Sensor (Vacuum Sensor)

N 1 Noise Filter (for Ignition System)

O 1 Oil Pressure SW  
O 2 Oxygen Sensor (Sub)  
O 3 Oxygen Sensor (Main)

P 1 Park/Neutral Position SW (Neutral Start SW) (A/T)

R 1 Radiator Fan Motor

S 3 Starter

S 4 Starter

T 1 Throttle Position Sensor

V 1 VSV (for A/C Idle-Up)

V 2 VSV (for EGR System)

V 3 VSV (for Fuel Pressure Up)

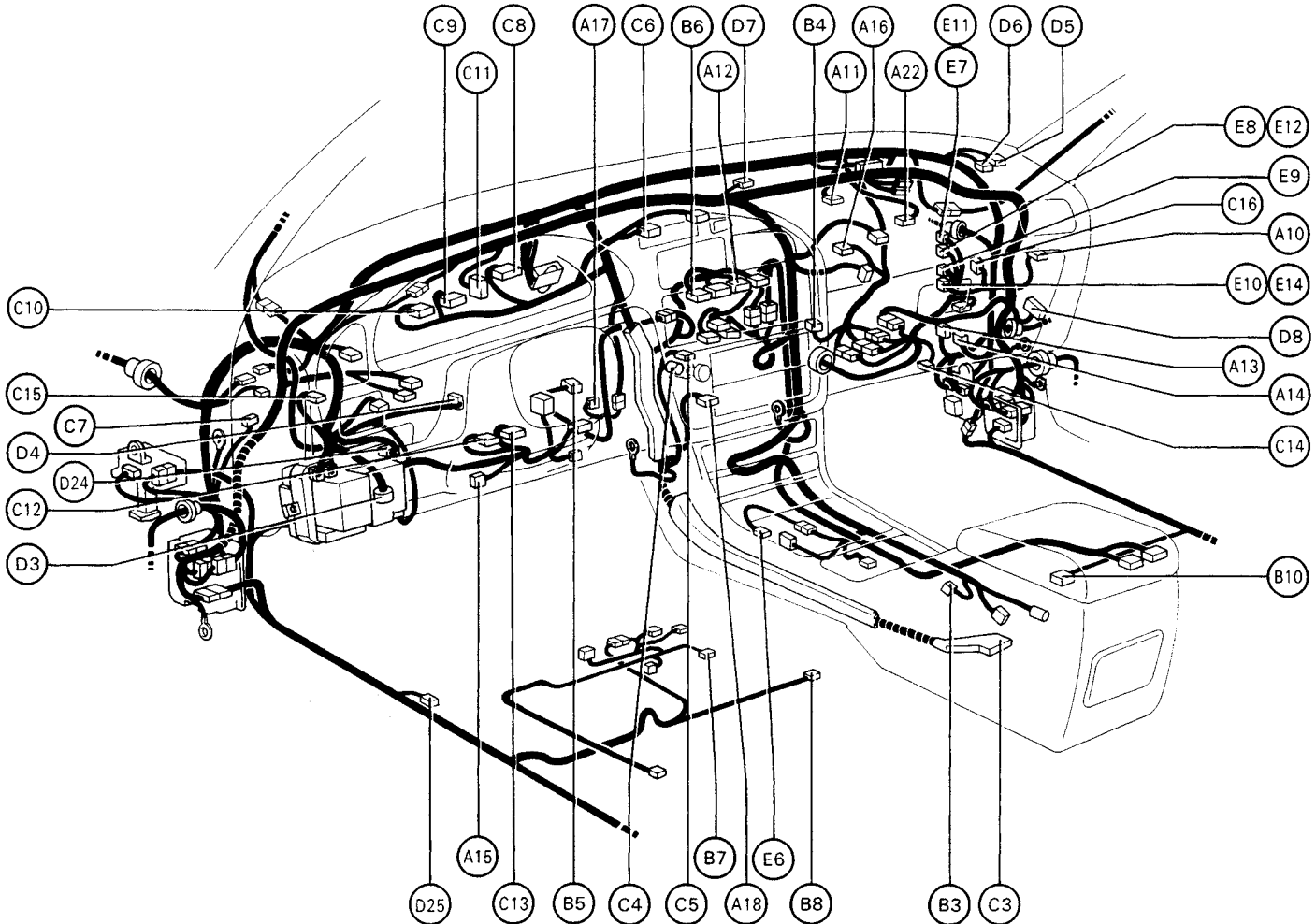
V 5 Vehicle Speed Sensor (Speed Sensor)

W 1 Washer Motor

W 2 Water Temp. Sender

# ELECTRICAL WIRING ROUTING

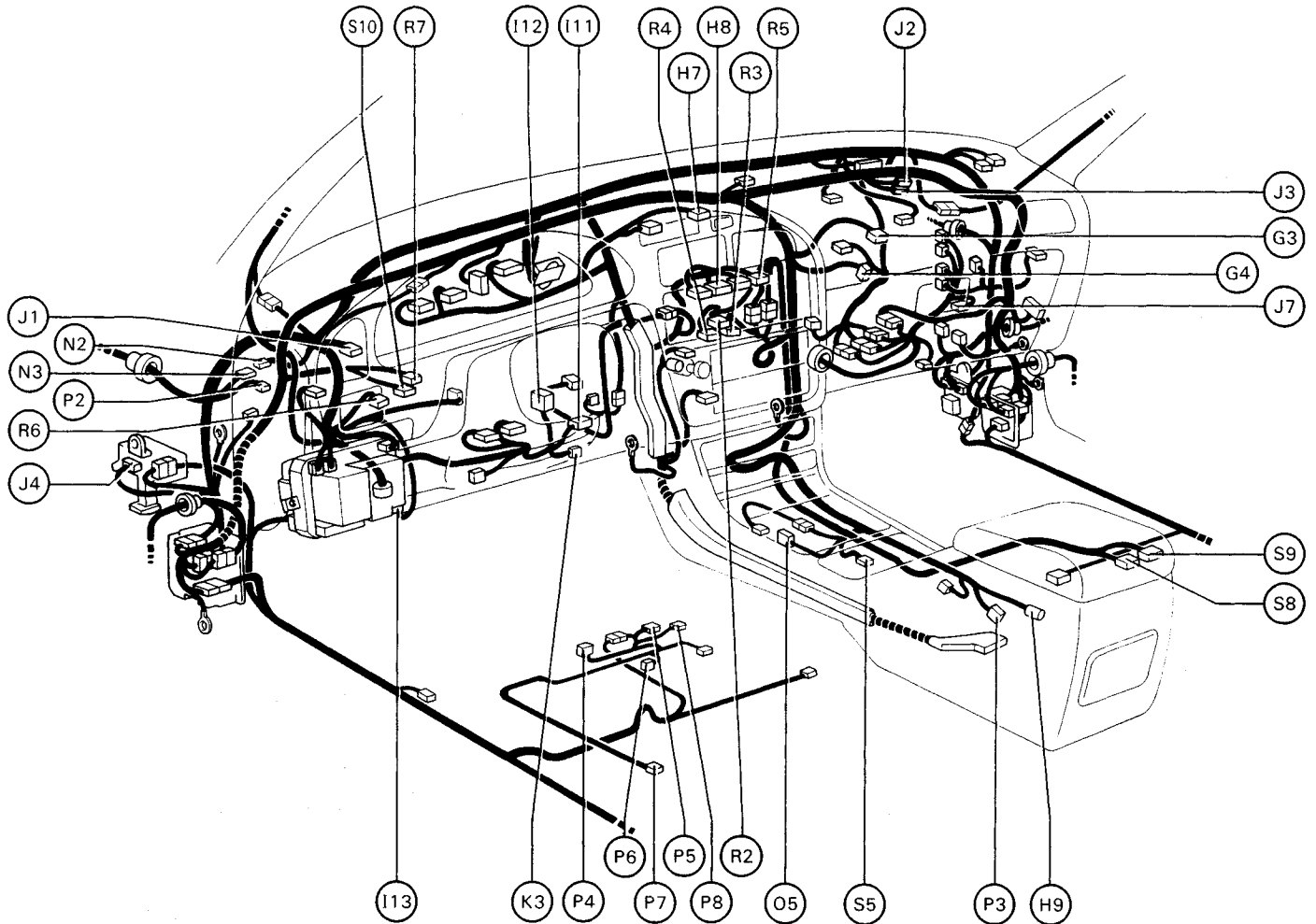
## Position of Parts in Instrument Panel



- |      |  |      |   |
|------|--|------|---|
| A 10 | A/C Amplifier                                  | C 12 | Combination SW  |
| A 11 | A/C Evaporator Temp. Sensor                    | C 13 | Combination SW  |
| A 12 | A/C SW   | C 14 | Cooling Fan ECU   |
| A 13 | ABS ECU  | C 15 | Cruise Control Clutch SW (M/T)  |
| A 14 | ABS ECU  | C 16 | Cruise Control ECU  |
| A 15 | Airbag Squib (Steering Wheel Pad)              | D 3  | Data Link Connector 2 (TDCL (Toyota Diagnostic Communication Link))             |
| A 16 | Air Inlet Control Servo Motor                  | D 4  | Daytime Running Light Relay (Main)  |
| A 17 | Air Vent Mode Control Servo Motor              | D 5  | Diode (for Cruise Control)  |
| A 18 | Ashtray Illumination                           | D 6  | Diode (for Idle-Up)   |
| A 22 | Airbag Squib (Front Passenger Airbag Assembly) | D 7  | Diode (for Courtesy)  |
| B 3  | Back Door Lock Control SW                      | D 8  | Door Lock Control Relay   |
| B 4  | Blower Motor                                   | D 24 | Data Link Connector 3   |
| B 5  | Blower Resistor                                | D 25 | Diode (for Tension Reducer)   |
| B 6  | Blower SW                                      | E 6  | Electronic Controlled Transmission Pattern Select SW                            |
| B 7  | Buckle SW LH (w/ Power Seat)                   | E 7  | Engine Control Module (Engine and Electronic Controlled Transmission ECU) (A/T) |
| B 8  | Buckle SW LH (w/o Power Seat)                  | E 8  | Engine Control Module (Engine and Electronic Controlled Transmission ECU) (A/T) |
| B 10 | Buckle SW RH                                   | E 9  | Engine Control Module (Engine and Electronic Controlled Transmission ECU) (A/T) |
| C 3  | Center Airbag Sensor Assembly                  | E 10 | Engine Control Module (Engine and Electronic Controlled Transmission ECU) (A/T) |
| C 4  | Cigarette Lighter                              | E 11 | Engine Control Module (Engine ECU) (M/T)  |
| C 5  | Cigarette Lighter Illumination                 | E 12 | Engine Control Module (Engine ECU) (M/T)  |
| C 6  | Clock  | E 14 | Engine Control Module (Engine ECU) (M/T)  |
| C 7  | Clutch Start SW (M/T)                          |      |   |
| C 8  | Combination Meter                              |      |   |
| C 9  | Combination Meter                              |      |   |
| C 10 | Combination Meter                              |      |   |
| C 11 | Combination Meter                              |      |   |



## Position of Parts in Instrument Panel

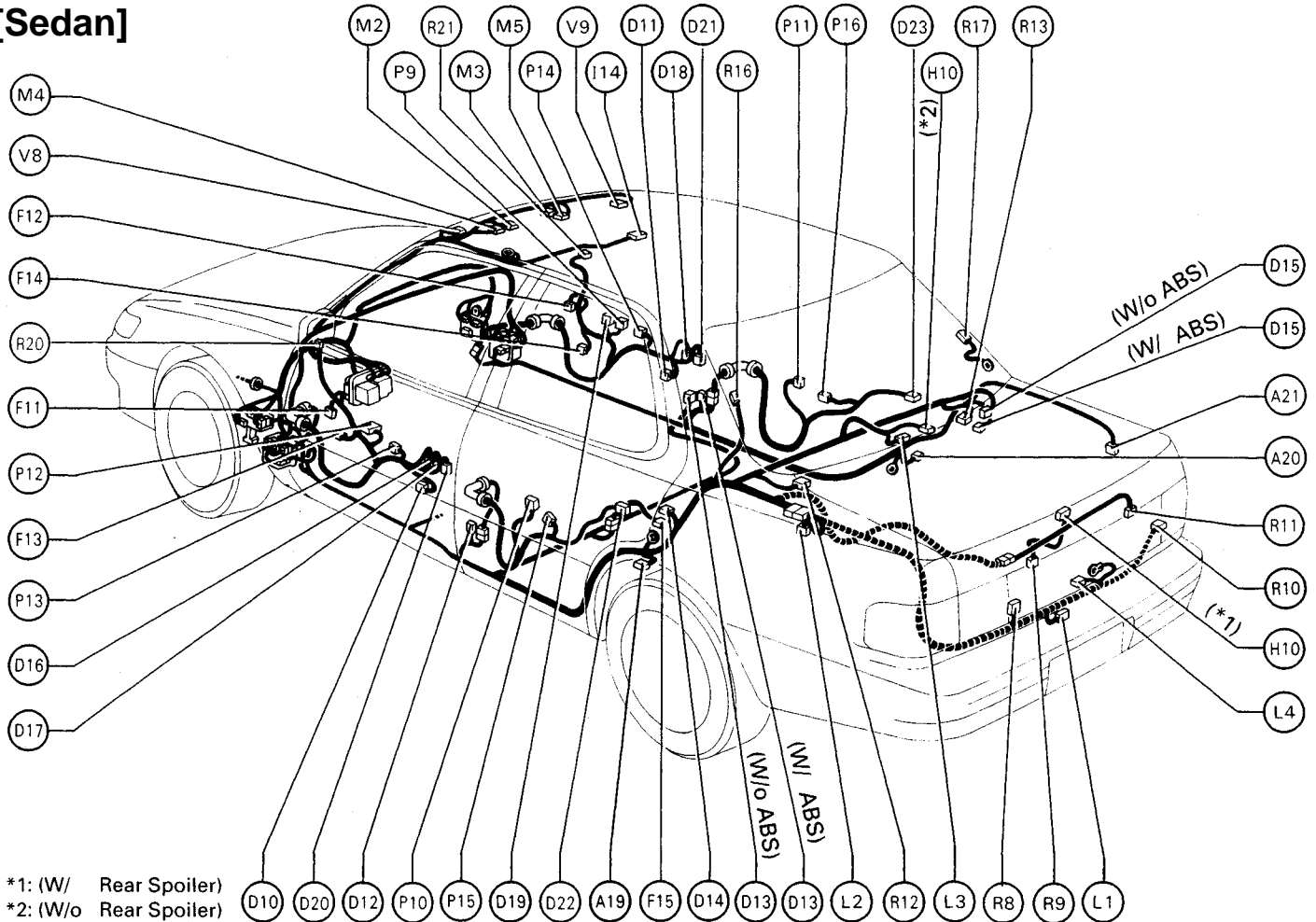


- |  |   |
|--|---|
| <p>G 3 Glove Box Light<br/>                     G 4 Glove Box Light SW</p> <p>H 7 Hazard SW<br/>                     H 8 Heater Control SW (for Push Control SW Type) or Air Vent Mode Control SW (for Lever Control SW Type)<br/>                     H 9 Heated Oxygen Sensor (Bank 1 Sensor 2)</p> <p>I 11 Ignition Key Cylinder Light<br/>                     I 12 Ignition SW and Unlock Warning SW<br/>                     I 13 Integration Relay</p> <p>J 1 Junction Connector<br/>                     J 2 Junction Connector<br/>                     J 3 Junction Connector<br/>                     J 4 Junction Connector (for SRS System)<br/>                     J 7 Junction Connector</p> <p>K 3 Key Interlock Solenoid</p> <p>N 2 Noise Filter (for Stop Light)<br/>                     N 3 Noise Filter (for Stop Light)</p> | <p>O 5 O/D Main SW and A/T Indicator Light (Shift Lever)</p> <p>P 2 Parking Brake SW (for 1MZ-FE)<br/>                     P 3 Parking Brake SW (for 5S-FE)<br/>                     P 4 Power Seat Control SW<br/>                     P 5 Power Seat Motor (for Front Vertical Control)<br/>                     P 6 Power Seat Motor (for Rear Vertical Control)<br/>                     P 7 Power Seat Motor (for Reclining Control)<br/>                     P 8 Power Seat Motor (for Slide Control)</p> <p>R 2 Radio and Player (w/ CD Player)<br/>                     R 3 Radio and Player (w/o CD Player)<br/>                     R 4 Radio and Player (w/o CD Player)<br/>                     R 5 Rear Window Defogger SW<br/>                     R 6 Remote Control Mirror SW<br/>                     R 7 Rheostat</p> <p>S 5 Shift Lock ECU<br/>                     S 8 Stereo Component Amplifier<br/>                     S 9 Stereo Component Amplifier<br/>                     S 10 Stop Light SW</p> |
|--|---|

# ELECTRICAL WIRING ROUTING

## Position of Parts in Body

[Sedan]



\*1: (W/ Rear Spoiler)  
\*2: (W/o Rear Spoiler)

A 19 ABS Speed Sensor Rear LH  
A 20 ABS Speed Sensor Rear RH  
A 21 Auto Antenna Motor and Relay

D 10 Door Courtesy Light Front LH  
D 11 Door Courtesy Light Front RH  
D 12 Door Courtesy SW Front LH  
D 13 Door Courtesy SW Front RH  
D 14 Door Courtesy SW Rear LH  
D 15 Door Courtesy SW Rear RH  
D 16 Door Key Cylinder Light and SW  
D 17 Door Key Lock and Unlock SW LH  
D 18 Door Key Lock and Unlock SW RH  
D 19 Door Lock Control SW RH  
D 20 Door Lock Motor and Door Unlock Detection SW Front LH  
D 21 Door Lock Motor and Door Unlock Detection SW Front RH  
D 22 Door Lock Motor Rear LH  
D 23 Door Lock Motor Rear RH

F 11 Front Door Speaker LH  
F 12 Front Door Speaker RH  
F 13 Front Tweeter (Speaker) LH  
F 14 Front Tweeter (Speaker) RH  
F 15 Fuel Pump and Sender

H 10 High Mount Stop Light

I 14 Interior Light

L 1 License Plate Light  
L 2 Light Failure Sensor

L 3 Luggage Compartment Light  
L 4 Luggage Compartment Light SW

M 2 Moon Roof Control Relay  
M 3 Moon Roof Control SW and Personal Light (w/ Moon Roof)  
M 4 Moon Roof Limit SW  
M 5 Moon Roof Motor

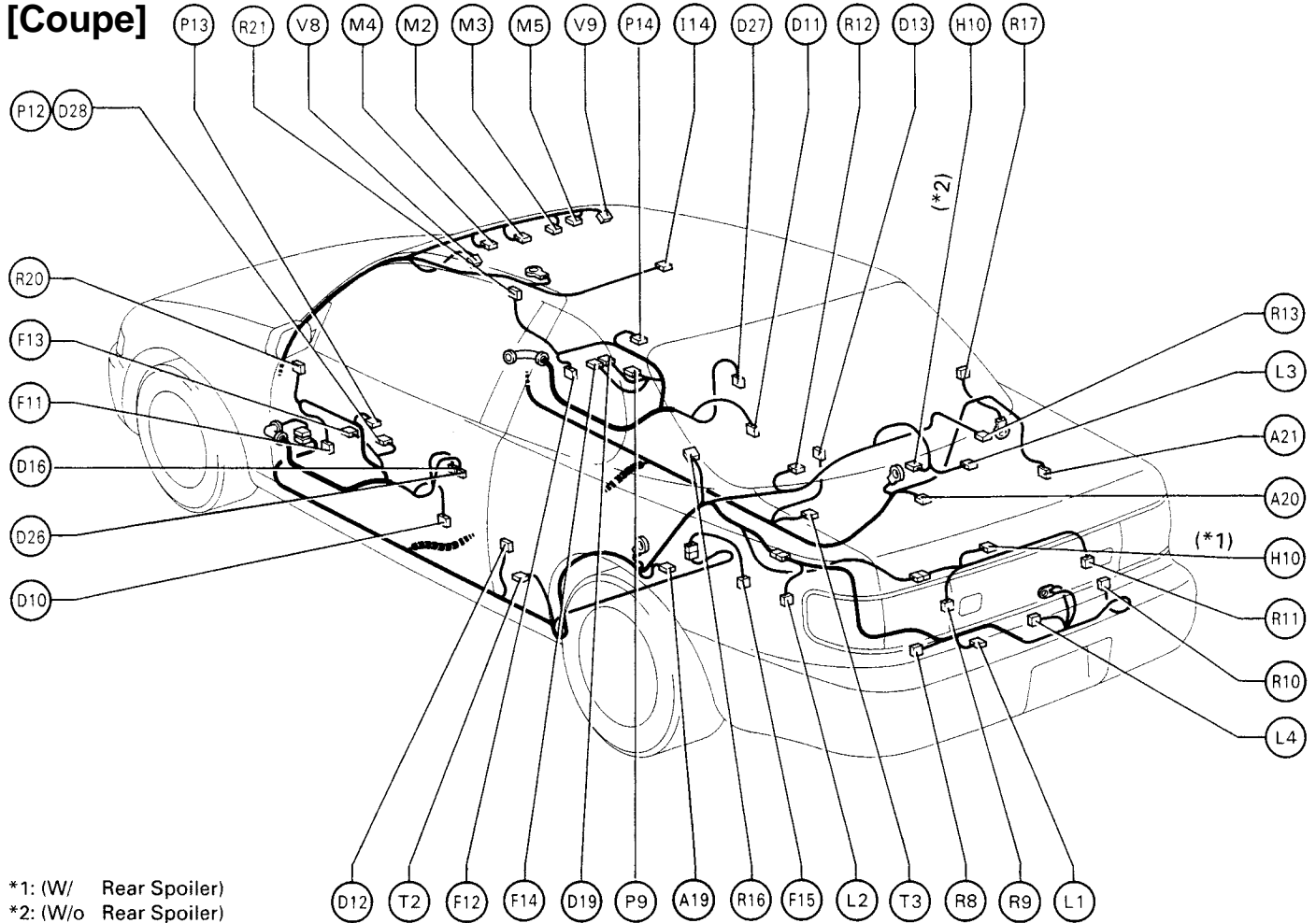
P 9 Power Window Control SW Front RH  
P 10 Power Window Control SW Rear LH  
P 11 Power Window Control SW Rear RH  
P 12 Power Window Master SW and Door Lock Control SW LH  
P 13 Power Window Motor Front LH  
P 14 Power Window Motor Front RH  
P 15 Power Window Motor Rear LH  
P 16 Power Window Motor Rear RH

R 8 Rear Combination Light LH  
R 9 Rear Combination Light LH  
R 10 Rear Combination Light RH  
R 11 Rear Combination Light RH  
R 12 Rear Speaker LH  
R 13 Rear Speaker RH  
R 16 Rear Window Defogger (+)  
R 17 Rear Window Defogger (-)  
R 20 Remote Control Mirror LH  
R 21 Remote Control Mirror RH

V 8 Vanity Light LH  
V 9 Vanity Light RH

## Position of Parts in Body

**[Coupe]**



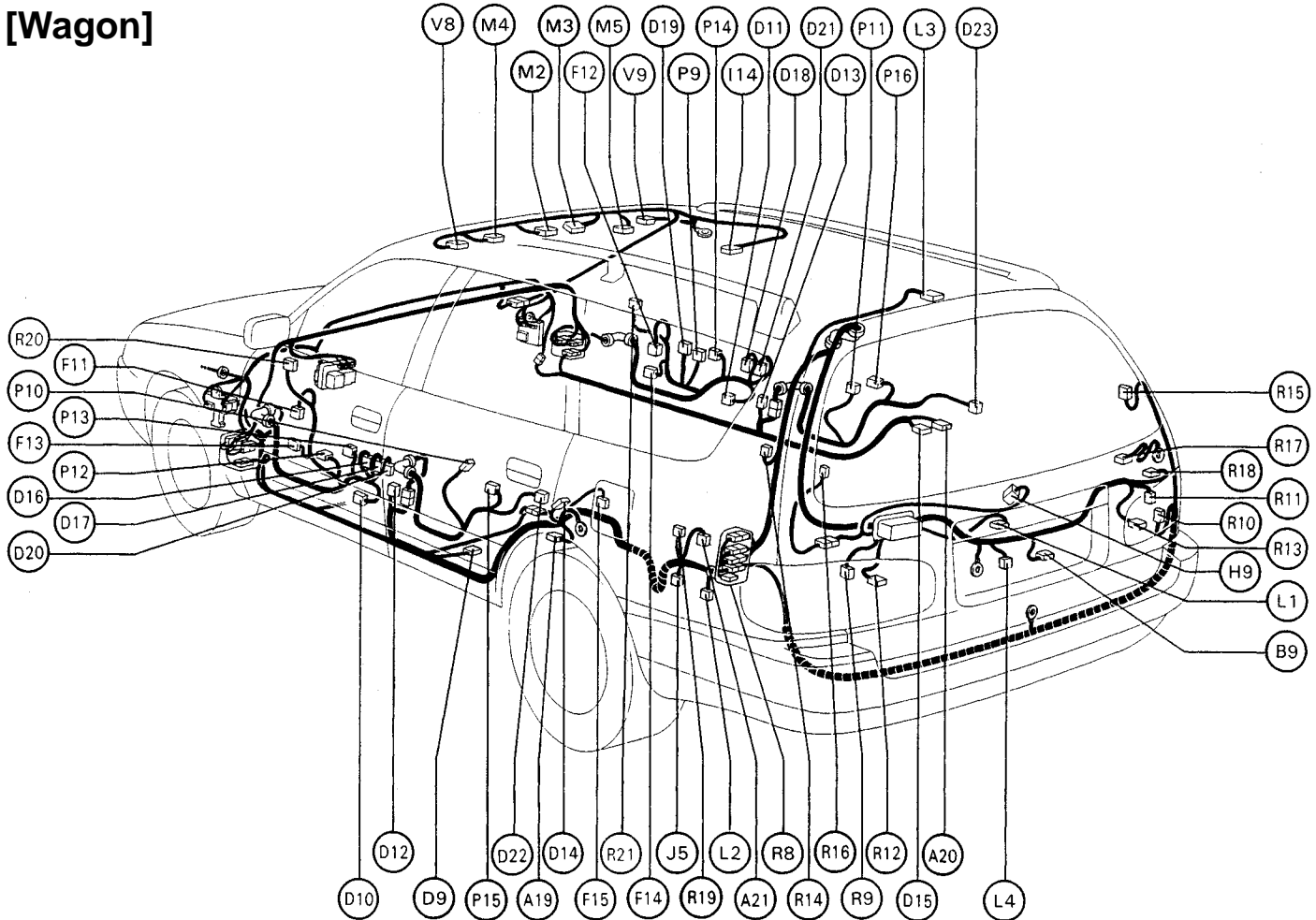
\*1: (W/ Rear Spoiler)  
 \*2: (W/o Rear Spoiler)

- |  |  |
|--|--|
| <p>A 19 ABS Speed Sensor Rear LH<br/>                     A 20 ABS Speed Sensor Rear RH<br/>                     A 21 Auto Antenna Motor and Relay</p> <p>D 10 Door Courtesy Light Front LH<br/>                     D 11 Door Courtesy Light Front RH<br/>                     D 12 Door Courtesy SW Front LH<br/>                     D 13 Door Courtesy SW Front RH<br/>                     D 16 Door Key Cylinder Light and SW<br/>                     D 19 Door Lock Control SW RH<br/>                     D 26 Door Lock Motor, Door Unlock Detection SW<br/>                     Door Key Lock and Unlock SW LH<br/>                     D 27 Door Lock Motor, Door Unlock Detection SW<br/>                     Door Key Lock and Unlock SW RH<br/>                     D 28 Door Lock Control SW LH (w/o Power Window)</p> <p>F 11 Front Door Speaker LH<br/>                     F 12 Front Door Speaker RH<br/>                     F 13 Front Tweeter (Speaker) LH<br/>                     F 14 Front Tweeter (Speaker) RH<br/>                     F 15 Fuel Pump and Sender</p> <p>H 10 High Mount Stop Light</p> <p>I 14 Interior Light</p> <p>L 1 License Plate Light<br/>                     L 2 Light Failure Sensor<br/>                     L 3 Luggage Compartment Light<br/>                     L 4 Luggage Compartment Light SW</p> | <p>M 2 Moon Roof Control Relay<br/>                     M 3 Moon Roof Control SW and Personal Light<br/>                     (w/ Moon Roof)<br/>                     M 4 Moon Roof Limit SW<br/>                     M 5 Moon Roof Motor</p> <p>P 9 Power Window Control SW Front RH<br/>                     P 12 Power Window Master SW and Door Lock Control<br/>                     SW LH<br/>                     P 13 Power Window Motor Front LH<br/>                     P 14 Power Window Motor Front RH</p> <p>R 8 Rear Combination Light LH<br/>                     R 9 Rear Combination Light LH<br/>                     R 10 Rear Combination Light RH<br/>                     R 11 Rear Combination Light RH<br/>                     R 12 Rear Speaker LH<br/>                     R 13 Rear Speaker RH<br/>                     R 16 Rear Window Defogger (+)<br/>                     R 17 Rear Window Defogger (-)<br/>                     R 20 Remote Control Mirror LH<br/>                     R 21 Remote Control Mirror RH</p> <p>T 2 Tension Reducer Solenoid LH<br/>                     T 3 Tension Reducer Solenoid RH</p> <p>V 8 Vanity Light LH<br/>                     V 9 Vanity Light RH</p> |
|--|--|

# ELECTRICAL WIRING DIAGRAM

## Position of Parts in Body

[Wagon]



- |      |   |      |  |      |  |
|------|---|------|--|------|--|
| A 19 | ABS Speed Sensor Rear LH                              | F 13 | Front Tweeter (Speaker) LH                             | P 11 | Power Window Control SW Rear RH                    |
| A 20 | ABS Speed Sensor Rear RH                              | F 14 | Front Tweeter (Speaker) RH                             | P 12 | Power Window Master SW and Door Lock Control SW LH |
| A 21 | Auto Antenna Motor and Relay                          | F 15 | Fuel Pump and Sender                                   | P 13 | Power Window Motor Front LH                        |
| D 10 | Door Courtesy Light Front LH                          | H 10 | High Mount Stop Light                                  | P 14 | Power Window Motor Front RH                        |
| D 11 | Door Courtesy Light Front RH                          | I 14 | Interior Light   | P 15 | Power Window Motor Rear LH                         |
| D 12 | Door Courtesy SW Front LH                             | L 1  | License Plate Light                                    | P 16 | Power Window Motor Rear RH                         |
| D 13 | Door Courtesy SW Front RH                             | L 2  | Light Failure Sensor                                   | R 8  | Rear Combination Light LH                          |
| D 14 | Door Courtesy SW Rear LH                              | L 3  | Luggage Compartment Light                              | R 9  | Rear Combination Light LH                          |
| D 15 | Door Courtesy SW Rear RH                              | L 4  | Luggage Compartment Light SW                           | R 10 | Rear Combination Light RH                          |
| D 16 | Door Key Cylinder Light and SW                        | M 2  | Moon Roof Control Relay                                | R 11 | Rear Combination Light RH                          |
| D 17 | Door Key Lock and Unlock SW LH                        | M 3  | Moon Roof Control SW and Personal Light (w/ Moon Roof) | R 12 | Rear Speaker LH                                    |
| D 18 | Door Key Lock and Unlock SW RH                        | M 4  | Moon Roof Limit SW                                     | R 13 | Rear Speaker RH                                    |
| D 19 | Door Lock Control SW RH                               | M 5  | Moon Roof Motor  | R 16 | Rear Window Defogger (+)                           |
| D 20 | Door Lock Motor and Door Unlock Detection SW Front LH | P 9  | Power Window Control SW Front RH                       | R 17 | Rear Window Defogger (-)                           |
| D 21 | Door Lock Motor and Door Unlock Detection SW Front RH | P 10 | Power Window Control SW Rear LH                        | R 20 | Remote Control Mirror LH                           |
| D 22 | Door Lock Motor Rear LH                               | V 8  | Vanity Light LH  | R 21 | Remote Control Mirror RH                           |
| D 23 | Door Lock Motor Rear RH                               | V 9  | Vanity Light RH  |      |  |
| F 11 | Front Door Speaker LH                                 |      |  |      |  |
| F 12 | Front Door Speaker RH                                 |      |  |      |  |

# ELECTRICAL WIRING DIAGRAM

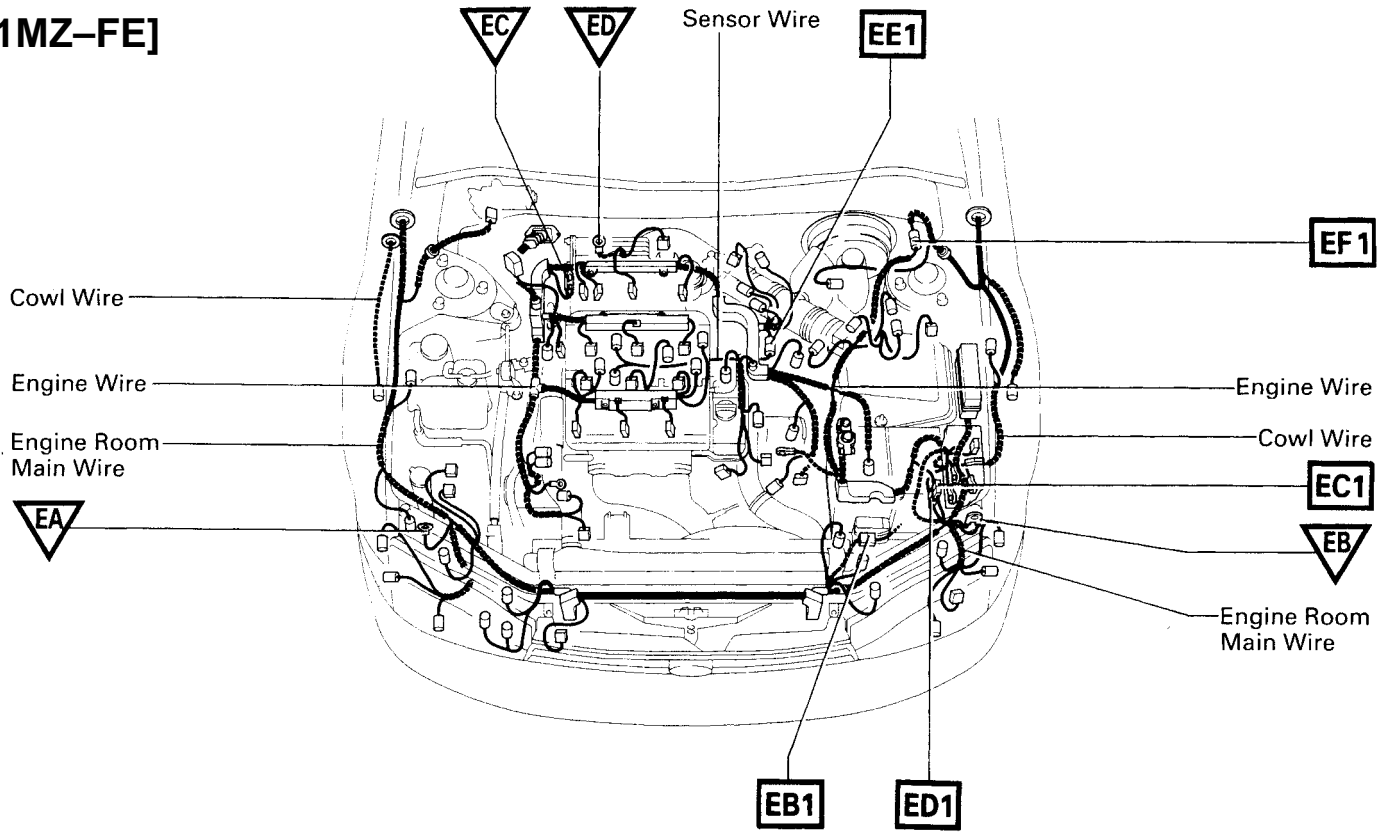
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-Memo

# ELECTRICAL WIRING ROUTING

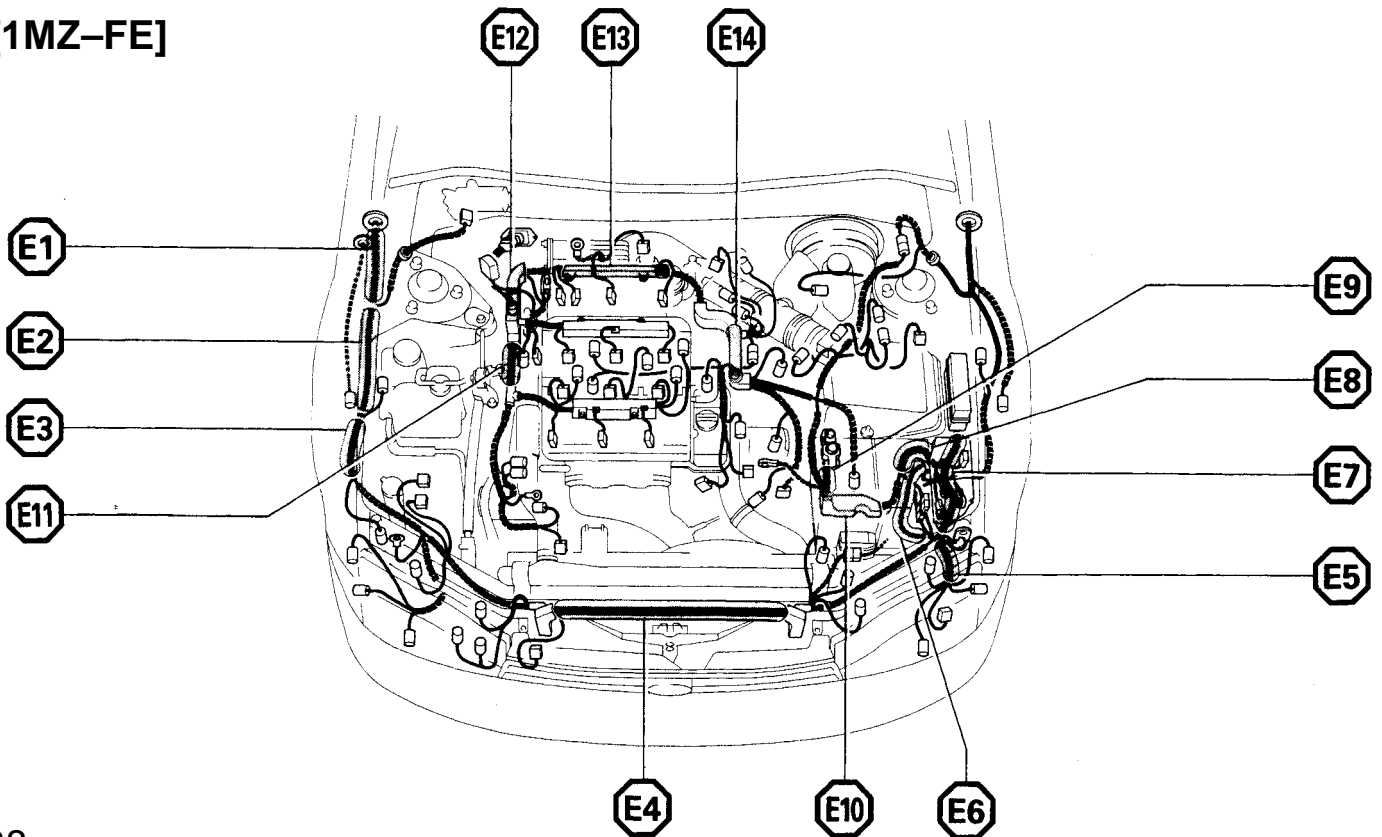
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points

[1MZ-FE]

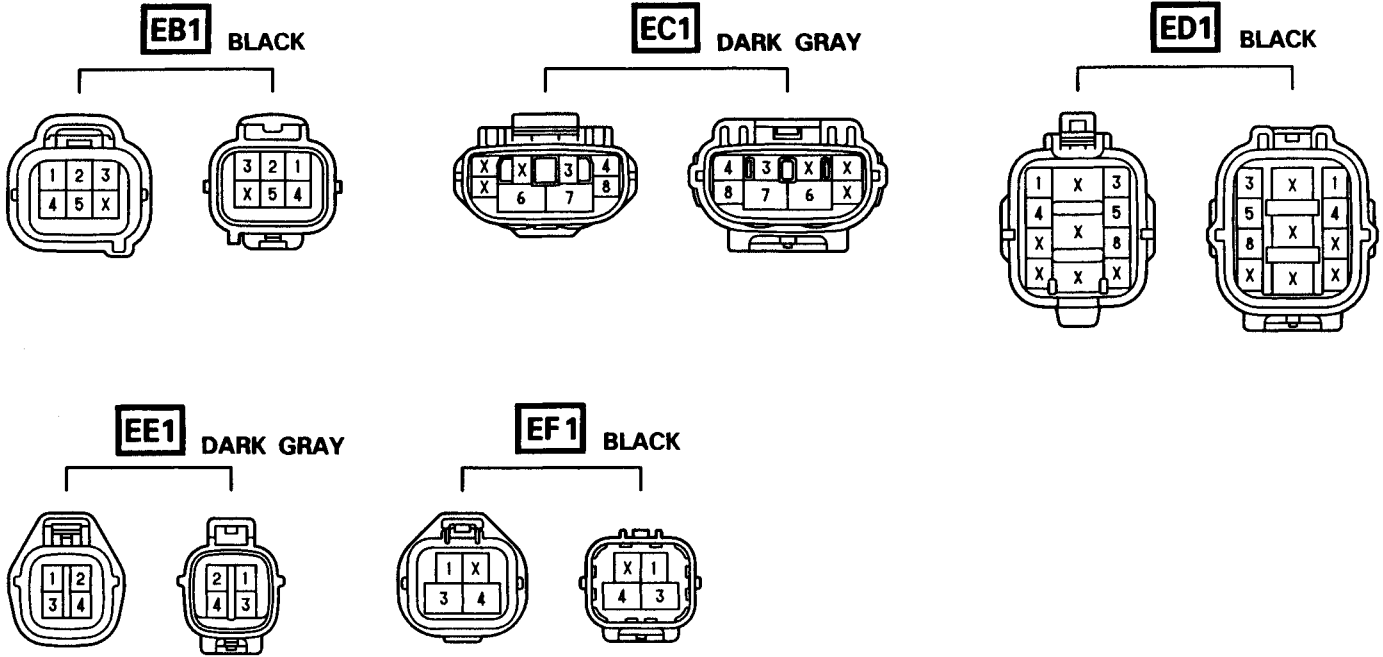


- : Location of Splice Points

[1MZ-FE]



## Connector Joining Wire Harness and Wire Harness

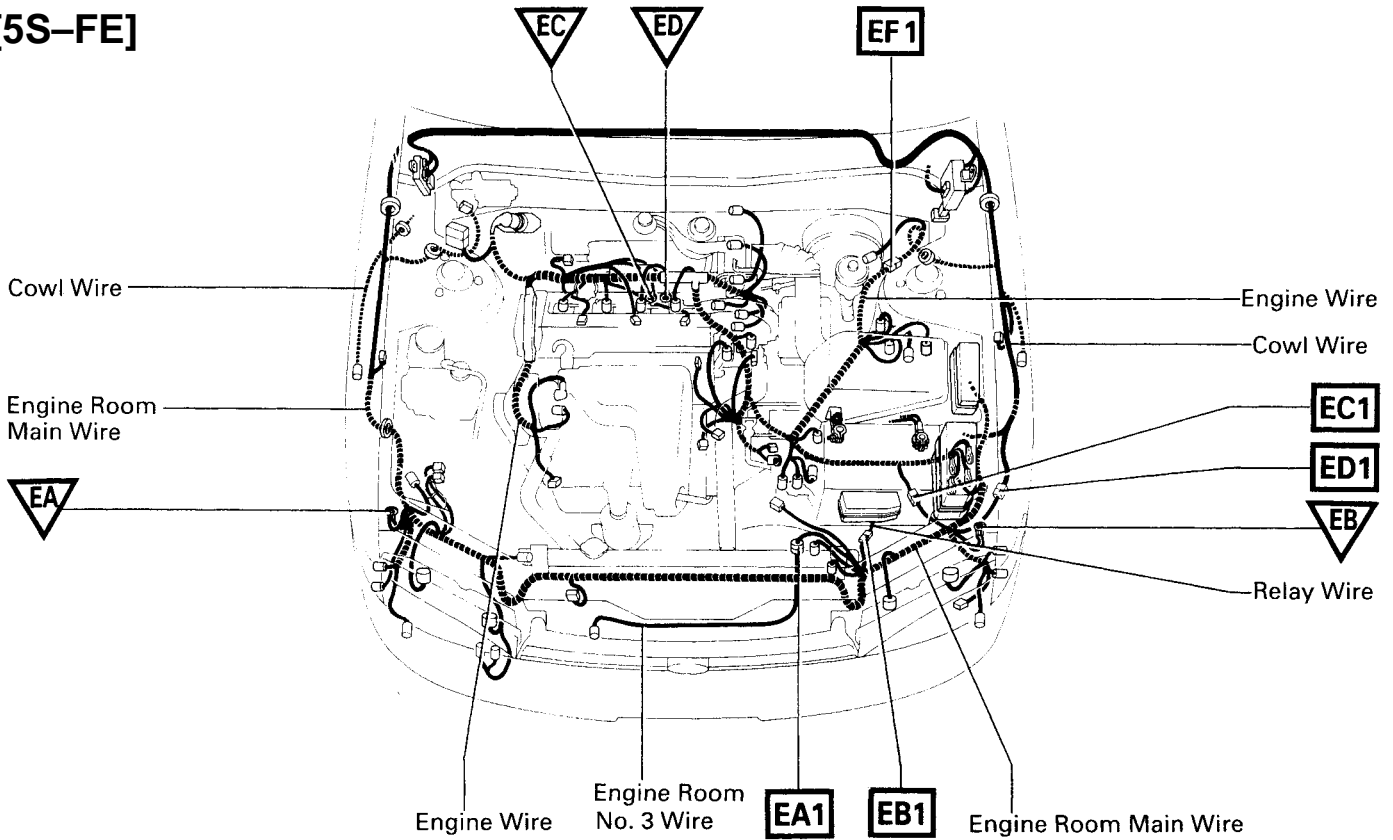


CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	ENGINE ROOM MAIN WIRE AND RELAY WIRE (UNDER THE R/B NO. 5)
EC1	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
ED1	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EE1	SENSOR WIRE AND ENGINE WIRE (SIDE OF FRONT CYLINDER HEAD)
EF1	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)

# ELECTRICAL WIRING ROUTING

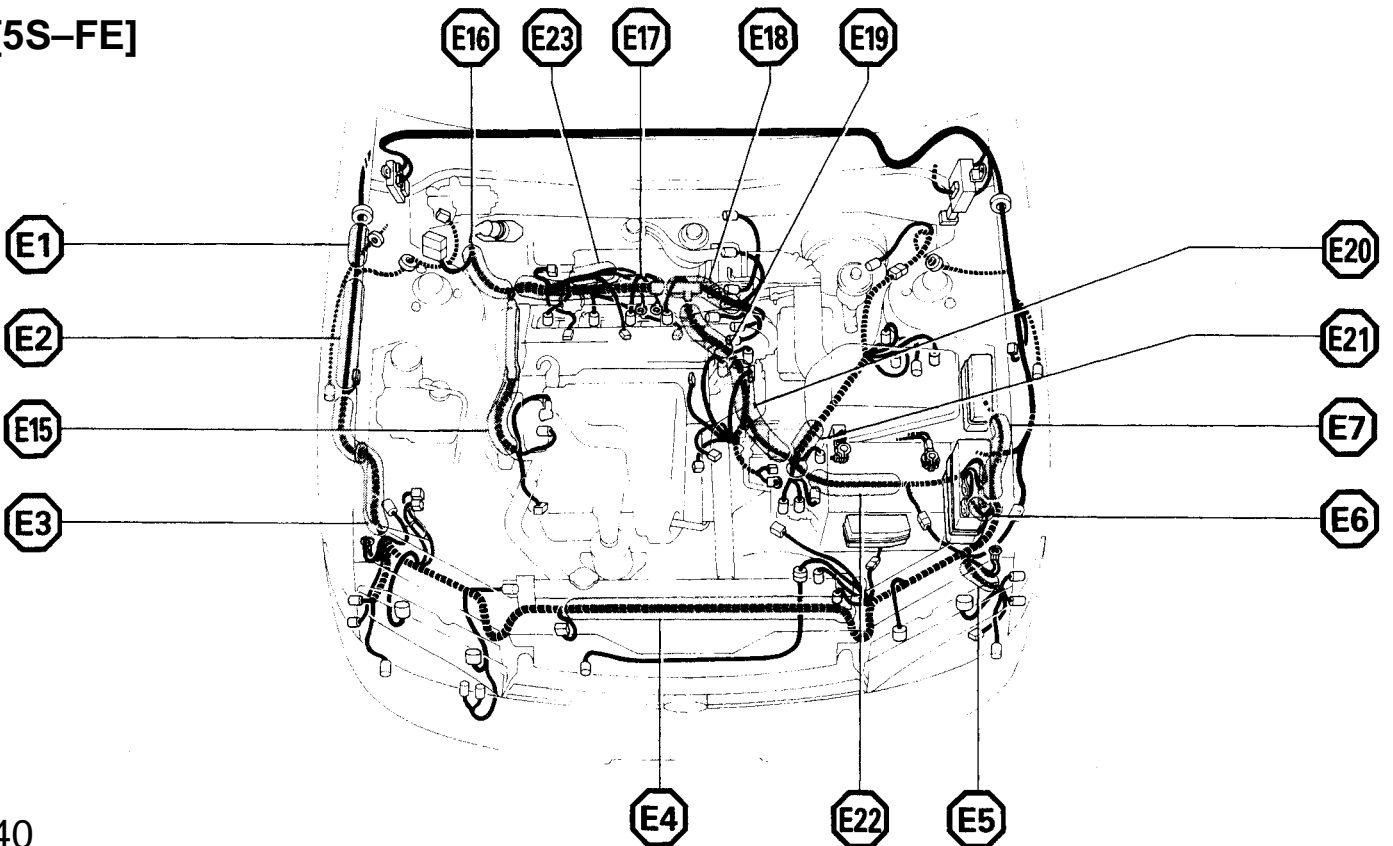
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points

[5S-FE]



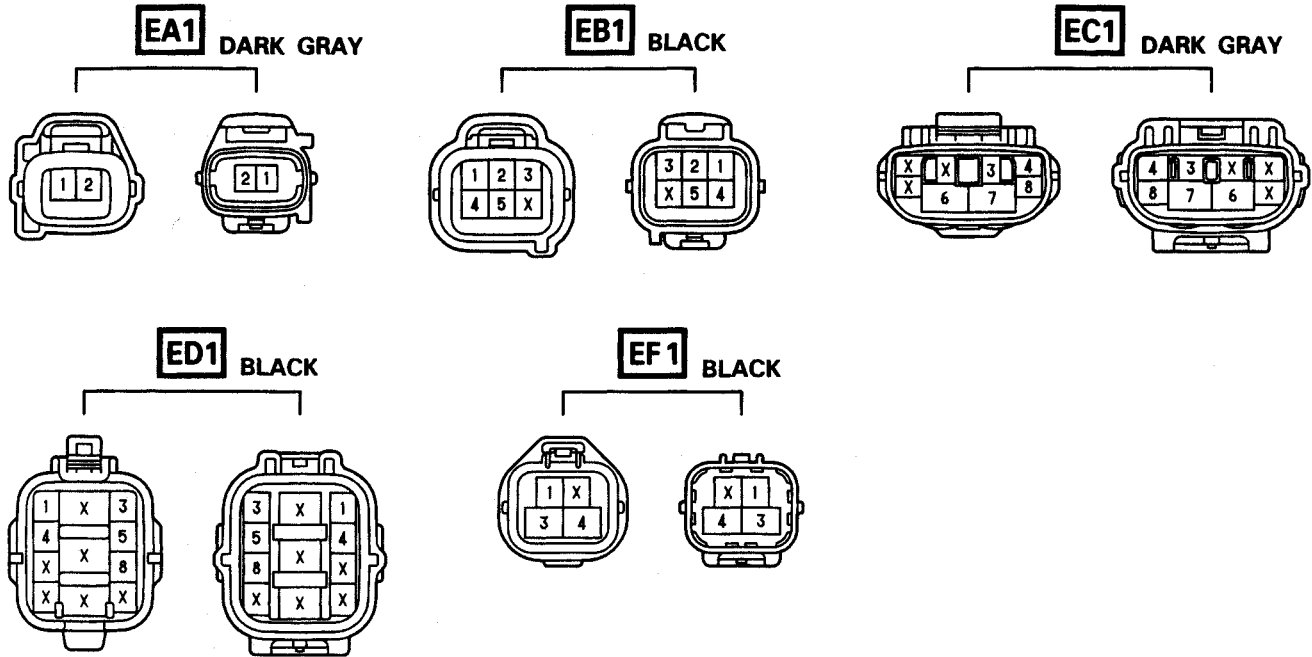
- : Location of Splice Points

[5S-FE]





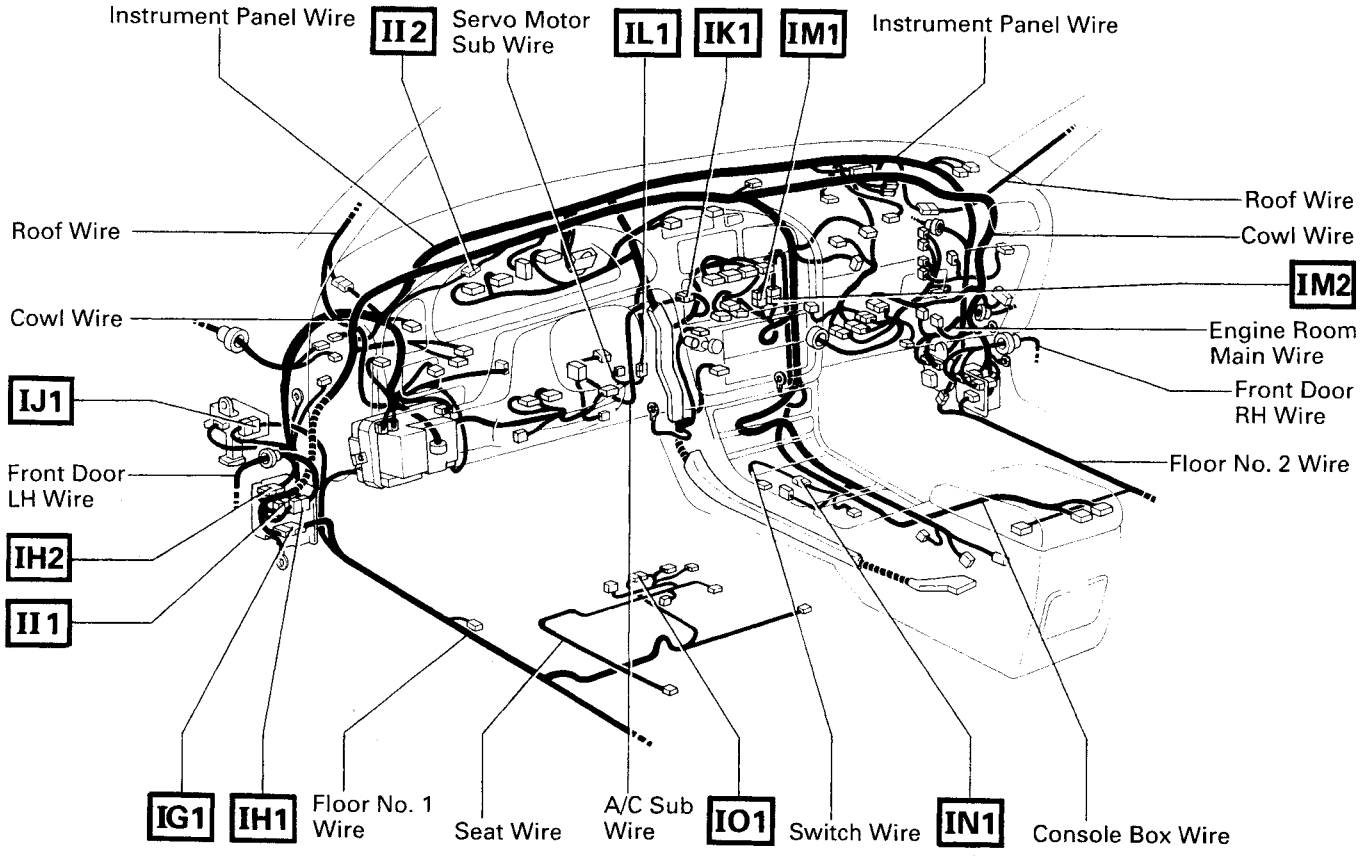
## Connector Joining Wire Harness and Wire Harness



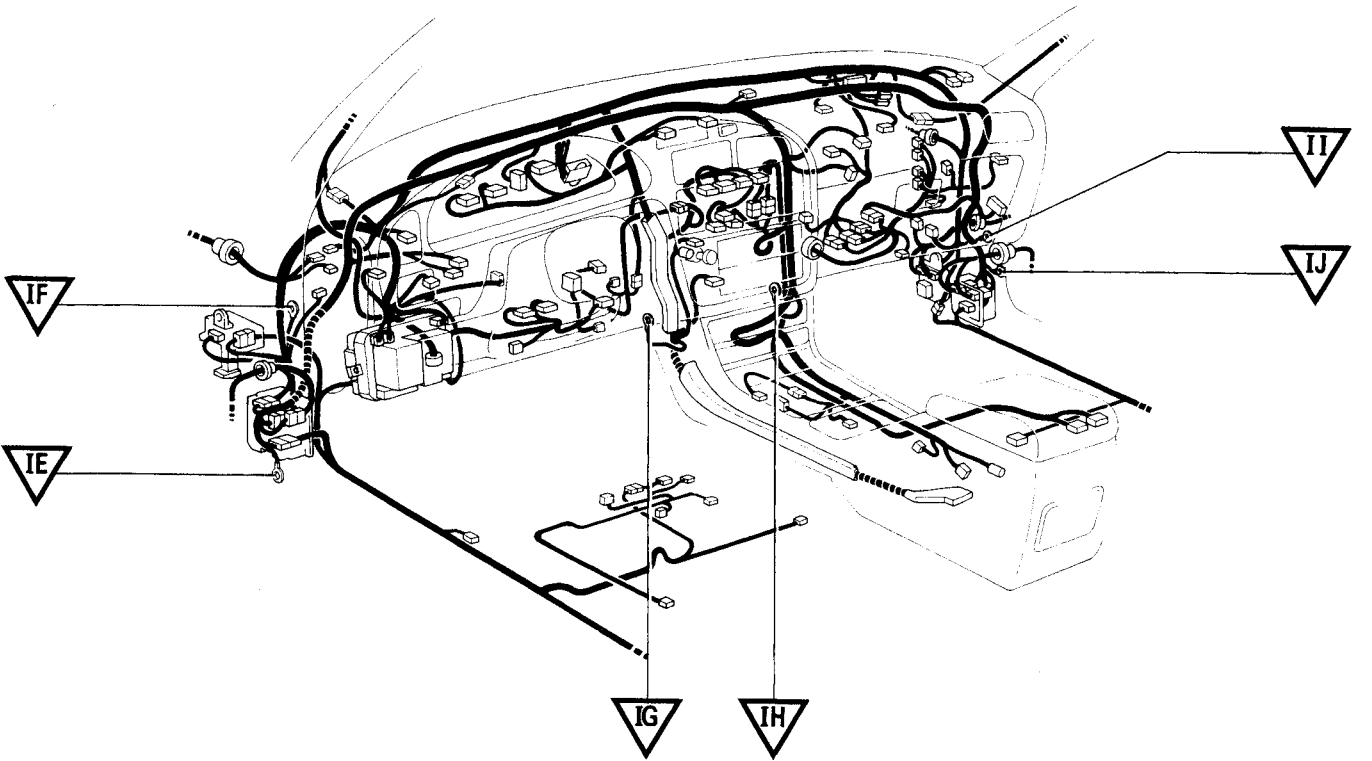
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	ENGINE ROOM MAIN WIRE AND ENGINE ROOM NO. 3 WIRE (RADIATOR FAN SHROUD)
EB1	ENGINE ROOM MAIN WIRE AND RELAY WIRE (UNDER THE R/B NO. 5)
EC1	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
ED1	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EF1	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)

# ELECTRICAL WIRING ROUTING

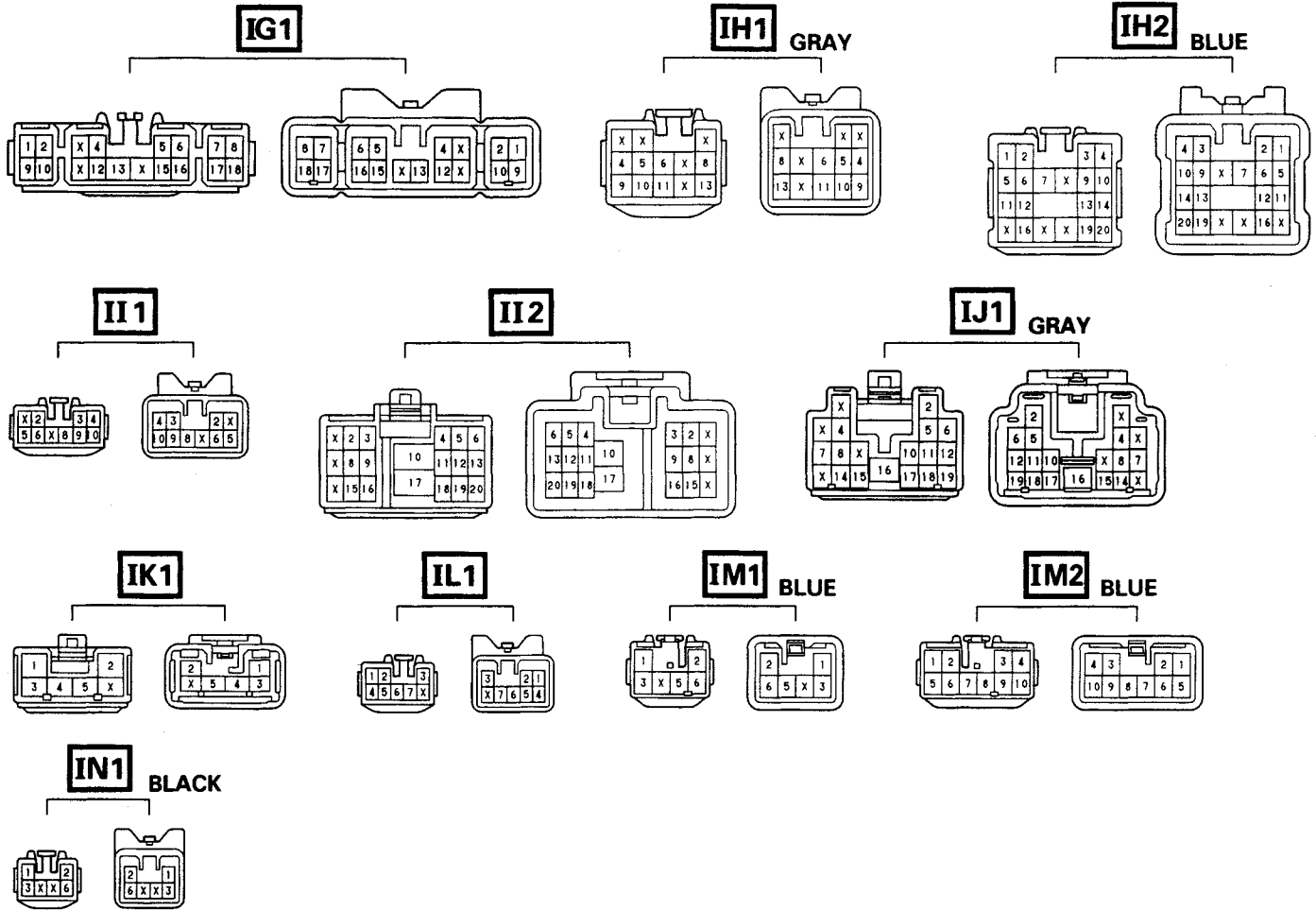
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



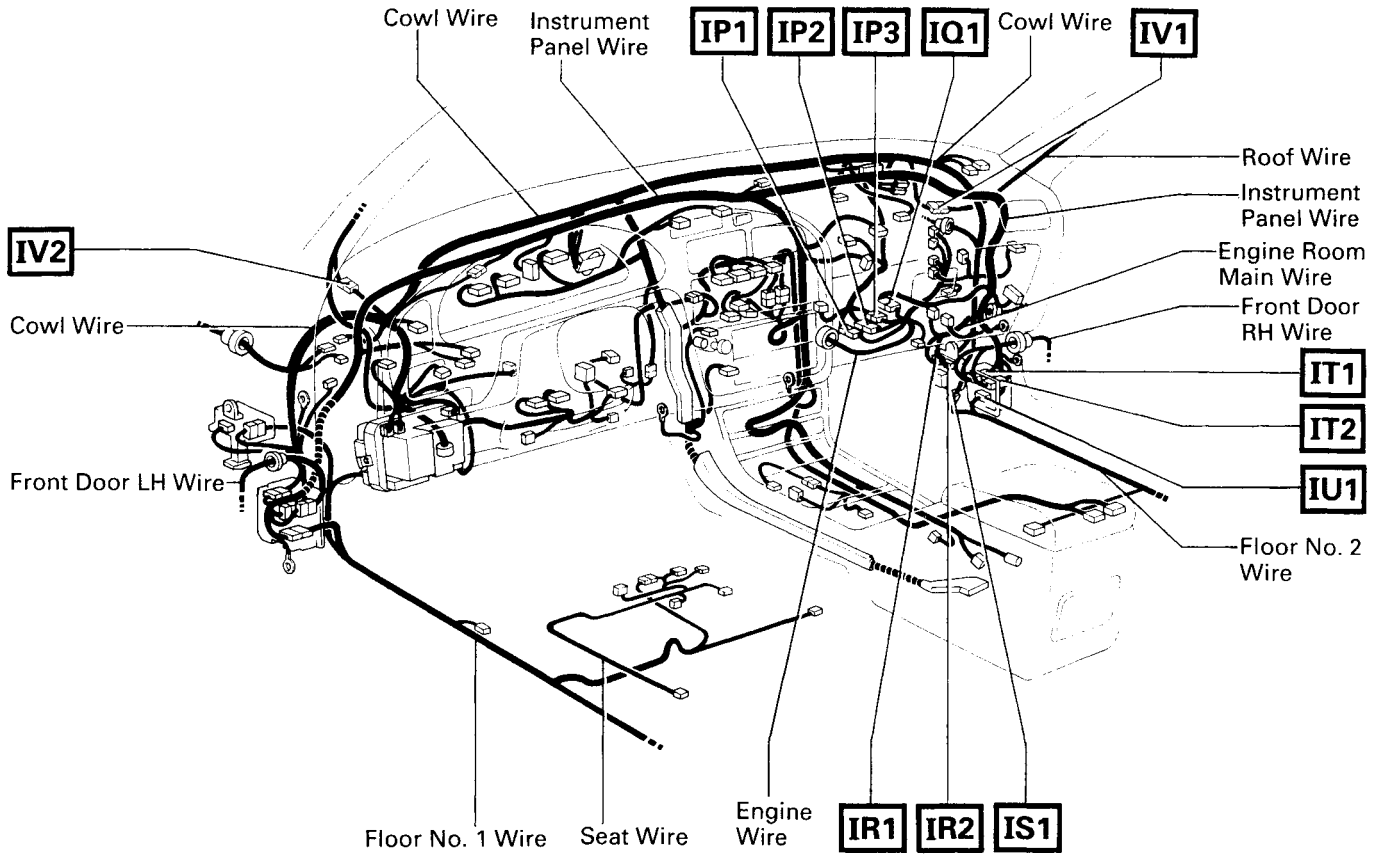
# Connector Joining Wire Harness and Wire Harness



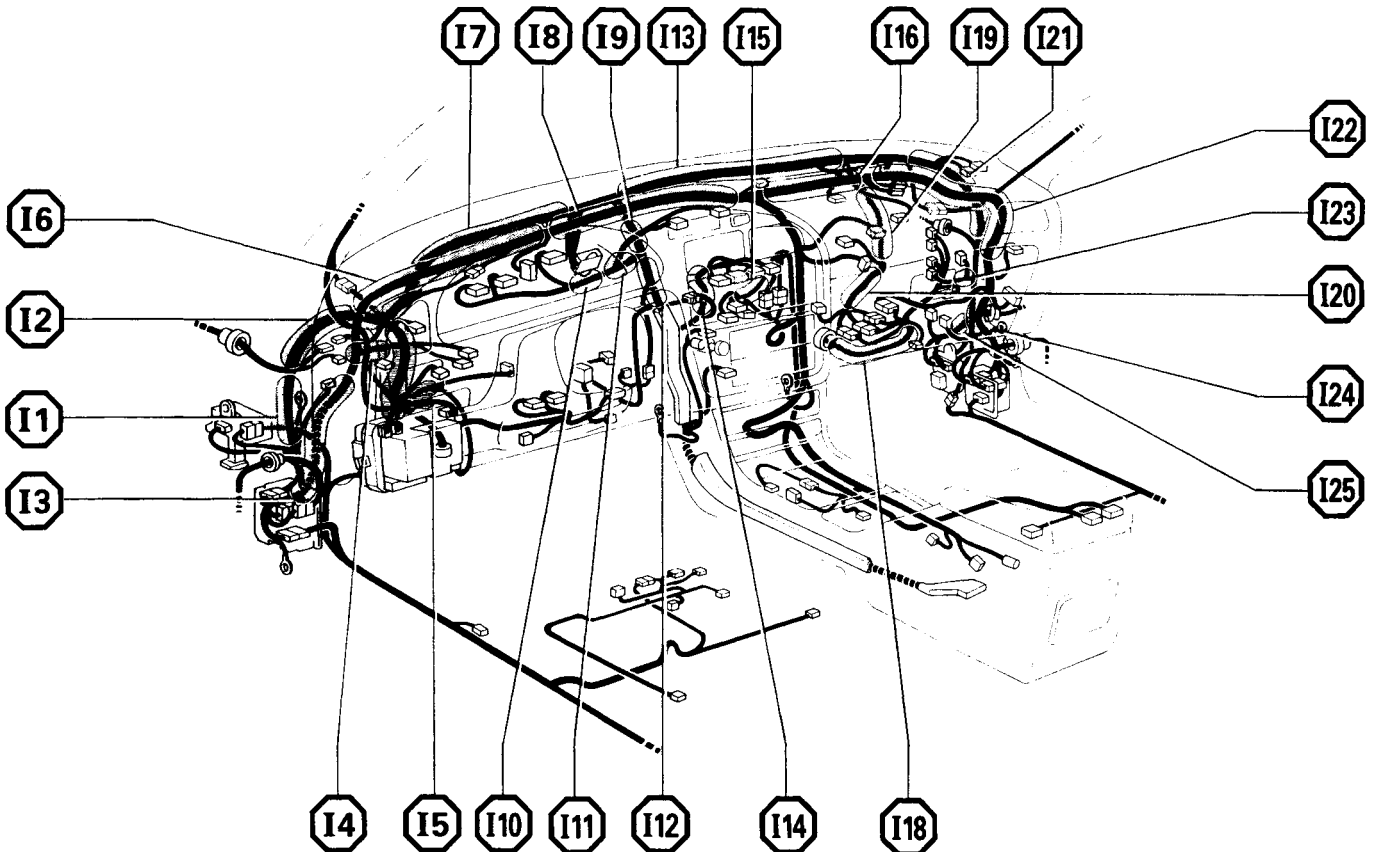
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IG1</b>	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
<b>IH1</b>	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
<b>IH2</b>	
<b>II1</b>	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
<b>II2</b>	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND COMBINATION METER)
<b>IJ1</b>	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
<b>IK1</b>	COWL WIRE AND A/C SUB WIRE (NEAR THE RADIO AND PLAYER)
<b>IL1</b>	COWL WIRE AND SERVO MOTOR SUB WIRE (BEHIND RADIO AND PLAYER)
<b>IM1</b>	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE (NEAR THE RADIO AND PLAYER)
<b>IM2</b>	
<b>IN1</b>	INSTRUMENT PANEL WIRE AND SWITCH WIRE (UNDER THE INSTRUMENT PANEL CENTER)

# ELECTRICAL WIRING ROUTING

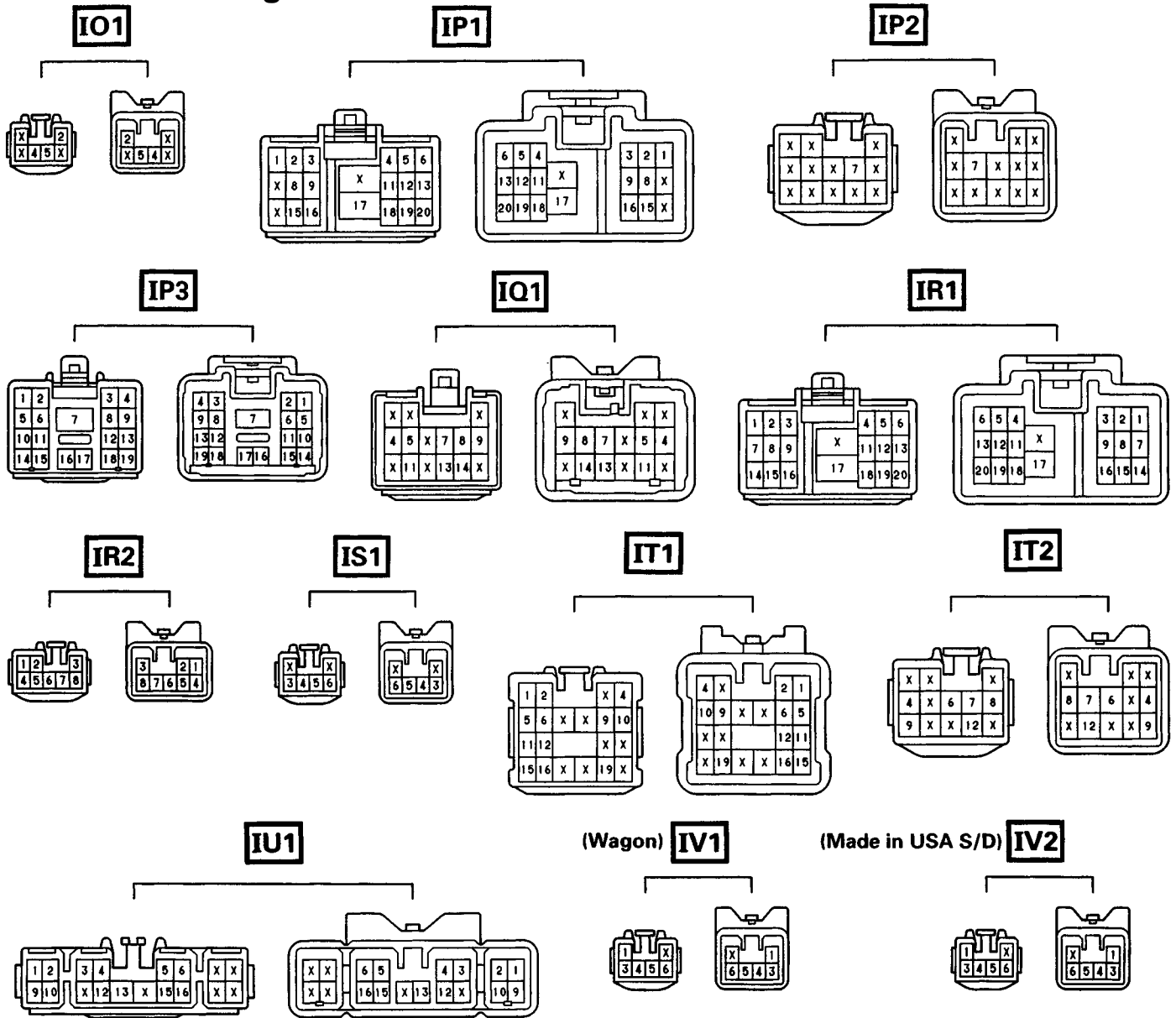
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



# Connector Joining Wire Harness and Wire Harness



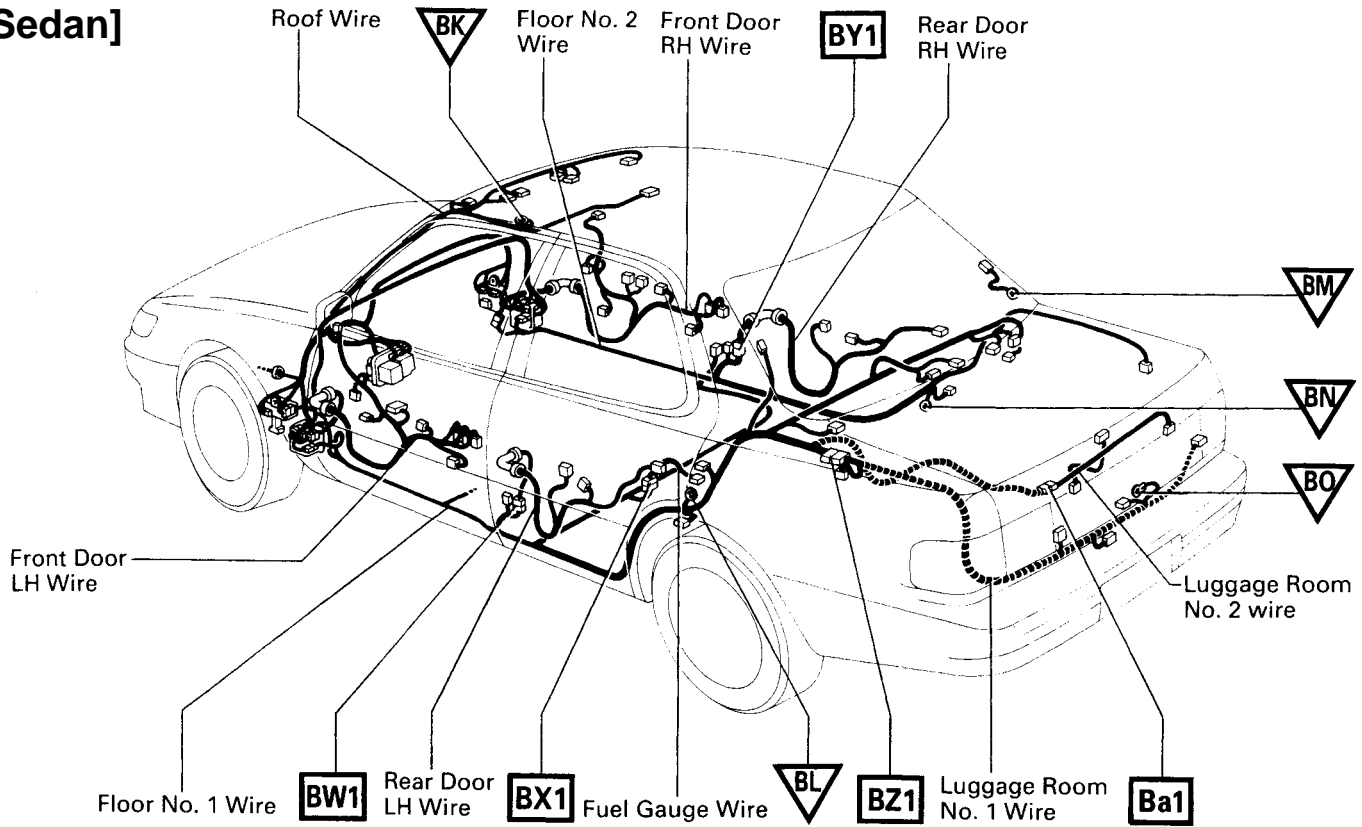
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IO1	FLOOR NO. 1 WIRE AND SEAT WIRE (UNDER THE DRIVER'S SEAT)
IP1	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IP2	
IP3	
IQ1	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE GLOVE BOX)
IR1	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IR2	
IS1	FLOOR NO. 2 WIRE AND COWL WIRE (RIGHT KICK PANEL)
IT1	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IT2	
IU1	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IV1	ROOF WIRE AND COWL WIRE (INSTRUMENT PANEL RIGHT)
IV2	

# ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

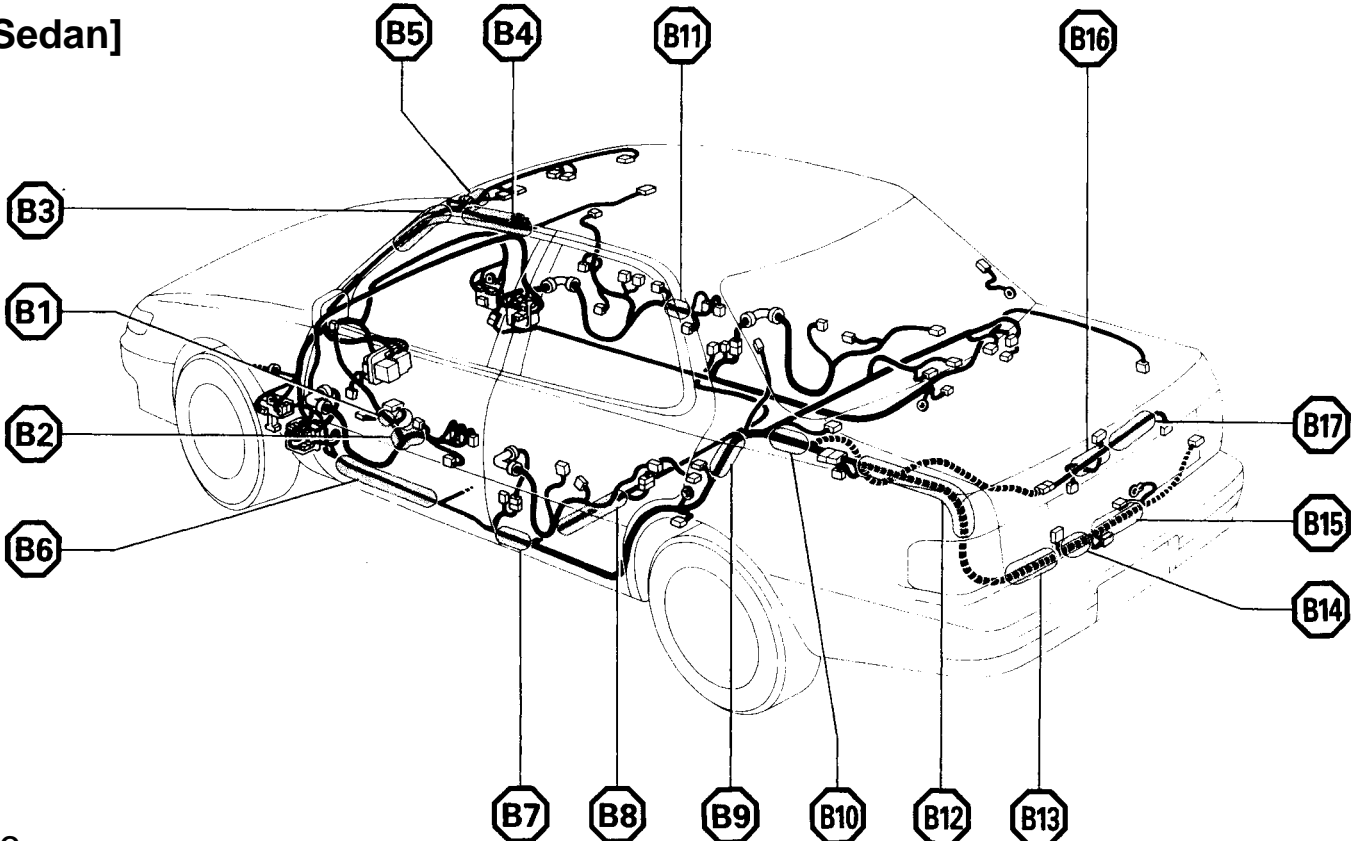
▽ : Location of Ground Points

[Sedan]

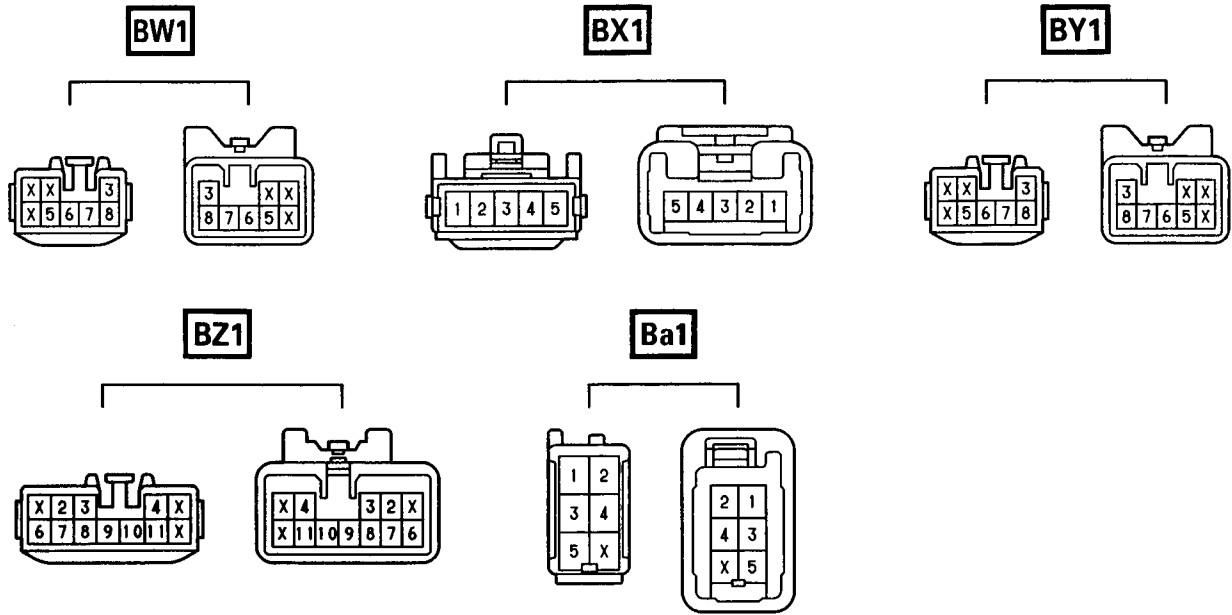


○ : Location of Splice Points

[Sedan]



## Connector Joining Wire Harness and Wire Harness

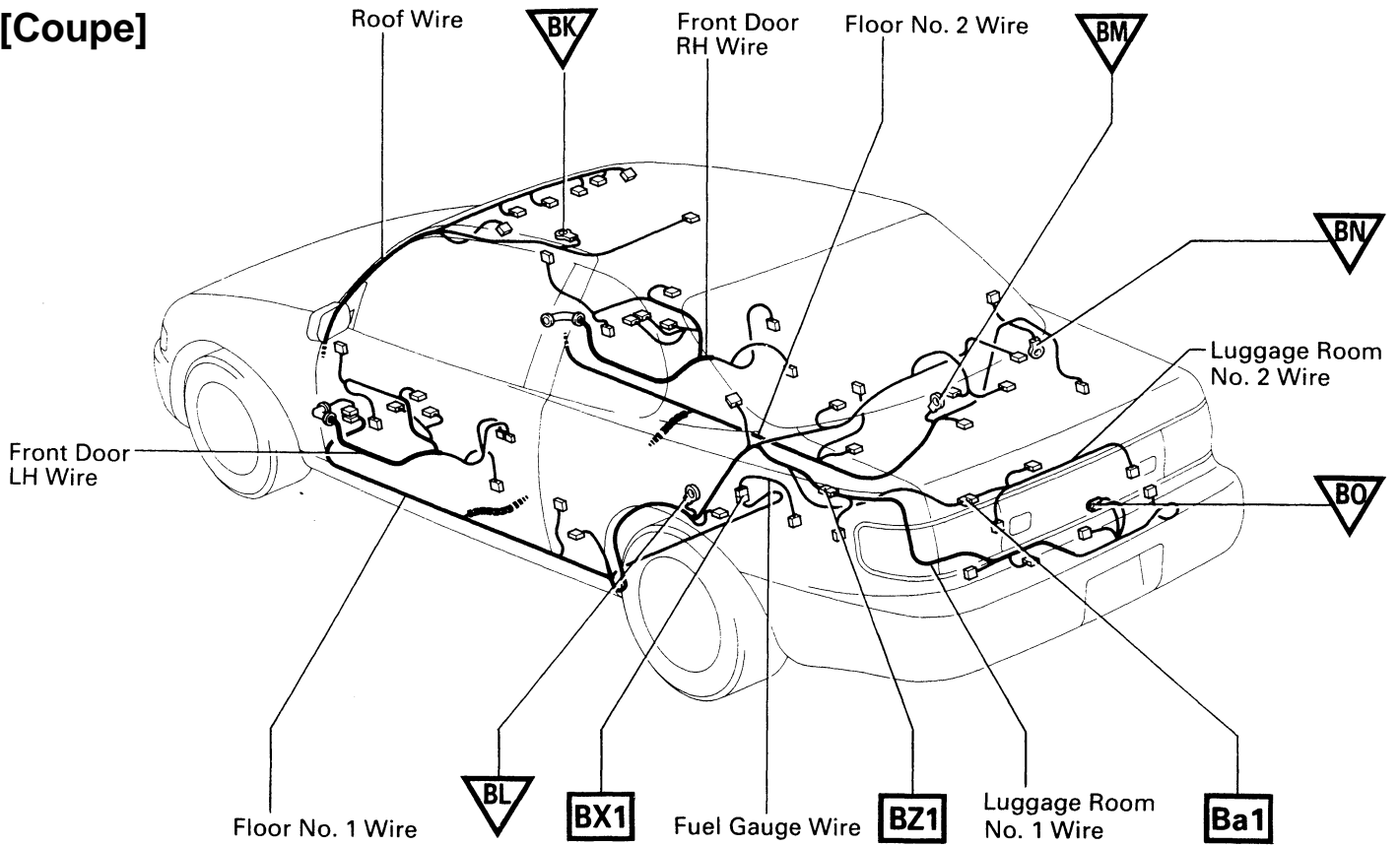


CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>BW1</b>	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE (LEFT CENTER PILLAR)
<b>BX1</b>	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)
<b>BY1</b>	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE (RIGHT CENTER PILLAR)
<b>BZ1</b>	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE (LUGGAGE COMPARTMENT LEFT)
<b>Ba1</b>	FLOOR NO. 1 WIRE AND LUGGAGE ROOM NO. 2 WIRE (LUGGAGE COMPARTMENT DOOR)

# ELECTRICAL WIRING ROUTING

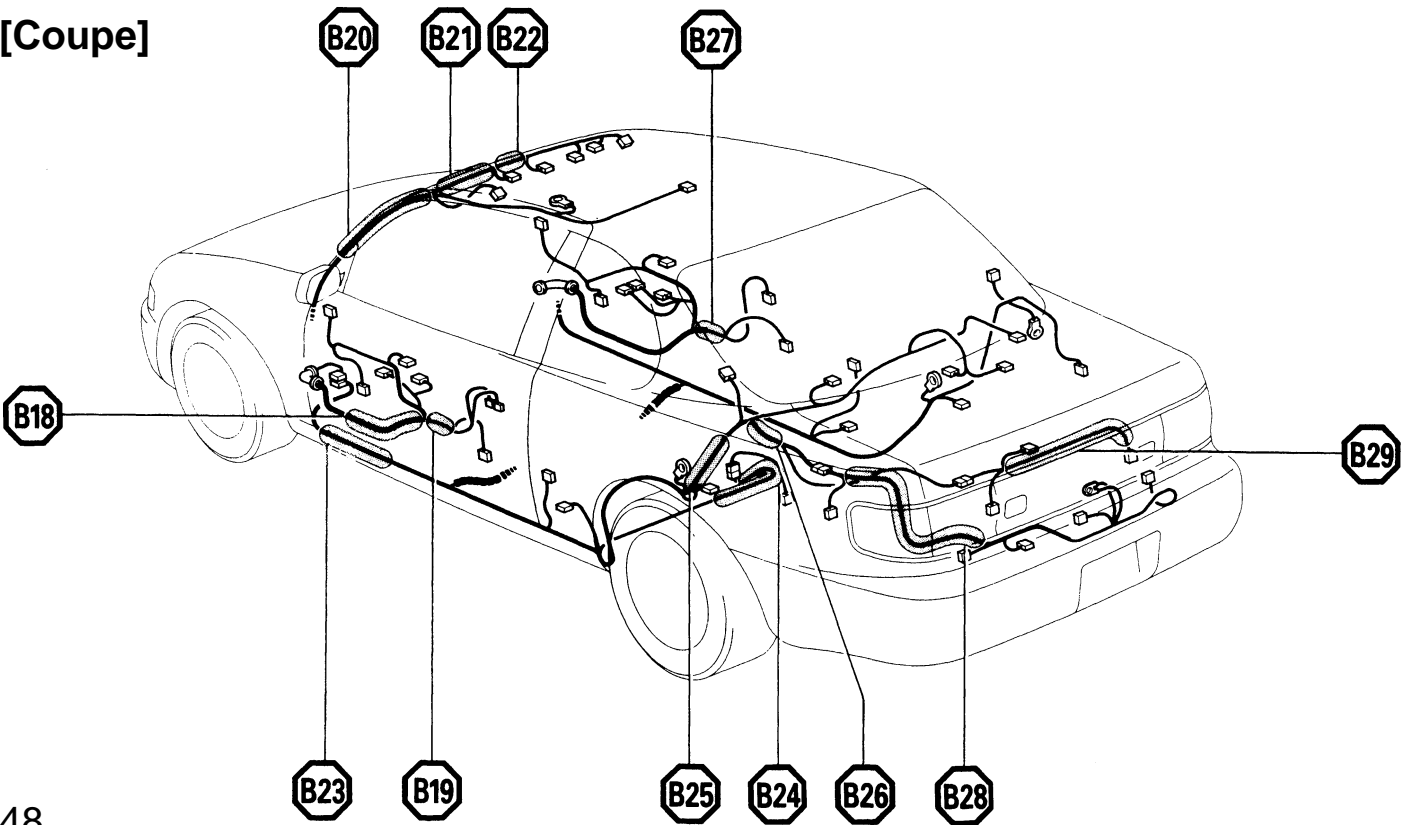
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points

[Coupe]



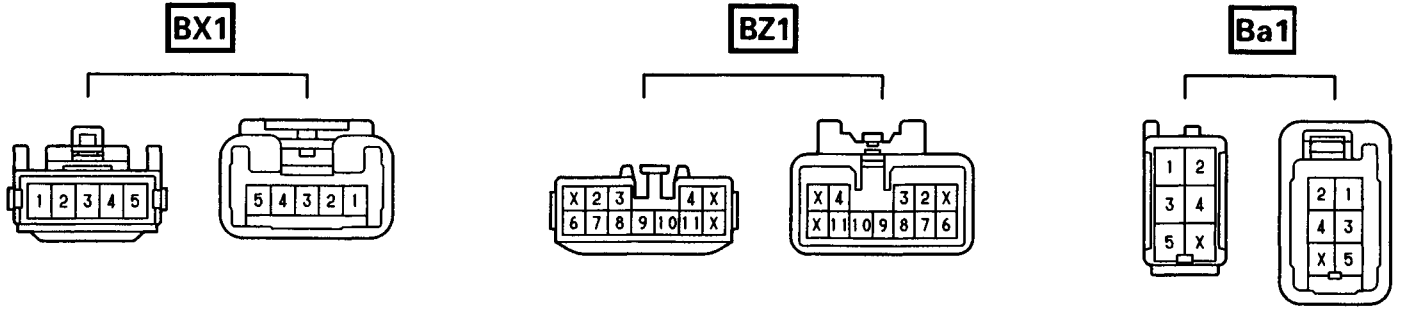
- : Location of Splice Points

[Coupe]





## Connector Joining Wire Harness and Wire Harness

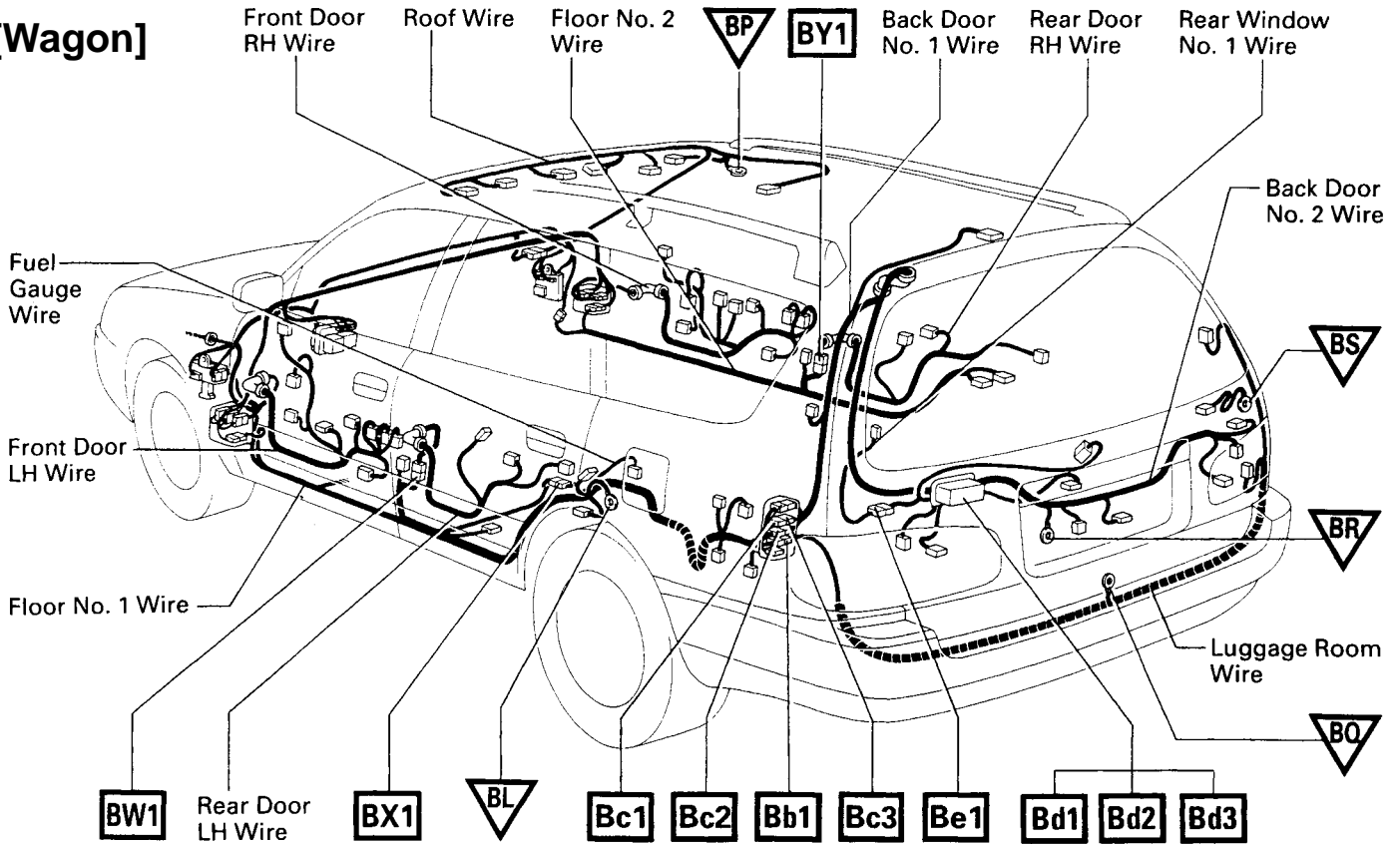


CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>BX1</b>	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)
<b>BZ1</b>	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE (LUGGAGE COMPARTMENT LEFT)
<b>Ba1</b>	FLOOR NO. 1 WIRE AND LUGGAGE ROOM NO. 2 WIRE (LUGGAGE COMPARTMENT DOOR)

# ELECTRICAL WIRING ROUTING

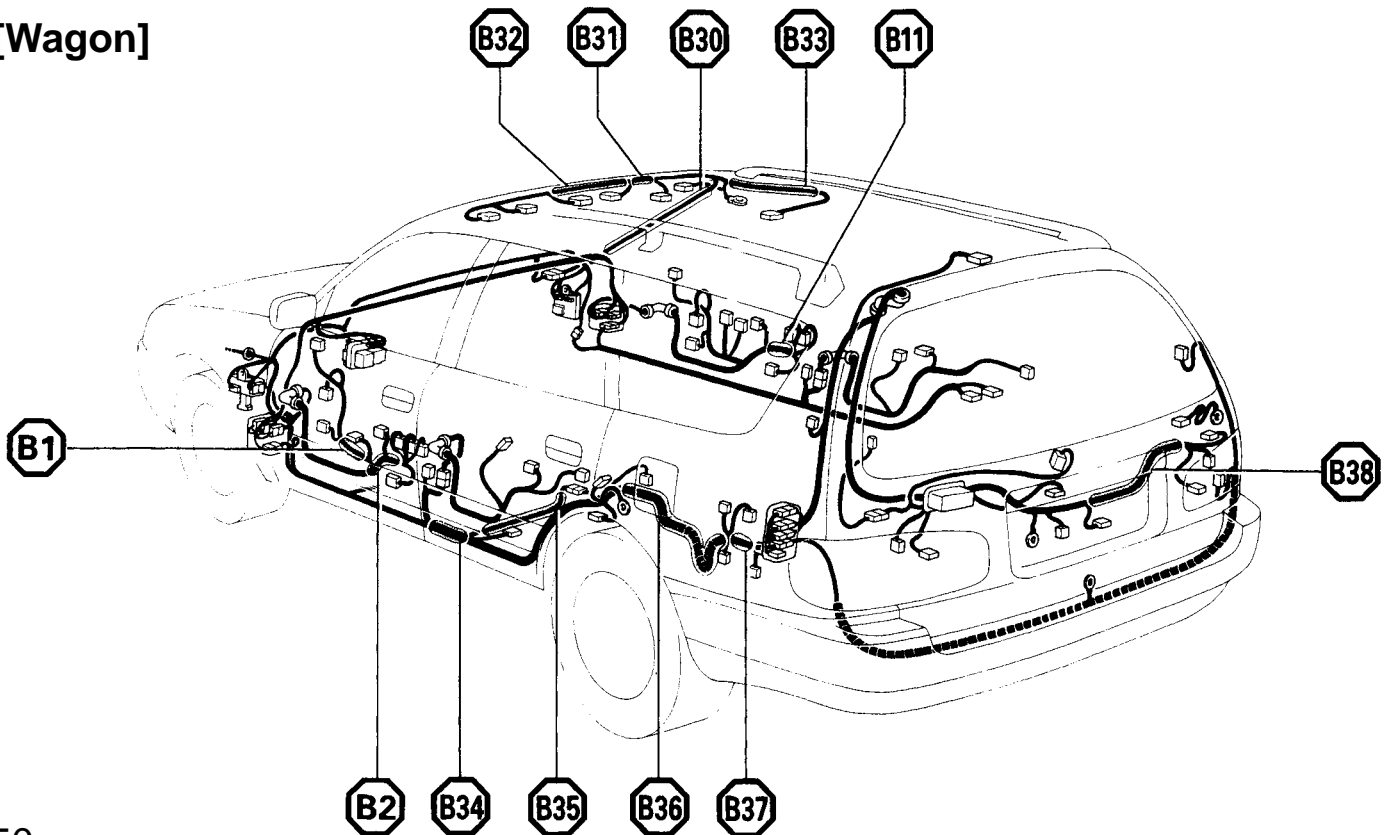
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points

[Wagon]

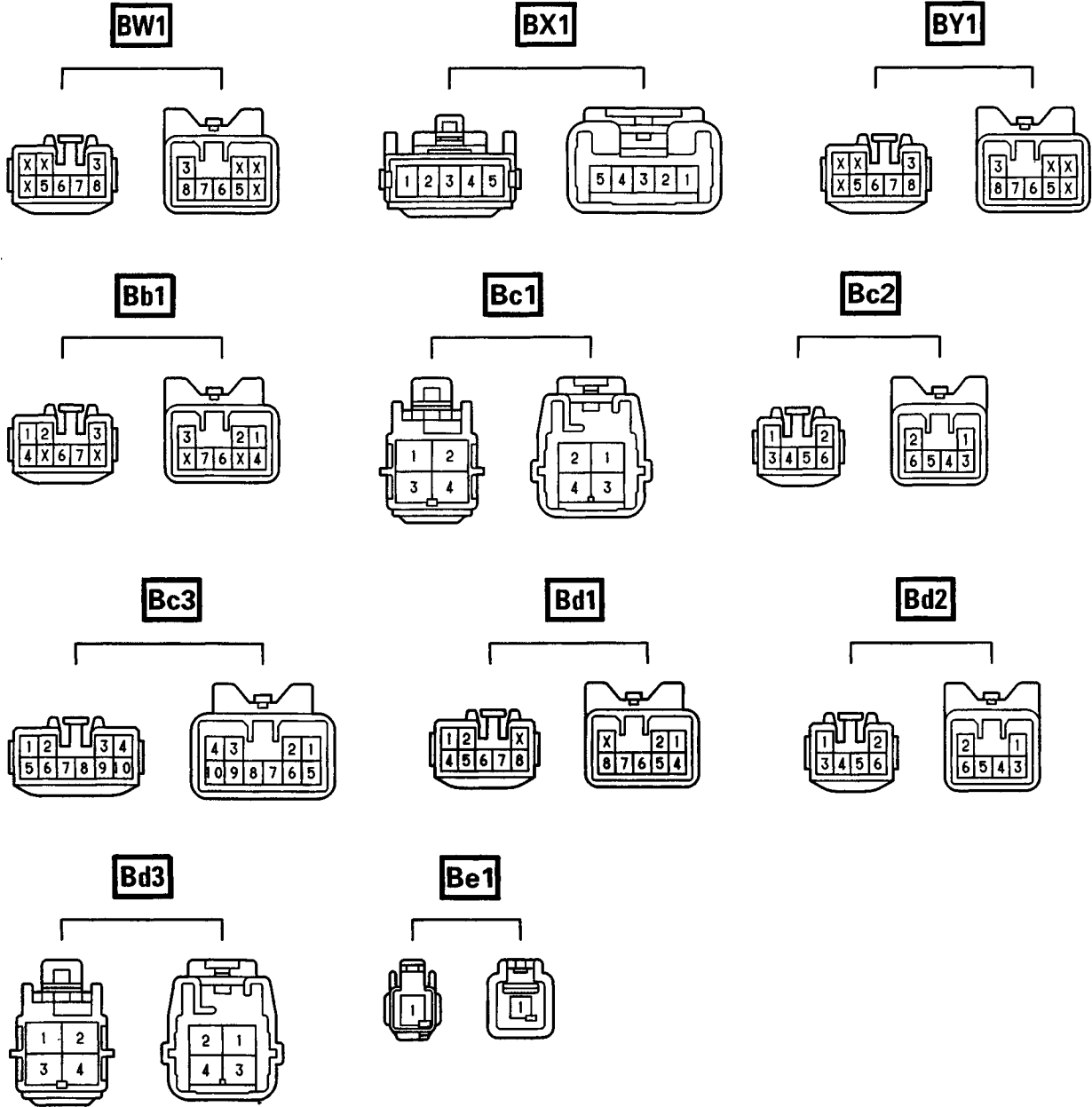


- : Location of Splice Points

[Wagon]



## Connector Joining Wire Harness and Wire Harness

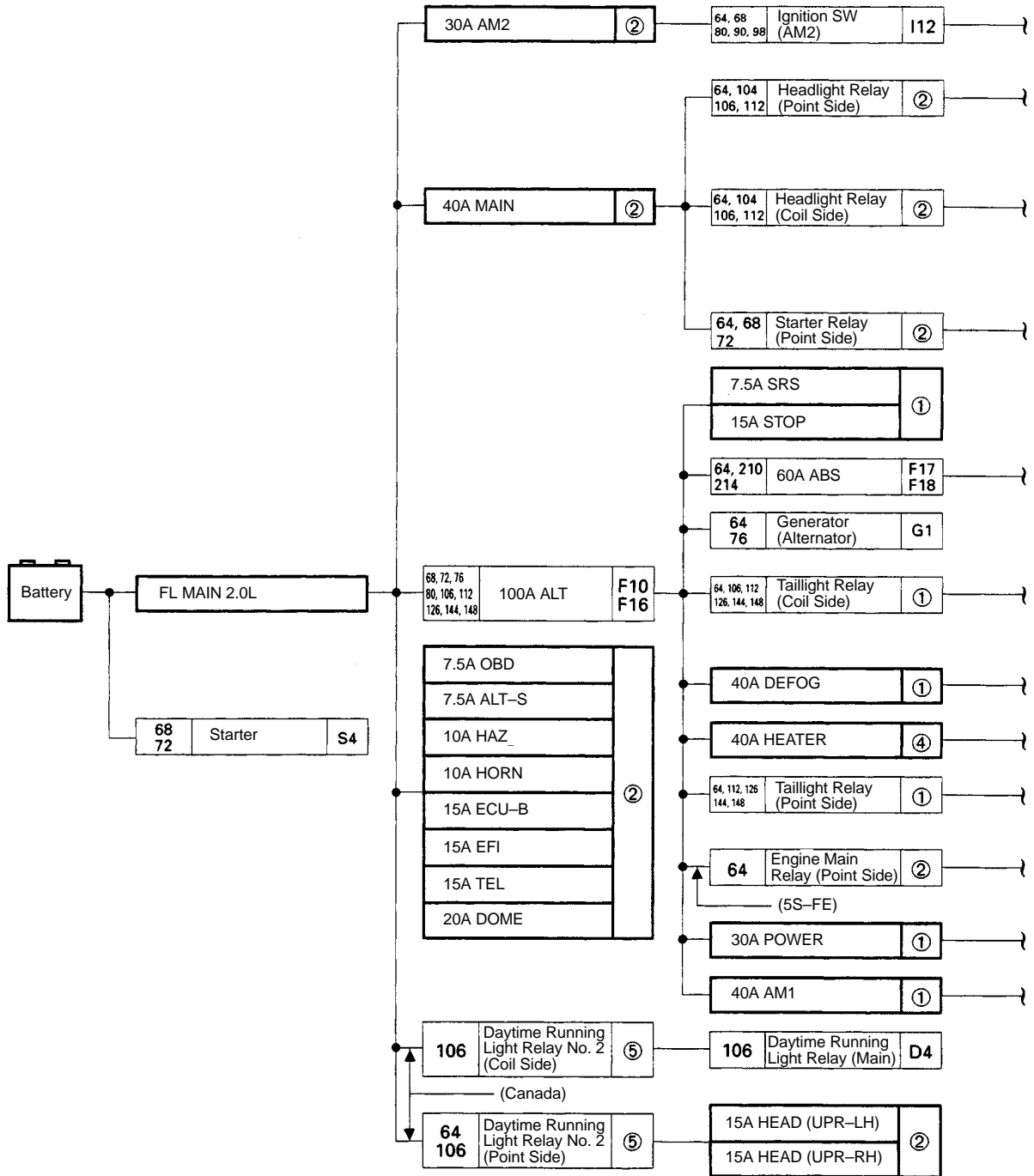


CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>BW1</b>	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE (LEFT CENTER PILLAR)
<b>BX1</b>	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)
<b>BY1</b>	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE (RIGHT CENTER PILLAR)
<b>Bb1</b>	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE (LUGGAGE COMPARTMENT LEFT)
<b>Bc1</b>	BACK DOOR NO. 1 (WIRE AND FLOOR NO. 1 WIRE (LEFT QUARTER TRIM INNER))
<b>Bc2</b>	
<b>Bc3</b>	
<b>Bd1</b>	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE (BACK DOOR LEFT)
<b>Bd2</b>	
<b>Bd3</b>	
<b>Be1</b>	REAR WINDOW NO. 1 WIRE AND BACK DOOR NO. 2 WIRE (BACK DOOR LEFT)

# POWER SOURCE (Current Flow Chart)

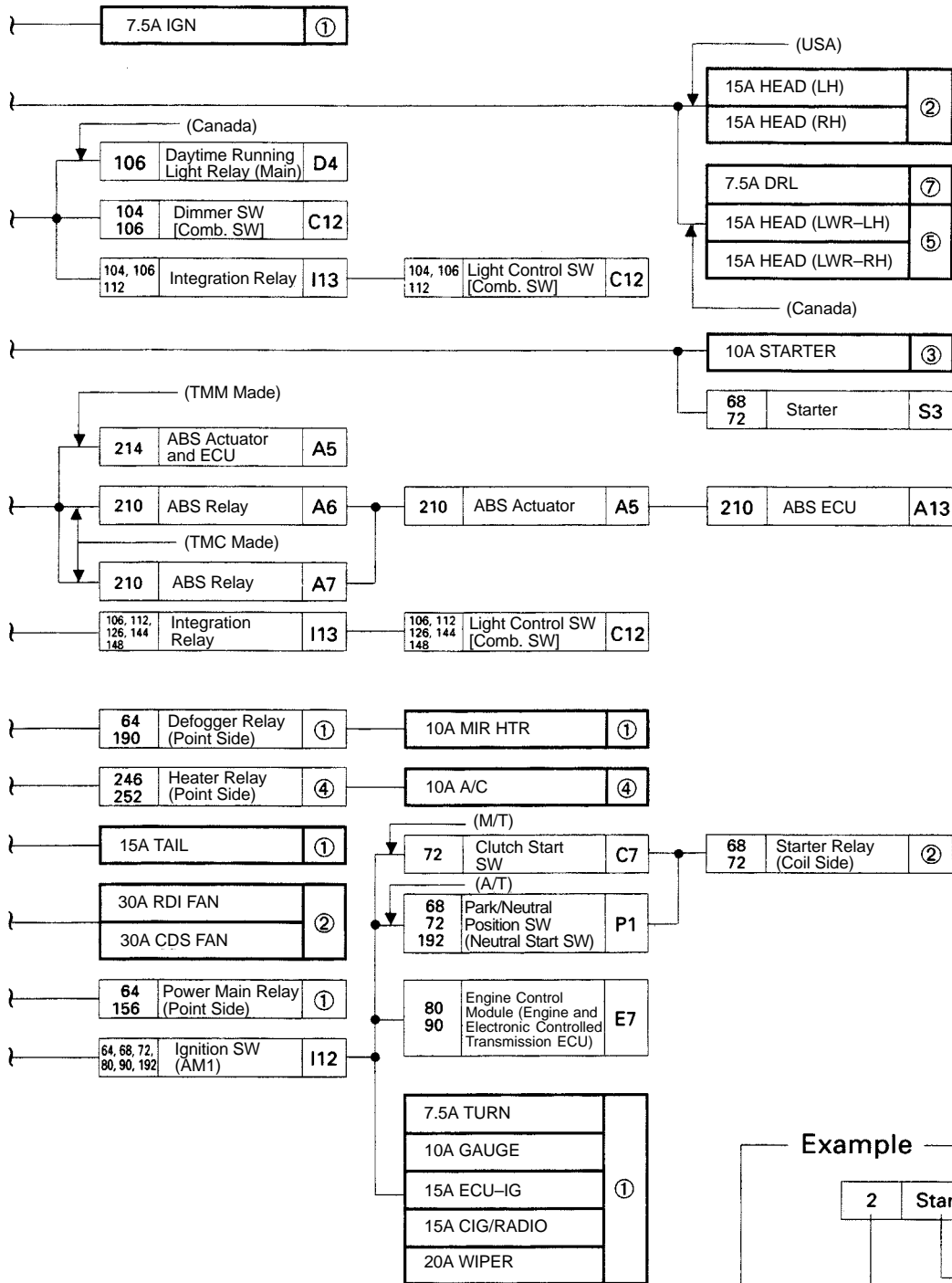
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.

The next page and following pages show the parts to which each electrical source outputs current.

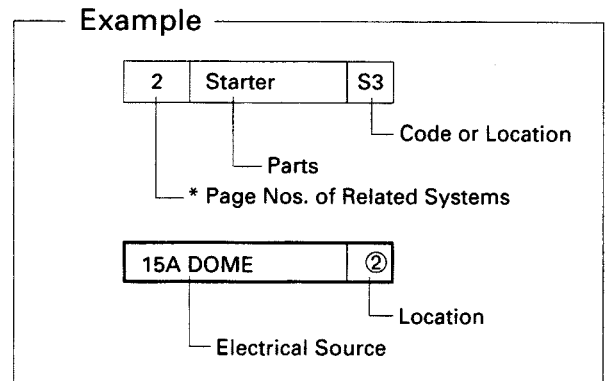


[LOCATION] (1) : J/B No. 1 (See page 20)  
 (3) : R/B No. 1 (See page 25)

(2) : J/B No. 2 (See page 22)  
 (7) : R/B No. 7 (See page 27)



\* These are the page numbers of the first page on which the related system is shown.  
The part indicated is located somewhere in the system, not necessarily on the page indicated here.



(4) : R/B No. 4 (See page 25) (5) : R/B No. 5 (See page 26) (6) R/B No. 6 (See Page 26)

# POWER SOURCE (Current Flow Chart)

Location	CB or Fuse	*Page Nos. of Related Systems																								
		A1	A2	A3	A4	A5	A6	A7	A10	A11	A12	A13	A14	A16	A17	A18	A21	B1	B2	B3	B4	B5	B6	B7	B9	B10
Parts	Code or Location																									
	40A AM1																									
	15A CIG/RADIO																									
	40A DEFOG																									
	15A ECU-1G		●		●		●					●					●							●		●
	10A GAUGE		●	●	●	●	●	●	●	●	●	●	●	●	●			●	●							
	7.5A IGN																									
①	10A MIR-HTR																									
	30A POWER																				●				●	
	7.5A SRS																									
	15A STOP				●		●						●													
	15A TAIL										●						●							●		
	7.5A TURN																									
	20A WIPER																									
	30A AM2																									
	7.5A ALT-S																									
	30A CDS FAN	●																								
	20A DOME																	●								
	15A ECU-B											●														
	15A EFI																									
	10A HAZ																									
	15A HEAD (LWR-LH)																									
	15A HEAD (LWR-RH)																									
	15A HEAD (UPR-LH)																									
	15A HEAD (UPR-RH)																									
	15A HEAD LH																									
	15A HEAD RH																									
	10A HORN																									
	40A MAIN																									
	7.5A OBD																									
③	10A STARTER																									
④	10A A/C								●		●															
	40A HEATER																				●	●	●			
⑦	7.5A DRL																									
⑧	100A ALT										●						●							●		
	60A ABS				●	●	●	●	●			●														

\* These are the page numbers of the first page on which the related system is shown.  
The part indicated is located somewhere in the system, not necessarily on the page indicated here.

[LOCATION] (1) : J/B No. 1 (See page 20) (2) : J/B No. 2 (See page 22) (3) : R/B No. 1 (See page 25)  
(7) : R/B No. 7 (See page 27) (8) : Fuse Box (F10, F17 See on page 28 29)

	192	177	189	126	189	68 72	192	114 118	236	210 214	126	130 134 138 140	170	76	104 106	80 90 98	120 124 144 148	236	177	126 198 204	173	114 118	104 112 126 144 148	106 126 148	184 186	244	192	80 90 98 214	90 192 214	98 204	106 236	80 90 98	130 134 138 140	156 140	134 140						
	C2	C3	C4	C5	C6	C7	C8	C9							C10	C11	C12			C13	C14	C16	D1	D3	D4	D6	D7	D8	D9												
Component	Cruise Control Actuator	Center Airbag Sensor Assembly	Cigarette Lighter	Cigarette Lighter Illumination	Clock	Clutch Start SW (M/T)	Combination Meter (Cruise Control Indicator Light)	Combination Meter (Turn Signal Indicator Light)	Combination Meter	Combination Meter (ABS Warning Light)	Combination Meter (Meter Illumination)	Combination Meter (Open Door Warning Light)	Combination Meter (Seat Belt Warning Light)	Combination Meter (Charge Warning Light)	Combination Meter (High Beam Indicator Light)	Combination Meter (Malfunction Indicator Light)	Combination Meter (Rear Light Warning Light)	Combination Meter	Combination Meter (SRS Warning Light)	Combination Meter (A/T Indicator Light)	Combination SW (Horn SW)	Combination SW (Turn Signal SW)	Combination SW (Light Control SW)	Combination SW (Front Wiper and Washer SW)	Cooling Fan ECU (1MZ-FE)	Cruise Control ECU	Data Link Connector 1 (Check Connector)	Data Link Connector 2 (DCL (Toyota Diagnostic Communication Link))	Daytime Running Light Relay (Main) (CANADA)	Diode (for Idle-Up)	Diode (for Courtesy)	Door Lock Control Relay	Diode (for Courtesy) (W/G)								
			●		●	●	●											●	●																						
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					●				●																																
							●																																		

(4) : R/B No. 4 (See page25) (5) : R/B No. 5 (See page 26) (6) R/B No. 6 (See Page26)

# POWER SOURCE (Current Flow Chart)

Location	*Page Nos. of Related Systems																							
	Parts		Code or Location																					
	CB or Fuse		D12	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25	E2	E3	E5	E6	E7	E8	E9	
①	40A	AM1																						
	15A	CIG/RADIO																			●			
	40A	DEFOG																						
	15A	ECU-1G														●	●	●	●					
	10A	GAUGE																		●			●	
	7.5A	IGN																						
	10A	MIR-HTR																						
	30A	POWER					●	●	●	●	●	●	●	●										
	7.5A	SRS																						
	15A	STOP																						
	15A	TAIL																		●				
	7.5A	TURN																						
	20A	WIPER																						
	②	30A	AM2																			●		
		7.5A	ALT-S																					
		30A	CDS FAN																					
		20A	DOME	●	●	●	●	●																
		15A	ECU-B																					
		15A	EFI														●				●	●	●	
		10A	HAZ																					
15A		HEAD (LWR-LH)																						
15A		HEAD (LWR-RH)																						
15A		HEAD (UPR-LH)																						
15A		HEAD (UPR-RH)																						
15A		HEAD LH																						
15A		HEAD RH																						
10A		HORN																						
40A		MAIN																						
7.5A		OBD														●								
③	10A	STARTER																			●			
④	10A	A/C																						
	40A	HEATER																						
⑦	7.5A	DRL																						
⑧	100A	ALT																		●				
	60A	ABS																						

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 (7) : R/B No. 7 (See page 27) (8) : Fuse Box (F10, F17 See on page 28 29)



80 98 204	90 198	144 148		144 148		114 118	114 118	184	80 90 98 236	76	126	126	104	106	104	106	104	106	173	173	114 118 126	126 246	252	80	120 124	80	80	80 90 98	68 80 98 236	72	80			
E10	F3	F4	F5	F6	F7	F8	F9	F15	G2	G3	G4	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	I1	I2	I3	I4							
Engine Control Module (Engine and Electronic Controlled Transmission ECU)	Front Clearance Light LH	Front Clearance Light RH	Front Side Marker LH	Front Side Marker RH	Front turn Signal Light LH	Front turn Signal Light RH	Front Wiper Motor	Fuel Pump and Sender	Generator (Alternator)	Glove Box Light	Glove Box Light SW	Headlight HI LH (USA)	Headlight HI LH (CANADA)	Headlight HI RH (USA)	Headlight HI RH (CANADA)	Headlight Lo LH (USA)	Headlight Lo LH (CANADA)	Headlight Lo RH (USA)	Headlight Lo RH (CANADA)	Horn LH	Horn RH	Hazard SW	Heater Control SW (for Push Control SW Type)	Air Vent Mode Control SW (for Lever Control SW Type)	Heated Oxygen Sensor (Bank 1 Sensor 2)	High Mount Stop Light	Heated Oxygen Sensor (Bank 1 Sensor 1) (1MZ-FE)	Heated Oxygen Sensor (Bank 2 Sensor 1) (1MZ-FE)	Idle Air Control Valve (ISC Valve)	Igniter	Ignition Coil	Injector No. 1		
●								●	●														●						●					
●										●													●	●										
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(4) : R/B No. 4 (See page25 ) (5) : R/B No. 5 (See page 26) (6) R/B No. 6 (See Page26)

# POWER SOURCE (Current Flow Chart)

Location	*Page Nos. of Related Systems		80	80	80	80	80	130 134 138 140	68 72 80	106 120 130 144	112 126 140 170	130 134 138 140	68 80	68 80	68 80	68 80	68 80	68 80	76 114 130 170 214 246	90 118 134 192 224 252	98 120 210	80 154 182 190 204	126 156 189 198 236	130 156 182 214 226 234	134 160 198 222 228 236	154 168 204 224 230	177	
	Parts	Code or Location	Injector No. 2	Injector No. 3	Injector No. 4	Injector No. 5 (1MZ-FE)	Injector No. 6 (1MZ-FE)	Injector Key Cylinder Light	Ignition SW and Unlock Warning SW	Integration Relay	Interior Light	Ignition Coil No. 1 (1MZ-FE)	Ignition Coil No. 2 (1MZ-FE)	Ignition Coil No. 3 (1MZ-FE)	Ignition Coil No. 4 (1MZ-FE)	Ignition Coil No. 5 (1MZ-FE)	Ignition Coil No. 6 (1MZ-FE)	Junction Connector	Junction Connector	Junction Connector	Junction Connector (for Airbag System)	CB or Fuse						
			I5	I6	I7	I8	I9	I11	I12	I13	I14	I16	I17	I18	I19	I20	I21	J1	J2	J3	J4							
①	40A	AM1							●																			
	15A	CIG/RADIO																		●					●			
	40A	DEFOG																										
	15A	ECU-1G																		●								
	10A	GAUGE									●								●	●				●				
	7.5A	IGN																	●									
	10A	MIR-HTR																										
	30A	POWER																		●								
	7.5A	SRS																									●	
	15A	STOP																										
	15A	TAIL																										
	7.5A	TURN																		●								
	20A	WIPER																										
	②	30A	AM2	●	●	●	●	●		●				●	●	●	●	●										
7.5A		ALT-S																										
30A		CDS FAN																										
20A		DOME							●		●	●							●						●			
15A		ECU-B																										
15A		EFI																										
10A		HAZ																		●								
15A		HEAD (LWR-LH)																										
15A		HEAD (LWR-RH)																										
15A		HEAD (UPR-LH)																										
15A		HEAD (UPR-RH)																										
15A		HEAD LH																										
15A		HEAD RH																										
10A		HORN																										
40A	MAIN									●																		
7.5A	OBD																											
③	10A	STARTER																										
④	10A	A/C																										
	40A	HEATER																										
⑦	7.5A	DRL																										
⑧	100A	ALT								●																		
	60A	ABS																										

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 (7) : R/B No. 7 (See page 27) (8) : Fuse Box (F10, F17 See on page 28 29)

118 180 186 224	80	198	182	144	120 124 144 148	130 134 138 140	130 134 138 140	168	130 138 168	168	168	80	80	120 124 182 192	198 204 210 214	236	126 198 204	68 72 152 198 204	236	236	180	180	180	180	180	156	156	156 160	
J5	J6	J7	K3	L1	L2	L3	L4	M2	M3	M4	M5	M6	N1	N2	N3	O1	O5	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
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																	●												

(4) : R/B No. 4 (See page 25) (5) : R/B No. 5 (See page 26) (6) R/B No. 6 (See Page 26)

# POWER SOURCE (Current Flow Chart)

Location	*Page Nos. of Related Systems		Parts																									
	CB or Fuse		Power Window Motor Front LH	Power Window Motor Front RH	Power Window Motor Rear LH	Power Window Motor Rear RH	Radiator Fan Motor (5S-FE)	Radio and Player (w/ CD Player)	Radio and Player (w/o CD Player)	Rear Window Defogger SW	Remote Control mirror SW	Rheostat	Stop Light LH [Rear Comb. Light LH]	Taillight LH [Rear Comb. Light LH]	Rear Turn Signal Light LH [Rear Comb. Light LH]	Stop Light LH [Rear Comb. Light LH]	Taillight LH [Rear Comb. Light LH]	Back-up Light LH [Rear Comb. Light LH]	Stop Light RH [Rear Comb. Light RH]	Taillight RH [Rear Comb. Light RH]	Rear Turn Signal Light RH [Rear Comb. Light RH]	Taillight RH [Rear Comb. Light RH]	Stop Light RH [Rear Comb. Light RH]	Back-up Light RH [Rear Comb. Light RH]	Rear Window Defogger (+) (EX. W/G)	Rear Window Defogger (-) (EX. W/G)	Rear Window Defogger (-) (W/G)	
			P13	P14	P15	P16	R1	R2	R3	R5	R6	R7	R8		R9		R10		R11		R16	R17						
①	40A	AM1																										
	15A	CIG/RADIO							●		●																	
	40A	DEFOG																								●	●	●
	15A	ECU-1G																										
	10A	GAUGE									●								●							●		
	7.5A	IGN																										
	10A	MIR-HTR																										
	30A	POWER		●	●	●	●																					
	7.5A	SRS																										
	15A	STOP													●						●							
	15A	TAIL						●	●	●		●			●					●					●			
	7.5A	TURN														●									●			
	20A	WIPER																										
	②	30A	AM2																									
		7.5A	ALT-S																									
		30A	CDS FAN					●																				
		20A	DOME							●																		
15A		ECU-B																										
15A		EFI																										
10A		HAZ													●								●					
15A		HEAD (LWR-LH)																										
15A		HEAD (LWR-RH)																										
15A		HEAD (UPR-LH)																										
15A		HEAD (UPR-RH)																										
15A		HEAD LH																										
15A		HEAD RH																										
10A		HORN																										
40A		MAIN																										
7.5A		OBD																										
③		10A	STARTER																									
④	10A	A/C																										
	40A	HEATER																										
⑦	7.5A	DRL																										
⑧	100A	ALT					●	●	●	●																		
	60A	ABS																										

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(7) : R/B No. 7 (See page 27) (8) : Fuse Box (F10, F17 See on page 28 29)



# POWER SOURCE (Current Flow Chart)

Location	CB or Fuse	*Page Nos. of Related Systems		Parts																
		Code or Location	Part	Horn Relay	Headlight Relay (Point Side)	Radiator Fan Relay (Point Side)	Radiator Fan Relay (Coil Side)	Turn Signal Flasher	Heater Relay (Point Side)	Heater Relay (Coil Side)	Radiator Fan Relay No. 2 (Coil Side)	Radiator Fan Relay No. 2 (Point Side)	Radiator Fan Relay No. 3 (Point Side)	A/C Magnetic Clutch Relay (Coil Side)	A/C Magnetic Clutch Relay (Point Side)	Circuit Opening Relay (Coil Side)	Circuit Opening Relay (Coil Side)	Daytime Running Light Relay No. 3 (Coil Side)	Daytime Running Light Relay No. 4 (Coil Side)	
①	40A	AM1																		
	15A	CIG/RADIO																		
	40A	DEFOG																		
	15A	ECU-1G				●				●										
	10A	GAUGE							●				●	●						
	7.5A	IGN																		
	10A	MIR-HTR																		
	30A	POWER																		
	7.5A	SRS																		
	15A	STOP																		
	15A	TAIL																		
	7.5A	TURN					●													
	20A	WIPER																		
	②	30A	AM2																	
		7.5A	ALT-S																	
30A		CDS FAN			●						●	●								
20A		DOME																		
15A		ECU-B																		
15A		EFI															●			
10A		HAZ					●													
15A		HEAD (LWR-LH)																		
15A		HEAD (LWR-RH)																		
15A		HEAD (UPR-LH)																	●	
15A		HEAD (UPR-RH)																●		
15A		HEAD LH																		
15A		HEAD RH																		
10A		HORN	●																	
40A	MAIN		●															●		
7.5A	OBD																	●		
③	10A	STARTER														●				
	10A	A/C																		
④	40A	HEATER						●												
	7.5A	DRL																●	●	
⑧	100A	ALT																		
	60A	ABS																		

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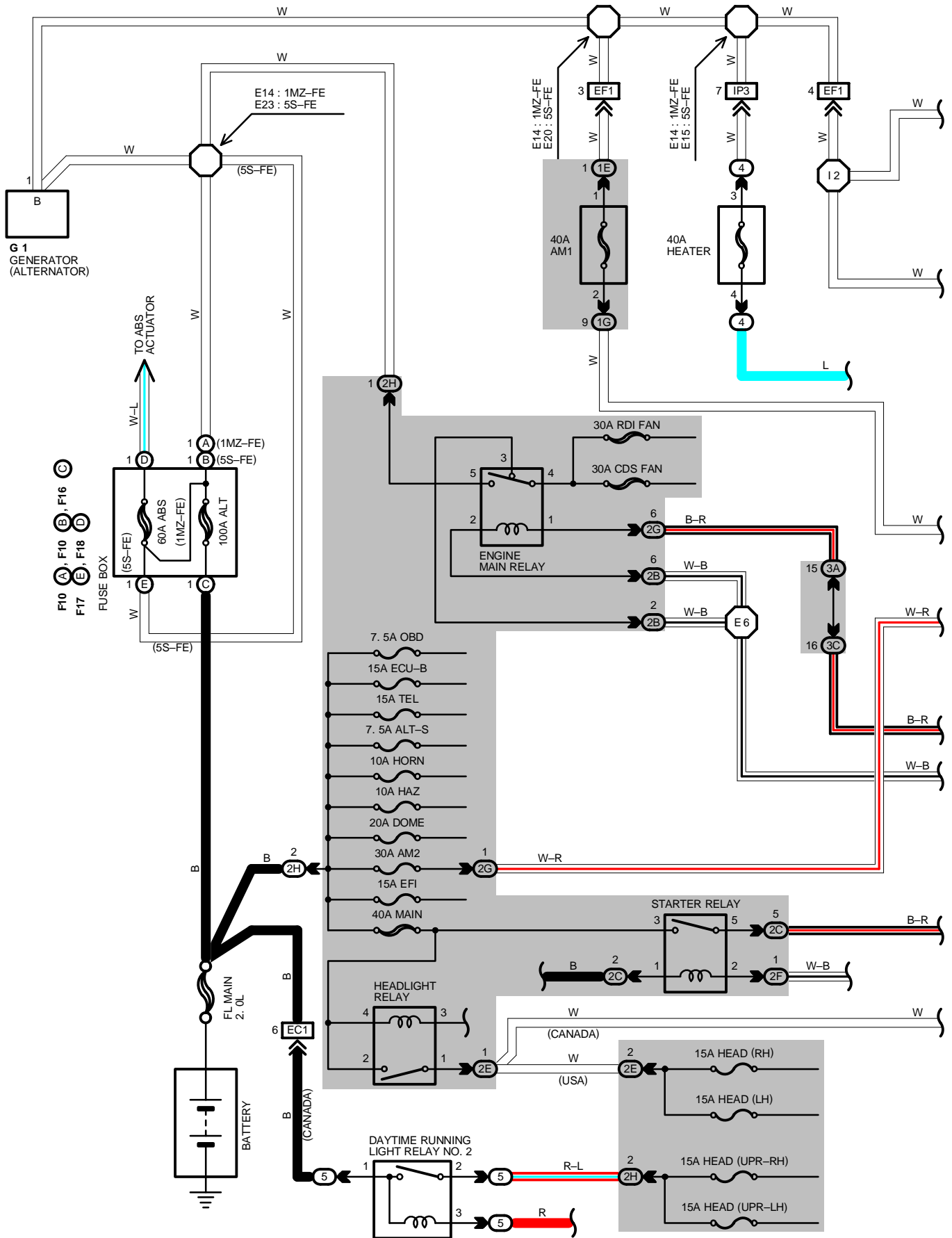
[LOCATION] (1) : J/B No. 1 (See page 20) (2) : J/B No. 2 (See page 22) (3) : R/B No. 1 (See page 25)  
 (4) : R/B No. 4 (See page 25) (5) : R/B No. 5 (See page 26) (6) : R/B No. 6 (See page 26)  
 (7) : R/B No. 7 (See page 27) (8) : Fuse Box (F10, F17 See on page 28 29)

# POWER SOURCE (Current Flow Chart)

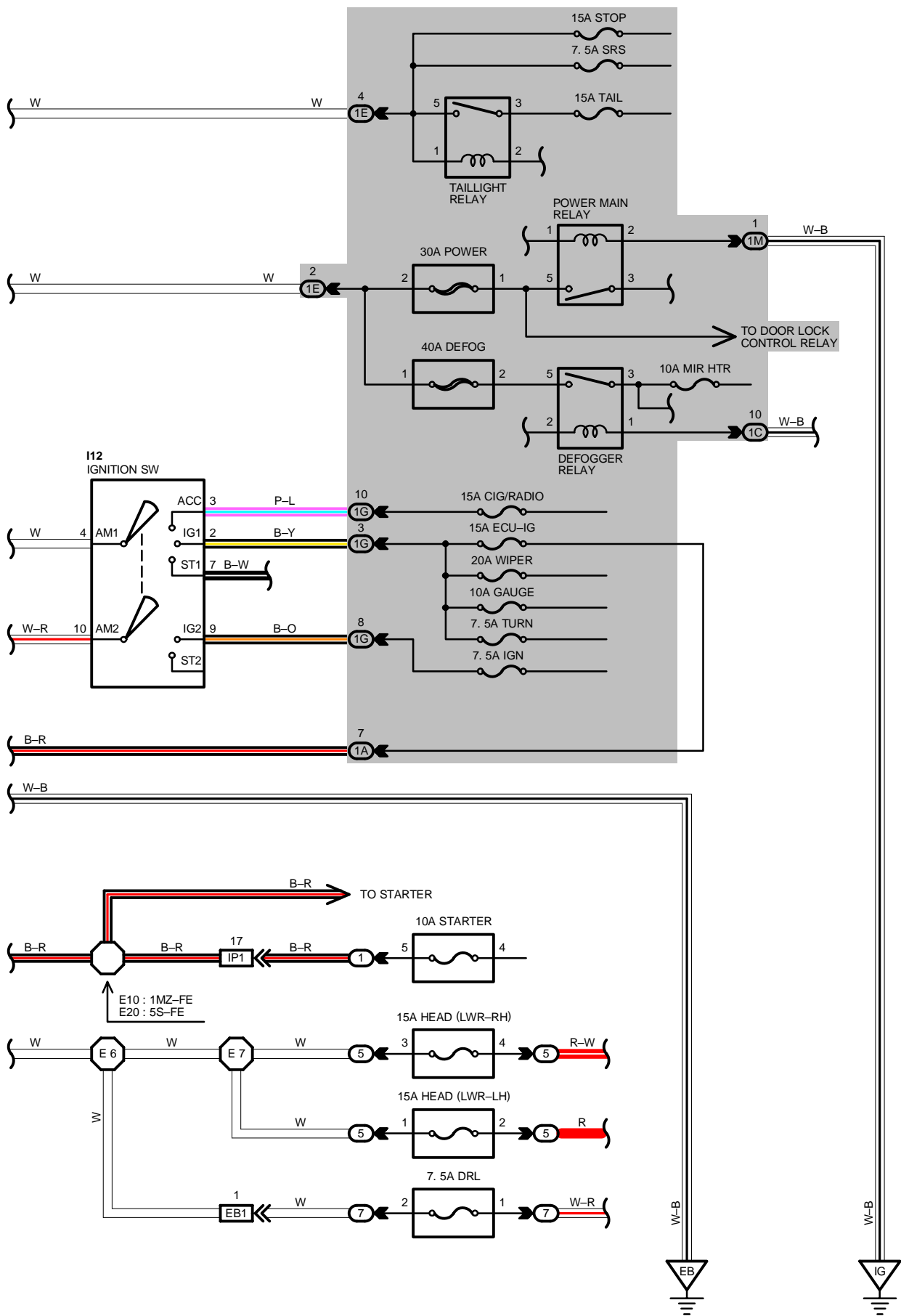
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-Memo

# POWER SOURCE







# POWER SOURCE

## SERVICE HINTS

### TAILLIGHT RELAY

5-3 : CLOSED WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION  
CLOSED WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED (CANADA)

### ENGINE MAIN RELAY

4-5 : CLOSED WITH IGNITION SW AT **ON** OR **ST** POSITION

### HEADLIGHT RELAY

2-1 : CLOSED WITH LIGHT CONTROL SW AT **HEAD** POSITION OR DIMMER SW AT **FLASH** POSITION  
CLOSED WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED (CANADA)

### I12 IGNITION SW

4-3 : CLOSED WITH IGNITION KEY AT **ACC** OR **ON** POSITION  
10-9, 4-2 : CLOSED WITH IGNITION KEY AT **ON** OR **ST** POSITION

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F10	A 28	F17	E 28 (1MZ-FE), 30 (5S-FE)	I2	33
	B 30	F18	D 28 (1MZ-FE), 30 (5S-FE)		
F16	C 28 (1MZ-FE), 30 (5S-FE)	G1	28 (1MZ-FE), 30 (5S-FE)		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 4 (LEFT KICK PANEL)
4	25	R/B NO. 4 (RIGHT KICK PANEL)
5	26	R/B NO. 5 (ENGINE COMPARTMENT LEFT)
7	27	R/B NO. 7 (NEAR THE BATTERY)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1E		
1G		
1M		
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2G		
2H		
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE AND RELAY WIRE
	40 (5S-FE)	
EC1	38 (1MZ-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
EF1	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	
IP1	44	
IP3		

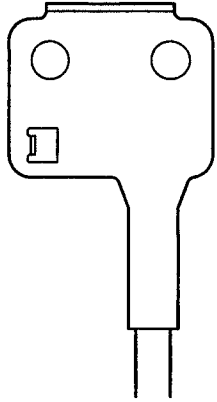
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
IG	42	INSTRUMENT PANEL BRACE LH

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E6	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	E14	38 (1MZ-FE)	ENGINE WIRE
	40 (5S-FE)		E15	40 (5S-FE)	
E7	38 (1MZ-FE)		E20		
	40 (5S-FE)		E23		
E10	38 (1MZ-FE)	ENGINE WIRE	I2	44	COWL WIRE

(1MZ-FE) F10 **A**



(5S-FE) F10 **B**



F16 **C**



(5S-FE) F17 **E**



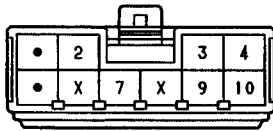
F18 **D**



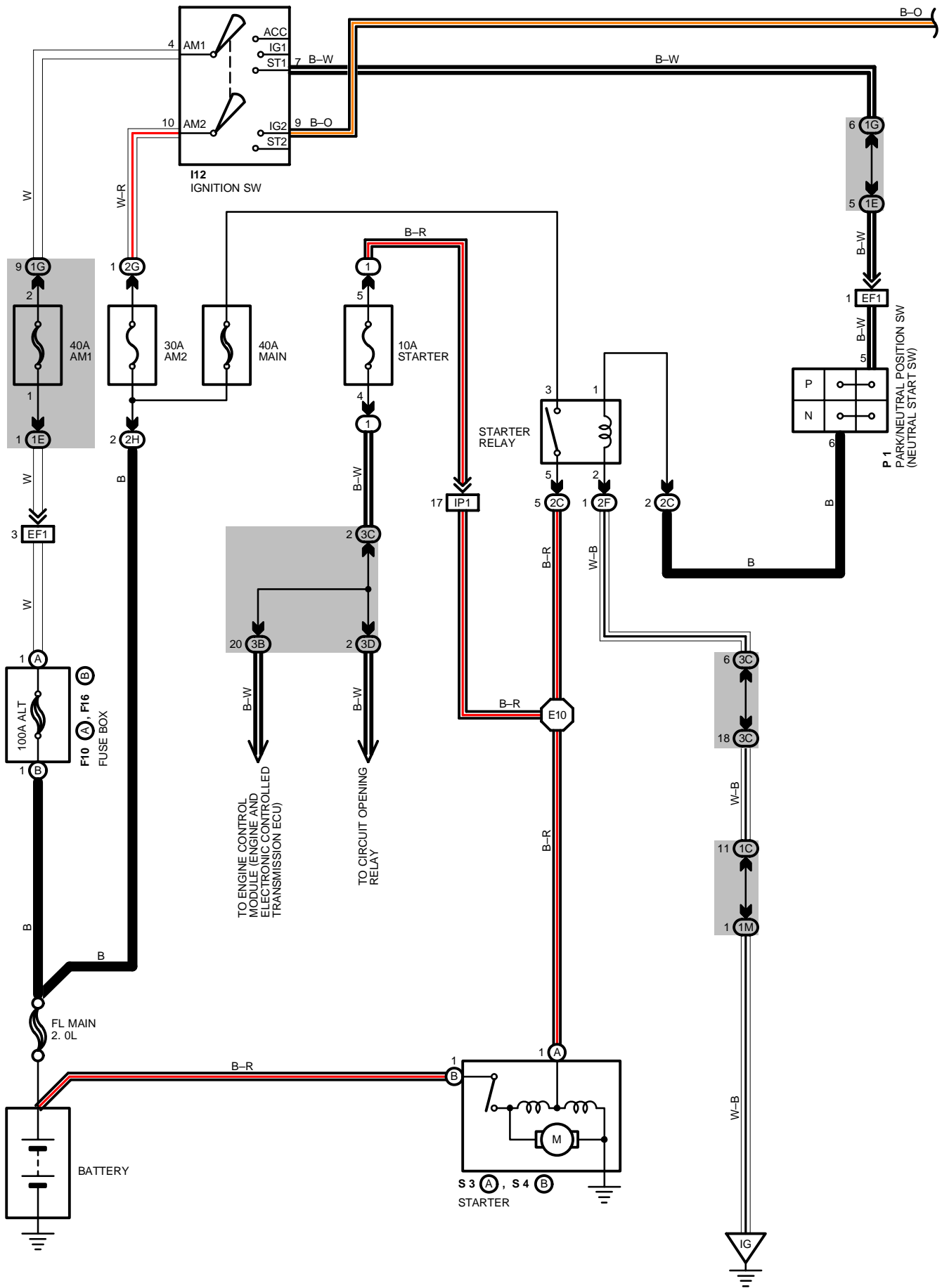
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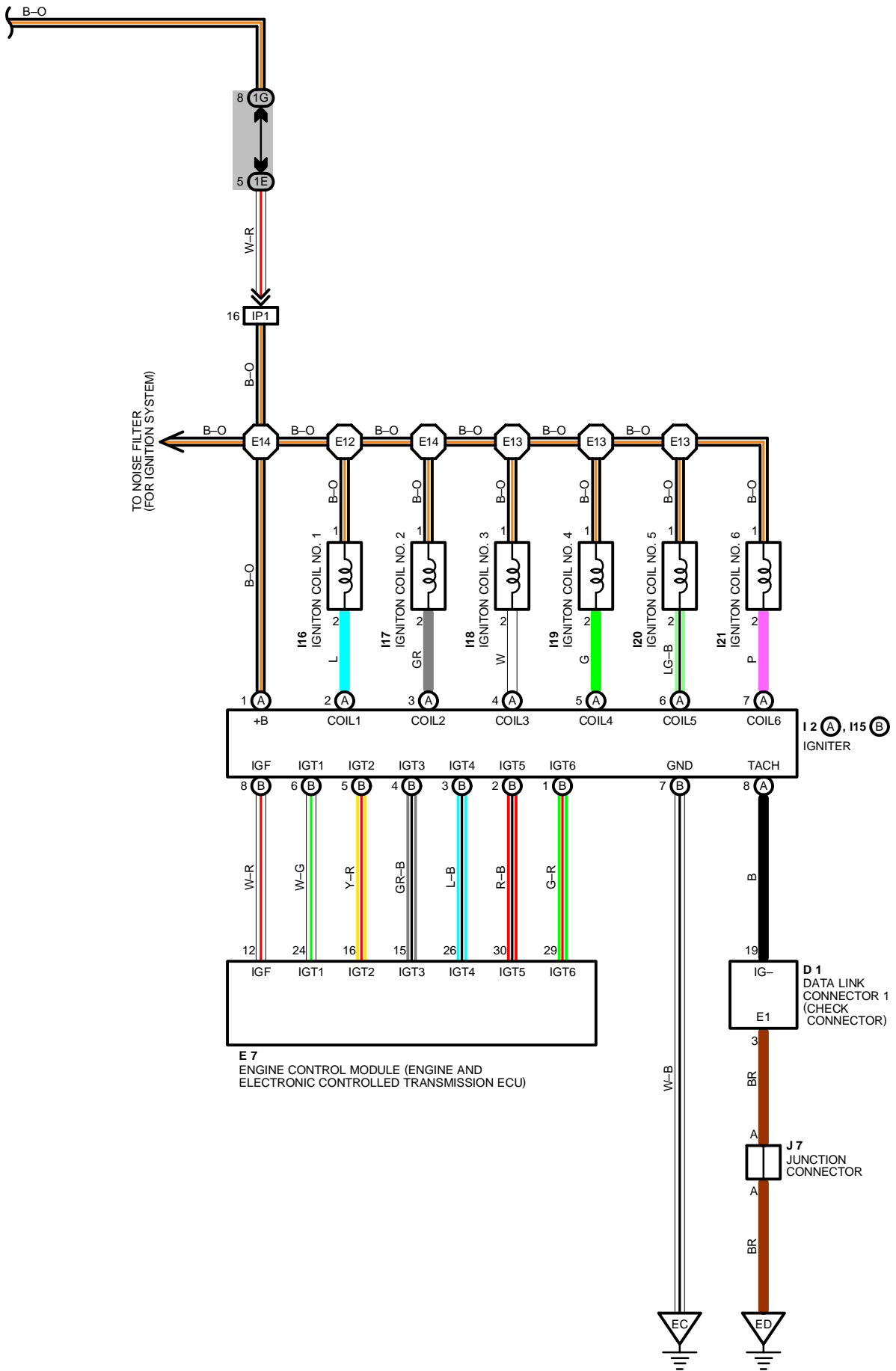


I12



# STARTING AND IGNITION (1MZ-FE)





**E 7**  
ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU)

**D 1**  
DATA LINK CONNECTOR 1 (CHECK CONNECTOR)

**J 7**  
JUNCTION CONNECTOR

# STARTING AND IGNITION (1MZ-FE)

## SERVICE HINTS

### I12 IGNITION SW

- 4-7 : CLOSED WITH IGNITION SW AT **ST** POSITION
- 10-9 : CLOSED WITH IGNITION SW AT **ON** OR **ST** POSITION

### STARTER RELAY

- (6) 2- (6) 4 : CLOSED WITH CLUTCH START SW ON AND IGNITION SW AT **ST** POSITION (M/T)
- CLOSED WITH IGNITION SW AT **ST** POSITION (A/T)

### STARTER

- POINTS CLOSED WITH CLUTCH START SW ON AND IGNITION SW AT **ST** POSITION

### P 1 PARK/NEUTRAL POSITION SW (NEUTRAL START SW) (A/T)

- 2-3 : CLOSED WITH A/T SHIFT LEVER IN **P** OR **N** POSITION

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D 1	28	I15	B 29	I21	29
E 7	32	I16	29	J 7	33
F10	A 28	I17	29	P 1	29
F16	B 28	I18	29	S 3	A 29
I 2	A 29	I19	29	S 4	B 29
I12	33	I20	29		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1E		
1G		
1M		
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2H	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EF1	38 (1MZ-FE) 40 (5S-FE)	ENGINE WIRE AND COWL WIRE
IP1	44	

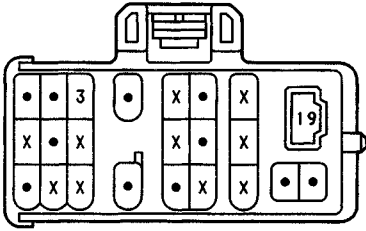
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EC	38 (1MZ-FE) 40 (5S-FE)	INTAKE MANIFOLD RH
ED	38 (1MZ-FE) 40 (5S-FE)	INTAKE MANIFOLD LH
IG	42	INSTRUMENT PANEL BRACE LH

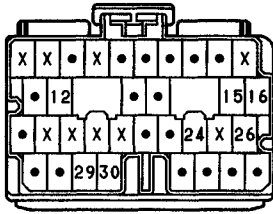
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E10	38 (1MZ-FE)	ENGINE WIRE	E13	38 (1MZ-FE)	ENGINE WIRE
E12			E14		

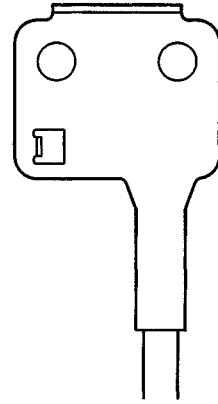
D 1 BLACK



E 7 DARK GRAY



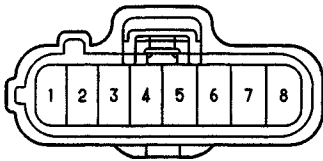
F10 (A)



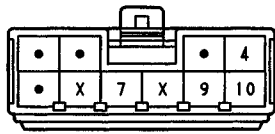
F16 (B)



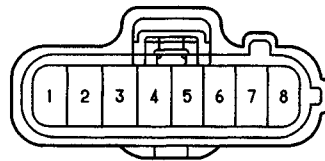
I 2 (A) DARK GRAY



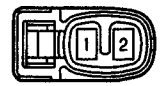
I12



I15 (B) BLACK



I16, I17, I18, I19, I20, I21 BLACK

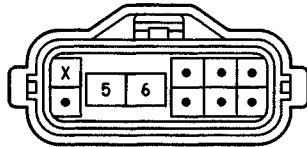


J 7 BLUE



(HINT:SEE PAGE 7)

P 1 GRAY



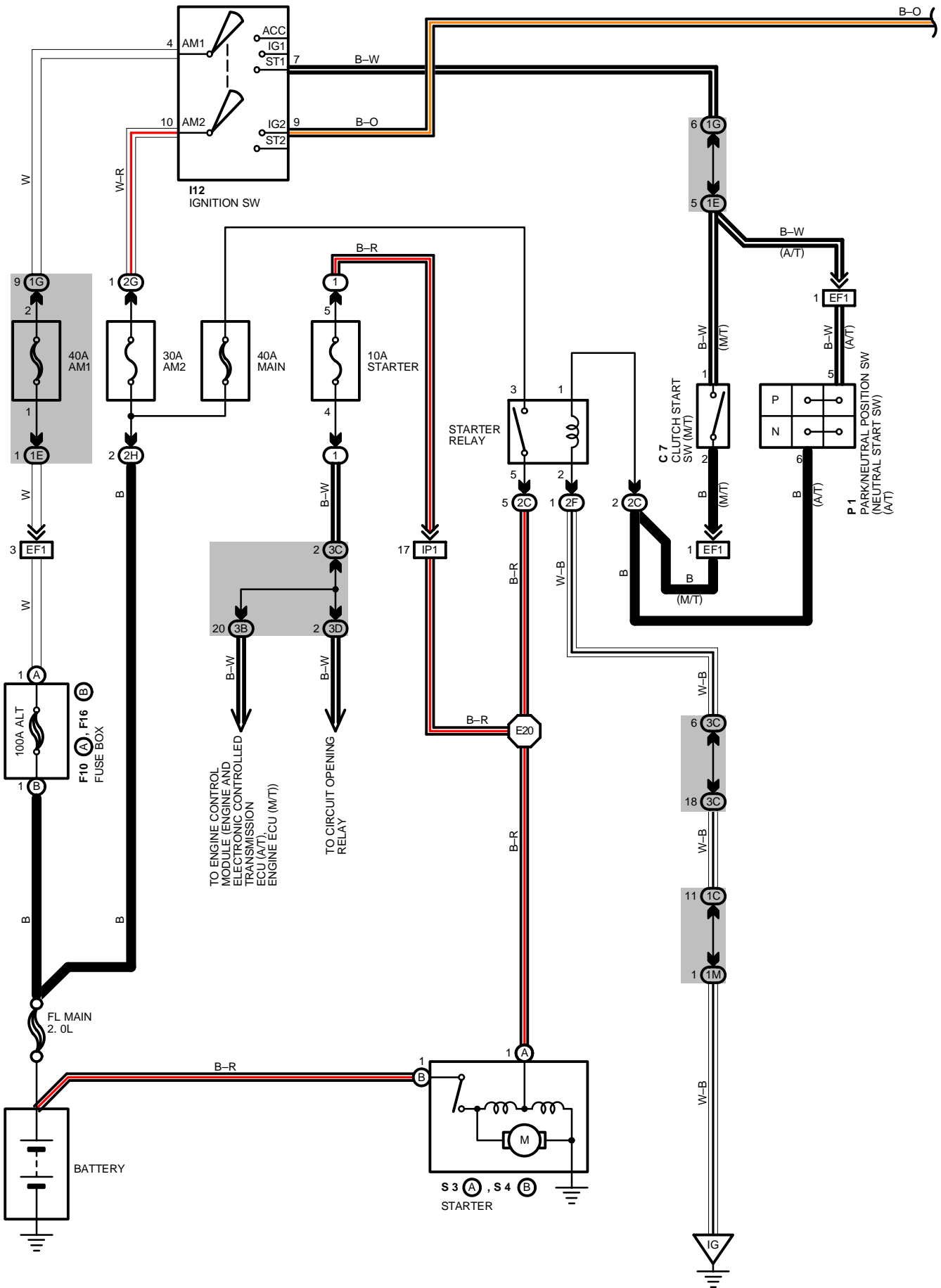
S 3 (A) BLACK



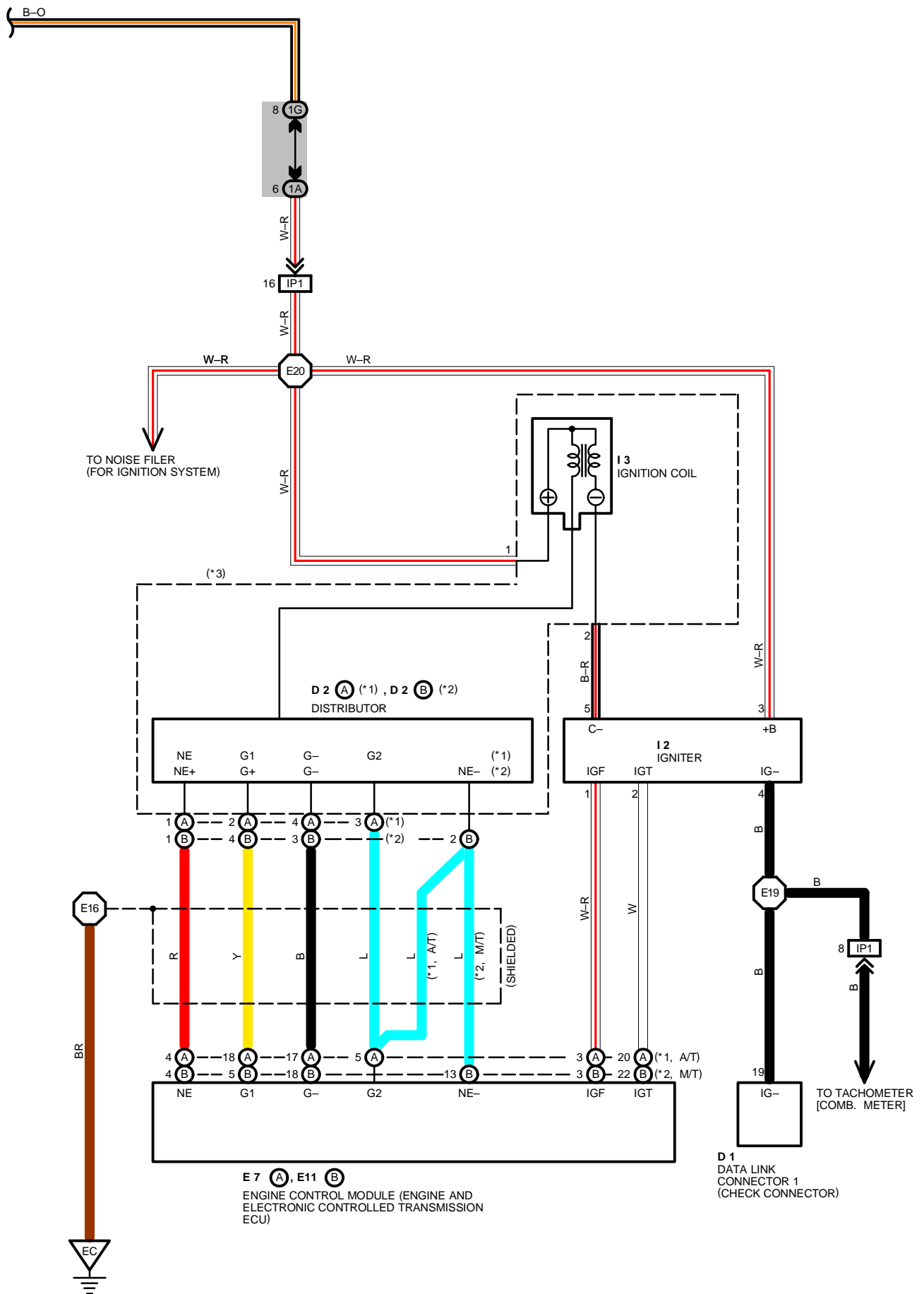
S 4 (B)



# STARTING AND IGNITION (5S-FE)







# STARTING AND IGNITION (5S-FE)

## SERVICE HINTS

### I12 IGNITION SW

- 4-7 : CLOSED WITH IGNITION SW AT **ST** POSITION
- 10-9 : CLOSED WITH IGNITION SW AT **ON** OR **ST** POSITION

### C 7 CLUTCH START SW (M/T)

- 1-2 : CLOSED WITH CLUTCH PEDAL FULLY DEPRESSED

### STARTER RELAY

- (6) 2- (6) 4 : CLOSED WITH CLUTCH START SW ON AND IGNITION SW AT **ST** POSITION (M/T)
- CLOSED WITH IGNITION SW AT **ST** POSITION (A/T)

### STARTER

- POINTS CLOSED WITH CLUTCH START SW ON AND IGNITION SW AT **ST** POSITION

### P 1 PARK/NEUTRAL POSITION SW (NEUTRAL START SW) (A/T)

- 2-3 : CLOSED WITH A/T SHIFT LEVER IN **P** OR **N** POSITION

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C 7</b>	32	<b>E11</b>	B 32	<b>I12</b>	33
<b>D 1</b>	30	<b>F10</b>	A 30	<b>P 1</b>	31
<b>D 2</b>	A 30	<b>F16</b>	B 30	<b>S 3</b>	A 31
	B 30	<b>I 2</b>	31	<b>S 4</b>	B 31
<b>E 7</b>	A 32	<b>I 3</b>	31		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
<b>1</b>	25	R/B NO. 1 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1A</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1C</b>		
<b>1E</b>		
<b>1G</b>		
<b>1M</b>		
<b>2C</b>	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
<b>2F</b>	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
<b>2G</b>		
<b>2H</b>	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
<b>3B</b>	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
<b>3C</b>		
<b>3D</b>		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

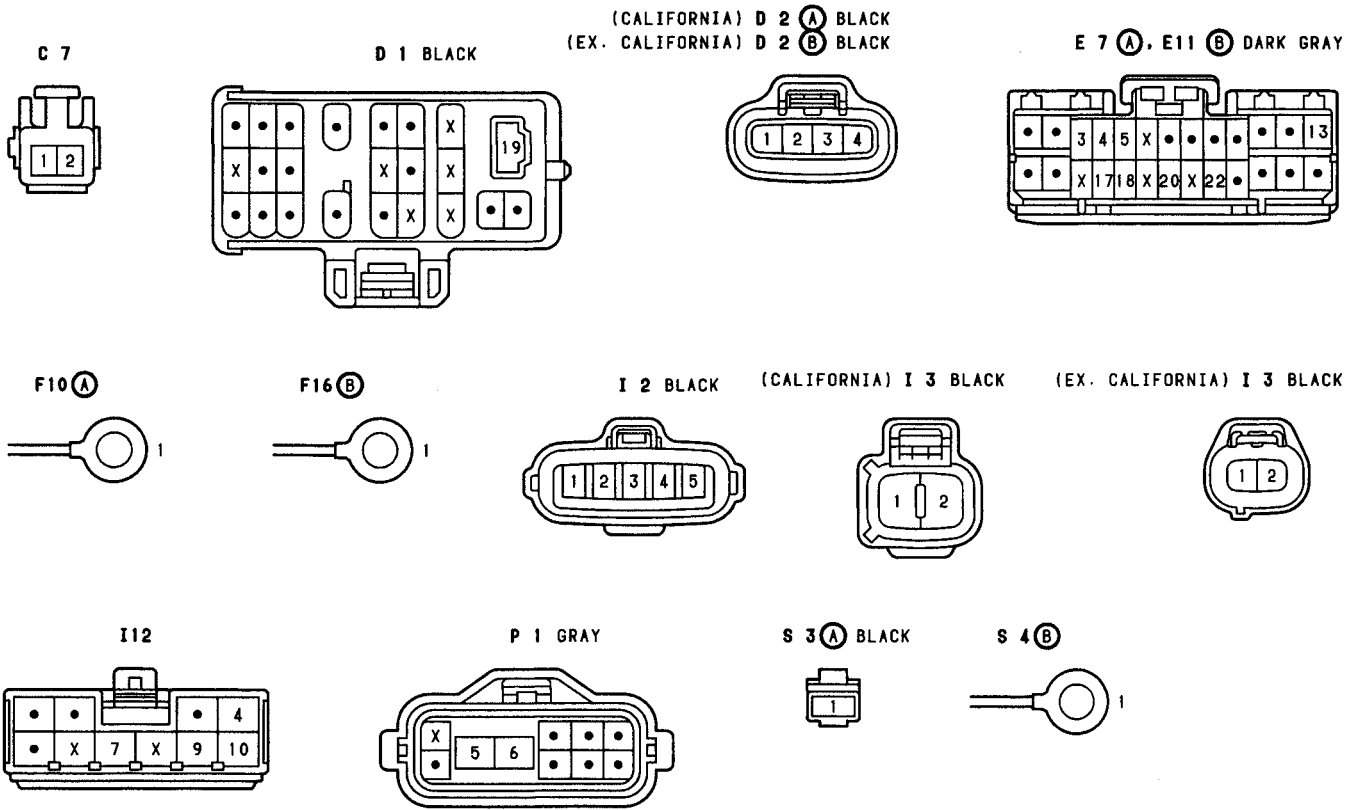
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>EF1</b>	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	
<b>IP1</b>	44	

## ▽ : GROUND POINTS

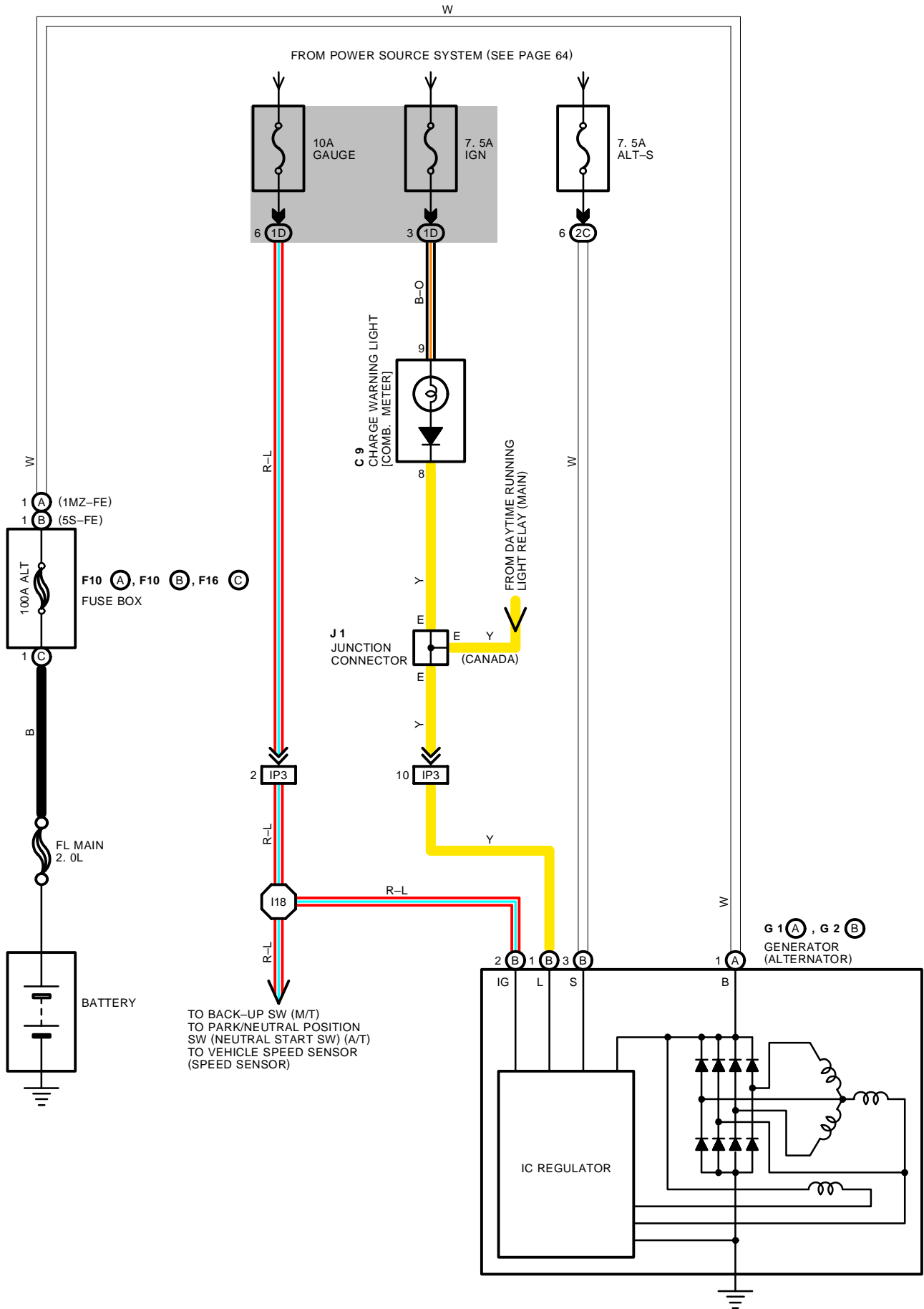
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>EC</b>	38 (1MZ-FE)	INTAKE MANIFOLD RH
	40 (5S-FE)	
<b>IG</b>	42	INSTRUMENT PANEL BRACE LH

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>E16</b>	40 (5S-FE)	ENGINE WIRE	<b>E20</b>	40 (5S-FE)	ENGINE WIRE
<b>E19</b>					



# CHARGING



## SERVICE HINTS

### G 1(B) GENERATOR (ALTERNATOR)

- (B) 3-GROUND : 13.9–15.1 VOLTS WITH ENGINE RUNNING AT 2000 RPM AND 25°C (77°F)  
 13.5–14.3 VOLTS WITH ENGINE RUNNING AT 2000 RPM AND 115°C (239°F)  
 (B) 1-GROUND : 0–4 VOLTS WITH IGNITION SW AT ON POSITION AND ENGINE NOT RUNNING

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	F16	C	J 1	33
F10	A	G 1	A		
	B	G 2	B		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

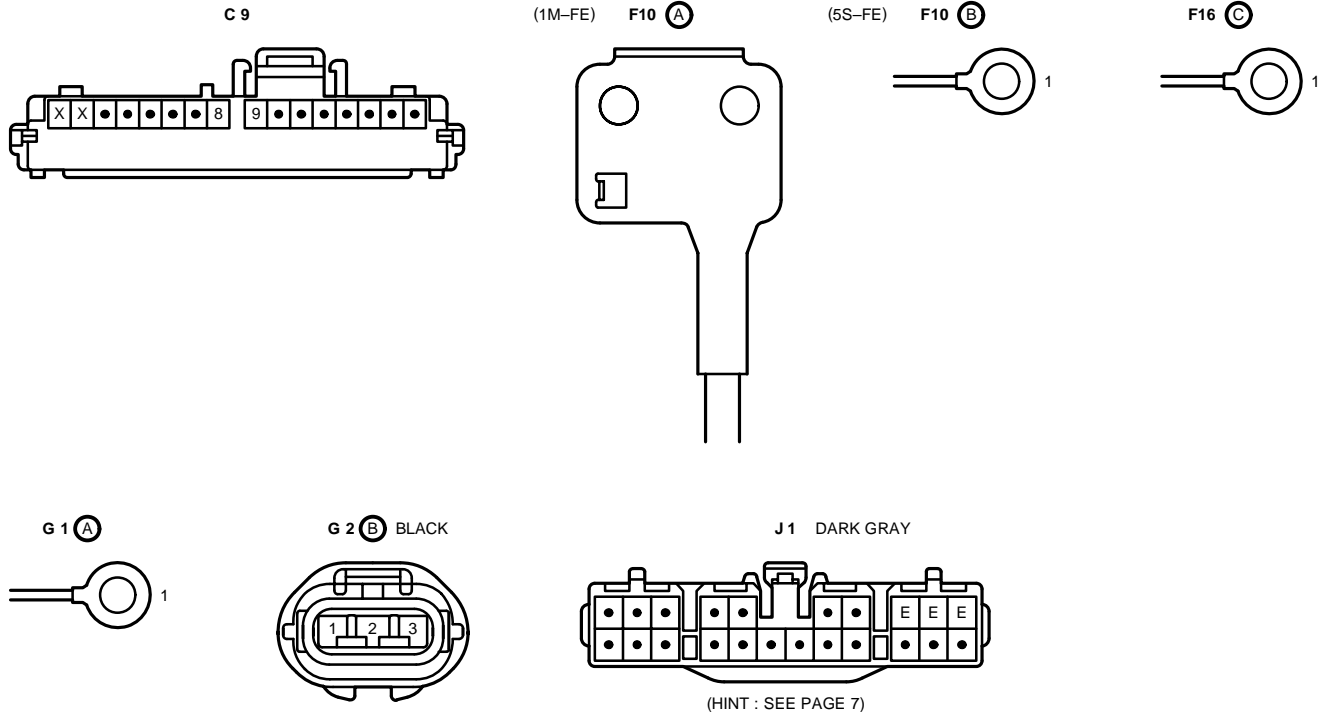
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1D	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IP3	44	ENGINE WIRE AND COWL WIRE

### ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I18	44	ENGINE WIRE			



# ENGINE CONTROL (1MZ-FE)

## SYSTEM OUTLINE

THIS SYSTEM UTILIZES AN ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION 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. (WATER TEMP.) SIGNAL CIRCUIT  
THE ENGINE COOLANT TEMP. SENSOR (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 ENGINE CONTROL MODULE (ECU) AS A CONTROL SIGNAL.
- (2) INTAKE AIR TEMP. SIGNAL CIRCUIT  
THE INTAKE AIR TEMP. SENSOR IS INSTALLED IN THE MASS AIR FLOW (AIR FLOW METER) AND DETECTS THE INTAKE AIR TEMP., WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL THA** OF ENGINE CONTROL MODULE (ECU).
- (3) OXYGEN SENSOR SIGNAL SYSTEM  
THE OXYGEN DENSITY IN THE EXHAUST GASES IS DETECTED AND INPUT AS A CONTROL SIGNAL TO **TERMINAL OXL, OXR AND OXS** OF THE ENGINE CONTROL MODULE (ECU). TO MAINTAIN STABLE DETECTION PERFORMANCE BY THE OXYGEN SENSOR, A HEATER IS USED FOR WARMING THE SENSOR. THE HEATER IS ALSO CONTROLLED BY THE ENGINE CONTROL MODULE (ECU) (**HTL, HTR AND HTS**).
- (4) RPM SIGNAL SYSTEM  
CAMSHAFT POSITION AND CRANKSHAFT POSITION ARE DETECTED BY THE CAMSHAFT POSITION SENSOR AND CRANKSHAFT POSITION SENSOR. CRANKSHAFT POSITION IS INPUT AS A CONTROL SIGNAL TO **TERMINAL G22+** OF THE ENGINE CONTROL MODULE (ECU), AND ENGINE RPM IS INPUT TO **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 VTA** OF THE ENGINE CONTROL MODULE (ECU). WHEN THE VALVE IS COMPLETELY CLOSED, THE CONTROL SIGNAL IS INPUT INTO **TERMINAL IDL**.
- (6) VEHICLE SPEED SIGNAL SYSTEM  
THE VEHICLE SPEED SENSOR (SPEED SENSOR), INSTALLED INSIDE THE COMBINATION METER, DETECTS THE VEHICLE SPEED AND INPUTS A CONTROL SIGNAL TO **TERMINAL SP1** OF THE ENGINE CONTROL MODULE (ECU).
- (7) PARK/NEUTRAL POSITION SW (NEUTRAL START SW) SIGNAL SYSTEM  
THE PARK/NEUTRAL POSITION SW (NEUTRAL START SW) DETECTS WHETHER THE SHIFT POSITION IS IN NEUTRAL OR PARKING OR NOT, AND INPUTS A CONTROL SIGNAL TO **TERMINAL NSW** OF THE ENGINE CONTROL MODULE (ECU).
- (8) A/C SW SIGNAL SYSTEM  
THE A/C AMPLIFIER INPUTS THE A/C OPERATIONS TO **TERMINAL A/C** OF THE ENGINE CONTROL MODULE (ECU) AS A CONTROL SIGNAL.
- (9) BATTERY SIGNAL CIRCUIT  
VOLTAGE IS CONSTANTLY APPLIED TO **TERMINAL BATT** OF THE ENGINE CONTROL MODULE (ECU). WHEN THE IGNITION SW TURNED ON, VOLTAGE FOR ENGINE CONTROL MODULE (ECU) START-UP POWER SUPPLY IS APPLIED TO **TERMINALS +B AND +B1** OF ENGINE CONTROL MODULE (ECU) VIA EFI MAIN RELAY.
- (10) INTAKE AIR VOLUME SIGNAL CIRCUIT  
INTAKE AIR VOLUME IS DETECTED BY THE MASS AIR FLOW (AIR FLOW METER) AND THE SIGNAL IS INPUT TO **TERMINAL VG** OF THE ENGINE CONTROL MODULE (ECU). AS A CONTROL SIGNAL.
- (11) STA 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 CONTROL MODULE (ECU) AS A CONTROL SIGNAL.
- (12) ENGINE KNOCK SIGNAL CIRCUIT  
ENGINE KNOCKING IS DETECTED BY THE KNOCK SENSOR NO. 1 AND NO. 2 AND THE SIGNALS ARE INPUT INTO **TERMINALS KNKR AND KNKL** AS A CONTROL SIGNAL.

## 2. CONTROL SYSTEM

### \* SFI (SEQUENTIAL MULTIPOINT FUEL INJECTION) (EFI (ELECTRONIC FUEL INJECTION) SYSTEM

THE EFI SYSTEM MONITORS THE ENGINE CONDITION THROUGH THE SIGNALS INPUT FROM EACH SENSOR (INPUT SIGNALS FROM (1) TO (12) ETC.). THE BEST FUEL INJECTION VOLUME IS DECIDED BASED ON THIS DATA AND THE PROGRAM MEMORIZED BY THE ENGINE CONTROL MODULE (ECU), AND THE CONTROL SIGNAL IS OUTPUT TO **TERMINALS #10, #20, #30, #40, #50 AND #60** OF THE ENGINE CONTROL MODULE (ECU) TO OPERATE THE INJECTOR (INJECT THE FUEL). THE EFI SYSTEM PRODUCES CONTROL OF FUEL INJECTION OPERATION BY THE ENGINE CONTROL MODULE (ECU) IN RESPONSE TO THE DRIVING CONDITIONS.

### \* ESA (ELECTRONIC SPARK ADVANCE) SYSTEM

THE ESA SYSTEM MONITORS THE ENGINE CONDITION THROUGH THE SIGNALS INPUT TO THE ENGINE CONTROL MODULE (ECU) FROM EACH SENSOR (INPUT SIGNALS FROM (1), (3), (4) TO (12) ETC.). THE BEST IGNITION TIMING IS DECIDED ACCORDING TO THIS DATA AND THE MEMORIZED DATA IN THE ENGINE CONTROL MODULE (ECU) AND THE CONTROL SIGNAL IS OUTPUTS TO **TERMINALS IGT1, IGT2, IGT3, IGT4, IGT5 AND IGT6**. THIS SIGNAL CONTROLS THE IGNITER TO PROVIDE THE BEST IGNITION TIMING FOR THE DRIVING CONDITIONS.

### \* HEATED OXYGEN SENSOR (OXYGEN SENSOR) HEATER CONTROL SYSTEM

THE 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 OXYGEN SENSOR (NO. 1 AND NO. 2) TO IMPROVE DETECTION PERFORMANCE OF THE SENSOR.

THE ENGINE CONTROL MODULE (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS FROM (1), (4), (9) TO (10) ETC.), AND OUTPUT CURRENT TO **TERMINALS HTL, HTR AND HTS** AND CONTROL THE HEATER.

### \* IAC (IDLE AIR CONTROL (ISC)) SYSTEM

THE IAC (ISC) SYSTEM (ROTARY SOLENOID TYPE) INCREASES THE RPM AND PROVIDES IDLE STABILITY FOR FAST IDLE-UP WHEN THE ENGINE IS COLD, AND WHEN THE IDLE SPEED HAS DROPPED DUE TO ELECTRICAL LOAD AND SO ON, THE ENGINE CONTROL MODULE (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS FROM (1), (4), (5), (8), (9) ETC.), OUTPUTS CURRENT TO **TERMINALS RSO AND RSC** TO CONTROL IDLE AIR CONTROL VALVE.

### \* EGR CONTROL SYSTEM

THE EGR CONTROL SYSTEM DETECTS THE SIGNAL FROM EACH SENSOR (INPUT SIGNALS FROM (1), (4), (9), (10), ETC.), AND OUTPUTS CURRENT TO **TERMINAL EGR** TO CONTROL THE EGR VALVE.

### \* ACIS (ACOUSTIC CONTROL INDUCTION SYSTEM)

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 CONTROL MODULE (ECU) JUDGES THE ENGINE SPEED BY THE SIGNALS ((4), (5)) FROM EACH SENSOR AND OUTPUTS SIGNALS TO THE **TERMINAL ACIS** TO CONTROL THE VSV (FOR OPENING AND CLOSING THE INTAKE CONTROL VALVE)

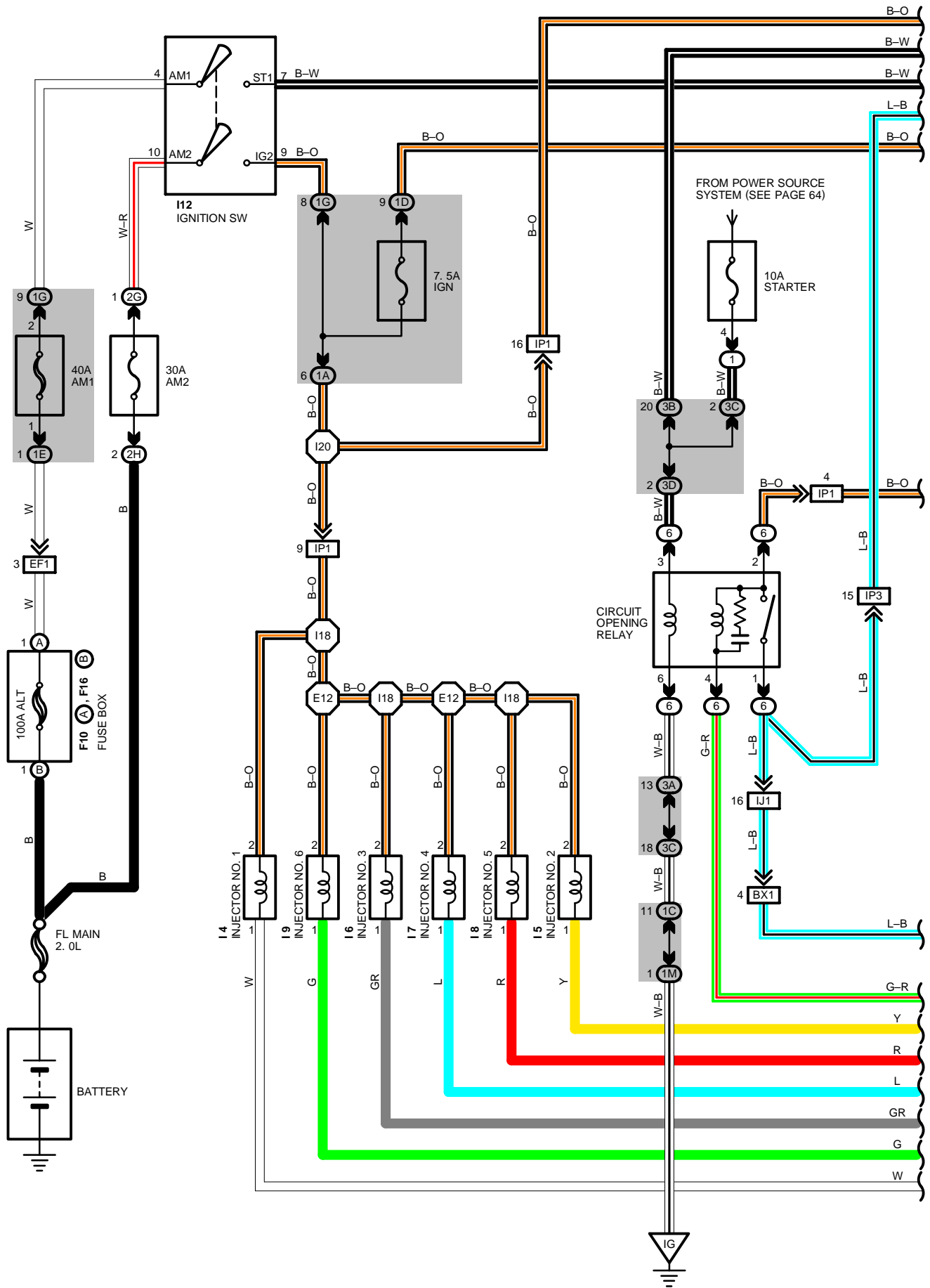
## 3. DIAGNOSIS SYSTEM

WITH THE DIAGNOSIS SYSTEM, WHEN THERE IS A MALFUNCTION IN THE ENGINE CONTROL MODULE (ECU) SIGNAL SYSTEM, THE MALFUNCTIONING SYSTEM IS RECORDED IN THE MEMORY.

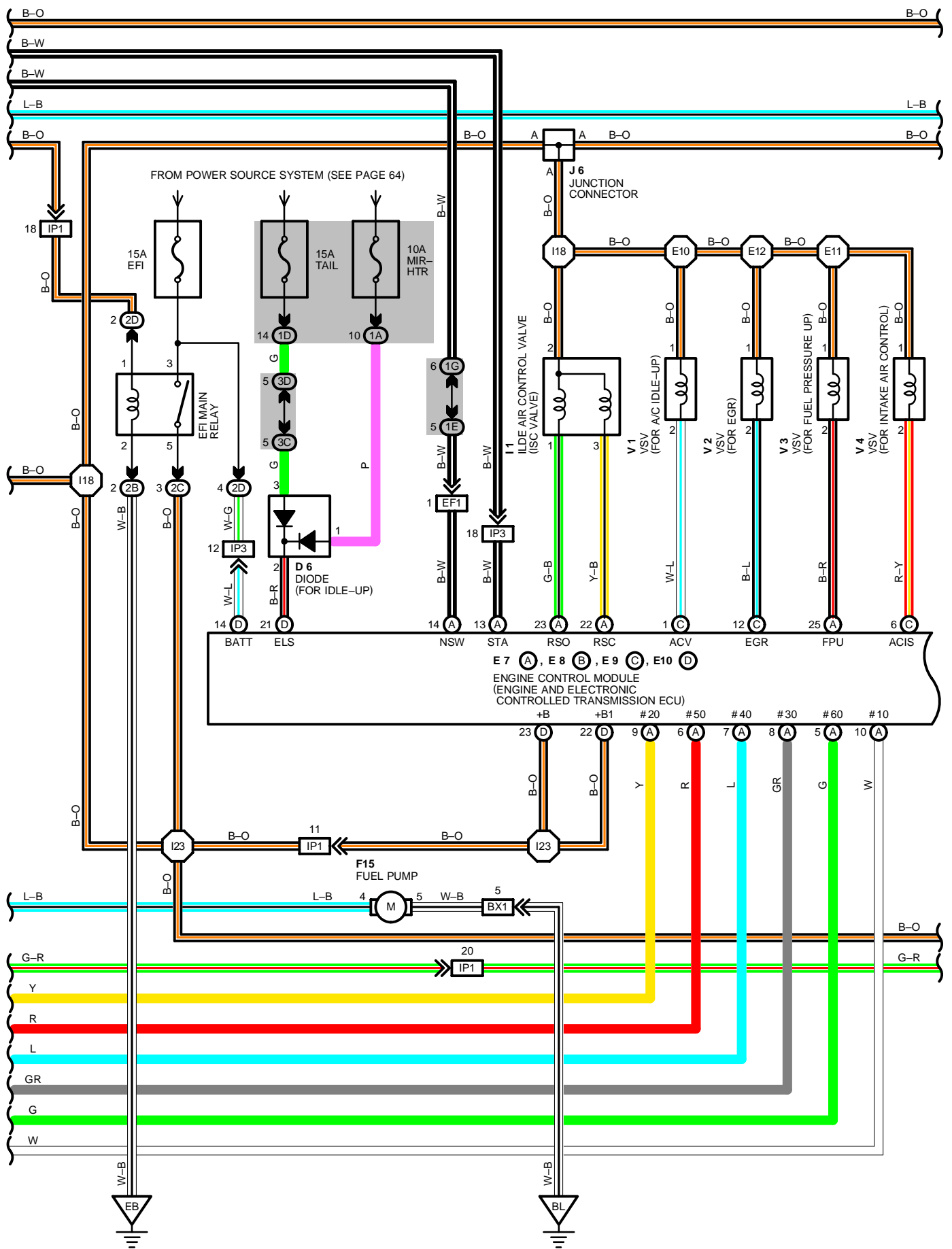
## 4. FAIL-SAFE SYSTEM

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 CONTROL MODULE (ECU) MEMORY OR ELSE STOPS THE ENGINE.

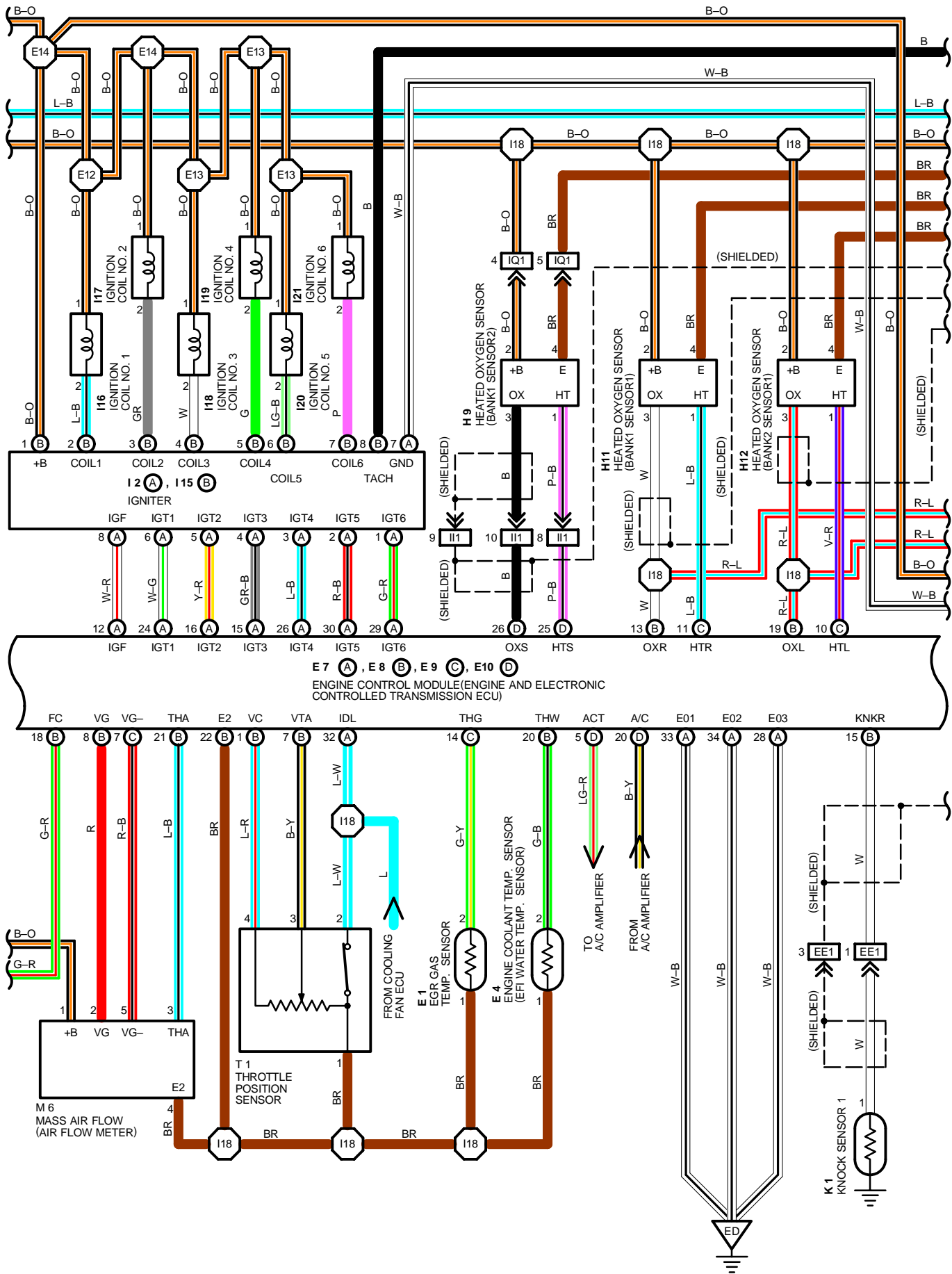
# ENGINE CONTROL (1MZ-FE)

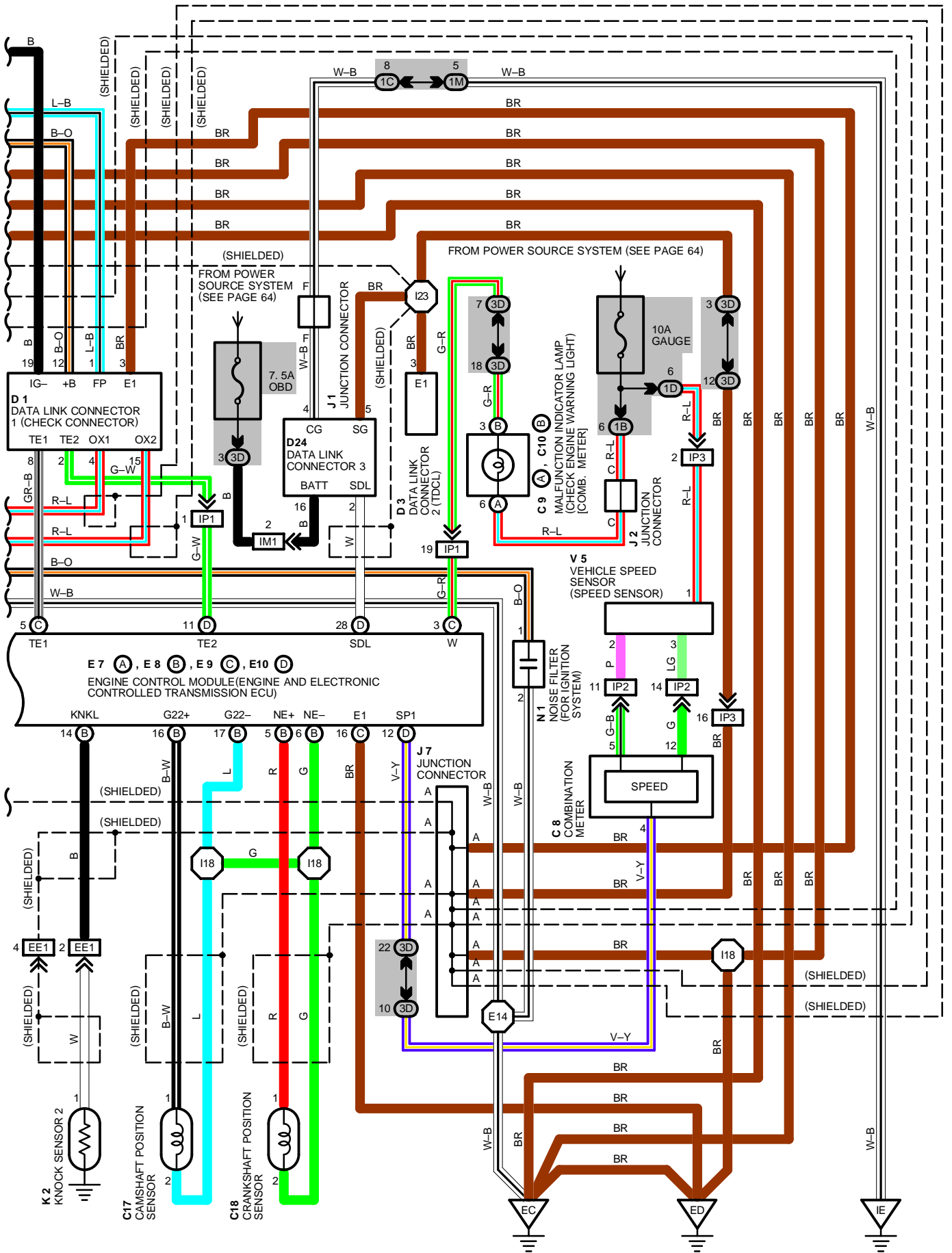






# ENGINE CONTROL (1MZ-FE)





# ENGINE CONTROL (1MZ-FE)

## SERVICE HINTS

### CIRCUIT OPENING RELAY

2-1 : CLOSED WITH STARTER RUNNING OR MEASURING PLATE (VOLUME AIR FLOW (AIR FLOW METER)) OPEN

### EFI MAIN RELAY

2-4 : CLOSED WITH IGNITION SW AT ON OR ST POSITION

### E 4 ENGINE COOLANT TEMP. SENSOR (EFI WATER TEMP. SENSOR)

1-2 : 10.0 – 20.0 K $\Omega$  (-20°C, -4°F)  
: 4.0 – 7.0 K $\Omega$  (0°C, 32°F)  
: 2.0 – 3.0 K $\Omega$  (20°C, 68°F)  
: 0.9 – 1.3 K $\Omega$  (40°C, 104°F)  
: 0.4 – 0.7 K $\Omega$  (60°C, 140°F)  
: 0.2 – 0.4 K $\Omega$  (80°C, 176°F)

### E 7(A), E 8(B), E 9(C), E10(D) ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU)

VOLTAGE AT ENGINE CONTROL MODULE (ECU) WIRING CONNECTOR

**BATT – E1** : ALWAYS 9.0–14.0 VOLTS

**+B – E1** : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION)

**+B1 – E1** : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION)

**IDL – E1** : 9.0–14.0 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY OPEN)

0–3.0 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED)

**VC – E1** : ALWAYS 4.5–5.5 VOLTS (IGNITION SW AT ON POSITION)

**VTA – E1** : 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 – E1** : 4.0–5.5 VOLTS (IGNITION SW AT ON POSITION)

**THA – E1** : 0.5–3.4 VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. 20°C, 68°F)

**THW – E1** : 0.2–1.0 VOLTS (ENGINE IDLING AND COOLANT TEMP. 80°C, 176°F)

**#10, #20, #30, #40, #50, #60**

**– E01** : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION)  
PULSE GENERATION (ENGINE IDLING)

**IGT1, IGT2, IGT3**

**IGT4, IGT5, IGT6 – E1** : PULSE GENERATION (ENGINE IDLING)

**IGF – E1** : 4.5–5.5 VOLTS (IGNITION SW AT ON POSITION)

PULSE GENERATION (ENGINE IDLING)

**G22+ – G–** : PULSE GENERATION (ENGINE IDLING)

**NE+ – G–** : PULSE GENERATION (ENGINE IDLING)

**RSC, RSO – E1** : PULSE GENERATION (ENGINE IDLING AND A/C OPERATION)

**OXS, OXL, OXR – E1** : PULSE GENERATION (MAINTAIN ENGINE SPEED AT 2500 RPM FOR TWO MINUTES AFTER WARMING UP)

**HTS, HTL, HTR – E01** : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION)

0–3.0 VOLTS (ENGINE IDLING)

**KNKL, KNLR – E1** : 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)

**SP1 – E1** : PULSE GENERATION (IGNITION SW ON AND ROTATE DRIVING WHEEL SLOWLY)

**TE1 – E1** : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION)

**TE2 – E1** : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION)

**W – E1** : BELOW 3.0 VOLTS (MULFUNCTION INDICATOR LAMP ON)

9.0–14.0 VOLTS (MULFUNCTION INDICATOR LAMP OFF AND ENGINE RUNNING)

**A/C – E1** : BELOW 1.5 VOLTS (ENGINE IDLING AND A/C SW ON)

7.5–14.0 VOLTS (A/C SW OFF)

**ACT – E1** : 9.0–14.0 VOLTS (ENGINE IDLING AND A/C SW ON)

BELOW 1.5 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)

### I 4, I 5, I 6, I 7, I 8, I 9 INJECTOR

1-2 : APPROX. 13.8  $\Omega$

### T 1 THROTTLE POSITION SENSOR

3-1 : 0.2–5.7 K $\Omega$  WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0 MM (0 IN.)

2-1 : LESS THAN 2.3 K $\Omega$  WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0.5 MM (0.020 IN.)

WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0.7 MM (0.0276 IN.)

3-1 : 2.0–10.2 K $\Omega$  WITH THROTTLE VALVE FULLY OPEN

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 8	32	F16	B 28	I20	29
C 9	A 32	H 9	D 33	I21	29
C10	B 32	H11	28	J 1	33
C17	28	H12	28	J 2	33
C18	28	I 1	29	J 6	39
D 1	28	I 2	A 29	J 7	33
D 3	32	I 4	28	K 1	29
D 6	32	I 5	29	K 2	29
D24	32	I 6	29	M 6	29
E 1	28	I 7	29	N 1	29
E 4	28	I 8	29	T 1	29
E 7	A 32	I 9	29	V 1	29
E 8	B 32	F15	B 29	V 2	29
E 9	C 32	I16	29	V 3	29
E10	D 32	I17	29	V 4	29
F10	A 28	I18	29	V 5	29
F15	30	I19	29		

**○ : RELAY BLOCKS**

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)
6	26	R/B NO. 6 (BEHIND GLOVE BOX)

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1B		
1C		
1D		
1E		
1G		
1M		
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2D		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2H	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		
3D		

**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EE1	40 (1MZ-FE)	ENGINE WIRE AND SENSOR WIRE
EF1	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IM1	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP2		
IP3		
IQ1	44	ENGINE WIRE AND INSTRUMENT PANEL WIRE
BX1	46 (S/D)	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
	50 (W/G)	

# ENGINE CONTROL (1MZ-FE)

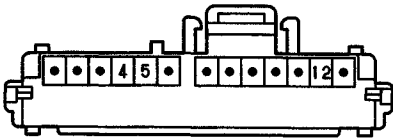
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE)	FRONT LEFT FENDER
EC	38 (1MZ-FE)	INTAKE MANIFOLD RH
ED	38 (1MZ-FE)	INTAKE MANIFOLD LH
IE	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	

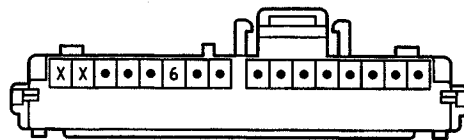
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E10	38 (1MZ-FE)	ENGINE WIRE	E14	38 (1MZ-FE)	ENGINE WIRE
E11			I18	44	
E12			I20	44	COWL WIRE
E13			I23		

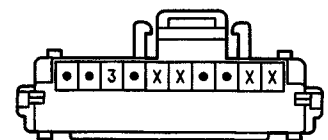
C 8 (A) BLUE



C 9 (B)



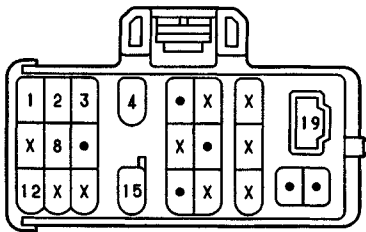
C10 (C) GRAY



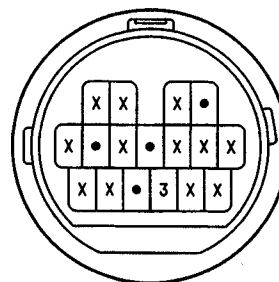
C17, C18 BLACK



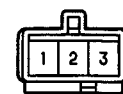
D 1 BLACK



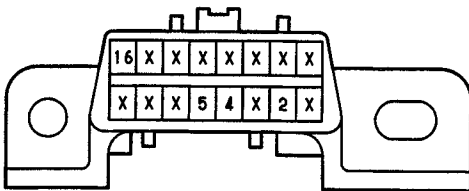
D 3 DARK GRAY



D 6 ORANGE



D24 BLACK



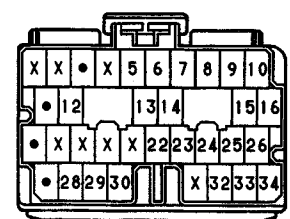
E 1 DARK GRAY



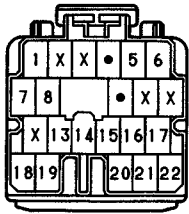
E 4 DARK GRAY



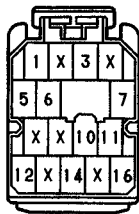
E 7 (A) DARK GRAY



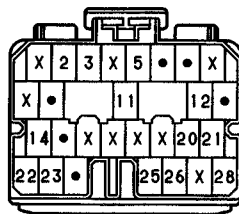
E 8 (B) DARK GRAY



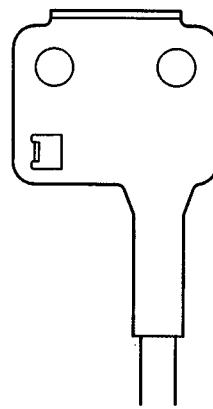
E 9 (C) DARK GRAY



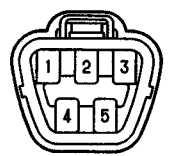
E10 (D) DARK GRAY



F10 (A)



F15 DARK GRAY



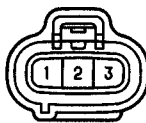
F16 (B)



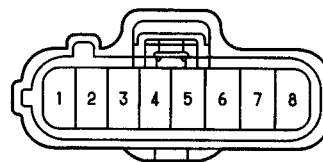
H 9, H11, H12



I 1 GRAY



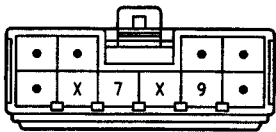
I 2 (A) BLACK



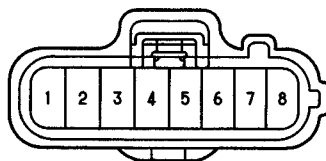
I 4, I 5, I 8, I 9 GRAY



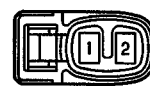
I12



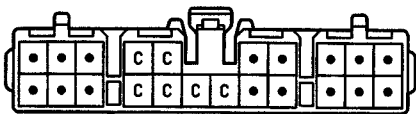
I15 (B) DARK GRAY



I16, I17, I18  
I19, I20, I21 BLACK

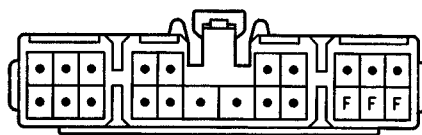


J 1 DARK GRAY



(HINT:SEE PAGE 7)

J 2



(HINT:SEE PAGE 7)

J 6



(HINT:SEE PAGE 7)

J 7 BLUE

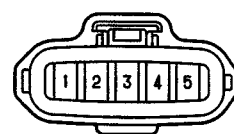


(HINT:SEE PAGE 7)

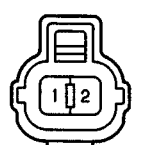
K, 1 K, 2 DARK GRAY



M 6 BLACK



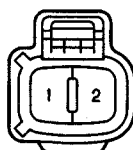
N 1 GRAY



T 1 BLACK



V 1 BLACK



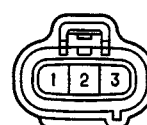
V 2, V 4 BROWN



V 3 BLUE



V 5 GRAY



# ENGINE CONTROL (5S-FE)

## SYSTEM OUTLINE

THIS SYSTEM UTILIZES AN ENGINE CONTROL MODULE (ENGINE ECU (M/T), ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU (A/T)) 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. (WATER TEMP.) SIGNAL SYSTEM  
THE ENGINE COOLANT TEMP. SENSOR (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. (WATER TEMP.) THUS THE ENGINE COOLANT TEMP. (WATER TEMP.) IS INPUT IN THE FORM OF A CONTROL SIGNAL TO **TERMINAL THW** OF THE ENGINE CONTROL MODULE (ECU).
- (2) INTAKE AIR TEMP. SIGNAL SYSTEM  
THE INTAKE AIR TEMP. SENSOR (IN-AIR TEMP. SENSOR) IS DETECTS THE INTAKE AIR TEMP., WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL THA** OF THE ENGINE CONTROL MODULE (ECU).
- (3) OXYGEN SENSOR SIGNAL SYSTEM  
THE OXYGEN DENSITY IN THE EXHAUST GASES IS DETECTED AND INPUT AS A CONTROL SIGNAL TO **TERMINAL OX1** AND **OX2** OF THE ENGINE CONTROL MODULE (ECU).
- (4) RPM SIGNAL SYSTEM  
CRANKSHAFT POSITION AND ENGINE RPM ARE DETECTED BY THE PICK-UP COIL INSTALLED INSIDE THE DISTRIBUTOR. CRANKSHAFT POSITION IS INPUT AS A CONTROL SIGNAL TO **TERMINALS G+ AND G2** (CALIFORNIA), OF THE ENGINE CONTROL MODULE (ECU), AND RPM IS INPUT TO **TERMINAL NE+**.
- (5) THROTTLE SIGNAL SYSTEM  
THE THROTTLE POSITION SENSOR DETECTS THE THROTTLE VALVE OPENING ANGLE, WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL VTA** OF THE ENGINE CONTROL MODULE (ECU), OR WHEN THE VALVE IS FULLY CLOSED, TO **TERMINAL IDL**.
- (6) VEHICLE SPEED SIGNAL SYSTEM  
THE VEHICLE SPEED SENSOR (SPEED SENSOR), INSTALLED INSIDE THE COMBINATION METER, DETECTS THE VEHICLE SPEED AND INPUTS A CONTROL SIGNAL TO **TERMINAL SPD** OF THE ENGINE CONTROL MODULE (ECU).
- (7) PARK/NEUTRAL POSITION SW (NEUTRAL START SW) SIGNAL SYSTEM (A/T)  
THE PARK/NEUTRAL POSITION SW (NEUTRAL START SW) DETECTS WHETHER THE SHIFT POSITION ARE IN NEUTRAL AND PARKING OR NOT, AND INPUTS A CONTROL SIGNAL TO **TERMINAL NSW** OF THE ENGINE CONTROL MODULE (ECU).
- (8) A/C SW SIGNAL SYSTEM  
THE A/C AMPLIFIER INPUTS THE A/C OPERATIONS TO **TARMINAL ACA** OF THE ENGINE CONTROL MODULE (ECU) AS A CONTROL SIGNAL.
- (9) BATTERY SIGNAL CIRCUIT  
VOLTAGE IS CONSTANTLY APPLIED TO **TERMINAL BATT** OF THE ENGINE CONTROL MODULE (ECU). WHEN THE IGNITION SW TURNED ON, THE VOLTAGE FOR ENGINE CONTROL MODULE (ECU) START-UP POWER SUPPLY IS APPLIED TO **TERMINALS +B AND +B1** OF ENGINE CONTROL MODULE (ECU) VIA EFI MAIN RELAY. THE CURRENT FLOWING THROUGH THE **IGN** FUSE FLOWS TO **TERMINAL IGSW** OF THE ENGINE CONTROL MODULE (ECU).
- (10) INTAKE AIR VOLUME SIGNAL SYSTEM  
INTAKE AIR VOLUME IS DETECTED BY THE MANIFOLD ABSOLUTE PRESSURE SENSOR (VACUUM SENSOR) (FOR MANIFOLD PRESSURE) AND IS INPUT AS A CONTROL SIGNAL TO **TERMINAL PIM** OF THE ENGINE CONTROL MODULE (ECU).
- (11) STA 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 CONTROL MODULE (ECU) AS A CONTROL SIGNAL.
- (12) ENGINE KNOCK SIGNAL CIRCUIT  
ENGINE KNOCKING IS DETECTED BY KNOCK SENSOR AND THE SIGNAL IS INPUT INTO **TERMINAL KNK** AS A CONTROL SIGNAL.
- (13) ELECTRICAL LOAD SIGNAL SYSTEM  
THE SIGNAL WHEN SYSTEMS SUCH AS THE REAR WINDOW DEFOGGER, HEADLIGHTS, ETC. WHICH CAUSE A HIGH ELECTRICAL BURDEN ARE ON IS INPUT TO **TERMINAL ELS** AS A CONTROL SIGNAL.



## 2. CONTROL SYSTEM

### \* MFI (MULTIPOINT FUEL INJECTION (EFI)) SYSTEM

THE MFI (EFI) SYSTEM MONITORS THE ENGINE CONDITION THROUGH THE SIGNALS INPUT FROM EACH SENSOR (INPUT SIGNALS FROM (1) TO (13) ETC.) TO THE ENGINE CONTROL MODULE (ECU). THE BEST FUEL INJECTION VOLUME IS DECIDED BASED ON THIS DATA AND THE PROGRAM MEMORIZED BY THE ENGINE CONTROL MODULE (ECU), AND THE CONTROL SIGNAL IS OUTPUT TO **TERMINALS #10, #20, #30 AND #40** (CALIFORNIA), **TERMINALS #10 AND #20** (EX. CALIFORNIA) OF THE ENGINE CONTROL MODULE (ECU) TO OPERATE THE INJECTOR. (INJECT THE FUEL). THE MFI (EFI) SYSTEM PRODUCES CONTROL OF FUEL INJECTION OPERATION BY THE ENGINE CONTROL MODULE (ECU) IN RESPONSE TO THE DRIVING CONDITIONS.

### \* ESA (ELECTRONIC SPARK ADVANCE) SYSTEM

THE ESA SYSTEM MONITORS THE ENGINE CONDITION THROUGH THE SIGNALS INPUT TO THE ENGINE CONTROL MODULE (ECU) FROM EACH SENSOR (INPUT SIGNALS FROM (1), (2), (4) TO (12) ETC.) THE BEST IGNITION TIMING IS DETECTED ACCORDING TO THIS DATA AND THE MEMORIZED DATA IN THE ENGINE CONTROL MODULE (ECU) AND THE CONTROL SIGNAL IS OUTPUT TO **TERMINAL IGT**. THIS SIGNAL CONTROLS THE IGNITER TO PROVIDE THE BEST IGNITION TIMING FOR THE DRIVING CONDITIONS.

### \* IAC (IDLE AIR CONTROL (ISC)) SYSTEM

THE IAC (ISC) SYSTEM (ROTARY SOLENOID TYPE) INCREASES THE RPM AND PROVIDES IDLING STABILITY FOR FAST IDLE-UP WHEN THE ENGINE IS COLD AND WHEN THE IDLE SPEED HAS DROPPED DUE TO ELECTRICAL LOAD, ETC. THE ENGINE CONTROL MODULE (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS (1), (4) TO (8), (13) ETC.), OUTPUTS CURRENT TO **TERMINALS ISCO AND ISCC**, AND CONTROLS THE IDLE AIR CONTROL VALVE (ISC VALVE).

### \* FUEL PUMP CONTROL SYSTEM

THE ENGINE CONTROL MODULE (ECU) OPERATION OUTPUTS TO **TERMINAL FC** AND CONTROLS THE CIRCUIT OPENING RELAY AND THUS CONTROLS THE FUEL PUMP DRIVE SPEED IN RESPONSE TO CONDITIONS.

### \* A/C IDLE-UP SYSTEM

IN ORDER TO PREVENT THE ENGINE IDLING SPEED FROM DROPPING WHEN THE A/C IS OPERATING, THE A/C IDLE-UP SYSTEM CONTROLS THE VSV (FOR A/C IDLE-UP) TO INCREASE THE ENGINE IDLING SPEED AND KEEP IT STABLE.

### \* EGR CONTROL SYSTEM

THE EGR CUT CONTROL SYSTEM CONTROLS THE VSV (FOR EGR) BY EVALUATING THE SIGNALS FROM EACH SENSOR INPUT TO THE ENGINE CONTROL MODULE (ECU) (INPUT SIGNALS (1), (5), (6), (9) ETC.) AND BY SENDING OUTPUT TO **TERMINAL THG** OF THE ENGINE CONTROL MODULE (ECU).

### \* A/C CUT CONTROL SYSTEM

WHEN THE VEHICLE SUDDENLY ACCELERATES FROM LOW ENGINE SPEED, THIS SYSTEM CUTS OFF AIR CONDITIONING OPERATION FOR A FIXED PERIOD OF TIME IN RESPONSE TO THE VEHICLE SPEED AND THROTTLE VALVE OPENING ANGLE IN ORDER TO MAINTAIN ACCELERATION PERFORMANCE.

THE ENGINE CONTROL MODULE (ECU) RECEIVES INPUT SIGNALS ((5), (6) ETC.), AND OUTPUTS SIGNALS TO **TERMINAL ACT**.

## 3. DIAGNOSIS SYSTEM

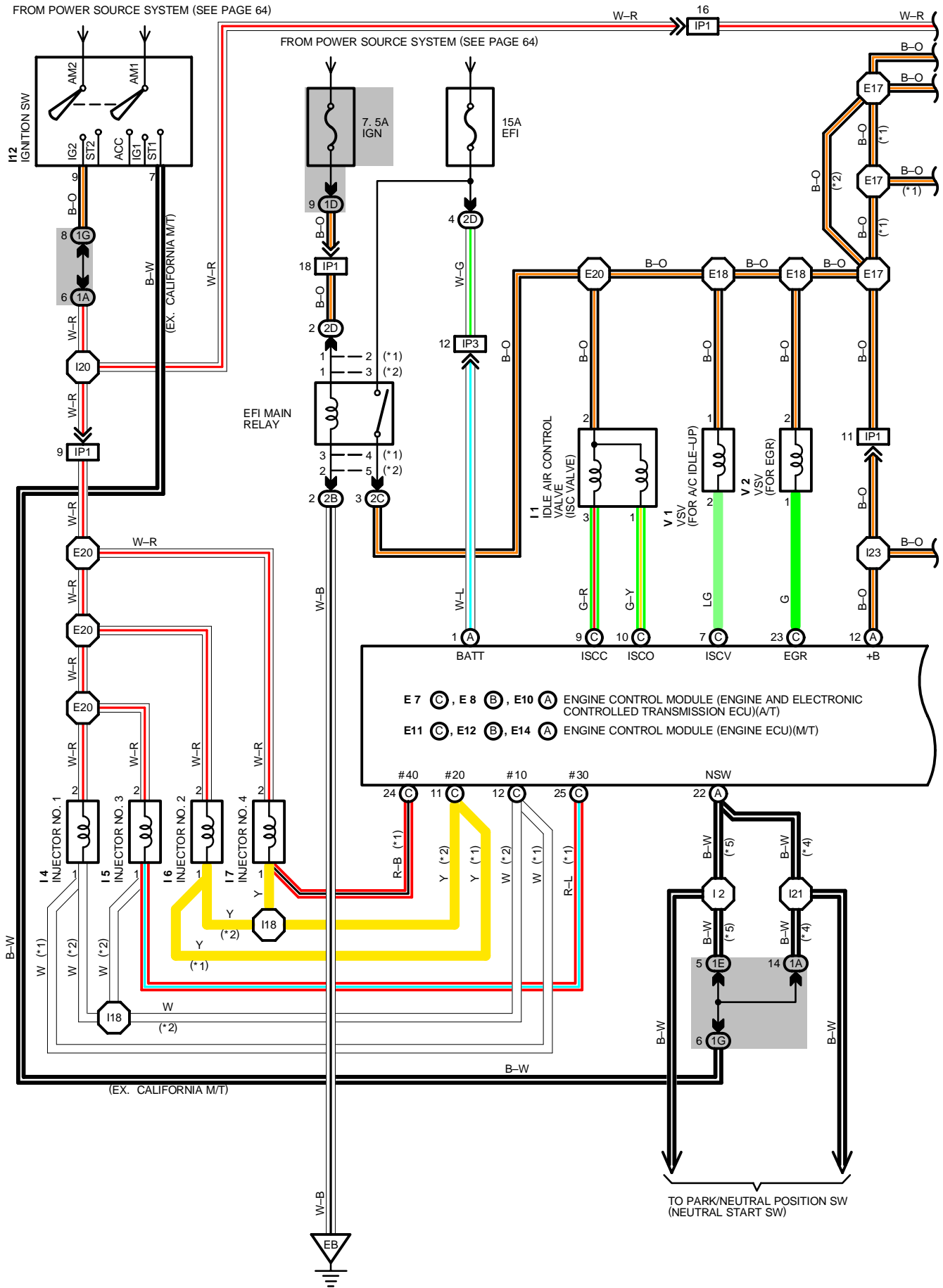
WITH THE DIAGNOSIS SYSTEM, WHEN THERE IS A MALFUNCTIONING IN THE ENGINE CONTROL MODULE (ECU) SIGNAL SYSTEM, THE MALFUNCTION SYSTEM IS RECORDED IN THE MEMORY. THE MALFUNCTIONING SYSTEM CAN THEN BE FOUND BY READING THE DISPLAY (CODE) OF THE MALFUNCTION INDICATOR LAMP (CHECK ENGINE WARNING LIGHT).

## 4. FAIL-SAFE SYSTEM

WHEN A MALFUNCTION OCCURS IN ANY SYSTEM, IF THERE IS A POSSIBILITY OF ENGINE TROUBLE BEING CAUSED BY CONTINUED CONTROL BASED ON THE SIGNALS FROM THAT SYSTEM, THE FAIL-SAFE SYSTEM EITHER CONTROLS THE SYSTEM BY USING DATA (STANDARD VALUES) RECORDED IN THE ENGINE CONTROL MODULE (ECU) MEMORY OR ELSE STOPS THE ENGINE.

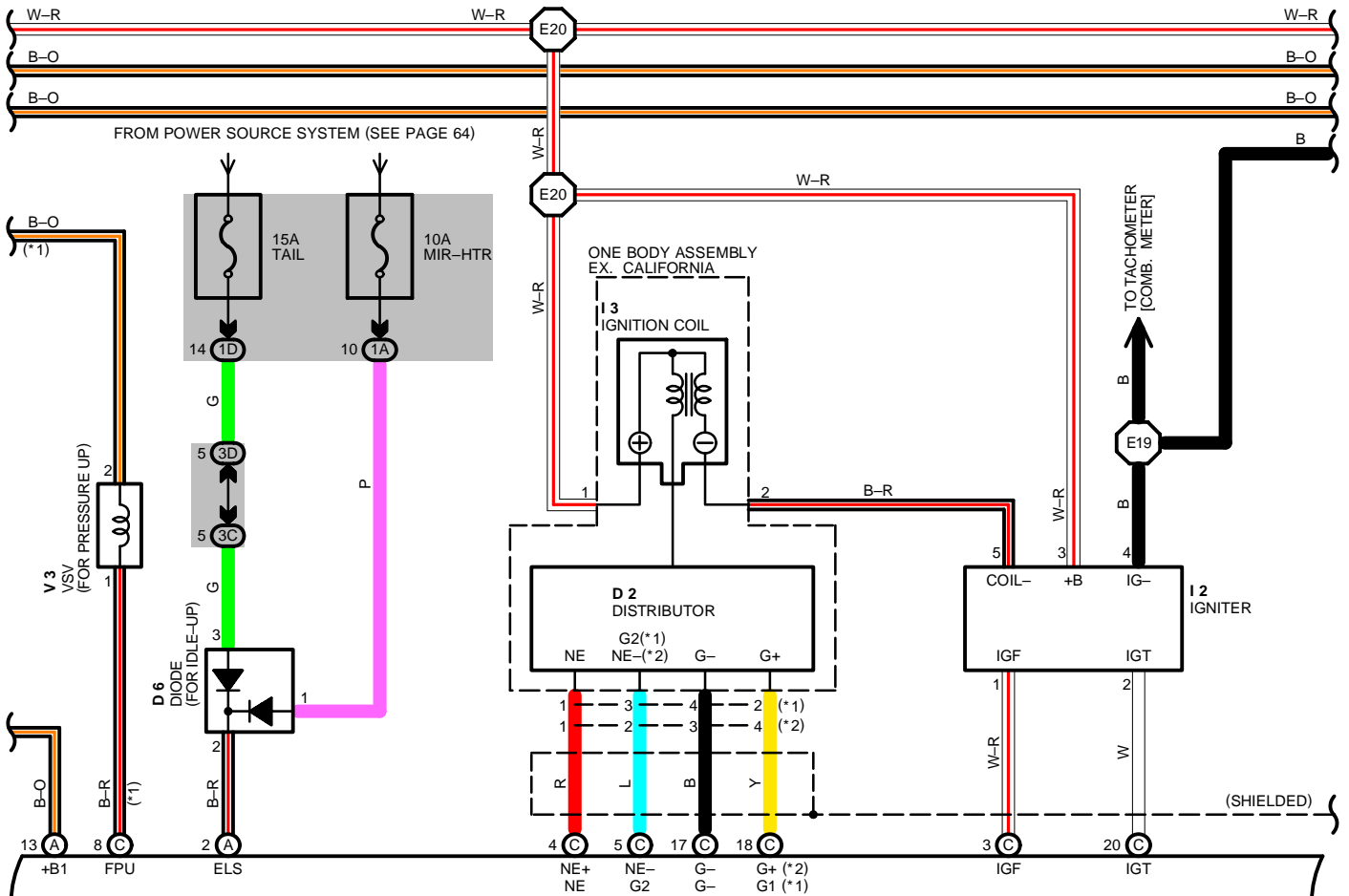
# ENGINE CONTROL (5S-FE A/T AND CALIFORNIA M/T)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



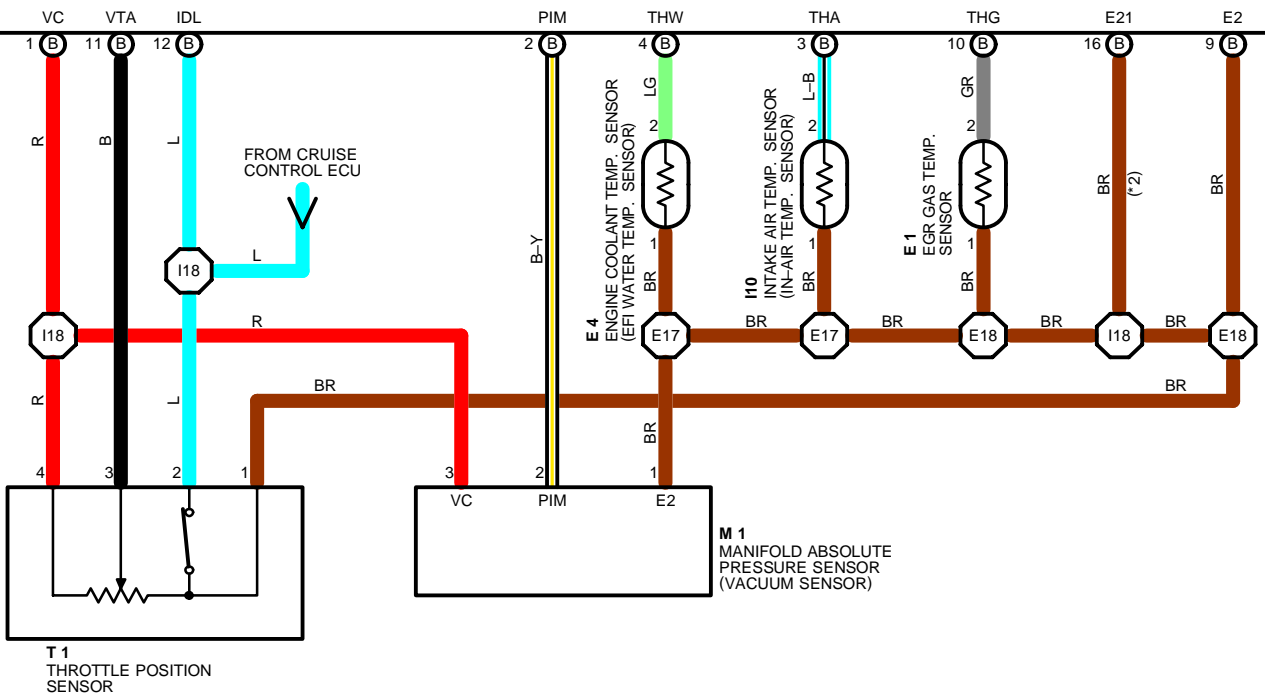
E 7 C, E 8 B, E 10 A ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU)(A/T)  
 E 11 C, E 12 B, E 14 A ENGINE CONTROL MODULE (ENGINE ECU)(M/T)

TO PARK/NEUTRAL POSITION SW (NEUTRAL START SW)

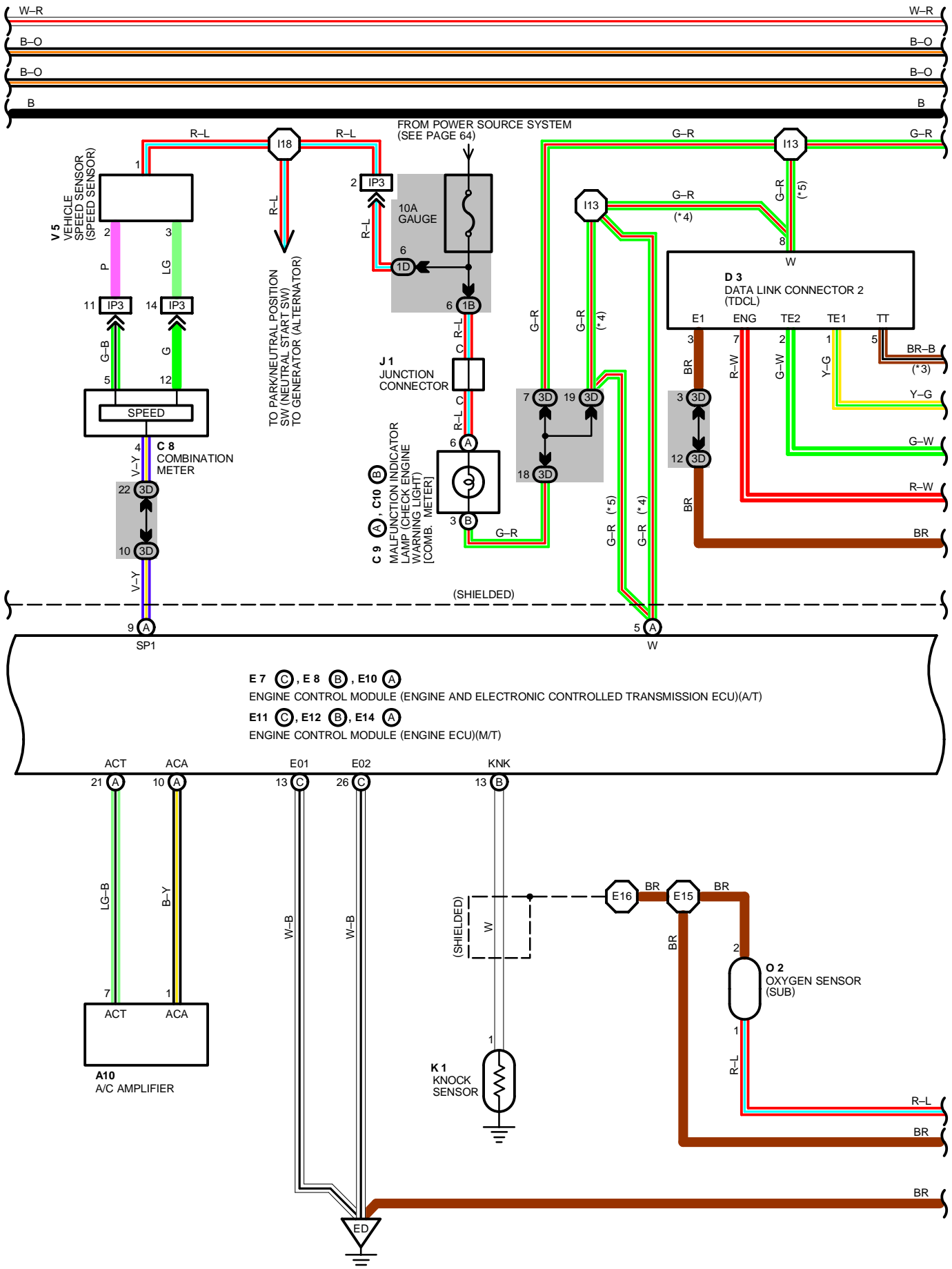


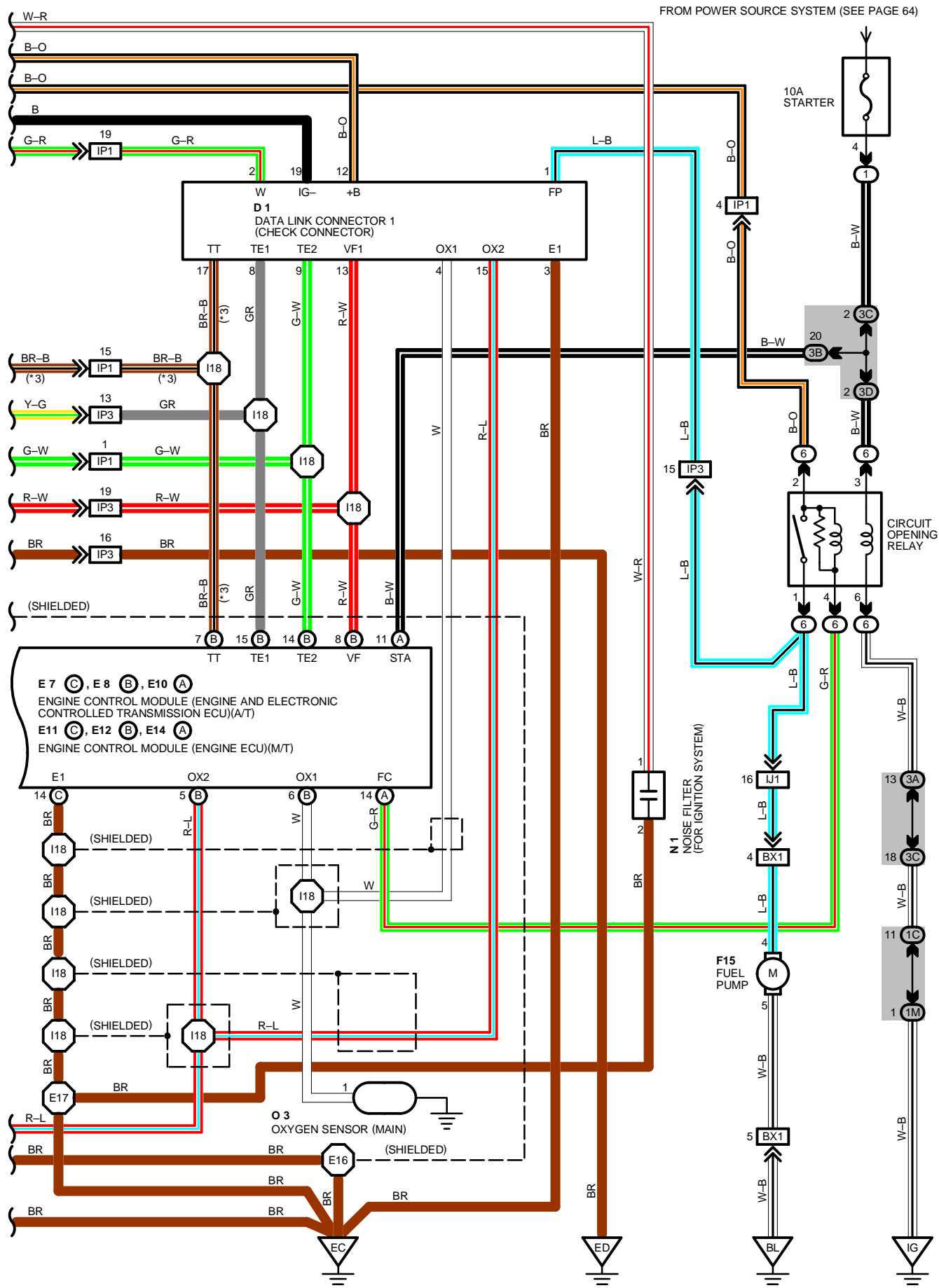
E7 (C), E8 (B), E10 (A) ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU)(A/T)

E11 (C), E12 (B), E14 (A) ENGINE CONTROL MODULE (ENGINE ECU)(M/T)



# ENGINE CONTROL (5S-FE A/T AND CALIFORNIA M/T)





# ENGINE CONTROL (5S-FE A/T AND CALIFORNIA M/T)

## SERVICE HINTS

E 7(C), E 8(B), E10(A) ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU) (A/T)

E11(C), E12(B), E14(A) ENGINE CONTROL MODULE (ENGINE ECU) (M/T)

VOLTAGE AT ENGINE CONTROL MODULE (ECU) WIRING CONNECTOR

**BATT - E1** : ALWAYS 9.0-14.0 VOLTS

**+B - E1** : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION)

**+B1 - E1** : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION)

**IDL - E2** : 9.0-14.0 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)

**VC - E2** : 4.5- 5.5 VOLTS (IGNITION SW AT ON POSITION)

**VTA - 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 OPEN)

**PIM - E2** : 3.3- 3.9 VOLTS (IGNITION SW AT ON POSITION)

**#10, #20 - E01, E02** : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION) (EX. CALIFORNIA)

**#10, #20,**

**#30, #40 - E01, E02** : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION) (CALIFORNIA)

**THA - E2** : 0.5- 3.4 VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. 20°C, 68°F)

**THW - E2** : 0.2- 1.0 VOLTS (IGNITION SW ON AND COOLANT TEMP. 80°C, 176°F)

**STA - E1** : 6.0-14.0 VOLTS (ENGINE CRANKING)

**IGT - E1** : PULSE GENERATION (ENGINE CRANKING OR IDLING)

**W - E1** : 9.0-14.0 VOLTS (NO TROUBLE AND ENGINE RUNNING)

**ACT - E1** : 9.0-14.0 VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)

**ACA - E1** : 7.5-14.0 VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)

**TE1 - E1** : 9.0-14.0 VOLTS (IGNITION SW ON)

**NSW - E1** : 0- 3.0 VOLTS (IGNITION SW ON AND PARK/NEUTRAL POSITION SW (NEUTRAL START SW) POSITION P OR N POSITION)

9.0-14.0 VOLTS (IGNITION SW ON AND EX. PARK/NEUTRAL POSITION SW (NEUTRAL START SW) POSITION P OR N POSITION)

### RESISTANCE AT ENGINE CONTROL MODULE (ECU) WIRING CONNECTORS

(DISCONNECT WIRING CONNECTOR)

**IDL - E2** : INFINITY (THROTTLE VALVE OPEN)

2.3 KΩ OR LESS (THROTTLE VALVE FULLY CLOSED)

**VTA - E2** : 3.3 -10.0 KΩ (THROTTLE VALVE FULLY OPEN)

0.2 - 0.8 KΩ (THROTTLE VALVE FULLY CLOSED)

**VC - E2** : 3.0 -7 0 KΩ

**THA - E2** : 2.0 -3.0 KΩ (INTAKE AIR TEMP. 20°C, 68°F)

**THW - E2** : 0.2 -0.4 KΩ (COOLANT TEMP. 80°C, 176°F)

**G1, NE - G-** : 0.17-0.21 KΩ

**ISCC, ISCO- +B, +B1** : 19.3-22.3 Ω

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A10	32	E11	A 32	J 1	33
C 8	32	E12	C 32	K 1	31
C 9	A 32	E14	B 32	M 1	31
C10	C 32	F15	A 34 (S/D), 35 (C/P), 36 (W/G)	N 1	31
D 1	30	I 1	31	O 2	31
D 2	30	I 2	31	O 3	31
D 3	32	I 3	31	T 1	31
D 6	32	I 4	31	V 1	31
E 1	30	I 5	31	V 2	31
E 4	30	I 6	31	V 3	31
E 7	C 32	I 7	31	V 5	31
E 8	B 32	I10	31		
E10	A 32	I12	33		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)
6	26	R/B NO. 6 (BEHIND GLOVE BOX)

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1B		
1C		
1D		
1G		
1M		
2D	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		
3D		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
BX1	46 (S/D)	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
	50 (W/G)	

 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	40 (5S-FE)	FRONT LEFT FENDER
EC	40 (5S-FE)	INTAKE MANIFOLD RH
ED	40 (5S-FE)	INTAKE MANIFOLD LH
IG	42	INSTRUMENT PANEL BRACE LH
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	

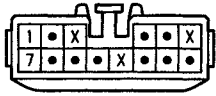
 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E15	40 (5S-FE)	ENGINE WIRE	I 2	44	COWL WIRE
E16			I 13		
E17			I 18	44	ENGINE WIRE
E18			I 20	44	COWL WIRE
E19			I 23		
E20					

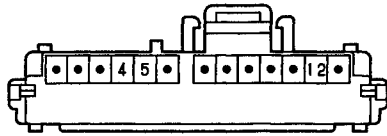
# ENGINE CONTROL (5S-FE A/T AND CALIFORNIA M/T)

\*1 : CALIFORNIA  
 2 : EX. CALIFORNIA

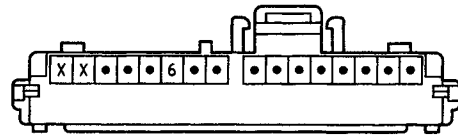
A10



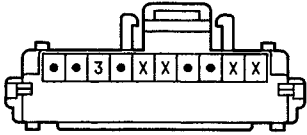
C 8 BLUE



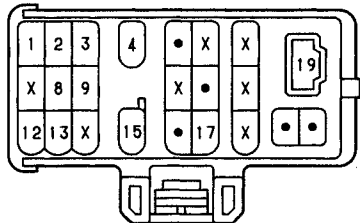
C 9 (A)



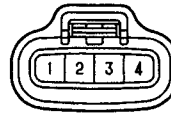
C10 (B) GRAY



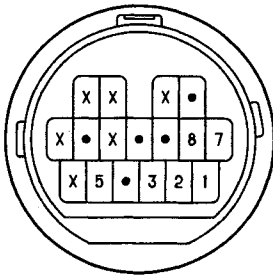
D 1 BLACK



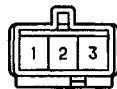
D 2 BLACK



D 3 DARK GRAY



D 6 ORANGE



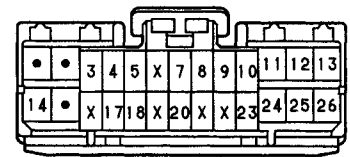
E 1 DARK GRAY



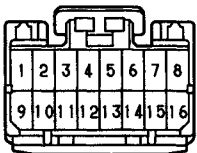
E 4 GREEN



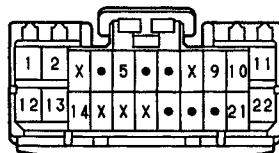
E 7, E11 (C) DARK GRAY



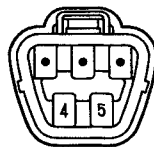
E 8, E12 (B) DARK GRAY



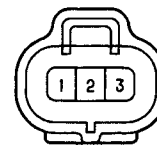
E10, E14 (A) DARK GRAY



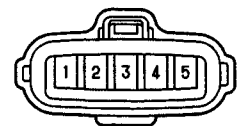
F15 DARK GRAY



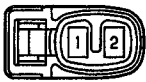
I 1 GRAY



I 2 BLACK



(\*1) I 3 BLACK



(\*2) I 3 BLACK



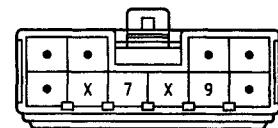
I 4, I 5, I 6, I 7 GRAY



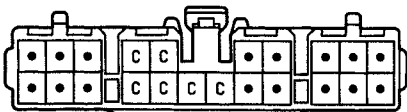
(\*1) I10 GRAY  
 (\*2) I10 BLACK



I12 BLACK



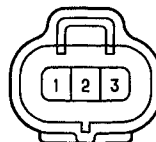
J 1 DARK GRAY



K 1 DARK GRAY



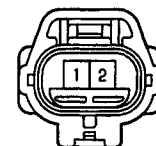
M 1 BLACK



N 1 GRAY

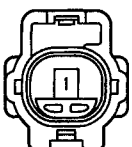


O 2 DARK GRAY



(HINT:SEE PAGE 7)

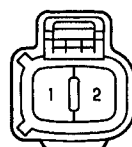
O 3 DARK GRAY



T 1 BLACK



V 1 BLACK



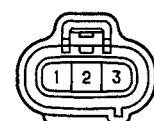
V 2 BLUE



(\*1) V 3 BROWN

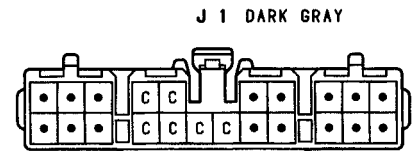
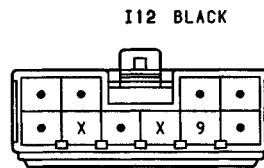
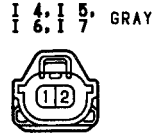
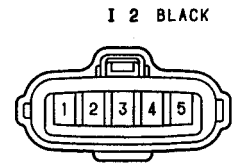
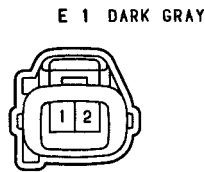
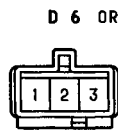
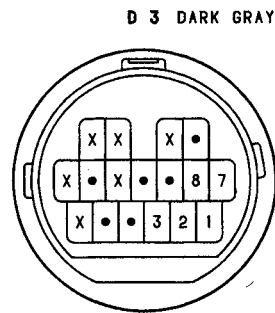
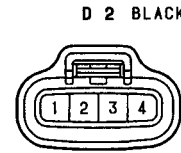
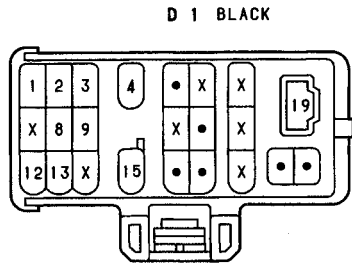
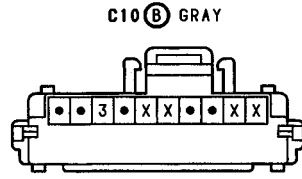
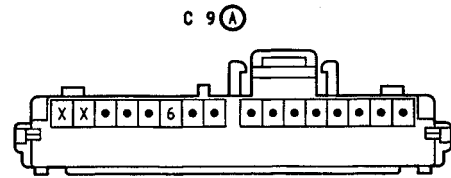
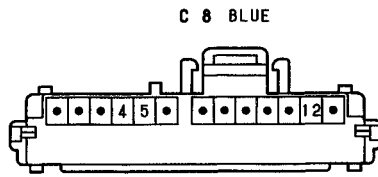
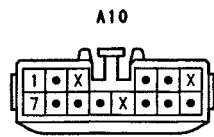


V 5 GRAY

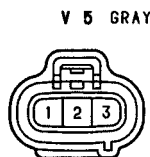
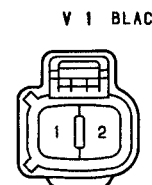
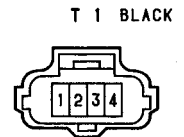
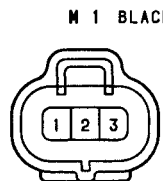




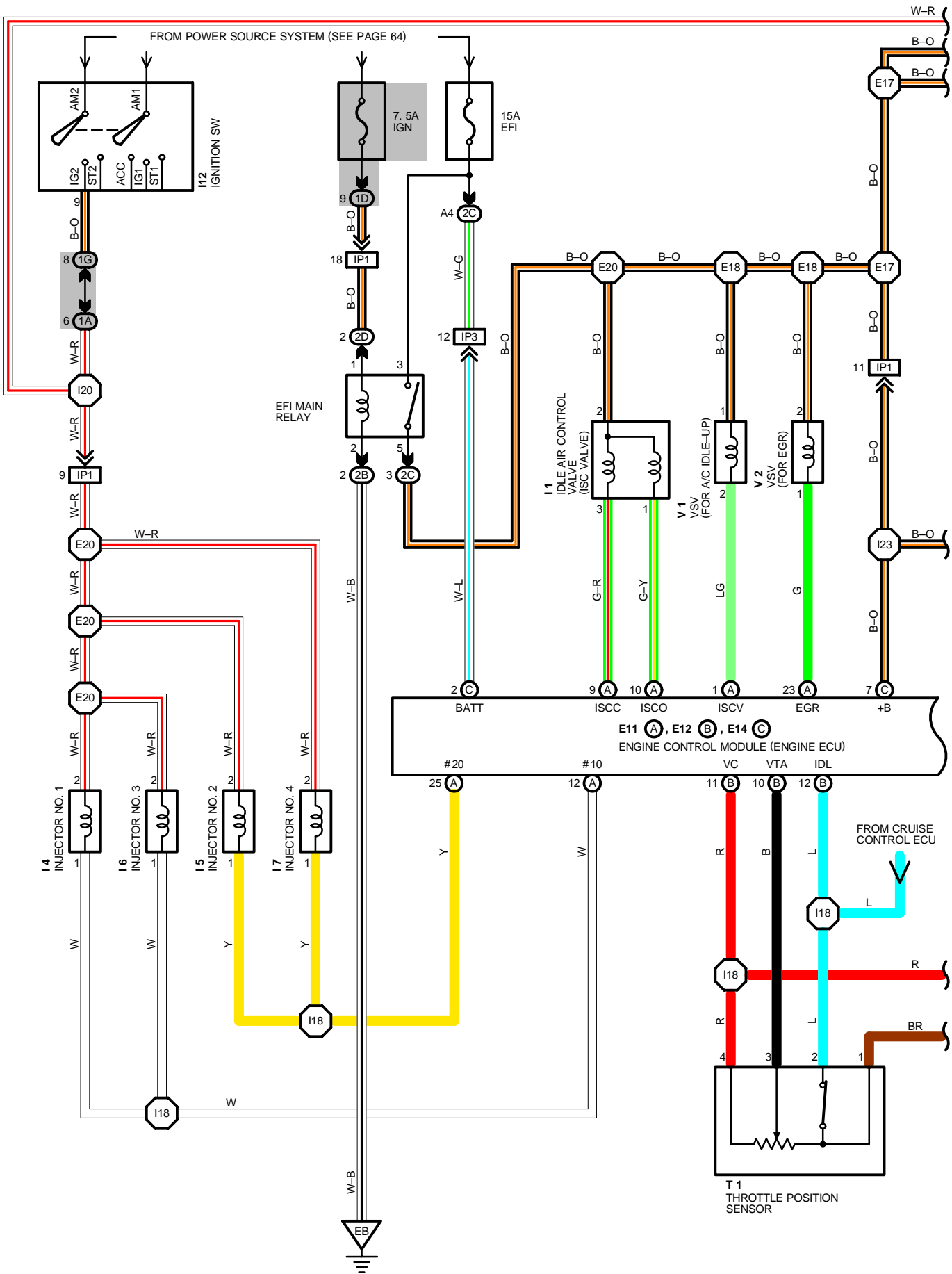
# ENGINE CONTROL (5S-FE M/T EX. CALIFORNIA)

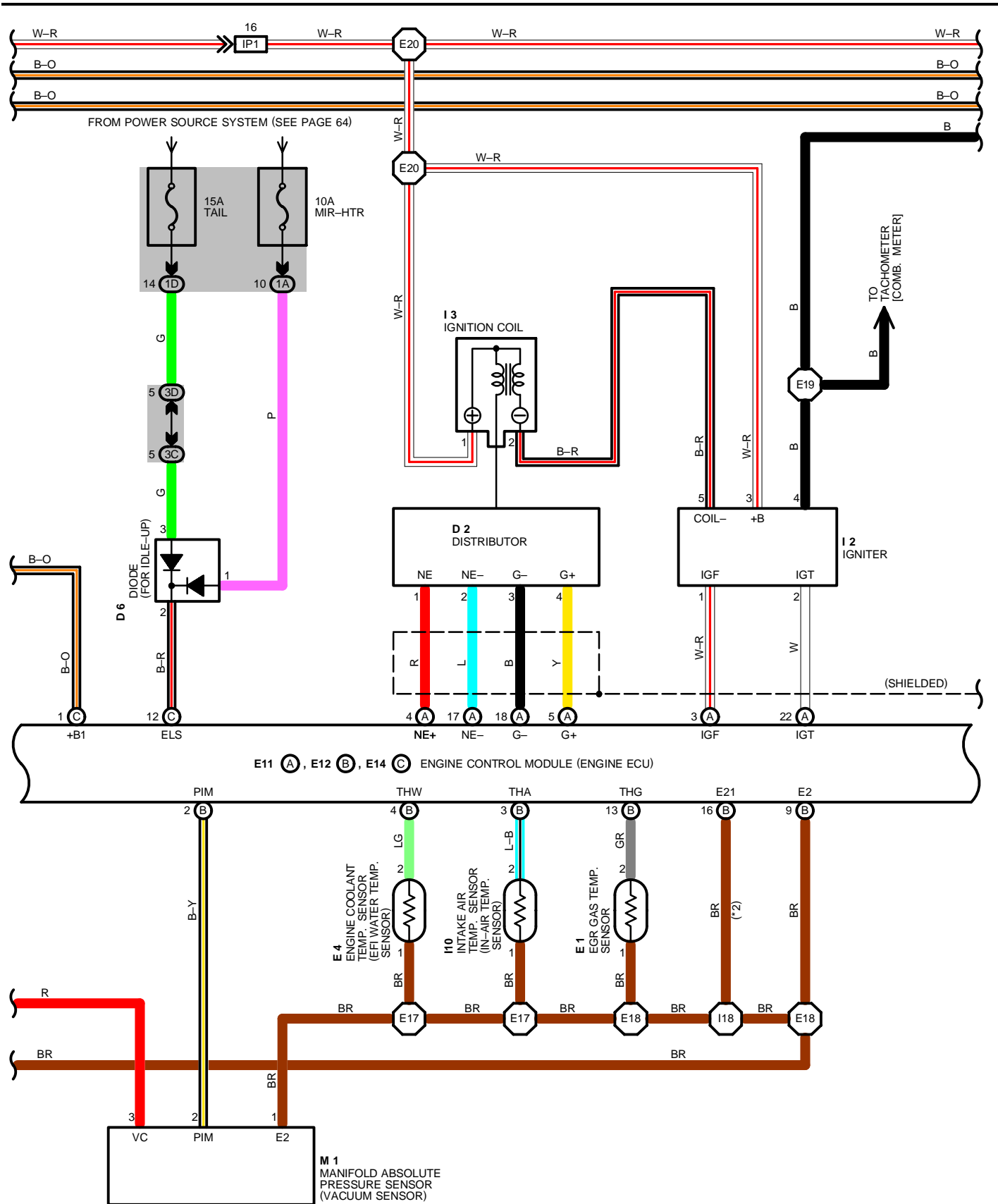


(HINT:SEE PAGE 7)

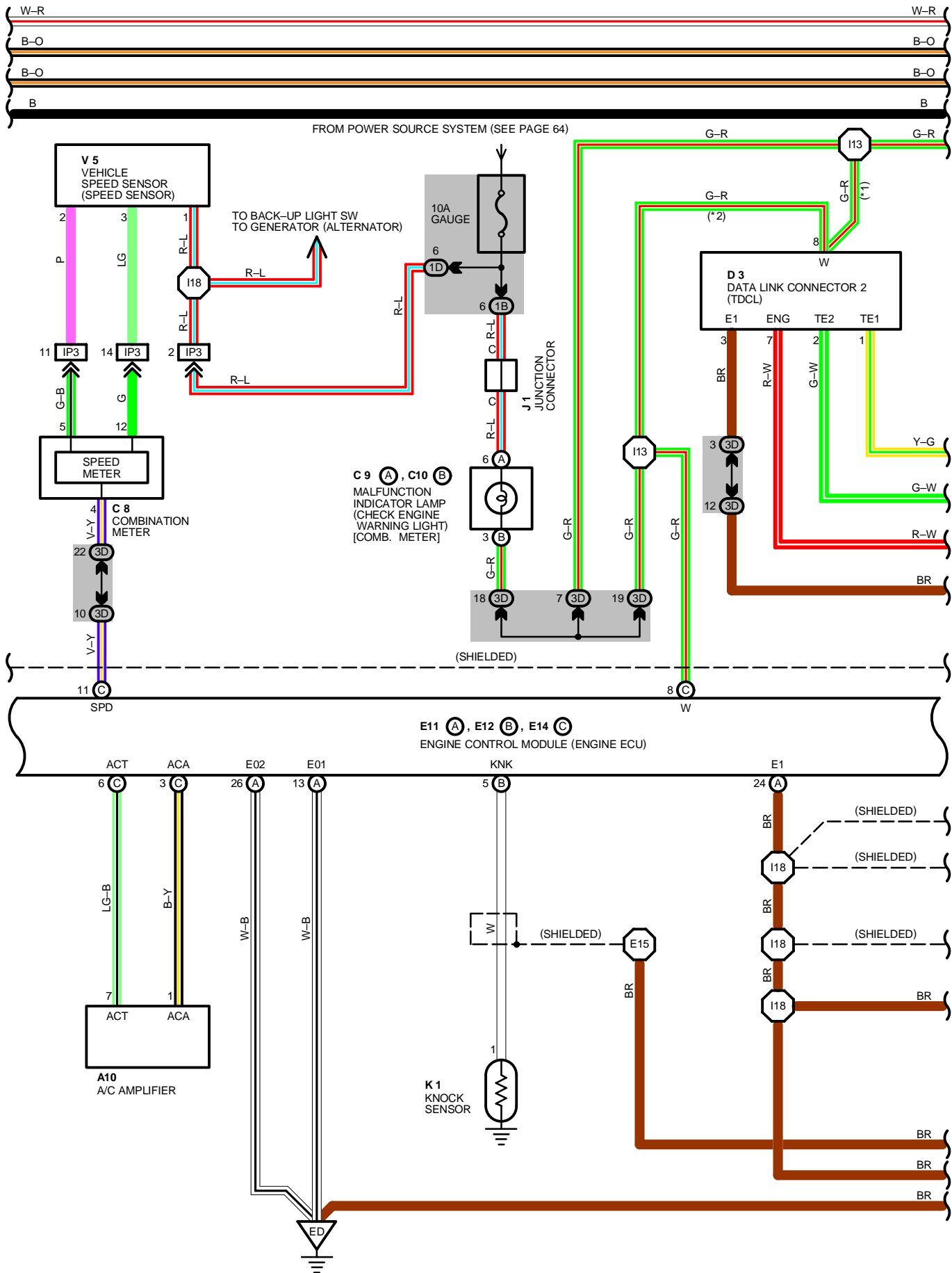


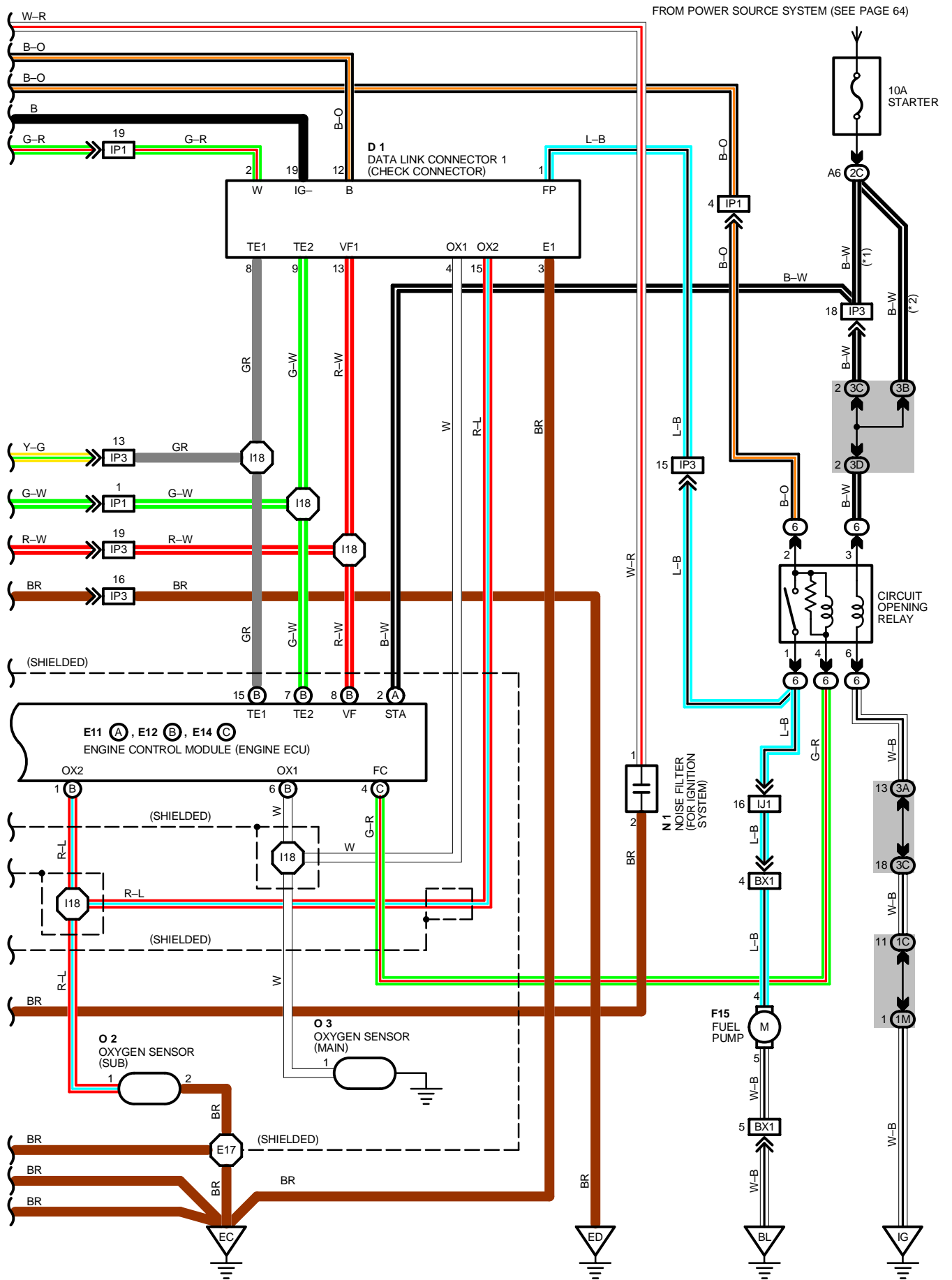
# ENGINE CONTROL (5S-FE M/T EX. CALIFORNIA)





# ENGINE CONTROL (5S-FE M/T EX. CALIFORNIA)





# ENGINE CONTROL (5S-FE M/T EX. CALIFORNIA)

## SERVICE HINTS

### E11(A), E12(B), E14(C) ENGINE CONTROL MODULE (ENGINE ECU)

#### VOLTAGE AT ENGINE CONTROL MODULE (ECU) WIRING CONNECTOR

- BATT - E1** : ALWAYS **9.0-14.0** VOLTS  
**+B - E1** : **9.0-14.0** VOLTS (IGNITION SW AT **ON** POSITION)  
**+B1 - E1** : **9.0-14.0** VOLTS (IGNITION SW AT **ON** POSITION)  
**IDL - E1** : **9.0-14.0** VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)  
**PIM - E2** : **3.3-3.9** VOLTS (IGNITION SW AT **ON** POSITION)  
**#10, #20 - E01, E02** : **9.0-14.0** VOLTS (IGNITION SW AT **ON** POSITION)  
**THA - E2** : **0.5-3.4** VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. **20°C, 68°F**)  
**THW - E2** : **0.2-1.0** VOLTS (IGNITION SW ON AND COOLANT TEMP. **80°C, 176°F**)  
**STA - E1** : **6.0-14.0** VOLTS (ENGINE CRANKING)  
**IGT - E1** : **0.8-1.2** VOLTS (ENGINE CRANKING OR IDLING)  
**ISCC, ISCO- E1** : **8.0-14.0** VOLTS (IGNITION SW AT **ON** POSITION)  
**W - E1** : **9.0-14.0** VOLTS (IGNITION SW ON, NO TROUBLE AND ENGINE RUNNING)  
**ACT - E1** : **9.0-14.0** VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)  
**ACA - E1** : **7.5-14.0** VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)  
**TE1 - E1** : **9.0-14.0** VOLTS (IGNITION SW ON)

#### RESISTANCE AT ENGINE CONTROL MODULE (ECU) WIRING CONNECTORS

##### (DISCONNECT WIRING CONNECTOR)

- IDL - E1** : INFINITY (THROTTLE VALVE OPEN)  
**0 Ω** (THROTTLE VALVE FULLY CLOSED)  
**THA - E2** : **2.0-3.0** KΩ (INTAKE AIR TEMP. **20°C, 68°F**)  
**THW - E2** : **0.2-0.4** KΩ (COOLANT TEMP. **80°C, 176°F**)  
**G+ - G-** : **0.17-0.21** KΩ  
**ISCC, ISCO- +B, +B1** : **19.3-22.3** KΩ

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A10	32	E14	C 30	K 1	31
C 8	32	F15	34 (S/D), 35 (C/P), 36 (W/G)	M 1	31
C 9	A 32	I 1	31	N 1	31
C10	B 32	I 2	31	O 2	31
D 1	30	I 3	31	O 3	31
D 2	30	I 4	31	T 1	31
D 3	32	I 5	31	V 1	31
D 6	32	I 6	31	V 2	31
E 1	30	I 7	31	V 3	31
E 4	30	I10	31	V 5	31
E11	A 30	I12	33		
E12	B 30	J 1	33		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
6	26	R/B NO. 6 (BEHIND GLOVE BOX)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1B		
1C		
1D		
1G		
1M		
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		
3D		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
BX1	46 (S/D)	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
	50 (W/G)	

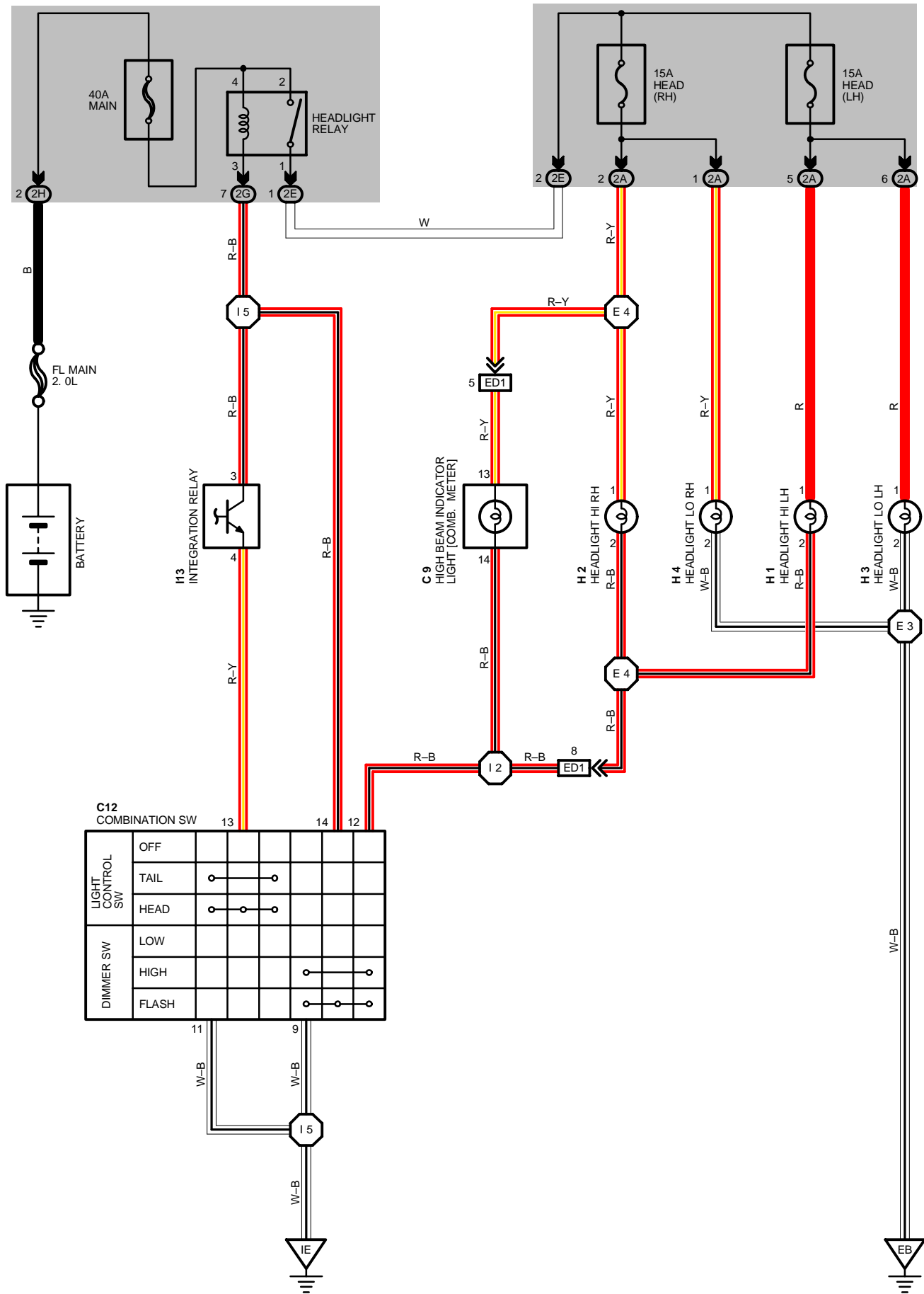
 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	40 (5S-FE)	FRONT LEFT FENDER
EC	40 (5S-FE)	INTAKE MANIFOLD RH
ED	40 (5S-FE)	INTAKE MANIFOLD LH
IG	42	INSTRUMENT PANEL BRACE LH
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	

 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E15	40 (5S-FE)	ENGINE WIRE	E20	40 (5S-FE)	ENGINE WIRE
E16			I13	44	COWL WIRE
E17			I18	44	ENGINE WIRE
E18			I20	44	COWL WIRE
E19					

# HEADLIGHT (FOR USA)





## SERVICE HINTS

### HEADLIGHT RELAY

2-1 : CLOSED WITH LIGHT CONTROL SW AT **HEAD** POSITION OR DIMMER SW AT **FLASH** POSITION

### LIGHT AUTO TURN OFF OPERATION

PLEASE REFER TO THE LIGHT AUTO TURN OFF SYSTEM (SEE PAGE 102)

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	H 2	28 (1MZ-FE), 30 (5S-FE)	I13	33
C12	32	H 3	28 (1MZ-FE), 30 (5S-FE)		
H 1	28 (1MZ-FE), 30 (5S-FE)	H 4	28 (1MZ-FE), 30 (5S-FE)		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2H	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

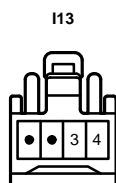
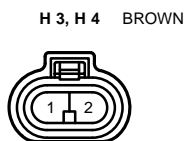
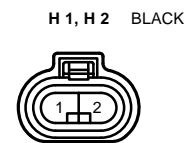
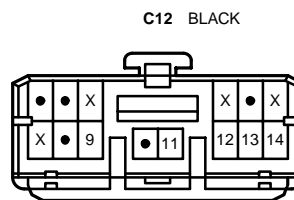
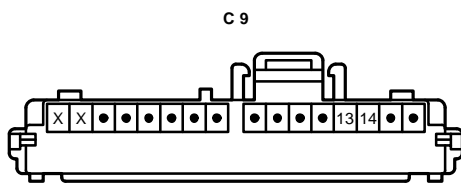
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ED1	38 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	

### ▽ : GROUND POINTS

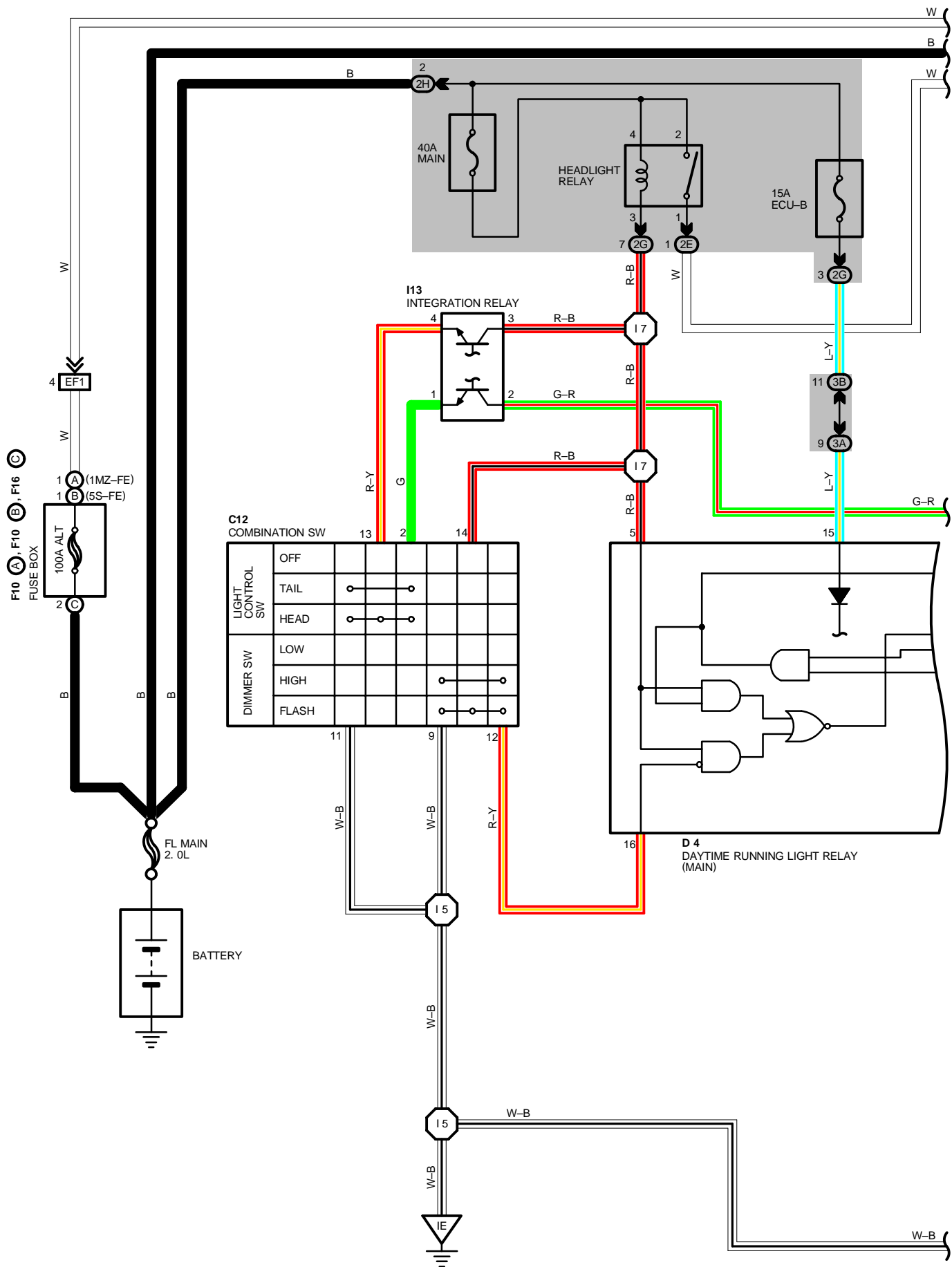
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
IE	42	LEFT KICK PANEL

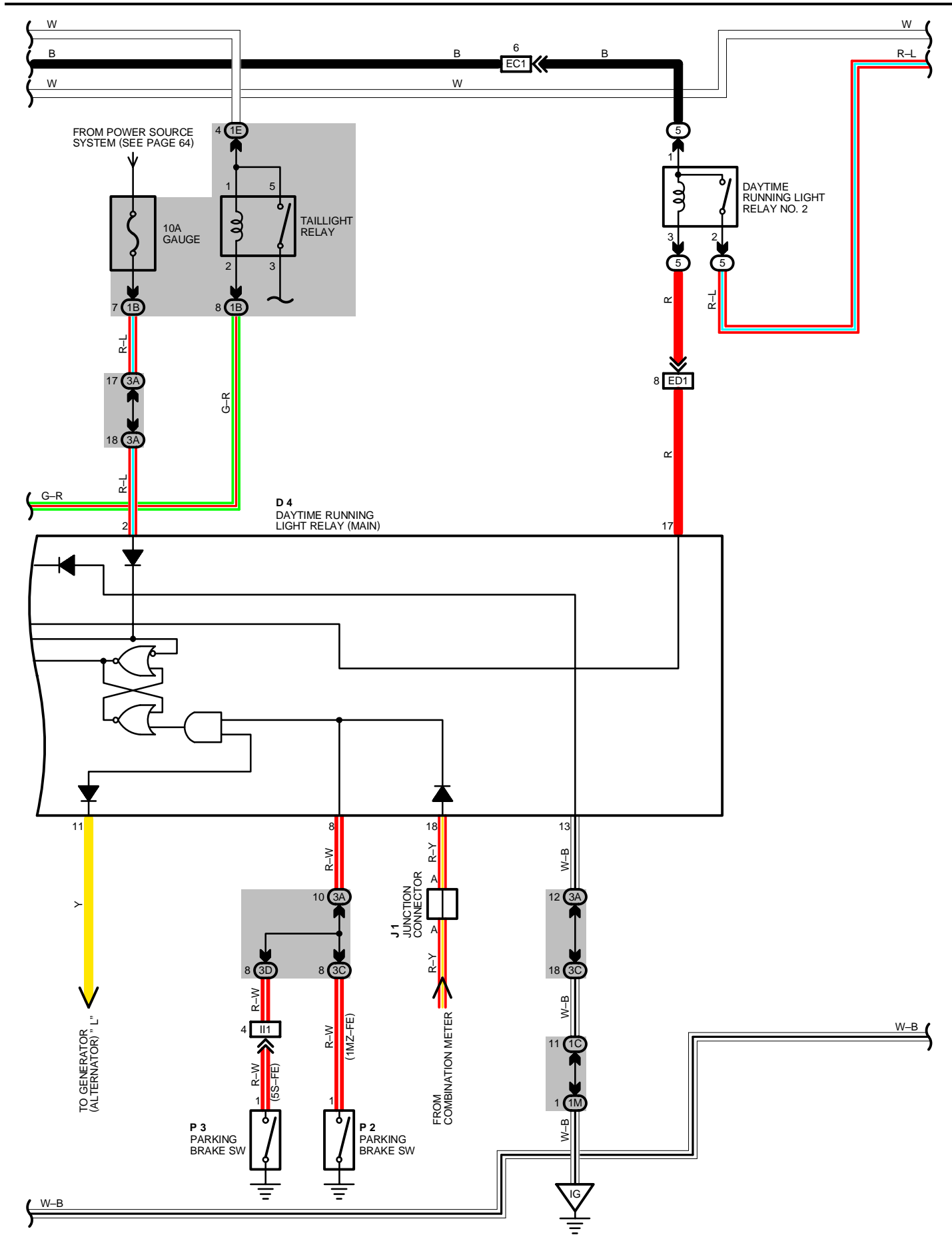
### ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 3	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	E 4	40 (5S-FE)	ENGINE ROOM MAIN WIRE
	40 (5S-FE)		I 2	44	COWL WIRE
E 4	38 (1MZ-FE)	I 5			

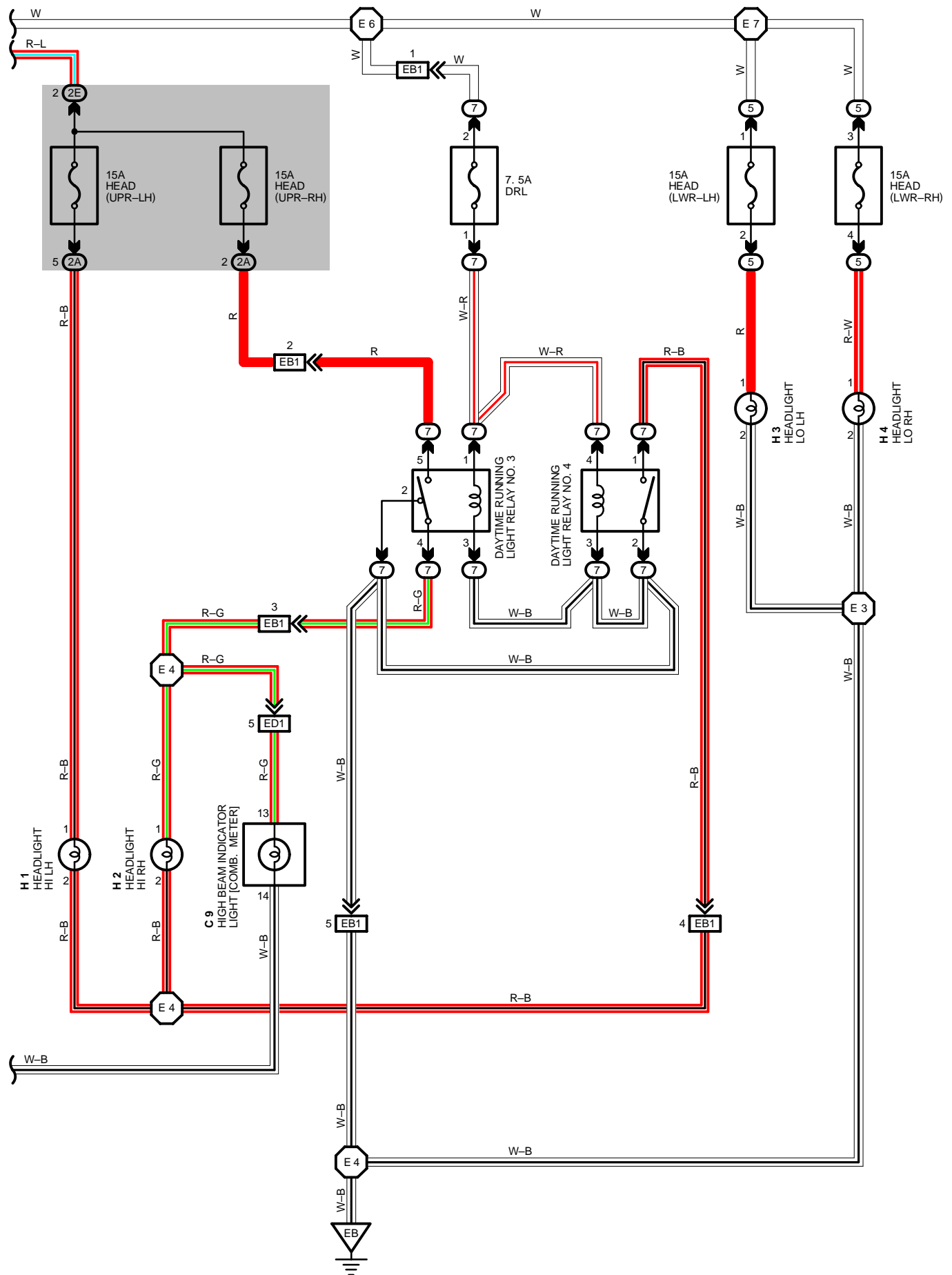


# HEADLIGHT (FOR CANADA)





# HEADLIGHT (FOR CANADA)



## SYSTEM OUTLINE

CURRENT FROM THE BATTERY IS ALWAYS FLOWING FROM THE FL MAIN → HEADLIGHT RELAY (COIL SIDE) → **TERMINAL 5** OF THE DAYTIME RUNNING LIGHT RELAY (MAIN) AND **TERMINAL 14** OF THE DIMMER SW, HEADLIGHT RELAY (COIL SIDE) → **TERMINAL 3** OF THE INTEGRATION RELAY → **TERMINAL 4** → **TERMINAL 13** OF THE LIGHT CONTROL SW, FL MAIN → DAYTIME RUNNING LIGHT RELAY NO. 2 (COIL SIDE) → **TERMINAL 17** OF THE DAYTIME RUNNING LIGHT RELAY.

### 1. DAYTIME RUNNING LIGHT OPERATION

WHEN THE ENGINE IS STARTED, VOLTAGE GENERATED AT **TERMINAL L** OF THE GENERATOR (ALTERNATOR) IS APPLIED TO **TERMINAL 11** OF THE DAYTIME RUNNING LIGHT RELAY (MAIN).

IF THE PARKING BRAKE LEVER IS PULLED UP (PARKING BRAKE SW ON) AT THIS TIME, THE RELAY IS NOT ENERGIZED, SO THE DAYTIME RUNNING LIGHT SYSTEM DOES NOT OPERATE. IF THE PARKING BRAKE LEVER IS RELEASED (PARKING BRAKE LEVER SW OFF), THE SIGNAL IS INPUT TO **TERMINAL 8** OF THE RELAY. THIS ACTIVATES THE RELAY ALSO, CURRENT FROM FL MAIN FLOWS TO DAYTIME RUNNING LIGHT RELAY NO. 2 (POINT SIDE) → **HEAD (UPR-LH)** FUSE → **TERMINAL 1** OF THE HEAD LH-HI → **TERMINAL 2** → **TERMINAL 2** OF THE HEAD RH-HI → **TERMINAL 1** → **TERMINAL 4** OF THE DAYTIME RUNNING LIGHT RELAY NO. 3 → **TERMINAL 2** → TO **GROUND**, SO BOTH TAIL AND HEADLIGHT UP.

THIS IS HOW THE DAYTIME RUNNING LIGHT SYSTEM OPERATES. ONCE THE DAYTIME RUNNING LIGHT SYSTEM OPERATES AND HEAD HAVE LIGHT UP, HEAD REMAIN ON EVEN IF THE PARKING BRAKE LEVER IS PULLED UP (PARKING BRAKE SW ON).

EVEN IF THE ENGINE STALLS WITH THE IGNITION SW ON AND THERE IS NO VOLTAGE FROM **TERMINAL L** OF THE GENERATOR (ALTERNATOR), HEAD REMAIN ON. IF THE IGNITION SW IS THEN TURNED OFF, AND HEAD ARE TURNED OFF.

IF THE ENGINE IS STARTED WHILE THE PARKING BRAKE LEVER IS RELEASED (PARKING BRAKE SW OFF), THE DAYTIME RUNNING LIGHT SYSTEM OPERATES AND TAIL, HEADLIGHT UP AS THE ENGINE STARTS.

### 2. HEADLIGHT OPERATION

\*(WHEN THE LIGHT CONTROL SW AT THE HEAD POSITION)

WHEN THE LIGHT CONTROL SW IS SET TO **HEAD** POSITION, THE CURRENT FLOWING TO THE HEADLIGHT RELAY (COIL SIDE) FLOWS TO **TERMINAL 3** OF THE INTEGRATION RELAY → **TERMINAL 4** → **TERMINAL 13** OF THE LIGHT CONTROL SW → **TERMINAL 11** → **GROUND**, TURNING THE HEADLIGHT RELAY ON.

THIS CAUSES THE CURRENT FLOWING TO THE HEADLIGHT RELAY (POINT SIDE) → **DRL** FUSE → DAYTIME RUNNING LIGHT RELAY NO. 3 (COIL SIDE) AND DAYTIME RUNNING LIGHT RELAY NO. 4 (COIL SIDE) → **GROUND**, TURNING THE DAYTIME RUNNING LIGHT RELAY NO. 3 AND NO. 4 ON. ALSO, CURRENT FROM THE HEADLIGHT RELAY (POINT SIDE) TO **HEAD (LWR)** FUSES → **TERMINAL 1** OF THE HEADLIGHTS (LO) → **TERMINAL 2** → **GROUND**, SO THE HEADLIGHTS (LO) LIGHT UP.

\*(DIMMER SW AT FLASH POSITION)

WHEN THE DIMMER SW IS SET TO **FLASH** POSITION, CURRENT FLOWS FROM HEADLIGHT RELAY (COIL SIDE) → **TERMINAL 14** OF THE DIMMER SW → **TERMINAL 9** → **GROUND**, TURNING THE HEADLIGHT RELAY ON. AT THE SAME TIME, SIGNALS ARE OUTPUT FROM **TERMINAL 12** AND **TERMINAL 14** OF THE DIMMER SW TO **TERMINAL 16** AND **TERMINAL 5** OF THE DAYTIME RUNNING LIGHT RELAY (MAIN), ACTIVATING THE DAYTIME RUNNING LIGHT RELAY (MAIN) AND ALSO THE DAYTIME RUNNING LIGHT RELAY NO. 2. WHEN THE HEADLIGHT RELAY AND DAYTIME RUNNING LIGHT RELAY (MAIN) ARE ACTIVATED, THE HEADLIGHTS (LO AND HI) THEN LIGHT UP.

\*(DIMMER SW AT HIGH POSITION)

WHEN THE LIGHT CONTROL SW IS SET TO **HEAD** POSITION, A SIGNAL IS OUTPUT FROM **TERMINAL 13** OF THE LIGHT CONTROL SW → **TERMINAL 4** OF THE INTEGRATION RELAY → **TERMINAL 3** → **TERMINAL 5** OF THE DAYTIME RUNNING LIGHT RELAY (MAIN). WHEN THE DIMMER SW IS SET TO **HIGH** POSITION, A SIGNAL IS OUTPUT FROM **TERMINAL 12** OF THE DIMMER SW TO **TERMINAL 16** OF THE DAYTIME RUNNING LIGHT RELAY (MAIN). THESE SIGNALS ACTIVATE DAYTIME RUNNING LIGHT RELAY NO. 2, SO CURRENT FLOWS FROM DAYTIME RUNNING LIGHT RELAY NO. 2 (POINT SIDE) → **HEAD (UPR-LH)** FUSE → **TERMINAL 1** OF THE HEADLIGHT LH-HI → **TERMINAL 2** → DAYTIME RUNNING LIGHT RELAY NO. 4 (POINT SIDE) → **GROUND**, AND CURRENT ALSO SIMULTANEOUSLY FLOWS FROM **HEAD (UPR-RH)** FUSE → DAYTIME RUNNING LIGHT RELAY NO. 3 (POINT SIDE) → **TERMINAL 1** OF THE HEADLIGHT RH-HI → **TERMINAL 2** → DAYTIME RUNNING LIGHT RELAY NO. 4 (POINT SIDE), CAUSING THE HEADLIGHTS (HI SIDE) TO LIGHT UP.

## SERVICE HINTS

### D 4 DAYTIME RUNNING LIGHT RELAY (MAIN)

2-GROUND : APPROX. 12 VOLTS WITH THE IGNITION SW AT **ON** POSITION

15-GROUND : ALWAYS APPROX. 12 VOLTS

8-GROUND : CONTINUITY WITH THE PARKING BRAKE LEVER PULLED UP (PARKING BRAKE SW ON)

13-GROUND : ALWAYS CONTINUITY

# HEADLIGHT (FOR CANADA)

## : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	F16	C	28 (1MZ-FE), 30 (5S-FE)	I13 33
C12	32	H 1		28 (1MZ-FE), 30 (5S-FE)	J 1 33
D 4	32	H 2		28 (1MZ-FE), 30 (5S-FE)	P 2 33
F10	A	H 3		28 (1MZ-FE), 30 (5S-FE)	P 3 33
	B	H 4		28 (1MZ-FE), 30 (5S-FE)	

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1D		
1E		
1M		
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E		
2G		
2H	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		
3D		

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE AND RELAY WIRE
	40 (5S-FE)	
EC1	38 (1MZ-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
ED1	38 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
EF1	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE

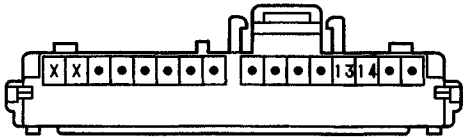
## : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
IE	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH

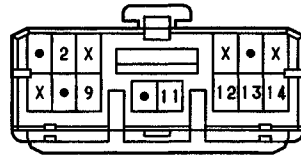
## : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 3	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	E 6	40 (5S-FE)	ENGINE ROOM MAIN WIRE
	40 (5S-FE)		E 7	38 (1MZ-FE)	
E 4	38 (1MZ-FE)		I 5	44	
	40 (5S-FE)			I 7	
E 6	38 (1MZ-FE)				

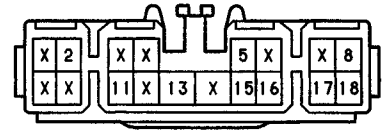
C 9



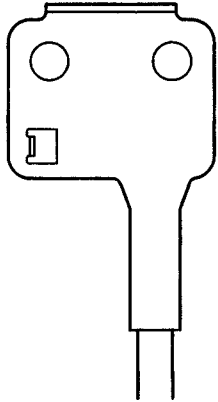
C12 BLACK



D 4 GRAY



(1M2-FE) F10 (A)



(5S-FE) F10 (B)



F16 (C)



H 1, H 2 BLACK



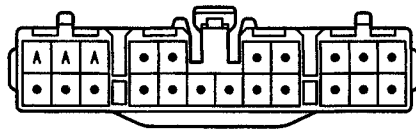
H 3, H 4 BROWN



I13



J 1 DARK GRAY



(HINT:SEE PAGE 7)

P 2

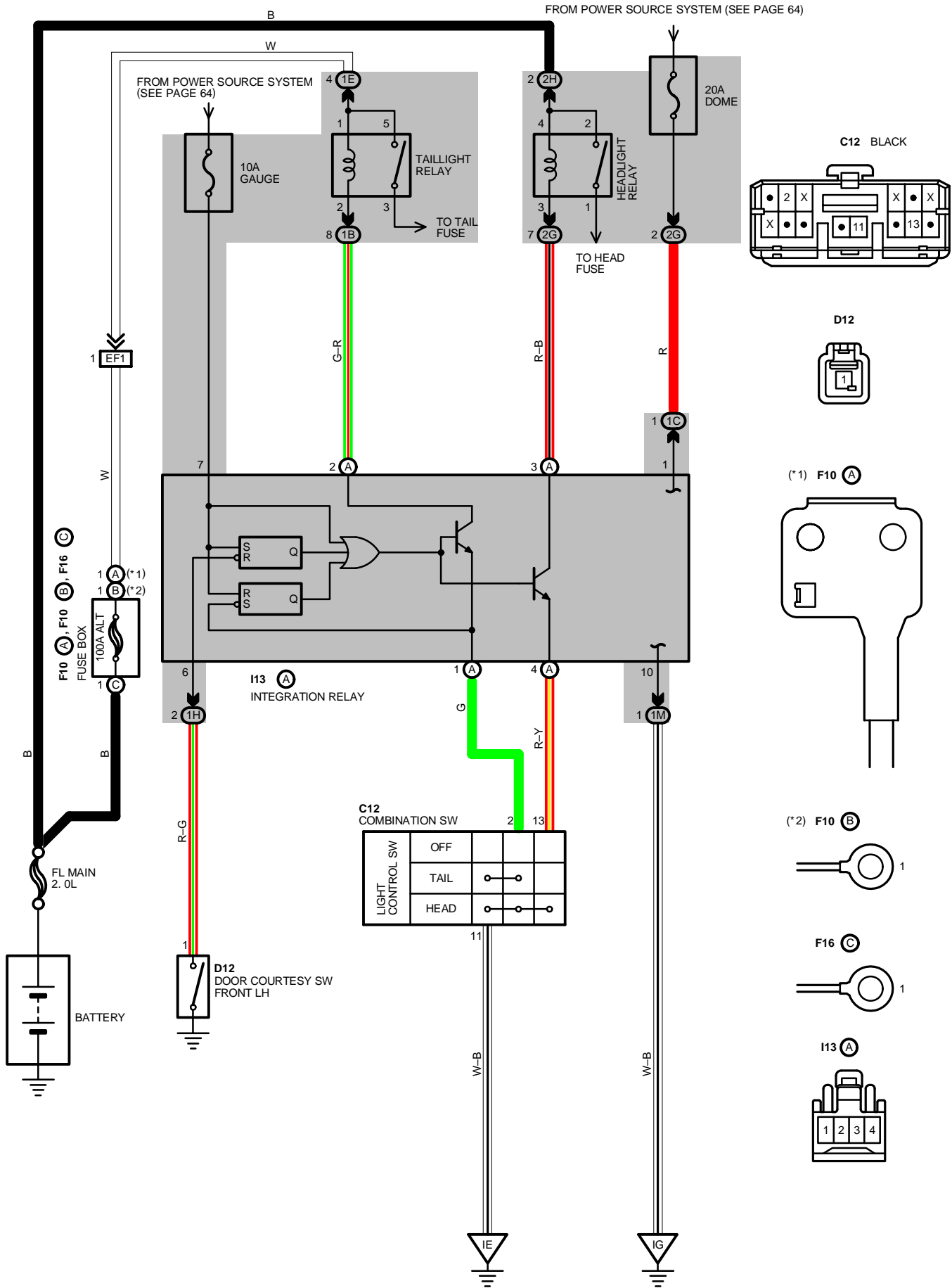


P 3



# LIGHT AUTO TURN OFF

\*1 : 1MZ-FE  
\*2 : 5S-FE





## SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO **TERMINAL 7** OF THE INTEGRATION RELAY THROUGH **GAUGE** FUSE. VOLTAGE IS APPLIED AT ALL TIMES TO **TERMINAL (A) 2** OF THE INTEGRATION RELAY THROUGH THE TAILLIGHT RELAY (COIL SIDE), AND TO **TERMINAL (A) 3** THROUGH THE HEADLIGHT RELAY (COIL SIDE).

### 1. NORMAL LIGHTING OPERATION

(TURN TAILLIGHT ON)

WITH LIGHT CONTROL SW TURNED TO **TAILLIGHT** POSITION, A SIGNAL IS INPUT INTO **TERMINAL (A) 1** OF THE INTEGRATION RELAY. ACCORDING TO THIS SIGNAL, THE CURRENT FLOWING TO **TERMINAL (A) 2** OF THE RELAY FLOWS FROM **TERMINAL (A) 1** → **TERMINAL 2** OF THE LIGHT CONTROL SW → **TERMINAL 11** → TO **GROUND** AND TAILLIGHT RELAY CAUSES TAILLIGHT TO TURN ON.

(TURN HEADLIGHT ON)

WITH LIGHT CONTROL SW TURNED TO **HEADLIGHT** POSITION, A SIGNAL IS INPUT INTO **TERMINALS (A) 1** AND **(A) 4** OF THE INTEGRATION RELAY. ACCORDING TO THIS SIGNAL, THE CURRENT FLOWING TO **TERMINAL (A) 3** OF THE RELAY FLOWS TO **TERMINAL (A) 4** → **TERMINAL 13** OF THE LIGHT CONTROL SW → **TERMINAL 11** → TO **GROUND** IN THE HEADLIGHT CIRCUIT, AND CAUSES TAILLIGHT AND HEADLIGHT RELAY TO TURN THE LIGHT ON. THE TAILLIGHT CIRCUIT IS SAME AS ABOVE.

### 2. LIGHT AUTO TURN OFF OPERATION

WITH LIGHTS ON AND IGNITION SW TURNED OFF (INPUT SIGNAL GOES TO **TERMINAL 7** OF THE RELAY), WHEN DOOR ON DRIVER'S SIDE IS OPENED (INPUT SIGNAL GOES TO **TERMINAL 6** OF THE RELAY), THE RELAY OPERATES AND THE CURRENT IS CUT OFF WHICH FLOWS FROM **TERMINAL (A) 2** OF THE RELAY TO **TERMINAL (A) 1** IN TAILLIGHT CIRCUIT AND FROM **TERMINAL (A) 3** TO **TERMINAL (A) 4** IN HEADLIGHT CIRCUIT. AS A RESULT, ALL LIGHTS ARE TURNED OFF AUTOMATICALLY.

## SERVICE HINTS

### I13 INTEGRATION RELAY

7-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

1-GROUND : ALWAYS APPROX. 12 VOLTS

(A) 3-GROUND : APPROX. 12 VOLTS WITH LIGHT CONTROL SW AT **OFF** OR **TAIL** POSITION

(A) 2-GROUND : APPROX. 12 VOLTS WITH LIGHT CONTROL SW AT **OFF** POSITION

6-GROUND : CONTINUITY WITH FRONT LH DOOR OPEN

(A) 4-GROUND : CONTINUITY WITH LIGHT CONTROL SW AT **HEAD** POSITION

(A) 1-GROUND : CONTINUITY WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION

10-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C12	32	F10	A 28 (1MZ-FE), 30 (5S-FE)	F16	C 28 (1MZ-FE), 30 (5S-FE)
D12	34 (S/D), 35 (C/P), 36 (W/G)		B 28 (1MZ-FE), 30 (5S-FE)	I13	A 33

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1E		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2H	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

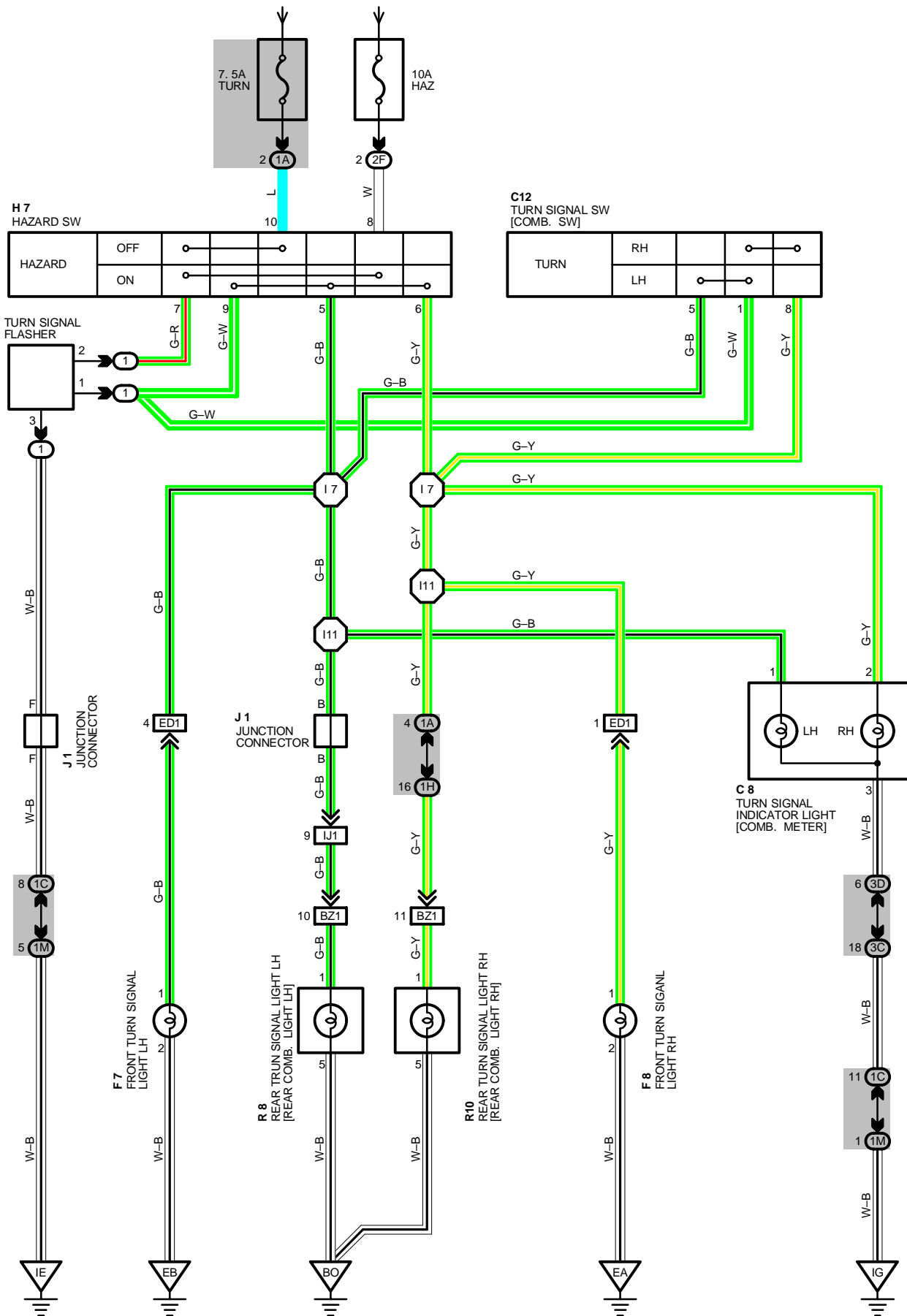
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EF1	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH

# TURN SIGNAL AND HAZARD WARNING LIGHT (S/D, C/P)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### TURN SIGNAL FLASHER

- (1) 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON OR HAZARD SW ON
- (1) 1-GROUND : CHANGES FROM APPROX. 12 TO 0 VOLTS WITH IGNITION SW ON AND TURN SIGNAL SW LEFT OR RIGHT, OR HAZARD SW ON
- (1) 3-GROUND: ALWAYS CONTINUITY

### : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 8	32	F 8	28 (1MZ-FE), 30 (5S-FE)	R 8	34 (S/D), 35 (C/P)
C12	32	H 7	33	R10	34 (S/D), 35 (C/P)
F 7	28 (1MZ-FE), 30 (5S-FE)	J 1	33		

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2F	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ED1	38 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
BZ1	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	

### : GROUND POINTS

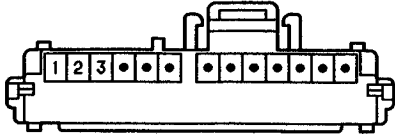
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	
EB	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
IE	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH
BO	46 (S/D)	LEFT QUARTER PILLAR
	48 (C/P)	

### : SPLICE POINTS

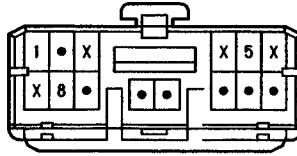
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 7	44	COWL WIRE	I11	44	COWL WIRE

# TURN SIGNAL AND HAZARD WARNING LIGHT (S/D, C/P)

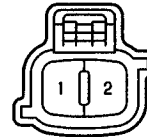
C 6 BLUE



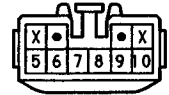
C12 BLACK



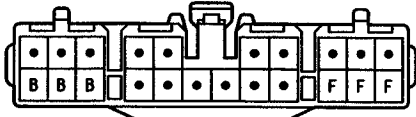
F 7, F 8 BLACK



H 7 BLACK

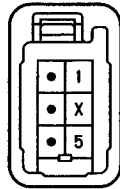


J 1 DARK GRAY



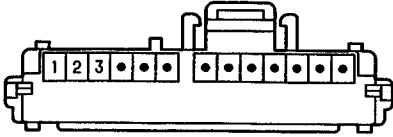
(HINT: SEE PAGE 7)

R 8, R10

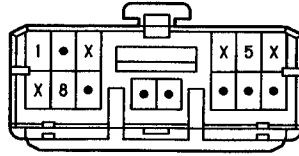


# TURN SIGNAL AND HAZARD WARNING LIGHT (W/G)

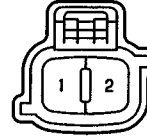
C 8 BLUE



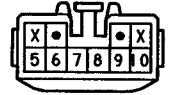
C12 BLACK



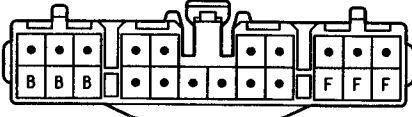
F 7, F 8 BLACK



H 7 BLACK

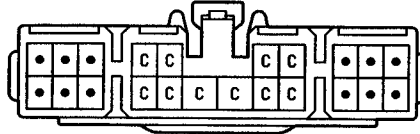


J 1 DARK GRAY



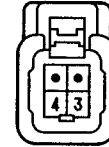
(HINT:SEE PAGE 7)

J 5

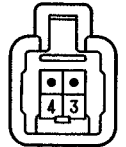


(HINT:SEE PAGE 7)

R 8

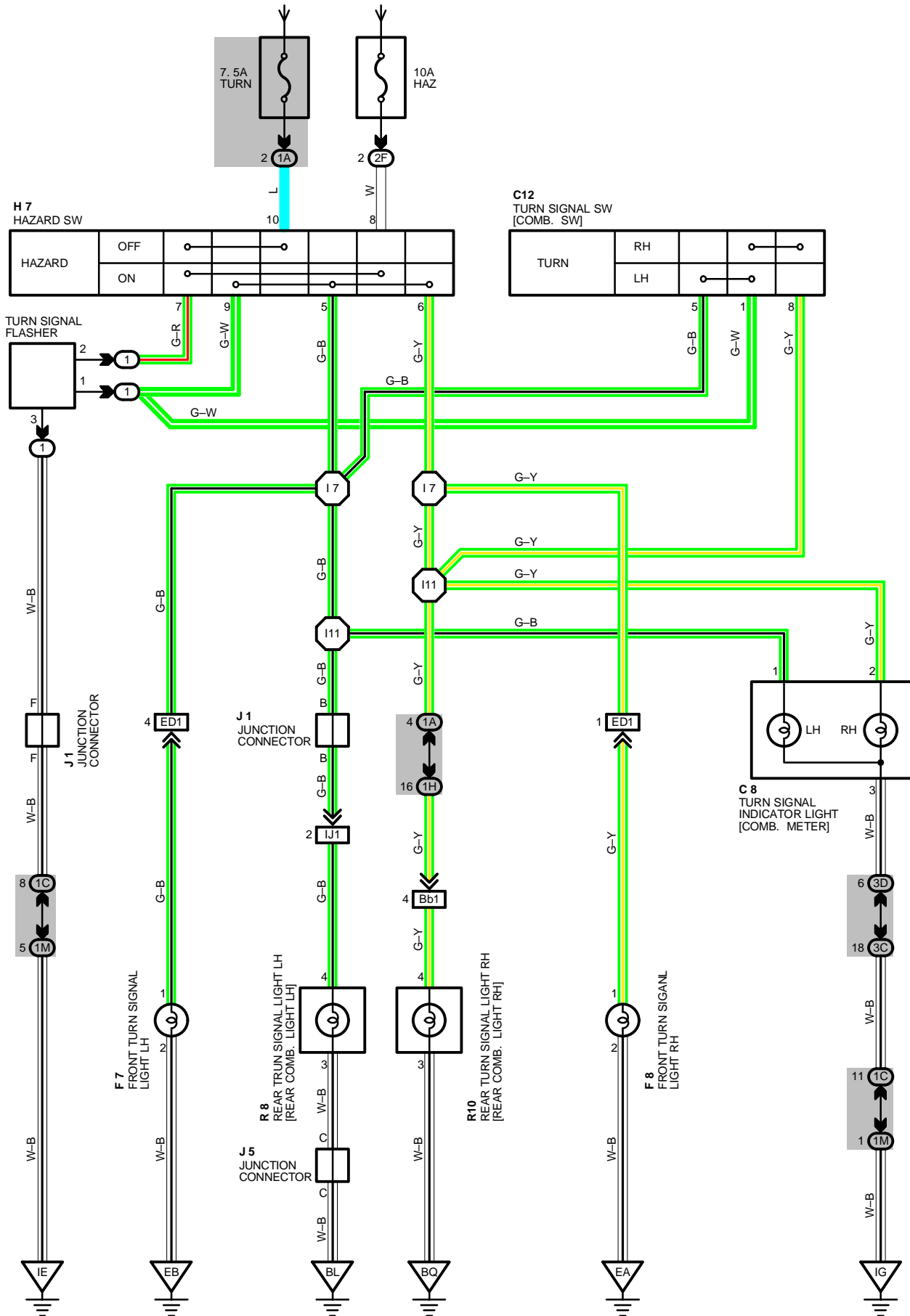


R10



# TURN SIGNAL AND HAZARD WARNING LIGHT (W/G)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### TURN SIGNAL FLASHER

- (1) 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON OR HAZARD SW ON
- (1) 1-GROUND : CHANGES FROM APPROX. 12 TO 0 VOLTS WITH IGNITION SW ON AND TURN SIGNAL SW LEFT OR RIGHT, OR HAZARD SW ON
- (1) 3-GROUND: ALWAYS CONTINUITY

### : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 8	32	F 8	28 (1MZ-FE), 30 (5S-FE)	J 5	36
C12	32	H 7	33	R 8	36 (W/G)
F 7	28 (1MZ-FE), 30 (5S-FE)	J 1	33	R10	36 (W/G)

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2F	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ED1	38 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
Bb1	50 (W/G)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE

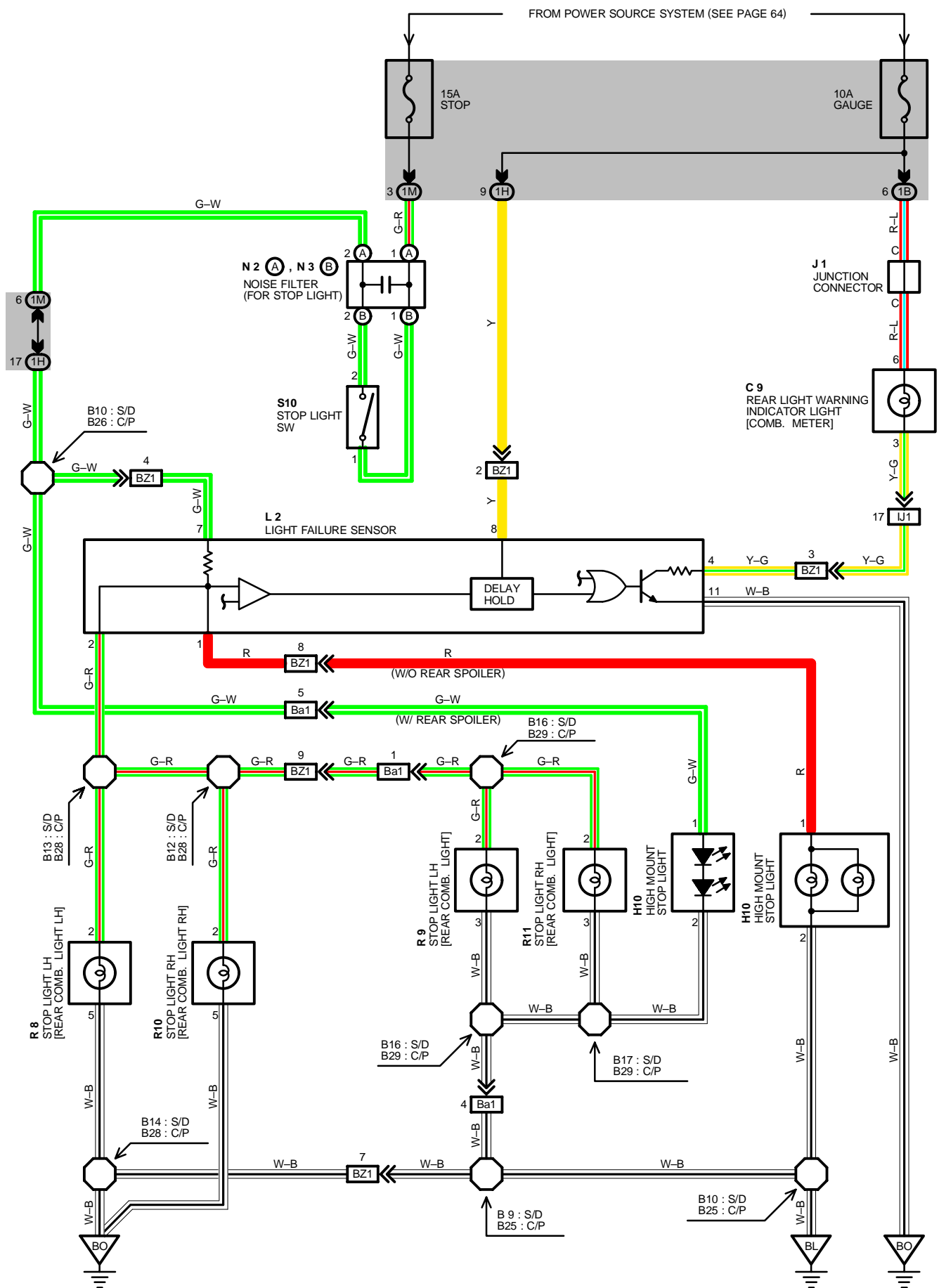
### : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	
EB	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
IE	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
BQ	50 (W/G)	LOWER BACK PANEL CENTER

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 7	44	COWL WIRE	I11	44	COWL WIRE

# STOP LIGHT (S/D, C/P)





## SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH A **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 LIGHT 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 **TERMINALS 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 → **TERMINAL 11** → **GROUND** AND TURNS THE REAR LIGHT WARNING LIGHT ON. BY PRESSING THE BRAKE PEDAL, THE CURRENT FLOWING TO **TERMINAL 8** OF THE LIGHT FAILURE SENSOR KEEPS THE WARNING CIRCUIT ON HOLD AND THE WARNING LIGHT ON UNTIL THE IGNITION SW IS TURNED OFF.

## SERVICE HINTS

### S10 STOP LIGHT SW

2-1 : CLOSED WITH BRAKE PEDAL DEPRESSED

### L 2 LIGHT FAILURE SENSOR

1, 2, 7-GROUND : APPROX. 12 VOLTS WITH STOP LIGHT SW ON

4, 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

11-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C 9</b>	32	<b>N 2</b>	A 33	<b>R10</b>	34 (S/D), 35 (C/P)
<b>H10</b>	34 (S/D), 35 (C/P)	<b>N 3</b>	B 33	<b>R11</b>	34 (S/D), 35 (C/P)
<b>J 1</b>	33	<b>R 8</b>	34 (S/D), 35 (C/P)	<b>S10</b>	33
<b>L 2</b>	34 (S/D), 35 (C/P)	<b>R 9</b>	34 (S/D), 35 (C/P)		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1B</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1H</b>	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1M</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IJ1</b>	42	FLOOR NO. 1 WIRE AND COWL WIRE
<b>BZ1</b>	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
<b>Ba1</b>	46 (S/D)	FLOOR NO. 1 WIRE AND LUGGAGE ROOM NO. 2 WIRE
	48 (C/P)	

## ▽ : GROUND POINTS

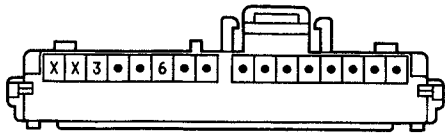
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>BL</b>	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
<b>BQ</b>	50 (W/G)	LOWER BACK PANEL CENTER

## ○ : SPLICE POINTS

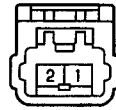
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS		
<b>B 9</b>	46 (S/D)	FLOOR NO. 1 WIRE	<b>B17</b>	46 (S/D)	LUGGAGE ROOM NO. 2 WIRE		
<b>B10</b>			<b>B25</b>	48 (C/P)	FLOOR NO. 1 WIRE		
<b>B12</b>	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE	<b>B26</b>			48 (C/P)	LUGGAGE ROOM NO. 1 WIRE
<b>B13</b>			<b>B28</b>	48 (C/P)	LUGGAGE ROOM NO. 2 WIRE		
<b>B14</b>			<b>B29</b>				
<b>B16</b>	46 (S/D)	LUGGAGE ROOM NO. 2 WIRE					

# STOP LIGHT (S/D, C/P)

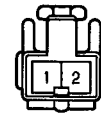
C 9



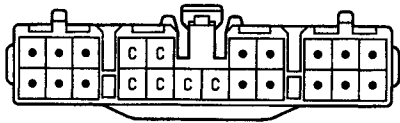
(W/ REAR SPOILER) H10



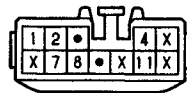
(W/O REAR SPOILER) H10



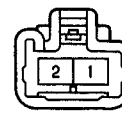
J 1 DARK GRAY



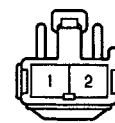
L 2



N 2 (A)

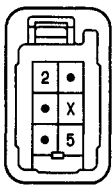


N 3 (B)

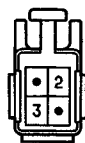


(HINT: SEE PAGE 7)

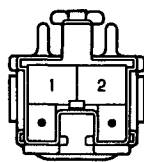
R 8, R10



R 9, R11

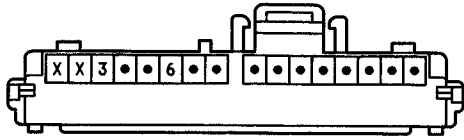


S10 BLUE

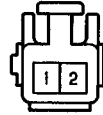


# STOP LIGHT (W/G)

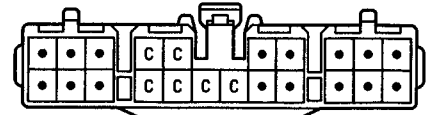
C 9



H10

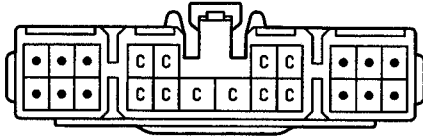


J 1 DARK GRAY



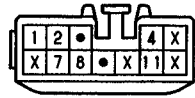
(HINT: SEE PAGE 7)

J 5

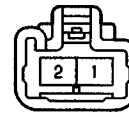


(HINT: SEE PAGE 7)

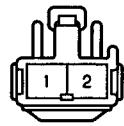
L 2



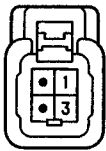
N 2 (A)



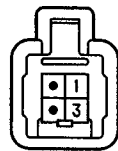
N 3 (B)



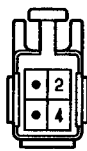
R 8



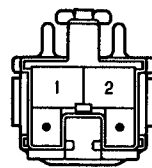
R10



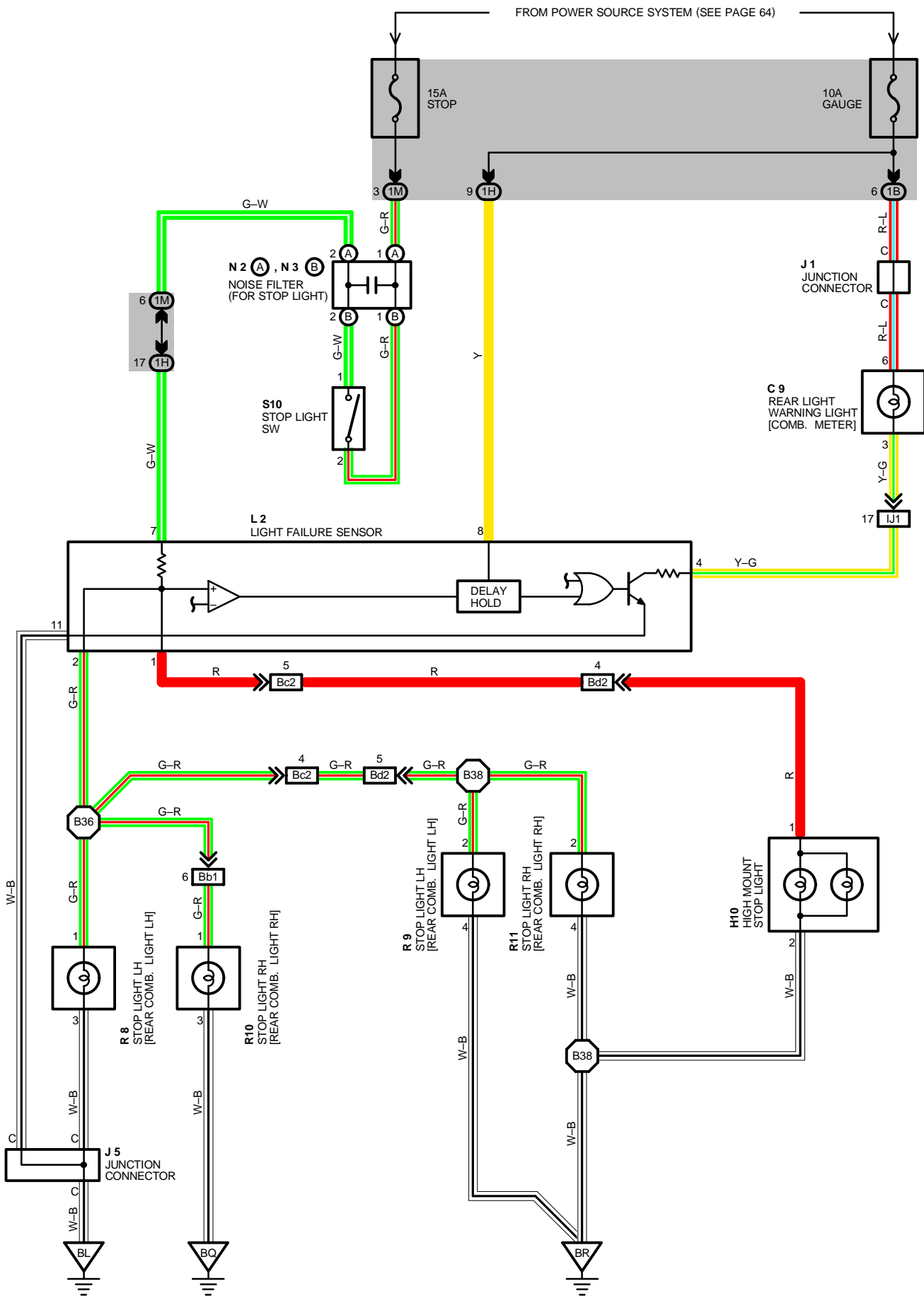
R 9, R11



S10 BLUE



# STOP LIGHT (W/G)



## SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH A **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 LIGHT 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 **TERMINALS 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 → **TERMINAL 11** → **GROUND** AND TURNS THE REAR LIGHT WARNING LIGHT ON. BY PRESSING THE BRAKE PEDAL, THE CURRENT FLOWING TO **TERMINAL 8** OF THE LIGHT FAILURE SENSOR KEEPS THE WARNING CIRCUIT ON HOLD AND THE WARNING LIGHT ON UNTIL THE IGNITION SW IS TURNED OFF.

## SERVICE HINTS

### S10 STOP LIGHT SW

2-1 : CLOSED WITH BRAKE PEDAL DEPRESSED

### L 2 LIGHT FAILURE SENSOR

1, 2, 7-GROUND : APPROX. 12 VOLTS WITH STOP LIGHT SW ON

4, 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

11-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C 9</b>	32	<b>L 2</b>	36 (W/G)	<b>R 9</b>	36 (W/G)
<b>H10</b>	36 (W/G)	<b>N 2</b>	A 33	<b>R10</b>	36 (W/G)
<b>J 1</b>	33	<b>N 3</b>	B 33	<b>R11</b>	36 (W/G)
<b>J 5</b>	36 (W/G)	<b>R 8</b>	36 (W/G)	<b>S10</b>	33

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1B</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1H</b>	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1M</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IJ1</b>	42	FLOOR NO. 1 WIRE AND COWL WIRE
<b>Bb1</b>	50 (W/G)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
<b>Bc2</b>	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
<b>Bd2</b>	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

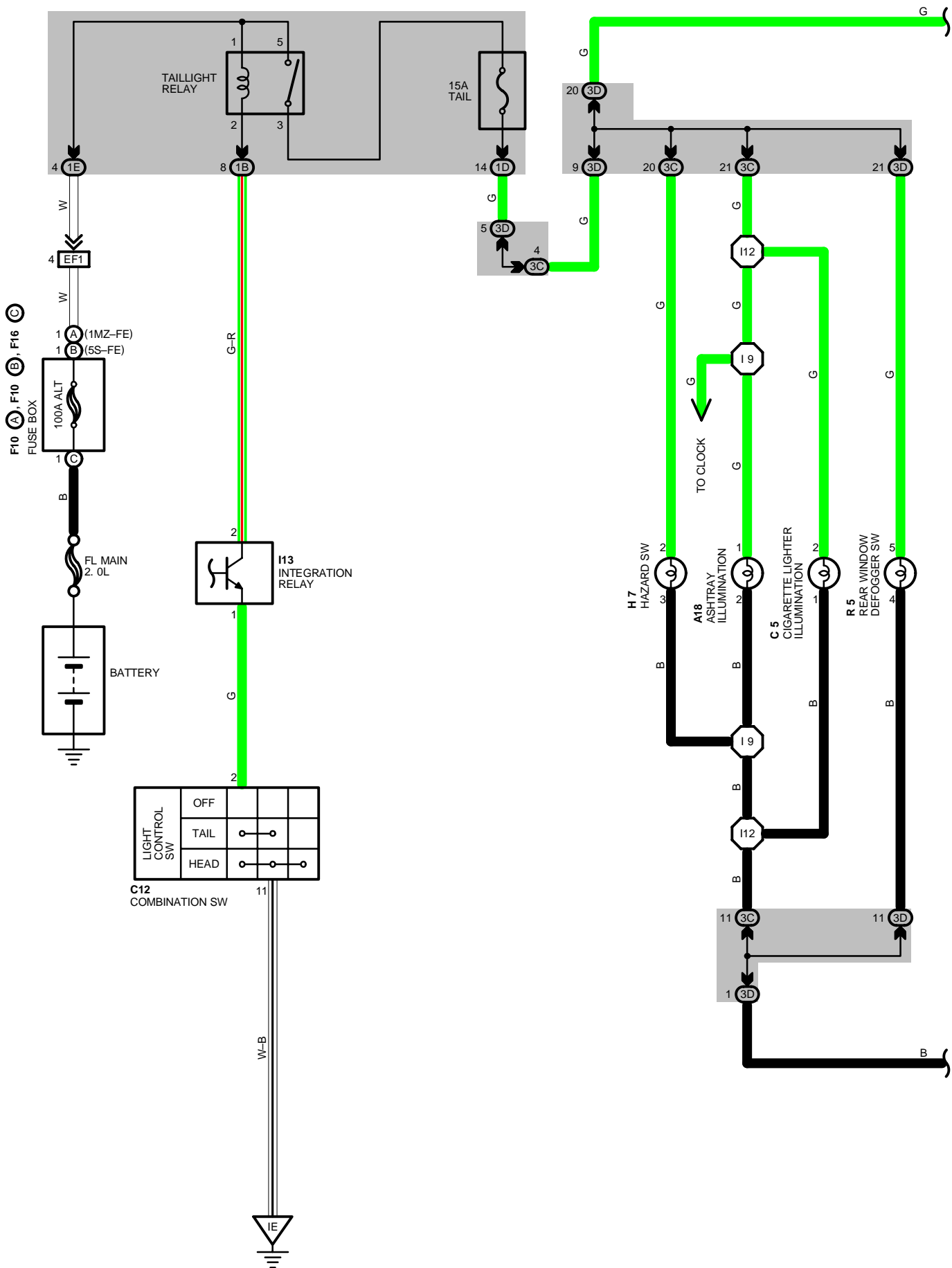
## ▽ : GROUND POINTS

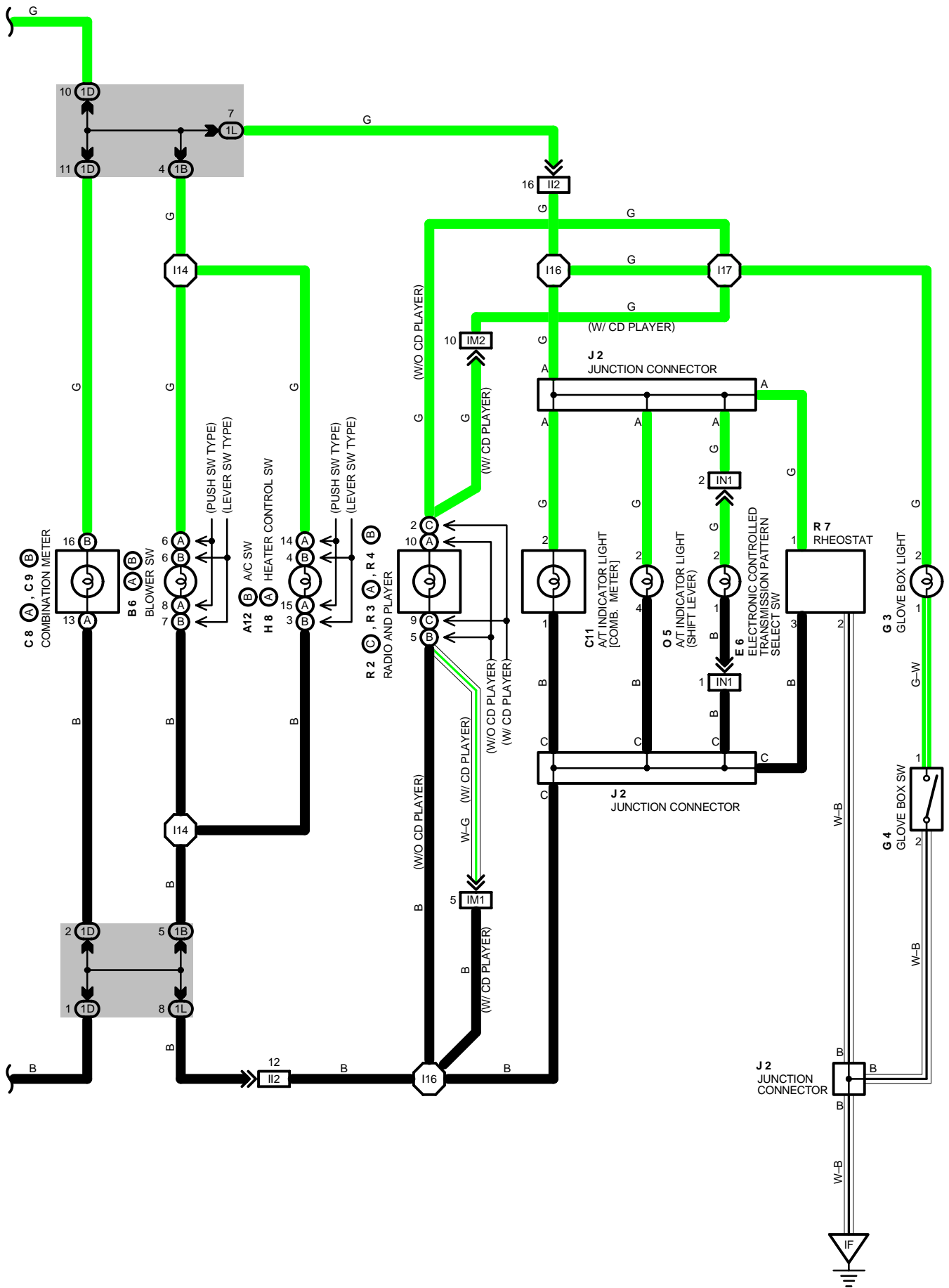
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>BL</b>	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
<b>BQ</b>	50 (W/G)	LOWER BACK PANEL CENTER
<b>BR</b>	50 (W/G)	BACK DOOR CENTER

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>B36</b>	50 (W/G)	FLOOR NO. 1 WIRE	<b>B38</b>	50 (W/G)	BACK DOOR NO. 2 WIRE

# ILLUMINATION





# ILLUMINATION

## SERVICE HINTS

### TAILLIGHT RELAY

5-3 : CLOSED WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION (WHEN LIGHT AUTO TURN OFF SYSTEM IS OFF)  
CLOSED WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED (CANADA)

### R 7 RHEOSTAT

3-2 : APPROX. 12 VOLTS WITH RHEOSTAT FULLY TURNED COUNTERCLOCKWISE AND 0 VOLTS WITH FULLY TURNED CLOCKWISE

## ○ : PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A12	B	32	E 6		32	J 2		33
A18		32	F10	A	28 (1MZ-FE), 30 (5S-FE)	O 5		33
B 6	A	32		B	28 (1MZ-FE), 30 (5S-FE)	R 2	C	33
	B	32	F16	C	28 (1MZ-FE), 30 (5S-FE)	R 3	A	33
C 5		32	G 3		33	R 4	B	33
C 8	A	32	G 4		33	R 5		33
C 9	B	32	H 7		33	R 7		33
C11		32	H 8	A	33			
C12		32	I13		33			

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1D		
1E		
1L		
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EF1	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IM1	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
IM2		
IN1	42	INSTRUMENT PANEL WIRE AND SWITCH WIRE

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	42	LEFT KICK PANEL
IF		

## ○ : SPLICE POINTS

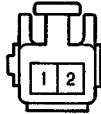
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 9	44	COWL WIRE	I16	44	INSTRUMENT PANEL WIRE
I12			I17		
I14					



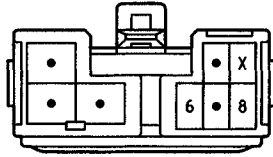
A12 (B) BLACK



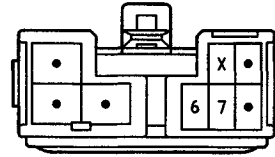
A18



(PUSH SW TYPE) B 6 (A) BLACK



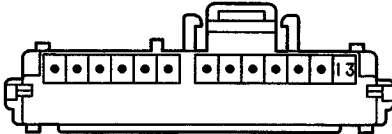
(LEVER SW TYPE) B 6 (B) BLACK



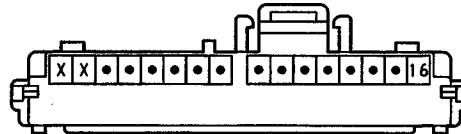
C 5 GRAY



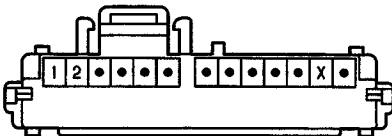
C 8 (A) BLUE



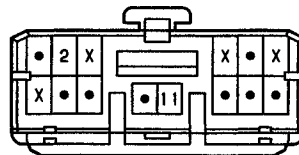
C 9 (B)



C11 BROWN



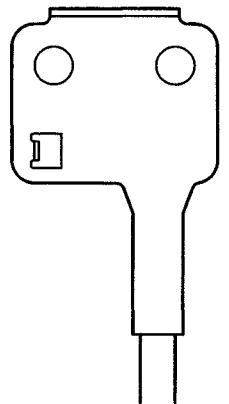
C12 BLACK



E 6 BLACK



(1M2-FE) F10 (A)



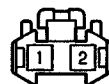
(5S-FE) F10 (B)



F16 (C)



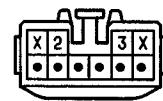
G 3 GRAY



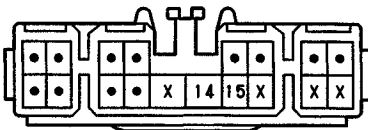
G 4 BLACK



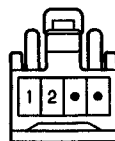
H 7 BLACK



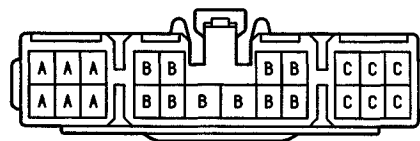
H 8 (A) BLACK



I13



J 2

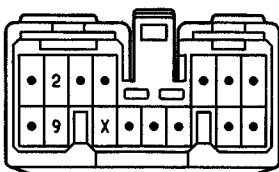


(HINT:SEE PAGE 7)

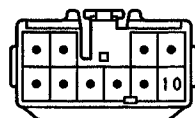
O 5 BLUE



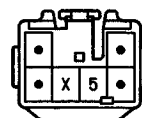
R 2 (C) BLUE



R 3 (A) BLUE



R 4 (B) BLUE



R 5 BLUE

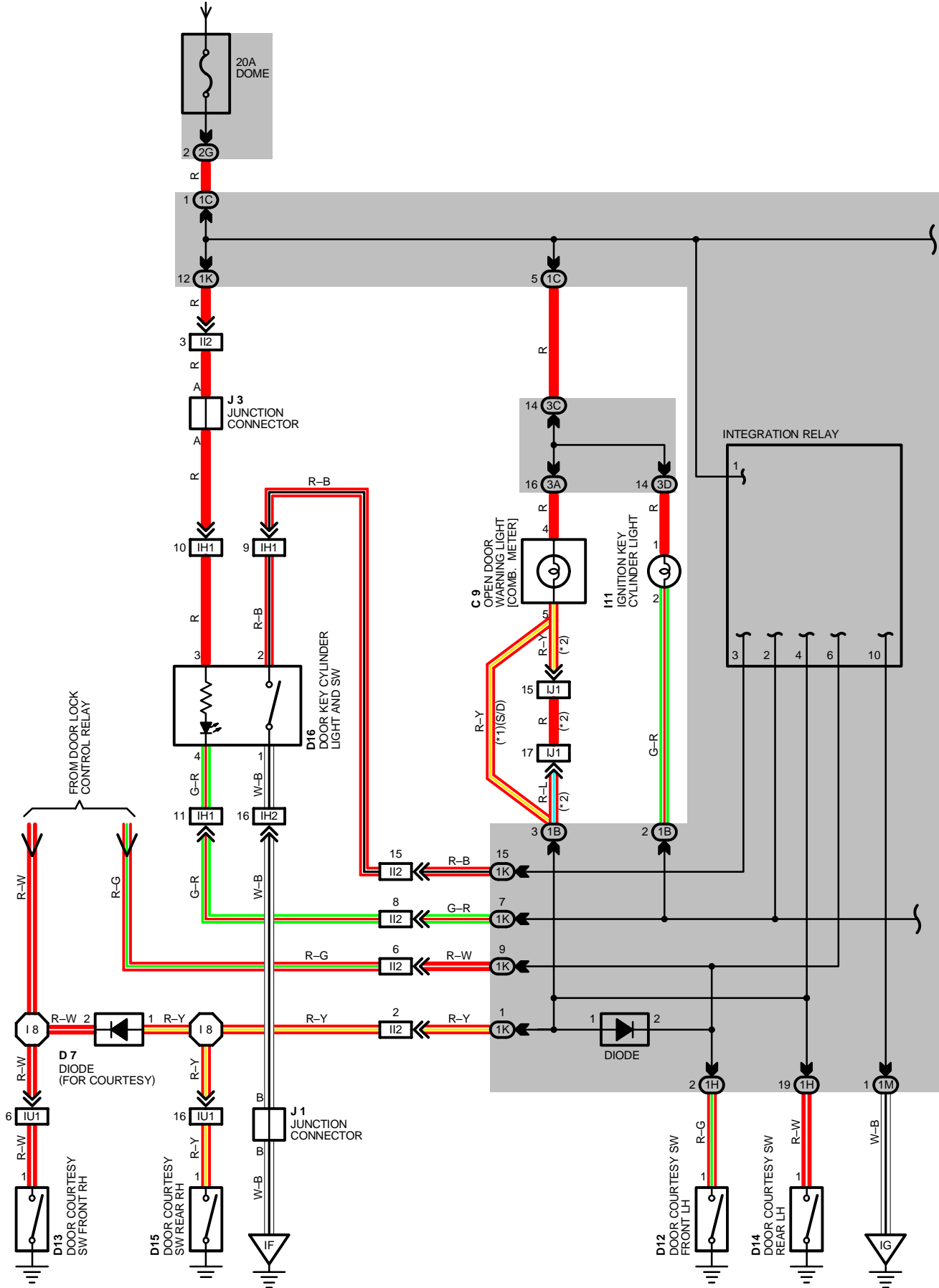


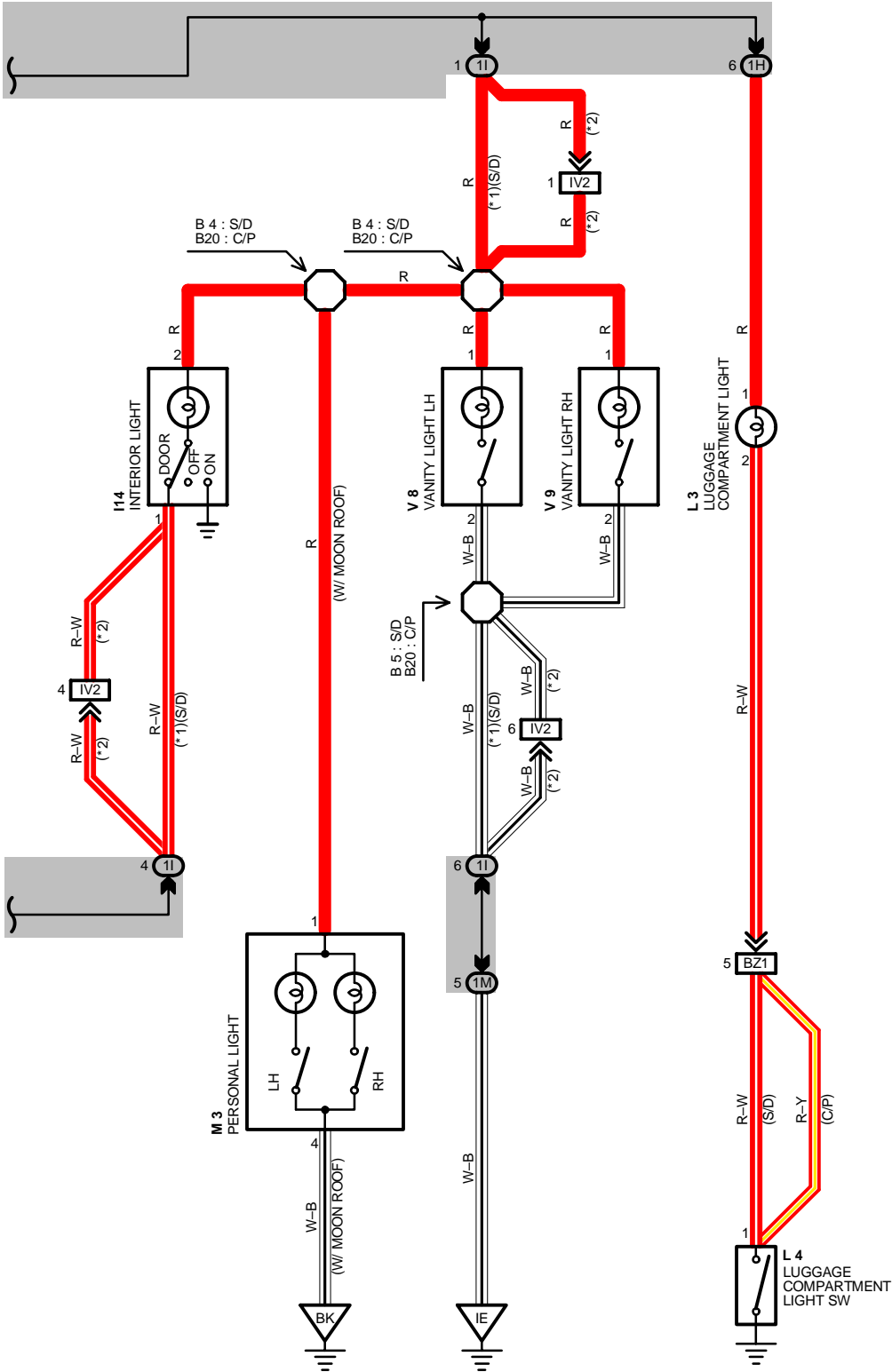
R 7



# INTERIOR LIGHT (S/D, C/P w/ KEY ILLUMINATED ENTRY)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# INTERIOR LIGHT (S/D, C/P w/ KEY ILLUMINATED ENTRY)

\*1 : TMC MADE  
\*2 : TMM MADE

## SERVICE HINTS

### INTEGRATION RELAY

4-GROUND : APPROX. 12 VOLTS WITH DOOR CLOSED  
0 VOLTS WITH EACH DOOR OPEN

### D12, D13, D14, D15 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPEN

### L 4 LUGGAGE COMPARTMENT LIGHT SW

1-GROUND : CLOSED WITH LUGGAGE COMPARTMENT DOOR OPEN

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	D16	34 (S/D), 35 (C/P)	L 4	34 (S/D), 35 (C/P)
D 7	32	I11	33	M 3	34 (S/D), 35 (C/P)
D12	34 (S/D), 35 (C/P)	I14	34 (S/D), 35 (C/P)	V 8	34 (S/D), 35 (C/P)
D13	34 (S/D), 35 (C/P)	J 1	33	V 9	34 (S/D), 35 (C/P)
D14	34 (S/D), 35 (C/P)	J 3	33		
D15	34 (S/D), 35 (C/P)	L 3	34 (S/D), 35 (C/P)		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1I	20 (*1)	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMC MADE
	20 (*2)	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMM MADE
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
IH2		
I12	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
IV2	44	ROOF WIRE AND COWL WIRE MADE IN USA
BZ1	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	

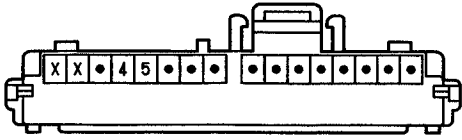
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IF	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH
BK	46 (S/D)	ROOF LEFT
	48 (C/P)	

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 8	44	INSTRUMENT PANEL WIRE	B 5	46 (S/D)	ROOF WIRE
B 4	46 (S/D)	ROOF WIRE	B20	48 (C/P)	

C 9



D 7 BLACK



D12, D13, D14, D15



D16 BLACK



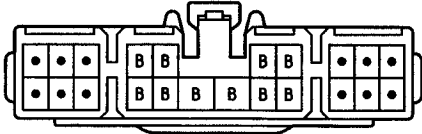
I11 BLUE



I14

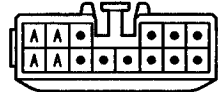


J 1



(HINT:SEE PAGE 7)

J 3



(HINT:SEE PAGE 7)

L 3



L 4 GRAY



M 3

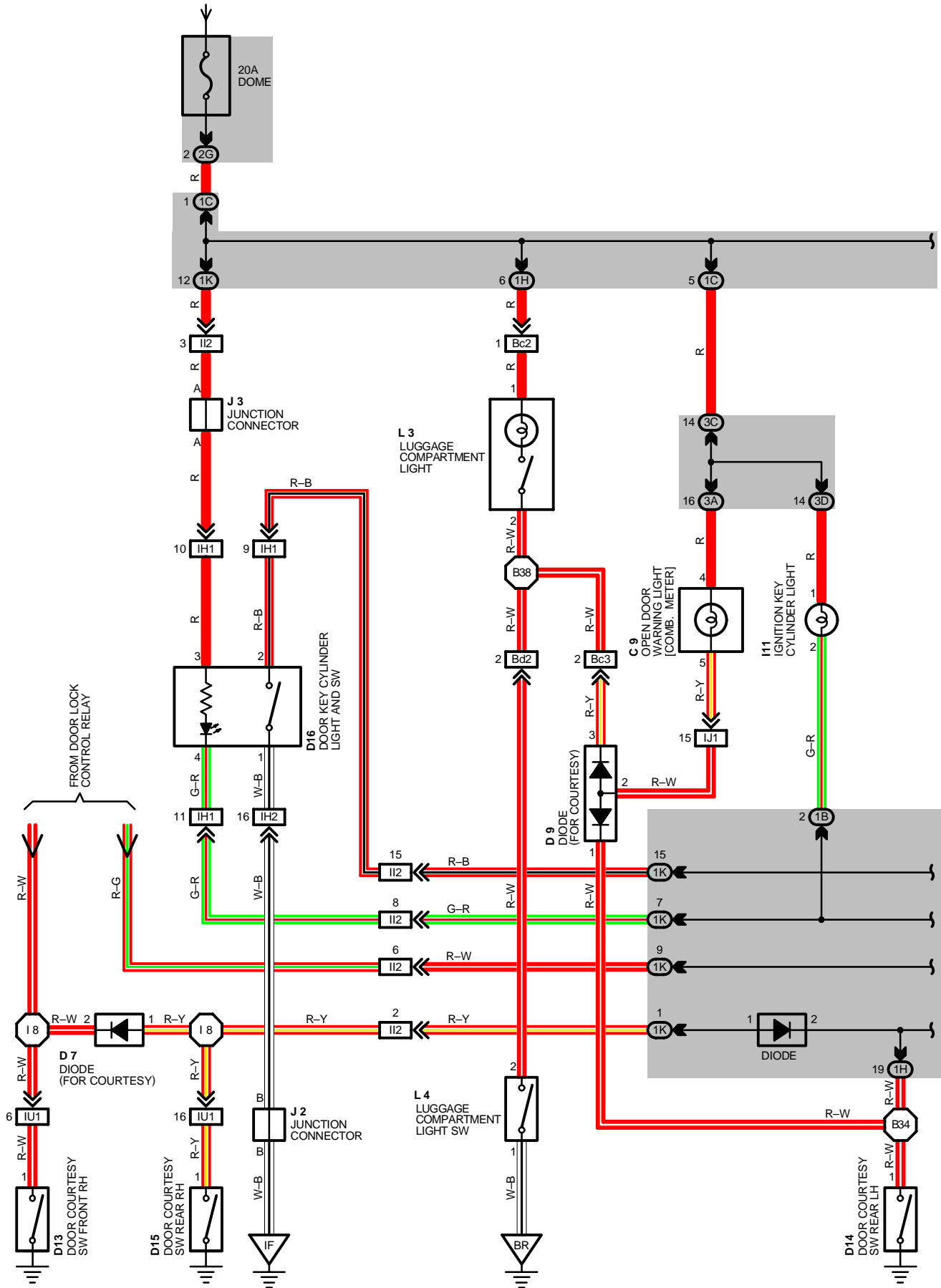


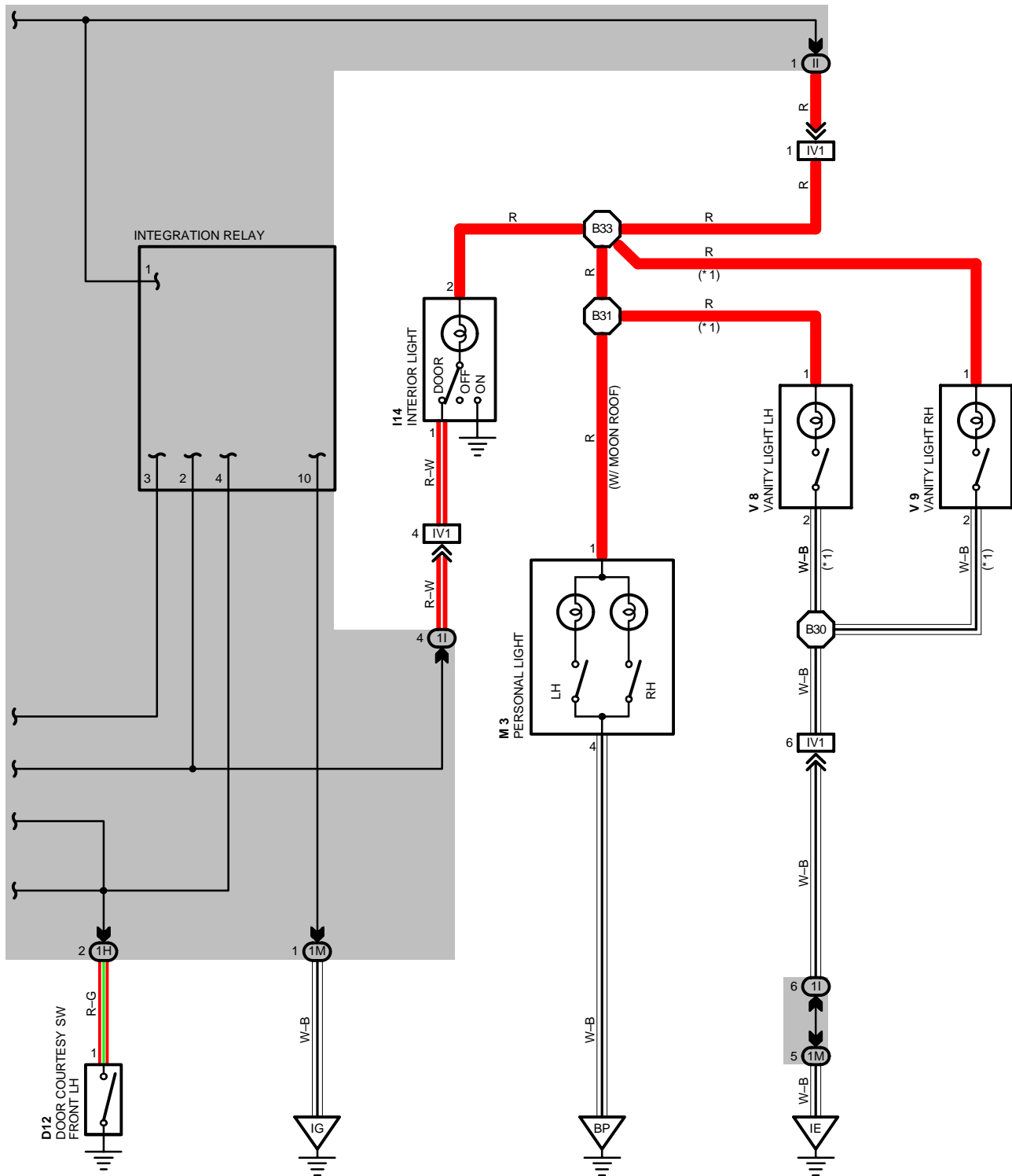
V 8, V 9



# INTERIOR LIGHT (W/G w/ KEY ILLUMINATED ENTRY)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# INTERIOR LIGHT (W/G w/ KEY ILLUMINATED ENTRY)

## SERVICE HINTS

### INTEGRATION RELAY

4-GROUND : APPROX. 12 VOLTS WITH DOOR CLOSED  
0 VOLTS WITH EACH DOOR OPEN

### D12, D13, D14, D15 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPEN

### L 4 LUGGAGE COMPARTMENT LIGHT SW

2-1 : CLOSED WITH LUGGAGE COMPARTMENT DOOR OPEN

## : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	D15	36 (W/G)	L 3	36 (W/G)
D 7	32	D16	36 (W/G)	L 4	36 (W/G)
D 9	36	I11	33	M 3	36 (W/G)
D12	36 (W/G)	I14	36 (W/G)	V 8	36 (W/G)
D13	36 (W/G)	J 2	33	V 9	36 (W/G)
D14	36 (W/G)	J 3	33		

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1I	20	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMC MADE
	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMM MADE
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
IH2		
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IT1	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IT2		
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
IV1	44	ROOF WIRE AND COWL WIRE
Bc2	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bc3		
Bd2	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

## : GROUND POINTS

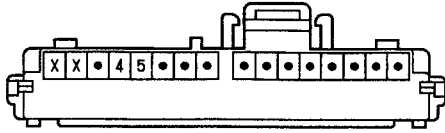
CODE	SEE PAGE	GROUND POINTS LOCATION
IE	42	LEFT KICK PANEL
IF		
IG	42	INSTRUMENT PANEL BRACE LH
BP	50 (W/G)	BACK PANEL CENTER
BR	50 (W/G)	BACK DOOR CENTER

## : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 8	44	INSTRUMENT PANEL WIRE	B33	50 (W/G)	ROOF WIRE
B30	50 (W/G)	ROOF WIRE	B39	50 (W/G)	ROOF WIRE NO. 1 WIRE
B31					



C 9



D 7 BLACK



D 9 BLACK



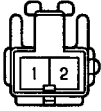
D12, D13, D14, D15



D16 BLACK



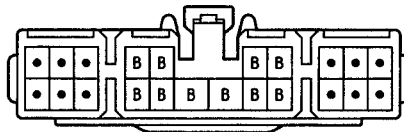
I11 BLUE



I14

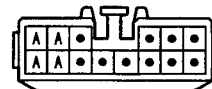


J 2



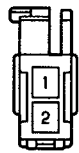
(HINT:SEE PAGE 7)

J 3

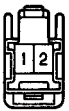


(HINT:SEE PAGE 7)

L 3



L 4 GRAY



M 3



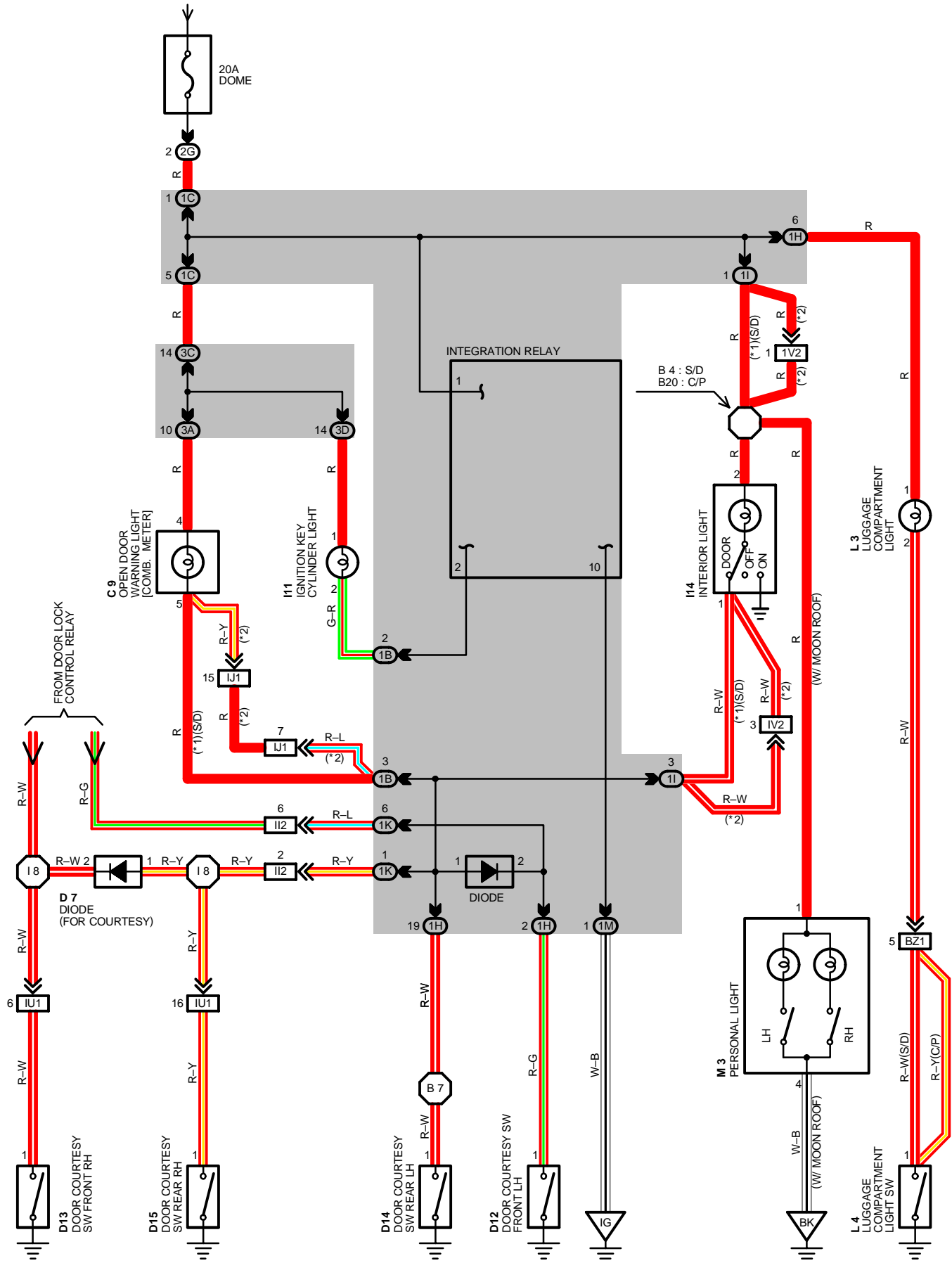
V 8, V 9



# INTERIOR LIGHT (S/D, C/P w/o KEY ILLUMINATED ENTRY)

\*1 : TMC MADE  
\*2 : TMM MADE

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



### SERVICE HINTS

#### INTEGRATION RELAY

6-GROUND : APPROX. 12 VOLTS WITH DOOR CLOSED  
0 VOLTS WITH EACH DOOR OPEN

#### D12, D13, D14, D15 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPEN

#### L 4 LUGGAGE COMPARTMENT LIGHT SW

1-GROUND : CLOSED WITH LUGGAGE COMPARTMENT DOOR OPEN

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	D14	34 (S/D), 35 (C/P)	J 3	33
D 7	32	D15	34 (S/D), 35 (C/P)	L 3	34 (S/D), 35 (C/P)
D12	34 (S/D), 35 (C/P)	I11	33	L 4	34 (S/D), 35 (C/P)
D13	34 (S/D), 35 (C/P)	I14	34 (S/D), 35 (C/P)	M 3	34 (S/D), 35 (C/P)

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1I	20 (*1)	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMC MADE
	20 (*2)	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMM MADE
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

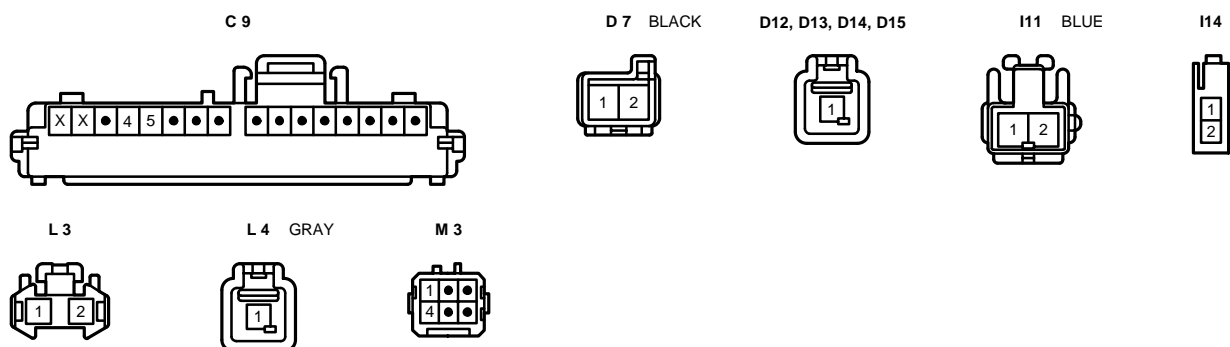
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
I12	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
IV2	44	ROOF WIRE AND COWL WIRE MADE IN USA
BZ1	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	

### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IG	42	INSTRUMENT PANEL BRACE LH
BK	46 (S/D)	ROOF LEFT
	48 (C/P)	

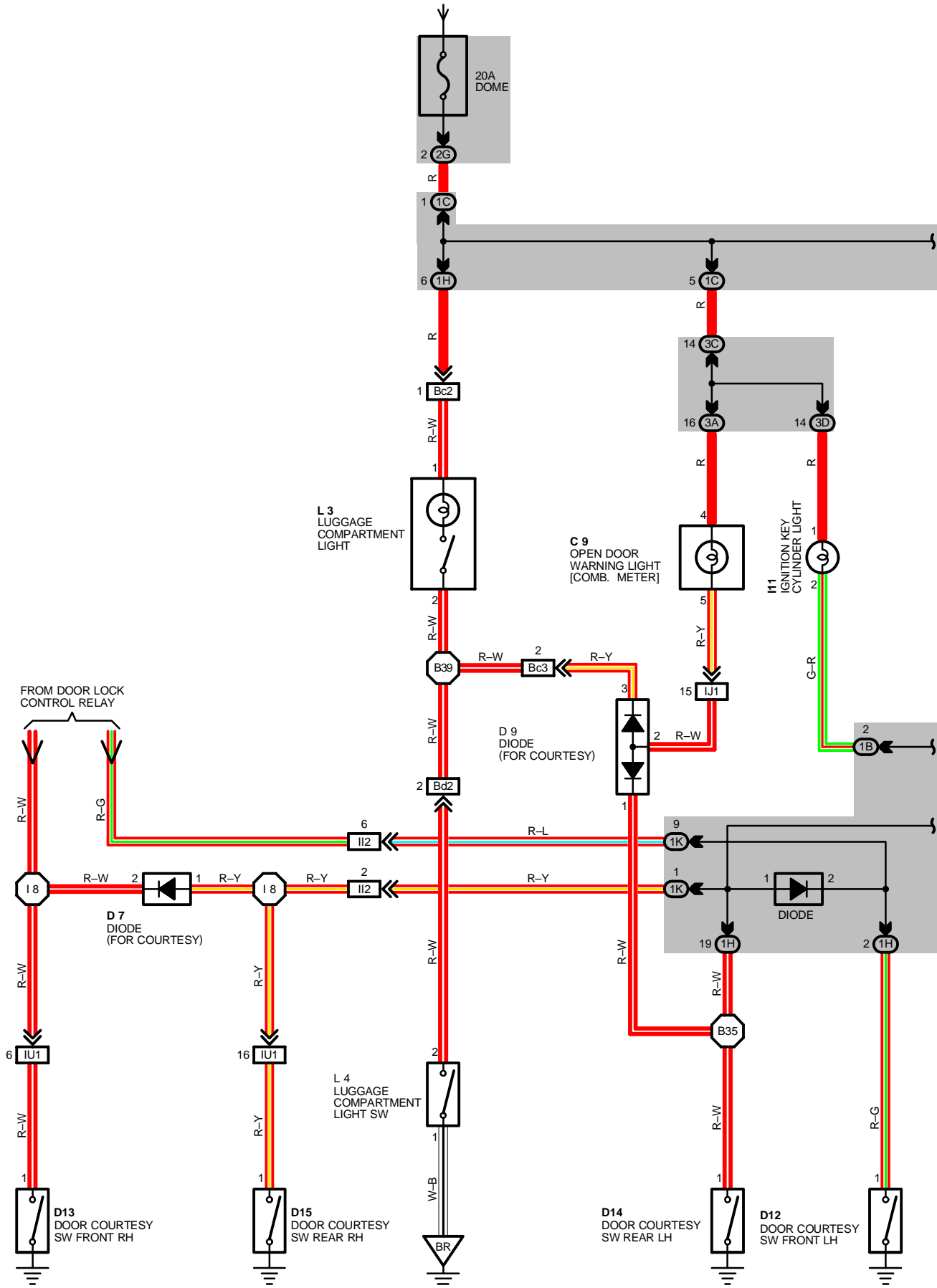
### ○ : SPLICE POINTS

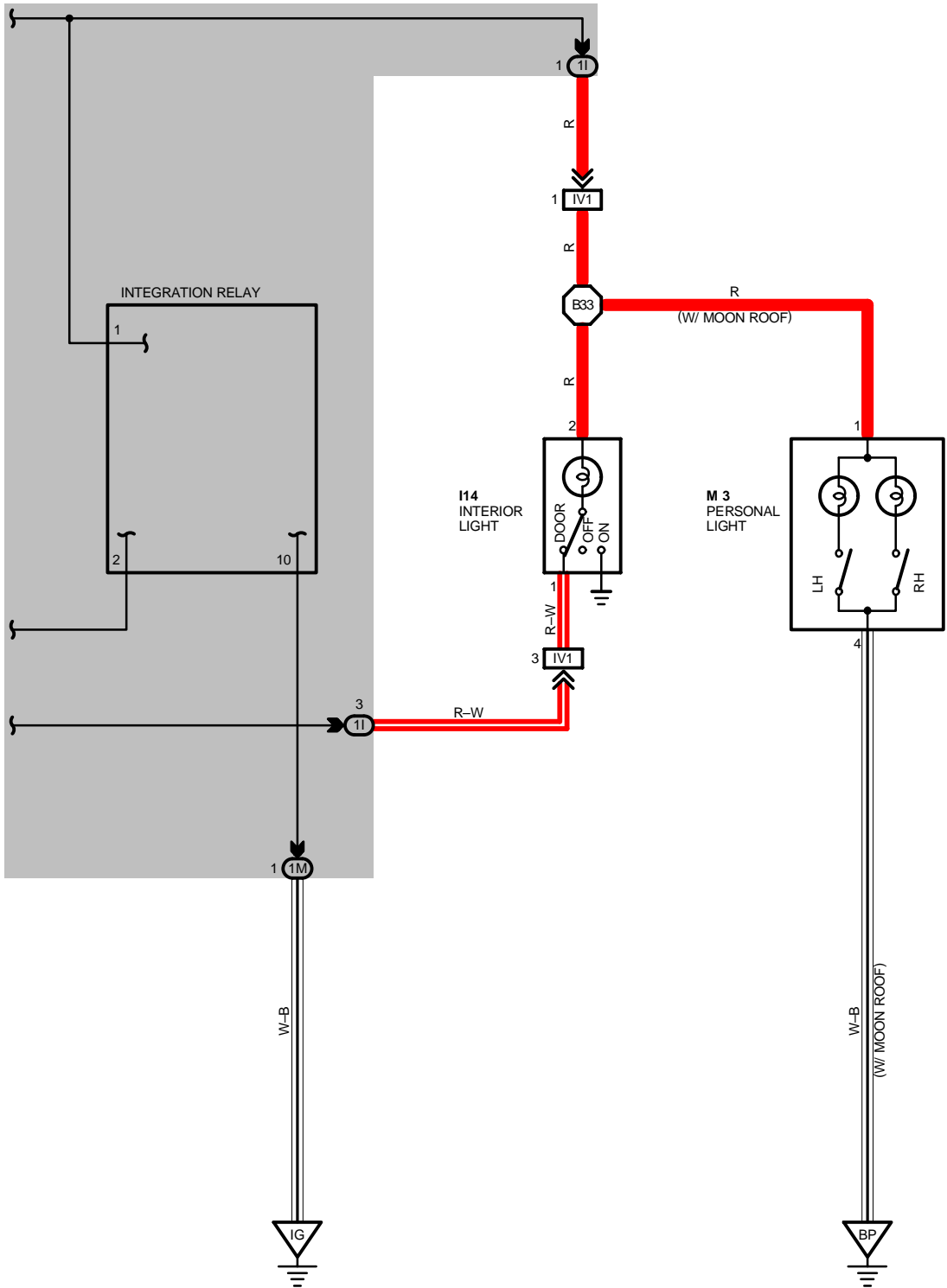
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 8	44	INSTRUMENT PANEL WIRE	B 6	46 (S/D)	FLOOR NO. 1 WIRE
			B 7		
B 4	46 (S/D)	ROOF WIRE	B20	48 (C/P)	ROOF WIRE



# INTERIOR LIGHT (W/G w/o KEY ILLUMINATED ENTRY)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# INTERIOR LIGHT (W/G w/o KEY ILLUMINATED ENTRY)

## SERVICE HINTS

### INTEGRATION RELAY

6-GROUND : APPROX. 12 VOLTS WITH DOOR CLOSED  
0 VOLTS WITH EACH DOOR OPEN

### D12, D13, D14, D15 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPEN

### L 4 LUGGAGE COMPARTMENT LIGHT SW

2-1 : CLOSED WITH LUGGAGE COMPARTMENT DOOR OPEN

## : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	32	D14	36 (W/G)	L 3	36 (W/G)
D 7	32	D15	36 (W/G)	L 4	36 (W/G)
D 9	36 (W/G)	I11	33	M 3	36 (W/G)
D12	36 (W/G)	I14	36 (W/G)		
D13	36 (W/G)	J 3	33		

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1I	20	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMC MADE
	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMM MADE
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2E	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
IH2		
I12	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IT1	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IT2		
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
IV1	44	ROOF WIRE AND COWL WIRE
Bc2	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bc3		
Bd2	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

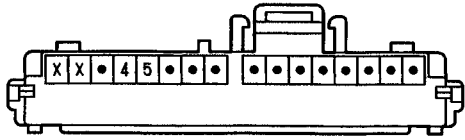
## : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IG	42	INSTRUMENT PANEL BRACE LH
BP	50 (W/G)	BACK PANEL CENTER
BR	50 (W/G)	BACK DOOR CENTER

## : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 8	44	INSTRUMENT PANEL WIRE	B35	50 (W/G)	FLOOR NO. 1 WIRE
B33	50 (W/G)	ROOF WIRE	B39	50 (W/G)	BACK DOOR NO. 1 WIRE

C 9



D 7 BLACK



D 9 BLACK



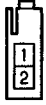
D12, D13,  
D14, D16



I11 BLUE



I14



L 3



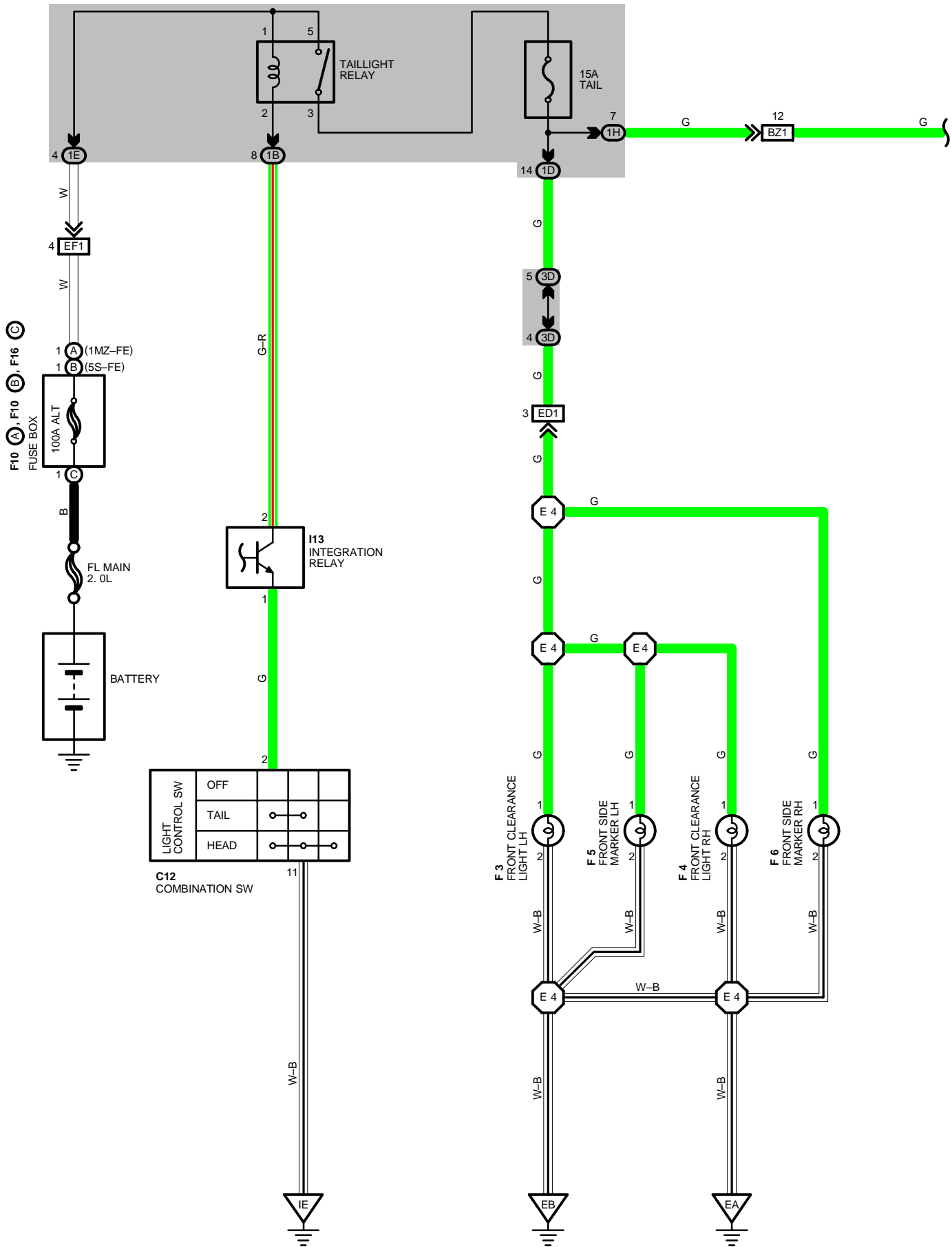
L 4 GRAY



M 3

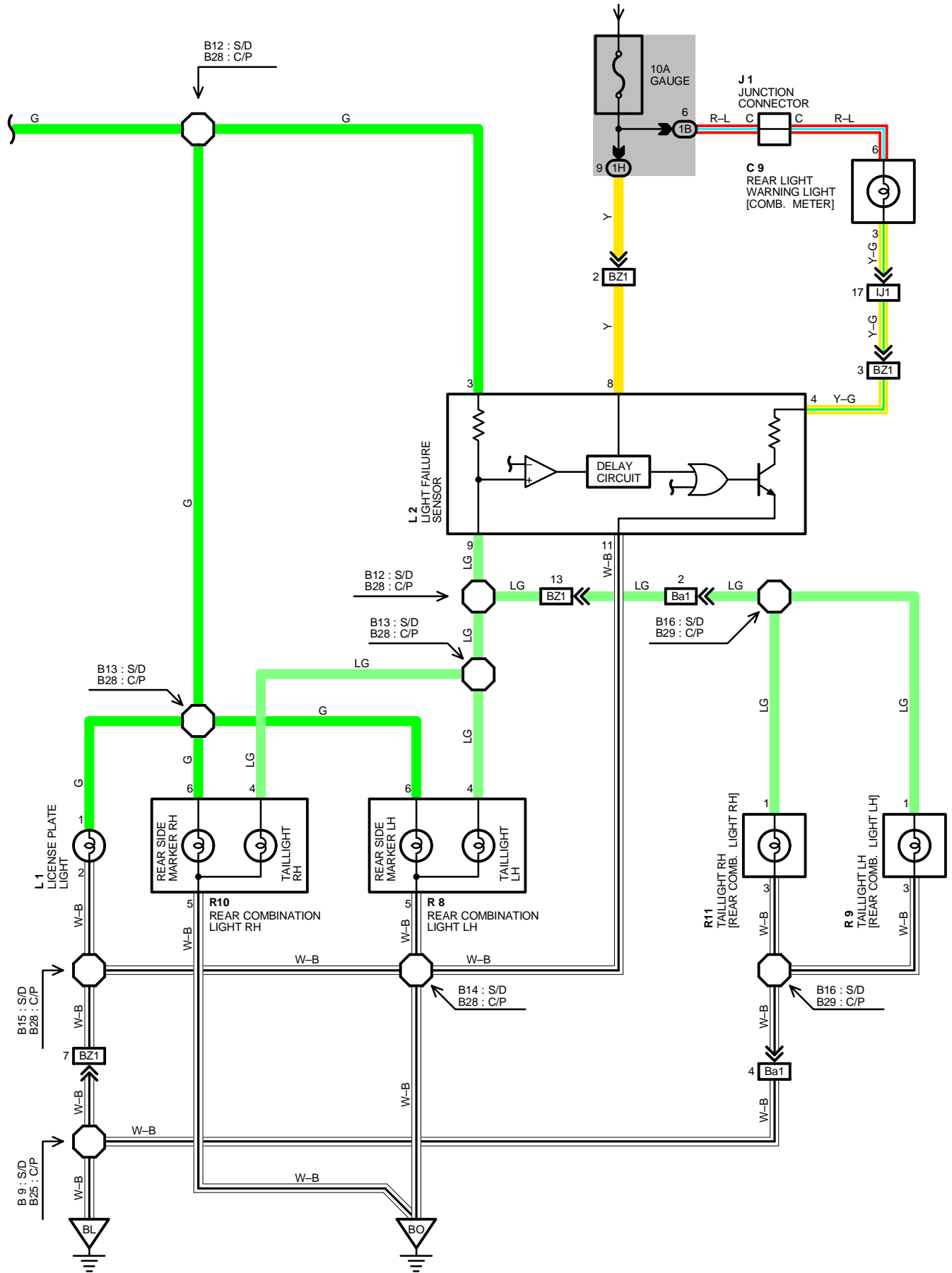


# TAILLIGHT (S/D, C/P)





FROM POWER SOURCE SYSTEM (SEE PAGE 64)



# TAILLIGHT (S/D, C/P)

## SYSTEM OUTLINE

WHEN THE LIGHT CONTROL SW IS TURNED TO **TAIL** OR **HEAD** POSITION, THE CURRENT FLOWS TO **TERMINAL 3** OF THE LIGHT FAILURE SENSOR THROUGH THE **TAIL** FUSE.

WHEN THE IGNITION SW IS TURNED ON, THE 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.

### TAILLIGHT DISCONNECTION WARNING

WHEN THE IGNITION SW ON AND THE LIGHT CONTROL SW TURNED TO **TAIL** OR **HEAD** POSITION, IF THE TAILLIGHT CIRCUIT IS OPEN, THE LIGHT FAILURE SENSOR DETECTS THE FAILURE BY THE CHANGE IN CURRENT FLOWING FROM **TERMINAL 3** OF THE LIGHT FAILURE SENSOR TO **TERMINAL 9** 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 → **TERMINAL 11** → **GROUND** AND TURNS THE REAR LIGHT WARNING LIGHT ON, WHICH REMAINS ON UNTIL THE LIGHT CONTROL SW IS TURNED OFF.

## SERVICE HINTS

### TAILLIGHT RELAY

1-4 : CLOSED WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION

### L 2 LIGHT FAILURE SENSOR

4, 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

3-GROUND : APPROX 12 VOLTS WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION

11-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C 9</b>	32	<b>F 6</b>	28 (1MZ-FE), 30 (5S-FE)	<b>L 1</b>	34 (S/D), 35 (C/P)
<b>C12</b>	32	<b>F10</b>	A 28 (1MZ-FE), 30 (5S-FE)	<b>L 2</b>	34 (S/D), 35 (C/P)
<b>D 4</b>	32		B 28 (1MZ-FE), 30 (5S-FE)	<b>R 8</b>	34 (S/D), 35 (C/P)
<b>F 3</b>	28 (1MZ-FE), 30 (5S-FE)	<b>F16</b>	C 28 (1MZ-FE), 30 (5S-FE)	<b>R 9</b>	34 (S/D), 35 (C/P)
<b>F 4</b>	28 (1MZ-FE), 30 (5S-FE)		<b>I13</b>	33	<b>R10</b>
<b>F 5</b>	28 (1MZ-FE), 30 (5S-FE)	<b>J 1</b>	33	<b>R11</b>	34 (S/D), 35 (C/P)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1B</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1D</b>		
<b>1E</b>		
<b>1H</b>	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>3D</b>	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>ED1</b>	38 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
<b>EF1</b>	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	
<b>IJ1</b>	42	FLOOR NO. 1 WIRE AND COWL WIRE
<b>BZ1</b>	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
<b>Ba1</b>	46 (S/D)	FLOOR NO. 1 WIRE AND LUGGAGE ROOM NO. 2 WIRE
	46 (S/D)	

## ▽ : GROUND POINTS

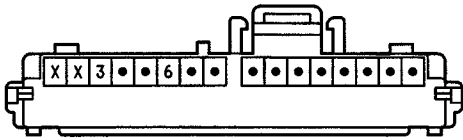
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>EA</b>	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	
<b>EB</b>	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
<b>IE</b>	42	LEFT KICK PANEL
<b>BL</b>	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
<b>BQ</b>	50 (W/G)	LOWER BACK PANEL CENTER



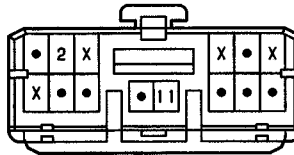
**: SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 4	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	B15	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE
	40 (5S-FE)		B16	46 (S/D)	LUGGAGE ROOM NO. 2 WIRE
B 9	46 (S/D)	FLOOR NO. 1 WIRE	B25	48 (C/P)	FLOOR NO. 1 WIRE
B12	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE	B28	48 (C/P)	LUGGAGE ROOM NO. 1 WIRE
B13			B29	48 (C/P)	LUGGAGE ROOM NO. 2 WIRE
B14					

C 9



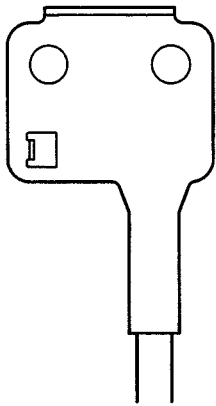
C12 BLACK



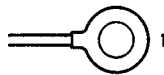
F 3, F 4, F 5, F 6 GRAY



(1MZ-FE) F10 (A)



(5S-FE) F10 (B)



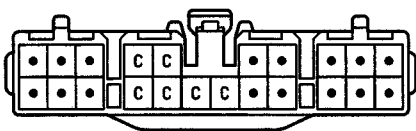
F16 (C)



I13

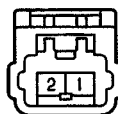


J 1 DARK GRAY

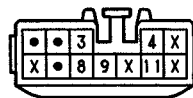


(HINT:SEE PAGE 7)

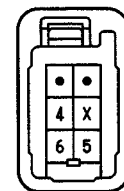
L 1



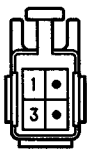
L 2



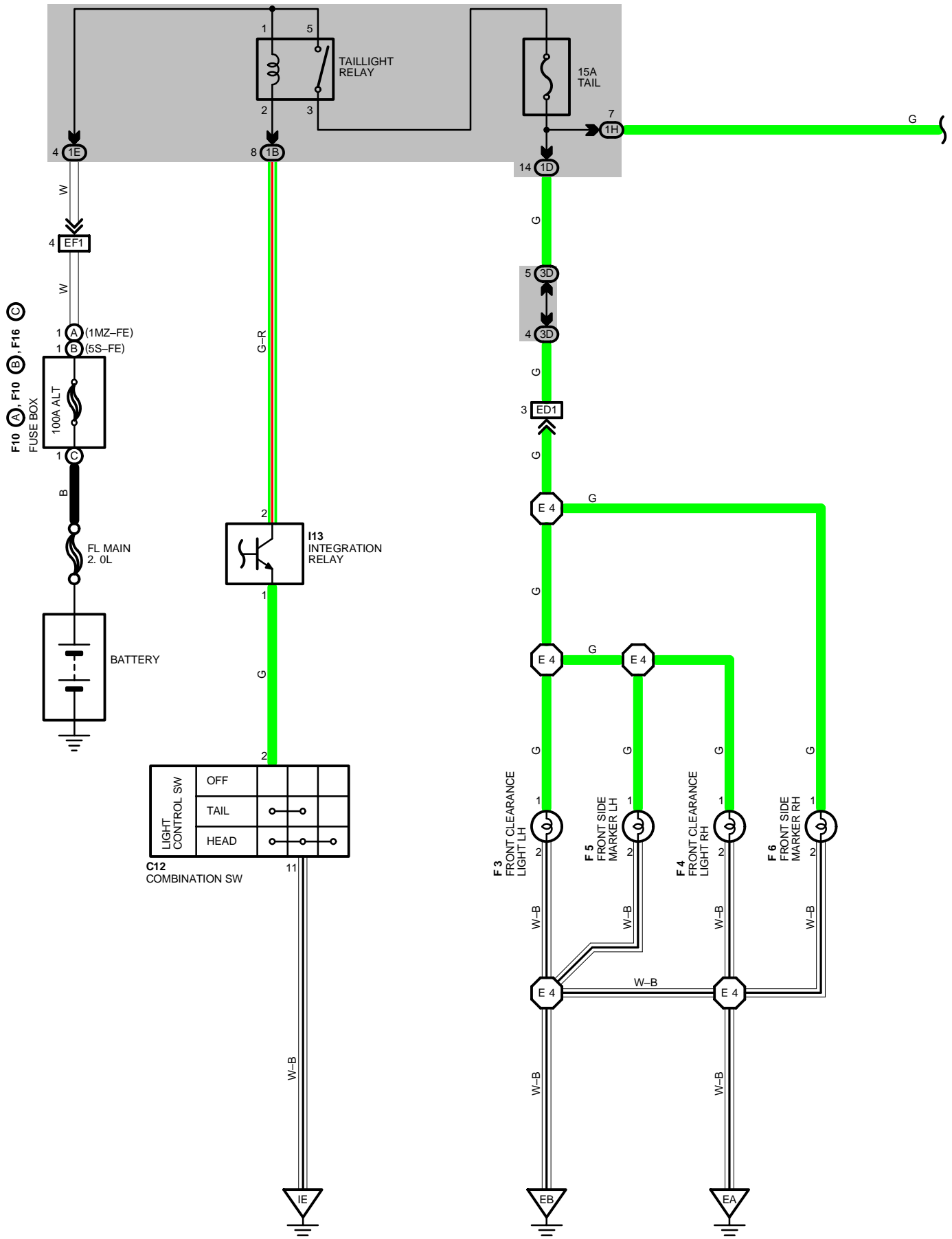
R 8, R10



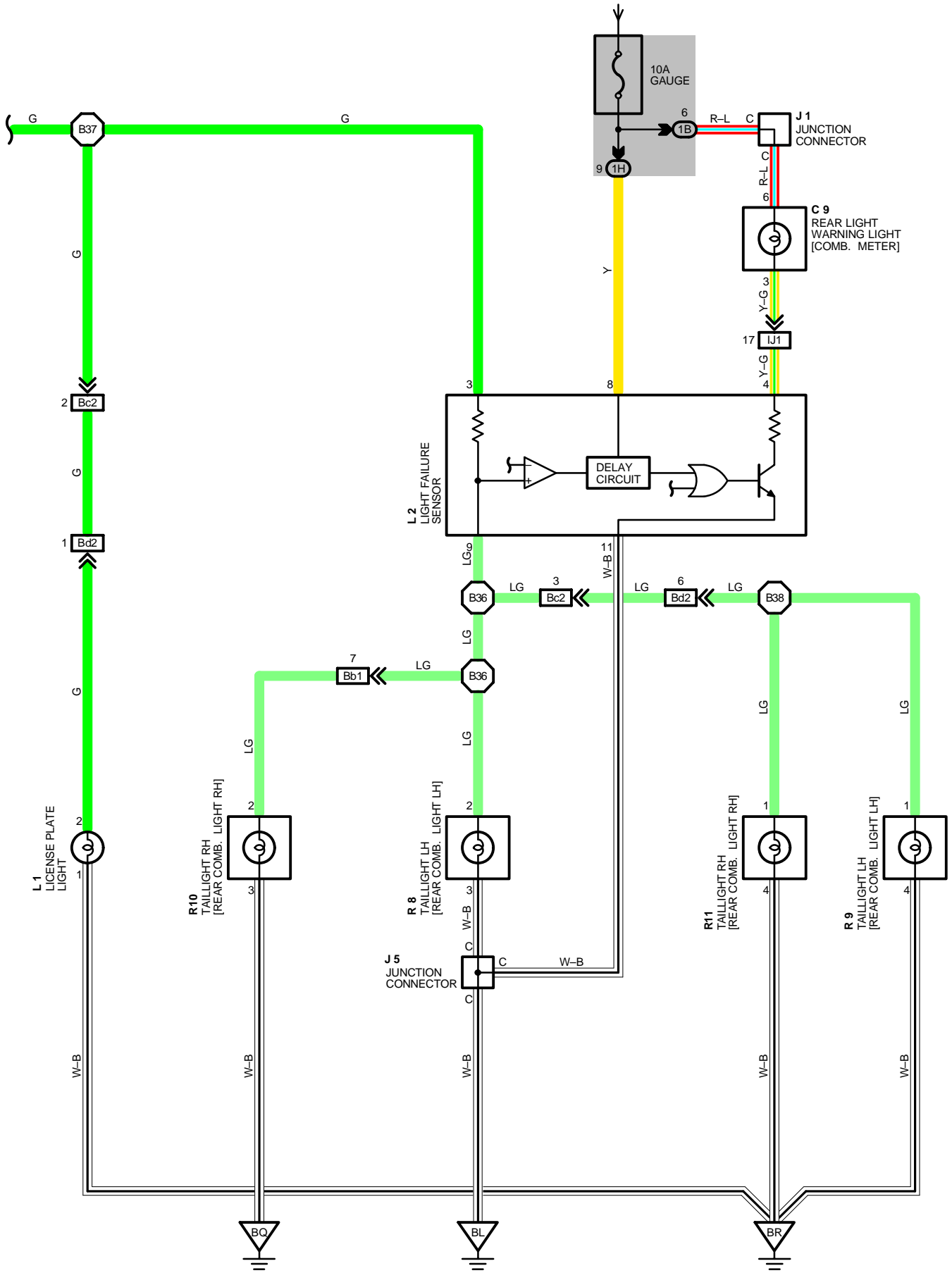
R 9, R11



# TAILLIGHT (W/G)



FROM POWER SOURCE SYSTEM (SEE PAGE 64)



# TAILLIGHT (W/G)

## SYSTEM OUTLINE

WHEN THE LIGHT CONTROL SW IS TURNED TO **TAIL** OR **HEAD** POSITION, THE CURRENT FLOWS TO **TERMINAL 3** OF THE LIGHT FAILURE SENSOR THROUGH THE **TAIL** FUSE.

WHEN THE IGNITION SW IS TURNED ON, THE 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.

### TAILLIGHT DISCONNECTION WARNING

WITH THE IGNITION SW ON AND THE LIGHT CONTROL SW TURNED TO **TAIL** OR **HEAD** POSITION, IF THE TAILLIGHT CIRCUIT IS OPEN, THE LIGHT FAILURE SENSOR DETECTS THE FAILURE BY THE CHANGE IN CURRENT FLOWING FROM **TERMINAL 3** OF THE LIGHT FAILURE SENSOR TO **TERMINAL 9** 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 → **TERMINAL 11** → **GROUND** AND TURNS THE REAR LIGHT WARNING LIGHT ON, WHICH REMAINS ON UNTIL THE LIGHT CONTROL SW IS TURNED OFF.

## SERVICE HINTS

### TAILLIGHT RELAY

3-5 : CLOSED WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION

### L 2 LIGHT FAILURE SENSOR

4, 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

3-GROUND : APPROX 12 VOLTS WITH LIGHT CONTROL SW AT **TAIL** OR **HEAD** POSITION

11-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C 9</b>	32	<b>F10</b>	A 28 (1MZ-FE), 30 (5S-FE)	<b>L 1</b>	36 (W/G)
<b>C12</b>	32		B 28 (1MZ-FE), 30 (5S-FE)	<b>L 2</b>	36 (W/G)
<b>F 3</b>	28 (1MZ-FE), 30 (5S-FE)	<b>F16</b>	C 28 (1MZ-FE), 30 (5S-FE)	<b>R 8</b>	36 (W/G)
<b>F 4</b>	28 (1MZ-FE), 30 (5S-FE)		<b>I13</b>	33	<b>R 9</b>
<b>F 5</b>	28 (1MZ-FE), 30 (5S-FE)	<b>J 1</b>	33	<b>R10</b>	36 (W/G)
<b>F 6</b>	28 (1MZ-FE), 30 (5S-FE)	<b>J 5</b>	36 (W/G)	<b>R11</b>	36 (W/G)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1B</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1D</b>		
<b>1E</b>		
<b>1H</b>	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>3D</b>	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>ED1</b>	38 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
<b>EF1</b>	38 (1MZ-FE)	ENGINE WIRE AND COWL WIRE
	40 (5S-FE)	
<b>IJ1</b>	42	FLOOR NO. 1 WIRE AND COWL WIRE
<b>Bb1</b>	50 (W/G)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
<b>Bc2</b>	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
<b>Bd2</b>	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

## ▽ : GROUND POINTS

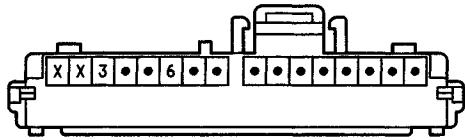
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>EA</b>	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	
<b>EB</b>	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
<b>IE</b>	42	LEFT KICK PANEL
<b>BL</b>	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
<b>BQ</b>	50 (W/G)	LOWER BACK PANEL CENTER
<b>BR</b>	50 (W/G)	BACK DOOR CENTER



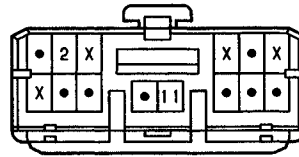
**: SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 4	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	B37	50 (W/G)	FLOOR NO. 1 WIRE
	40 (5S-FE)		B38	50 (W/G)	BACK DOOR NO. 2 WIRE
B36	50 (W/G)	FLOOR NO. 1 WIRE			

**C 9**



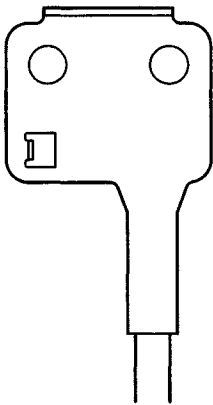
**C12 BLACK**



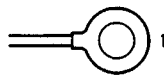
**F 3, F 4, F 5, F 6 GRAY**



**(1MZ-FE) F10 (A)**



**(5S-FE) F10 (B)**



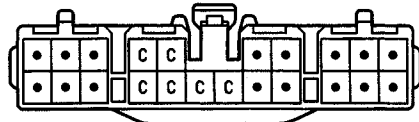
**F16 (C)**



**I13**

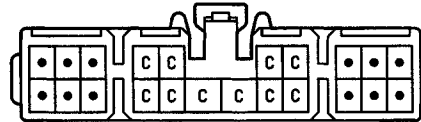


**J 1 DARK GRAY**



(HINT:SEE PAGE 7)

**J 5**

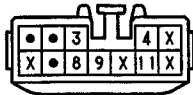


(HINT:SEE PAGE 7)

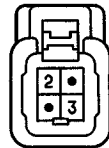
**L 1**



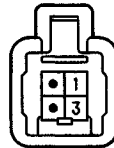
**L 2**



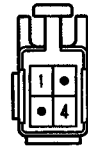
**R 8**



**R10**

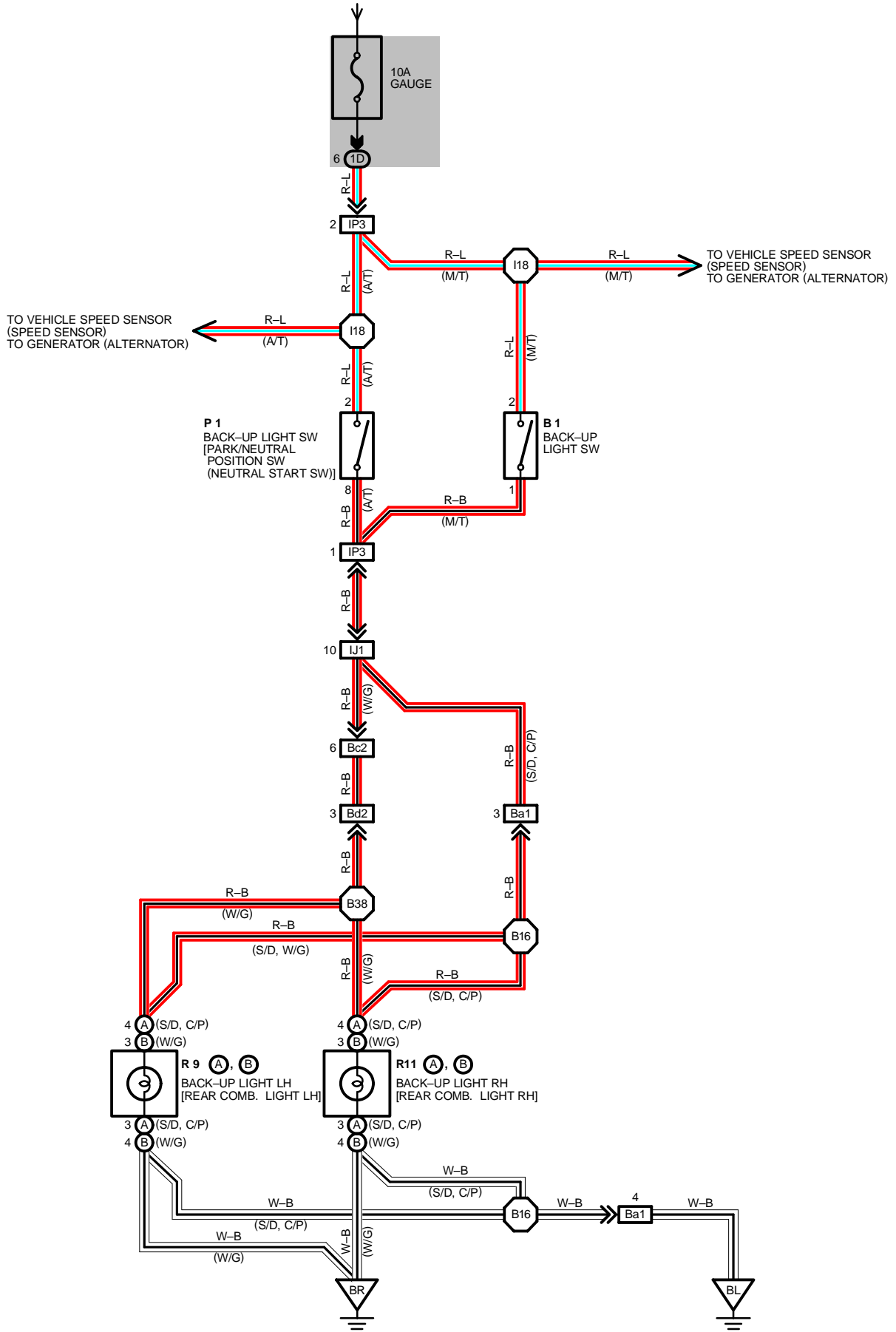


**R 9, R11**



# BACK-UP LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





## SERVICE HINTS

### B 1 BACK-UP LIGHT SW

2-1 : CLOSED WITH SHIFT LEVER IN R POSITION

### P 1 BACK-UP LIGHT SW [PARK/NEUTRAL POSITION SW (NEUTRAL START SW)]

6-5 : CLOSED WITH SHIFT LEVER IN R POSITION

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B 1	30	R 9	34 (S/D), 35 (C/P), 36 (W/G)		
P 1	29 (1MZ-FE), 31 (5S-FE)	R11	34 (S/D), 35 (C/P), 36 (W/G)		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1D	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

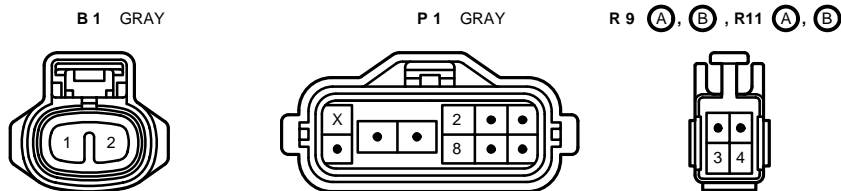
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IP3	44	ENGINE WIRE AND COWL WIRE
Ba1	46 (S/D) 48 (C/P)	FLOOR NO. 1 WIRE AND LUGGAGE ROOM NO. 2 WIRE
Bc2	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bd2	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
BR	50 (W/G)	BACK DOOR CENTER

## ○ : SPLICE POINTS

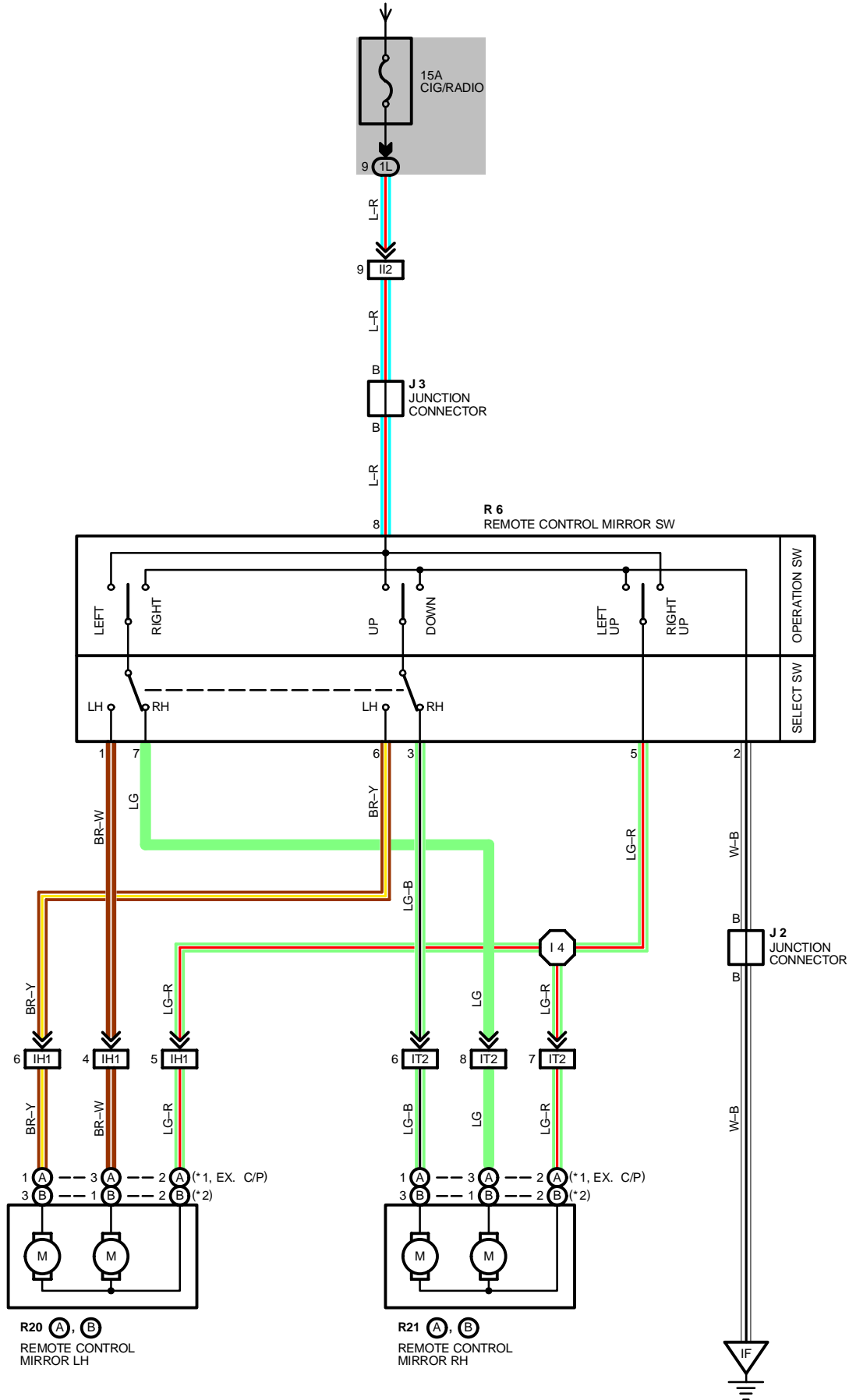
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I18	44	ENGINE WIRE	B38	50 (W/G)	BACK DOOR NO. 2 WIRE
B16	46 (S/D)	LUGGAGE ROOM NO. 2 WIRE			



# REMOTE CONTROL MIRROR

\*1 : TMC MADE  
\*2 : TMM MADE

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### R 6 REMOTE CONTROL MIRROR SW

- 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 5-2 : CONTINUITY WITH OPERATION SW AT **UP** OR **LEFT** POSITION
- 5-8 : CONTINUITY WITH OPERATION SW AT **DOWN** OR **RIGHT** POSITION

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	33	R 6	33	R21	34 (S/D), 35 (C/P), 36 (W/G)
J 3	33	R20	34 (S/D), 35 (C/P), 36 (W/G)		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1L	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

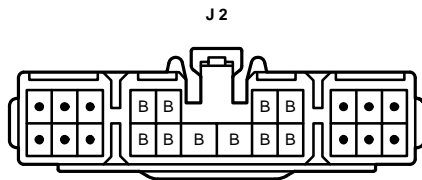
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IT2	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE

### ▽ : GROUND POINTS

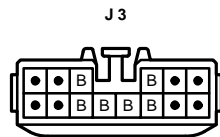
CODE	SEE PAGE	GROUND POINTS LOCATION
IF	42	LEFT KICK PANEL

### ○ : SPLICE POINTS

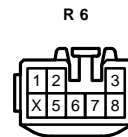
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 4	44	INSTRUMENT PANEL WIRE			



(HINT : SEE PAGE 7)



(HINT : SEE PAGE 7)



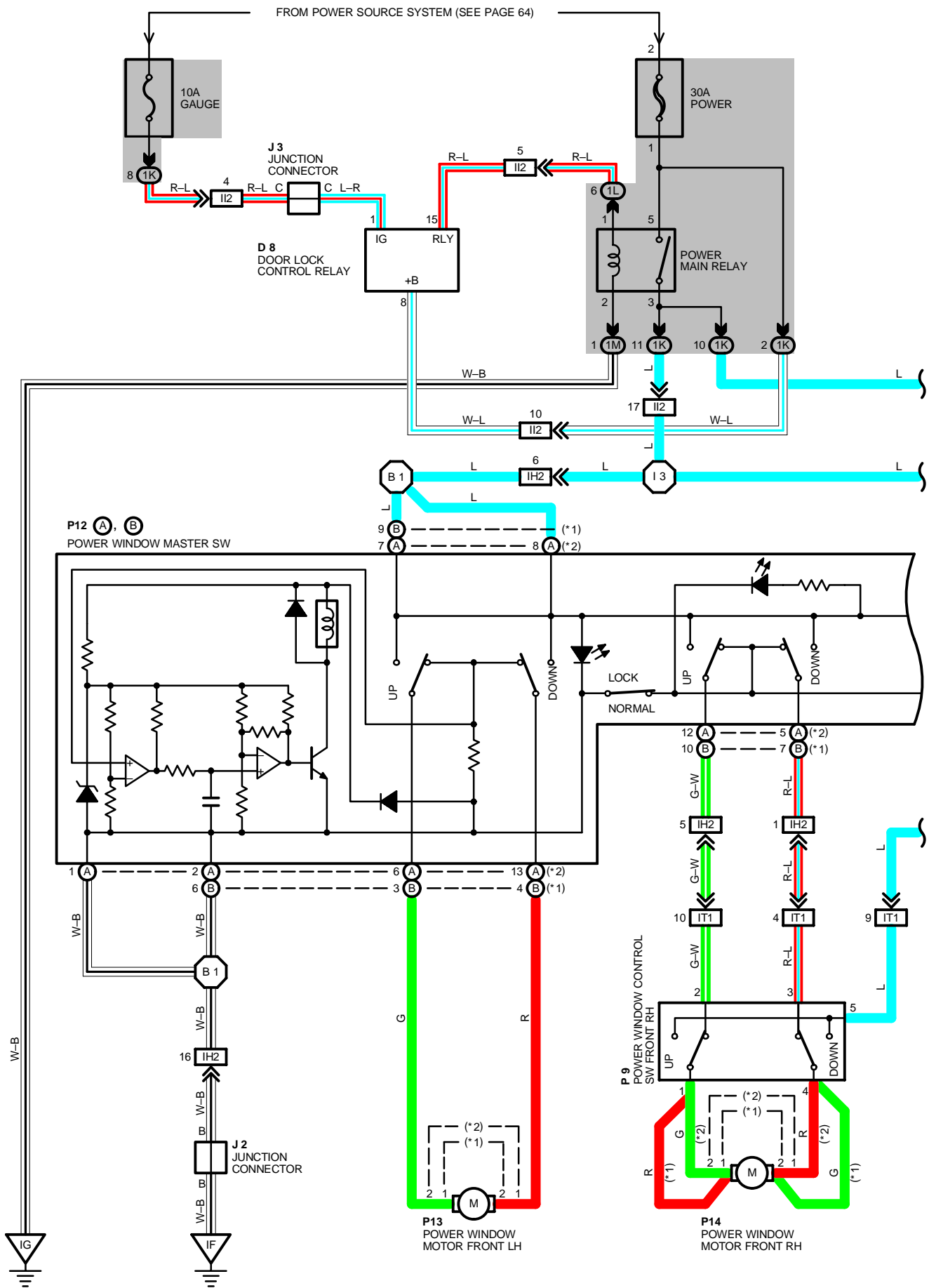
(\* 1, EX. C/P) R20 (A), R21 (A)

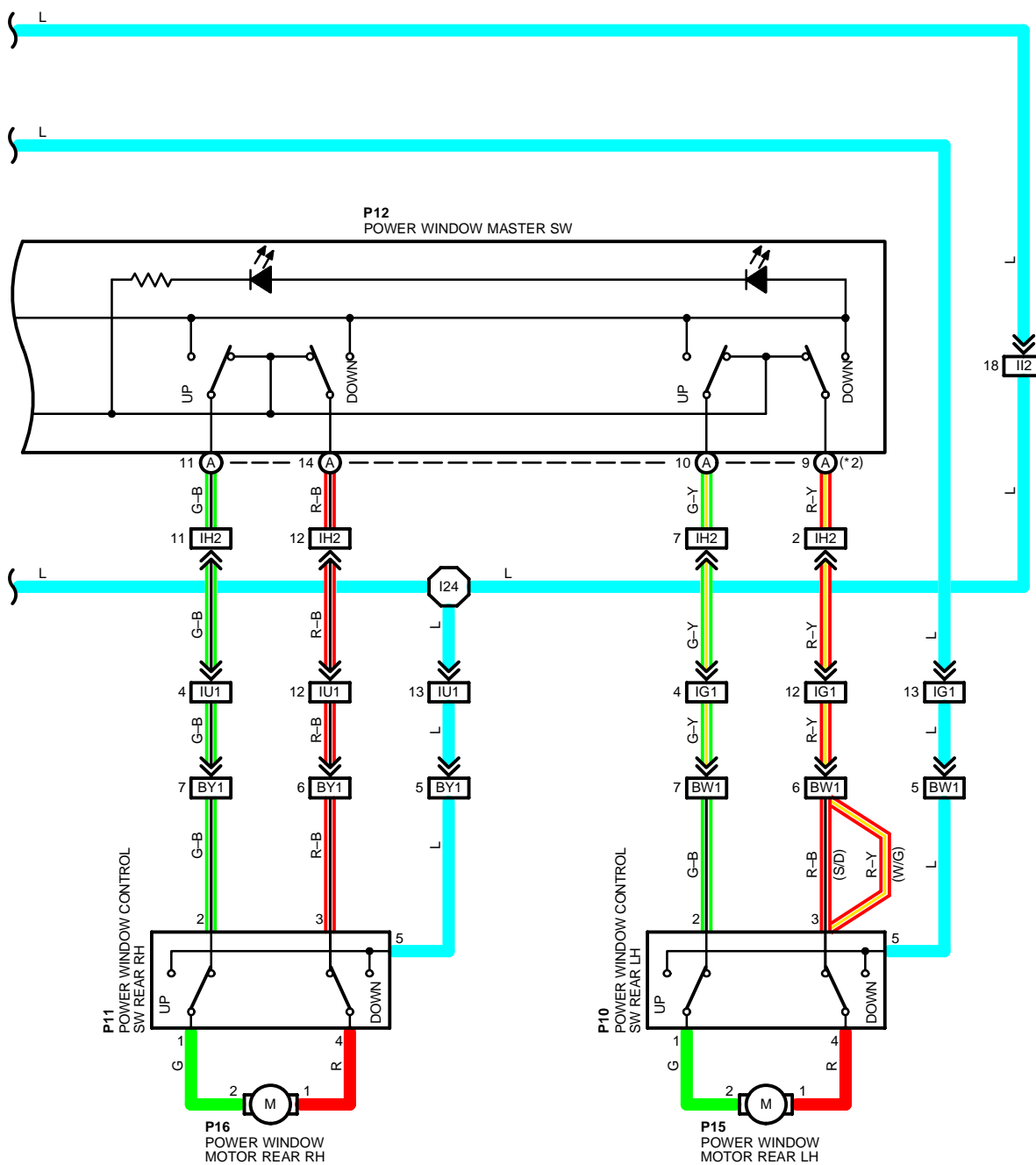


(\* 2) R20 (B), R21 (B)



# POWER WINDOW





# POWER WINDOW

## SYSTEM OUTLINE

WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS THROUGH THE **GAUGE** FUSE TO **TERMINAL 1** OF THE POWER MAIN RELAY → **TERMINAL 2** → TO **GROUND**. THIS ACTIVATES THE RELAY AND THE CURRENT FLOWING TO **TERMINAL 5** OF THE RELAY FROM **POWER** FUSE FLOWS TO **TERMINAL 3** OF THE RELAY → **TERMINAL 7** OR **8** (EX. C/P), **9** (C/P) OF THE POWER WINDOW MASTER SW → TO **TERMINAL 5** OF THE POWER WINDOW SW.

### 1. MANUAL OPERATION (DRIVER'S WINDOW)

WITH THE IGNITION SW TURNED ON AND WITH THE POWER WINDOW MASTER SW (MANUAL SW) IN **UP** POSITION. THE CURRENT FLOWING TO **TERMINAL 7** OR **8** (EX. C/P), **9** (C/P) OF THE POWER WINDOW MASTER SW FLOWS TO **TERMINAL 6** (EX. C/P), **3** (C/P) OF THE MASTER SW → **TERMINAL 2** OF THE POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 13** (EX. C/P), **4** (C/P) OF THE MASTER SW → **TERMINAL 2** OR **1** (EX. C/P), **6** (C/P) → 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 7** OR **8** (EX. C/P), **9** (C/P) OF THE POWER WINDOW MASTER SW TO **TERMINAL 13** (EX. C/P), **4** (C/P) OF THE MASTER SW CAUSES THE FLOW OF CURRENT FROM **TERMINAL 1** OF THE MOTOR → **TERMINAL 2** → **TERMINAL 6** (EX. C/P), **3** (C/P) OF THE MASTER SW → **TERMINAL 2** OR **1** (EX. C/P), **3** (C/P) → TO **GROUND**, FLOWING IN THE OPPOSITE DIRECTION TO MANUAL UP OPERATION AND CAUSING THE MOTOR TO ROTATE IN REVERSE LOWERING THE WINDOW.

### 2. AUTO DOWN OPERATION

WITH THE IGNITION SW ON AND WITH THE AUTO SW OF THE POWER WINDOW MASTER SW IN **DOWN** POSITION, CURRENT FLOWING TO **TERMINAL 7** OR **8** OF THE MASTER SW FLOWS TO **TERMINAL 13** (EX. C/P), **4** (C/P) OF THE MASTER SW → **TERMINAL 1** OF THE POWER WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 6** (EX. C/P), **3** (C/P) OF THE MASTER SW → **TERMINAL 2** (EX. C/P), **6** (C/P) → TO **GROUND**, CAUSING THE MOTOR TO ROTATE TOWARDS THE DOWN SIDE THEN THE SOLENOID IN THE MASTER SW IS ACTIVATED AND IT LOCKS THE AUTO SW BEING PUSHED, CAUSING THE MOTOR TO CONTINUE TO ROTATE IN AUTO DOWN OPERATION. WHEN THE WINDOW HAS COMPLETELY DESENDED, THE CURRENT FLOW BETWEEN **TERMINAL 6** (EX. C/P), **3** (C/P) OF THE MASTER SW AND **TERMINAL 2** (EX. C/P), **6** (C/P) INCREASES. AS A RESULT, THE SOLENOID STOPS OPERATING, THE AUTO SW TURNS OFF AND FLOW FROM **TERMINAL 7** (EX. C/P), **9** (C/P) OF THE MASTER SW TO **TERMINAL 13** (EX. C/P), **4** (C/P) IS CUT OFF, STOPPING THE MOTOR SO THAT AUTO STOP OCCURS.

### 3. STOPPING OF AUTO DOWN AT DRIVER'S WINDOW

WHEN THE MANUAL SW (DRIVER'S) IS PUSHED TO THE UP SIDE DURING AUTO DOWN OPERATION, A GROUND CIRCUIT OPENS IN THE MASTER SW AND CURRENT DOES NOT FLOW FROM **TERMINAL 6** (EX. C/P), **3** (C/P) OF THE MASTER SW → TO **GROUND**, SO THE MOTOR STOPS, CAUSING AUTO DOWN OPERATION TO STOP. IF THE MASTER SW IS PUSHED CONTINUOUSLY, THE MOTOR ROTATES IN THE UP DIRECTION IN MANUAL UP OPERATION.

### 4. MANUAL OPERATION BY POWER WINDOW SW (PASSENGER'S WINDOW)

WITH POWER WINDOW SW (PASSENGER'S) PULLED TO THE UP SIDE, CURRENT FLOWING FROM **TERMINAL 5** OF THE POWER WINDOW SW FLOWS TO **TERMINAL 1** OF THE POWER WINDOW SW → **TERMINAL 2** OF THE POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 4** OF THE POWER WINDOW SW → **TERMINAL 3** → **TERMINAL 5** (EX. C/P), **7** (C/P) OF THE MASTER SW → **TERMINAL 1** OR **2** (EX. C/P), **6** (C/P) → TO **GROUND** AND CAUSES THE POWER WINDOW MOTOR (PASSENGER'S) TO ROTATE IN THE UP DIRECTION. UP OPERATION CONTINUES ONLY WHILE THE POWER WINDOW SW IS PULLED TO THE UP SIDE. WHEN THE WINDOW DESCENDS, THE CURRENT FLOWING TO THE MOTOR FLOWS IN THE OPPOSITE DIRECTION, FROM **TERMINAL 1** TO **TERMINAL 2**, AND THE MOTOR ROTATES IN REVERSE. WHEN THE WINDOW LOCK SW IS PUSHED TO THE LOCK SIDE, THE GROUND CIRCUIT TO THE PASSENGER'S WINDOW BECOMES OPEN. AS A RESULT, EVEN IF OPEN/CLOSE OPERATION OF THE PASSENGER'S WINDOW IS TRIED, THE CURRENT FROM **TERMINAL 1** OR **2** (EX. C/P), **6** (C/P) OF THE POWER WINDOW MASTER SW IS NOT GROUNDED AND THE MOTOR DOES NOT ROTATE, SO THE PASSENGER'S WINDOW CAN NOT BE OPERATED AND WINDOW LOCK OCCURS. FURTHERMORE REAR LH RH WINDOW OPERATE THE SAME AS THE ABOVE CIRCUIT.

### 5. KEY OFF POWER WINDOW OPERATION

WITH IGNITION SW TURNED FROM ON TO OFF DOOR LOCK CONTROL RELAY OPERATES AND CURRENT FLOWS FROM **POWER** FUSE TO **TERMINAL 8** OF THE RELAY → **TERMINAL 15** → **TERMINAL 1** OF POWER MAIN RELAY → **TERMINAL 2** → TO **GROUND** FOR ABOUT **60** SECOND. THE SAME AS NORMAL OPERATION, THE CURRENT FLOWS FROM **POWER** FUSE → **TERMINAL 5** OF THE POWER MAIN RELAY → **TERMINAL 3** → **TERMINAL 7** OR **8** (EX. C/P), **TERMINAL 9** (C/P) OF THE POWER WINDOW MASTER SW AND **TERMINAL 3** OF THE POWER MAIN RELAY → TO **TERMINAL 5** OF THE POWER WINDOW SW. AS A RESULT, FOR ABOUT **60** SECOND AFTER THE IGNITION SW IS TURNED OFF, THE FUNCTIONING OF THIS RELAY MAKES IT POSSIBLE TO RAISE AND LOWER THE POWER WINDOW. ALSO, BY OPENING THE FRONT DOOR (DOOR OPEN DETECTION SW ON) WITHIN ABOUT **60** SECOND AFTER TURNING THE IGNITION SW TO OFF, A SIGNAL IS INPUT TO DOOR LOCK CONTROL RELAY. AS A RESULT, THE RELAY TURNS OFF AND UP AND DOWN MOVEMENT OF THE POWER WINDOW STOPS.

**SERVICE HINTS**

**P12 POWER WINDOW MASTER SW (C/P)**

- 9-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 6-GROUND : ALWAYS CONTINUITY
- 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) UP
- 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) AT **DOWN OR AUTO DOWN** POSITION

**P12 POWER WINDOW MASTER SW (EX. C/P)**

- 7, 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 1, 2-GROUND : ALWAYS CONTINUITY
- 6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) UP
- 13-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) AT **DOWN OR AUTO DOWN** POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D 8	32	P10	34 (S/D), 35 (C/P), 36 (W/G)	P13	34 (S/D), 35 (C/P), 36 (W/G)
J 2	33	P11	34 (S/D), 35 (C/P), 36 (W/G)	P14	34 (S/D), 35 (C/P), 36 (W/G)
J 3	33	P12	A 34 (S/D), 36 (W/G)	P15	34 (S/D), 35 (C/P), 36 (W/G)
P 9	34 (S/D), 35 (C/P), 36 (W/G)		B 35 (C/P)	P16	34 (S/D), 35 (C/P), 36 (W/G)

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1L		
1M		

**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
IH2		
IT1	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
BW1	46 (S/D)	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE
	50 (W/G)	
BY1	46 (S/D)	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE
	50 (W/G)	

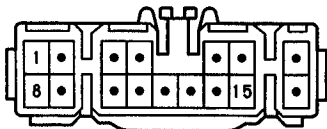
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
IF	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH

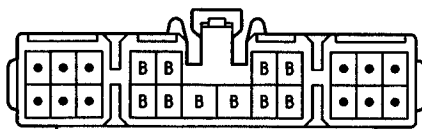
**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 3	44	INSTRUMENT PANEL WIRE	B1	46 (S/D)	FRONT DOOR LH WIRE
I24				50 (W/G)	

D 8 ORANGE

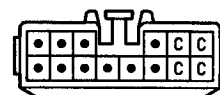


J 2



(HINT:SEE PAGE 7)

J 3

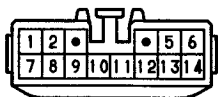


(HINT:SEE PAGE 7)

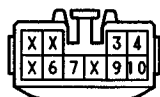
P 9, P10, P11



(\*1) P12 (A)



(\*2) P12 (B)



P13, P14 GRAY

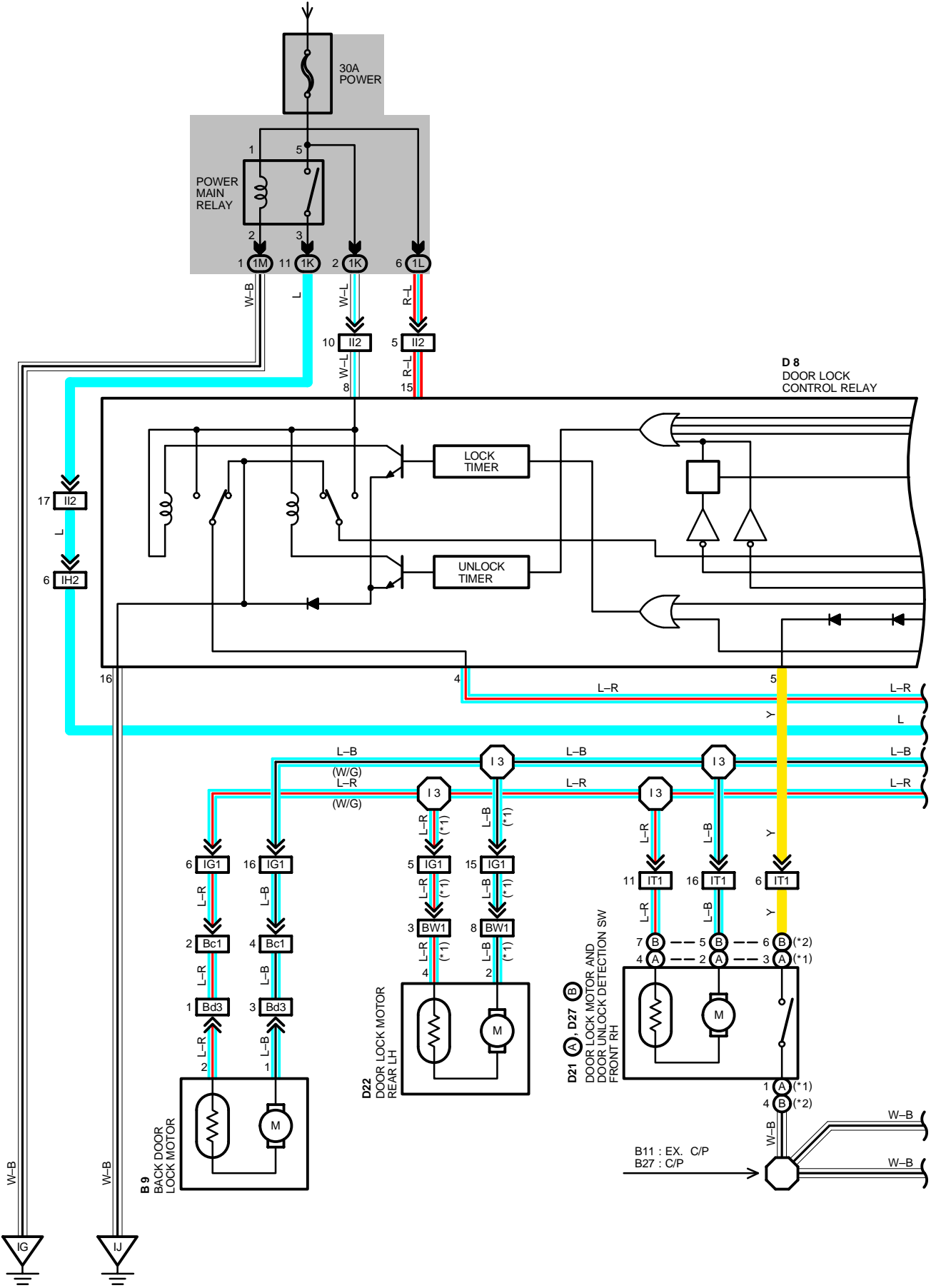


(S/D, W/G) P13, P14, P15, P16



# DOOR LOCK

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

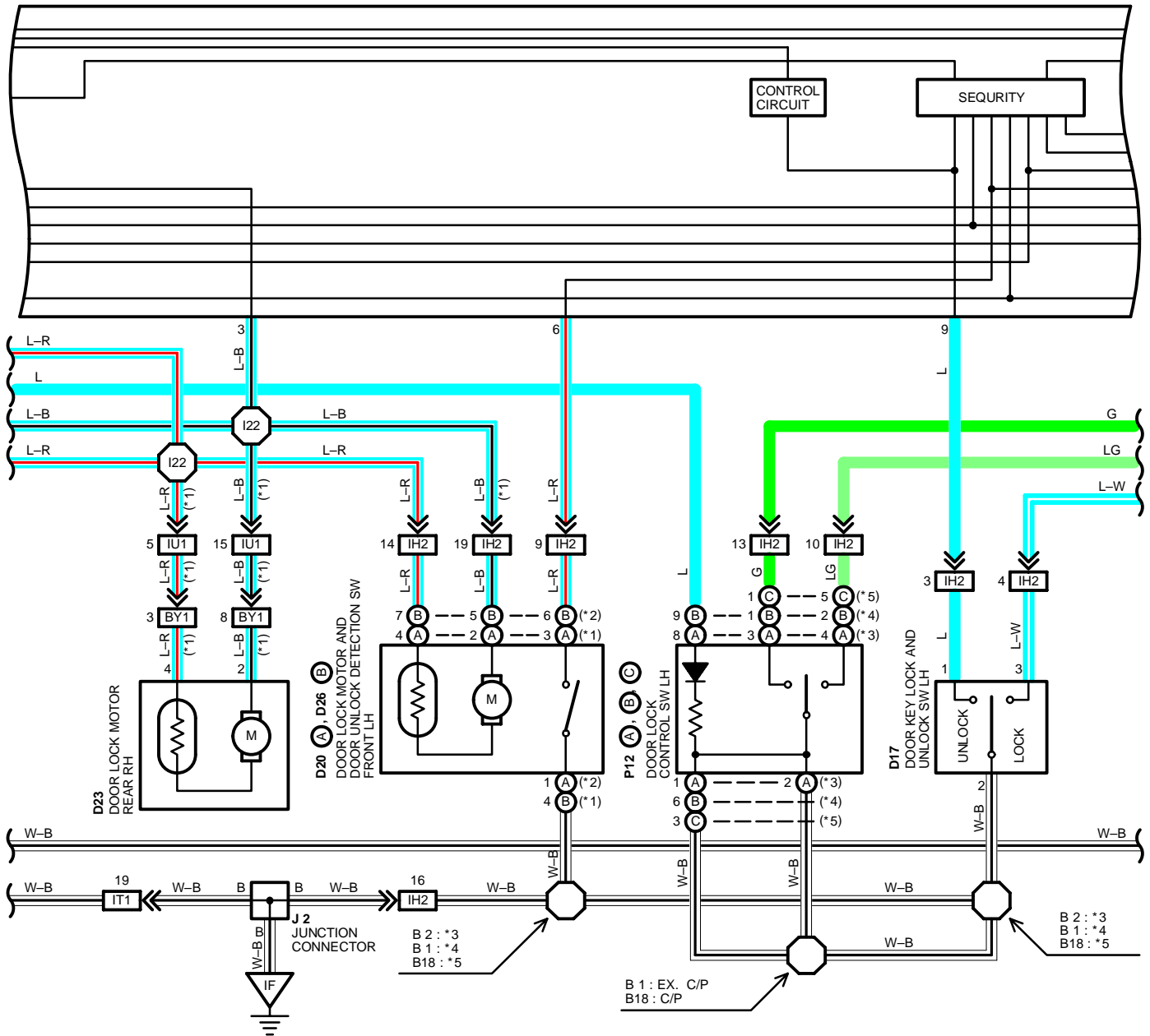




\*1 : S/D, W/G  
 \*2 : C/P  
 \*3 : W/ POWER WINDOW

\*4 : W/ POWER WINDOW, C/P  
 \*5 : W/O POWER WINDOW

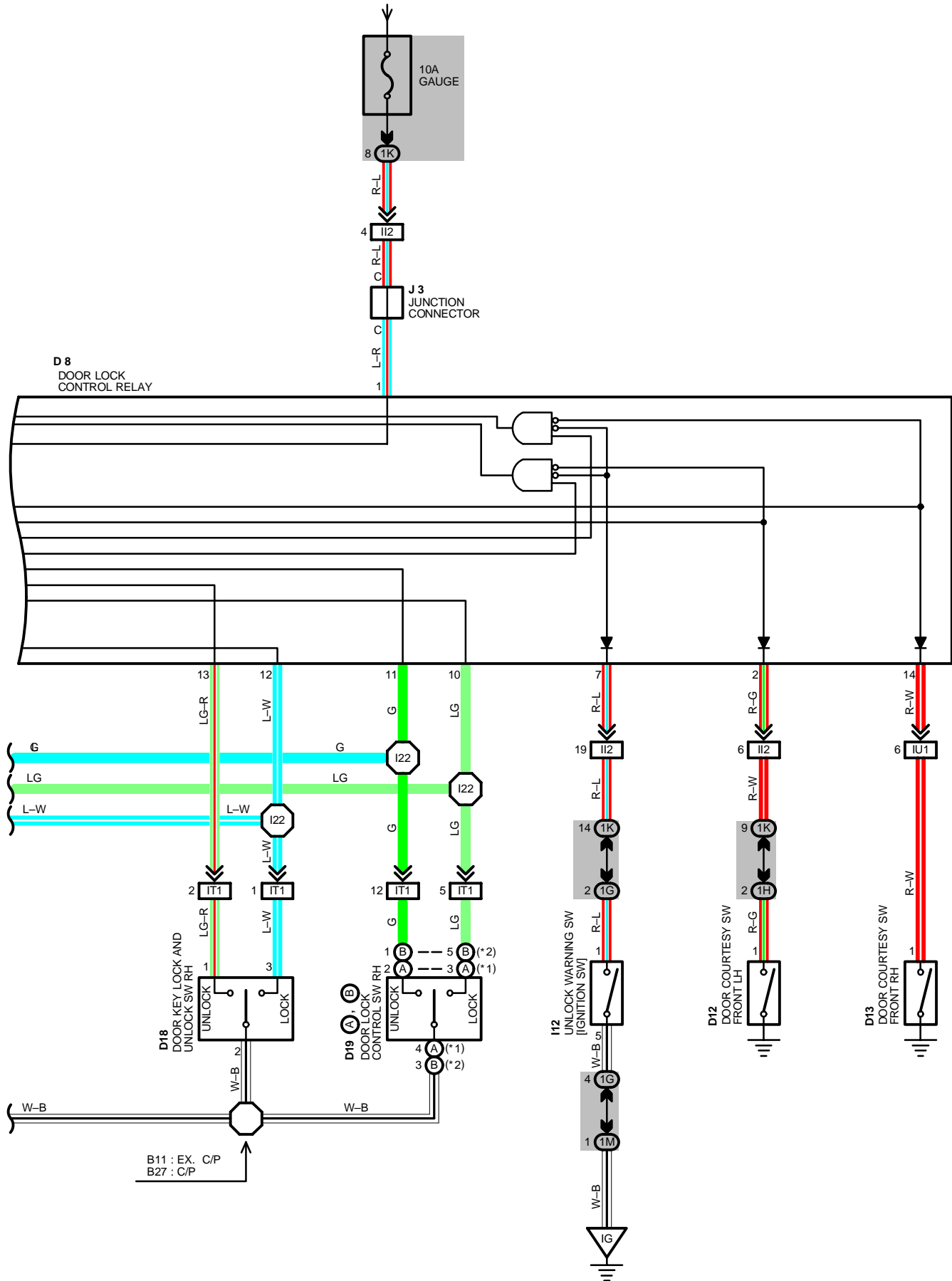
**D 8**  
 DOOR LOCK  
 CONTROL RELAY



# DOOR LOCK

\*1 : W/ POWER WINDOW EX. C/P  
 \*2 : W/O POWER WINDOW EX. C/P

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL 8** OF THE DOOR LOCK CONTROL RELAY THROUGH THE **POWER FUSE**.

WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FLOWING THROUGH THE **GAUGE FUSE** FLOWS THROUGH THE COIL SIDE OF THE POWER MAIN RELAY TO **GROUND**, CAUSING THE RELAY TO OPERATE. THE CURRENT FLOWING THROUGH THE **POWER FUSE** FLOWS TO THE LH DOOR LOCK CONTROL SW, CAUSING THE INDICATOR LIGHT TO LIGHT UP.

### 1. MANUAL LOCK OPERATION

WHEN THE DOOR LOCK CONTROL SW AND KEY SW ARE PUSHED TO **LOCK** POSITION, A LOCK SIGNAL IS INPUT TO **TERMINAL 10, 12** OF THE DOOR LOCK CONTROL RELAY AND CAUSES THE RELAY TO FUNCTION. CURRENT FLOWS FROM **TERMINAL 8** OF THE RELAY → **TERMINAL 4** → **TERMINAL 4** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 7** (C/P FRONT DOOR), OF THE DOOR LOCK MOTOR **TERMINAL 2** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 2** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 5** (C/P FRONT DOOR) OF THE DOOR LOCK MOTOR **TERMINAL 1** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 3** OF THE RELAY → **TERMINAL 16** → TO **GROUND** AND THE DOOR LOCK MOTOR CAUSES THE DOOR TO LOCK.

### 2. MANUAL UNLOCK OPERATION

WHEN THE DOOR LOCK CONTROL SW AND KEY SW RH TO **UNLOCK** POSITION, AN UNLOCK SIGNAL IS INPUT TO **TERMINAL 11, 13** OF THE DOOR LOCK RELAY AND CAUSES THE RELAY TO FUNCTION. CURRENT FLOWS FROM **TERMINAL 8** OF THE RELAY → **TERMINAL 3** → **TERMINAL 2** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 5** (C/P FRONT DOOR) OF THE DOOR LOCK MOTOR **TERMINAL 1** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 7** (C/P FRONT DOOR), OF THE DOOR LOCK MOTOR **TERMINAL 2** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE RELAY → **TERMINAL 16** → TO **GROUND** AND DOOR LOCK MOTORS CAUSES DOOR TO UNLOCK.

### 3. DOUBLE OPERATION UNLOCK OPERATION

WHEN THE DOOR LOCK KEY SW (DRIVER'S) IS TURNED TO THE UNLOCK SIDE, ONLY THE DRIVER'S DOOR IS MECHANICALLY UNLOCKED. TURNING THE DOOR LOCK KEY SW (DRIVER'S) TO THE UNLOCK SIDE CAUSES A SIGNAL TO BE INPUT TO **TERMINAL 9** OF THE RELAY, AND IF THE SIGNAL IS INPUT AGAIN WITHIN 3 SECONDS BY TURNING THE SW TO THE UNLOCK SIDE AGAIN, CURRENT FLOWS **TERMINAL 3** → **TERMINAL 2** OF DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 5** (C/P FRONT DOOR) OF THE DOOR LOCK MOTOR **TERMINAL 1** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 7** (C/P FRONT DOOR), OF THE DOOR LOCK MOTOR **TERMINAL 2** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE RELAY → **TERMINAL 16** → **GROUND**, CAUSING THE DOOR LOCK MOTORS TO OPERATE AND UNLOCK THE DOORS.

### 4. IGNITION KEY REMINDER OPERATION

#### \* OPERATING DOOR LOCK KNOB (OPERATION OF DOOR LOCK MOTORS)

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK KNOB (DOOR LOCK MOTOR), THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCKED SOON BY THE FUNCTION OF RELAY. AS A RESULT, THE CURRENT FLOWS FROM **TERMINAL 8** OF THE RELAY → **TERMINAL 3** → **TERMINAL 2** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 5** (C/P FRONT DOOR) OF THE DOOR LOCK MOTOR **TERMINAL 2** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 7** (C/P FRONT DOOR), OF THE DOOR LOCK MOTOR **TERMINAL 1** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE RELAY → **TERMINAL 16** → TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

#### \* OPERATING DOOR LOCK CONTROL SW OR DOOR LOCK KEY SW

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK CONTROL SW OR KEY SW, THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCK BY THE FUNCTION OF SW CONTAINED IN MOTORS, WHICH THE SIGNAL IS INPUT TO **TERMINAL 6** (DRIVER'S) OR **5** (PASSENGER'S) OF THE RELAY. ACCORDING TO THIS INPUT SIGNAL, THE CURRENT IN ECU FLOWS FROM **TERMINAL 8** OF THE RELAY → **TERMINAL 3** → **TERMINAL 2** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 5** (C/P FRONT DOOR) OF THE DOOR LOCK MOTOR **TERMINAL 2** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE DOOR LOCK MOTORS, **TERMINAL 1** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE RELAY → **TERMINAL 16** → TO **GROUND** AND CAUSES ALL THE DOOR TO UNLOCK.

#### \* IN CASE OF KEY LESS LOCK

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE UNLOCK FUNCTION IS DISTURBED MORE THAN **0.2** SECONDS, FOR EXAMPLE PUSHING THE DOOR LOCK KNOB ETC., THE DOOR HOLDS ON LOCK CONDITION. CLOSING THE DOOR AFTER, DOOR COURTESY SW INPUTS THE SIGNAL INTO **TERMINAL 2** OR **14** OF THE RELAY. BY THIS INPUT SIGNAL, THE ECU WORKS AND CURRENT FLOWS FROM **TERMINAL 8** OF THE RELAY → **TERMINAL 3** → **TERMINAL 2** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 5** (C/P FRONT DOOR) OF THE DOOR LOCK MOTOR **TERMINAL 1** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE DOOR LOCK MOTORS, (EX. C/P FRONT DOOR) OR **TERMINAL 7** (C/P FRONT DOOR), OF THE DOOR LOCK MOTOR **TERMINAL 2** OF THE BACK DOOR LOCK MOTOR → **TERMINAL 4** OF THE RELAY → **TERMINAL 16** → TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

# DOOR LOCK

## SERVICE HINTS

### D8 DOOR LOCK CONTROL RELAY

- 16-GROUND : ALWAYS CONTINUITY
- 2-GROUND : CONTINUITY WITH DRIVER'S DOOR OPEN
- 8-GROUND : ALWAYS APPROX. 12 VOLTS
- 3-GROUND : APPROX. 12 VOLTS 0.2 SECONDS WITH FOLLOWING OPERATION
  - \*DOOR LOCK CONTROL SW UNLOCKED
  - \*DOOR LOCK CONTROL SW LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
  - \*DOOR LOCK KNOB LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
  - \*UNLOCKING THE DRIVER'S, PASSENGER'S DOOR CYLINDER WITH KEY
- 4-GROUND : APPROX. 12 VOLTS 0.2 SECONDS WITH FOLLOWING OPERATION
  - \*DOOR LOCK CONTROL SW LOCKED
  - \*LOCKING THE DRIVER'S, PASSENGER'S DOOR CYLINDER WITH KEY
- 10-GROUND : 0 VOLTS WITH DOOR LOCK CONTROL SW LOCKED
- 14-GROUND : CONTINUITY WITH PASSENGER'S DOOR OPEN
- 6-GROUND : CONTINUITY WITH DRIVER'S DOOR LOCK KNOB UNLOCKED
- 5-GROUND : CONTINUITY WITH PASSENGER'S DOOR LOCK KNOB UNLOCKED
- 11-GROUND : 0 VOLTS WITH DOOR LOCK CONTROL SW UNLOCKED, PASSENGER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
- 13-GROUND : 0 VOLTS WITH PASSENGER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
- 1-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ACC POSITION
- 9-GROUND : 0 VOLTS WITH DRIVER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
- 12-GROUND : 0 VOLTS WITH DRIVER'S, PASSENGER'S DOOR LOCK CYLINDER LOCKED WITH KEY

### D12, D13 DOOR COURTESY SW

- 1-GROUND : CLOSED WITH EACH DOOR OPEN

### D17, D18 DOOR KEY LOCK AND UNLOCK SW

- 3-2 : CLOSED WITH DOOR LOCK CYLINDER LOCKED WITH KEY
- 1-2 : CLOSED WITH DOOR LOCK CYLINDER UNLOCKED WITH KEY

### D20, D21 DOOR LOCK MOTOR AND DOOR UNLOCK DETECTION SW (C/P)

- 1-3 : CLOSED WITH UNLOCK POSITION

### D20, D21 DOOR LOCK MOTOR AND DOOR UNLOCK DETECTION SW (EX. C/P)

- 6-4 : CLOSED WITH UNLOCK POSITION

### I12 UNLOCK WARNING SW [IGNITION SW]

- 1-5 : CLOSED WITH IGNITION KEY IN CYLINDER

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B 9	36	D19	B 34 (S/D), 36 (W/G)	J 2	33
D 8	32	D20	A 34 (S/D), 36 (W/G)	J 3	33
D12	34 (S/D), 35 (C/P), 36 (W/G)		B 35 (C/P)	P12	A 34 (S/D), 36 (W/G)
D13	34 (S/D), 35 (C/P), 36 (W/G)	D21	34 (S/D), 35 (C/P), 36 (W/G)		B 34 (S/D), 35 (C/P), 36 (W/G)
D17	34 (S/D), 35 (C/P), 36 (W/G)	D22	34 (S/D), 35 (C/P), 36 (W/G)		C 35 (C/P)
D18	34 (S/D), 35 (C/P), 36 (W/G)	D23	34 (S/D), 35 (C/P), 36 (W/G)		
D19	A 34 (S/D), 36 (W/G)	I12	33		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1G	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1L		
1M		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE
IH2	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IT1	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
BW1	46 (S/D)	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE
	50 (W/G)	
BY1	46 (S/D)	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE
	50 (W/G)	
Bc1	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bd3	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
IF	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH
IJ	42	RIGHT KICK PANEL

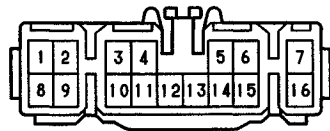
**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I3	44	INSTRUMENT PANEL WIRE	B2	50 (W/G)	FRONT DOOR LH WIRE
I22			B11	46 (S/D) 50 (W/G)	FRONT DOOR RH WIRE
B1	46 (S/D) 50 (W/G)	FRONT DOOR LH WIRE	B18	48 (C/P)	FRONT DOOR LH WIRE
B2	46 (S/D)		B27	48 (C/P)	FRONT DOOR RH WIRE

**B 9 GRAY**



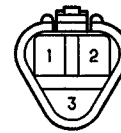
**D 8 ORANGE**



**D12, D13**



**D17, D18 GRAY**



**D19 (A)**



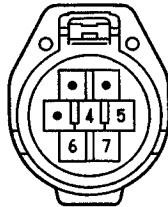
**D19 (B)**



**(S/D, W/G) D20 (A)**



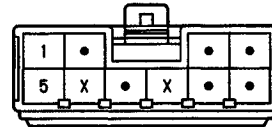
**(C/P) D20 (B) GRAY**



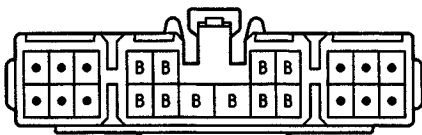
**D21, D22, D23**



**I12**

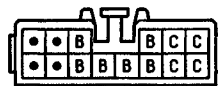


**J 2**



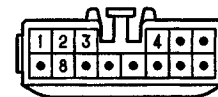
(HINT:SEE PAGE 7)

**J 3**



(HINT:SEE PAGE 7)

**(S/D, W/G) P12 (A)**



**P12 (B)**

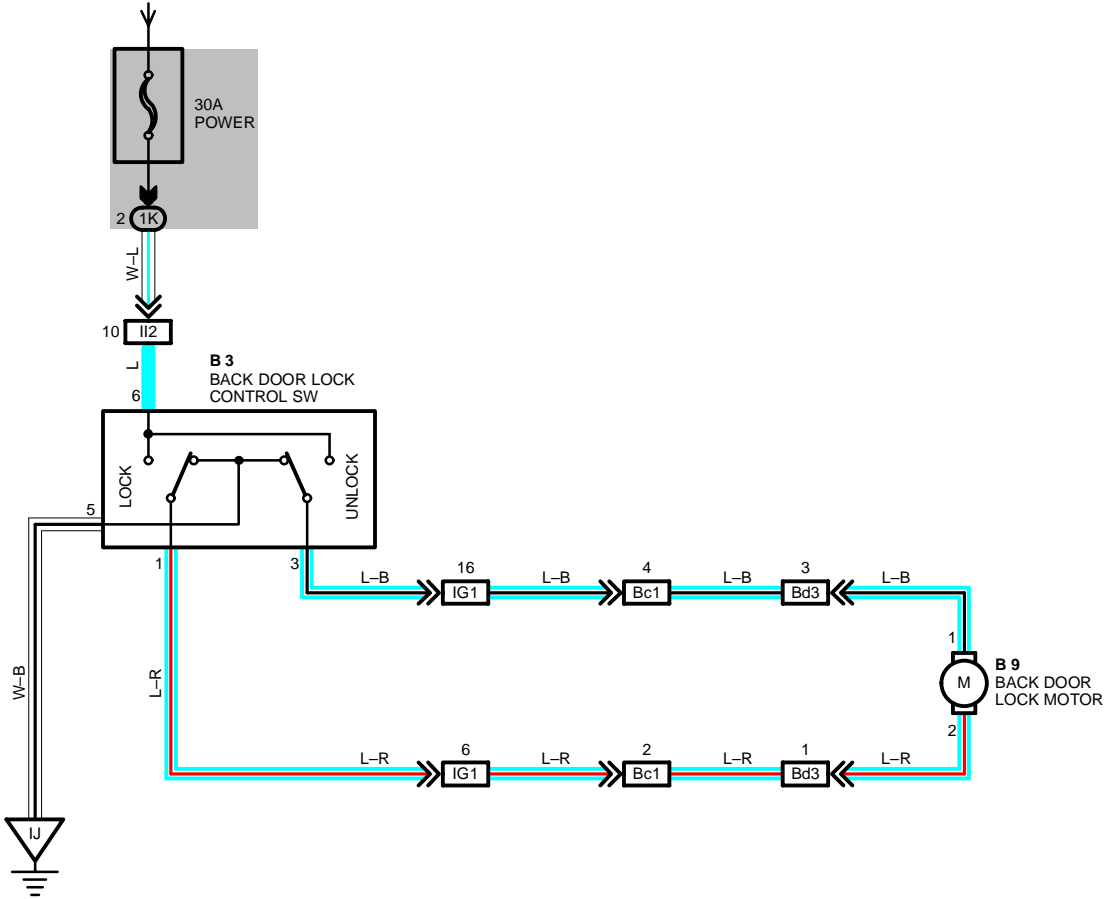


**(C/P) P12 (C)**



# BACK DOOR LOCK (W/G w/o POWER WINDOW)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

**B 3 BACK DOOR LOCK CONTROL SW**  
 6-GROUND : ALWAYS APPROX. 12 VOLTS  
 5-GROUND : ALWAYS CONTINUITY

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B 3	32	B 9	36 (W/G)		

### □ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
IK	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	38	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IT2	40	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
Bc1	44 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE (LEFT QUARTER TRIM INNER)
Bd3	44 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE (BACK DOOR LEFT)

### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IJ	38	RIGHT KICK PANEL

B 3



B 9 GRAY



## SERVICE HINTS

### POWER MAIN RELAY

5-3 : CLOSED WITH IGNITION SW AT **ON** POSITION

### M 2 MOON ROOF CONTROL RELAY

11-GROUND : ALWAYS CONTINUITY

6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON, AND MOON ROOF CONTROL SW AT **CLOSE** OR **UP** POSITION  
 (EXCEPT APPROX. 100 MM (3.941 IN.) IN THE BEFORE **CLOSED** POSITION)

5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON, AND MOON ROOF CONTROL SW AT **OPEN** OR **DOWN** POSITION

12-GROUND : ALWAYS APPROX. 12 VOLTS

### M 3 MOON ROOF CONTROL SW

5-4 : CLOSED WITH MOON ROOF CONTROL SW AT **UP** POSITION

6-4 : CLOSED WITH MOON ROOF CONTROL SW AT **CLOSE** POSITION

2-4 : CLOSED WITH MOON ROOF CONTROL SW AT **DOWN** POSITION

3-4 : CLOSED WITH MOON ROOF CONTROL SW AT **OPEN** POSITION

4-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D 8	32	M 2	34 (S/D), 35 (C/P), 36 (W/G)	M 4	34 (S/D), 35 (C/P), 36 (W/G)
J 3	33	M 3	34 (S/D), 35 (C/P), 36 (W/G)	M 5	34 (S/D), 35 (C/P), 36 (W/G)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1I	20	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMC MADE
	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMM MADE
1K		
1L	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2E	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

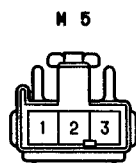
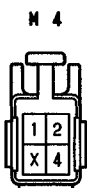
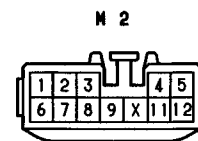
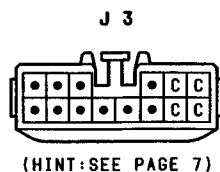
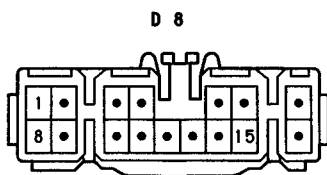
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IV1	44	ROOF WIRE AND COWL WIRE

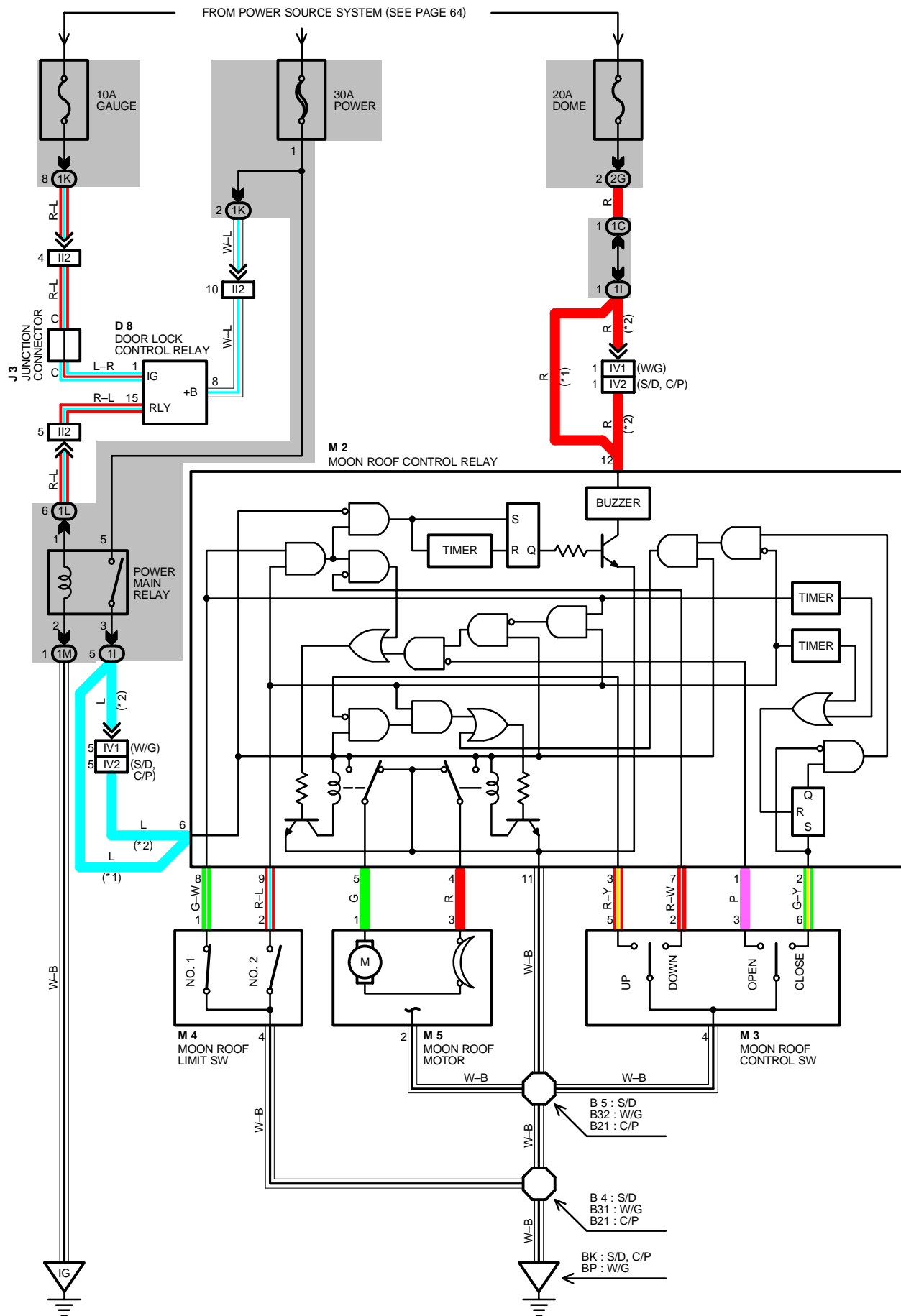
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IG	42	INSTRUMENT PANEL BRACE LH
BK	46 (S/D)	ROOF LEFT
	48 (C/P)	
BP	50 (W/G)	BACK PANEL CENTER

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B 4	46 (S/D)	ROOF WIRE	B31	50 (W/G)	ROOF WIRE
B 5			B32		
B21	48 (C/P)				







## SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH **POWER FUSE** TO **TERMINAL 5** OF POWER MAIN RELAY AND ALSO THROUGH **DOVE FUSE** TO **TERMINAL 12** OF MOON ROOF CONTROL RELAY.

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **TERMINAL 1** OF POWER MAIN RELAY → **TERMINAL 2** → TO **GROUND** THROUGH **GAUGE FUSE**. AS A RESULT, POWER MAIN RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 5** OF POWER MAIN RELAY FLOWS FROM **TERMINAL 3** OF RELAY TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY.

### 1. SLIDE OPEN OPERATION

WHEN THE IGNITION SW IS TURNED ON AND THE MOON ROOF CONTROL SW IS PUSHED TO THE **OPEN** POSITION, A SIGNAL IS INPUT FROM **TERMINAL 3** OF MOON ROOF CONTROL SW TO **TERMINAL 1** OF MOON ROOF CONTROL RELAY. MOON ROOF LIMIT SW NO. 2 ON AT THIS TIME.

WHEN THIS OCCURS, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY FLOWS FROM **TERMINAL 5** → **TERMINAL 1** OF MOON ROOF MOTOR → **TERMINAL 3** → **TERMINAL 4** OF MOON ROOF CONTROL RELAY → **TERMINAL 11** → TO **GROUND** AND ROTATES THE MOTOR TO OPEN THE MOON ROOF WHILE THE SW IS BEING PUSHED TO **OPEN** POSITION.

### 2. SLIDE CLOSE OPERATION

WITH THE IGNITION SW TURNED ON, THE MOON ROOF COMPLETELY OPEN AND MOON ROOF LIMIT SW NO. 1 AND NO. 2 BOTH ON, WHEN THE MOON ROOF CONTROL SW IS PUSHED TO THE **CLOSE** POSITION A SIGNAL IS INPUT FROM **TERMINAL 6** OF MOON ROOF CONTROL SW TO **TERMINAL 2** OF MOON ROOF CONTROL RELAY.

WHEN THIS OCCURS, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY FLOWS FROM **TERMINAL 4** → **TERMINAL 3** OF MOON ROOF MOTOR → **TERMINAL 1** → **TERMINAL 5** OF MOON ROOF CONTROL RELAY → **TERMINAL 11** → TO **GROUND** AND ROTATES THE MOTOR TO CLOSE THE MOON ROOF WHILE THE SW IS BEING PUSHED TO **CLOSE** POSITION.

MOON ROOF LIMIT SW NO. 1 TURNS OFF (LIMIT SW NO. 2 IS ON) AND A **100 MM** BEFORE FULLY **CLOSE** POSITION, SIGNAL IS INPUT FROM **TERMINAL 1** OF LIMIT SW NO. 1 TO **TERMINAL 8** OF MOON ROOF CONTROL RELAY. THIS SIGNAL ACTIVATES THE RELAY AND STOPS CONTINUITY FROM **TERMINAL 6** OF MOON ROOF CONTROL RELAY TO **TERMINAL 11**. AS A RESULT, THE MOON ROOF STOPS AT THIS POSITION.

TO CLOSE THE MOON ROOF COMPLETELY, PUSHING THE MOON ROOF CONTROL SW AGAIN TO THE CLOSE SIDE CAUSES A SIGNAL TO BE INPUT AGAIN TO **TERMINAL 2** OF MOON ROOF CONTROL RELAY. THIS ACTIVATES THE RELAY AND THE MOON ROOF WILL CLOSE AS LONG AS THE MOON ROOF CONTROL SW IS BEING PUSHED, ALLOWING THE MOON ROOF TO FULLY CLOSE.

### 3. TILT UP OPERATION

WHEN THE MOON ROOF CONTROL SW IS PUSHED TO **TILT UP** POSITION, WITH THE IGNITION SW TURNED ON AND THE MOON ROOF COMPLETELY CLOSED (MOON ROOF LIMIT SW NO. 2 IS OFF), A SIGNAL IS INPUT FROM **TERMINAL 5** OF MOON ROOF CONTROL SW TO **TERMINAL 3** OF MOON ROOF CONTROL RELAY. AS A RESULT, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF RELAY FLOWS FROM **TERMINAL 4** OF RELAY → **TERMINAL 3** OF MOON ROOF MOTOR → **TERMINAL 1** → **TERMINAL 5** OF RELAY → **TERMINAL 11** TO **GROUND** AND ROTATES THE MOTOR SO THAT TILT UP OPERATION OCCURS AS LONG AS THE MOON ROOF CONTROL SW IS PUSHED ON THE TILT UP SIDE.

### 4. TILT DOWN OPERATION

WHEN THE MOON ROOF CONTROL SW IS PUSHED TO **TILT DOWN** POSITION, WITH THE IGNITION SW TURNED ON AND THE MOON ROOF TILTED UP (NO. 1 AND NO. 2 MOON ROOF LIMIT SWITCHES ARE BOTH OFF), A SIGNAL IS INPUT FROM **TERMINAL 2** OF MOON ROOF CONTROL SW TO **TERMINAL 7** OF MOON ROOF CONTROL RELAY.

AS A RESULT, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF RELAY FLOWS FROM **TERMINAL 5** OF RELAY → **TERMINAL 1** OF MOON ROOF MOTOR → **TERMINAL 3** → **TERMINAL 4** OF RELAY → **TERMINAL 11** → TO **GROUND** AND ROTATES THE MOTOR SO THAT TILT DOWN OPERATION OCCURS AS LONG AS THE MOON ROOF CONTROL SW IS PUSHED ON THE TILT DOWN SIDE. (DURING TILT DOWN, LIMIT SW NO. 1 IS CHANGED OFF TO ON.)

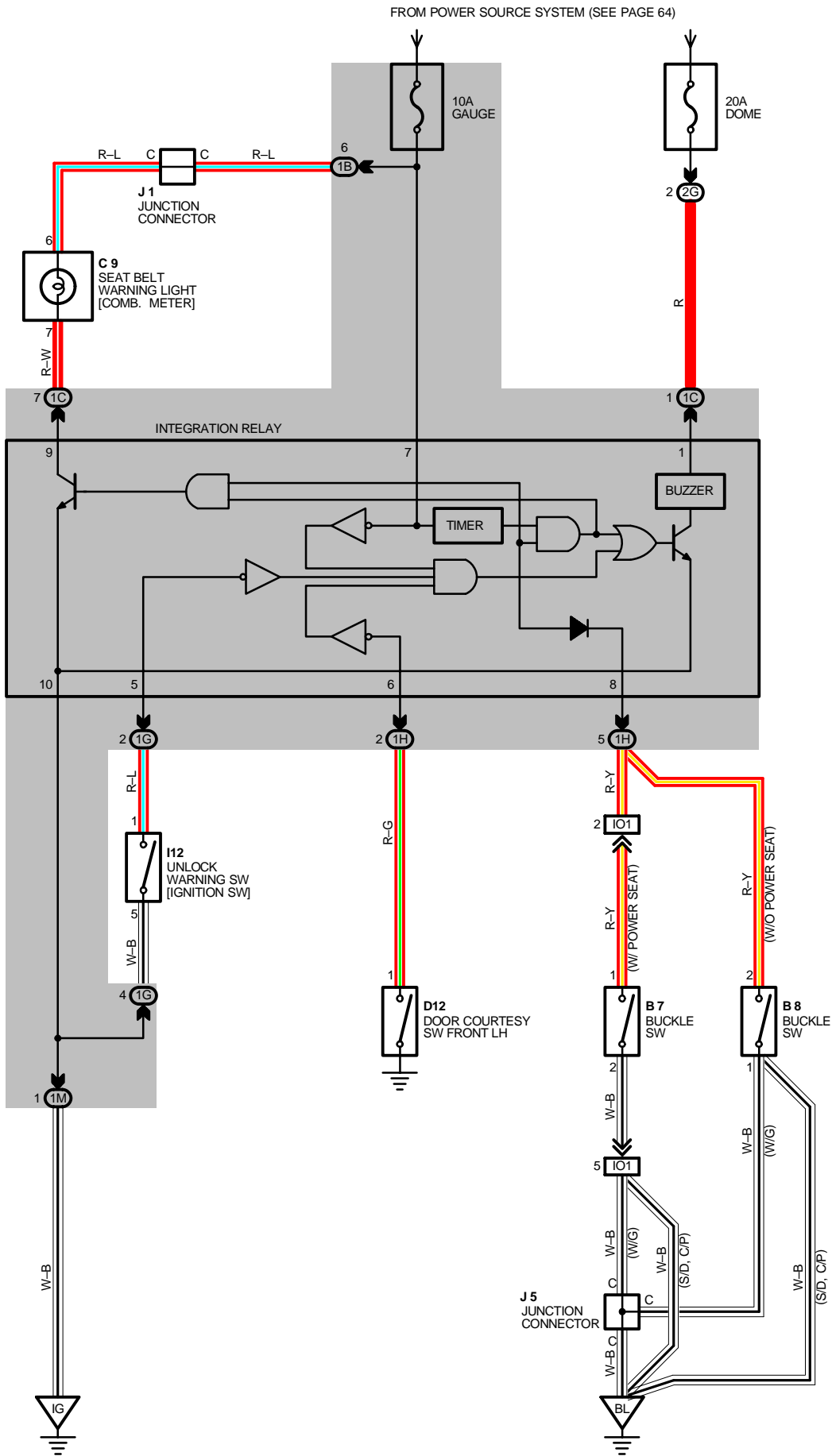
### 5. TILT UP REMINDER SYSTEM

WHEN THE IGNITION SW IS TURNED FROM ON TO ACC OR OFF WITH THE MOON ROOF STILL TILTED UP THE CURRENT DOES NOT FLOW TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY.

THIS IS RECEIVED BY THE RELAY AS A SIGNAL THAT THE IGNITION SW IS TURNED OFF. AT THIS TIME, MOON ROOF LIMIT SW NO.1 AND NO. 2 ARE OFF, SO SIGNALS ARE INPUT TO **TERMINALS 8** AND **9** OF MOON ROOF CONTROL RELAY THAT THE MOON ROOF IS IN THE TILT OPERATION POSITION. WHEN THESE SIGNALS ARE INPUT TO THE MOON ROOF CONTROL RELAY, THE TIMER BUILT INTO THE RELAY OPERATES.

THUS THE CURRENT TO **TERMINAL 12** OF MOON ROOF CONTROL RELAY FLOWS THROUGH BUZZER OF MOON ROOF CONTROL RELAY AND **TERMINAL 11** OF MOON ROOF CONTROL RELAY TO **GROUND** AND THE BUZZER SOUNDS ABOUT **8** TIMES TO NOTIFY THAT THE MOON ROOF IS STILL IN THE TILT UP CONDITION.

# UNLOCK AND SEAT BELT WARNING



## SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL 1** OF THE INTEGRATION RELAY THROUGH THE **DOM**E FUSE.

### 1. SEAT BELT WARNING SYSTEM

WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS FROM THE **GAUGE** FUSE TO THE **TERMINAL 7** OF THE INTEGRATION RELAY AT THE SAME TIME, CURRENT FLOWS TO **TERMINAL 9** OF THE RELAY FROM THE **GAUGE** FUSE THROUGH THE SEAT BELT WARNING LIGHT. THIS CURRENT ACTIVATES THE SEAT BELT WARNING RELAY AND, CURRENT FLOWING THROUGH THE WARNING LIGHT FLOWS FROM **TERMINAL 9** OF THE RELAY → **TERMINAL 10** → **GROUND**, CAUSING THE WARNING LIGHT TO LIGHT UP. AT THE SAME AS THE WARNING LIGHT LIGHTS UP. A BUCKLE SW OFF SIGNAL IS INPUT TO **TERMINAL 8** OF THE RELAY, THE CURRENT FLOWING TO **TERMINAL 1** OF THE RELAY FLOWS FROM **TERMINAL 10** → **GROUND** AND THE SEAT BELT WARNING BUZZER SOUNDS FOR APPROX. **4-8** SECONDS. HOWEVER, IF SEAT BELT IS PUT ON DURING THIS PERIOD (WHILE THE BUZZER IS SOUNDING), SIGNAL INPUT TO **TERMINAL 8** OF THE RELAY STOPS AND THE CURRENT FLOW FROM **TERMINAL 1** OF THE RELAY → **TERMINAL 10** → **GROUND** IS CUT, CAUSING THE BUZZER TO STOP.

### 2. UNLOCK WARNING SYSTEM

WITH THE IGNITION KEY INSERTED IN THE KEY CYLINDER (UNLOCK WARNING SW ON), THE IGNITION SW STILL OFF AND DOOR OPEN (DOOR COURTESY SW ON), WHEN A SIGNAL IS INPUT **TERMINAL 5** AND **6** OF THE RELAY, THE INTEGRATION RELAY OPERATES, CURRENT FLOWS FROM **TERMINAL 1** OF THE RELAY → **TERMINAL 10** → **GROUND** AND THE UNLOCK WARNING BUZZER SOUNDS.

## SERVICE HINTS

### B 7, B 8 BUCKLE SW

1-2 : CLOSED WITH DRIVR'S LAP BELT IN USE

### D12 DOOR COURTESY SW FRONT LH

1-GROUND : CLOSED WITH FRONT LH DOOR OPEN

### INTEGRATION RELAY

10-GROUND : ALWAYS CONTINUITY

6-GROUND : CONTINUITY WITH FRONT LH DOOR OPEN

5-GROUND : CONTINUITY WITH IGNITION KEY IN CYLINDER

8-GROUND : CONTINUITY UNLESS DRIVER'S LAP BELT IN USE

9-GROUND : 0 VOLTS WITH IGNITION SW ON AND BUCKLE SW OFF

1-GROUND : ALWAYS APPROX. 12 VOLTS

7-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

### I12 UNLOCK WARNING SW [IGNITION SW]

1-5 : CLOSED WITH IGNITION KEY IN CYLINDER

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>B 7</b>	<a href="#">32</a>	<b>D12</b>	<a href="#">34 (S/D)</a> , <a href="#">35 (C/P)</a> , <a href="#">36 (W/G)</a>	<b>J 5</b>	<a href="#">36 (W/G)</a>
<b>B 8</b>	<a href="#">32</a>	<b>I12</b>	<a href="#">33</a>		
<b>C 9</b>	<a href="#">32</a>	<b>J 1</b>	<a href="#">33</a>		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1B</b>	<a href="#">20</a>	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1C</b>		
<b>1G</b>		
<b>1H</b>	<a href="#">20</a>	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1M</b>	<a href="#">20</a>	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>2E</b>	<a href="#">22</a>	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

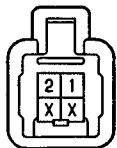
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IO1</b>	<a href="#">42</a>	FLOOR NO. 1 WIRE AND SEAT WIRE

## ▽ : GROUND POINTS

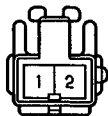
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>IG</b>	<a href="#">42</a>	INSTRUMENT PANEL BRACE LH
<b>BL</b>	<a href="#">46 (S/D)</a>	UNDER THE LEFT QUARTER PILLAR
	<a href="#">48 (C/P)</a>	
	<a href="#">50 (W/G)</a>	

# UNLOCK AND SEAT BELT WARNING

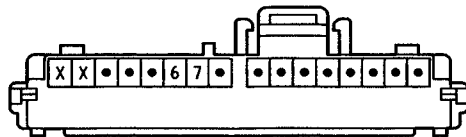
B 7



B 8



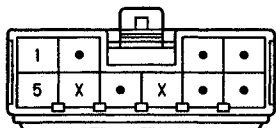
C 9



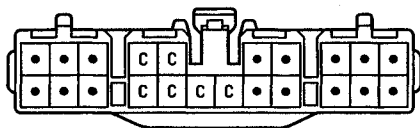
D12



I12

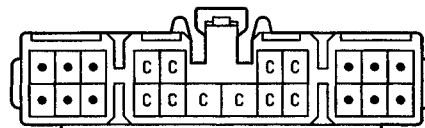


J 1 DARK GRAY



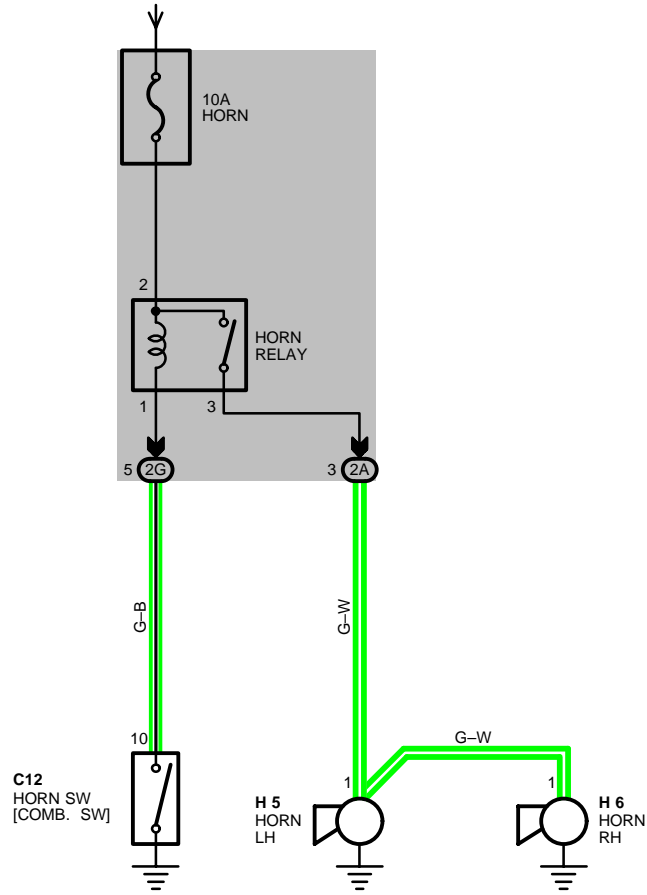
(HINT:SEE PAGE 7)

J 5



(HINT:SEE PAGE 7)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### HORN RELAY

2-3 : CLOSED WITH HORN SW ON

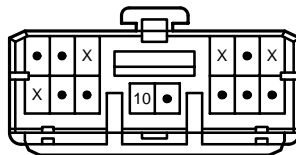
### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C12	32	H 5	28 (1MZ-FE), 30 (5S-FE)	H 6	28 (1MZ-FE), 30 (5S-FE)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E		

C12 BLACK



H 5, H 6 BLACK



## SRS (SUPPLEMENTAL RESTRAINT SYSTEM)

---

**NOTICE:** When inspecting or repairing the SRS (supplemental restraint system), 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 supplemental restraint system are difficult to confirm, so the diagnostic trouble codes become the most important source of information when troubleshooting.

When troubleshooting the supplemental restraint system, always inspect the diagnostic trouble codes before disconnecting the battery.

- ▼ Work must be started after 90 seconds from the time the Ignition SW is set to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.

(The supplemental restraint system is equipped with a back-up power source so that if work is started within 90 seconds of disconnecting the negative (-) terminal cable of the battery, the SRS may be activated.)

When the negative (-) terminal cable is disconnected from the battery, memory of the clock and audio systems will be cancelled. So before starting work, make a record of the contents memorized by each memory system. When work is finished, reset the clock and audio system as before and adjust the clock. This vehicle has tilt and telescopic steering, power seat and outside rear view mirror and power shoulder belt anchorage, which are all equipped with memory function, it is not possible to make a record of the customer, and ask the customer to adjust the features and reset the memory.

To avoid erasing the memory of each memory system, never use a back-up power supply from outside the vehicle.

- ▼ When removing the steering wheel pad or handling a new steering wheel pad, keep the pad upper surface facing upward. Also, lock the lock lever of the twin lock type connector at the rear of the pad and take care not to damage the connector.

(Storing the pad with its metallic surface up may lead to a serious accident if the SRS inflates for some reason.)

- ▼ Store the steering wheel pad where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.

- ▼ Never use SRS parts from another vehicle. When replacing SRS parts, replace them with new parts.

- ▼ Never disassemble and repair the steering wheel pad, center SRS sensor assembly or front airbag sensors.

- ▼ Before repairing the body, remove the airbag sensors if during repair shocks are likely to be applied to the sensors due to vibration of the body or direct tapping with tools or other parts.

- ▼ Do not reuse a steering wheel pad or front airbag sensors.

After evaluating whether the center airbag sensor assembly is damaged or not, decide whether or not to reuse it. (See the Repair Manual for the method for evaluating the center airbag sensor assembly.)

- ▼ When troubleshooting the supplemental restraint system, use a high-impedance (Min. 10k  $\Omega$ ) tester.

- ▼ The wire harness of the supplemental restraint system is integrated with the cowl wire harness assembly and engine wire harness assembly.

The vehicle wiring harness exclusively for the airbag system is distinguished by corrugated yellow tubing, as are the connectors.

- ▼ Do not measure the resistance of the airbag squib.

(It is possible this will deploy the airbag and is very dangerous.)

- ▼ If the wire harness used in the supplemental restraint system is damaged, replace the whole wire harness assembly.

When the connector to the airbag front sensors can be repaired alone (when there is no damage to the wire harness), use the repair wire specially designed for the purpose.

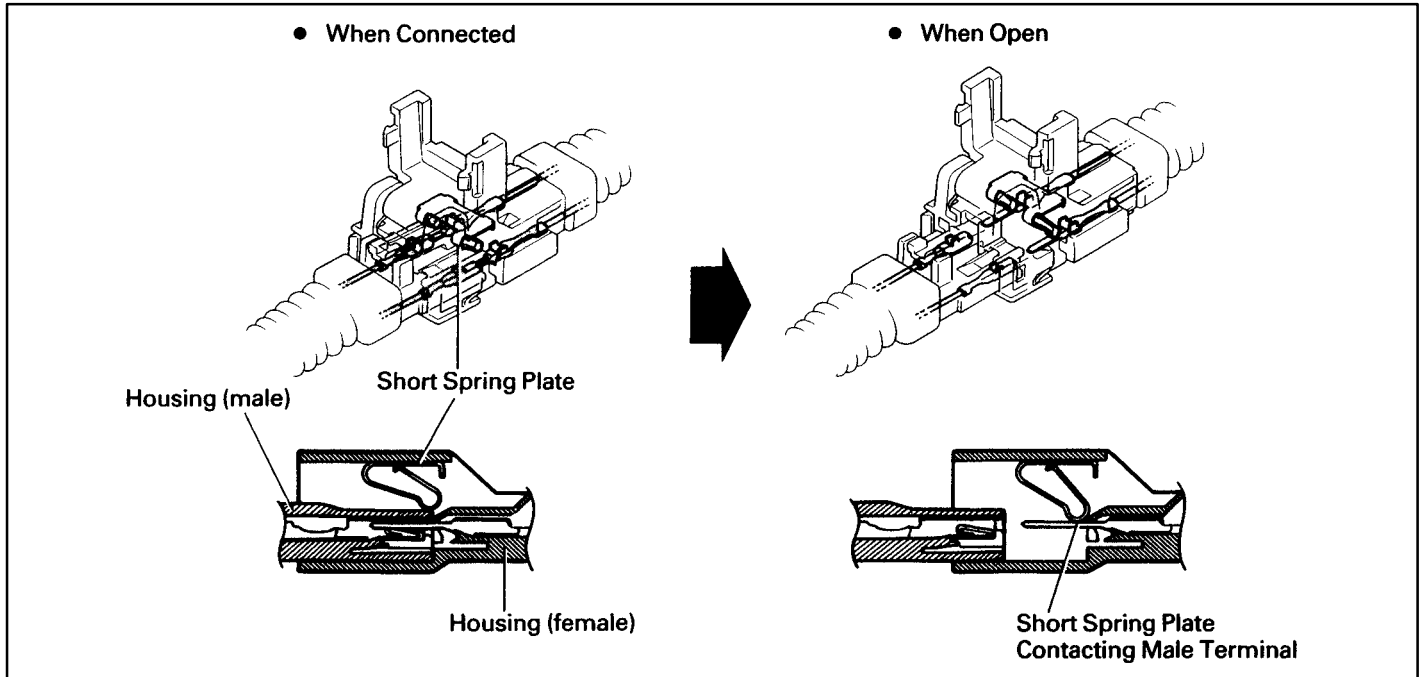
(Refer to the Repair Manual for the applicable Model year for details of the replacement method.)

- ▼ INFORMATION LABELS (NOTICES) are attached to the periphery of the SRS components. Follow the instructions on the notices.

The supplemental restraint system has connectors which possess the functions described below:

### 1. SRS ACTIVATION PREVENTION MECHANISM

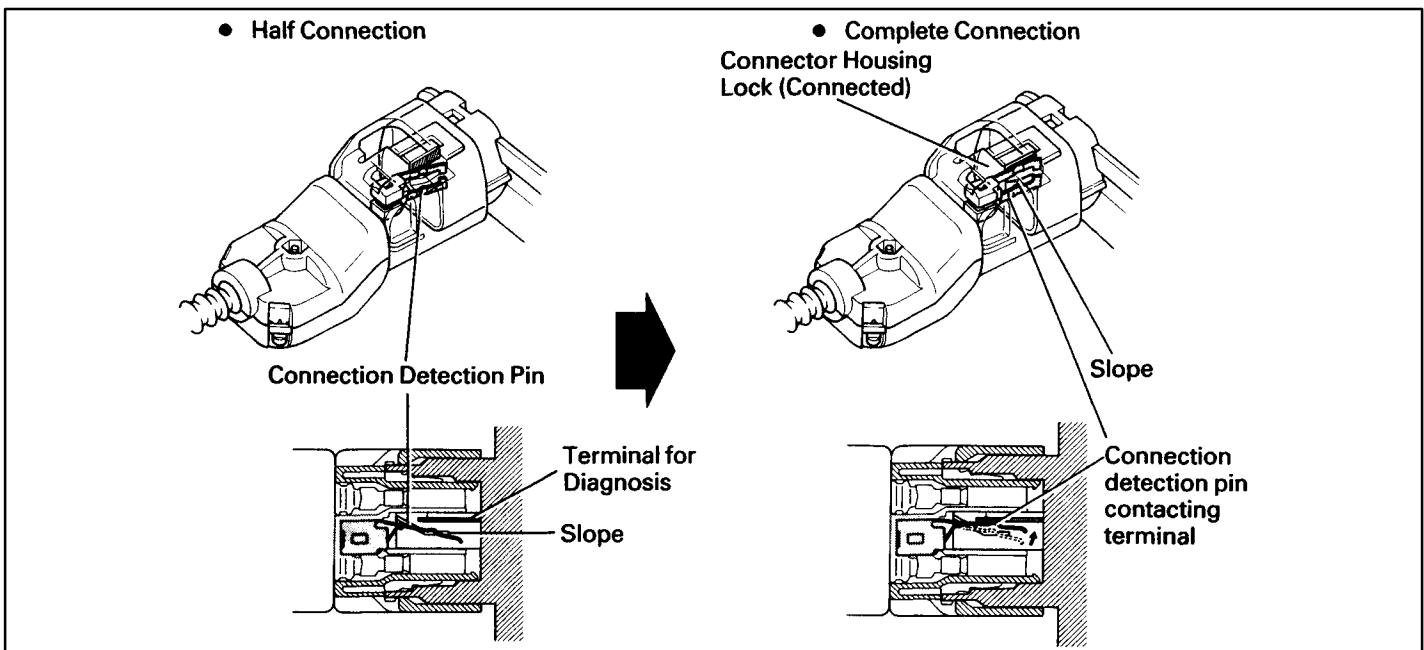
Each connector contains a short spring plate. When the connector is disconnected, the short spring plate automatically connects the power source and grounding terminals of the squib to preclude a potential difference between the terminals.



### 2. ELECTRICAL CONNECTION CHECK MECHANISM

This mechanism is designed to electrically check if connectors are connected correctly and completely.

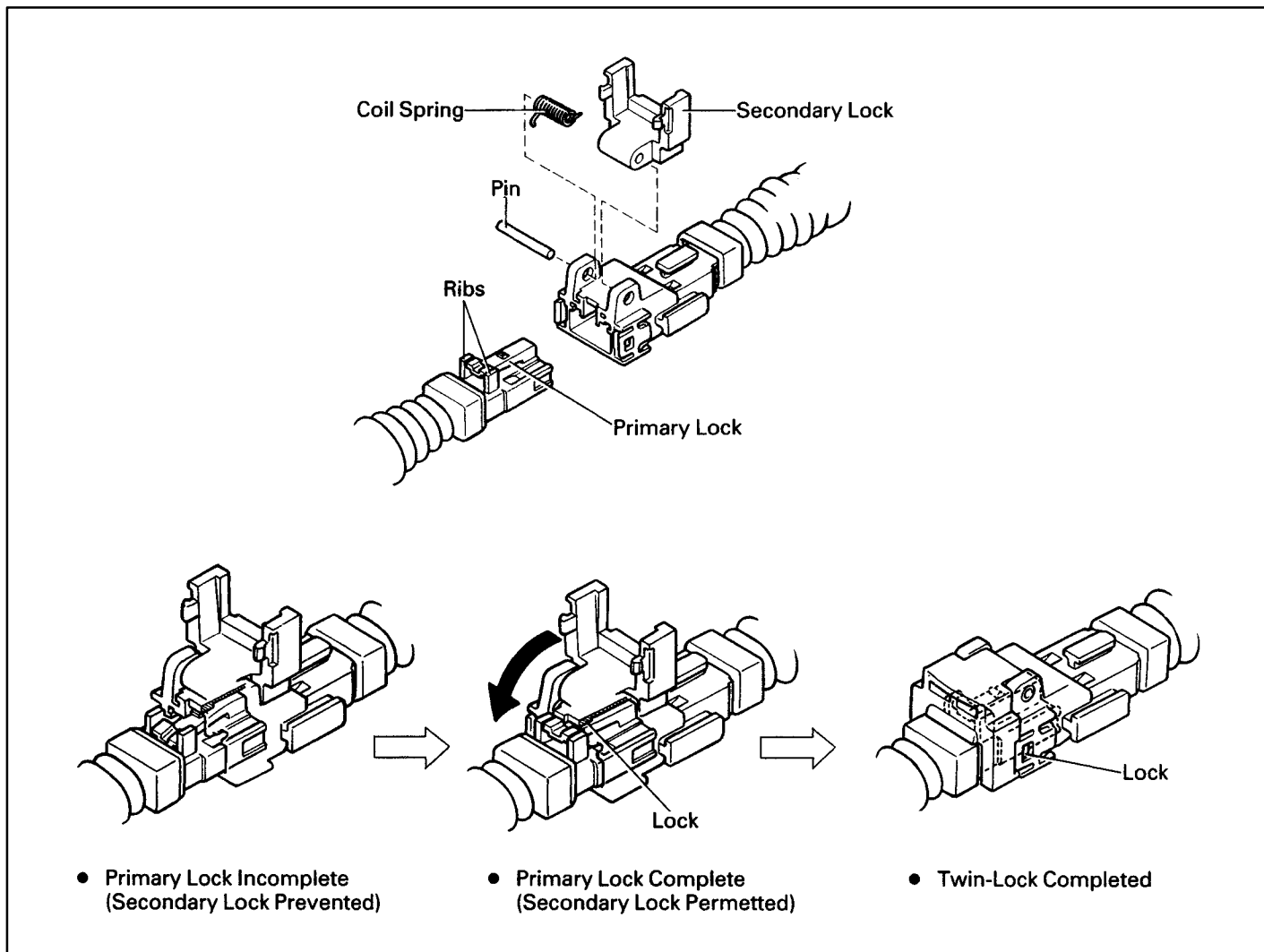
The electrical connection check mechanism is designed so that the connection detection pin connects with the diagnosis terminals when the connector housing lock is in the locked condition.



# SRS (SUPPLEMENTAL RESTRAINT SYSTEM)

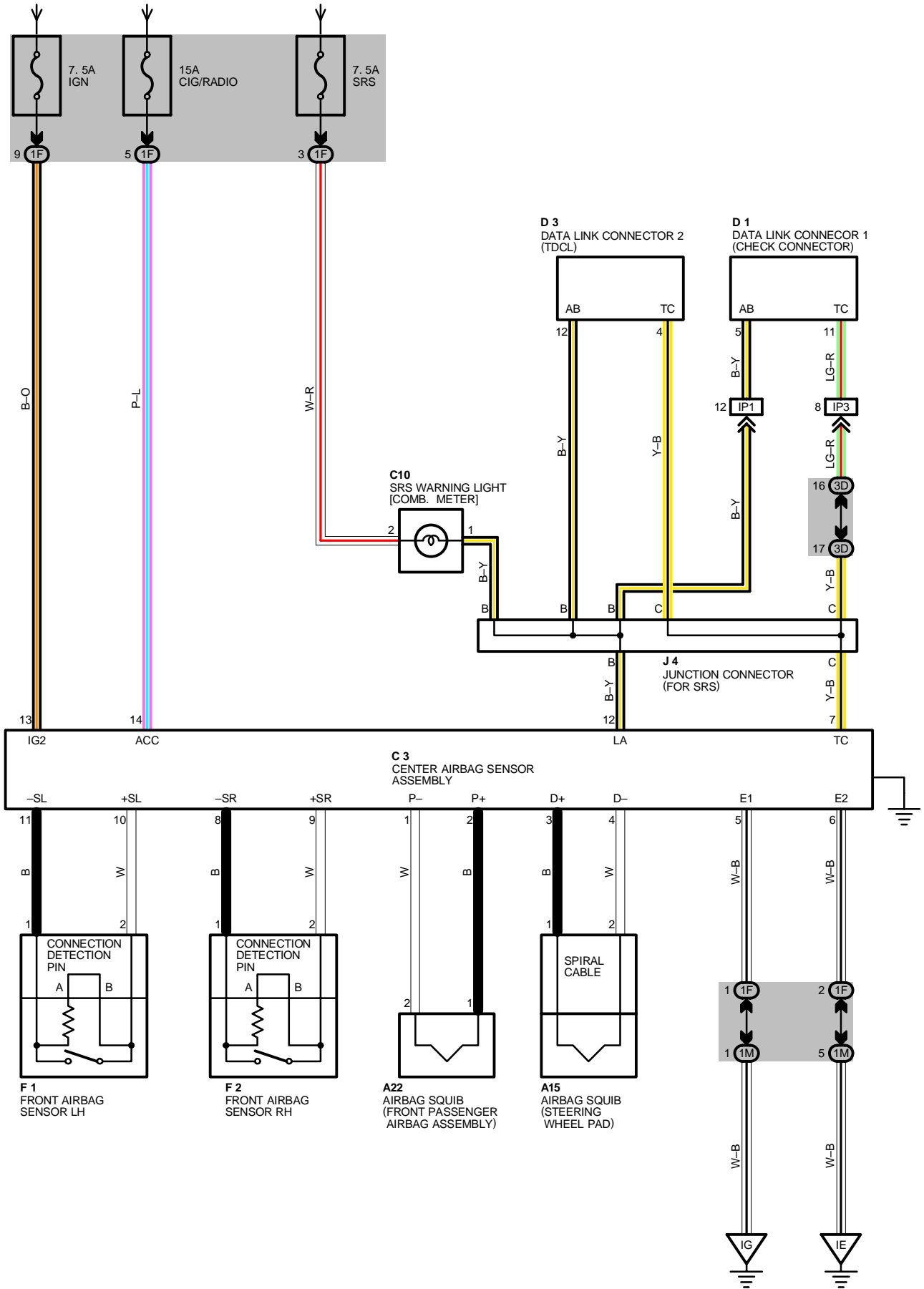
## 3. CONNECTOR TWIN-LOCK MECHANISM

With this mechanism connectors (male and female connectors) are locked by two locking devices to increase connection reliability. If the primary lock is incomplete, ribs interfere and prevent the secondary lock.





FROM POWER SOURCE SYSTEM (SEE PAGE 64)



# SRS (SUPPLEMENTAL RESTRAINT SYSTEM)

## SYSTEM OUTLINE

THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) IS A DRIVER AND PASSENGER PROTECTION DEVICE WHICH HAS A SUPPLEMENTAL ROLE TO THE SEAT BELTS.

WHEN THE IGNITION SW IS TURNED TO ACC OR ON, CURRENT FROM THE **CIG/RADIO** FUSE FLOWS TO **TERMINAL 14** OF THE CENTER AIRBAG SENSOR ASSEMBLY. ONLY WHEN THE IGNITION SW IS ON DOES THE CURRENT FROM THE **IGN** FUSE FLOW TO **TERMINAL 13**.

IF AN ACCIDENT OCCURS WHILE DRIVING, DECELERATION CAUSED BY A FRONTAL IMPACT IS DETECTED BY EACH SENSOR AND SWITCH, AND WHEN THE FRONTAL IMPACT EXCEEDS A SET LEVEL (WHEN THE SAFING SENSOR BUILT INTO THE CENTER AIRBAG SENSOR ASSEMBLY IS ON AND THE CENTER AIRBAG SENSOR IS ON, FRONT AIRBAG SENSORS ARE OFF), CURRENT FROM THE **CIG/RADIO** OR **IGN** FUSE FLOWS TO **TERMINALS 2, 3** OF THE CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 1** OF THE AIRBAG SQUIB → SQUIB → **TERMINAL 2** → **TERMINALS 1, 4** OF CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 6, TERMINAL 5 OR BODY GROUND** → **GROUND**.

WHEN THE SAFING SENSOR BUILT INTO THE CENTER AIRBAG SENSOR ASSEMBLY IS ON AND THE FRONT AIRBAG SENSOR LH OR RH IS ON, CENTER AIRBAG SENSOR IS OFF CURRENT FROM THE **CIG/RADIO** OR **IGN** FUSE FLOWS TO **TERMINALS 2, 3** OF THE CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 1** OF THE AIRBAG SQUIB → SQUIB → **TERMINAL 2** → **TERMINALS 1, 4** OF CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 8 OR 11** → **TERMINAL 1** OF FRONT AIRBAG SENSOR → **TERMINAL 2** → **TERMINAL 9 OR 10** OF CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 6, TERMINAL 5 OR BODY GROUND** → **GROUND**.

WHEN THE SAFING SENSOR BUILT INTO THE CENTER AIRBAG SENSOR ASSEMBLY IS ON, AND THE FRONT AIRBAG SENSOR LH OR RH IS ON AND CENTER AIRBAG SENSOR IS ON ONE OF THE ABOVE-MENTIONED CIRCUITS IS ACTIVATED SO THAT CURRENT FLOWS TO THE AIRBAG SQUIB AND CAUSES IT TO OPERATE. THE BAG STORED INSIDE THE STEERING WHEEL PAD IS INSTANTANEOUSLY EXPANDED TO SOFTEN THE SHOCK TO THE DRIVER.

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>A15</b>	<a href="#">32</a>	<b>D 1</b>	<a href="#">28 (1MZ-FE), 30 (5S-FE)</a>	<b>F 2</b>	<a href="#">28 (1MZ-FE), 30 (5S-FE)</a>
<b>C 3</b>	<a href="#">32</a>	<b>D 3</b>	<a href="#">32</a>	<b>J 4</b>	<a href="#">33</a>
<b>C10</b>	<a href="#">32</a>	<b>F 1</b>	<a href="#">28 (1MZ-FE), 30 (5S-FE)</a>		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1F</b>	<a href="#">20</a>	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1M</b>		
<b>3D</b>	<a href="#">24</a>	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

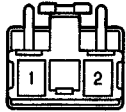
## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IP1</b>	<a href="#">44</a>	ENGINE WIRE AND COWL WIRE
<b>IP3</b>		

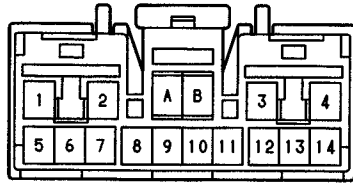
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>IE</b>	<a href="#">42</a>	LEFT KICK PANEL
<b>IG</b>	<a href="#">42</a>	INSTRUMENT PANEL BRACE LH

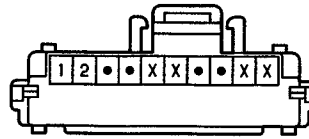
A15 YELLOW



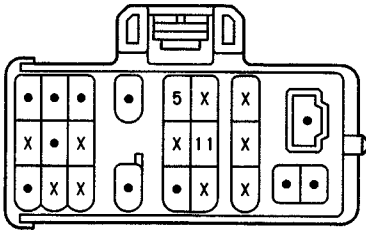
C 3 YELLOW



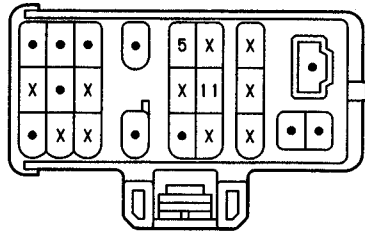
C10 GRAY



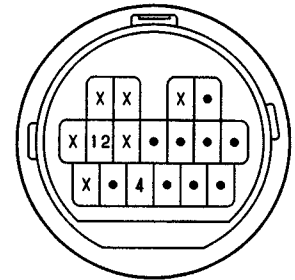
(1MZ-FE) D 1 BLACK



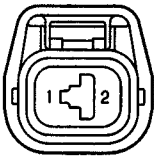
(5S-FE) D 1 BLACK



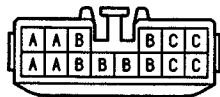
D 3 DARK GRAY



F 1, F 2 YELLOW



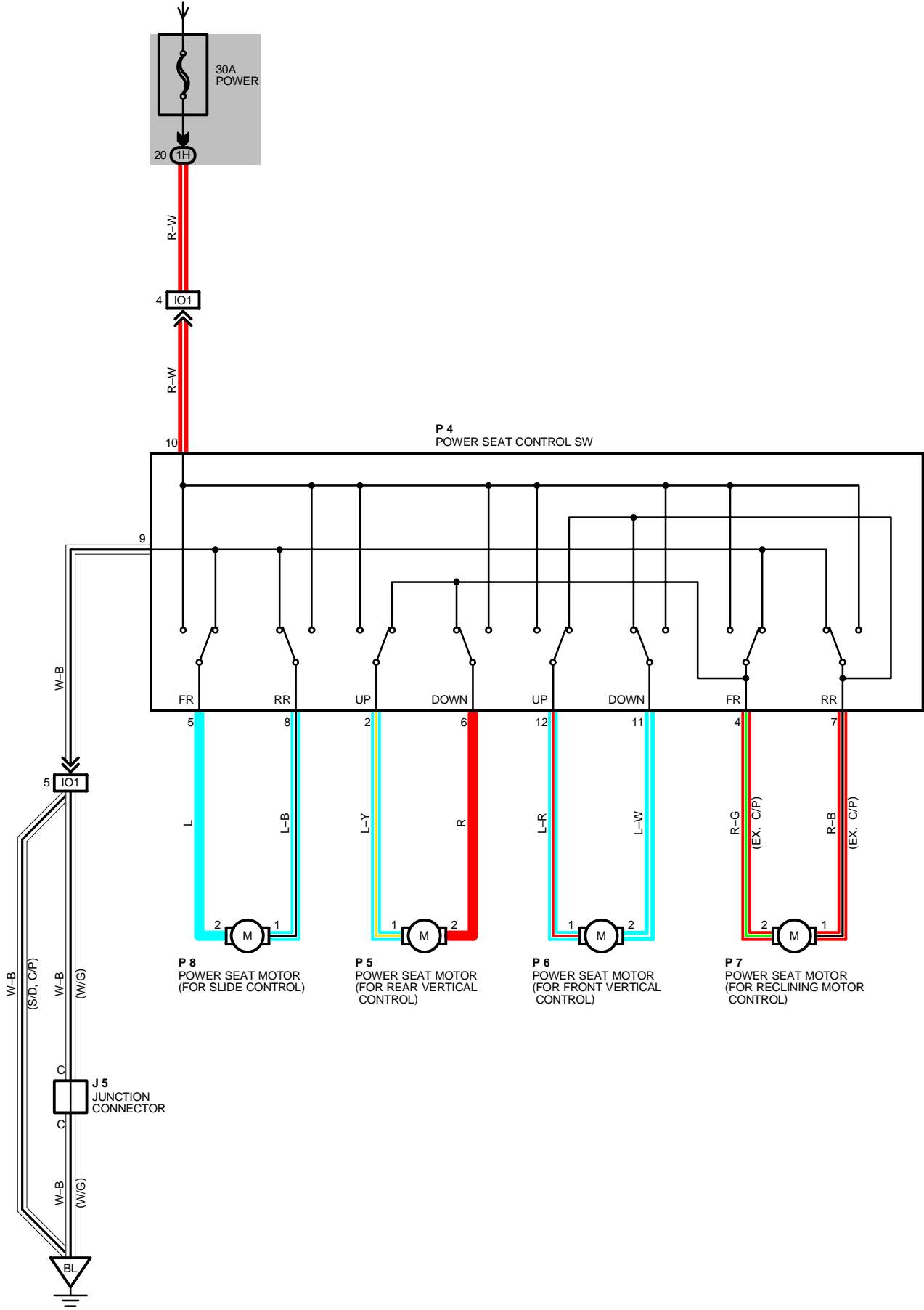
J 4



(HINT:SEE PAGE 7)

# POWER SEAT

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



**SERVICE HINTS**

**P 4 POWER SEAT CONTROL SW**

10-GROUND : ALWAYS APPROX. 12 VOLTS  
 9-GROUND : ALWAYS CONTINUITY

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 5	36 (W/G)	P 5	33	P 7	33
P 4	33	P 6	33	P 8	33

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

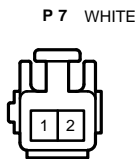
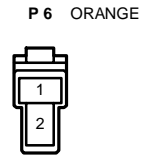
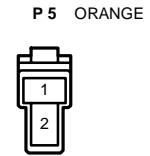
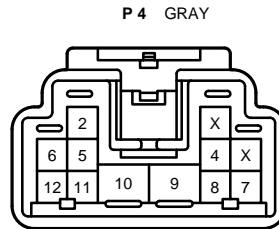
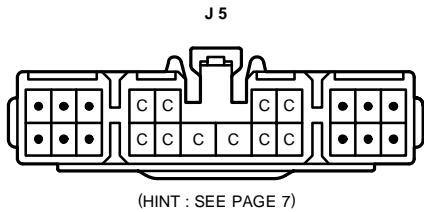
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)

**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

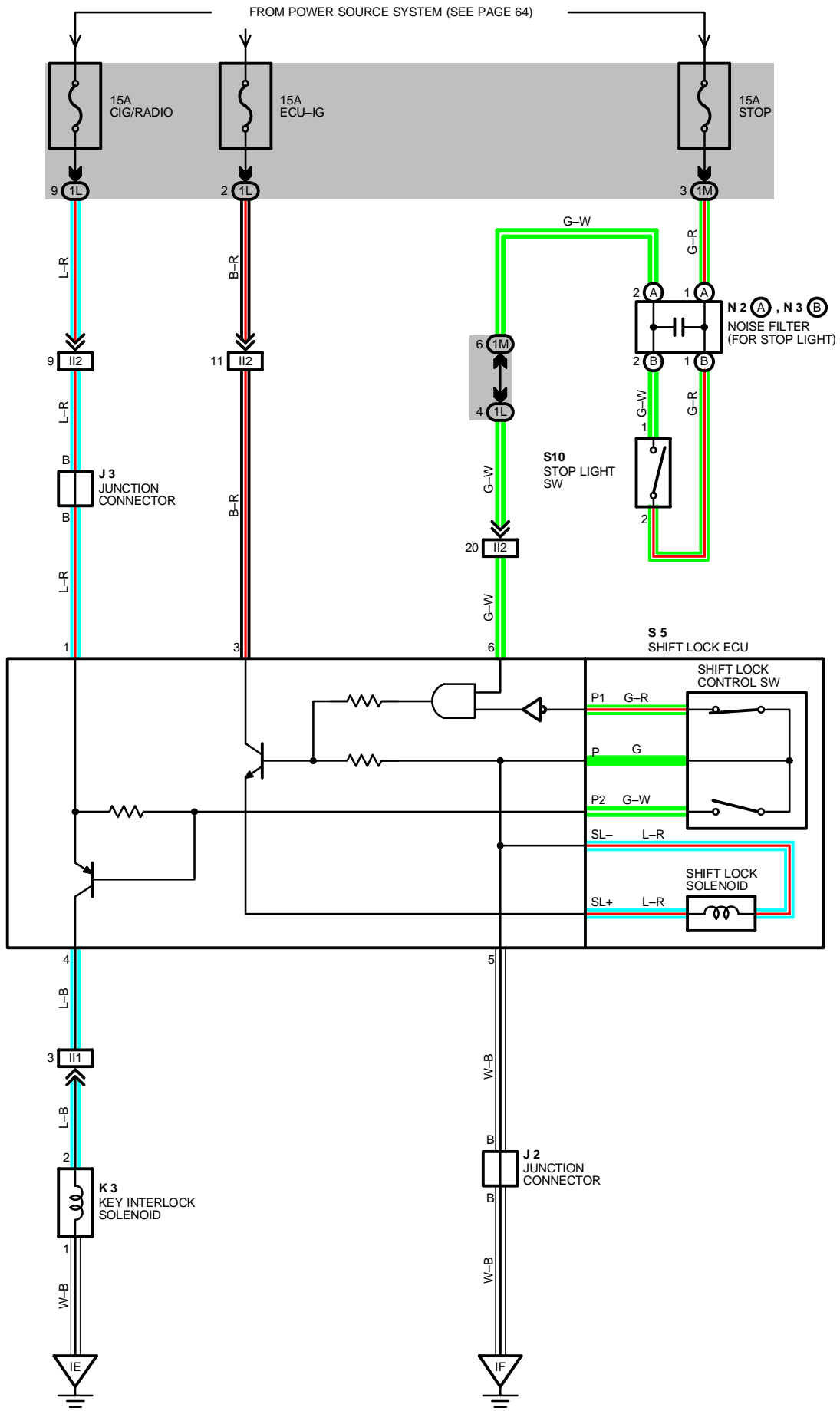
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IO1	42	FLOOR NO. 1 WIRE AND SEAT WIRE

**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	



# SHIFT LOCK



## SYSTEM OUTLINE

WHEN THE IGNITION SW IS TURNED TO **ACC** POSITION THE CURRENT FROM THE **CIG/RADIO** FUSE FLOWS TO **TERMINAL 1** OF THE SHIFT LOCK ECU. WHEN THE IGNITION SW IS TURNED TO **ON** POSITION THE CURRENT FROM THE **ECU-IG** FUSE FLOWS TO **TERMINAL 3** OF THE ECU.

### 1. SHIFT LOCK MECHANISM

WITH THE IGNITION SW ON, WHEN A SIGNAL THAT THE BRAKE PEDAL IS DEPRESSED (STOP LIGHT SW ON) AND A SIGNAL THAT THE SHIFT LEVER IS PUT IN “**P**” POSITION (CONTINUITY BETWEEN P1 AND P OF THE SHIFT LOCK CONTROL SW) IS INPUT TO THE ECU, THE ECU OPERATES AND CURRENT FLOWS FROM **TERMINAL 3** OF THE ECU → **TERMINAL SL+** OF THE SHIFT LOCK SOLENOID → SOLENOID → **TERMINAL SL-** → **TERMINAL 5** OF THE ECU → **GROUND**. THIS CAUSES THE SHIFT LOCK SOLENOID TO TURN ON (PLATE STOPPER DISENGAGES) AND THE SHIFT LEVER CAN SHIFT INTO OTHER POSITION THAN THE “**P**” POSITION.

### 2. KEY INTERLOCK MECHANISM

WITH THE IGNITION SW IN **ON** OR **ACC** POSITION, WHEN THE SHIFT LEVER IS PUT IN “**P**” POSITION (NO CONTINUITY BETWEEN P2 AND P OF SHIFT LOCK CONTROL SW), THE CURRENT FLOWING FROM **TERMINAL 4** OF THE ECU → KEYINTERLOCK SOLENOID IS CUT OFF. THIS CAUSES THE KEYINTERLOCK SOLENOID TO TURN OFF (LOCK LEVER DISENGAGES FROM **LOCK** POSITION) AND THE IGNITION KEY CAN BE TURNED FROM **ACC** TO **LOCK** POSITION.

## SERVICE HINTS

### S5 SHIFT LOCK ECU

- 1-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 5-GROUND : ALWAYS CONTINUITY
- 6-GROUND : APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED
- 4-GROUND : 0 VOLTS WITH IGNITION SW AT **ACC** POSITION AND SHIFT LEVER POSITION IN **P** POSITION  
6-12 VOLTS WITH SHIFT LEVER POSITION IN EXCEPT **P** POSITION

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	33	N 2	A 33	S10	33
J 3	33	N 3	B 33		
K 3	33	S 5	33		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

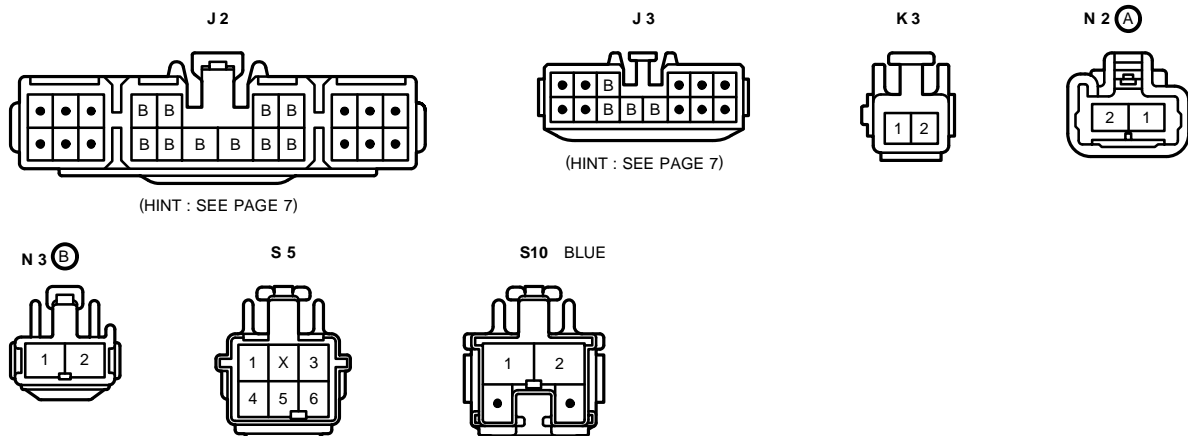
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1L	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE

### ▽ : GROUND POINTS

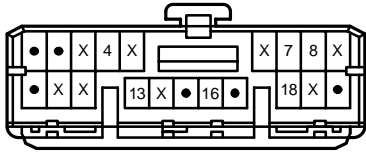
CODE	SEE PAGE	GROUND POINTS LOCATION
IE	42	LEFT KICK PANEL
IF		



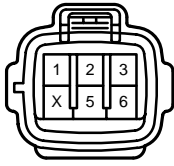
# FRONT WIPER AND WASHER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

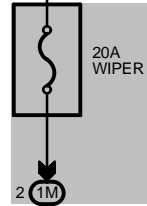
C13 BLACK



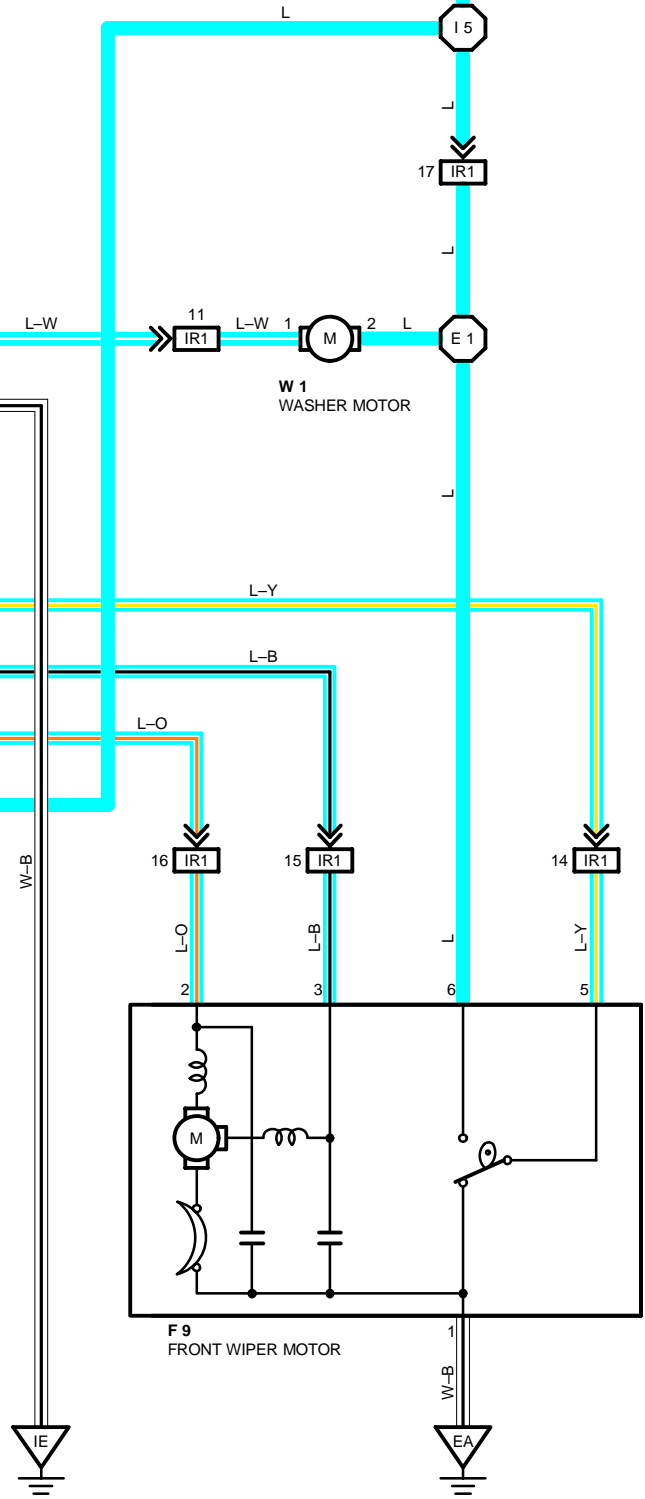
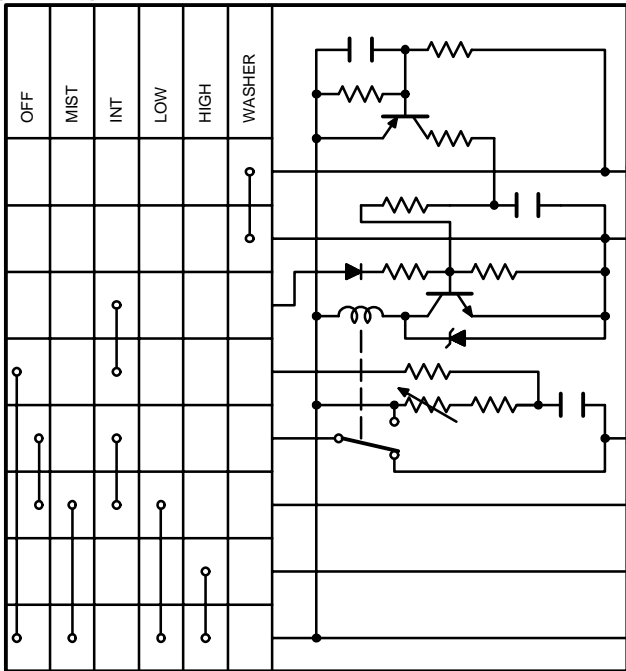
F9 BLACK



W1 BLACK



C13  
FRONT WIPER AND WASHER SW (W/ WIPER RELAY)  
[COMB. SW]





## SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO **TERMINAL 18** OF THE WIPER AND WASHER SW, **TERMINAL 2** OF THE WASHER MOTOR AND **TERMINAL 4** OF THE WIPER MOTOR THROUGH THE **WIPER FUSE**.

### 1. LOW SPEED POSITION

WITH WIPER SW TURNED TO **LOW** POSITION, THE CURRENT FLOWS FROM **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF THE WIPER MOTOR → WIPER MOTOR → **TERMINAL 1** → TO **GROUND** AND CAUSES TO THE WIPER MOTOR TO RUN AT LOW SPEED.

### 2. HIGH SPEED POSITION

WITH WIPER SW TURNED TO **HIGH** POSITION, THE CURRENT FLOWS FROM **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 13** → **TERMINAL 2** OF THE WIPER MOTOR → WIPER MOTOR → **TERMINAL 1** → TO **GROUND** AND CAUSES TO THE WIPER MOTOR TO RUN AT HIGH SPEED.

### 3. INT POSITION

WITH WIPER SW TURNED TO **INT** POSITION, THE RELAY OPERATES AND THE CURRENT WHICH IS CONNECTED BY RELAY FUNCTION FLOWS FROM **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 16** → TO **GROUND**. THIS FLOW OF CURRENT OPERATES THE INTERMITTENT CIRCUIT AND THE CURRENT FLOWS FROM **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF THE WIPER MOTOR → **TERMINAL 1** → TO **GROUND** AND THE WIPER FUNCTIONS.

THE INTERMITTENT OPERATION IS CONTROLLED BY A CONDENSER'S CHARGED AND DISCHARGED FUNCTION INSTALLED IN RELAY AND THE INTERMITTENT TIME IS CONTROLLED BY A TIME CONTROL SW TO CHANGE THE CHARGING TIME OF THE CONDENSER.

### 4. WASHER CONTINUOUS OPERATION

WITH WASHER SW TURNED ON, THE CURRENT FLOWS FROM **TERMINAL 2** OF THE WASHER MOTOR → **TERMINAL 1** → **TERMINAL 8** OF THE WIPER AND WASHER SW → **TERMINAL 16** → TO **GROUND** AND CAUSES TO THE WASHER MOTOR TO RUN AND WINDOW WASHER TO JET. THIS CAUSES THE CURRENT TO FLOW TO WASHER CONTINUOUS OPERATION CIRCUIT IN **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF THE WIPER MOTOR → **TERMINAL 1** → TO **GROUND** AND THE WIPER FUNCTION.

## SERVICE HINTS

### C13 FRONT WIPER AND WASHER SW (W/ WIPER RELAY) [COMB. SW]

16-GROUND : ALWAYS CONTINUITY

18-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

7-GROUND : APPROX. 12 VOLTS WITH WIPER AND WASHER SW AT **LOW** OR **MIST** POSITION

APPROX. 12 VOLTS 2 TO 12 SECONDS INTERMITTENTLY WITH WIPER SW AT **INT** POSITION

4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON UNLESS WIPER MOTOR AT **STOP** POSITION

13-GROUND : APPROX. 12 VOLTS WITH WIPER AND WASHER SW AT **HIGH** POSITION

### F 9 FRONT WIPER MOTOR

5-6 : CLOSED UNLESS WIPER MOTOR AT **STOP** POSITION

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C13</b>	<a href="#">32</a>	<b>F 9</b>	<a href="#">28 (1MZ-FE), 30 (5S-FE)</a>	<b>W 1</b>	<a href="#">28 (1MZ-FE), 30 (5S-FE)</a>

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1H</b>	<a href="#">20</a>	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1M</b>	<a href="#">20</a>	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IR1</b>	<a href="#">44</a>	ENGINE ROOM MAIN WIRE AND COWL WIRE

## ▽ : GROUND POINTS

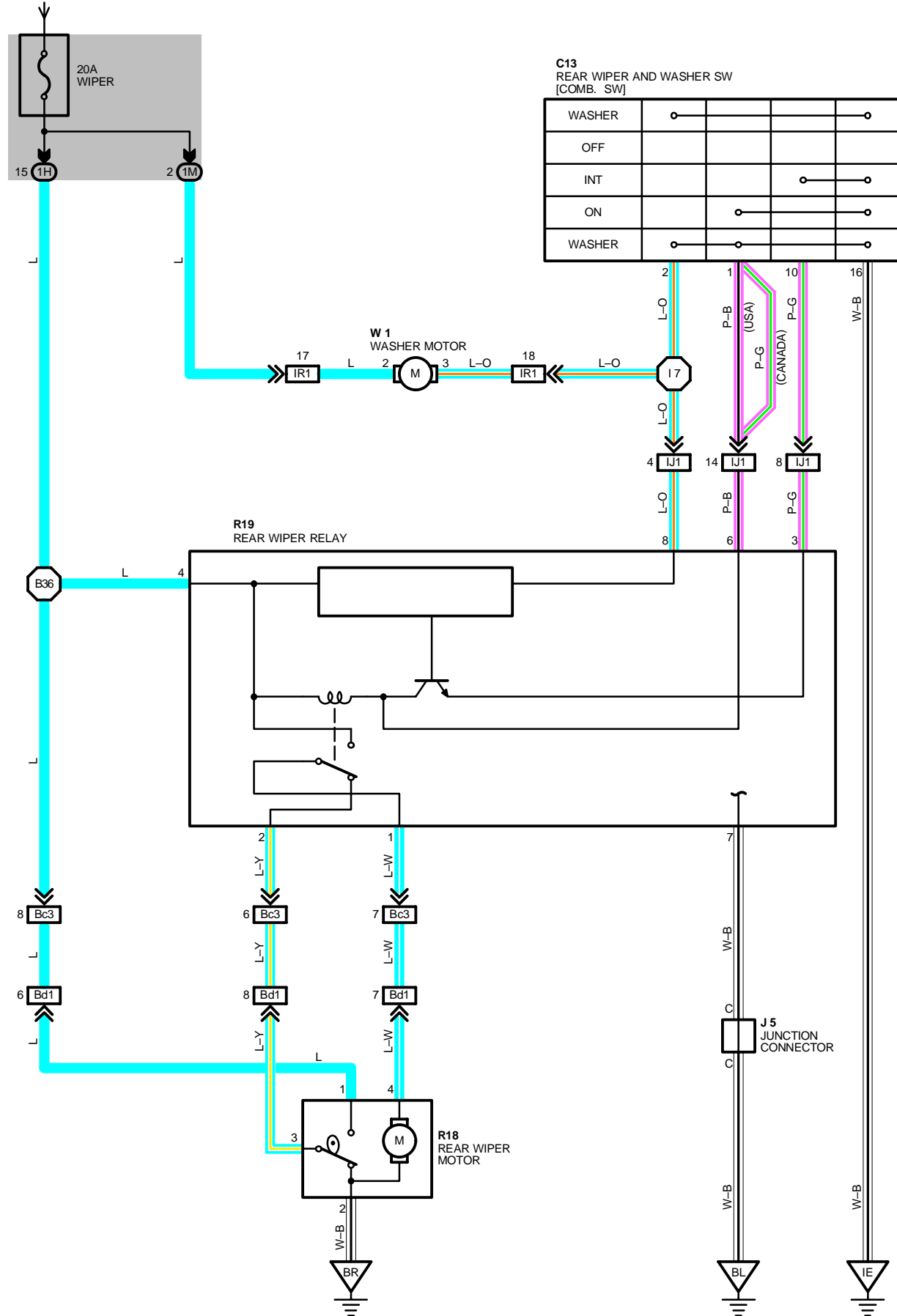
CODE	SEE PAGE	GROUND POINTS LOCATION
<b>EA</b>	<a href="#">38 (1MZ-FE)</a>	FRONT RIGHT FENDER
	<a href="#">40 (5S-FE)</a>	
<b>IE</b>	<a href="#">42</a>	LEFT KICK PANEL

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>E 1</b>	<a href="#">38 (1MZ-FE)</a>	ENGINE ROOM MAIN WIRE	<b>I 5</b>	<a href="#">44</a>	COWL WIRE
	<a href="#">40 (5S-FE)</a>				

# REAR WIPER AND WASHER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SYSTEM OUTLINE

WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS TO **TERMINAL 2** OF WASHER MOTOR, **TERMINAL 4** OF REAR WIPER RELAY AND **TERMINAL 1** OF REAR WIPER MOTOR THROUGH THE **WIPER FUSE**.

### 1. REAR WIPER NORMAL OPERATION

WITH THE IGNITION SW TURNED ON AND REAR WIPER AND WASHER SW TURNED ON, THE CURRENT FLOWING TO **TERMINAL 4** OF REAR WIPER RELAY FLOWS TO **TERMINAL 6** OF RELAY → **TERMINAL 1** OF REAR WIPER AND WASHER SW → **TERMINAL 16** → TO **GROUND**. THUS, THE RELAY COIL IS ACTIVATED AND THE CURRENT TO **TERMINAL 4** OF RELAY FLOWS TO **TERMINAL 1** → **TERMINAL 4** OF REAR WIPER MOTOR → MOTOR → **TERMINAL 2** → TO **GROUND** AND CAUSES THE MOTOR TO OPERATE THE WIPER.

### 2. REAR WIPER INTERMITTENT OPERATION

WITH THE IGNITION SW TURNED ON AND REAR WIPER AND WASHER SW TURNED TO **INT** POSITION, THE CURRENT FLOWING TO **TERMINAL 4** OF REAR WIPER RELAY FLOWS TO **TERMINAL 3** OF RELAY → **TERMINAL 10** OF WIPER SW → **TERMINAL 16** → TO **GROUND**. AS A RESULT, THE RELAY OPERATES AND CURRENT FLOWS FROM **TERMINAL 4** OF RELAY → **TERMINAL 1** → **TERMINAL 4** OF REAR WIPER MOTOR → MOTOR → **TERMINAL 2** → TO **GROUND**, CAUSING THE MOTOR TO ROTATE TO OPERATE THE WIPER. AT THIS TIME THE CONTACT IN THE WIPER MOTOR CLOSED AND THE CURRENT FLOWS FROM **TERMINAL 1** OF REAR WIPER MOTOR → **TERMINAL 3** → **TERMINAL 2** OF REAR WIPER RELAY → **TERMINAL 1** → **TERMINAL 4** OF REAR WIPER MOTOR → **TERMINAL 2** → TO **GROUND**.

THUS, THE INTERMITTENT-STOP CIRCUIT OPERATES, THE CONDENSOR IN THE CIRCUIT CHARGES AND THE WIPER CONTINUES TO OPERATE UNTIL REACHING THE STOP POSITION. AFTER THE WIPER STOPS, CURRENT DOES NOT FLOW TO THE INTERMITTENT-STOP CIRCUIT FROM **TERMINAL 2** OF RELAY, BUT THE CONDENSER DISCHARGES CURRENT INTO THE INTERMITTENT CIRCUIT AND THE CIRCUIT OPERATES UNTIL THE CONDENSER DISCHARGE ENDS. AS A RESULT, THIS DISCHARGE INTERVAL BECOMES THE INTERMITTENT TIME.

WHEN THE CURRENT IS DISCHARGED COMPLETELY, THE CURRENT FLOWING TO **TERMINAL 4** OF RELAY FLOWS TO **TERMINAL 3** → **TERMINAL 10** OF REAR WIPER AND WASHER SW → **TERMINAL 16** → TO **GROUND**.

THEN, THE CURRENT IN **TERMINAL 4** OF RELAY FLOWS FROM **TERMINAL 1** → **TERMINAL 4** OF MOTOR → MOTOR → **TERMINAL 2** → TO **GROUND** AND ROTATES THE MOTOR. THROUGH REPEITION OF THIS PROCESS, INTERMITTENT OPERATION OF THE REAR WIPER OCCURS.

### 3. WASHER OPERATION

WITH THE IGNITION SW ON AND THE REAR WIPER AND WASHER SW IS TURNED STRONGLY (WASHER SW ON), CURRENT FLOWS FROM **TERMINAL 2** OF WASHER MOTOR → **TERMINAL 3** → **TERMINAL 2** OF REAR WIPER AND WASHER SW → **TERMINAL 16** → TO **GROUND** SO THAT THE WASHER MOTOR ROTATES AND WINDOW WASHER EJECTS THE SPRAY, ONLY THE WHILE THE REAR WASHER SW IS TURNED, WHEN THE REAR WIPER SW IS OFF, AND THE REAR WIPER AND WASHER SW IS THEN TURNED IN THE OFF DIRECTION, WASHER LIQUID WILL ALSO SPLAY.

## SERVICE HINTS

### R19 REAR WIPER RELAY

4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

7-GROUND : ALWAYS CONTINUITY

1-4 : POINTS CHANGES EVERY APPROX. 9-15 SECONDS INTERMITTENTLY WITH IGNITION SW ON AND WIPER SW AT **INT** POSITION

### W 1 WASHER MOTOR

2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

3-GROUND : CONTINUITY WITH WASHER SW TURNED ON

# REAR WIPER AND WASHER

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C13</b>	32	<b>R18</b>	36 (W/G)	<b>W 1</b>	29 (1MZ-FE), 30 (5S-FE)
<b>J 5</b>	36 (W/G)	<b>R19</b>	36 (W/G)		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1H</b>	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1M</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IJ1</b>	42	FLOOR NO. 1 WIRE AND COWL WIRE
<b>IR1</b>	44	ENGINE ROOM MAIN WIRE AND COWL WIRE
<b>Bc1</b>	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
<b>Bd1</b>	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

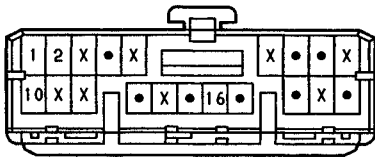
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>IE</b>	42	LEFT KICK PANEL
<b>BL</b>	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
<b>BR</b>	50 (W/G)	BACK DOOR CENTER

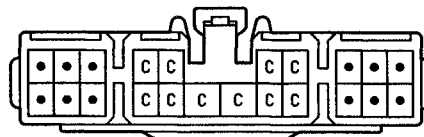
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>I 7</b>	44	COWL WIRE	<b>B36</b>	50 (W/G)	FLOOR NO. 1 WIRE

**C13 BLACK**



**J 5**



(HINT:SEE PAGE 7)

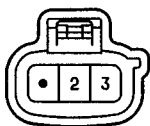
**R18**



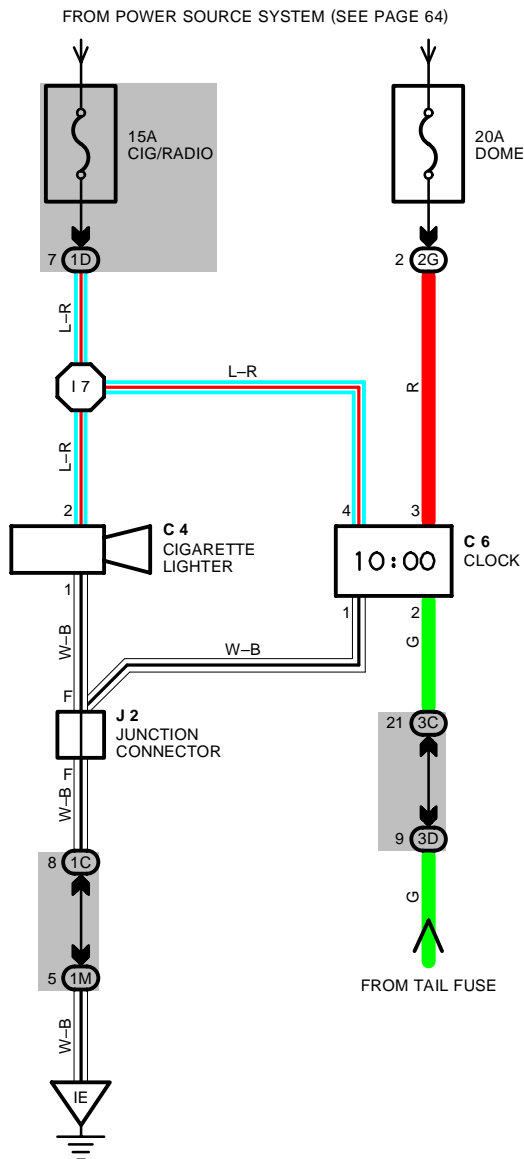
**R19**



**W 1**



# CIGARETTE LIGHTER AND CLOCK



## SERVICE HINTS

### C 4 CIGARETTE LIGHTER

- 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ACC OR ON POSITION
- 1-GROUND : ALWAYS CONTINUITY

### C 6 CLOCK

- 3-GROUND : ALWAYS APPROX. 12 VOLTS (POWER FOR CLOCK)
- 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ACC OR ON POSITION (POWER FOR INDICATION)
- 2-GROUND : APPROX. 12 VOLTS WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE RELEASED (CANADA)
- 1-GROUND : ALWAYS CONTINUITY

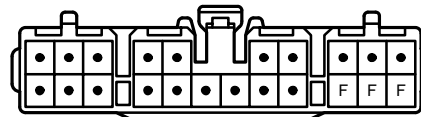
C 4



C 6 BLACK



J 2 DARK GRAY



(HINT : SEE PAGE 7)

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 4	32	C 6	32	J 2	33

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1D		
1M		
2E	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

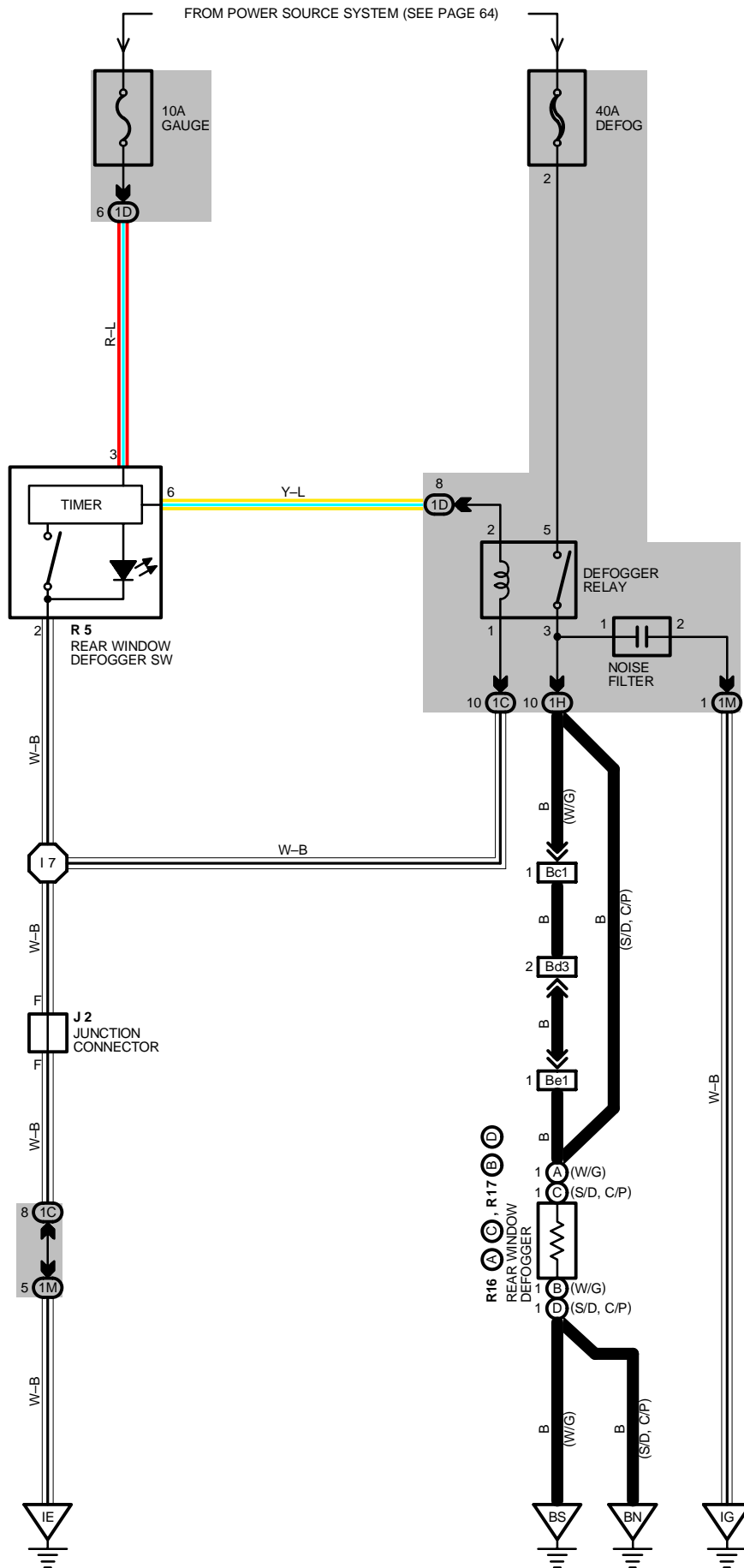
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	42	LEFT KICK PANEL

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
17	44	COWL WIRE			

# REAR WINDOW DEFOGGER



## SERVICE HINTS

### DEFOGGER RELAY

5-3 : CLOSED WITH IGNITION SW ON, DEFOGGER SW ON

### R 5 REAR WINDOW DEFOGGER SW

3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION

2-GROUND : ALWAYS CONTINUITY

3-6 : CONTINUITY WITH DEFOGGER SW ON

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	33	R16	A 34 (S/D), 35 (C/P), 36 (W/G)	R17	B 34 (S/D), 35 (C/P), 36 (W/G)
R 5	33		C 34 (S/D), 35 (C/P), 36 (W/G)		D 34 (S/D), 35 (C/P), 36 (W/G)

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1D		
1H	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

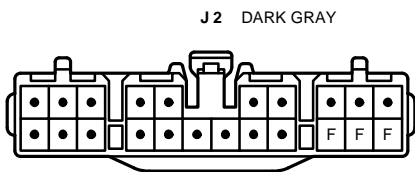
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
Bc1	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bd3	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE
Be1	50 (W/G)	REAR WINDOW NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

### ▽ : GROUND POINTS

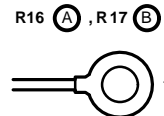
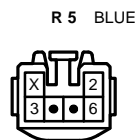
CODE	SEE PAGE	GROUND POINTS LOCATION
IE	42	LEFT KICK PANEL
IG	42	INSTRUMENT PANEL BRACE LH
BN	46 (S/D)	UNDER THE RIGHT QUARTER PILLAR
	48 (C/P)	
BS	50 (W/G)	BACK DOOR RIGHT

### ○ : SPLICE POINTS

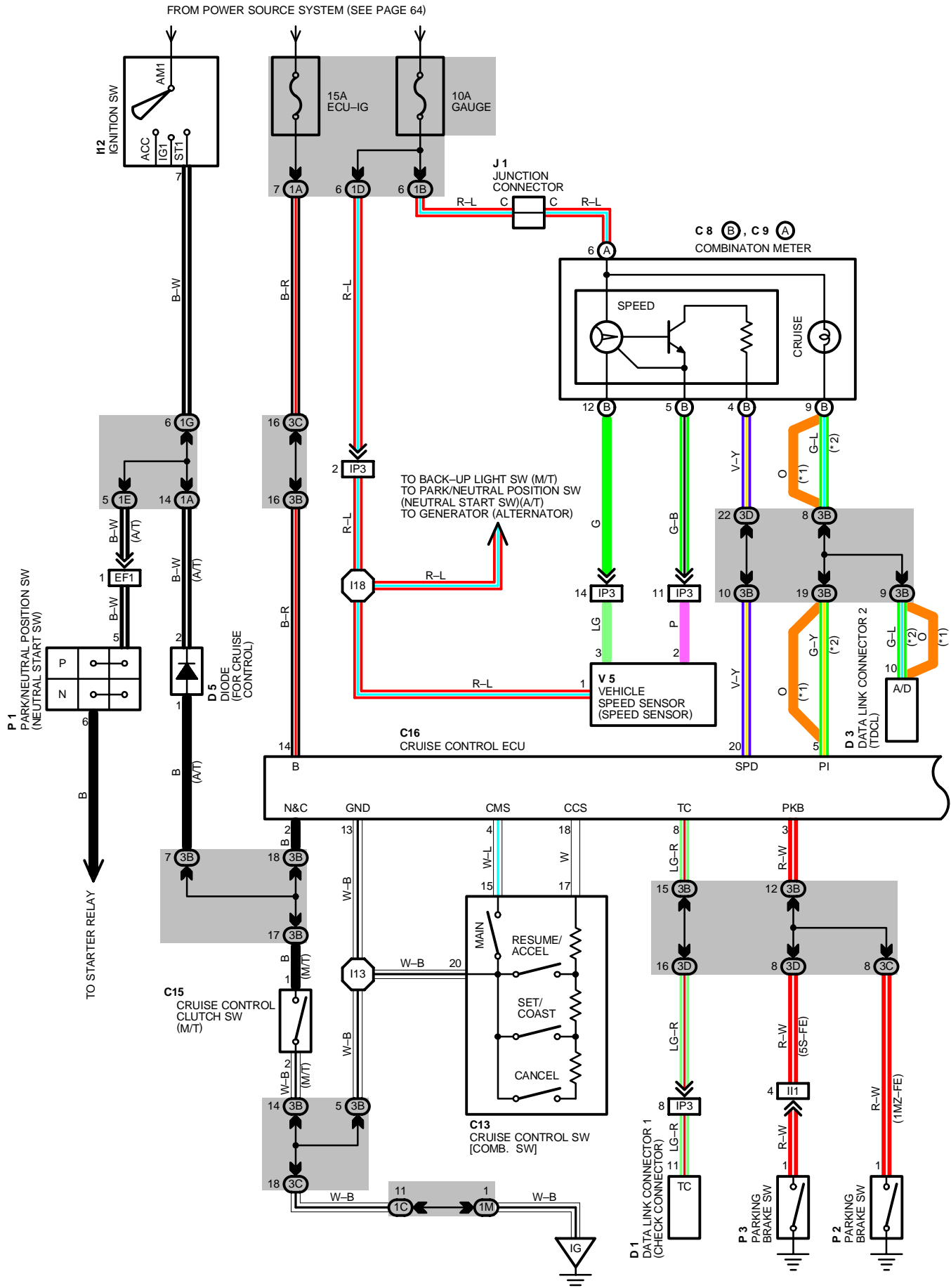
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
17	44	COWL WIRE			



(HINT : SEE PAGE 7)

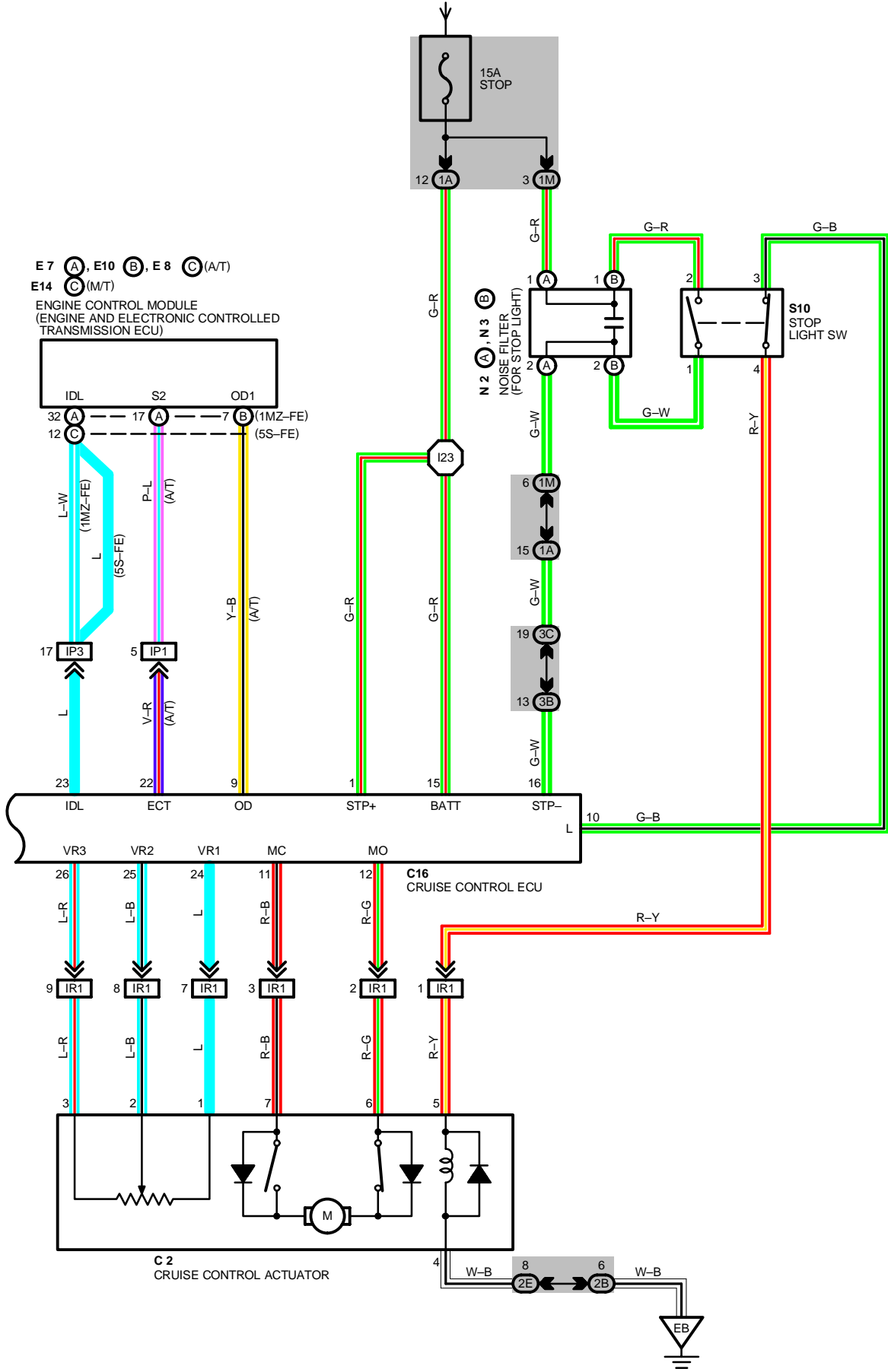


# CRUISE CONTROL





FROM POWER SOURCE SYSTEM (SEE PAGE 64)



# CRUISE CONTROL

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 2	28 (1MZ-FE), 30 (5S-FE)	D 5	32	N 3	B 33
C 8	B 32	E 7	A 32	P 1	29 (1MZ-FE), 31 (5S-FE)
C 9	A 32	E 8	C 32	P 2	33
C13	32	E10	B 32	P 3	33
C15	32	E14	C 32	S10	33
C16	32	I12	33	V 5	29 (1MZ-FE), 31 (5S-FE)
D 1	28 (1MZ-FE), 30 (5S-FE)	J 1	33		
D 3	32	N 2	A 33		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1B		
1C		
1D		
1E		
1G		
1M		
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		
3D		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EF1	38 (1MZ-FE) 40 (5S-FE)	ENGINE WIRE AND COWL WIRE
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3	44	ENGINE WIRE AND COWL WIRE
IR1	44	ENGINE ROOM MAIN WIRE AND COWL WIRE

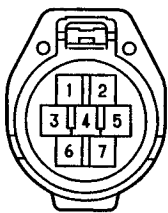
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE) 40 (5S-FE)	FRONT LEFT FENDER
IG	42	INSTRUMENT PANEL BRACE LH

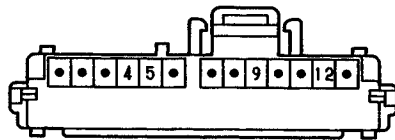
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I13	44	COWL WIRE	I23	44	COWL WIRE
I18	44	ENGINE WIRE			

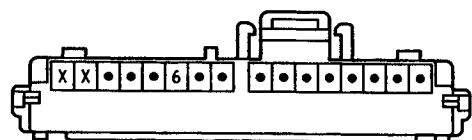
C 2 GRAY



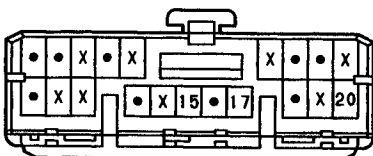
C 8 (B) BLUE



C 9 (A)



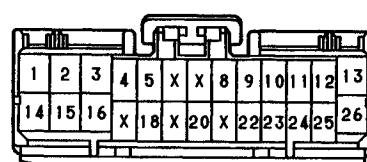
C13 BLACK



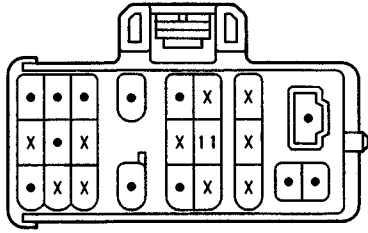
C15



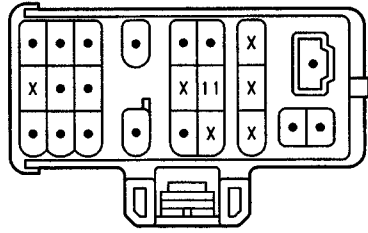
C16 GRAY



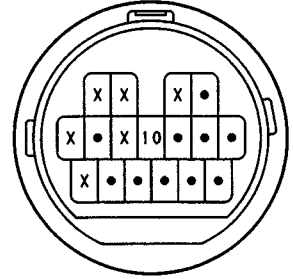
(1MZ-FE) D 1 BLACK



(5S-FE) D 1 BLACK



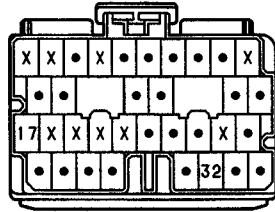
D 3 DARK GRAY



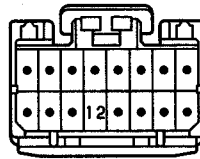
D 5 BLACK



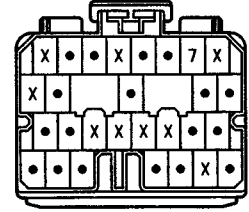
(1MZ-FE) E 7 (A) DARK GRAY



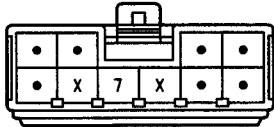
(5S-FE) E 8 (C) DARK GRAY



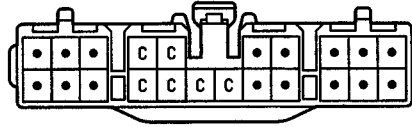
(1MZ-FE) E10 (B) DARK GRAY



I12

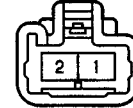


J 1 DARK GRAY

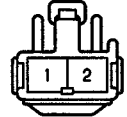


(HINT:SEE PAGE 7)

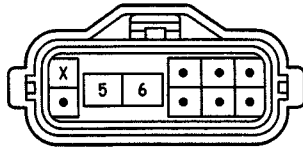
N 2 (A)



N 3 (B)



P 1 GRAY



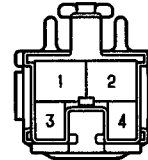
(1MZ-FE) P 2



(5S-FE) P 3



S10 BLUE



V 5 GRAY



# CRUISE CONTROL

## SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH **STOP** FUSE TO **TERMINAL 1** OF THE CRUISE CONTROL ECU AND **TERMINAL 2** OF STOP LIGHT SW, AND ALSO THROUGH THE **STOP** FUSE TO **TERMINAL 15** OF CRUISE CONTROL ECU.

WITH THE IGNITION SW TURNED TO ON, THE CURRENT FLOWS THROUGH **GAUGE** FUSE TO **TERMINAL (A) 6** OF COMBINATION METER AND THE CURRENT THROUGH **ECU-IG** FUSE FLOWS TO **TERMINAL 14** OF CRUISE CONTROL ECU.

WHEN THE IGNITION SW IS ON AND THE CRUISE CONTROL MAIN SW IS TURNED ON, A SIGNAL IS INPUT FROM **TERMINAL 15** OF CRUISE CONTROL MAIN SW TO **TERMINAL 4** OF CRUISE CONTROL ECU. AS A RESULT, THE CRUISE CONTROL ECU FUNCTIONS AND THE CURRENT TO **TERMINAL 14** OF CRUISE CONTROL ECU TO **TERMINAL 13** OF CRUISE CONTROL ECU → **GROUND**, AND THE CRUISE CONTROL SYSTEM IS IN A CONDITION READY FOR OPERATION.

AT THE SAME TIME, THE CURRENT THROUGH THE **GAUGE** FUSE FLOWS FROM **TERMINAL (A) 6** OF CRUISE CONTROL INDICATOR LIGHT → **TERMINAL (B) 9** → **TERMINAL 5** OF CRUISE CONTROL ECU → **TERMINAL 13** → TO **GROUND**, CAUSING THE CRUISE CONTROL INDICATOR LIGHT TO LIGHT UP, INDICATING THAT THE CRUISE CONTROL IS READY FOR OPERATION.

### 1. SET OPERATION

WHEN THE CRUISE CONTROL MAIN SW IS TURNED ON AND THE SET SW IS TURNED ON WITH THE VEHICLE SPEED WITHIN THE SET LIMIT (APPROX. **40** KM/H, **25** MPH TO **200** KM/H, **124** MPH), A SIGNAL IS INPUT TO **TERMINAL 18** OF THE CRUISE CONTROL ECU AND THE VEHICLE SPEED AT THE TIME THE SET SW IS RELEASED IS MEMORIZED IN THE ECU AS THE SET SPEED.

### 2. SET SPEED CONTROL

DURING CRUISE CONTROL DRIVING, THE ECU COMPARES THE SET SPEED MEMORIZED IN THE ECU WITH THE ACTUAL VEHICLE SPEED INPUT INTO **TERMINAL 20** OF THE CRUISE CONTROL ECU FROM THE VEHICLE SPEED SENSOR (SPEED SENSOR), AND CONTROLS THE CRUISE CONTROL ACTUATOR TO MAINTAIN THE SET SPEED.

WHEN THE ACTUAL SPEED IS LOWER THAN THE SET SPEED, THE ECU CAUSES THE CURRENT TO THE CRUISE CONTROL ACTUATOR TO FLOW FROM **TERMINAL 12** → **TERMINAL 6** OF CRUISE CONTROL ACTUATOR → **TERMINAL 7** → **TERMINAL 11** OF CRUISE CONTROL ECU. AS A RESULT, THE MOTOR IN THE CRUISE CONTROL ACTUATOR IS ROTATED TO OPEN THE THROTTLE VALVE AND THE THROTTLE CABLE IS PULLED TO INCREASE THE VEHICLE SPEED. WHEN THE ACTUAL DRIVING SPEED IS HIGHER THAN THE SET SPEED, THE CURRENT TO CRUISE CONTROL ACTUATOR FLOWS FROM **TERMINAL 11** OF ECU → **TERMINAL 7** OF CRUISE CONTROL ACTUATOR → **TERMINAL 6** → **TERMINAL 12** OF CRUISE CONTROL ECU.

THIS CAUSES THE MOTOR IN THE CRUISE CONTROL ACTUATOR TO ROTATE TO CLOSE THE THROTTLE VALVE AND RETURN THE THROTTLE CABLE TO DECREASE THE VEHICLE SPEED.

### 3. COAST CONTROL

DURING THE CRUISE CONTROL DRIVING, WHILE THE COAST SW IS ON, THE CRUISE CONTROL ACTUATOR RETURNS THE THROTTLE CABLE TO CLOSE THE THROTTLE VALVE AND DECREASE THE DRIVING SPEED. THE VEHICLE SPEED WHEN THE COAST SW IS TURNED OFF IS MEMORIZED AND THE VEHICLE CONTINUES AT THE NEW SET SPEED.

### 4. ACCEL CONTROL

DURING CRUISE CONTROL DRIVING, WHILE THE ACCEL SW IS TURNED ON, THE CRUISE CONTROL ACTUATOR PULLS THE THROTTLE CABLE TO OPEN THE THROTTLE VALVE AND INCREASE THE DRIVING SPEED.

THE VEHICLE SPEED WHEN THE ACCEL SW IS TURNED OFF IS MEMORIZED AND THE VEHICLE CONTINUES AT THE NEW SET SPEED.

### 5. RESUME CONTROL

UNLESS THE VEHICLE SPEED FALLS BELOW THE MINIMUM SPEED LIMIT (APPROX. **40** KM/H, **25** MPH) AFTER CANCELING THE SET SPEED BY THE CANCEL SW, PUSHING THE RESUME SW WILL CAUSE THE VEHICLE TO RESUME THE SPEED SET BEFORE CANCELLATION.

### 6. MANUAL CANCEL MECHANISM

IF ANY OF THE FOLLOWING OPERATIONS OCCURS DURING CRUISE CONTROL OPERATION, CURRENT FLOW TO MAGNETIC CLUTCH OF THE ACTUATOR IS CUT TURNS OFF AND THE MOTOR ROTATES TO CLOSE THE THROTTLE VALVE AND THE CRUISE CONTROL IS RELEASED.

- \* PLACING THE SHIFT LEVER IN "N" POSITION (PARK/NEUTRAL POSITION SW (NEUTRAL START SW ON). "SIGNAL INPUT TO **TERMINAL 2** OF ECU" (A/T)
- \* DEPRESSING THE CLUTCH PEDAL (CLUCH SW ON). "SIGNAL INPUT TO **TERMINAL 2** OF THE ECU" (M/T)
- \* DEPRESSING THE BRAKE PEDAL (STOP LIGHT SW ON). "SIGNAL INPUT TO **TERMINAL 16** OF ECU"
- \* PUSH THE CANCEL SW (CANCEL SW ON). "SIGNAL INPUT TO **TERMINAL 18** OF ECU"
- \* DEPRESSING THE PARKING BRAKE PEDAL (PARKING BRAKE SW ON). "SIGNAL INPUT TO **TERMINAL 3** OF ECU" (3VZ-FE)
- \* PULLING THE PARKING BRAKE LEVER (PARKING BRAKE SW ON). "SIGNAL INPUT TO **TERMINAL 3** OF THE ECU" (5S-FE)

## 7. AUTO CANCEL FUNCTION

A) IF ANY OF THE FOLLOWING OPERATING CONDITIONS OCCURS DURING CRUISE CONTROL OPERATION, THE SET SPEED IS ERASED, CURRENT FLOW TO MAGNETIC CLUTCH IS CUT OFF AND THE CRUISE CONTROL IS RELEASED. (MAIN SW TURNS OFF). WHEN THIS OCCURS, THE IGNITION SW MUST BE TURNED OFF ONCE BEFORE THE MAIN SW WILL TURN ON AGAIN.

- \* OVER CURRENT TO TRANSISTOR DRIVING MOTOR AND/OR MAGNETIC CLUTCH.
- \* WHEN CURRENT CONTINUED TO FLOW TO THE MOTOR INSIDE THE ACTUATOR IN THE THROTTLE VALVE "OPEN" DIRECTION.
- \* OPEN CIRCUIT IN MOTOR AND/OR MAGNETIC CLUTCH.
- \* MOMENTARY INTERRUPTION OF VEHICLE SPEED SIGNAL.
- \* SHORT CIRCUIT IN CRUISE CONTROL SW.
- \* MOTOR DOES NOT OPERATE DESPITE THE MOTOR DRIVE SIGNAL BEING OUTPUT.

B) IF ANY OF THE FOLLOWING CONDITIONS OCCURS DURING CRUISE CONTROL OPERATION, THE SET SPEED IS ERASED AND THE CRUISE CONTROL IS RELEASED. CURRENT FLOW TO MAGNETIC CLUTCH IS CUT OFF UNTIL THE SET SW IS "ON" AGAIN.)

- \* WHEN THE VEHICLE SPEED HAS FALLEN BELOW THE MINIMUM SPEED LIMIT, APPROX. **40 KM/H (25 MPH)**
- \* WHEN THE VEHICLE SPEED HAS FALLEN MORE THAN **16 KM/H (10 MPH)** BELOW THE SET SPEED, E.G. ON AN UPWARD SLOPE.
- \* WHEN POWER TO THE CRUISE CONTROL SYSTEM IS MOMENTARILY CUT OFF.

C) IF ANY OF THE FOLLOWING CONDITIONS OCCURS DURING CRUISE CONTROL OPERATION, THE CRUISE CONTROL IS RELEASED.

- \* OPEN CIRCUIT FOR **TERMINAL 1** OF CRUISE CONTROL ECU.

## 8. AUTOMATIC TRANSMISSION CONTROL FUNCTION

\* IN OVERDRIVE. IF THE VEHICLE SPEED BECOMES LOWER THAN THE OVERDRIVE CUT SPEED (SET SPEED MINUS APPROX. **4 KM/H, 2.5 MPH**) DURING CRUISE CONTROL OPERATION, SUCH AS DRIVING UP A HILL, THE OVERDRIVE IS RELEASED AND THE POWER INCREASED TO PREVENT A REDUCTION IN VEHICLE SPEED.

\* AFTER RELEASING THE OVERDRIVE, IF VEHICLE SPEED BECOMES HIGHER THAN THE OVERDRIVE RETURN SPEED (SET SPEED MINUS APPROX. **2 KM/H, 1.2 MPH**) AND THE ECU JUDGES BY THE SIGNALS FROM POTENTIOMETER OF THE ACTUATOR THAT THE UPWARD SLOPE HAS FINISHED, OVERDRIVE IS RESUMED AFTER A WHILE.

## SERVICE HINTS

### C 2 CRUISE CONTROL ACTUATOR

1-3 : APPROX. **2 K**

5-4 : APPROX. **38**

### C13 CRUISE CONTROL SW MAIN [COMB. SW]

15-20 : CONTINUITY WITH MAIN SW ON

20-17 : APPROX. **418** WITH CANCEL SW ON

APPROX. **68** WITH RESUME/ACCEL SW ON

APPROX. **198** WITH SET/COAST SW ON

### C16 CRUISE CONTROL ECU

14-GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION

1,15-GROUND : ALWAYS APPROX. **12** VOLTS

3-GROUND : CONTINUITY WITH PARKING BRAKE SW ON (ONE OF THE CANCEL SW) OR BRAKE LEVEL WARNING SW ON

20-GROUND : **4** PULSE WITH **1** ROTATION OF ROTOR SHAFT

18-GROUND : APPROX. **418** WITH CANCEL SW ON IN CONTROL SW

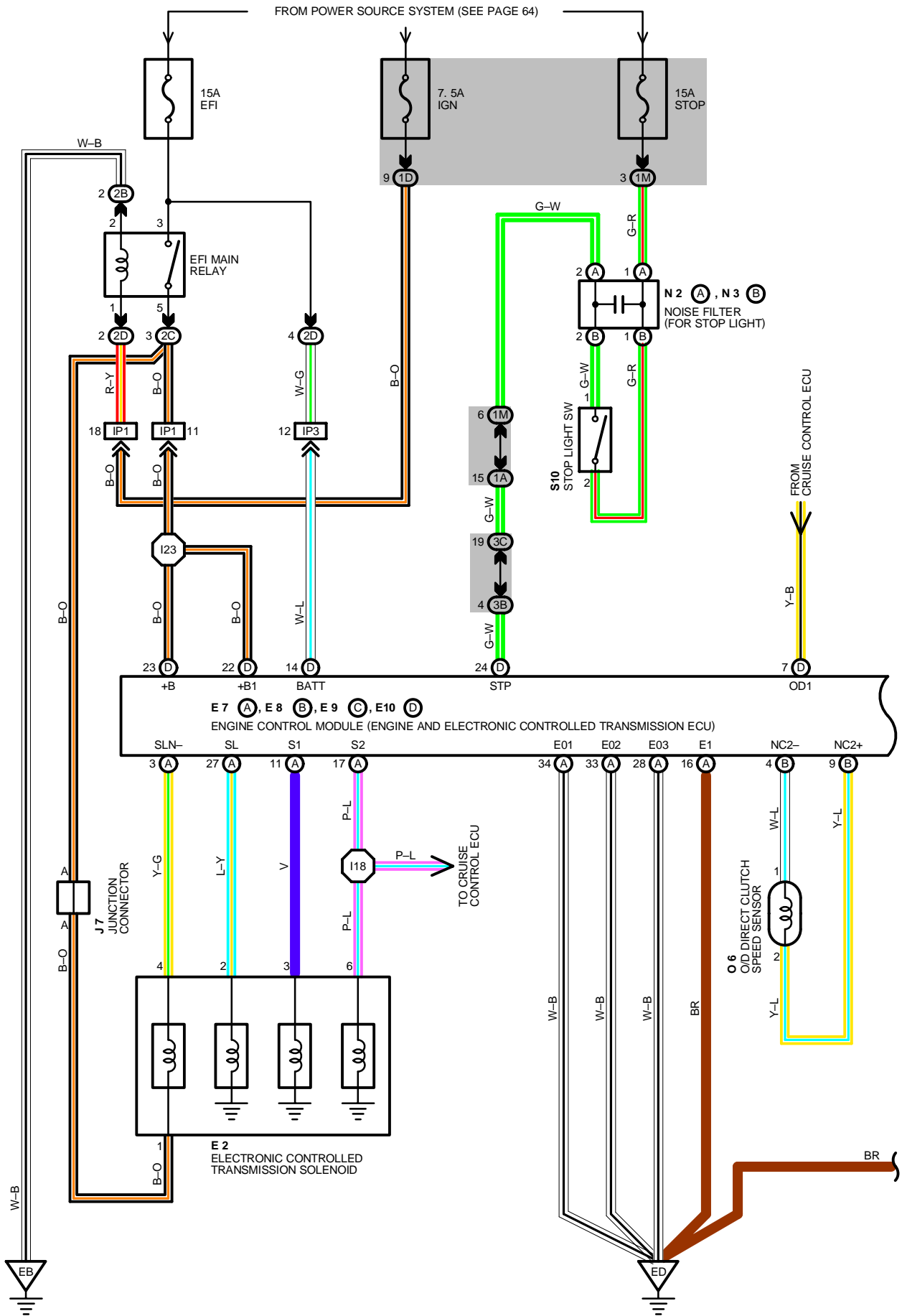
APPROX. **68** WITH RES/ACC SW ON IN CONTROL SW

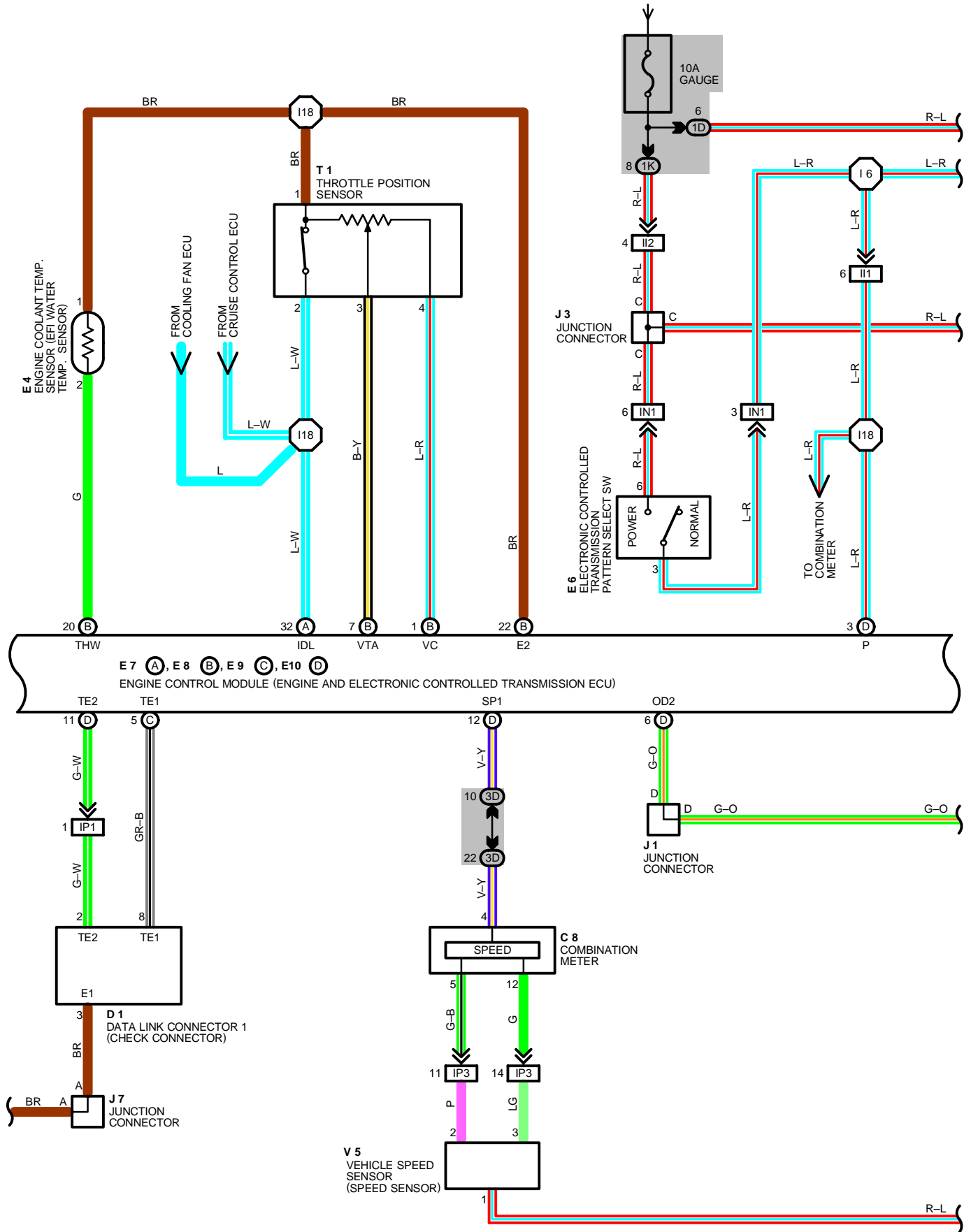
APPROX. **198** WITH SET/COAST SW ON IN CONTROL SW

13-GROUND : ALWAYS CONTINUITY

2-GROUND : CONTINUITY WITH SHIFT LEVER AT **N** POSITION (A/T) OR CLUTCH PEDAL DEPRESSED (M/T)

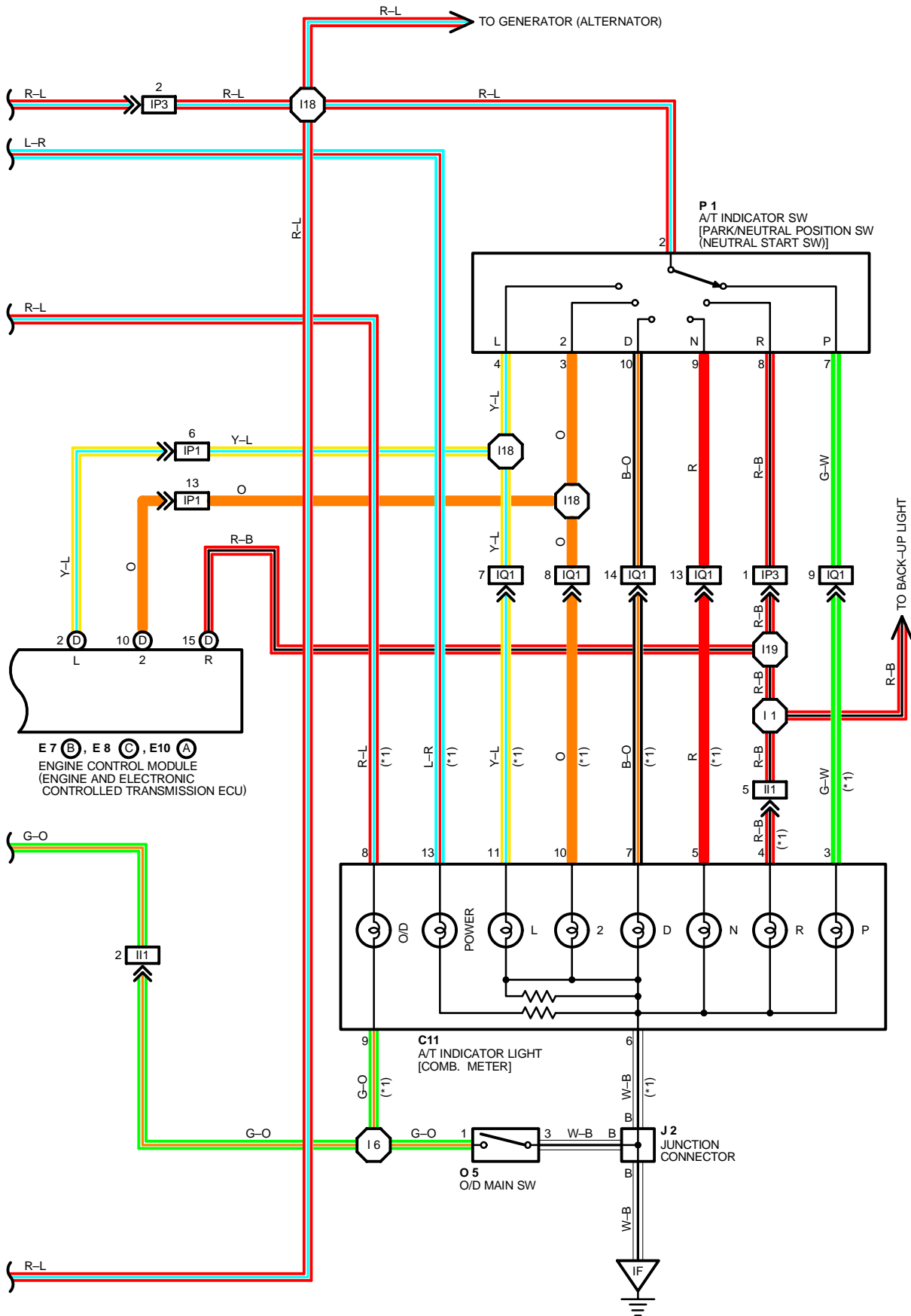
# ELECTRONIC CONTROLLED TRANSMISSION AND A/T INDICATOR (1MZ-FE)





# ELECTRONIC CONTROLLED TRANSMISSION AND A/T INDICATOR (1MZ-FE)

\*1 : W/ A/T INDICATOR LIGHT





## SYSTEM OUTLINE

PREVIOUS AUTOMATIC TRANSMISSIONS HAVE SELECTED EACH GEAR SHIFT USING MECHANICALLY CONTROLLED THROTTLE HYDRAULIC PRESSURE, GOVERNOR HYDRAULIC PRESSURE AND LOCK-UP HYDRAULIC PRESSURE. THE ELECTRONIC CONTROLLED TRANSMISSION, HOWEVER, ELECTRICALLY CONTROLS THE LINE PRESSURE AND LOCK-UP PRESSURE ETC., THROUGH THE SOLENOID VALVE. ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU) CONTROL OF THE SOLENOID VALVE BASED ON THE INPUT SIGNALS FROM EACH SENSOR MAKES SMOOTH DRIVING POSSIBLE BY SHIFT SELECTION FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS AT THAT TIME.

### 1. GEAR SHIFT OPERATION

DURING DRIVING, THE ENGINE CONTROL MODULE (ECU) SELECTS THE SHIFT FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS, BASED ON INPUT SIGNALS FROM THE ENGINE COOLANT TEMP. SENSOR (EFI WATER TEMP. SENSOR) TO **TERMINAL THW** OF THE ENGINE CONTROL MODULE (ECU), AND ALSO THE INPUT SIGNALS TO **TERMINAL NC2+** OF THE ENGINE CONTROL MODULE (ECU) FROM THE VEHICLE SPEED SENSOR (SPEED SENSOR) DEVOTED TO THE ELECTRONIC CONTROLLED TRANSMISSION. CURRENT IS THEN OUTPUT TO THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS. WHEN SHIFTING TO 1ST SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL 3** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS → **GROUND**, AND CONTINUITY TO THE NO. 1 SOLENOID CAUSES THE SHIFT.

FOR 2ND SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL 3** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS → **GROUND**, AND FROM **TERMINAL S2** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL 1** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS → **GROUND**, AND CONTINUITY TO SOLENOIDS NO. 1 AND NO. 2 CAUSES THE SHIFT.

FOR 3RD SPEED, THERE IS NO CONTINUITY TO NO. 1 SOLENOID, ONLY TO NO. 2, CAUSING THE SHIFT.

SHIFTING INTO 4TH SPEED (OVERDRIVE) TAKES PLACE WHEN THERE IS NO CONTINUITY TO EITHER NO. 1 OR NO. 2 SOLENOID.

### 2. LOCK-UP OPERATION

WHEN THE ENGINE CONTROL MODULE (ECU) JUDGES FROM EACH SIGNAL THAT LOCK-UP OPERATION CONDITIONS HAVE BEEN MET, CURRENT FLOWS FROM **TERMINAL SL** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL 2** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOID → **GROUND**, CAUSING CONTINUITY TO THE LOCK-UP SOLENOID AND CAUSING 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 CONTROL MODULE (ECU), THE ENGINE CONTROL MODULE (ECU) OPERATES AND CONTINUITY TO THE LOCK-UP SOLENOID IS CUT.

### 4. OVERDRIVE CIRCUIT

#### \* O/D MAIN SW ON

WHEN THE O/D MAIN SW IS TURNED ON (O/D OFF INDICATOR LIGHT TURNS OFF), A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ENGINE CONTROL MODULE (ECU) AND ENGINE CONTROL MODULE (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 TO OFF, THE CURRENT FLOWING THROUGH THE O/D OFF INDICATOR LIGHT FLOWS THROUGH THE O/D MAIN SW TO GROUND. CAUSING THE INDICATOR LIGHT TO LIGHT UP. AT THE SAME TIME, A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ENGINE CONTROL MODULE (ECU) AND ENGINE CONTROL MODULE (ECU) OPERATION PREVENTS SHIFT INTO OVERDRIVE.

### 5. ELECTRONIC CONTROLLED TRANSMISSION PATTERN SELECT SW CIRCUIT

IF THE ELECTRONIC CONTROLLED TRANSMISSION PATTERN SELECT SW IS CHANGED FROM NORMAL TO POWER, THE CURRENT FLOWING THROUGH THE POWER INDICATOR FLOWS TO **GROUND**, CURRENT FLOWS TO **TERMINAL P** OF THE ENGINE CONTROL MODULE (ECU), THE ENGINE CONTROL MODULE (ECU) OPERATES, AND SHIFT UP AND SHIFT DOWN OCCUR AT HIGHER VEHICLE SPEEDS THAN WHEN THE SW IS IN **NORMAL** POSITION.

# ELECTRONIC CONTROLLED TRANSMISSION AND A/T INDICATOR (1MZ-FE)

## SERVICE HINTS

### E 7(B), E 8 (C), E10(A) ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU) (TURN ON THE IGNITION SW)

- S1, S2- E1 : 9.0-14.0 VOLTS WITH SOLENOID ON  
0-1.5 VOLTS WITH SOLENOID OFF
- P- E1 : 7.5-14.0 VOLTS WITH IGNITION SW ON AND PATTERN SELECT SW AT POWER POSITION
- L- E1 : 7.5-14.0 VOLTS WITH SHIFT LEVER AT L POSITION
- 2- E1 : 7.5-14.0 VOLTS WITH SHIFT LEVER AT 2 POSITION
- R- E1 : 7.5-14.0 VOLTS WITH SHIFT LEVER AT R POSITION
- STP- E1 : 9.0-14.0 VOLTS WITH BRAKE PEDAL DEPRESSED
- THW- E2 : 0.2-1.0 VOLTS WITH WITH ENGINE COOLANT TEMP. 60°C (140°F) -120°C (248°F)
- IDL- E2 : 0-1.5 VOLTS WITH THROTTLE VALVE FULLY CLOSED  
9.0-14.0 VOLTS WITH THROTTLE VALVE FULLY OPENED
- VTA-E2 : 0.3-0.8 VOLTS WITH THROTTLE VALVE FULLY CLOSED  
3.2-4.9 VOLTS WITH THROTTLE VALVE FULLY OPENED
- VC- E2 : 4.5-5.5 VOLTS WITH IGNITION SW AT ON POSITION
- OD1- E1 : 4.5-5.5 VOLTS WITH IGNITION SW AT ON POSITION
- OD2- E1 : 9.0-14.0 VOLTS WITH O/D MAIN SW TURNED OFF  
0-3.0 VOLTS WITH O/D MAIN SW TURNED ON
- IGSW- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION
- +B- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION
- +B1- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION

### E 2 ELECTRONIC CONTROLLED TRANSMISSION SOLENOID

1, 2, 6-GROUND : EACH 11-15 Ω

### O 5 O/D MAIN SW

1-3 : CLOSED WITH O/D MAIN SW OFF, OPEN WITH O/D MAIN SW ON

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 8	32	E 9	C 32	O 5	33
C11	32	E10	D 32	O 6	29
D 1	28	J 1	33	P 1	29
E 2	28	J 2	33	S10	33
E 4	28	J 3	33	T 1	29
E 6	32	J 7	33	V 5	29
E 7	A 32	N 2	A 33		
E 8	B 32	N 3	B 33		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1D		
1K		
1M		
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2D		
3B	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IN1	42	INSTRUMENT PANEL WIRE AND SWITCH WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
IQ1	44	ENGINE WIRE AND INSTRUMENT PANEL WIRE

## ▽ : GROUND POINTS

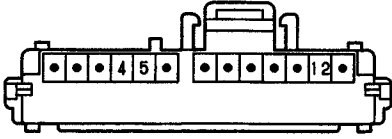
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE)	FRONT LEFT FENDER
ED	38 (1MZ-FE)	INTAKE MANIFOLD LH
IF	42	LEFT KICK PANEL



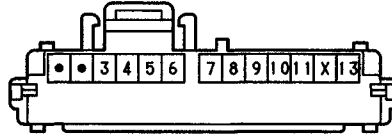
**: SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I1	44	COWL WIRE	I19	44	COWL WIRE
I6	44	INSTRUMENT PANEL WIRE	I23		
I18	44	ENGINE WIRE			

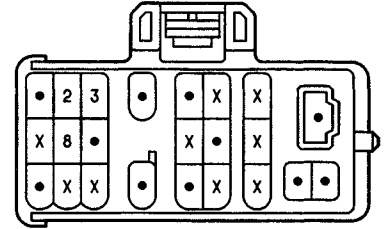
**C 8 BLUE**



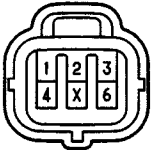
**C11 BROWN**



**D 1 BLACK**



**E 2 GRAY**



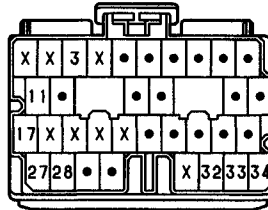
**E 4 DARK GRAY**



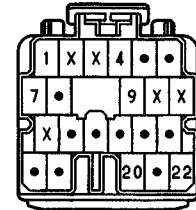
**E 6 BLACK**



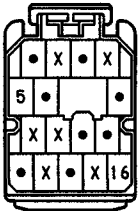
**E 7 (A) DARK GRAY**



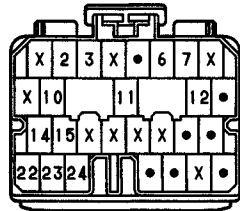
**E 8 (B) DARK GRAY**



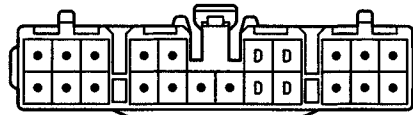
**E 9 (C) DARK GRAY**



**E10 (D) DARK GRAY**

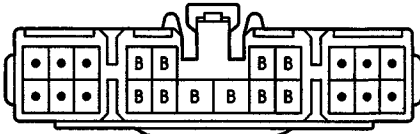


**J 1 DARK GRAY**



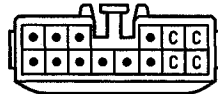
(HINT:SEE PAGE 7)

**J 2**



(HINT:SEE PAGE 7)

**J 3**



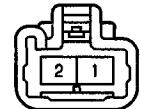
(HINT:SEE PAGE 7)

**J 7 BLUE**

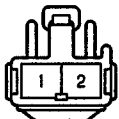


(HINT:SEE PAGE 7)

**N 2 (A)**



**N 3 (B)**



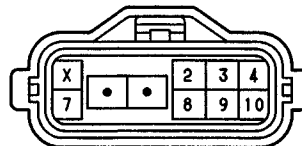
**O 5 BLUE**



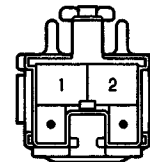
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**P 1 GRAY**



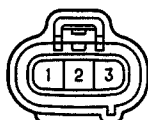
**S10 BLUE**



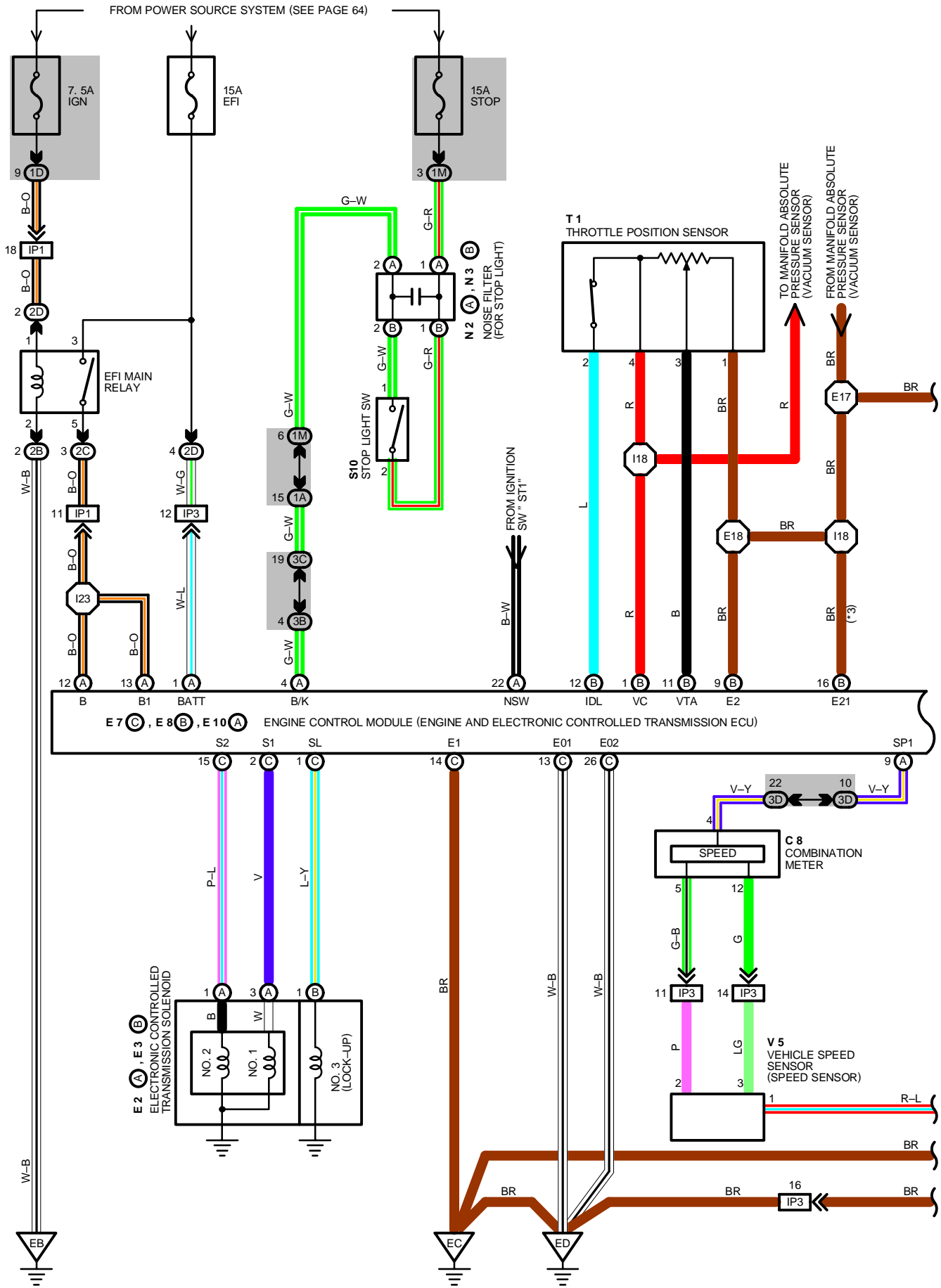
**T 1 BLACK**



**V 5 GRAY**

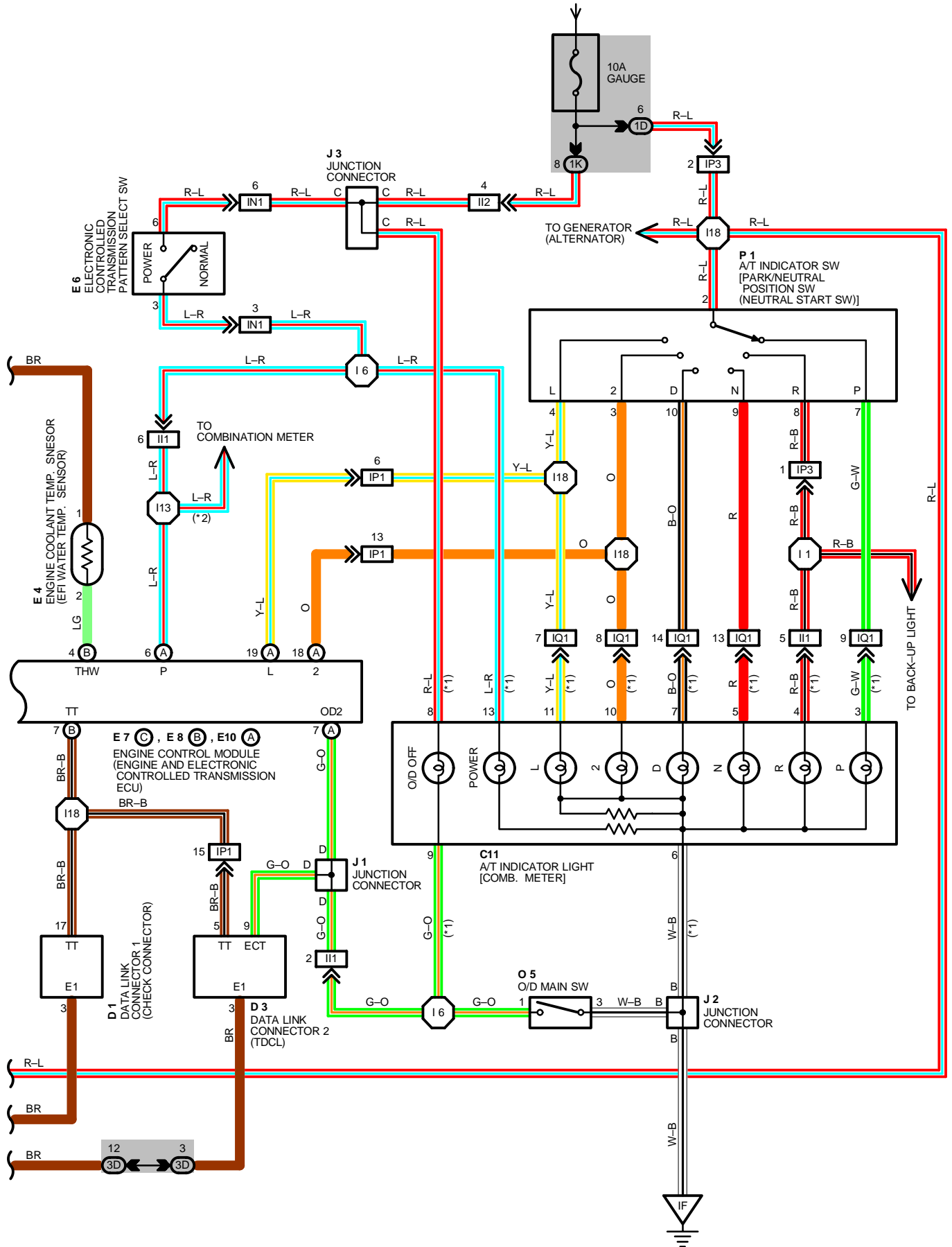


# ELECTRONIC CONTROLLED TRANSMISSION AND A/T INDICATOR (5S-FE)



- \*1 : W/ A/T INDICATOR LIGHT
- \*2 : W/O A/T INDICATOR LIGHT
- \*3 : EX. CALIFORNIA

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



# ELECTRONIC CONTROLLED TRANSMISSION AND A/T INDICATOR (5S-FE)

## SYSTEM OUTLINE

PREVIOUS AUTOMATIC TRANSMISSIONS HAVE SELECTED EACH GEAR SHIFT USING MECHANICALLY CONTROLLED THROTTLE HYDRAULIC PRESSURE, GOVERNOR HYDRAULIC PRESSURE AND LOCK-UP HYDRAULIC PRESSURE. THE ELECTRONIC CONTROLLED TRANSMISSION, HOWEVER, ELECTRICALLY CONTROLS THE LINE PRESSURE AND LOCK-UP PRESSURE ETC., THROUGH THE SOLENOID VALVE. ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU) CONTROL OF THE SOLENOID VALVE BASED ON THE INPUT SIGNALS FROM EACH SENSOR MAKES SMOOTH DRIVING POSSIBLE BY SHIFT SELECTION FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS AT THAT TIME.

### 1. GEAR SHIFT OPERATION

DURING DRIVING, THE ENGINE CONTROL MODULE (ECU) SELECTS THE SHIFT FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS, BASED ON INPUT SIGNALS FROM THE ENGINE COOLANT TEMP. SENSOR (EFI WATER TEMP. SENSOR) TO **TERMINAL THW** OF THE ENGINE CONTROL MODULE (ECU), AND ALSO THE INPUT SIGNALS TO **TERMINAL SP1** OF THE ENGINE CONTROL MODULE (ECU) FROM THE VEHICLE SPEED SENSOR (SPEED SENSOR) DEVOTED TO THE ELECTRONIC CONTROLLED TRANSMISSION. CURRENT IS THEN OUTPUT TO THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS. WHEN SHIFTING TO 1ST SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL (A)3** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS → **GROUND**, AND CONTINUITY TO THE NO. 1 SOLENOID CAUSES THE SHIFT.

FOR 2ND SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL (A)3** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOIDS → **GROUND**, AND FROM **TERMINAL S2** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL (A)1** OF THE ELECTRONIC CONTROL TRANSMISSION SOLENOIDS → **GROUND**, AND CONTINUITY TO SOLENOIDS NO. 1 AND NO. 2 CAUSES THE SHIFT.

FOR 3RD SPEED, THERE IS NO CONTINUITY TO NO. 1 SOLENOID, ONLY TO NO. 2, CAUSING THE SHIFT.

SHIFTING INTO 4TH SPEED (OVERDRIVE) TAKES PLACE WHEN THERE IS NO CONTINUITY TO EITHER NO. 1 OR NO. 2 SOLENOID.

### 2. LOCK-UP OPERATION

WHEN THE ENGINE CONTROL MODULE (ECU) JUDGES FROM EACH SIGNAL THAT LOCK-UP OPERATION CONDITIONS HAVE BEEN MET, CURRENT FLOWS FROM **TERMINAL SL** OF THE ENGINE CONTROL MODULE (ECU) → **TERMINAL (B)1** OF THE ELECTRONIC CONTROLLED TRANSMISSION SOLENOID → **GROUND**, CAUSING CONTINUITY TO THE LOCK-UP SOLENOID AND CAUSING 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 B/K** OF THE ENGINE CONTROL MODULE (ECU), THE ENGINE CONTROL MODULE (ECU) OPERATES AND CONTINUITY TO THE LOCK-UP SOLENOID IS CUT.

### 4. OVERDRIVE CIRCUIT

\* O/D MAIN SW ON

WHEN THE O/D MAIN SW IS TURNED ON (O/D OFF INDICATOR LIGHT TURNS OFF), A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ENGINE CONTROL MODULE (ECU) AND ENGINE CONTROL MODULE (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 TO OFF, THE CURRENT FLOWING THROUGH THE O/D OFF INDICATOR LIGHT FLOWS THROUGH THE O/D MAIN SW TO GROUND. CAUSING THE INDICATOR LIGHT TO LIGHT UP. AT THE SAME TIME, A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ENGINE CONTROL MODULE (ECU) AND ENGINE CONTROL MODULE (ECU) OPERATION PREVENTS SHIFT INTO OVERDRIVE.

### 5. ELECTRONIC CONTROLLED TRANSMISSION PATTERN SELECT SW CIRCUIT

IF THE ELECTRONIC CONTROLLED TRANSMISSION PATTERN SELECT SW IS CHANGED FROM NORMAL TO POWER, THE CURRENT FLOWING THROUGH THE POWER INDICATOR FLOWS TO **GROUND**, CURRENT FLOWS TO **TERMINAL P** OF THE ENGINE CONTROL MODULE (ECU), THE ENGINE CONTROL MODULE (ECU) OPERATES, AND SHIFT UP AND SHIFT DOWN OCCUR AT HIGHER VEHICLE SPEEDS THAN WHEN THE SW IS IN **NORMAL** POSITION.

## SERVICE HINTS

E 7(C), E 8 (B), E10(A) **ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU)  
(TURN ON THE IGNITION SW)**

**S1, S2 -E1 : 9.0-14.0 VOLTS WITH SOLENOID ON  
0-1.5 VOLTS WITH SOLENOID OFF**

**P -E1 : 7.5-14.0 VOLTS WITH IGNITION SW ON AND PATTERN SELECT SW AT POWER POSITION**

**L - E1 : 7.5-14.0 VOLTS WITH SHIFT LEVER AT L POSITION**

**2- E1 : 7.5-14.0 VOLTS WITH SHIFT LEVER AT 2 POSITION**

**R- E1 : 7.5-14.0 VOLTS WITH SHIFT LEVER AT R POSITION**

**B/K- E1 : 9.0-14.0 VOLTS WITH BRAKE PEDAL DEPRESSED**

**THW- E2 : 0.2-1.0 VOLTS WITH WITH ENGINE COOLANT TEMP. 60°C (140°F) -120°C (248°F)**

**IDL- E2 : 0-1.5 VOLTS WITH THROTTLE VALVE FULLY CLOSED**

**9.0-14.0 VOLTS WITH THROTTLE VALVE FULLY OPENED**

## SERVICE HINTS

- VTA-E2 : 0.3-0.8 VOLTS WITH THROTTLE VALVE FULLY CLOSED  
 3.2-4.9 VOLTS WITH THROTTLE VALVE FULLY OPENED  
 VC- E2 : 4.5-5.5 VOLTS WITH IGNITION SW AT ON POSITION  
 OD2- E1 : 9.0-14.0 VOLTS WITH O/D MAIN SW TURNED ON  
 0-3.0 VOLTS WITH O/D MAIN SW TURNED OFF  
 IGSW- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION  
 +B- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION  
 +B1- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION  
 M-REL- E1 : 9.0-14.0 VOLTS WITH IGNITION SW AT ON POSITION

### E 2(A), E 3(B) ELECTRONIC CONTROLLED TRANSMISSION SOLENOID

(A)1, (A)3, (B)1-GROUND : EACH 11-15 Ω

### O 5 O/D MAIN SW

1-3 : CLOSED WITH O/D MAIN SW OFF, OPEN WITH O/D MAIN SW ON

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 8	32	E 6	32	N 2	A 33
C11	32	E 7	C 32	N 3	B 33
D 1	30	E 8	B 32	O 5	33
D 3	32	E10	A 32	P 1	31
E 2	A 30	J 1	33	S10	33
E 3	B 30	J 2	33	T 1	31
E 4	30	J 3	33	V 5	31

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1D		
1K		
1M		
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2D		
3B	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IN1	42	INSTRUMENT PANEL WIRE AND SWITCH WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
IQ1	44	ENGINE WIRE AND INSTRUMENT PANEL WIRE

## ▽ : GROUND POINTS

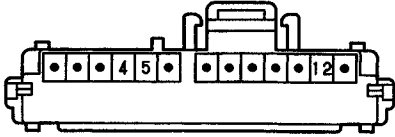
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	40 (5S-FE)	FRONT LEFT FENDER
EC	40 (5S-FE)	INTAKE MANIFOLD RH
ED	40 (5S-FE)	INTAKE MANIFOLD LH
IF	42	LEFT KICK PANEL

## ○ : SPLICE POINTS

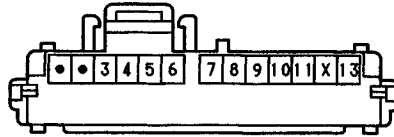
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E17	40 (5S-FE)	ENGINE WIRE	I13	44	COWL WIRE
E18			I18	44	ENGINE WIRE
I 1	44	COWL WIRE	I23	44	COWL WIRE
I 6	44	INSTRUMENT PANEL WIRE			

# ELECTRONIC CONTROLLED TRANSMISSION AND A/T INDICATOR (5S-FE)

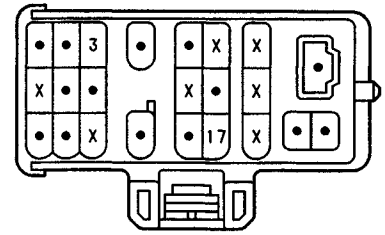
C 8 BLUE



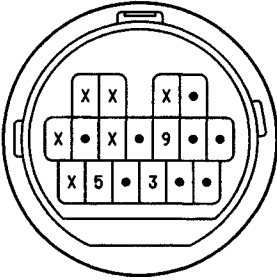
C11 BROWN



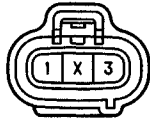
D 1 BLACK



D 3 DARK GRAY



E 2 (A) BLACK



E 3 (B) BLACK



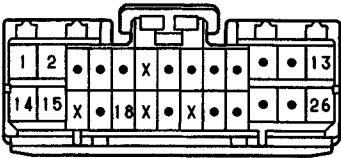
E 4 GREEN



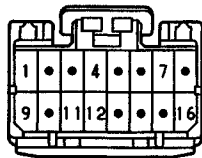
E 6 BLACK



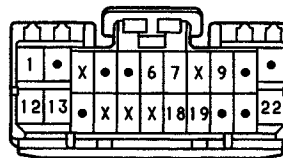
E 7 (C) DARK GRAY



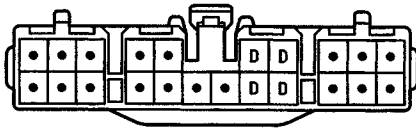
E 8 (B) DARK GRAY



E10 (A) DARK GRAY

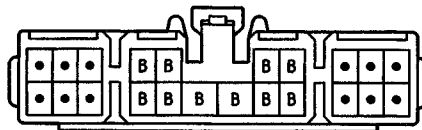


J 1 DARK GRAY



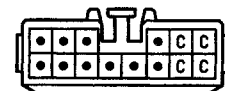
(HINT:SEE PAGE 7)

J 2



(HINT:SEE PAGE 7)

J 3

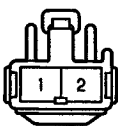


(HINT:SEE PAGE 7)

N 2 (A)



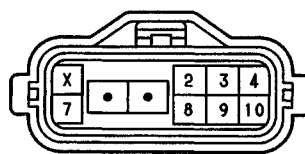
N 3 (B)



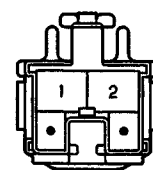
O 5 BLUE



P 1 GRAY



S10 BLUE



T 1 BLACK



V 5 GRAY





# ABS (ANTI-LOCK BRAKE SYSTEM) (TMC MADE)

A 4 (A) GRAY



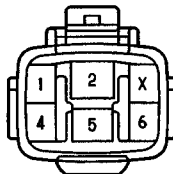
A 5 (B) BLACK



A 6 (B) GRAY



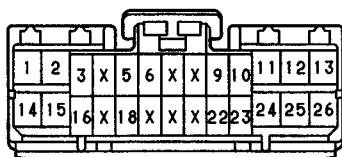
A 7 (A) GRAY



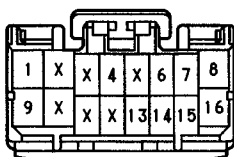
A 8, A 9 GRAY



A13 (A) DARK GRAY



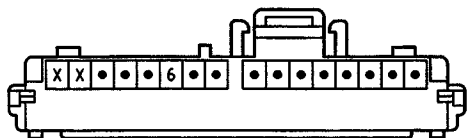
A14 (B) DARK GRAY



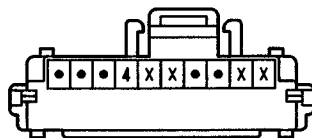
A19, A20 GRAY



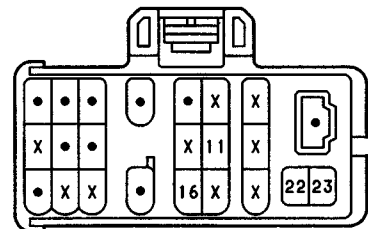
C 9 (A) BLUE



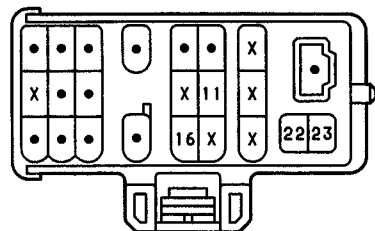
C10 (B) GRAY



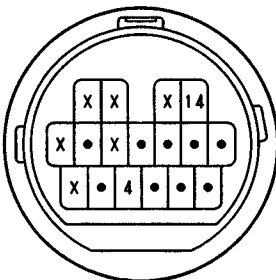
(1MZ-FE) D 1 BLACK



(5S-FE) D 1 BLACK



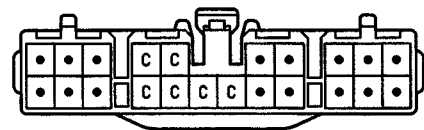
D 3 DARK GRAY



F18

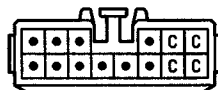


J 1 DARK GRAY



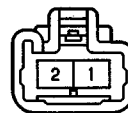
(HINT:SEE PAGE 7)

J 3

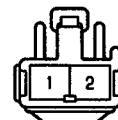


(HINT:SEE PAGE 7)

N 2 (A)



N 3 (B)



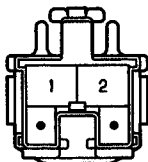
P 2



P 3

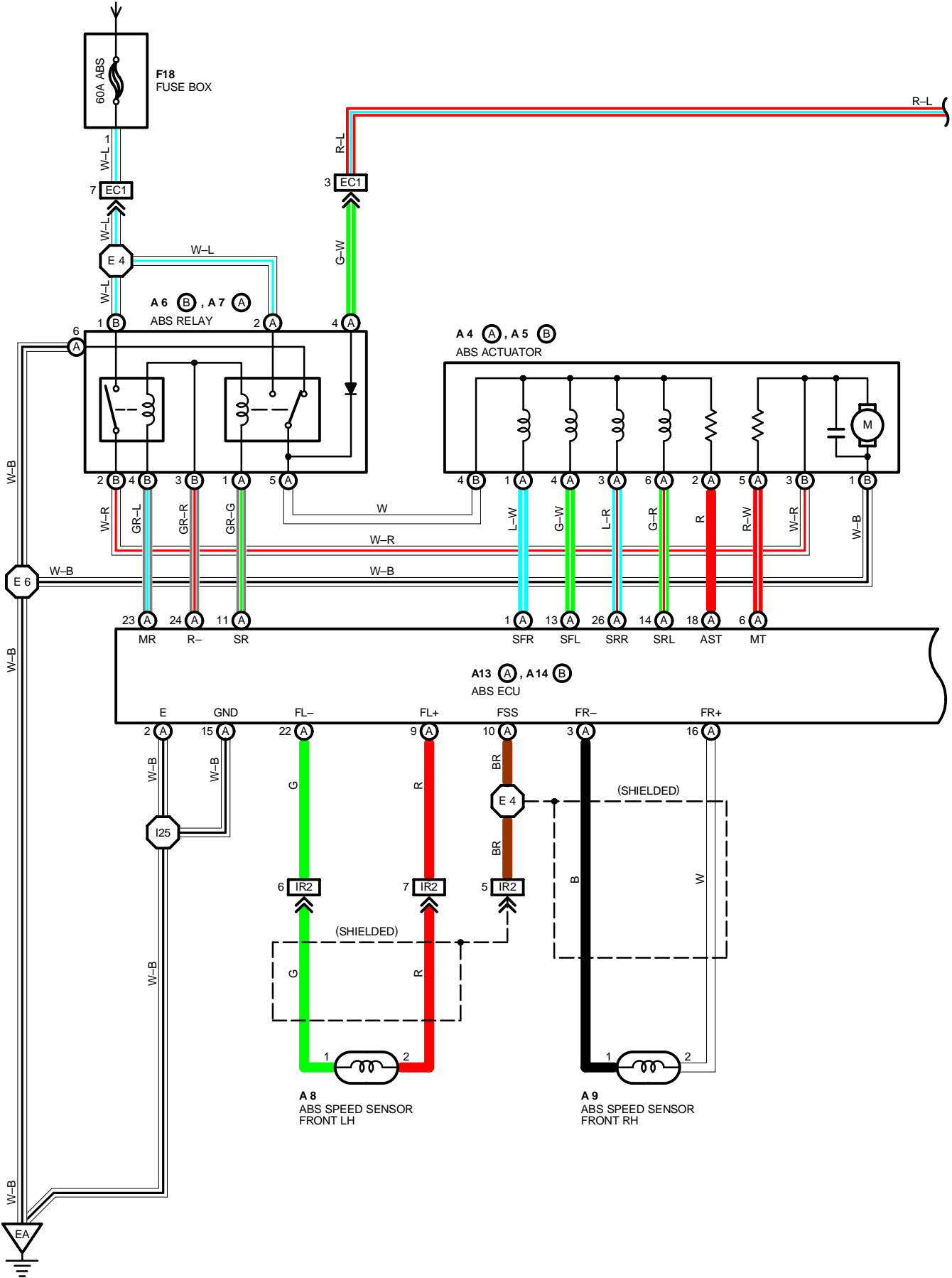


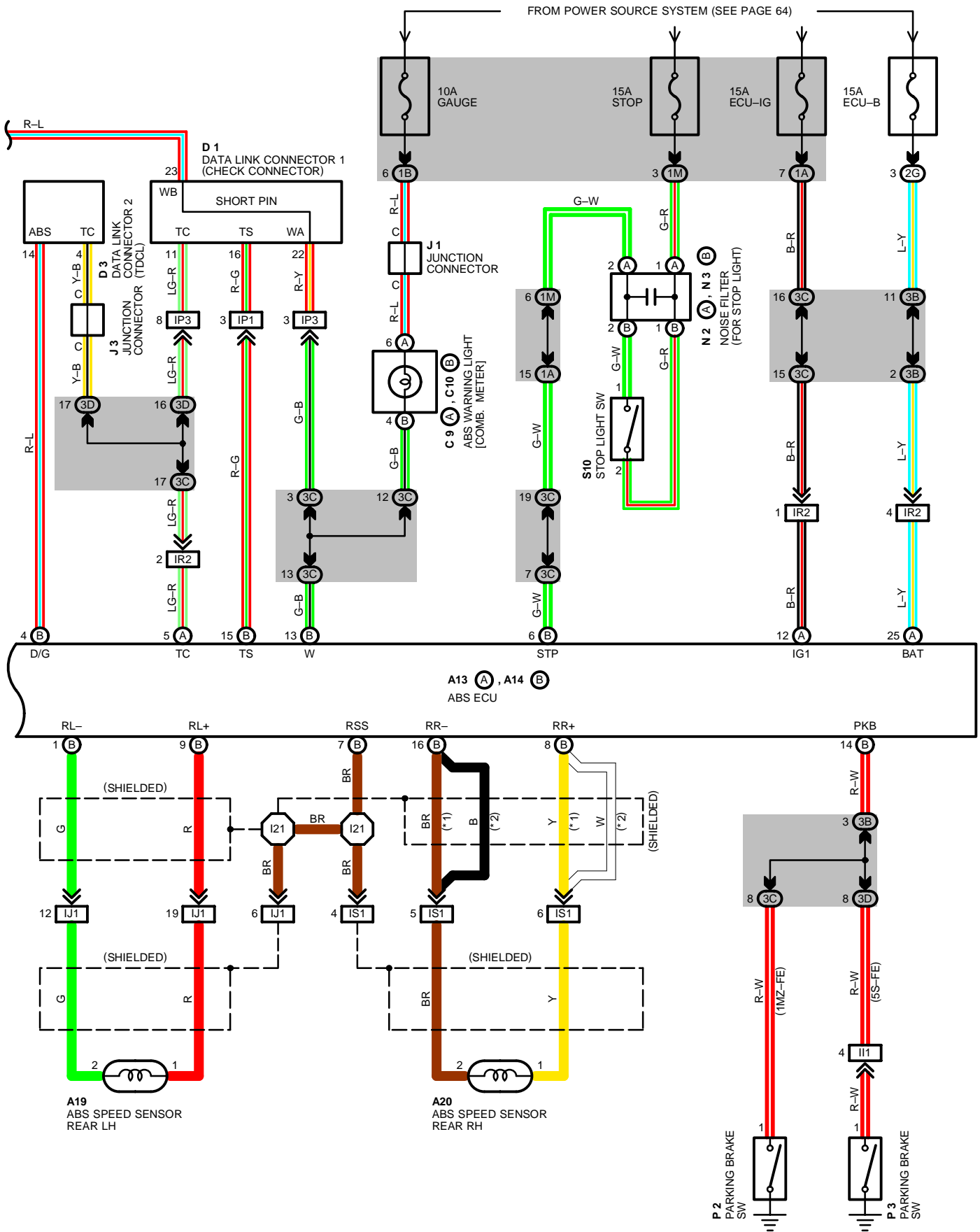
S10 BLUE



# ABS (ANTI-LOCK BRAKE SYSTEM) (TMC MADE)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# ABS (ANTI-LOCK BRAKE SYSTEM) (TMC MADE)

## 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 FL+, FR+, RL+ AND RR+** OF THE ABS ECU.
- (2) STOP LIGHT SW SIGNAL  
A SIGNAL IS INPUT TO **TERMINAL STP** OF THE ABS ECU WHEN BRAKE PEDAL IS OPERATED.
- (3) PARKING BRAKE SW SIGNAL  
A SIGNAL IS INPUT TO **TERMINAL PKB** OF THE ABS ECU WHEN THE PARKING BRAKE IS OPERATED.

### 2. SYSTEM OPERATION

DURING SUDDEN BRAKING THE ABS ECU, WHICH HAS SIGNALS INPUT FROM EACH SENSOR, CONTROLS THE CURRENT FLOWING 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 ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON THE SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS INCREASED. HOLDING OF THE HYDRAULIC PRESSURE IS ALSO CONTROLLED BY THE ECU, BY THE SAME METHOD AS ABOVE. BY REPEATED PRESSURE REDUCTION, HOLDING AND INCREASE ARE REPEATED TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERABILITY DURING SUDDEN BRAKING.

## SERVICE HINTS

### A 4(A), A 5(B) ABS ACTUATOR

- (A)1, (A)3, (A)4, (A)6 – (A)2 : APPROX. 6  $\Omega$
- (A)2–GROUND : APPROX. 5  $\Omega$

### A 6(B), A 7(A) ABS RELAY

- (A)1–(B) 3 : 60  $\Omega$ –100  $\Omega$
- (A)4–(B) 3 : 60  $\Omega$ –100  $\Omega$
- (A)1, (B) 2–GROUND : APPROX. 12 VOLTS
- (A)6–GROUND : APPROX. 12 VOLTS

### A 8, A 9 ABS SPEED SENSOR FRONT LH, RH

- 1–2 : 0.8 K–1.3 K $\Omega$

### A19, A20 ABS SPEED SENSOR REAR LH, RH

- 1–2 : 1.1 K–1.5 K $\Omega$

### A13(A), A14(B) ABS ECU

(CONNECT THE ECU CONNECTORS)

- (A) 5–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND DATA LINK CONNECTOR 1 (CHECK CONNECTOR) TS–EI NOT CONNECTED
- (B)15–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND DATA LINK CONNECTOR 1 (CHECK CONNECTOR) TS–EI NOT CONNECTED
- (A) 1–GROUND, (A) 13–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND ABS WARNING LIGHT GOES OFF
- (A)14–GROUND, (A) 1–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND ABS WARNING LIGHT GOES OFF
- (A)26–GROUND, (A) 18–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND ABS WARNING LIGHT GOES OFF
- (A) 2–GROUND : ALWAYS CONTINUITY
- (A)15–GROUND : ALWAYS CONTINUITY
- (A)12–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- (B) 6–GROUND : APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED
- (A)25–GROUND : ALWAYS APPROX. 12 VOLTS

 : PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A 4	A	28 (1MZ-FE), 30 (5S-FE)	A19		34	J 3		33
A 5	B	28 (1MZ-FE), 30 (5S-FE)	A20		34	N 2	A	33
A 6	B	28 (1MZ-FE), 30 (5S-FE)	C 9	A	32	N 3	B	33
A 7	A	28 (1MZ-FE), 30 (5S-FE)	C10	B	32	P 2		33
A 8		28 (1MZ-FE), 30 (5S-FE)	D 1		28 (1MZ-FE), 30 (5S-FE)	P 3		33
A 9		28 (1MZ-FE), 30 (5S-FE)	D 3		32	S10		33
A13	A	32	F10		28 (1MZ-FE), 30 (5S-FE)			
A14	B	32	J 1		33			

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1B		
1M		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3B	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	38 (1MZ-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
II1	42	COWL WIRE AND INSTRUMENT PANEL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IP3	44	ENGINE WIRE AND COWL WIRE
IR2	44	ENGINE ROOM MAIN WIRE AND COWL WIRE
IS1	44	FLOOR NO. 2 WIRE AND COWL WIRE

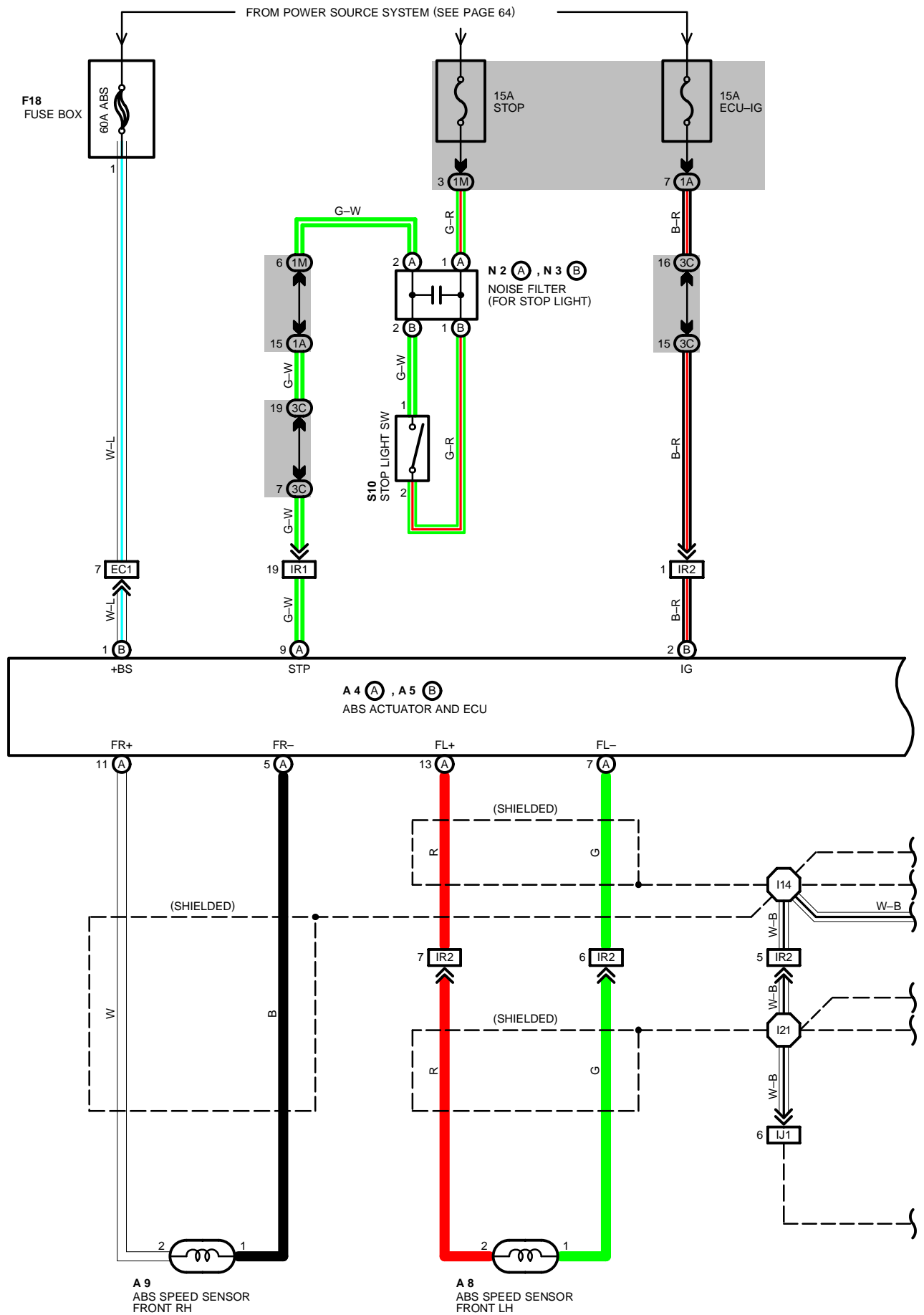
 : GROUND POINTS

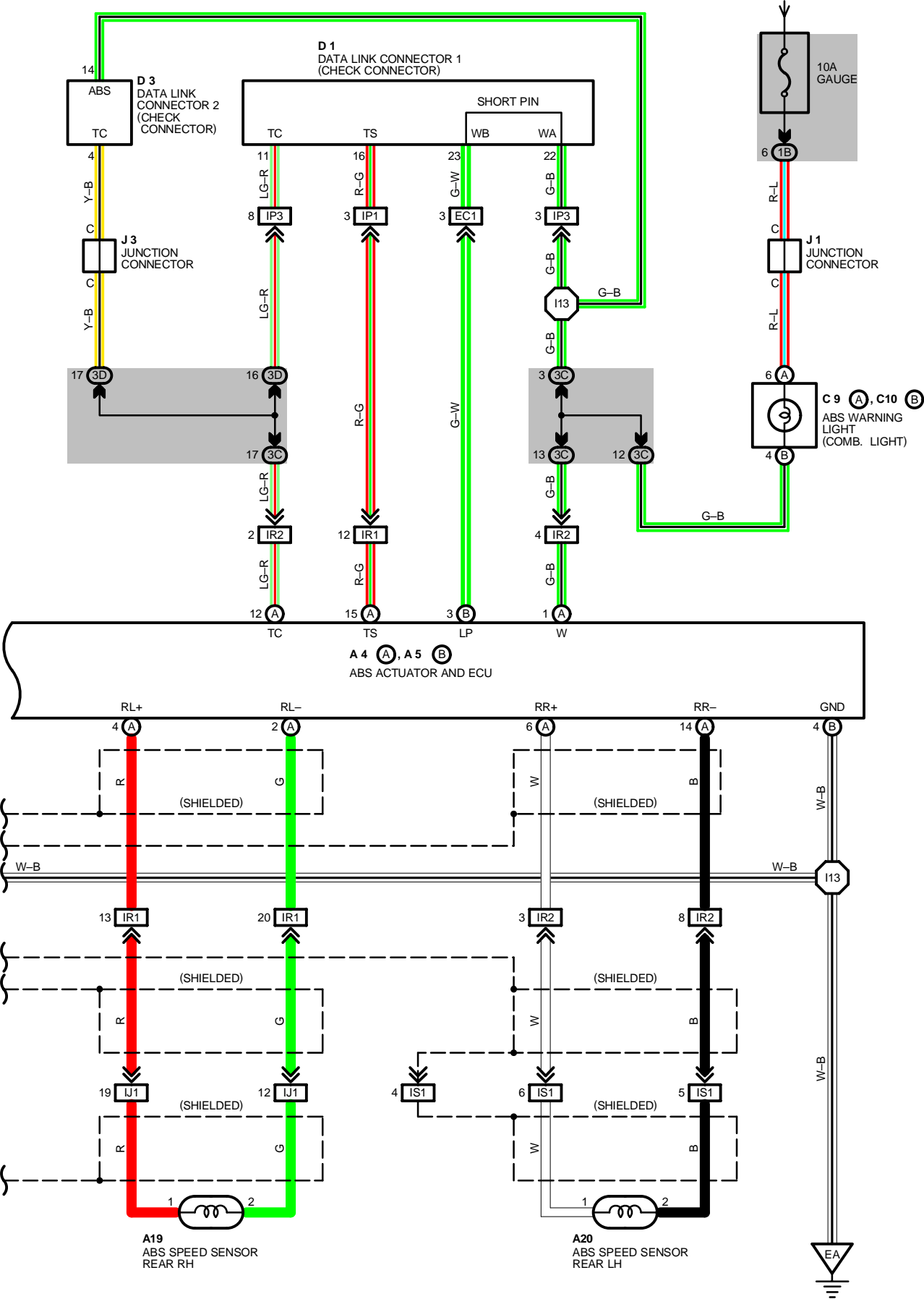
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	

 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 4	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	E 6	40 (5S-FE)	ENGINE ROOM MAIN WIRE
	40 (5S-FE)		I21	44	COWL WIRE
E 6	38 (1MZ-FE)		I25	44	ENGINE ROOM MAIN WIRE

# ABS (ANTI-LOCK BRAKE SYSTEM) (TMM MADE)





# ABS (ANTI-LOCK BRAKE SYSTEM) (TMM MADE)

## : PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A 4	A	28 (1MZ-FE), 30 (5S-FE)	C 9	A	32	J 3		33
A 5	B	28 (1MZ-FE), 30 (5S-FE)	C10	B	32	N 2	A	33
A 8		28 (1MZ-FE), 30 (5S-FE)	D 1		28 (1MZ-FE), 30 (5S-FE)	N 3	B	33
A 9		28 (1MZ-FE), 30 (5S-FE)	D 3		32	S10		33
A19		34 (S/D), 35 (C/P), 36 (W/G)	F18		28 (1MZ-FE), 30 (5S-FE)			
A20		34 (S/D), 35 (C/P), 36 (W/G)	J 1		33			

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1B		
1M		
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	38 (1MZ-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
IR1	44	ENGINE ROOM MAIN WIRE AND COWL WIRE
IR2		
IS1	44	FLOOR NO. 2 WIRE AND COWL WIRE

## : GROUND POINTS

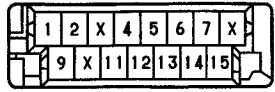
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	

## : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I13	44	COWL WIRE	I21	44	COWL WIRE
I14					



A 4 (A) BLACK



A 5 (B) BLACK



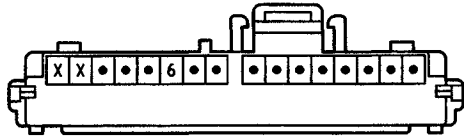
A 8, A 9 GRAY



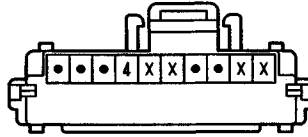
A19, A20 GRAY



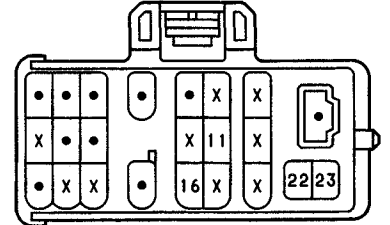
C 9 (A) BLUE



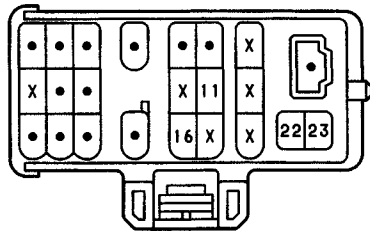
C10 (B) GRAY



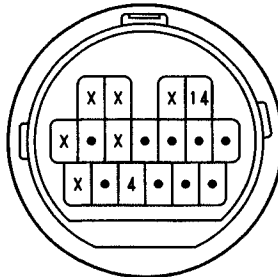
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(5S-FE) D 1 BLACK



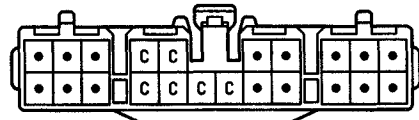
D 3 DARK GRAY



F18

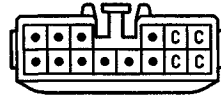


J 1 DARK GRAY



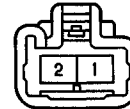
(HINT:SEE PAGE 7)

J 3

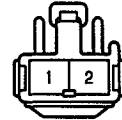


(HINT:SEE PAGE 7)

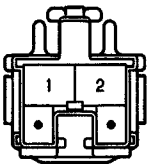
N 2 (A)



N 3 (B)



S10 BLUE



# ABS (ANTI-LOCK BRAKE SYSTEM) (TMM MADE)

## 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 FL+, FR+, RL+ AND RR+** OF THE ABS ECU.
- (2) STOP LIGHT SW SIGNAL  
A SIGNAL IS INPUT TO **TERMINAL STP** OF THE ABS ECU WHEN BRAKE PEDAL IS OPERATED.

### 2. SYSTEM OPERATION

DURING SUDDEN BRAKING THE ABS ECU, WHICH HAS SIGNALS INPUT FROM EACH SENSOR, CONTROLS THE CURRENT FLOWING 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 ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON THE SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS INCREASED. HOLDING OF THE HYDRAULIC PRESSURE IS ALSO CONTROLLED BY THE ECU, BY THE SAME METHOD AS ABOVE. BY REPEATED PRESSURE REDUCTION, HOLDING AND INCREASE ARE REPEATED TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERABILITY DURING SUDDEN BRAKING.

## SERVICE HINTS

### A 8, A 9 ABS SPEED SENSOR FRONT LH, RH

1-2 : 0.8 K-1.3 K $\Omega$

### A19, A20 ABS SPEED SENSOR REAR LH, RH

1-2 : 1.1 K-1.5 K $\Omega$

### A 4(A), A 5(B) ABS ECU

(CONNECT THE ECU CONNECTORS)

(A)12-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND DATA LINK CONNECTOR 1 (CHECK CONNECTOR)  
TS-EI NOT CONNECTED

(A)15-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND DATA LINK CONNECTOR 1 (CHECK CONNECTOR)  
TS-EI NOT CONNECTED

(B) 4-GROUND : ALWAYS CONTINUITY

(B) 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

(A) 9-GROUND : APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED

(B) 1-GROUND : ALWAYS APPROX. 12 VOLTS

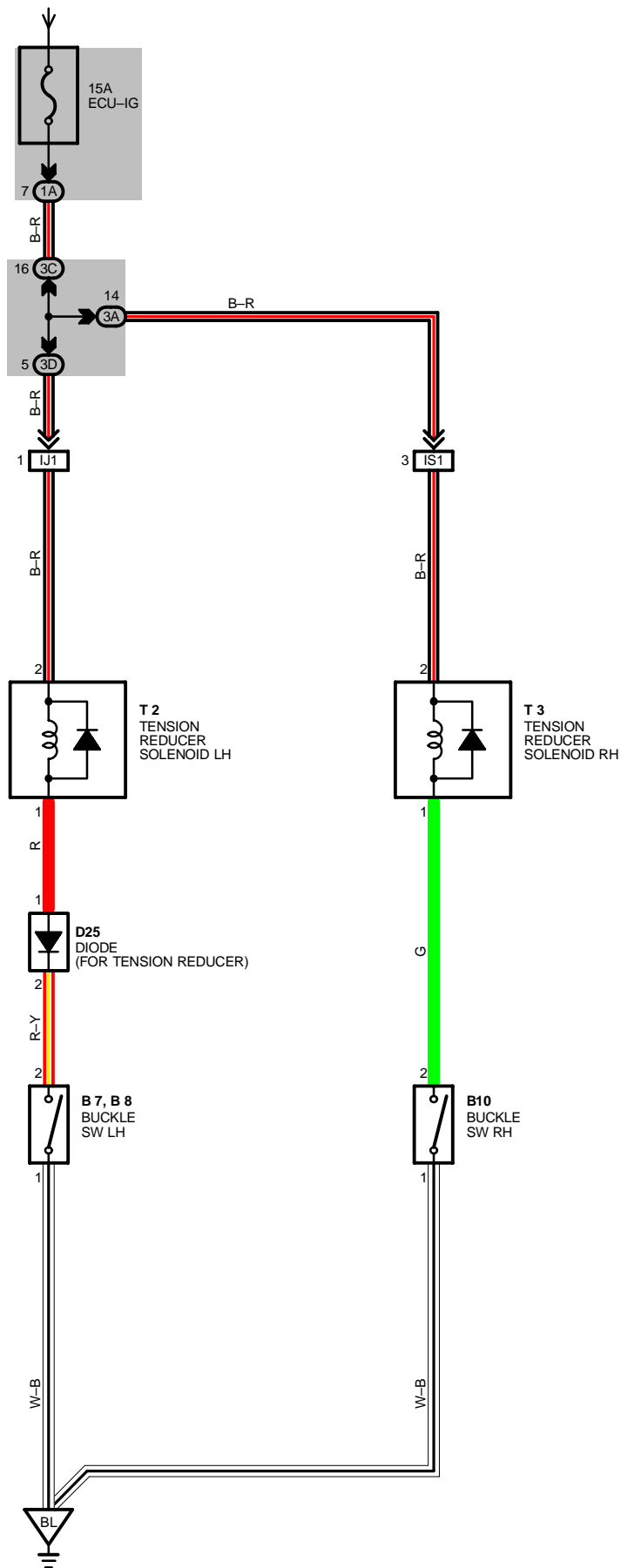
## **ABS ( ANTI – LOCK BRAKE SYSTEM) (TMM MADE)**

---

-Memo

# ELECTRIC TENSION REDUCER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



### SERVICE HINTS

**B 7, B 8 BUCKLE SW LH**

1-2 : CLOSED WITH DRIVER'S LAP BELT IN USE

**B10 BUCKLE SW RH**

1-2 : CLOSED WITH PASSENGER'S LAP BELT IN USE

**T 2, T 3 TENSION REDUCER SOLENOID LH, RH**

2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>B 7</b>	<a href="#">32</a>	<b>B10</b>	<a href="#">32</a>	<b>T 2</b>	<a href="#">35</a>
<b>B 8</b>	<a href="#">32</a>	<b>D25</b>	<a href="#">32</a>	<b>T 3</b>	<a href="#">35</a>

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1A</b>	<a href="#">20</a>	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>3A</b>	<a href="#">24</a>	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
<b>3C</b>		

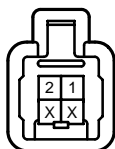
**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>IJ1</b>	<a href="#">42</a>	FLOOR NO. 1 WIRE AND COWL WIRE
<b>IS1</b>	<a href="#">44</a>	FLOOR NO. 2 WIRE AND COWL WIRE

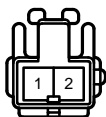
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>BL</b>	<a href="#">46 (S/D)</a>	UNDER THE LEFT QUARTER PILLAR
	<a href="#">48 (C/P)</a>	
	<a href="#">50 (W/G)</a>	

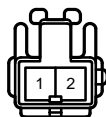
(\*1) B 7



(\*2) B 8



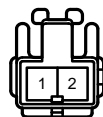
B10



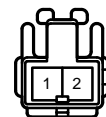
D25 BLACK



T 2

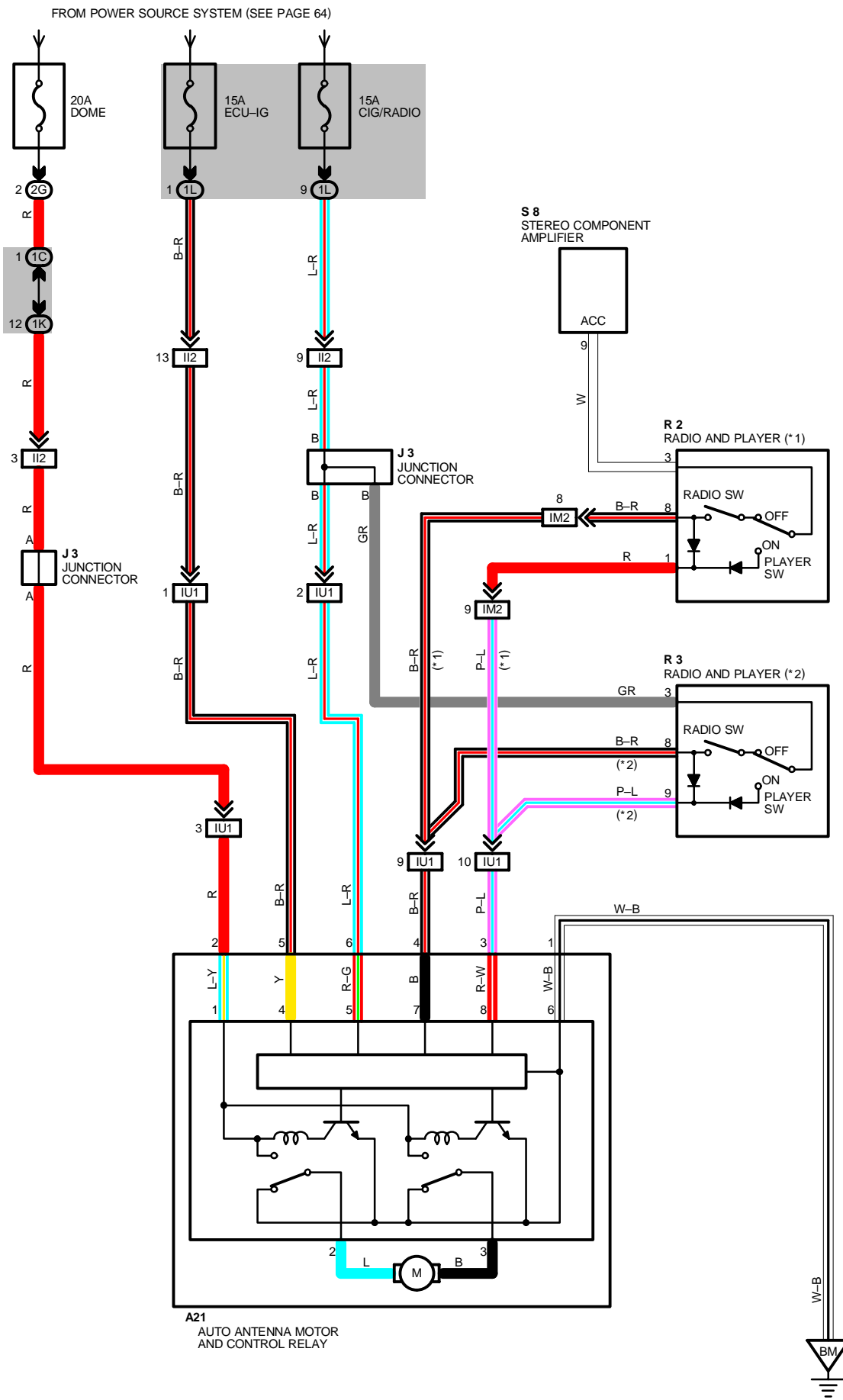


T 3



# AUTO ANTENNA (S/D, C/P)

\*1 : 6 SPEAKER  
\*2 : 4 SPEAKER



## SERVICE HINTS

### A21 AUTO ANTENNA MOTOR AND RELAY

- 9-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 7-GROUND : ALWAYS APPROX. 12 VOLTS
- 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW ON
- 3-GROUND : CONTINUITY (UPPER LIMIT SW ON) UNLESS ANTENNA AT **UP** STOP
- 2-GROUND : CONTINUITY (DOWN LIMIT SW ON) UNLESS ANTENNA AT **DOWN** STOP
- 4-3 : CLOSED WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW ON AND PLAYER SW OFF UNTIL ANTENNA AT **UPPERMOST** POSITION
- 1-2 : CLOSED WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW OFF AND PLAYER SW OFF UNTIL ANTENNA AT **LOWERMOST** POSITION
- 1-2 : CLOSED WITH IGNITION SW OFF UNTIL ANTENNA AT **LOWERMOST** POSITION

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>A21</b>	34 (S/D), 35 (C/P)	<b>R 2</b>	33	<b>S 8</b>	33
<b>J 3</b>	33	<b>R 3</b>	33		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

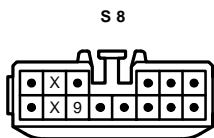
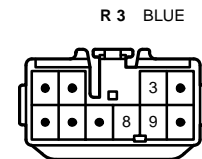
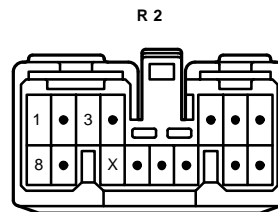
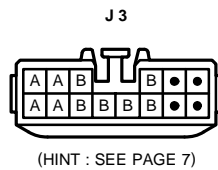
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1C</b>		
<b>1K</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1L</b>		
<b>2G</b>	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>II2</b>	42	INSTRUMENT PANEL WIRE AND COWL WIRE
<b>IM2</b>	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
<b>IU1</b>	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE

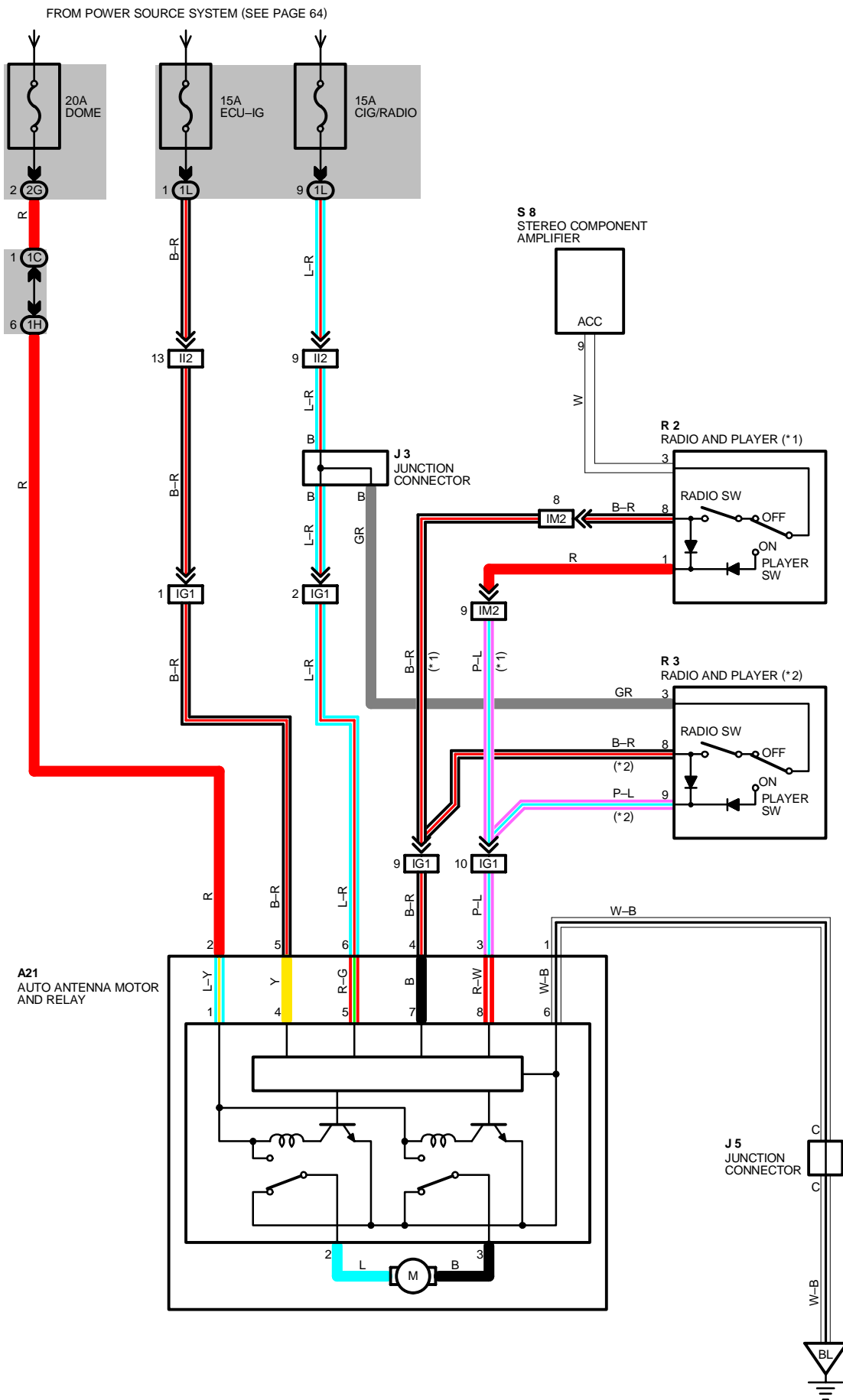
### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>BM</b>	46 (S/D) 48 (C/P)	UNDER THE LEFT QUARTER PILLAR



# AUTO ANTENNA (W/G)

\*1 : 8 SPEAKER  
\*2 : 6 SPEAKER





## SERVICE HINTS

### A21 AUTO ANTENNA MOTOR AND RELAY

- 9-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 7-GROUND : ALWAYS APPROX. 12 VOLTS
- 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW ON
- 3-GROUND : CONTINUITY (UPPER LIMIT SW ON) UNLESS ANTENNA AT **UP** STOP
- 2-GROUND : CONTINUITY (DOWN LIMIT SW ON) UNLESS ANTENNA AT **DOWN** STOP
- 4-3 : CLOSED WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW ON AND PLAYER SW OFF UNTIL ANTENNA AT **UPPERMOST** POSITION
- 1-2 : CLOSED WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW OFF AND PLAYER SW OFF UNTIL ANTENNA AT **LOWERMOST** POSITION
- 1-2 : CLOSED WITH IGNITION SW OFF UNTIL ANTENNA AT **LOWERMOST** POSITION

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>A21</b>	36 (W/G)	<b>J 5</b>	36 (W/G)	<b>R 3</b>	33
<b>J 3</b>	33	<b>R 2</b>	33	<b>S 8</b>	33

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1C</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1H</b>	20	FLOOR NO. 1 WIRE J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1L</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>2G</b>	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>II2</b>	42	INSTRUMENT PANEL WIRE AND COWL WIRE
<b>IM2</b>	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
<b>IG1</b>	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE

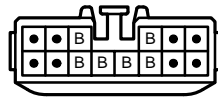
### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>BL</b>	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	

A21

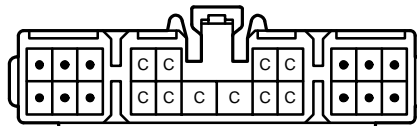


J 3



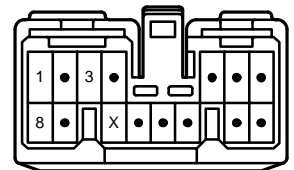
(HINT : SEE PAGE 7)

J 5

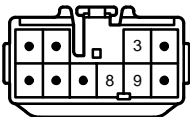


(HINT : SEE PAGE 7)

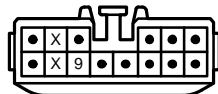
R 2



R 3 BLUE

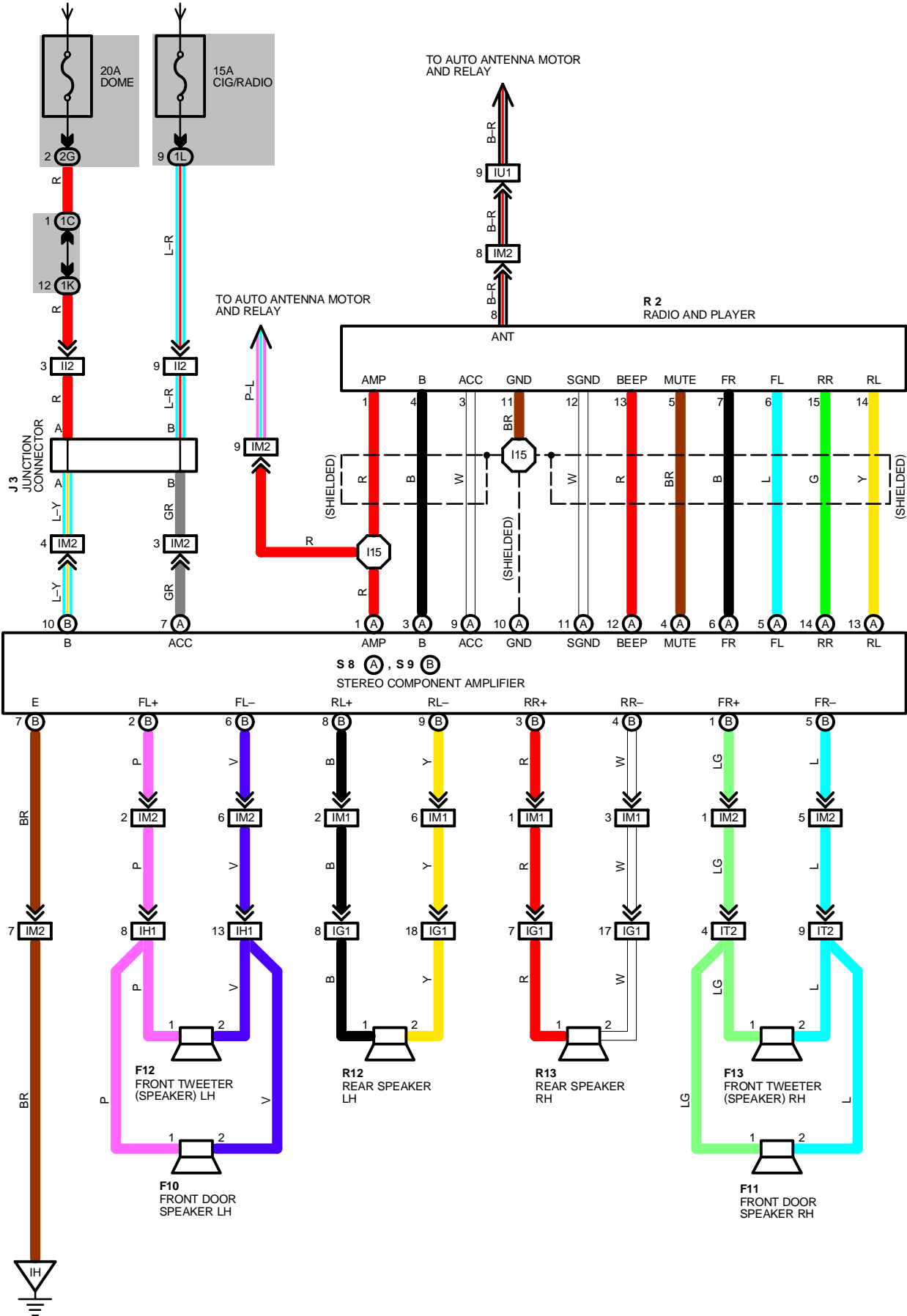


S 8



# RADIO AND PLAYER (S/D, C/P 6 SPEAKER)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### S 8(A), S 9(B) STEREO COMPONENT AMPLIFIER

(A) 7-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON OR ACC POSITION

(B) 7-GROUND : ALWAYS CONTINUITY

(B)10-GROUND : ALWAYS APPROX. 12 VOLTS

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F10	28 (1MZ-FE), 30 (5S-FE)	J 3	33	S 8	A 33
F11	34 (S/D), 35 (C/P)	R 2	33	S 9	B 33
F12	34 (S/D), 35 (C/P)	R12	34 (S/D), 35 (C/P)		
F13	34 (S/D), 35 (C/P)	R13	34 (S/D), 35 (C/P)		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K		
1L		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IM1	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
IM2		
IT2	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE

### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IH	42	INSTRUMENT PANEL BRACE RH

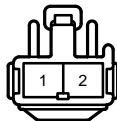
### ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I15	44	CONSOLE BOX WIRE			

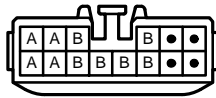
F10, F11 BLACK



F12, F13

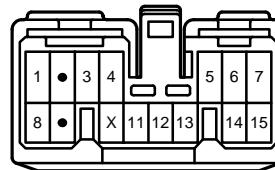


J 3



(HINT : SEE PAGE 7)

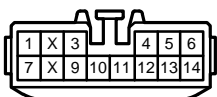
R 2 BLUE



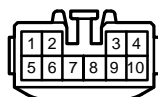
R12, R13



S 8 (A)

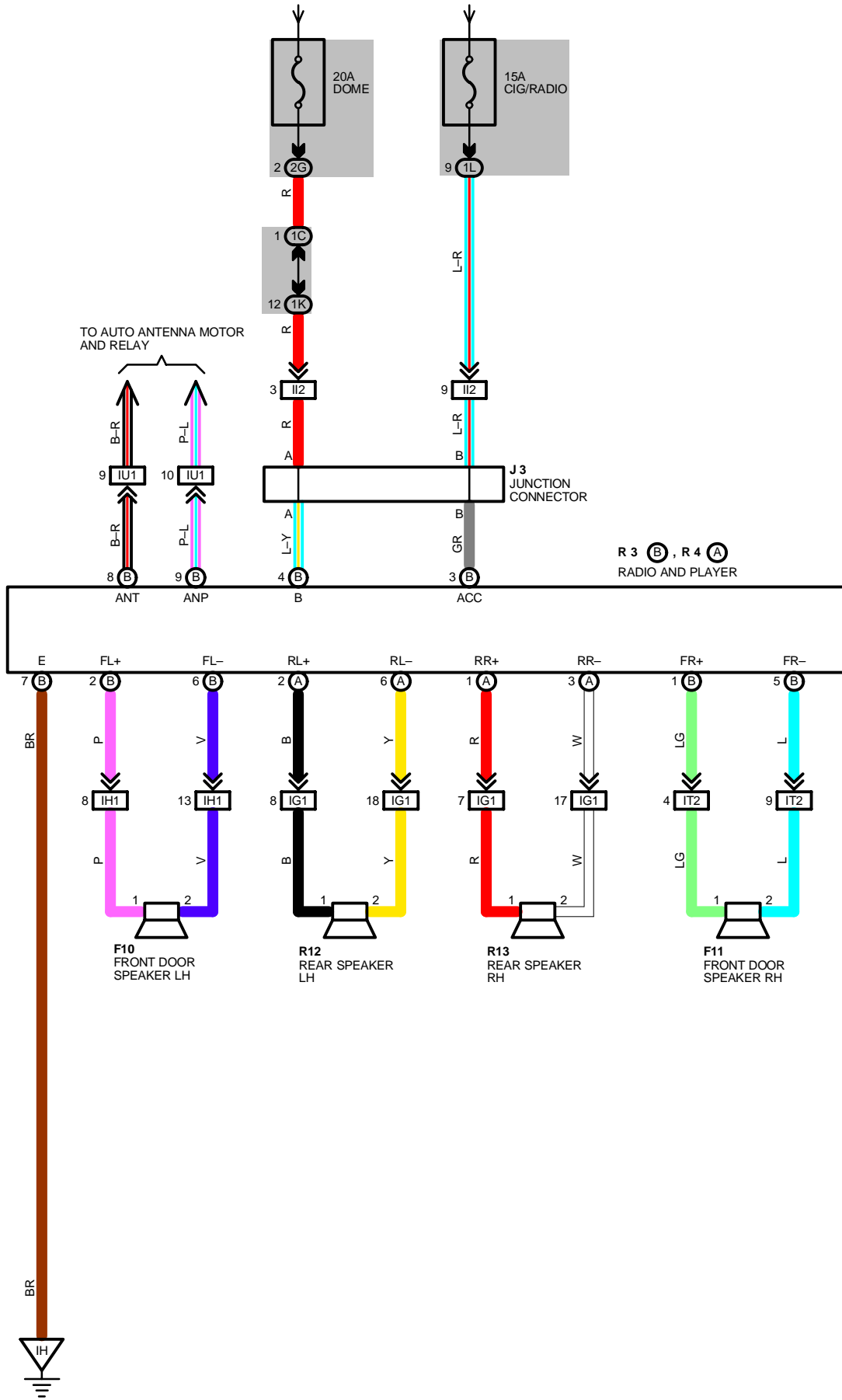


S 9 (B)



# RADIO AND PLAYER (S/D, C/P 4 SPEAKER)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SERVICE HINTS

### R 3(B) RADIO AND PLAYER

(B) 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON OR ACC POSITION

(B) 4-GROUND : ALWAYS APPROX. 12 VOLTS

(B) 7-GROUND : ALWAYS CONTINUITY

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE	
F10	28 (1MZ-FE), 30 (5S-FE)	R 3	B	33	R13	34 (S/D), 35 (C/P)
F11	34 (S/D), 35 (C/P)	R 4	A	33		
J 3	33	R12		34 (S/D), 35 (C/P)		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C		
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1L		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

### □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IT2	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE

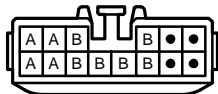
### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IH	42	INSTRUMENT PANEL BRACE RH

F10, F11 BLACK

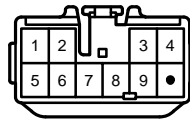


J 3

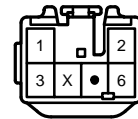


(HINT : SEE PAGE 7)

R 3 (B) BLUE



R 4 (A) BLUE

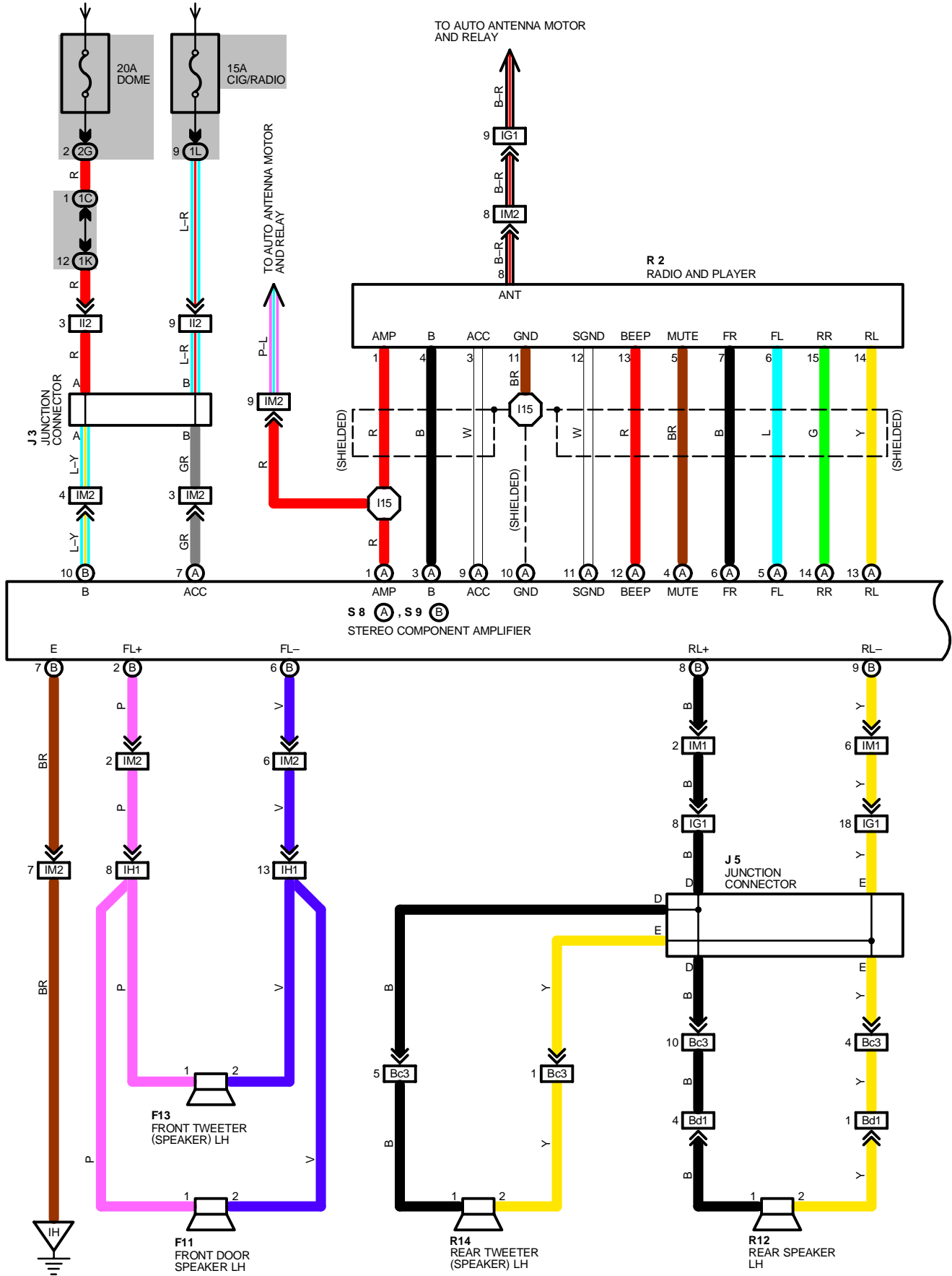


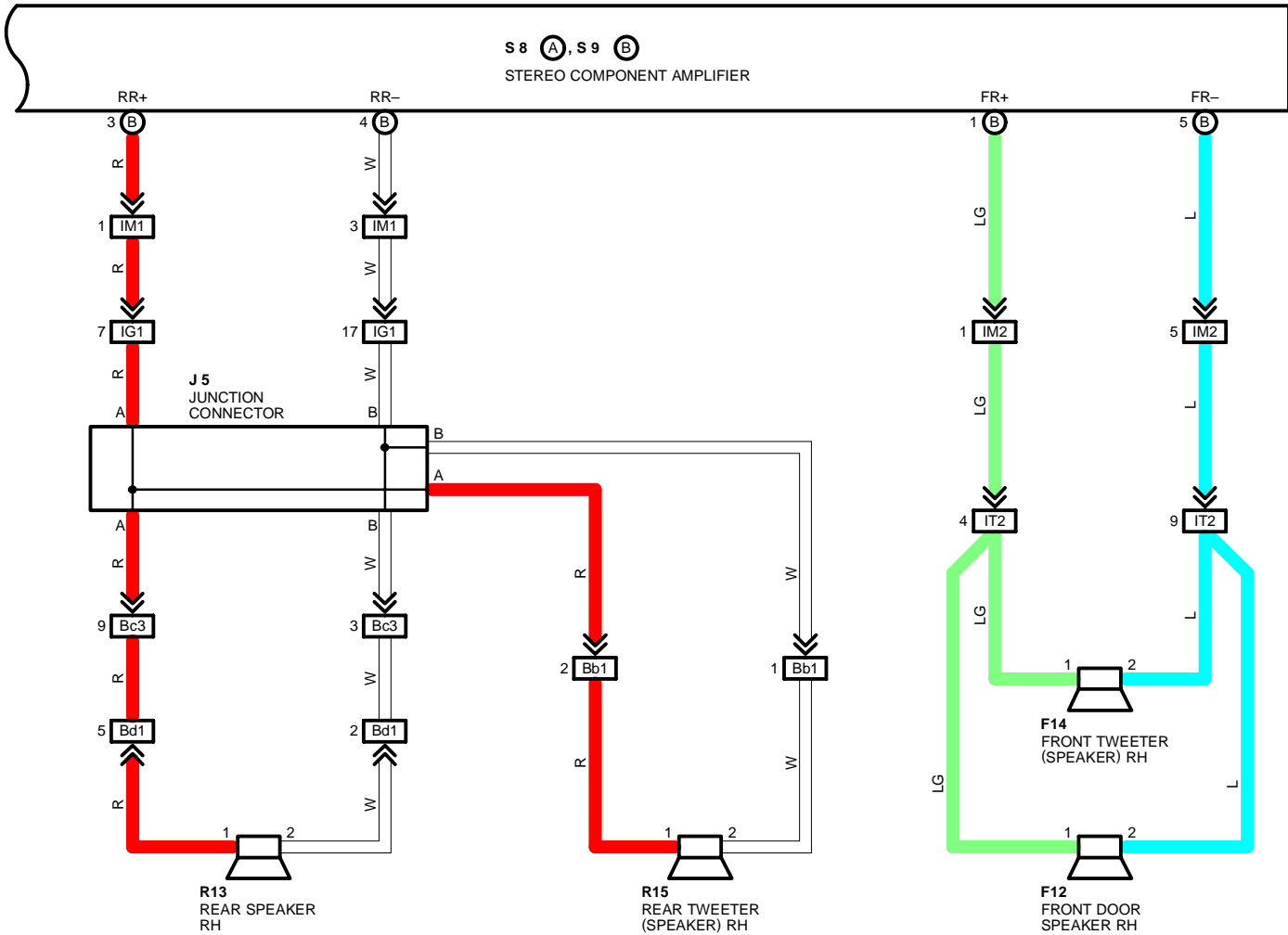
R12, R13



# RADIO AND PLAYER (W/G 8 SPEAKER)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# RADIO AND PLAYER (W/G 8 SPEAKER)

## SERVICE HINTS

### S 8(A), S 9(B) STEREO COMPONENT AMPLIFIER

(A) 7-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON OR ACC POSITION

(B) 7-GROUND : ALWAYS CONTINUITY

(B)10-GROUND : ALWAYS APPROX. 12 VOLTS

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F11	36 (W/G)	J 5	36	R15	36 (W/G)
F12	36 (W/G)	R 2	33	S 8	A 33
F13	36 (W/G)	R12	36 (W/G)	S 9	B 33
F14	36 (W/G)	R13	36 (W/G)		
J 3	33	R14	36 (W/G)		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K		
1L		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IM1	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
IM2		
IT2	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
Bb1	50 (W/G)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bc3	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bd1	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

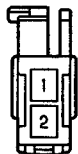
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IH	42	INSTRUMENT PANEL BRACE RH

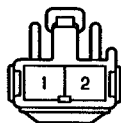
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I15	44	CONSOLE BOX WIRE			

F11, F12 BLACK



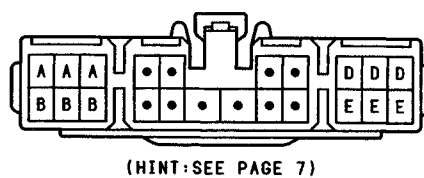
F13, F14



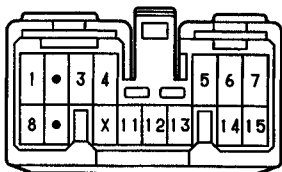
J 3



J 5



R 2 BLUE



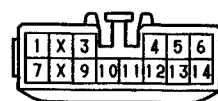
R12, R13



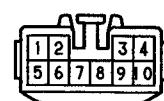
R14, R15



S 8 (A)



S 9 (B)





# RADIO AND PLAYER (W/G 6 SPEAKER)

## SERVICE HINTS

### R 3(B) RADIO AND PLAYER

(B) 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON OR ACC POSITION

(B) 4-GROUND : ALWAYS APPROX. 12 VOLTS

(B) 7-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F11	36 (W/G)	R 3	B 33	R14	36 (W/G)
F12	36 (W/G)	R 4	A 33	R15	36 (W/G)
J 3	33	R12	36 (W/G)		
J 5	36	R13	36 (W/G)		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K		
1L		
2G	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	42	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE
IH1	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
II2	42	INSTRUMENT PANEL WIRE AND COWL WIRE
IT2	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IU1	44	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE
Bb1	50 (W/G)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bc3	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bd1	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IH	42	INSTRUMENT PANEL BRACE RH

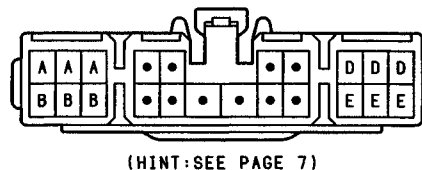
F11, F12 BLACK



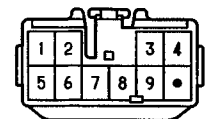
J 3



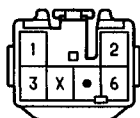
J 5



R 3(B) BLUE



R 4(A) BLUE



R12, R13

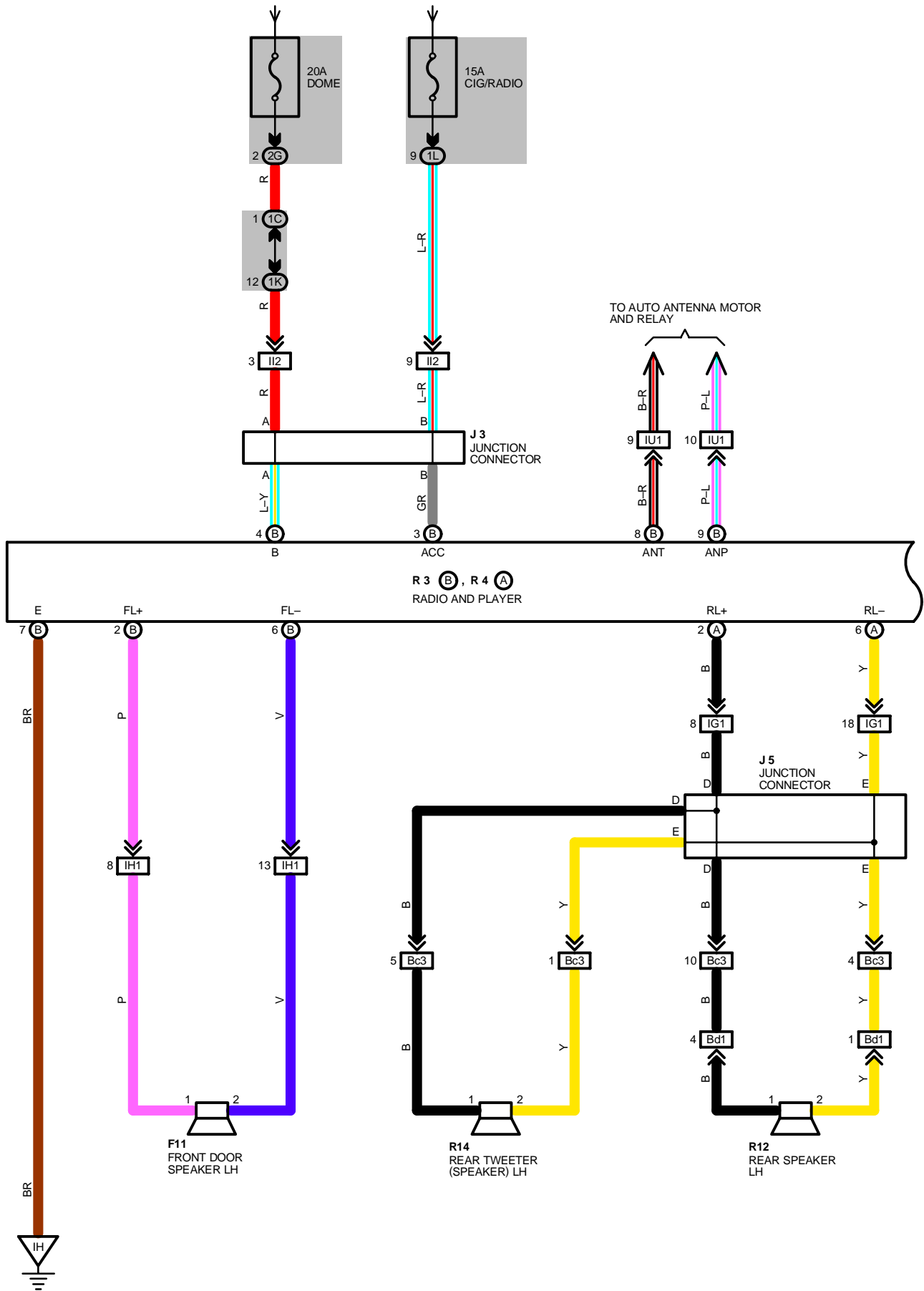


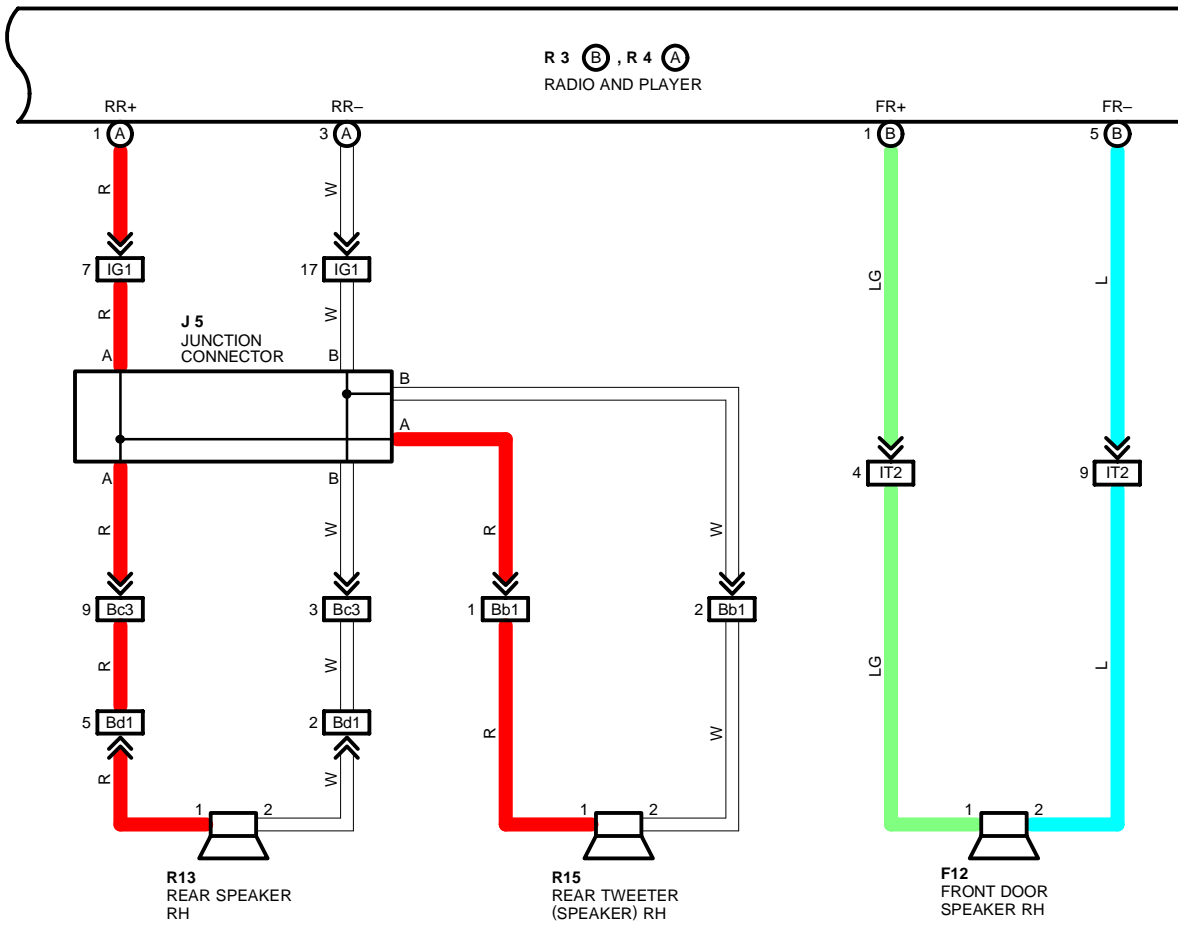
R14, R15



# RADIO AND PLAYER (W/G 6 SPEAKER)

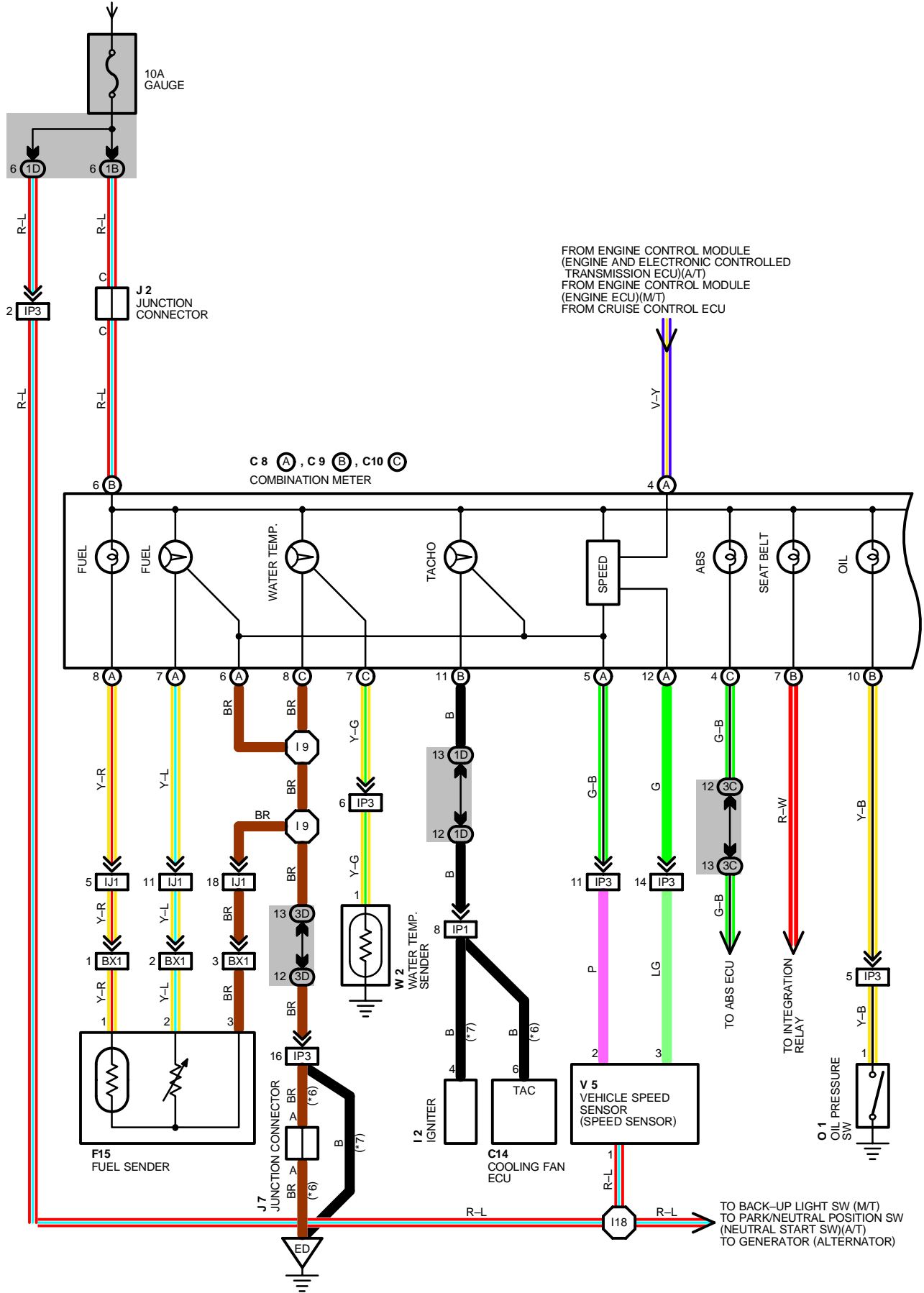
FROM POWER SOURCE SYSTEM (SEE PAGE 64)



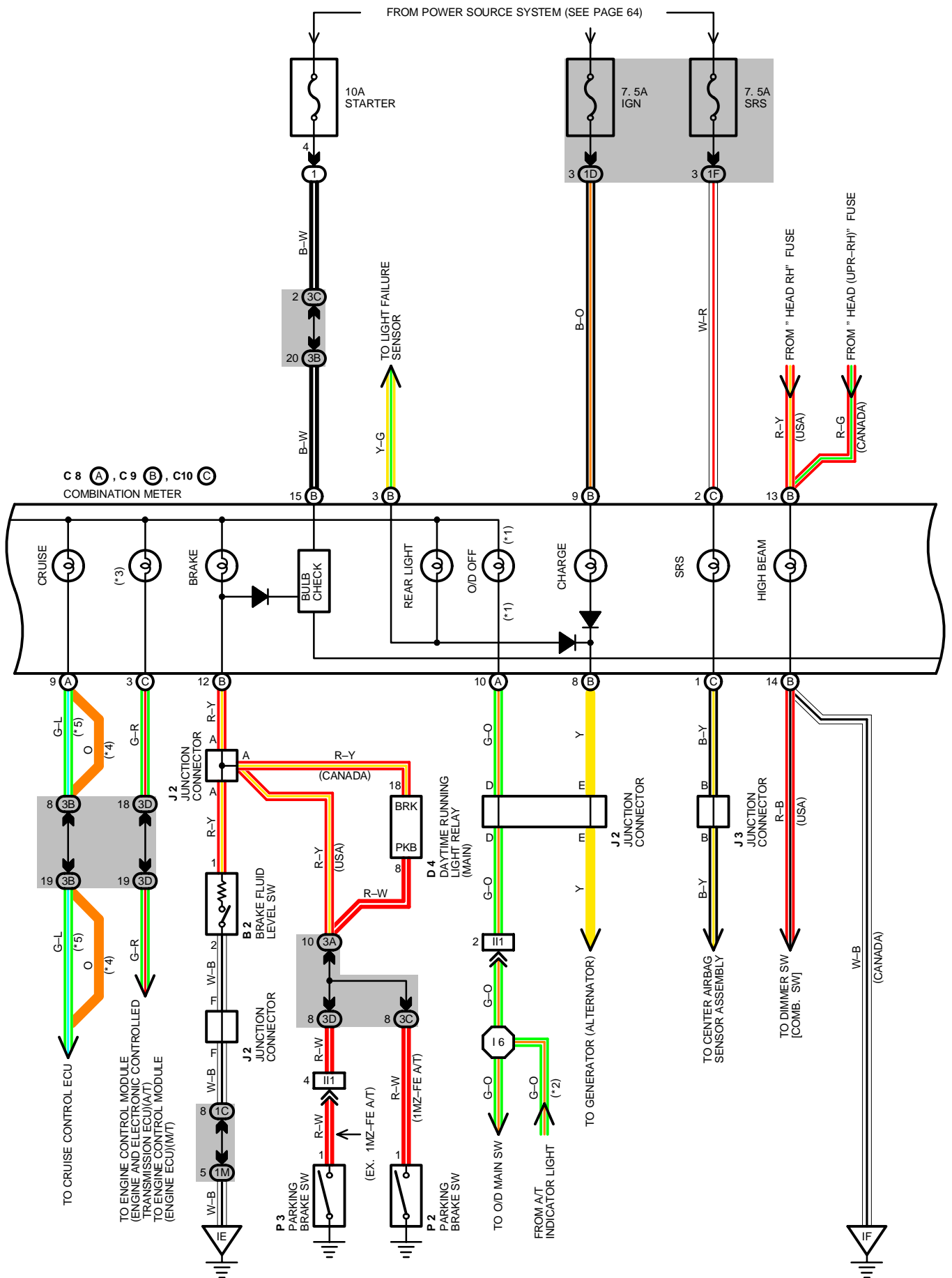


# COMBINATION METER

FROM POWER SOURCE SYSTEM (SEE PAGE 64)

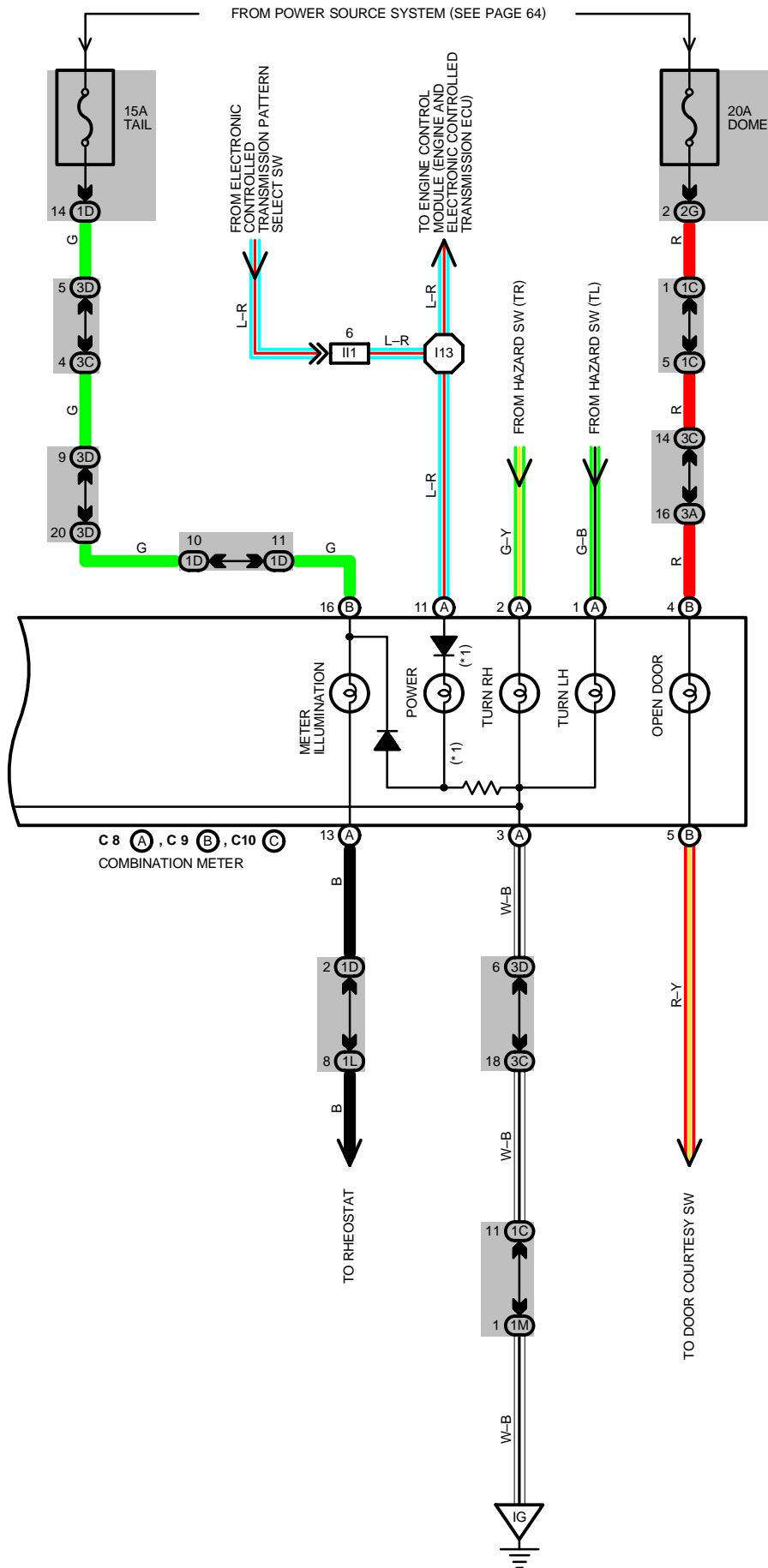


- \*1 : W/O A/T INDICATOR LIGHT
- \*2 : W/ A/T INDICATOR LIGHT
- \*3 : MALFUNCTION INDICATOR LAMP  
(CHECK ENGINE WARNING LIGHT)
- \*4 : TMC MADE
- \*5 : TMM MADE
- \*6 : 1MZ-FE
- \*7 : 5S-FE



# COMBINATION METER

\*1 : W/O A/T INDICATOR



## SERVICE HINTS

### B 2 BRAKE FLUID LEVEL SW

1-2 : CLOSED WITH FLOAT DOWN

### C 8(A), C 9(B), C10(C) COMBINATION METER

(A)2, (B)6, (B)9-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION

(A)3, (B)14, (C)8-GROUND : ALWAYS CONTINUITY

### F15 FUEL SENDER

2-3 : APPROX. 3 WITH FUEL FULL

APPROX. 110.0 WITH FUEL EMPTY

### O 1 OIL PRESSURE SW

1-GROUND : CLOSED WITH OIL PRESSURE BELOW 0.2 KG/CM<sup>2</sup> (2.84 PSI, 19.61 KPA)

### P 2 PARKING BRAKE SW (1MZ-FE A/T)

1-GROUND : CLOSED WITH PARKING BRAKE PEDAL DEPRESSED

### P 3 PARKING BRAKE SW (EX. 1MZ-FE A/T)

1-GROUND : CLOSED WITH PARKING BRAKE LEVER PULLED UP

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>B 2</b>	28 (1MZ-FE), 30 (5S-FE)	<b>D 4</b>	32	<b>P 2</b>	33
<b>C 8</b> A	32	<b>F15</b>	34 (S/D), 35 (C/P), 36 (W/G)	<b>P 3</b>	33
<b>C 9</b> B	32	<b>I 2</b>	28 (1MZ-FE), 30 (5S-FE)	<b>V 5</b>	28 (1MZ-FE), 30 (5S-FE)
<b>C10</b> C	32	<b>J 2</b>	33	<b>W 2</b>	28 (1MZ-FE), 30 (5S-FE)
<b>C14</b>	32	<b>O 1</b>	28 (1MZ-FE), 30 (5S-FE)		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
<b>1</b>	25	R/B NO. 1 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1B</b>	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
<b>1C</b>		
<b>1D</b>		
<b>1F</b>		
<b>1L</b>		
<b>1M</b>		
<b>2G</b>	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
<b>3A</b>	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
<b>3B</b>		
<b>3C</b>		
<b>3D</b>		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>II1</b>	42	COWL WIRE AND INSTRUMENT PANEL WIRE
<b>IJ1</b>	42	FLOOR NO. 1 WIRE AND COWL WIRE
<b>IP1</b>	44	ENGINE WIRE AND COWL WIRE
<b>IP3</b>		
<b>BX1</b>	46 (S/D)	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
	50 (W/G)	

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>ED</b>	38 (1MZ-FE)	INTAKE MANIFOLD LH
	40 (5S-FE)	
<b>IE</b>	42	LEFT KICK PANEL
<b>IF</b>		
<b>IG</b>	42	INSTRUMENT PANEL BRACE LH

## ○ : SPLICE POINTS

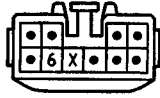
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>I 6</b>	44	INSTRUMENT PANEL WIRE	<b>I13</b>	44	COWL WIRE
<b>I 9</b>	44	COWL WIRE	<b>I18</b>	44	ENGINE WIRE

# COMBINATION METER

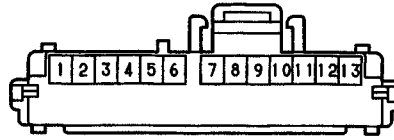
B 2 GRAY



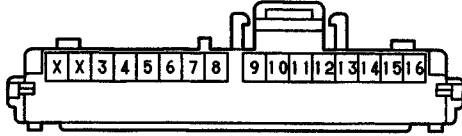
C 6 GRAY



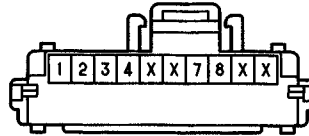
C 8 (A) BLUE



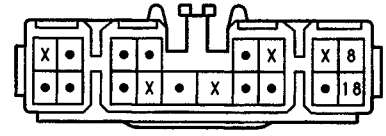
C 9 (B)



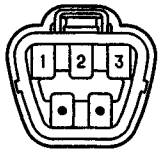
C10 (C) GRAY



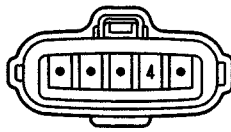
D 4 GRAY



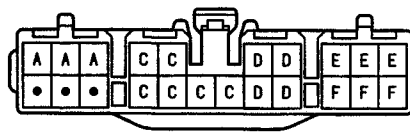
F15 DARK GRAY



I 2 BLACK

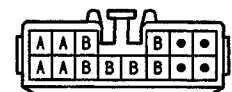


J 2 DARK GRAY



(HINT:SEE PAGE 7)

J 3



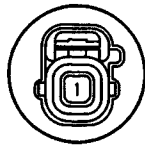
(HINT:SEE PAGE 7)

J 7 BLUE



(HINT:SEE PAGE 7)

O 1 BLACK



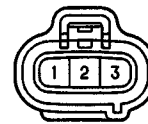
P 2



P 3



V 5 GRAY



W 2 GRAY





# RADIATOR FAN AND CONDENSER FAN (5S-FE)

## : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 1	30	E 5	30 (5S-FE)		
A 2	30 (5S-FE)	R 1	30 (5S-FE)		

## : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
5	26	R/B NO. 5 (ENGINE COMPARTMENT LEFT)

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E		
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	40 (5S-FE)	ENGINE ROOM MAIN WIRE AND ENGINE ROOM NO. 3 WIRE

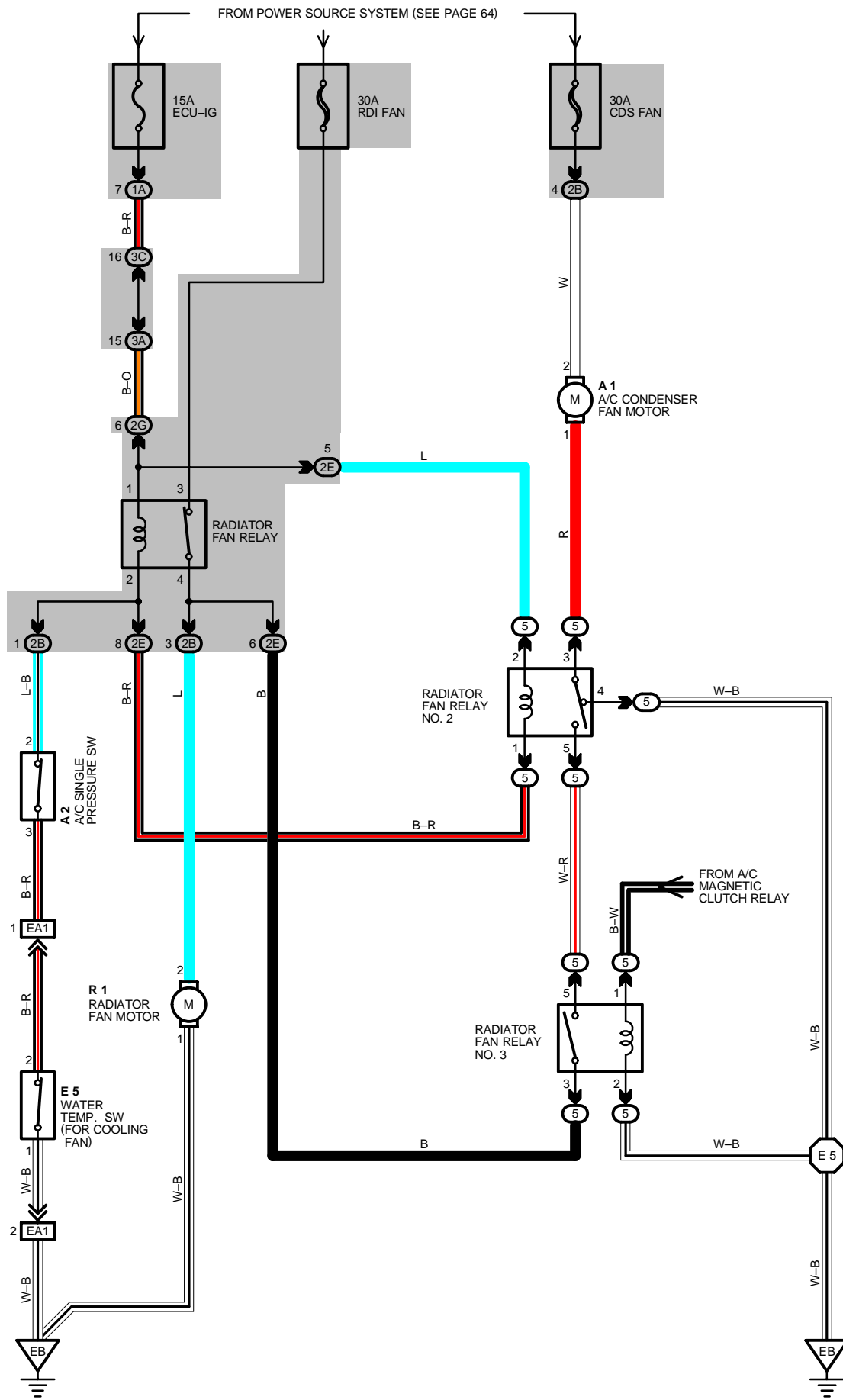
## : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	40 (5S-FE)	FRONT LEFT FENDER

## : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 5	40 (5S-FE)	ENGINE ROOM MAIN WIRE			

# RADIATOR FAN AND CONDENSER FAN (5S-FE)



## SYSTEM OUTLINE

### FAN MOTOR OPERATION

WITH THE IGNITION SW IS TURNED ON, CURRENT FLOWS FROM **ECU-IG** FUSE TO RADIATOR FAN RELAY NO. 1 (COIL SIDE) AND RADIATOR FAN RELAY NO. 2 (COIL SIDE) → **TERMINAL 2** OF THE A/C SINGLE PRESSURE SW → **TERMINAL 3** → **TERMINAL 2** OF THE WATER TEMP. SW → **TERMINAL 1** → **GROUND**, AND RADIATOR FAN RELAY NO. 1 AND NO. 2 ARE TURNED ON.

#### \* RADIATOR FAN MOTOR OPERATION

WHEN THE IGNITION SW IS TURNED ON, RADIATOR FAN RELAY NO. 1 IS TURNED ON. IF AT THIS TIME THE ENGINE COOLANT TEMPERATURE IS APPROX. **90°C (194°F)** OR HIGHER, THE WATER TEMP. SW IS TURNED OFF, RADIATOR FAN RELAY NO. 1 IS TURNED OFF.

AS A RESULT, CURRENT FROM THE **RDI FAN** FUSE TO RADIATOR FAN RELAY NO. 1 (POINT SIDE) → **TERMINAL 2** OF THE RADIATOR FAN MOTOR → **TERMINAL 1** → **GROUND**, THUS ACTIVATING THE ROTATION OF THE RADIATOR FAN MOTOR.

#### \* LOW SPEED OPERATION

WHEN THE IGNITION SW IS TURNED ON AND THE A/C ACTIVATED, RADIATOR FAN RELAY NO. 1 AND RADIATOR FAN RELAY NO. 2 ARE TURNED ON, CURRENT FLOWS FROM A/C MAGNETIC CLUTCH RELAY (POINT SIDE) TO RADIATOR FAN RELAY NO. 3 (COIL SIDE) → **GROUND**, AND RADIATOR FAN RELAY NO. 3 IS TURNED ON.

AS A RESULT, CURRENT FLOWS FROM **CDS FAN** FUSE TO **TERMINAL 2** OF THE A/C CONDENSER FAN MOTOR → **TERMINAL 1** → RADIATOR FAN RELAY NO. 2 (POINT SIDE) → RADIATOR FAN RELAY NO. 3 (POINT SIDE) → **TERMINAL 2** OF THE RADIATOR FAN MOTOR → **TERMINAL 1** → **GROUND**, FLOWING TO EACH FAN MOTOR IN SERIES, CAUSING THE FAN TO AT LOW SPEED.

#### \* HIGH SPEED OPERATION OF THE FAN MOTOR DUARING A/C OPERATION

WHEN THE A/C OPERATION, THE REFRIGERRANT PRESSURE BECOME HIGHER THAN OR DINARY LEVEL (APPROX. **15.58 KG/CM<sup>2</sup> (221.2 PSI, 1527 KPA)**) THE A/C SINGLE PRESSURE SW IS TURNED OFF. AS A RESULT, RADIATOR FAN RELAY NO. 1 AND RADIATOR FAN RELAY NO. 2 ARE TURNED OFF, AND CURRENT FLOWS FROM **RDI** FUSE TO RADIATOR FAN RELAY NO. 1 (POINT SIDE) → **TERMINAL 2** OF THE RADIATOR FAN MOTOR → **TERMINAL 1** → **GROUND**, AND CURRENT FLOWS FROM **CDS FAN** FUSE TO **TERMINAL 2** OF THE A/C CONDENSER FAN MOTOR → **TERMINAL 1** → RADIATOR FAN RELAY NO. 2 (POINT SIDE) → **GROUND**, AND TO EACH FAN MOTOR IN PARALLEL, THUS CAUSING THE FAN MOTORS OPERATE HIGH SPEED.

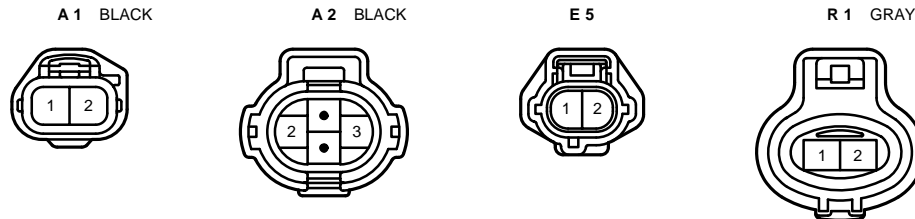
NOTE THAT, BECAUSE THE CURRENT FLOWS IN THE SAME MENNER EVEN IF THE ENGINE COOLANT TEMPERATURE IS APPROX. **90°C (194°F)** OR HIGHER, THE FAN MOTOR OPERATE AT HIGH SPEED.

## SERVICE HINTS

### A 2 A/C SINGLE PRESSURE SW

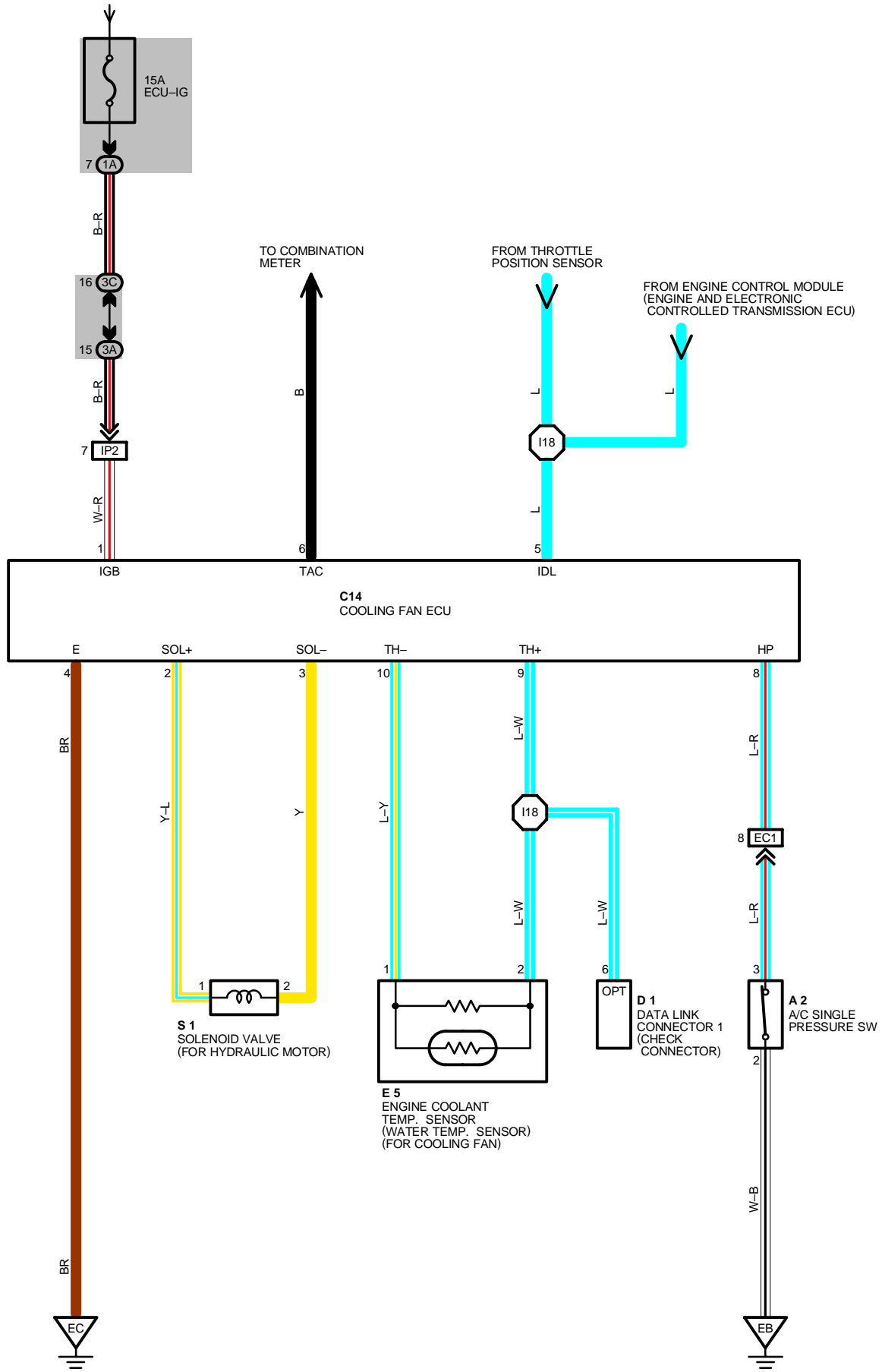
2-3 : OPEN ABOVE APPROX. **15.58 KG/CM<sup>2</sup> (221.2 PSI, 1527 KPA)**

CLOSE BELOW APPROX. **15.56 KG/CM<sup>2</sup> (178.4 PSI, 1231 KPA)**



# ELECTRONICALLY CONTROLLED HYDRAULIC COOLING FAN (1MZ-FE)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)



## SYSTEM OUTLINE

THE COOLING FAN ECU RECEIVES VARIOUS SIGNAL, I.E., THE ENGINE RPM SIGNAL FROM THE IGNITER, COOLANT TEMPERATURE SIGNAL FROM THE ENGINE COOLANT TEMP. SENSOR (WATER TEMP. SENSOR), A/C REFRIGERANT PRESSURE SIGNAL FROM A/C SINGLE PRESSURE SW.

THE COOLING FAN ECU JUDGES THE ENGINE BASED ON SIGNALS FROM ABOVE MENTION, DRIVES THE SOLENOID VALVE AND CONTROLS THE SPEED OF THE COOLING FAN STEPLESSLY

### FAIL-SAFE FUNCTION

WHEN THE MALFUNCTION IS DETECTED BY THE ENGINE COOLANT TEMP. SENSOR (WATER TEMP. SENSOR) OR SOLENOID VALVE, THE FAIL-SAFE FUNCTION OF THE COOLING FAN ECU JUDGES THE SITUATION TO ALLOW THE COOLING SYSTEM TO CONTINUE OPERATION.

## SERVICE HINTS

### A 2 A/C SINGLE PRESSURE SW

2-3 : OPEN ABOVE APPROX. **15.58KG/CM<sup>2</sup> (221.2PSI, 1527KPA)**  
CLOSED BELOW APPROX. **12.56 KG/CM<sup>2</sup> (178.4PSI, 1231KPA)**

### C14 COOLING FAN ECU

1-GROUND : APPROX. **12 VOLTS** WITH THE IGNITION SW ON  
9-10 : **2.5 VOLTS** AT **20°C (68°F)** AND IGNITION SW ON  
**1.2 VOLTS** AT **80°C (176°F)** AND IGNITION SW ON  
8-4 : **10-14 VOLTS** AT A/C PRESSURE SW ON (OPEN)  
**0-3 VOLTS** AT A/C PRESSURE SW OFF (CLOSE)  
4-GROUND : ALWAYS CONTINUITY

### E 5 ENGINE COOLANT TEMP. SENSOR (WATER TEMP. SENSOR) (FOR COOLING FAN)

1-2 : **1.5K** AT **80°C (176°F)**  
**0.7K** AT **110°C (230°F)**

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 2	28	D 1	28	S 1	29
C14	32	E 5	30		

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	38 (1MZ-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
IP2	44	ENGINE WIRE AND COWL WIRE

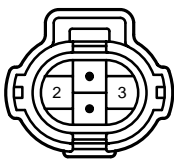
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (1MZ-FE)	FRONT LEFT FENDER
EC	38 (1MZ-FE)	INTAKE MANIFOLD RH

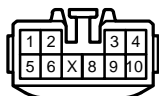
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I18	44	ENGINE WIRE			

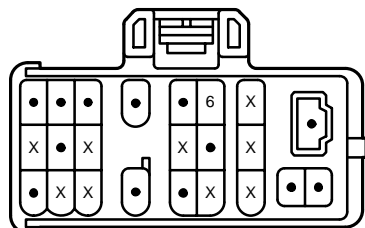
A 2 BLACK



C14 GRAY



D 1 BLACK



E 5 BROWN



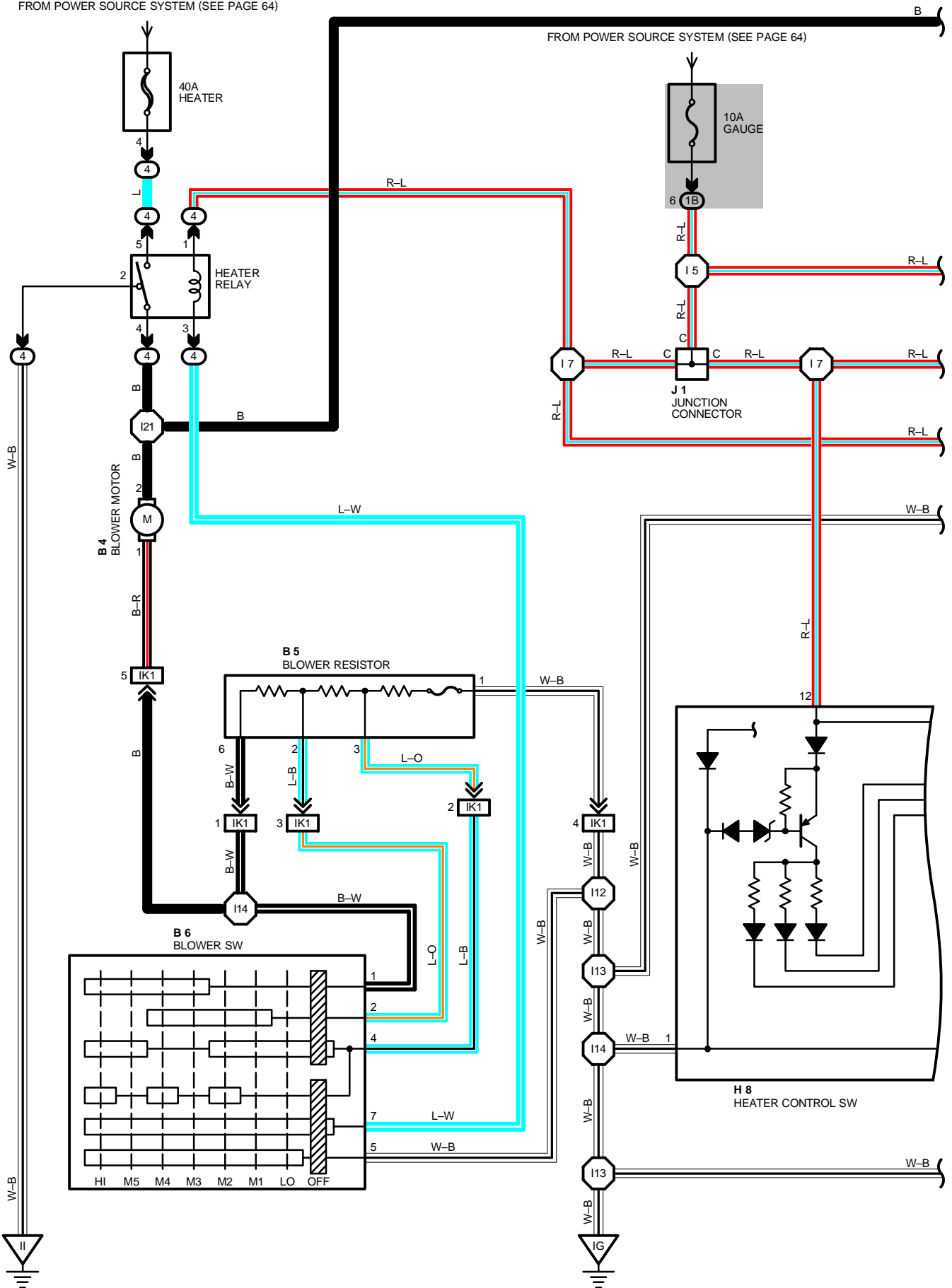
S 1

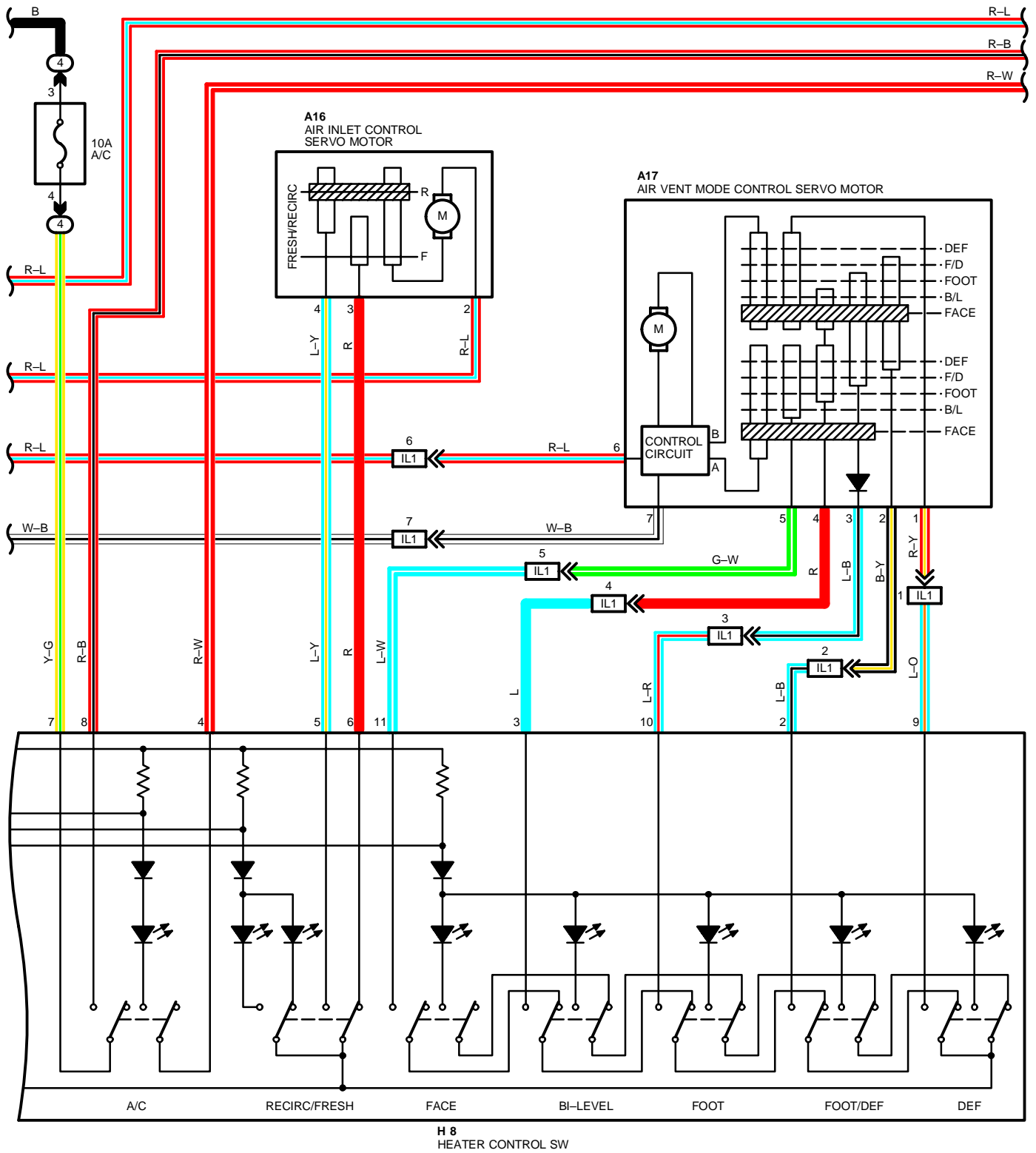


# AIR CONDITIONING (PUSH CONTROL SW TYPE)

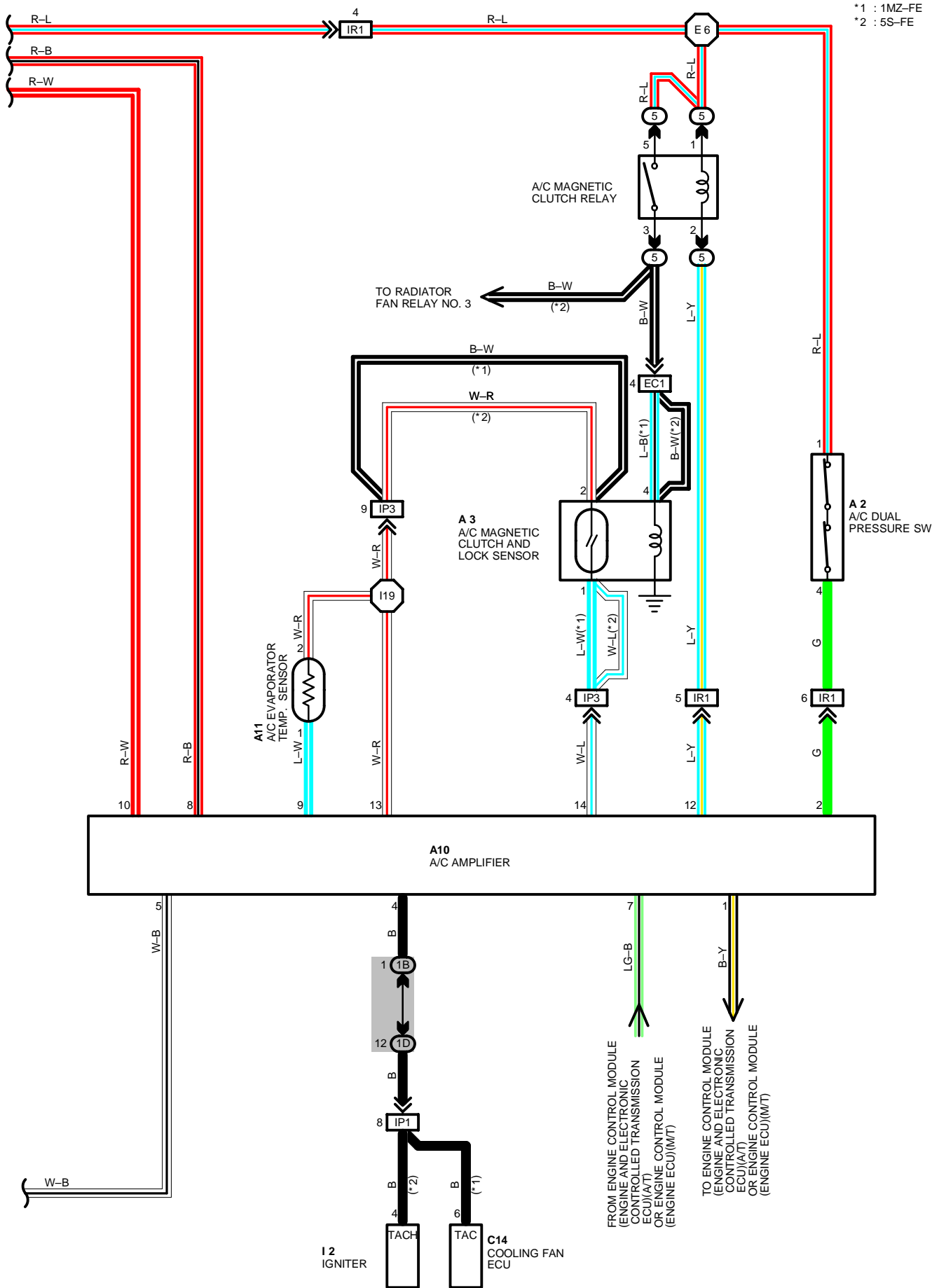
FROM POWER SOURCE SYSTEM (SEE PAGE 64)

FROM POWER SOURCE SYSTEM (SEE PAGE 64)





# AIR CONDITIONING (PUSH CONTROL SW TYPE)





## SYSTEM OUTLINE

### 1. AIR INLET CONTROL SERVO MOTOR OPERATION (FOR PUSH SW TYPE)

(SWITCHING FROM FRESH TO RECIRC)

WITH THE IGNITION SW ON, CURRENT FROM THE **GAUGE** FUSE FLOWS TO **TERMINAL 1** OF THE SERVO MOTOR. WHEN THE RECIRC SW IS TURNED ON, THE CURRENT FLOWS FROM SERVO MOTOR → **TERMINAL 3** → **TERMINAL 5** OF THE HEATER CONTROL SW → **TERMINAL 1** → **GROUND**, THE MOTOR ROTATES AND THE DAMPER MOVES TO THE RECIRC SIDE. WHEN IT IS IN THE RECIRC POSITION, THE CIRCUIT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS IN THAT POSITION.

WHEN THE CIRCUIT FOR THE INDICATOR LIGHT, CURRENT FLOWS FROM THE **GAUGE** FUSE → **TERMINAL 12** OF THE HEATER CONTROL SW → INDICATOR LIGHT → **TERMINAL 1** → **GROUND** AND THE INDICATOR LIGHT CONTINUES TO LIGHT UP WHILE THE RECIRC SW IS ON.

(SWITCHING FROM RECIRC TO FRESH)

WHEN THE IGNITION IS ON AND THE FRESH SW IS TURNED ON, CURRENT FLOWS FROM **TERMINAL 2** OF THE SERVO MOTOR → **TERMINAL 6** OF THE HEATER CONTROL SW → **TERMINAL 1** → **GROUND**, THE MOTOR ROTATES AND THE DAMPER MOVES TO THE FRESH SIDE. WHEN THE DAMPER IS IN THE FRESH POSITION, THE CIRCUIT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS IN THAT POSITION.

### 2. OPERATION OF AIR VENT MODE CONTROL SERVO MOTOR

WHEN THE IGNITION SW ON, CURRENT FLOWS FROM THE **GAUGE** FUSE TO **TERMINAL 12** OF THE HEATER CONTROL SW, **TERMINAL 6** OF THE AIR VENT MODE CONTROL SERVO MOTOR.

WHEN THE DAMPER IS IN FACE POSITION AND THE BI-LEVEL OF THE HEATER CONTROL SW IS THEN TURNED ON, CURRENT FLOWS FROM **TERMINAL 3** OF THE HEATER CONTROL SW → **TERMINAL 4** OF THE AIR VENT MODE CONTROL SERVO MOTOR SO THAT A SIGNAL THAT THE GROUND CIRCUIT IS ACTIVATED IS INPUT TO **TERMINAL "B"** OF THE CONTROL CIRCUIT INSIDE THE AIR VENT MODE CONTROL SERVO MOTOR.

SIMULTANEOUSLY, A SIGNAL THAT THE GROUND CIRCUIT IS NOT ACTIVATED IS INPUT TO **TERMINAL "A"** OF THE CONTROL CIRCUIT INSIDE THE SERVO MOTOR. THESE TWO SIGNALS ACTIVATE THE CONTROL CIRCUIT SO THAT CURRENT FROM THE **GAUGE** FUSE TO THE SERVO MOTOR, CAUSING THE SERVO MOTOR TO OPERATE AND THE DAMPER TO MOVE TO BI-LEVEL POSITION. WHEN THE DAMPER REACHES BI-LEVEL POSITION, A GROUND CUT SIGNAL IS INPUT TO **TERMINAL "B"** OF THE CONTROL CIRCUIT, THE CONTROL CIRCUIT OPERATES, THE SERVO MOTOR STOPS ROTATING AND THE DAMPER STOPS AT BI-LEVEL.

WHEN ANOTHER MODE POSITION IS SWITCHED TO, INPUT OF SIGNALS TO **TERMINAL "A"** AND **TERMINAL "B"** OF THE CONTROL CIRCUIT THAT GROUND IS MADE OR GROUND IS NOT MADE (AS EXPLAINED ABOVE) ACTIAVTES THE CONTROL CIRCUIT AND MOVES THE SERVO MOTOR TO THE DESIRED POSITION.

### 3. AIR CONDITIONING OPERATION

WHEN THE IGNITION SW ON, CURRENT FLOWS FROM **GAUGE** FUSE TO **TERMINAL 12** OF THE HEATER CONTROL SW, **TERMINAL 6** OF THE AIR VENT MODE CONTROL SERVO MOTOR.

WHEN THE BLOWER SW IS ON, CURRENT FLOWS FROM THE **GAUGE** FUSE → HEATER RELAY (COIL SIDE) → **TERMINAL 7** OF THE BLOWER SW → **TERMINAL 5** → **GROUND**, ACTIVATING THE HEATER RELAY. THIS CAUSES CURRENT TO FLOW FROM THE **HEATER** FUSE TO THE HEATER RELAY (POINT SIDE) → **A/C** FUSE → **TERMINAL 7** OF THE HEATER CONTROL SW (A/C SW). IF THE HEATER CONTROL (A/C SW) IS THEN TURNED ON AT THIS TIME, A SIGNAL IS INPUT TO THE A/C AMPLIFIRE. THIS ACTIVATES THE A/C AMPLIFIER AND A/C MAGNETIC CLUTCH RELAY SO THAT CURRENT FLOWS FROM THE **GAUGE** FUSE TO THE A/C MAGNETIC CLUTCH RELAY (POINT SIDE) → A/C MAGNETIC CLUTCH, CAUSING THE COMPRESSOR TO OPERATE. THE VSV (FOR A/C IDLE-UP) IS TURNED ON SIMULTANEOUSLY TO PREVENT A DECREASE IN ENGINE SPEED DUE TO A/C OPERATION.

## SERVICE HINTS

### HEATER RELAY

(4)5- (4)4 : CLOSED WITH THE IGNITION SW ON AND BLOWER SW ON

### A/C MAGNETIC CLUTCH RELAY

(4)5- (4)3 : CLOSED WITH THE IGNITION SW ON AND BLOWER SW ON AND A/C SW ON

### A 2 A/C DUAL PRESSURE SW

1-4 : OPEN WITH PRESSURE 2.1 KG/CM (30 PSI, 206 KPA) OR ABOVE 27 KG/CM (384 PSI, 2646 KPA)

### B 5 BLOWER RESISTOR

6-2 : APPROX. 1.12 Ω

2-3 : APPROX. 0.5 Ω

3-1 : APPROX. 0.2 Ω

# AIR CONDITIONING (PUSH CONTROL SW TYPE)

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 2	28 (1MZ-FE), 30 (5S-FE)	A17	32	H 8	33
A 3	28 (1MZ-FE), 30 (5S-FE)	B 4	32	I 2	30 (5S-FE)
A10	32	B 5	32	J 1	33
A11	32	B 6	32		
A16	32	C14	32		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
4	25	R/B NO. 4 (RIGHT KICK PANEL)
5	26	R/B NO. 5 (ENGINE COMPARTMENT LEFT)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1D		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	38 (1MZ-FE) 40 (5S-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
IK1	42	COWL WIRE AND A/C SUB WIRE
IL1	42	COWL WIRE AND SERVO MOTOR SUB WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
IR1	44	ENGINE ROOM MAIN WIRE AND COWL WIRE

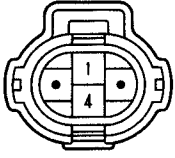
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IG	42	INSTRUMENT PANEL BRACE LH
II	42	RIGHT KICK PANEL

## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 6	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	I12	44	COWL WIRE
	40 (5S-FE)		I13		
I 5	44	COWL WIRE	I14		
I 7			I19		

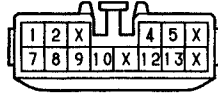
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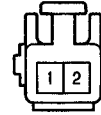
A 3 GRAY



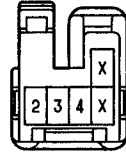
A10



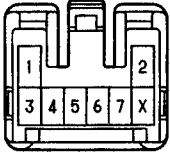
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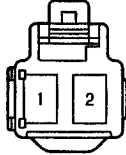
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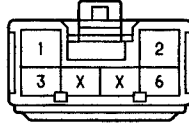
A17



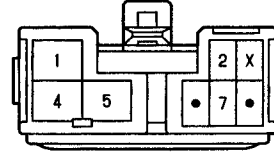
B 4



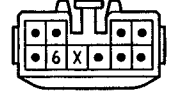
B 5



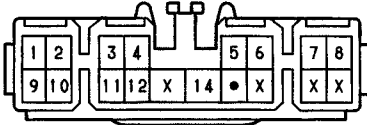
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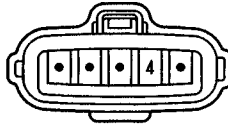
C14 GRAY



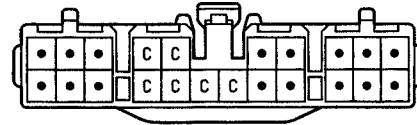
H 8 BLACK



I 2 BLACK

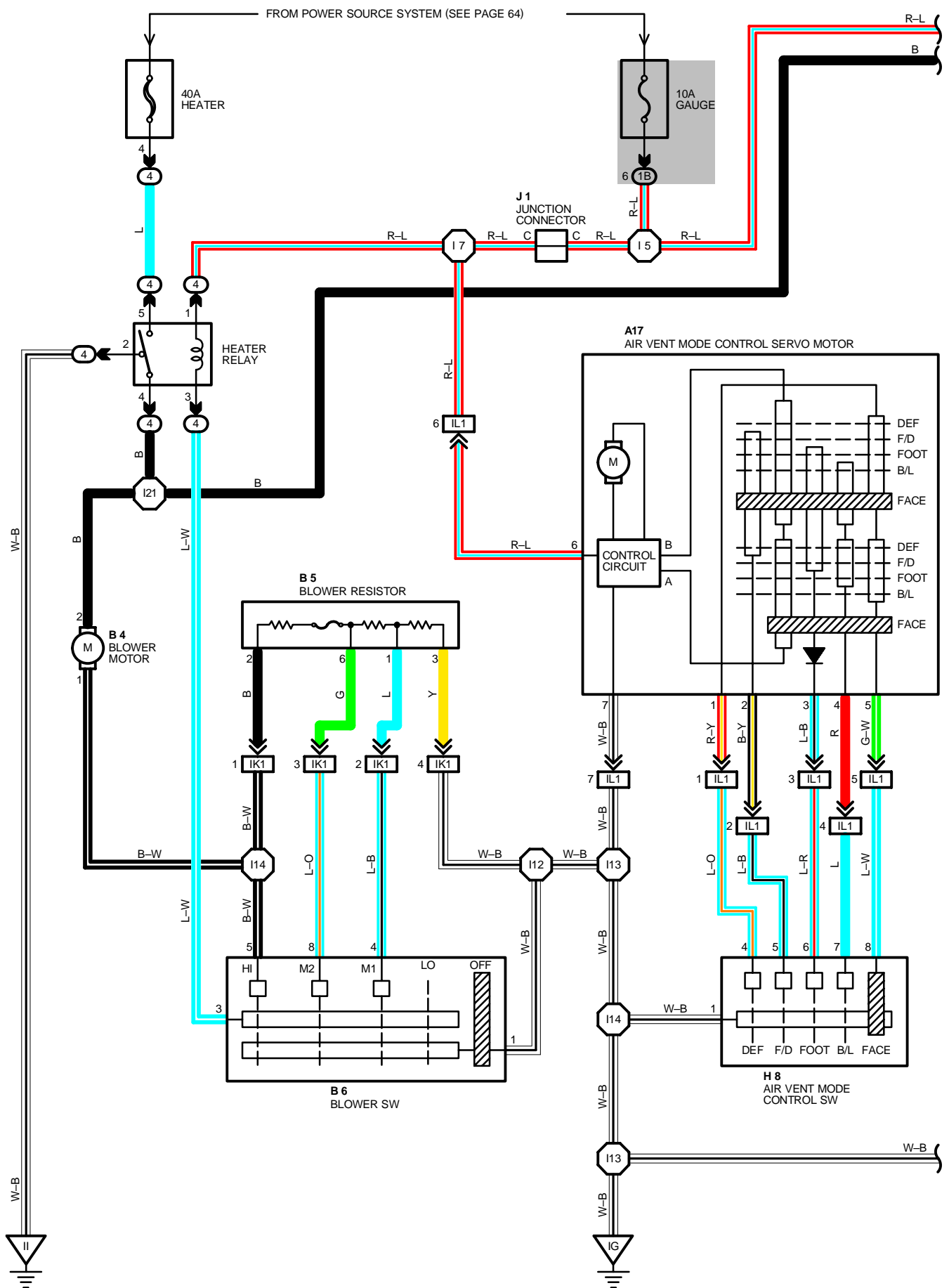


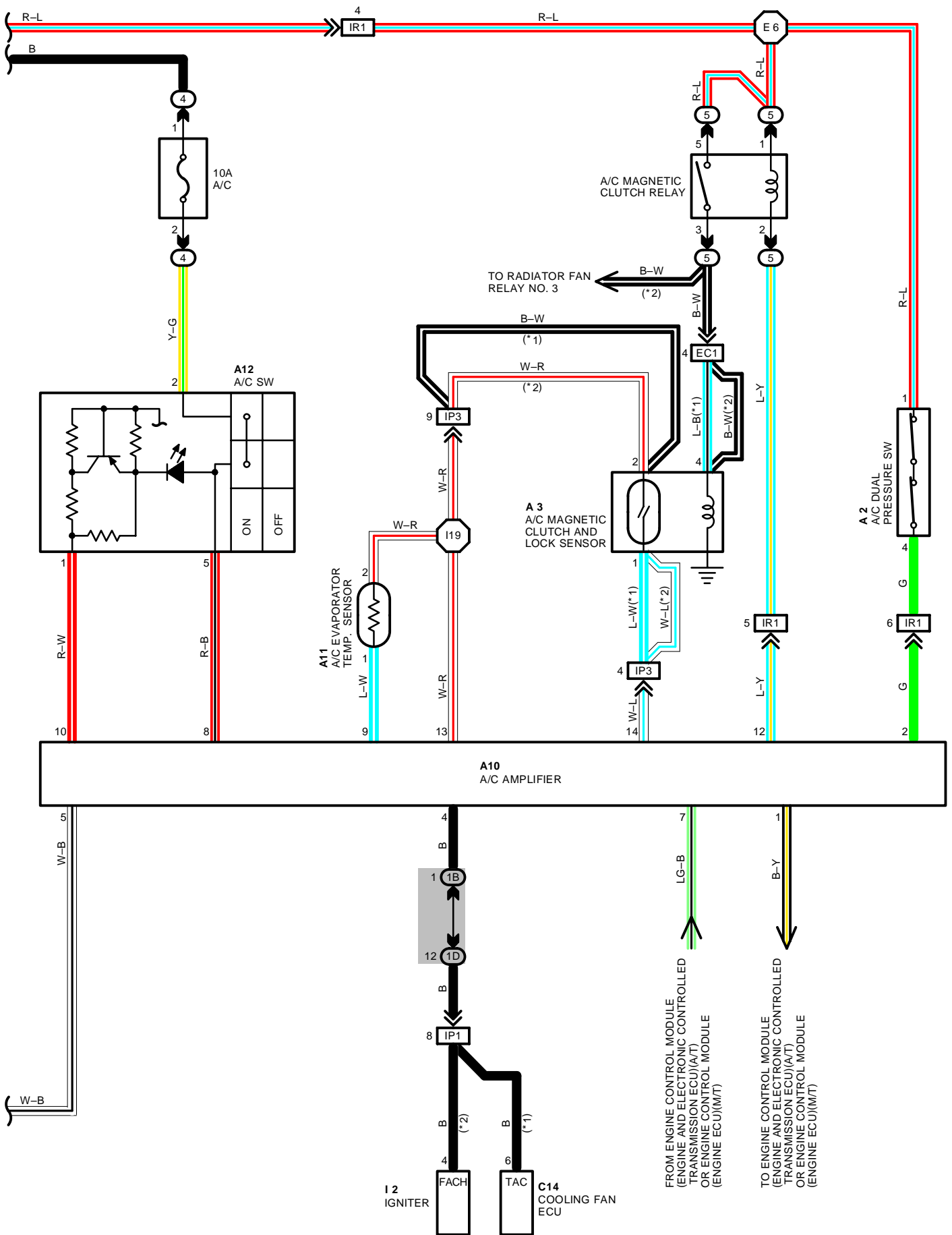
J 1 DARK GRAY



(HINT:SEE PAGE 7)

# AIR CONDITIONING (LEVER CONTROL SW TYPE)





# AIR CONDITIONING (LEVER CONTROL SW TYPE)

## SYSTEM OUTLINE

CURRENT ALWAYS FLOWS FROM THE **HEATER FUSE** TO **TERMINAL 5** OF THE HEATER RELAY. WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS FROM **GAUGE FUSE** TO **TERMINAL 2** OF THE AIR VENT MODE CONTROL SERVO MOTOR AND A/C MAGNETIC CLUTCH RELAY (COIL SIDE) → **TERMINAL 12** OF THE A/C AMPLIFIER, **TERMINAL 1** OF THE A/C DUAL PRESSURE SW → **TERMINAL 4** → **TERMINAL 2** OF THE A/C AMPLIFIER, HEATER RELAY (COIL SIDE) → **TERMINAL 3** OF THE BLOWER SW.

### 1. OPERATION OF AIR VENT MODE CONTROL SERVO MOTOR

WHEN THE DAMPER IS IN **FACE** POSITION AND THE BI-LEVEL OF THE AIR VENT MODE CONTROL SW IS THEN TURNED ON, CURRENT FLOWS FROM **TERMINAL 7** OF THE AIR VENT MODE CONTROL SW → **TERMINAL 5** OF THE AIR VENT MODE CONTROL SERVO MOTOR SO THAT A SIGNAL THAT THE GROUND CIRCUIT IS ACTIVATED IS INPUT TO **TERMINAL "B"** OF THE CONTROL CIRCUIT INSIDE THE AIR VENT MODE CONTROL SERVO MOTOR. SIMULTANEOUSLY, A SIGNAL THAT THE GROUND CIRCUIT IS NOT ACTIVATED IS INPUT TO **TERMINAL "A"** OF THE CONTROL CIRCUIT INSIDE THE SERVO MOTOR. THESE TWO SIGNALS ACTIVATE THE CONTROL CIRCUIT SO THAT CURRENT FROM THE **GAUGE FUSE** TO THE SERVO MOTOR, CAUSING THE SERVO MOTOR TO OPERATE AND THE DAMPER TO MOVE TO BI-LEVEL POSITION. WHEN THE DAMPER REACHES BI-LEVEL POSITION. A GROUND CUT SIGNAL IS INPUT TO **TERMINAL "B"** OF THE CONTROL CIRCUIT, THE CONTROL CIRCUIT OPERATES, THE SERVO MOTOR STOPS ROTATING AND THE DAMPER STOPS AT BI-LEVEL.

WHEN ANOTHER MODE POSITION IS SWITCHED TO, INPUT OF SIGNALS TO **TERMINAL "A"** AND **TERMINAL "B"** OF THE CONTROL CIRCUIT THAT GROUND IS NOT MADE (AS EXPLAINED ABOVE) ACTIVATES THE CONTROL CIRCUIT AND MOVES THE SERVO MOTOR TO THE DESIRED POSITION.

### 2. AIR CONDITIONING OPERATION

WHEN THE BLOWER SW IS ON, CURRENT FLOWS THE **GAUGE FUSE** → HEATER RELAY (COIL SIDE) → **TERMINAL 3** OF THE BLOWER SW → **TERMINAL 1** → **GROUND**, ACTIVATING THE HEATER RELAY. THIS CAUSES CURRENT TO FLOW FROM THE **HEATER FUSE** TO THE HEATER RELAY (POINT SIDE) → **A/C FUSE** → **TERMINAL 2** OF THE A/C SW. IF THE A/C SW IS THEN TURNED ON AT THIS TIME. A SIGNAL IS INPUT TO THE A/C AMPLIFIER. THIS ACTIVATES THE A/C AMPLIFIER AND A/C MAGNETIC CLUTCH RELAY SO THAT CURRENT FLOWS FROM THE **GAUGE FUSE** TO THE A/C MAGNETIC CLUTCH RELAY (POINT SIDE) → A/C MAGNETIC CLUTCH. CAUSING THE COMPRESSOR TO OPERATE. THE VSV (FOR A/C IDLE-UP) IS TURNED ON SIMULTANEOUSLY TO PREVENT A DECREASE IN ENGINE SPEED DUE TO A/C OPERATION.

## SERVICE HINTS

### HEATER RELAY

(4)5-(4)4 : CLOSED WITH THE IGNITION SW ON AND BLOWER SW ON

### A/C MAGNETIC CLUTCH RELAY

(5)5-(5)3 : CLOSED WITH THE IGNITION SW ON AND BLOWER SW ON AND A/C SW ON

### A 2 A/C DUAL PRESSURE SW

1-4 : OPEN WITH PRESSURE 2.1 KG/CM (30 PSI, 206 KPA) OR ABOVE 27 KG/CM (384 PSI, 2646 KPA)

### B 5 BLOWER RESISTOR

6-1 : APPROX. 3.17 Ω

6-3 : APPROX. 1.38 Ω

2-6 : APPROX. 0.38 Ω

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 2	28 (1MZ-FE), 30 (5S-FE)	A17	32	H 8	33
A 3	28 (1MZ-FE), 30 (5S-FE)	B 4	32	I 2	30 (5S-FE)
A10	32	B 5	32	J 1	33
A11	32	B 6	32		
A12	32	C14	32		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
4	25	R/B NO. 4 (RIGHT KICK PANEL)
5	26	R/B NO. 5 (ENGINE COMPARTMENT LEFT)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1D		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	38 (1MZ-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE
	40 (5S-FE)	
IK1	42	COWL WIRE AND A/C SUB WIRE
IL1	42	COWL WIRE AND SERVO MOTOR SUB WIRE
IP1	44	ENGINE WIRE AND COWL WIRE
IP3		
IR1	44	ENGINE ROOM MAIN WIRE AND COWL WIRE

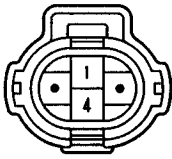
 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IG	42	INSTRUMENT PANEL BRACE LH
II	42	RIGHT KICK PANEL

 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 6	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	I13	44	COWL WIRE
	40 (5S-FE)		I14		
I 5	44	COWL WIRE	I19		
I 7					

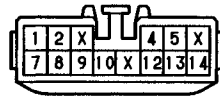
A 2 BLACK



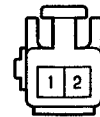
A 3 GRAY



A10



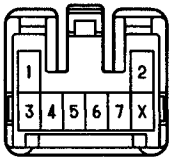
A11



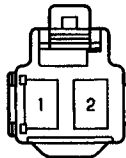
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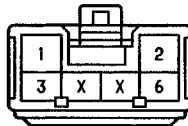
A17



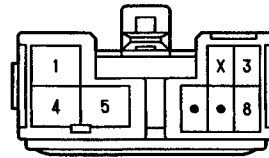
B 4



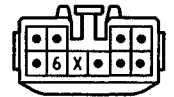
B 5



B 6 BLACK



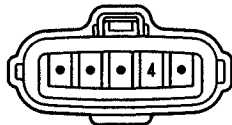
C 6 GRAY



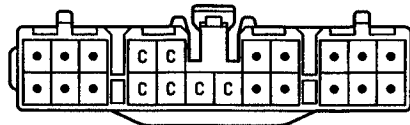
H 8



I 2 BLACK



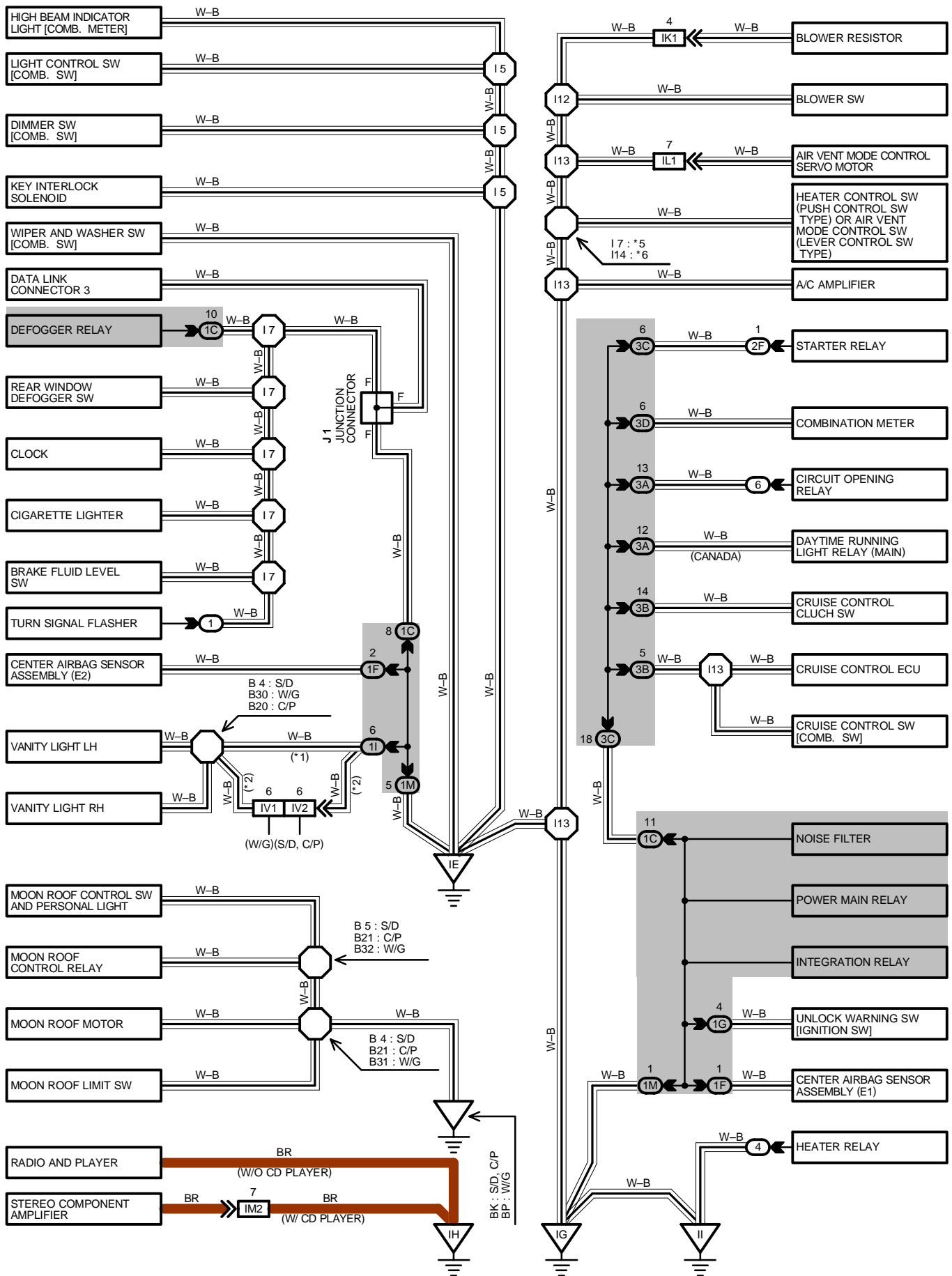
J 1 DARK GRAY



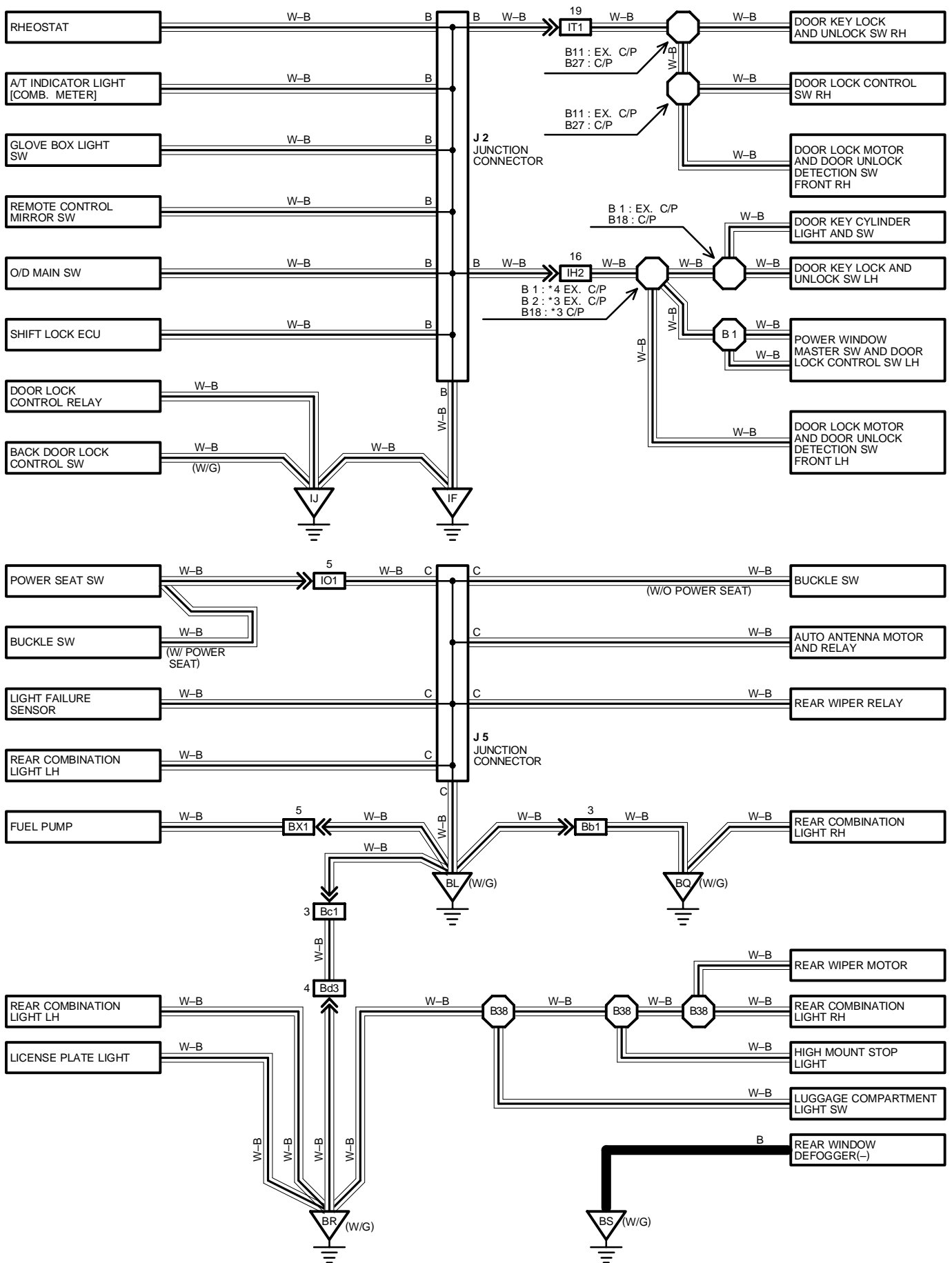
(HINT:SEE PAGE 7)

# GROUND POINT

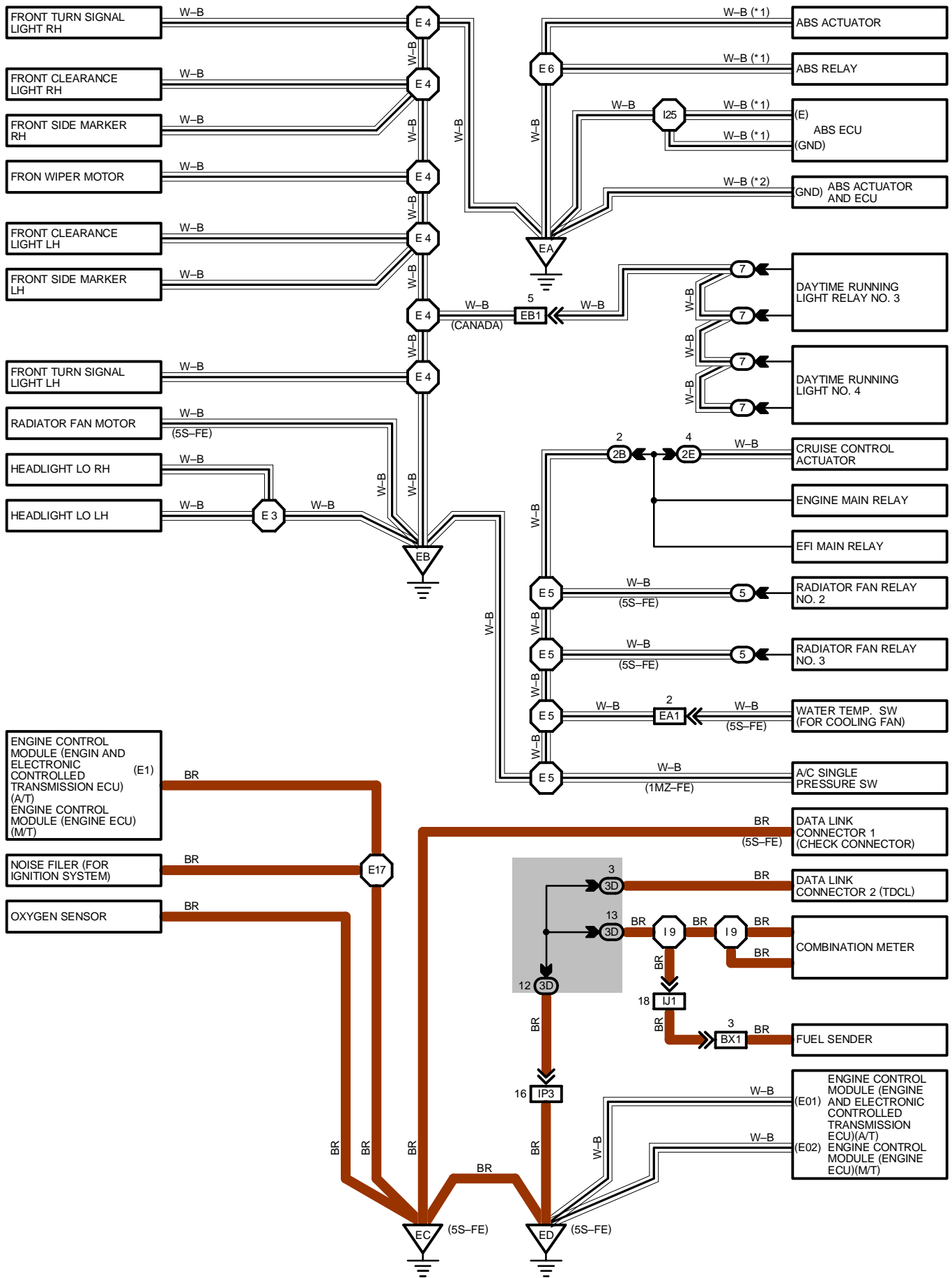
- \*1 : TMC MADE
- \*2 : TMM MADE
- \*3 : W/ POWER WINDOW
- \*4 : W/O POWER WINDOW
- \*5 : AIR CONDITIONING (PUSH CONTROL SW TYPE)
- \*6 : AIR CONDITIONING (LEVER CONTROL SW TYPE)

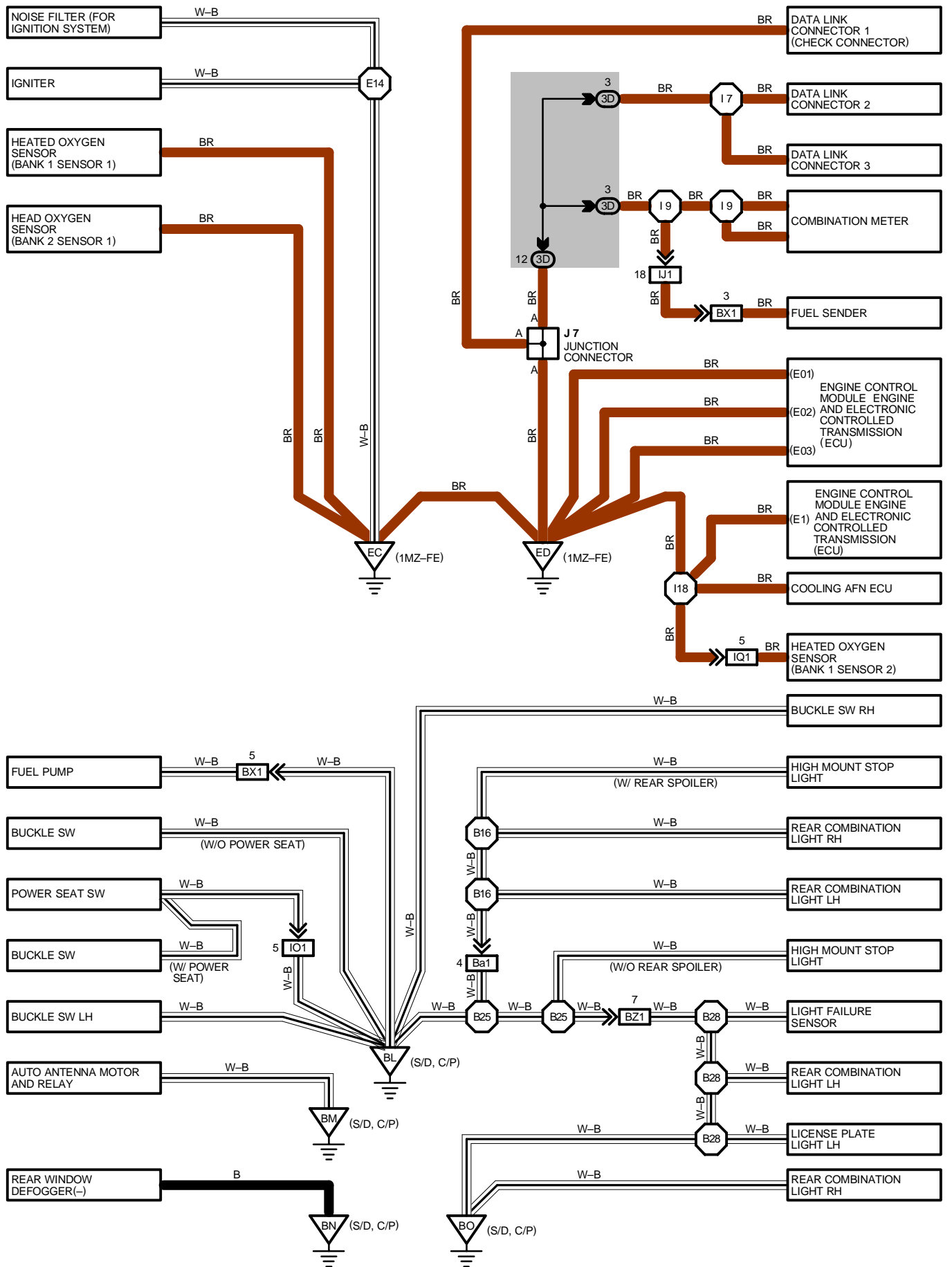






# GROUND POINT





**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 1	33	J 5	36 (W/G)		
J 2	33	J 7	33		

**○ : RELAY BLOCKS**

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)
4	25	R/B NO. 4 (RIGHT KICK PANEL)
5	26	R/B NO. 5 (ENGINE COMPARTMENT LEFT)
6	26	R/B NO. 6 (BEHIND GLOVE BOX)
7	27	R/B NO. 7 (NEAR THE BATTERY)

**○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR**

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1F		
1G		
1I	20 (*1)	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMC MADE
	20 (*2)	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL) TMM MADE
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2B	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E		
2F	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		
3D		

**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

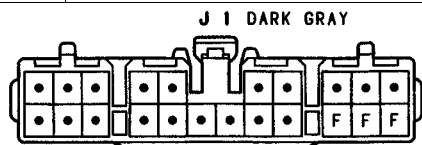
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE AND ENGINE ROOM NO. 3 WIRE
EB1	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE AND RELAY WIRE
	40 (5S-FE)	
IH2	42	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE
IJ1	42	FLOOR NO. 1 WIRE AND COWL WIRE
IK1	42	COWL WIRE AND A/C SUB WIRE
IL1	42	COWL WIRE AND SERVO MOTOR SUB WIRE
IM2	42	INSTRUMENT PANEL WIRE AND CONSOLE BOX WIRE
IO1	42	FLOOR NO. 1 WIRE AND SEAT WIRE
IP3	44	ENGINE WIRE AND COWL WIRE
IQ1	44	ENGINE WIRE AND INSTRUMENT PANEL WIRE
IT1	44	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE
IV1	44	ROOF WIRE AND COWL WIRE
IV2	44	ROOF WIRE AND COWL WIRE MADE IN USA
BX1	46 (S/D)	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
	50 (W/G)	
BZ1	46 (S/D)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
	48 (C/P)	
Ba1	46 (S/D)	FLOOR NO. 1 WIRE AND LUGGAGE ROOM NO. 2 WIRE
	48 (C/P)	
Bb1	50 (W/G)	LUGGAGE ROOM NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bc1	50 (W/G)	BACK DOOR NO. 1 WIRE AND FLOOR NO. 1 WIRE
Bd3	50 (W/G)	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE

**▽ : GROUND POINTS**

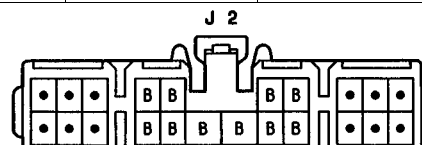
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	38 (1MZ-FE)	FRONT RIGHT FENDER
	40 (5S-FE)	
EB	38 (1MZ-FE)	FRONT LEFT FENDER
	40 (5S-FE)	
EC	38 (1MZ-FE)	INTAKE MANIFOLD RH
	40 (5S-FE)	
ED	38 (1MZ-FE)	INTAKE MANIFOLD LH
	40 (5S-FE)	
IE	42	LEFT KICK PANEL
IF		
IG	42	INSTRUMENT PANEL BRACE LH
IH	42	INSTRUMENT PANEL BRACE RH
II	42	RIGHT KICK PANEL
IJ		
BK	46 (S/D)	ROOF LEFT
	48 (C/P)	
BL	46 (S/D)	UNDER THE LEFT QUARTER PILLAR
	48 (C/P)	
	50 (W/G)	
BM	46 (S/D)	
	48 (C/P)	
BN	46 (S/D)	UNDER THE RIGHT QUARTER PILLAR
	48 (C/P)	
BO	46 (S/D)	LEFT QUARTER PILLAR
	48 (C/P)	
BP	50 (W/G)	BACK PANEL CENTER
BQ	50 (W/G)	LOWER BACK PANEL CENTER
BR	50 (W/G)	BACK DOOR CENTER
BS	50 (W/G)	BACK DOOR RIGHT

**○ : SPLICE POINTS**

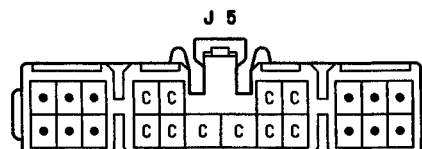
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
E 3	38 (1MZ-FE)	ENGINE ROOM MAIN WIRE	B 2	46 (S/D)	FRONT DOOR LH WIRE	
	40 (5S-FE)			50 (W/G)		
E 4	38 (1MZ-FE)		B 4	46 (S/D)	ROOF WIRE	
	40 (5S-FE)					
E 5	38 (1MZ-FE)		B11	46 (S/D)	FRONT DOOR RH WIRE	
	40 (5S-FE)			50 (W/G)		
E 6	38 (1MZ-FE)		B16	46 (S/D)	LUGGAGE ROOM NO. 2 WIRE	
	40 (5S-FE)			B18	48 (C/P)	FRONT DOOR LH WIRE
E14	38 (1MZ-FE)		ENGINE WIRE	B21	48 (C/P)	ROOF WIRE
E17	40 (5S-FE)			B25	48 (C/P)	FLOOR NO. 1 WIRE
I 5	44	COWL WIRE	B26			
I 7			B27	48 (C/P)	FRONT DOOR RH WIRE	
I 9			B28	48 (C/P)	LUGGAGE ROOM NO. 1 WIRE	
I13			B30	50 (W/G)	ROOF WIRE	
I14						
I18	44	ENGINE WIRE	B32	50 (W/G)	BACK DOOR NO. 2 WIRE	
B 1	46 (S/D)	FRONT DOOR LH WIRE	B38			
	50 (W/G)					



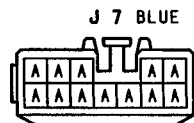
(HINT:SEE PAGE 7)



(HINT:SEE PAGE 7)



(HINT:SEE PAGE 7)

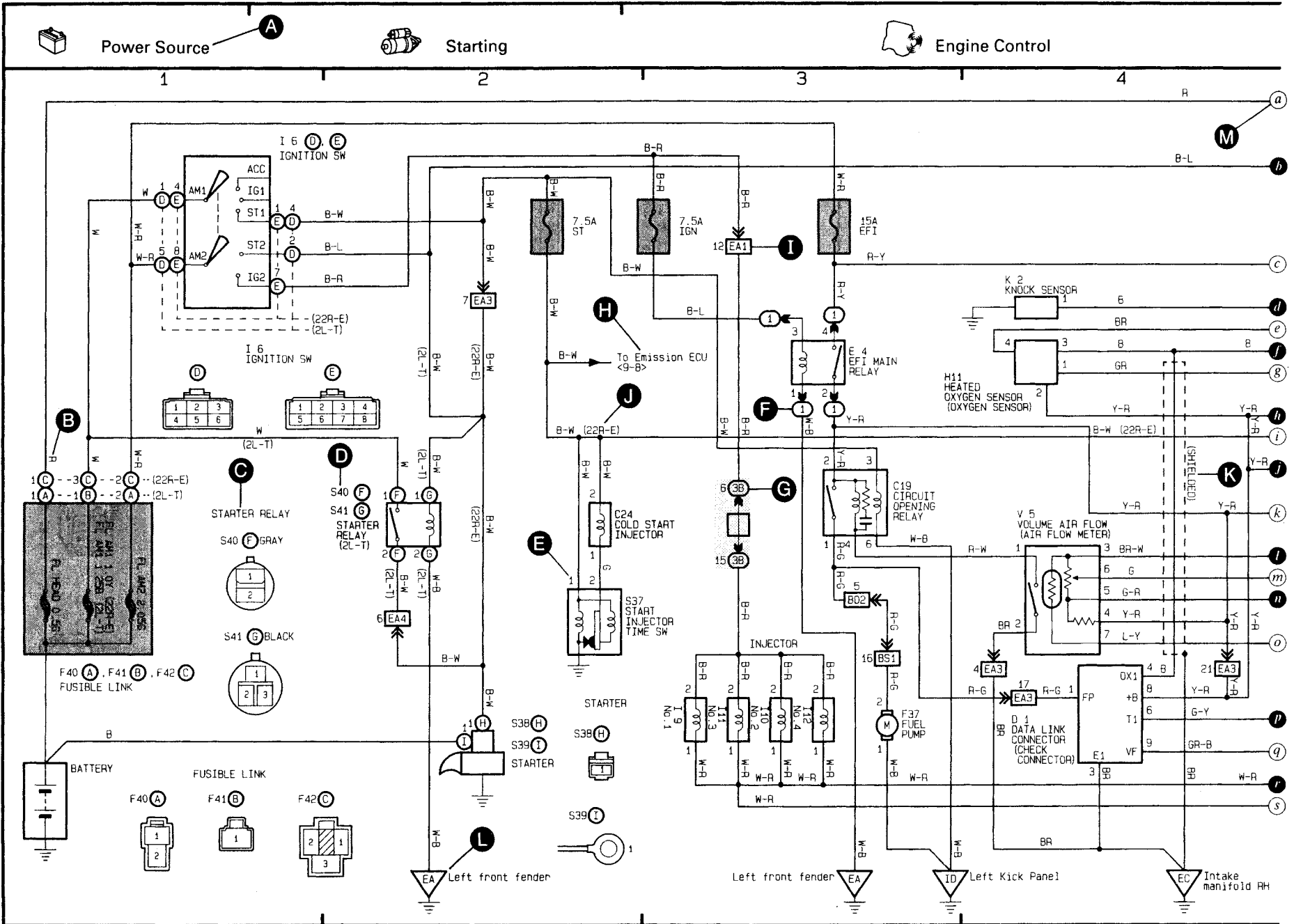


(HINT:SEE PAGE 7)

# HOW TO USE THIS MANUAL

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

# OVERALL ELECTRICAL WIRING DIAGRAM

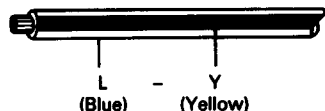


- A**: System Title
- B**: Indicates the wiring color.  
Wire colors are indicated by an alphabetical code.

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

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

Example: L - Y



- C**: Indicates the connector to be connected to a part (the numeral indicates the pin No.)
- D**: The position of the parts is the same as shown in the wiring diagram and wire routing.
- E**: 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**



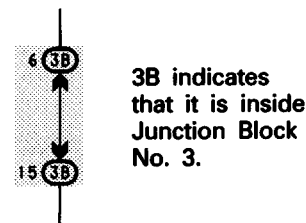
The numbering system for the overall wiring diagram is the same as above.

- F**: Indicates a Relay Block. No Shading is used and only the Relay Block No. is shown to distinguish it from the J/B.

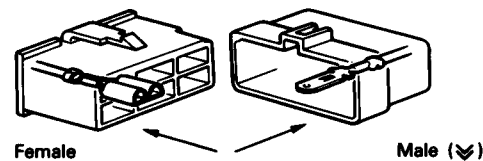
Example: **1** Indicates Relay Block No. 1.

- G**: Junction Block (The number in the circle is the J/B No. and connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts (different junction blocks are shaded differently for further clarification.).

Example:



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



- J**: ( ) is used to indicate different wiring and connector, etc. when the vehicle model, engine type, or specification is different.
- K**: Indicates a shielded cable.



- L**: Indicates and located on ground point.
- M**: The same code occurring on the next page indicates that the wire harness is continuous.

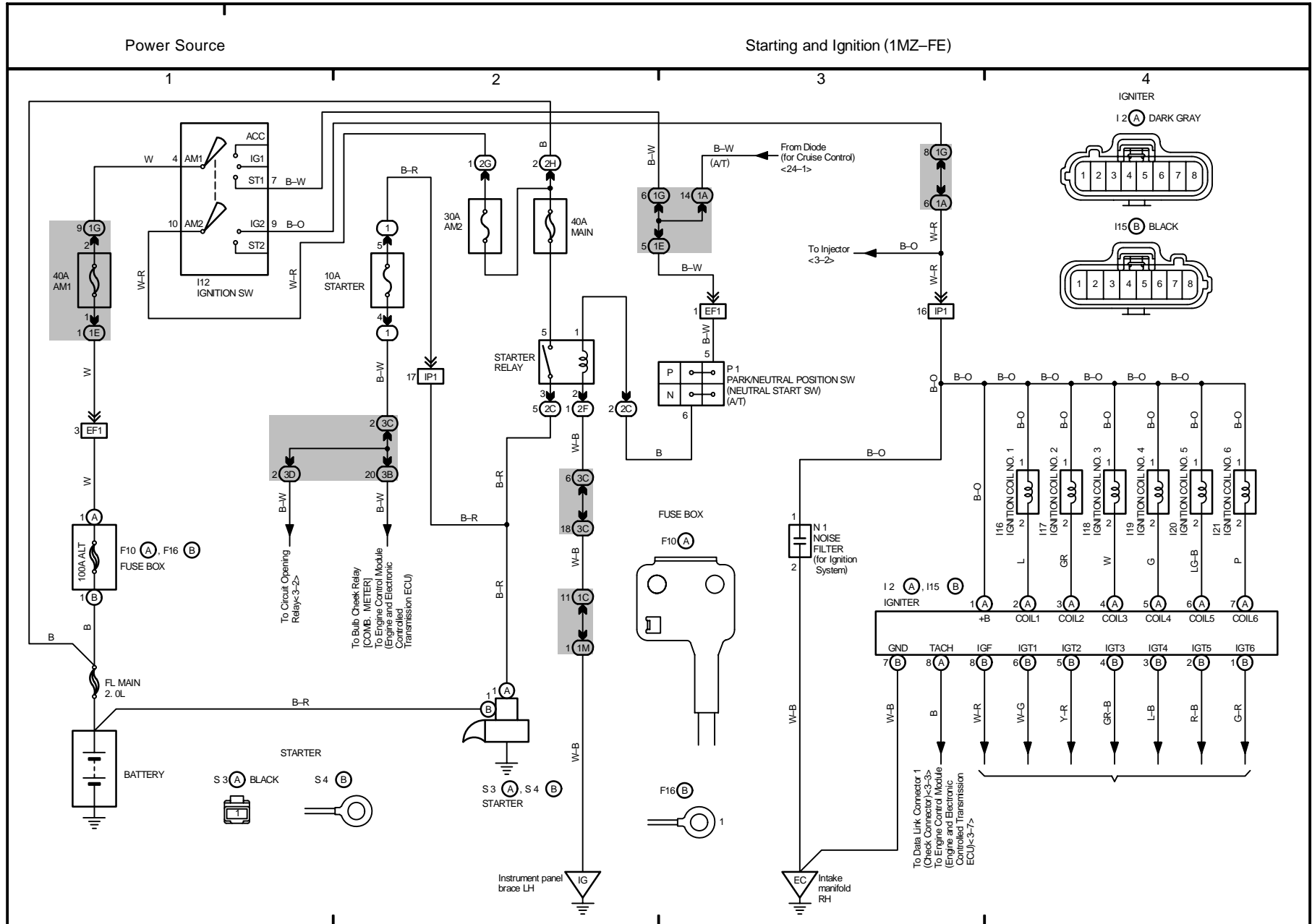
## SYSTEM INDEX

1994 Model (Location No. 1 to 36)

SYSTEMS	LOCATION	SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS (Anti-Lock Brake System)	25-2 (TMC Made) 26-2 (TMM Made)	Engine Control	3-1 (1MZ-FE) 4-1 (5S-FE A/T and California M/T) 5-1 (5S-FE Ex. A/T and California M/T)	Rear Window Defogger	24-4 (W/G) 28-1 (S/D,C/P)
Air Conditioning	35-1 (Lever Control SW Type) 36-1 (Push Control SW Type)	Front Wiper and Washer	18-2	Rear Wiper and Washer	22-2
Auto Antenna	27-3 (W/G) 28-3 (S/D,C/P)	Headlight	8-3 (for USA) 10-1 (for Canada)	Remote Control Mirror	20-1
Back-Up Light	6-7 (1MZ-FE) 7-7 (5S-FE)	Horn	18-4	Shift Lock	23-2
Back Door Lock (w/o Power Window)	22-4 (W/G)	Illumination	15-2	SRS (Supplemental Restraint System)	23-3
Charging	2-4	Interior Light	11-1 (S/D, C/P w/ Key Illuminated Entry) 12-1 (W/G w/ Key Illuminated Entry) 13-1 (S/D, C/P w/o Key Illuminated Entry) 14-1 (W/G w/o Key Illuminated Entry)	Starting and Ignition	1-2 (1MZ-FE) 2-2 (5S-FE)
Cigarette Lighter and Clock	22-3	Light Auto Turn Off	34-2	Stop Light	8-1 (W/G) 9-1 (S/D, C/P)
Combination Meter	33-1	Moon Roof	21-1	Taillight	16-1 (S/D, C/P) 17-1 (W/G)
Cruise Control	24-2	Power Seat	21-3	Turn Signal and Hazard Warning Light	9-3 (S/D, C/P) 18-2 (W/G)
Door Lock	19-1	Power Source	1-36-1	Unlock and Seat Belt Warning	34-1
Electrical Controlled Transmission and A/T Indicator	6-2 (1MZ-FE) 7-2 (5S-FE)	Power Window	20-2		
Electrically Controlled Hydraulic Cooling Fan	27-2 (1MZ-FE)	Radiator Fan and Condenser Fan	34-3 (5S-FE)		
Electric Tension Reducer	36-7	Radio and Player	29-1 (S/D, C/P 6 Speaker) 30-1 (W/G 8 Speaker) 31-1 (S/D, C/P 4 Speaker) 32-2 (W/G 6 Speaker)		

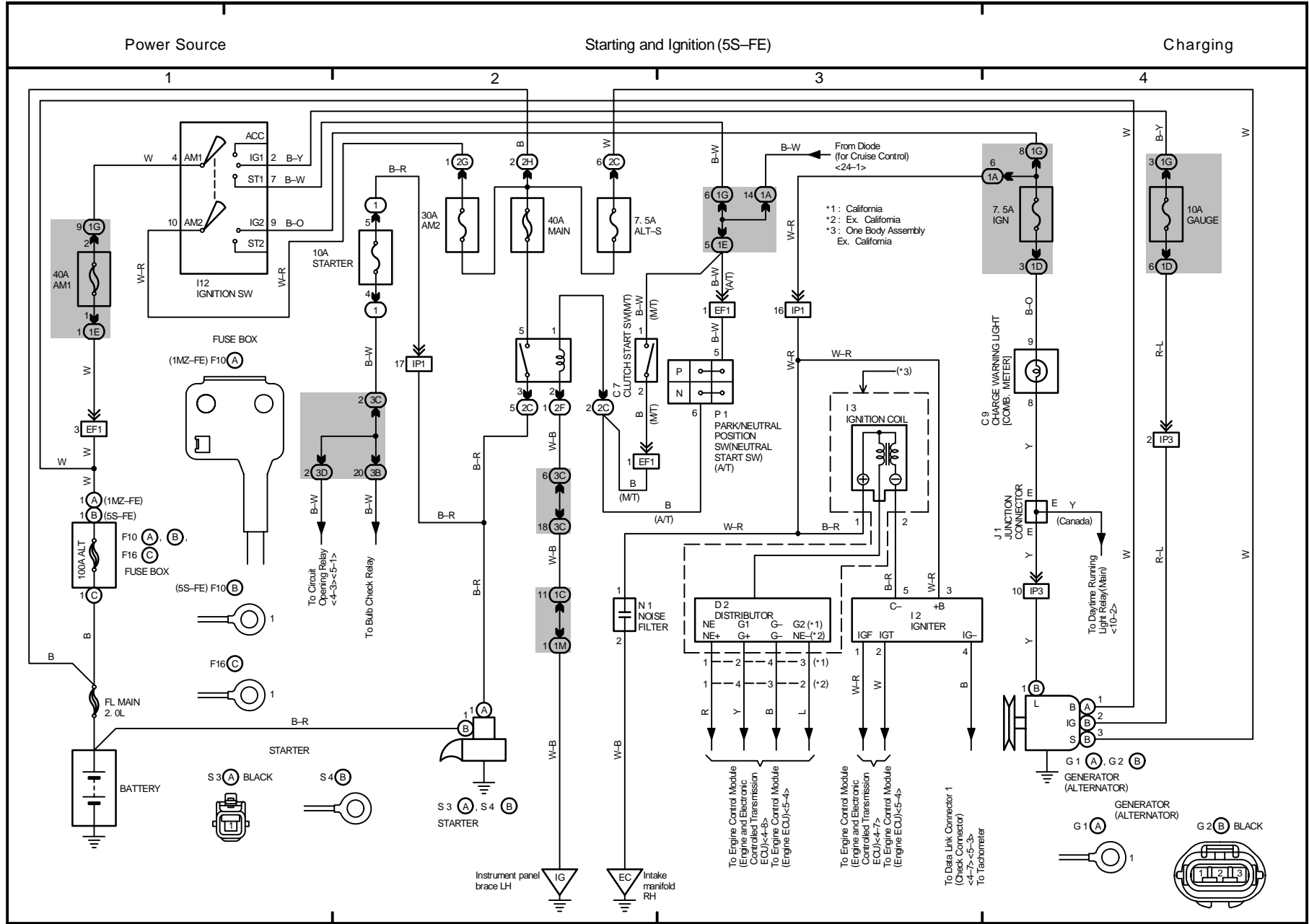


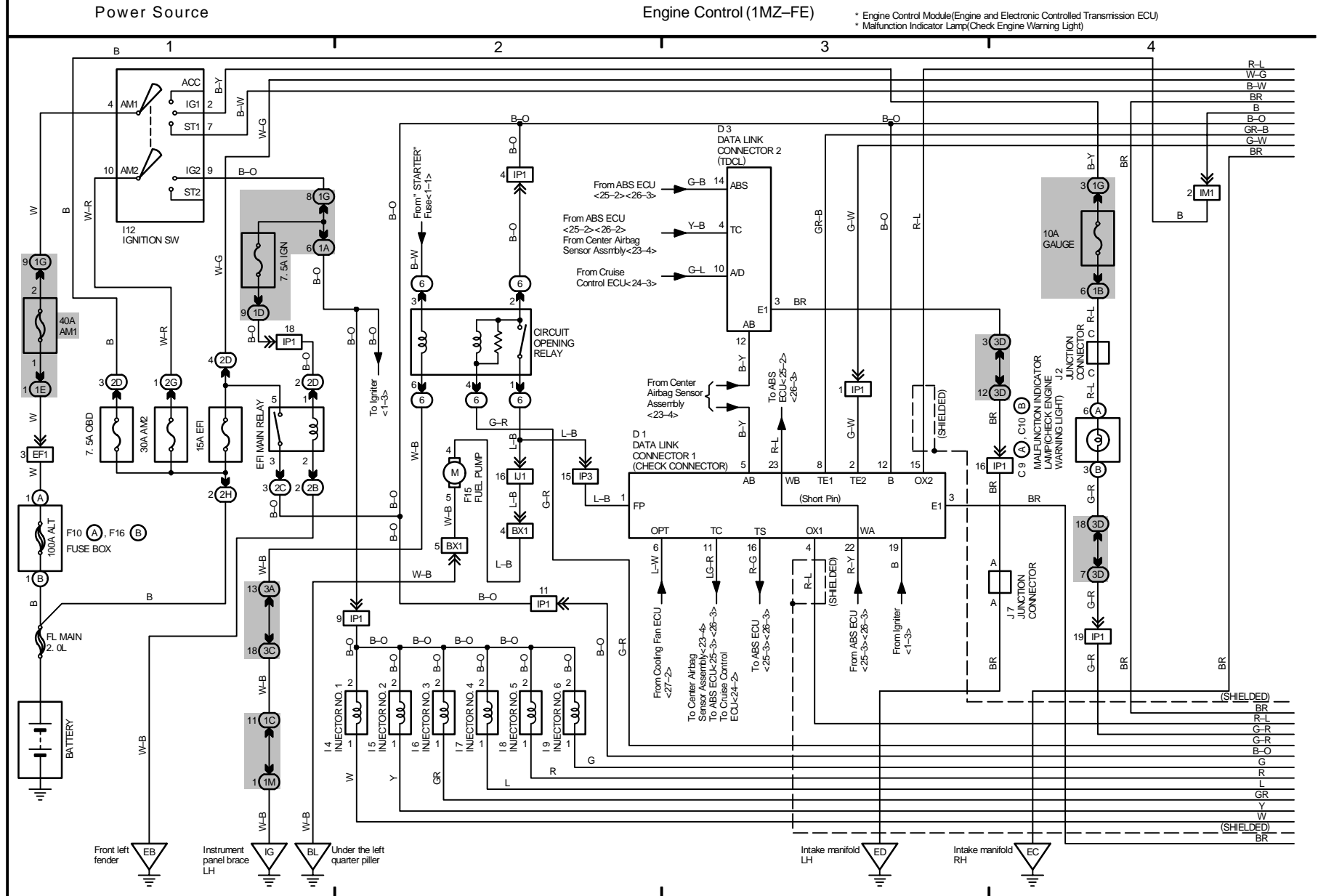
# 1 CAMRY ELECTRICAL WIRING DIAGRAM



# 2 CAMRY

# OVERALL ELECTRICAL WIRING DIAGRAM

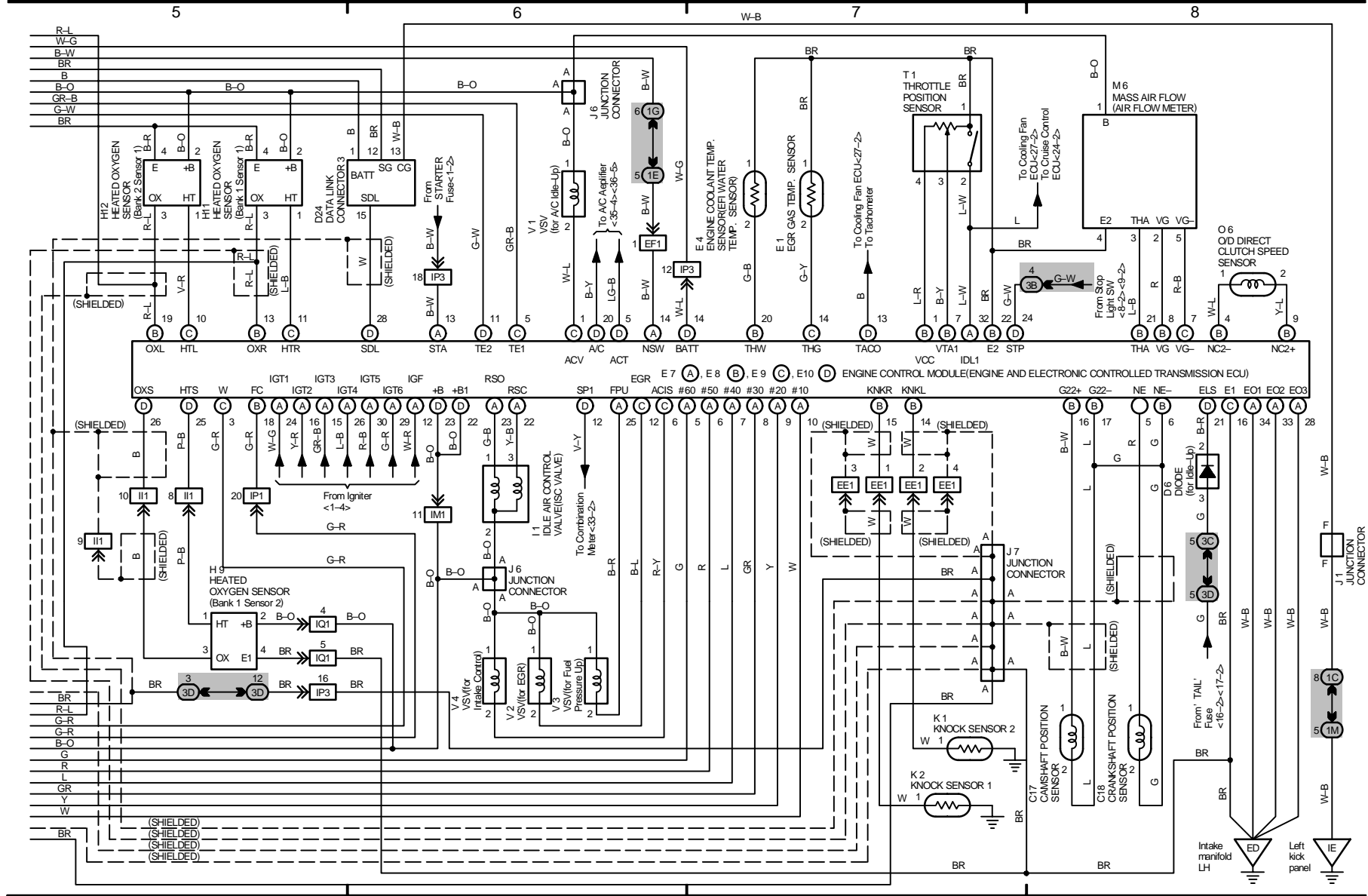




Engine Control (1MZ-FE)

For the connectors of the parts listed below, see the next page.  
• Fuse Box

• Malfunction Indicator Lamp(Check Engine Warning Light)



### 3 CAMRY (Cont' d)

#### Engine Control (1MZ-FE)

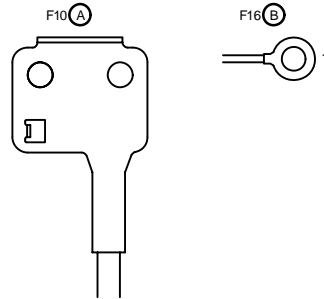
9

10

11

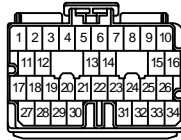
12

FUSE BOX



ENGINE CONTROL MODULE  
(ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU)

E 7 (A) DARK GRAY



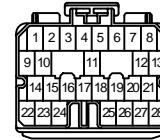
E 8 (B) DARK GRAY



E 9 (C) DARK GRAY

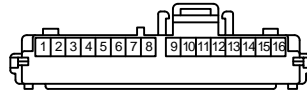


E10 (D) DARK GRAY

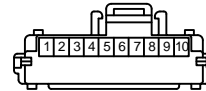


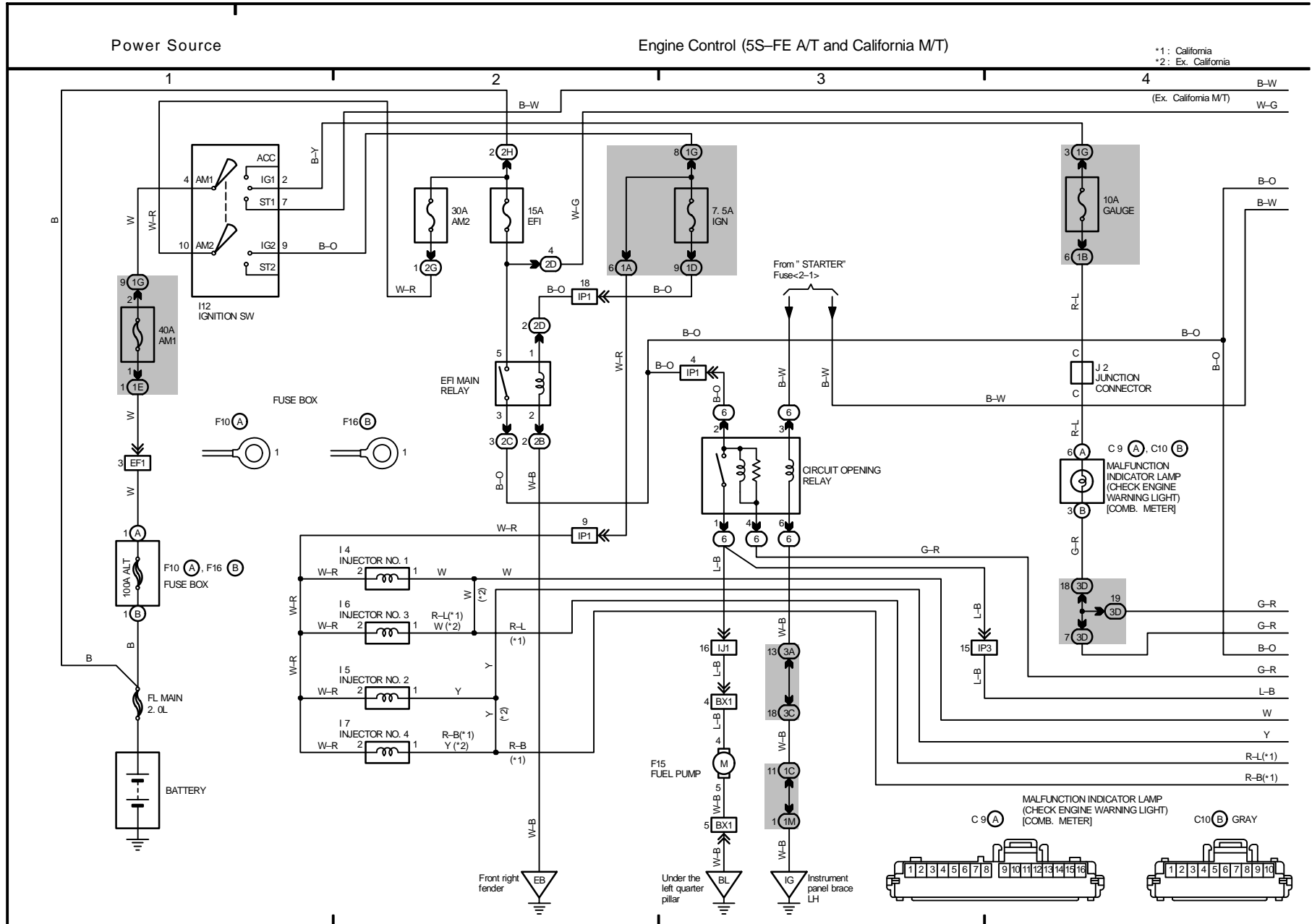
MALFUNCTION INDICATOR LAMP  
(CHECK ENGINE WARNING LIGHT)  
(COMB. METER)

C9 (A)



C10 (B) GRAY

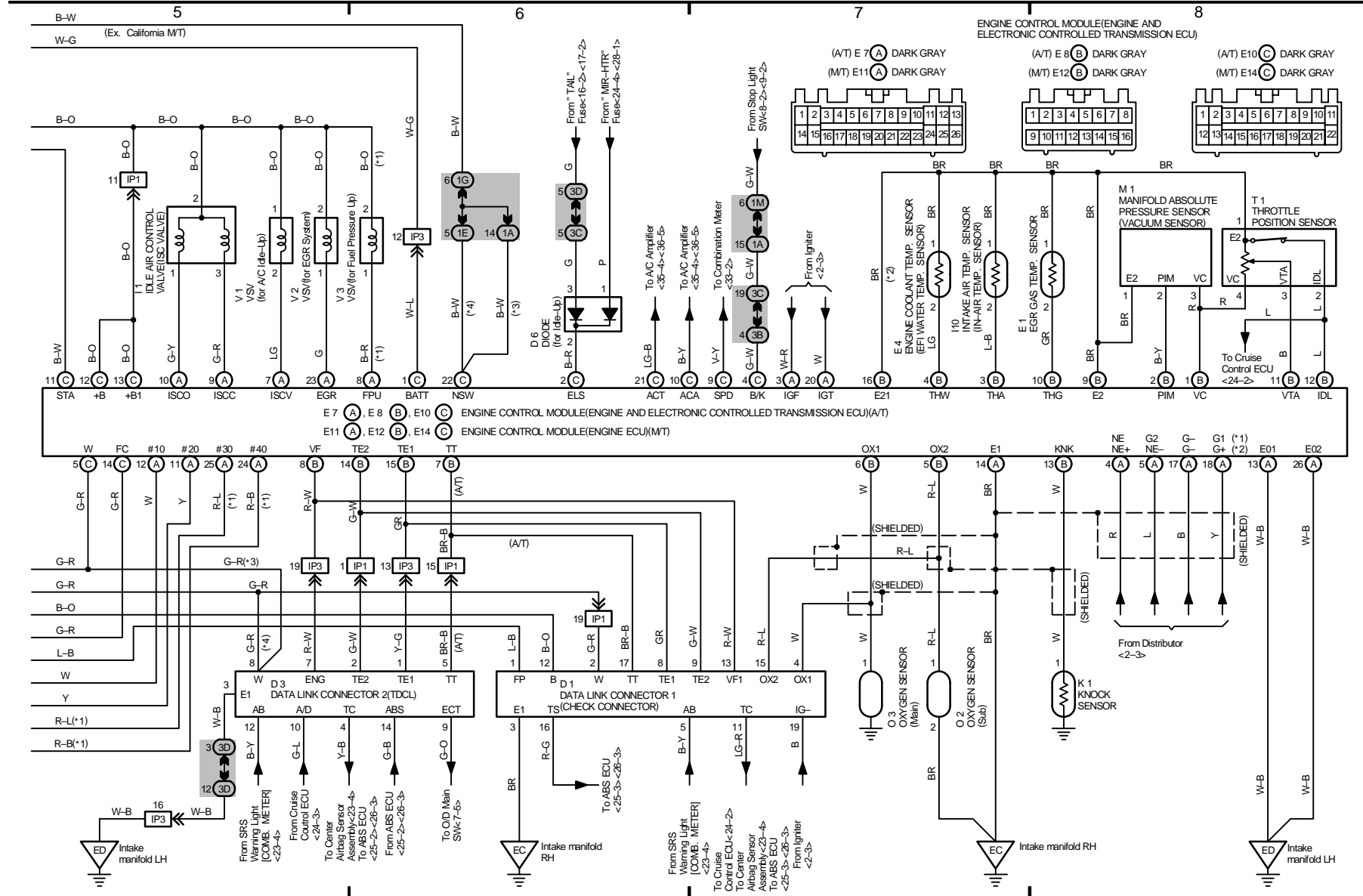


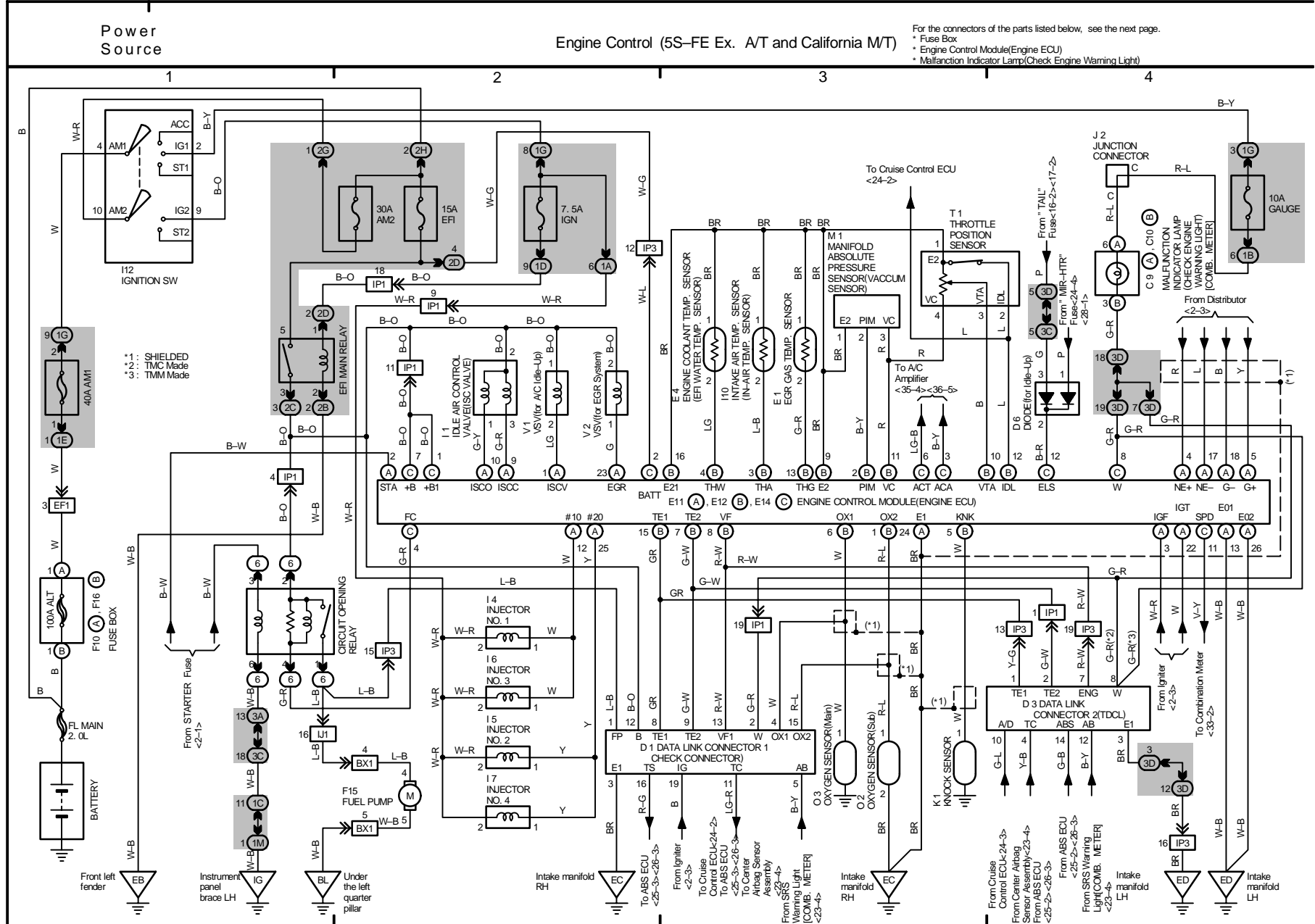


# 4 CAMRY (Cont' d)

## Engine Control (5S-FE A/T and California M/T)

- \*1: California
- \*2: Ex. California
- \*3: for Canada in TMM Made
- \*4: Ex. \*3







# 5 CAMRY (Cont' d)

## Engine Control (5S-FE Ex. A/T and California M/T)

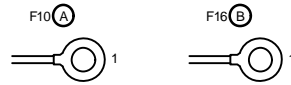
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6

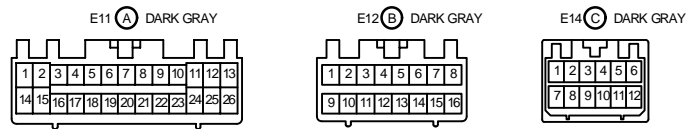
7

8

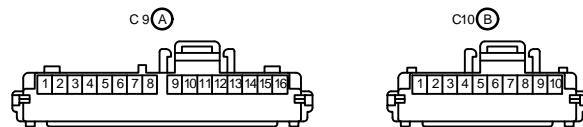
### FUSE BOX

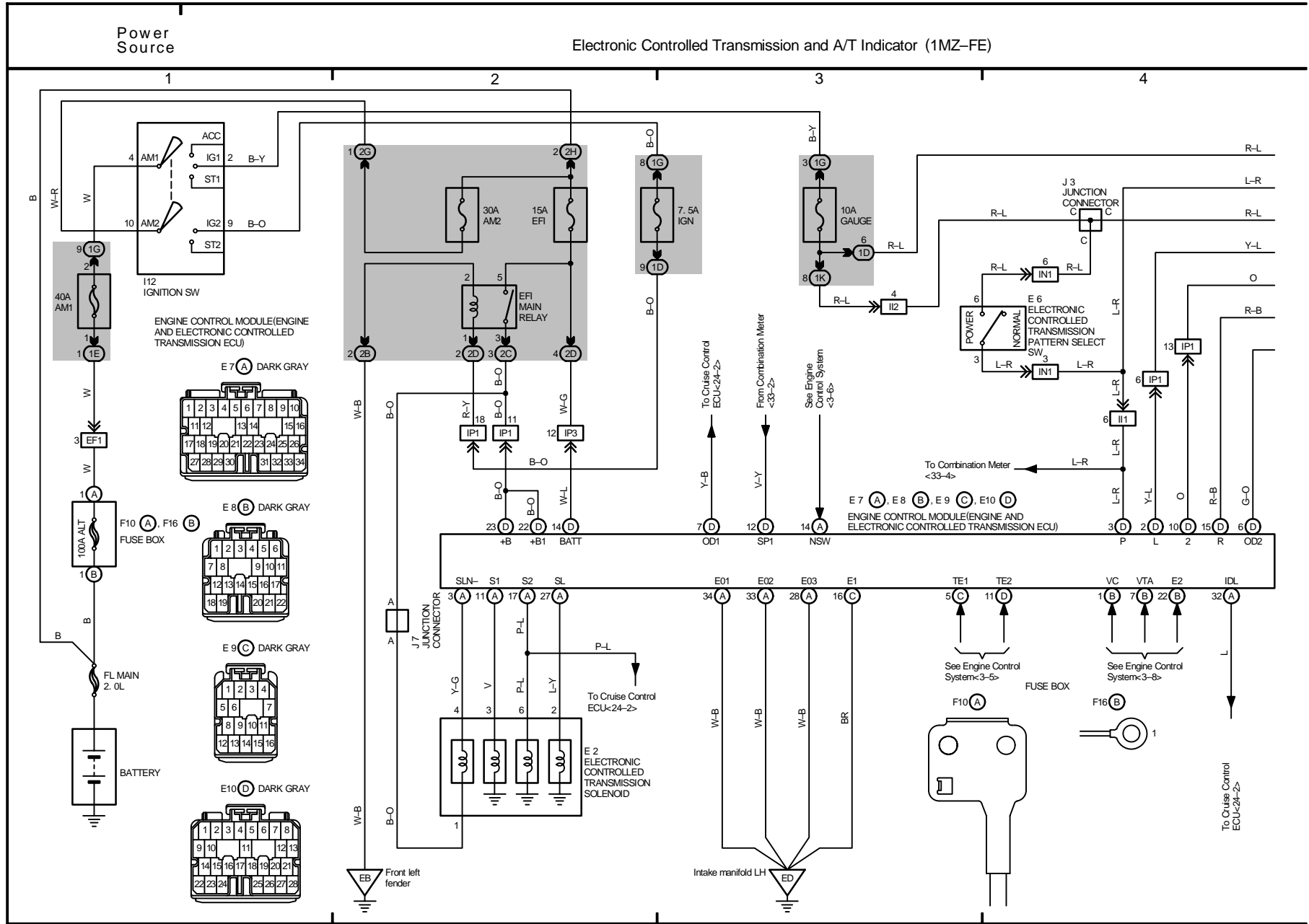


### ENGINE CONTROL MODULE(ENGINE ECU)



### MALFUNCTION INDICATOR LAMP (CHECK ENGINE WARNING LIGHT)(COMB. METER)



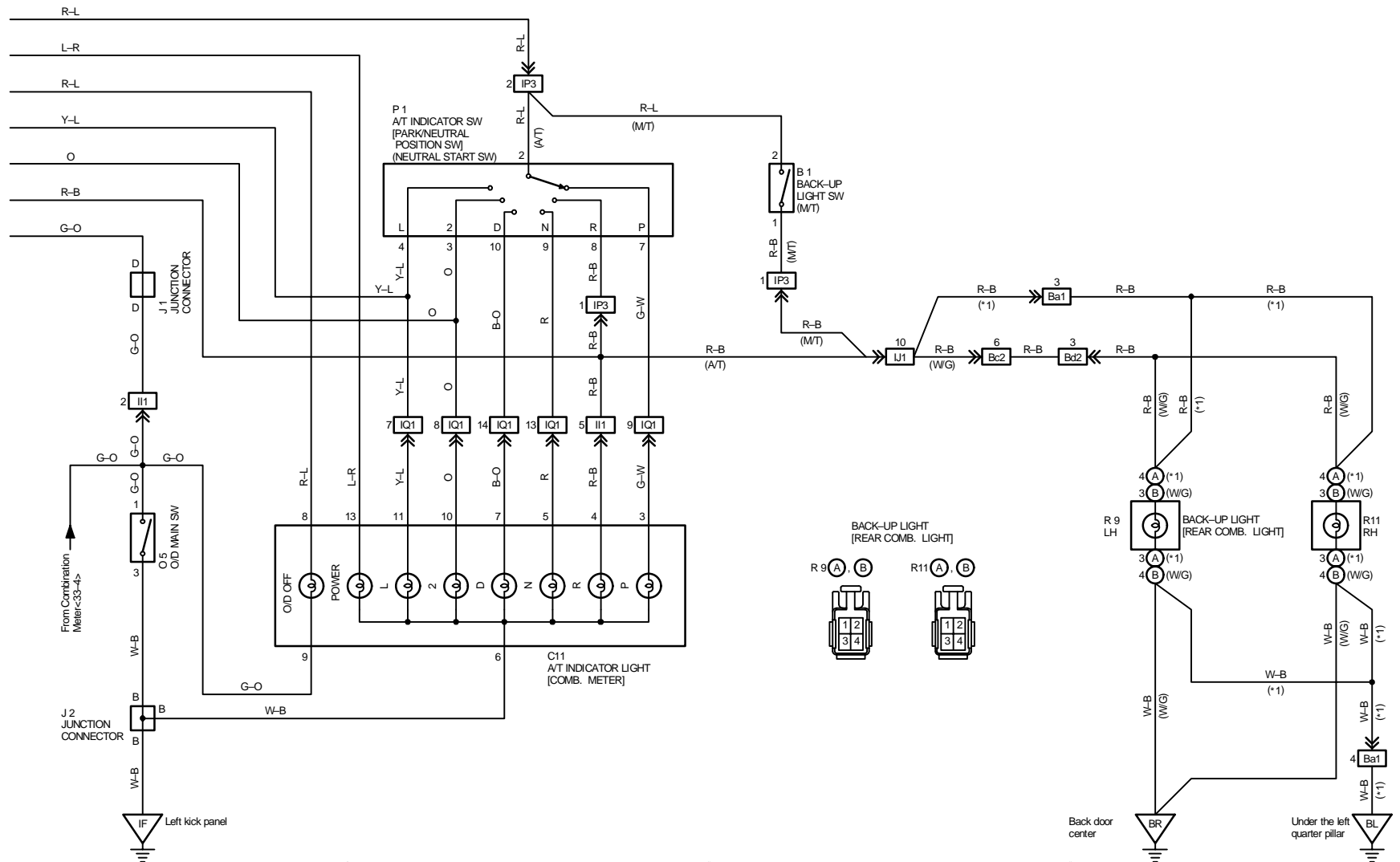


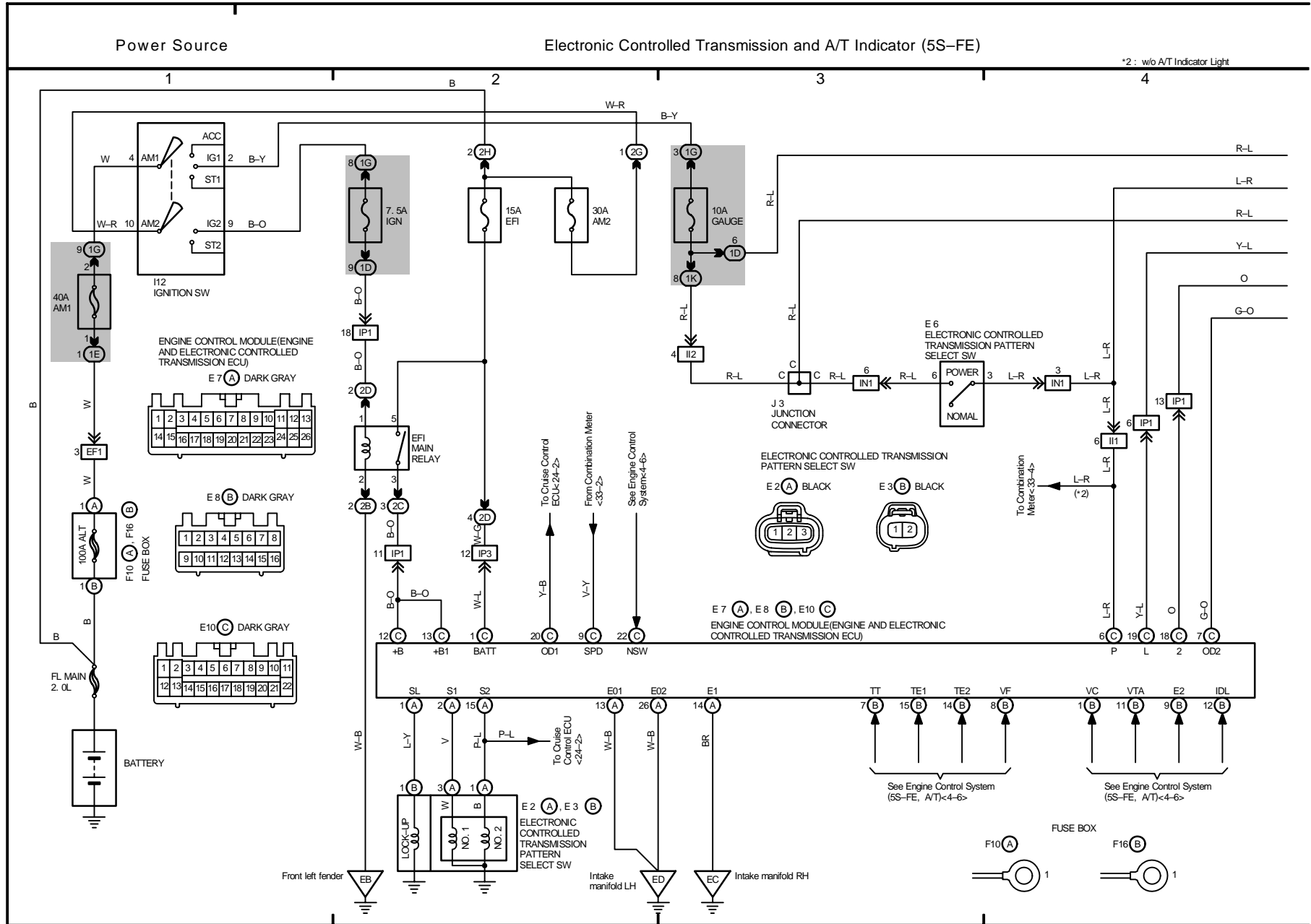
# 6 CAMRY (Cont' d)

## Electronic Controlled Transmission and A/T Indicator (1MZ-FE)

## Back-Up Light (1MZ-FE)

\*1: S/D, CP



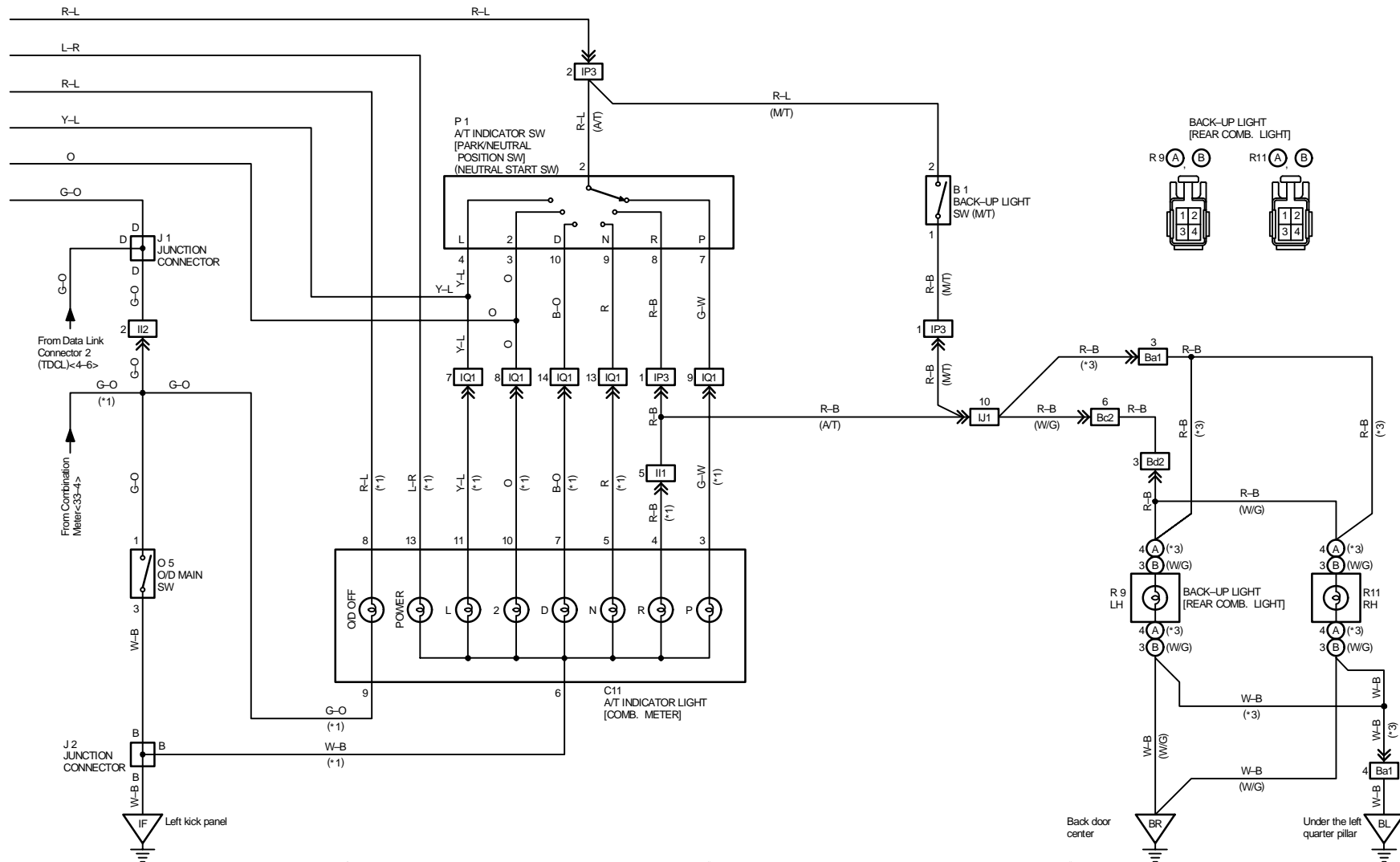


# 7 CAMRY (Cont' d)

## Electronic Controlled Transmission and A/T Indicator (5S-FE)

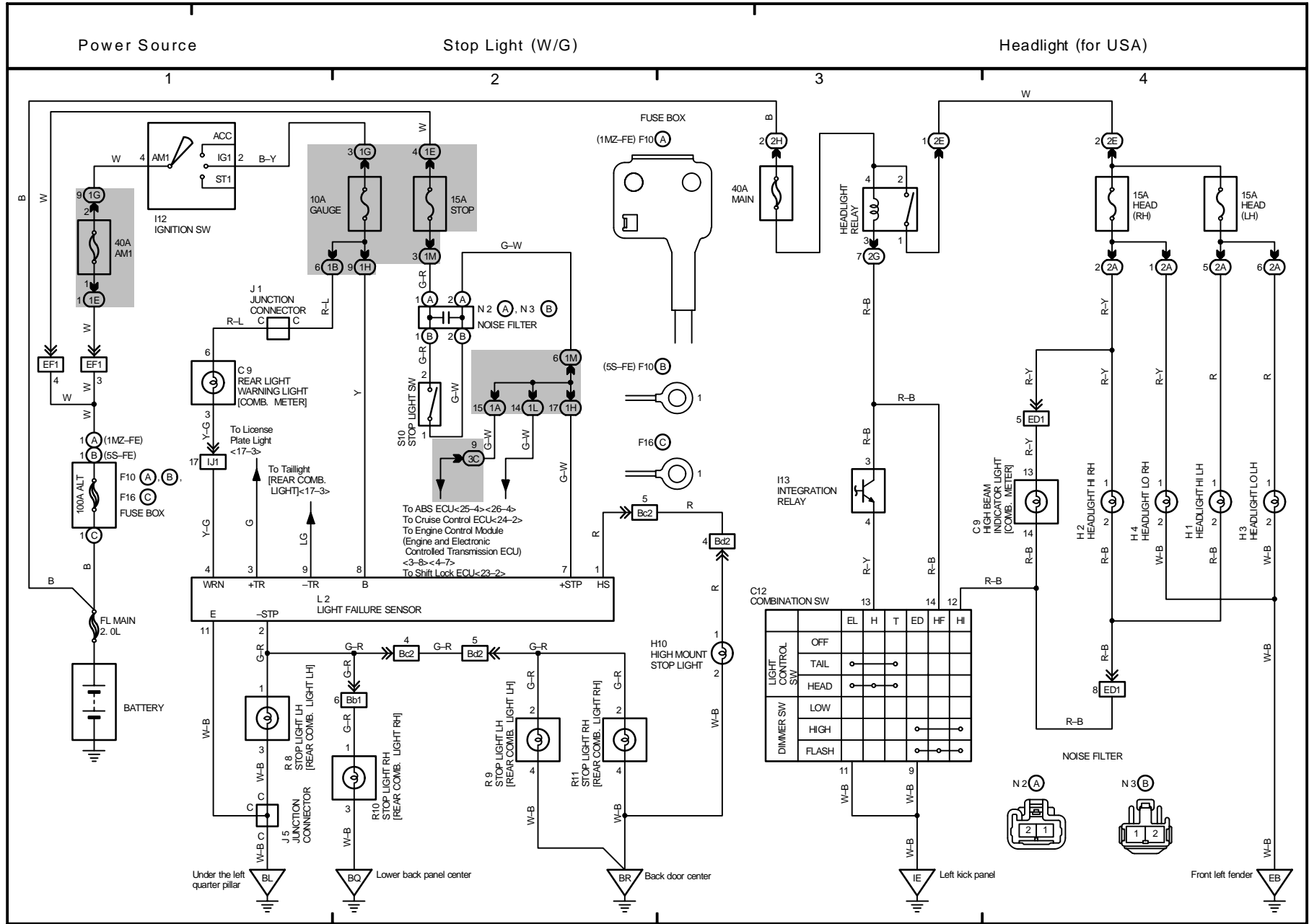
## Back-Up Light (5S-FE)

- \*1: w/ A/T Indicator Light
- \*2: w/o A/T Indicator Light
- \*3: S/D, CP

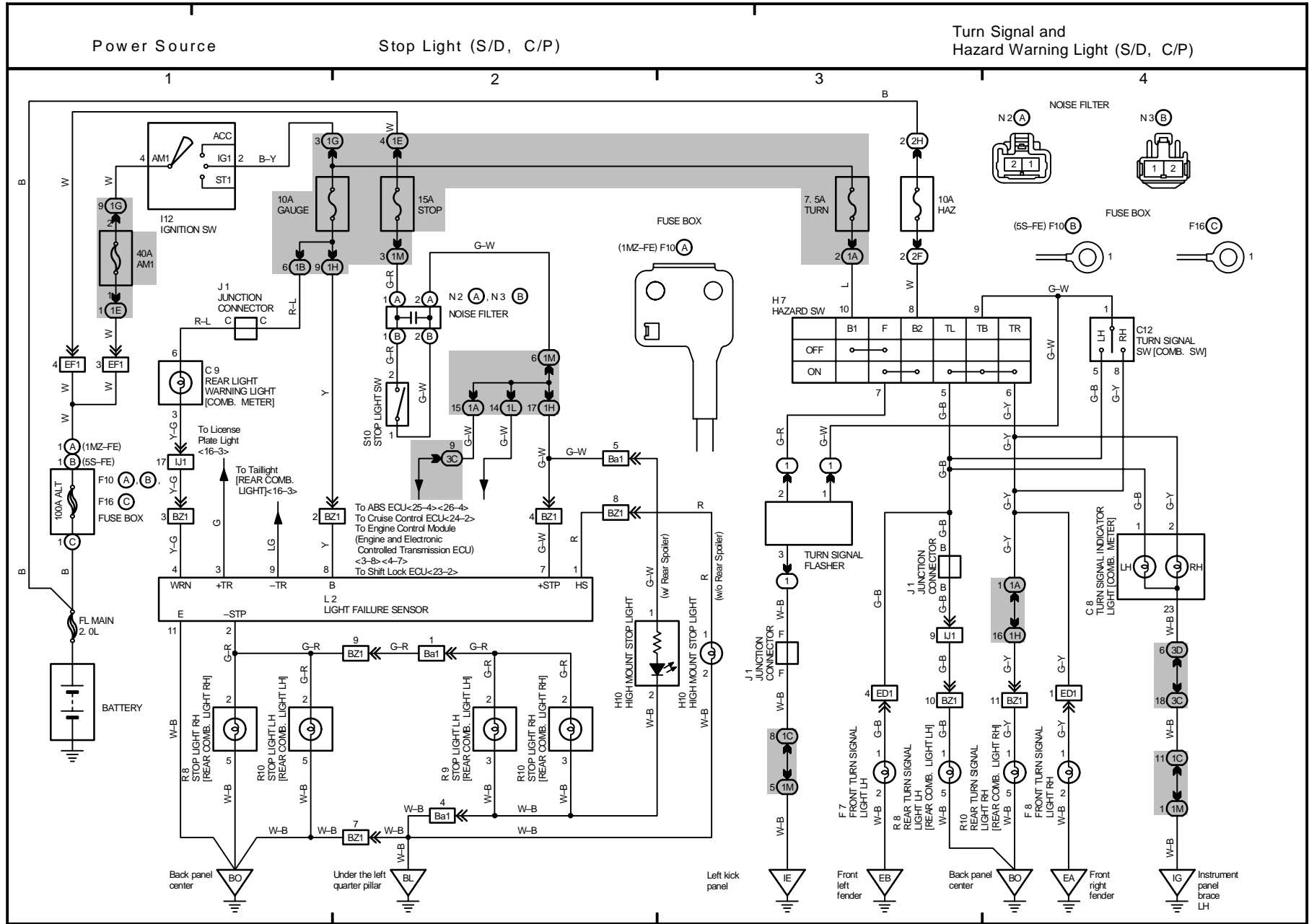


# 8 CAMRY

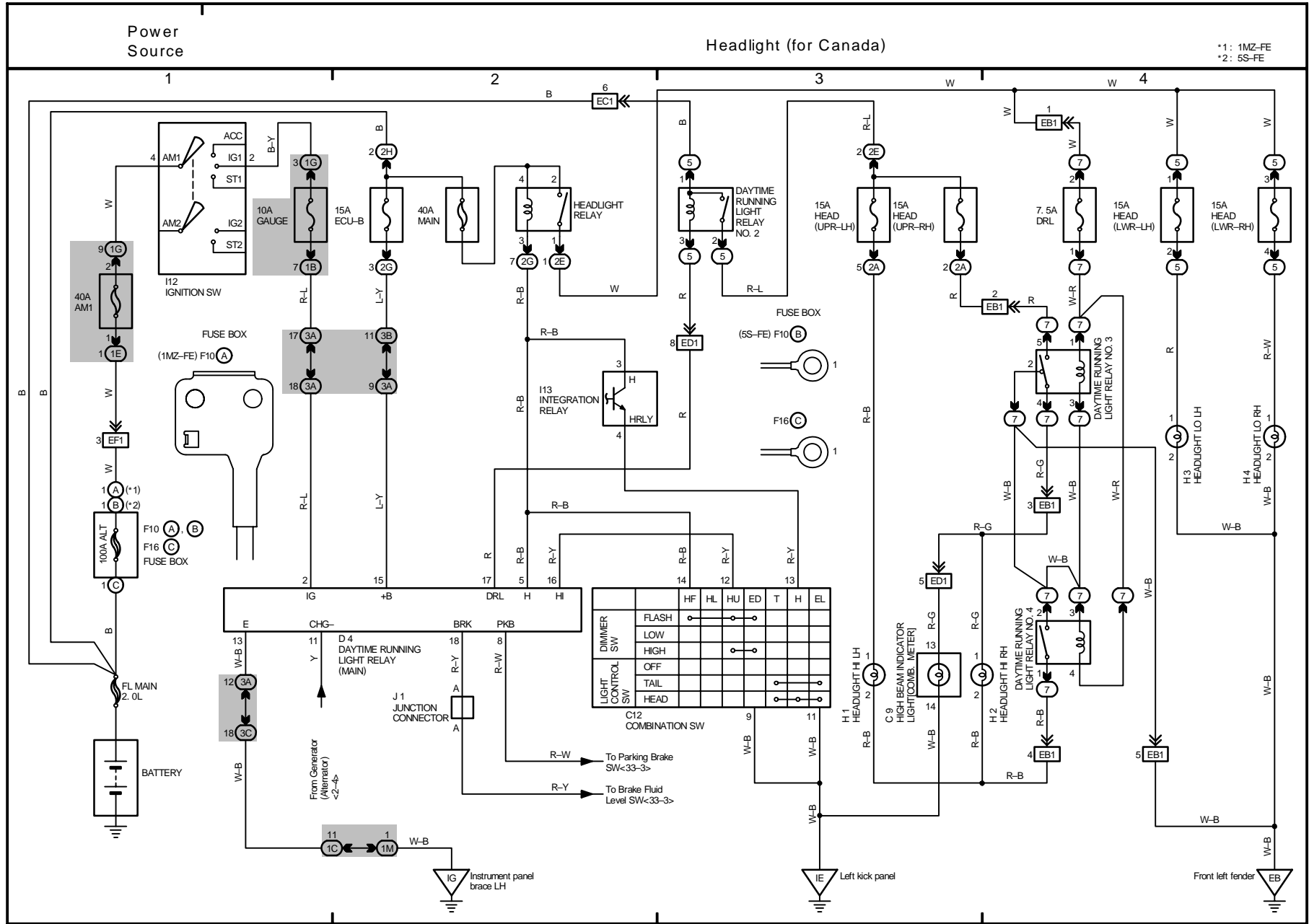
# OVERALL ELECTRICAL WIRING DIAGRAM



# 9 CAMRY

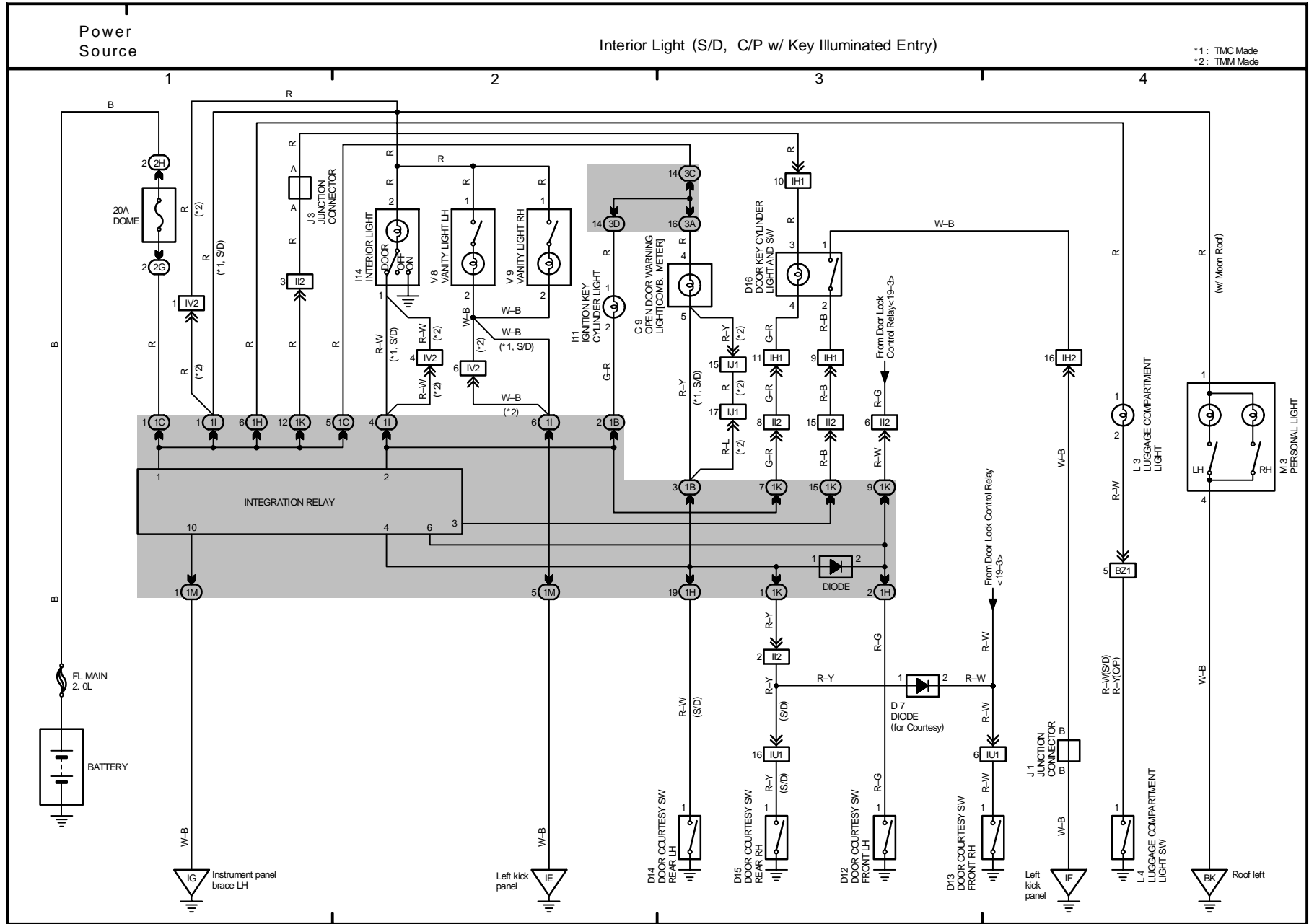


# 10 CAMRY

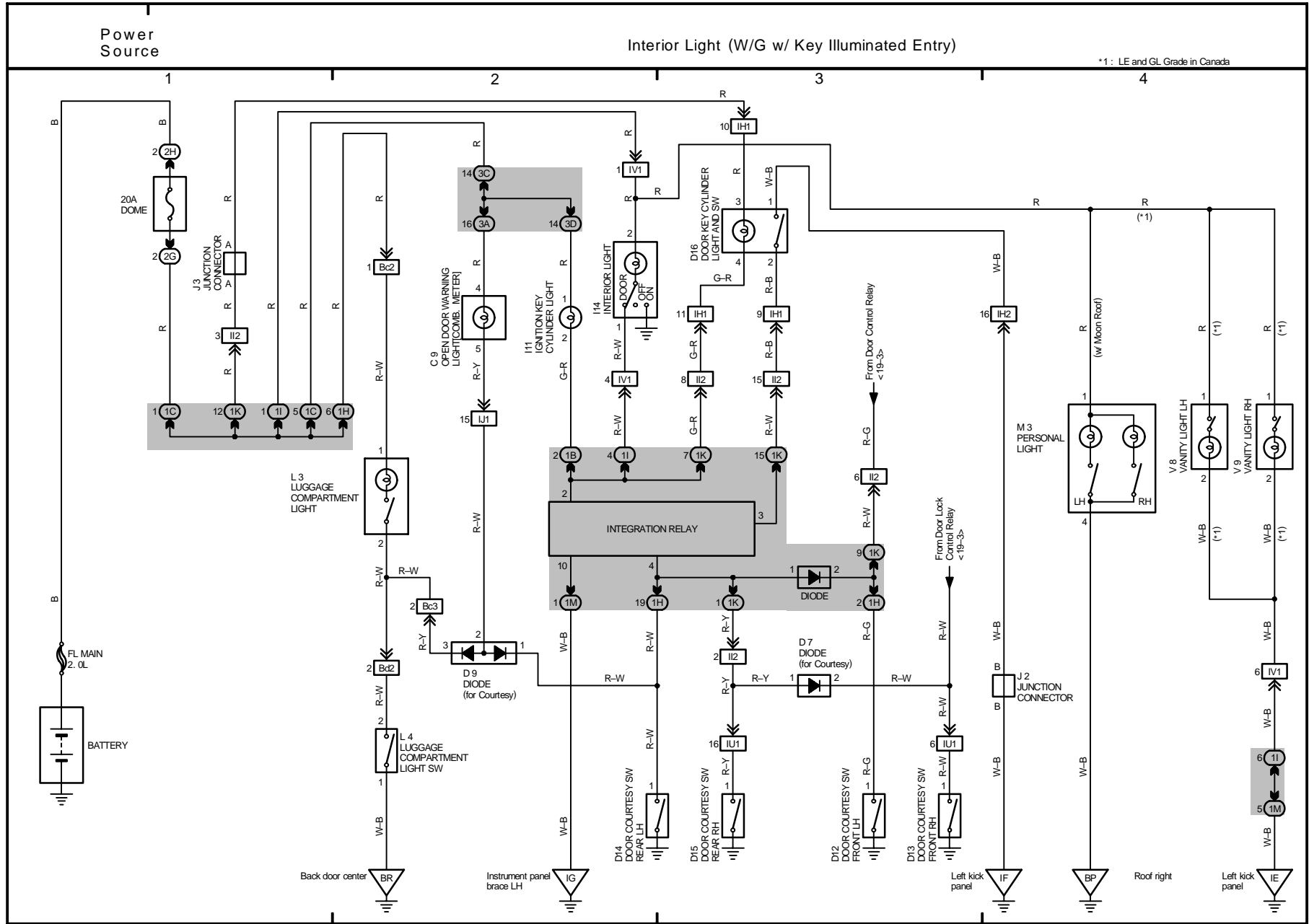




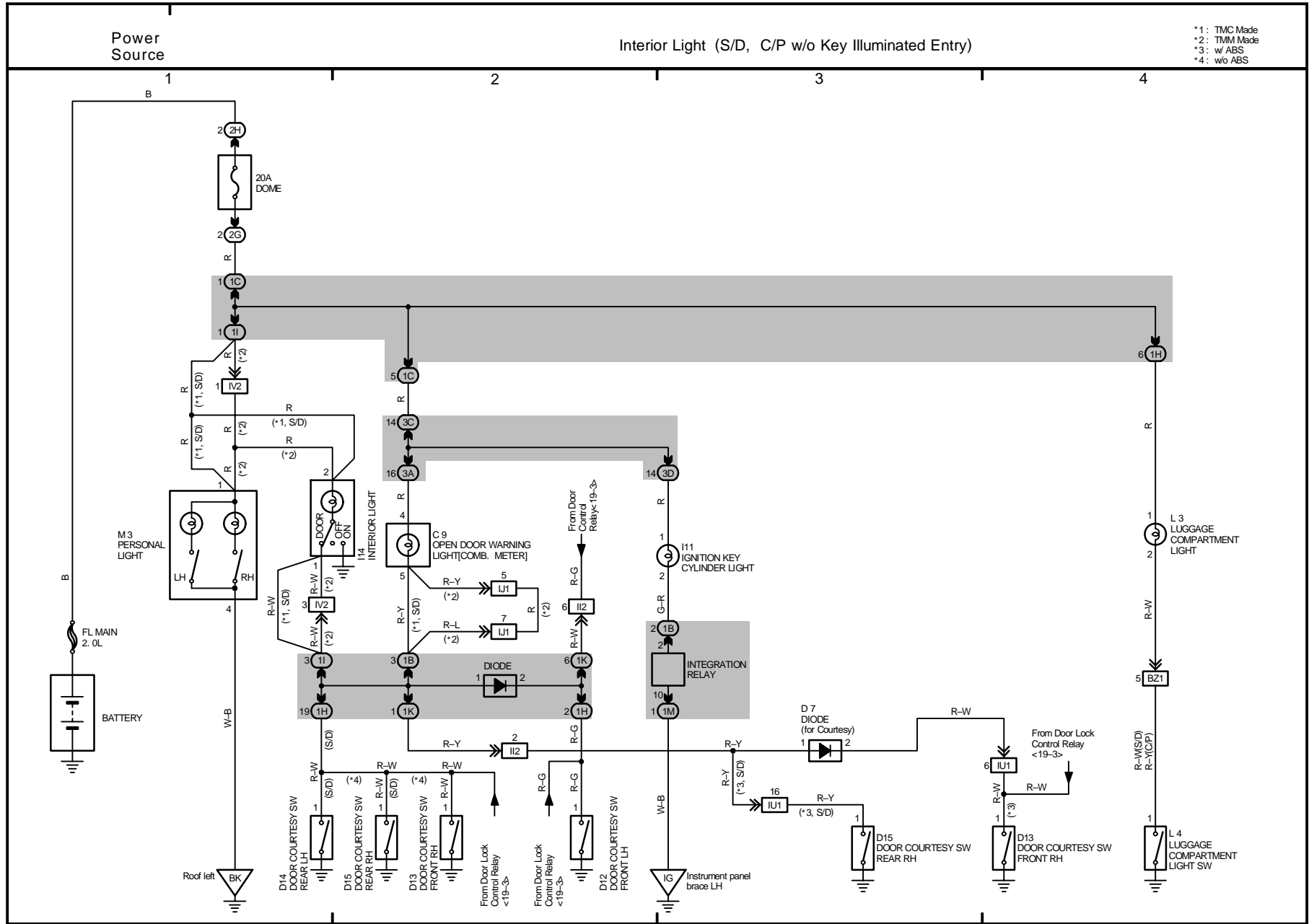
# 11 CAMRY



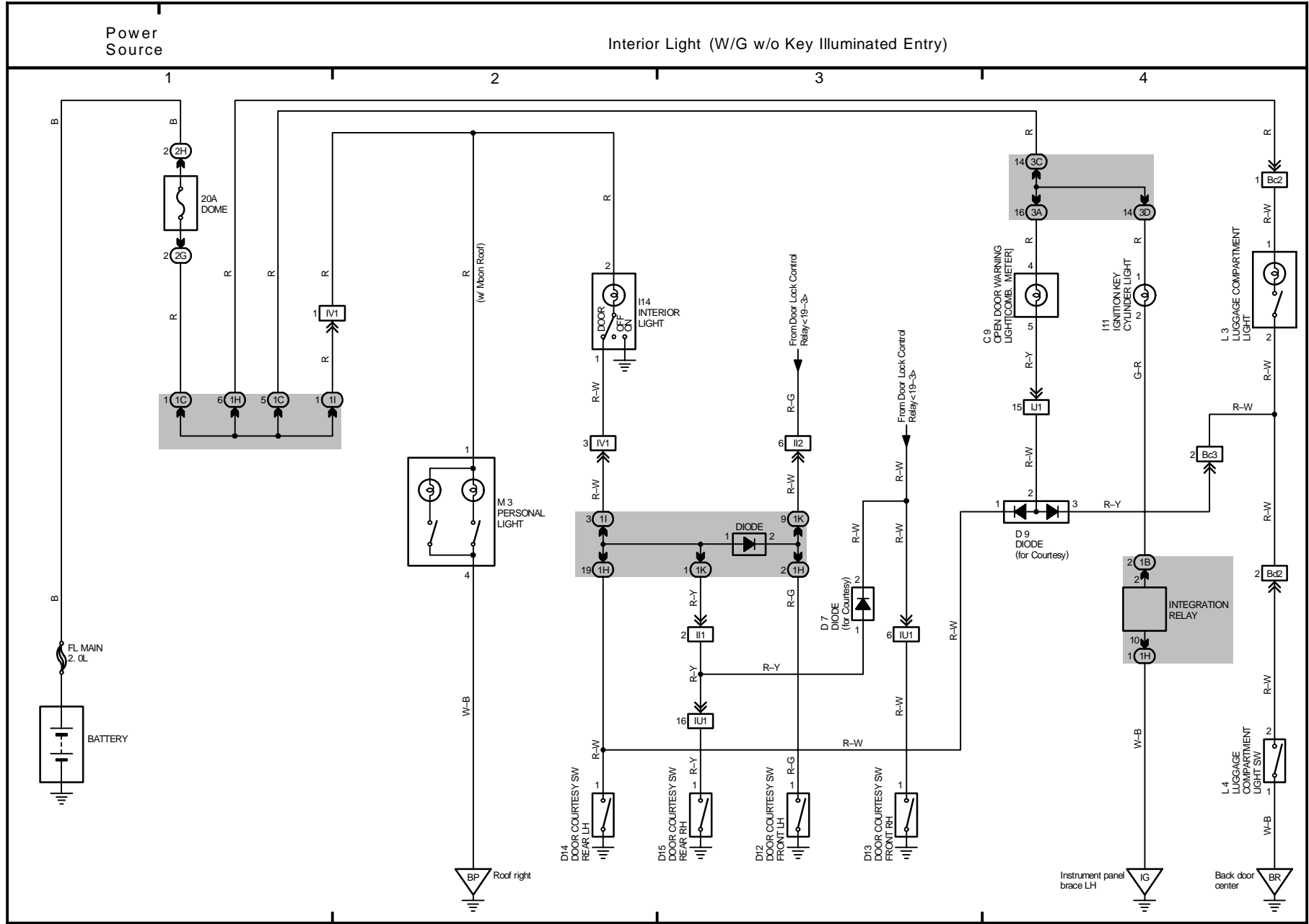
# 12 CAMRY



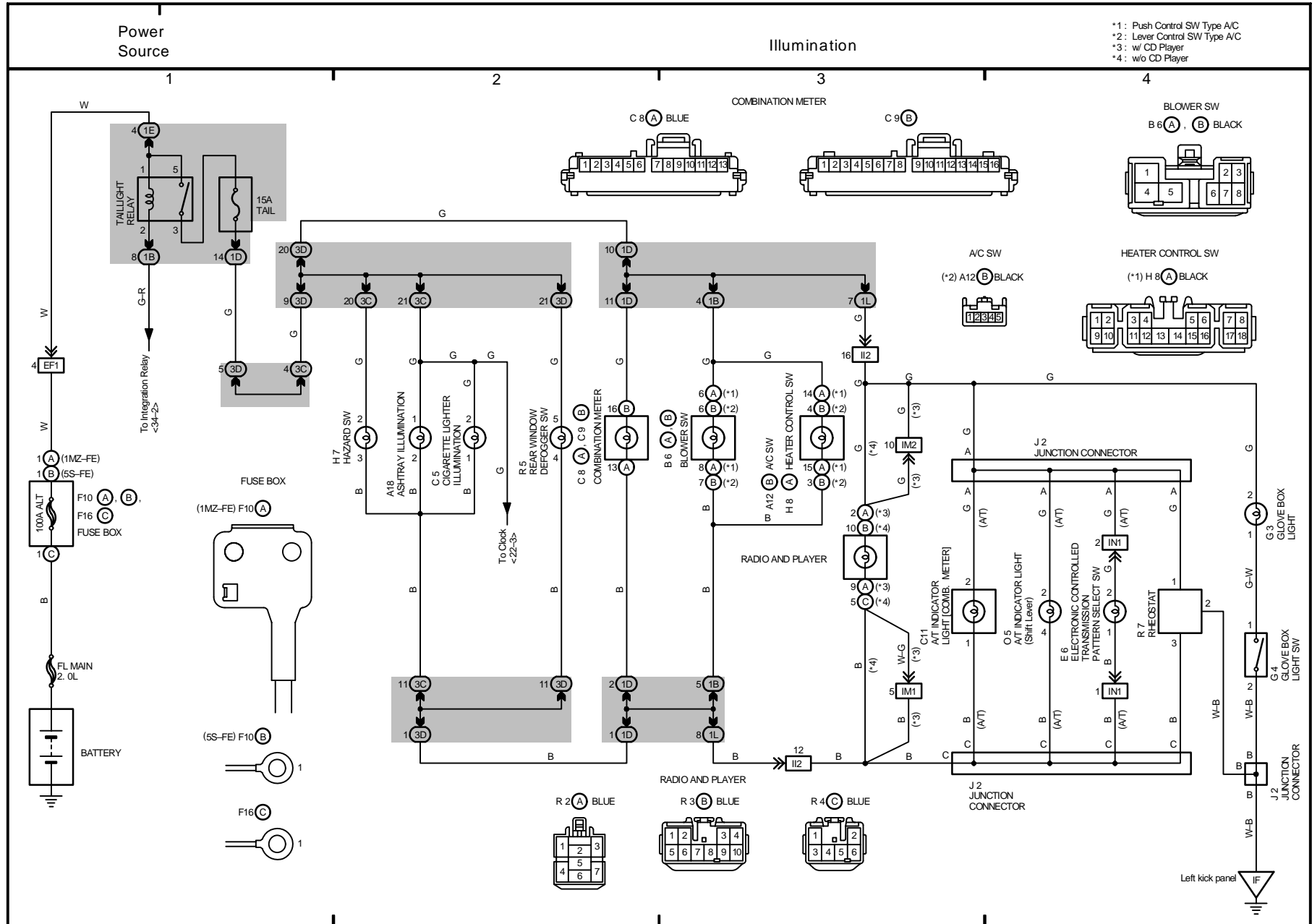
# 13 CAMRY



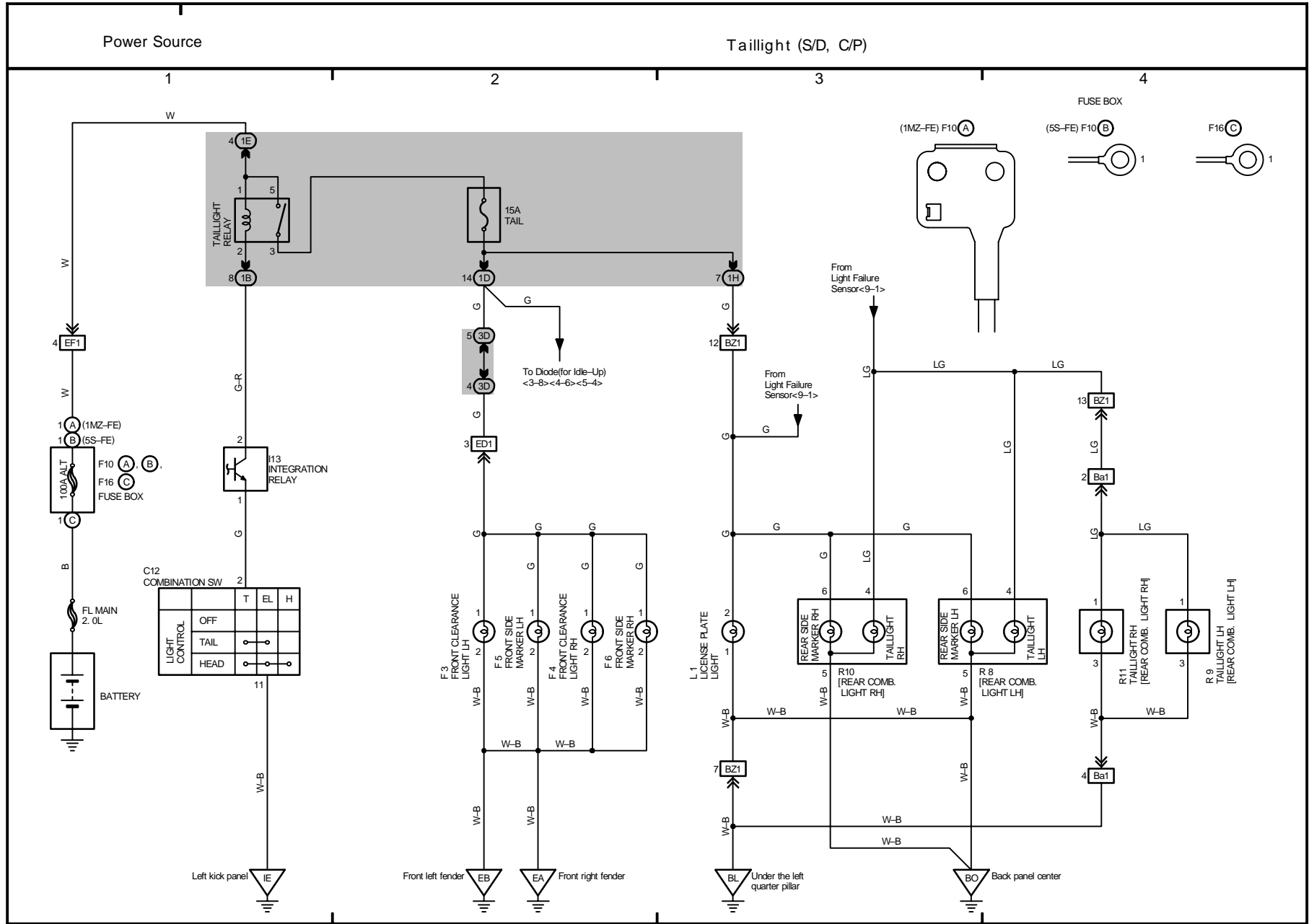
# 14 CAMRY



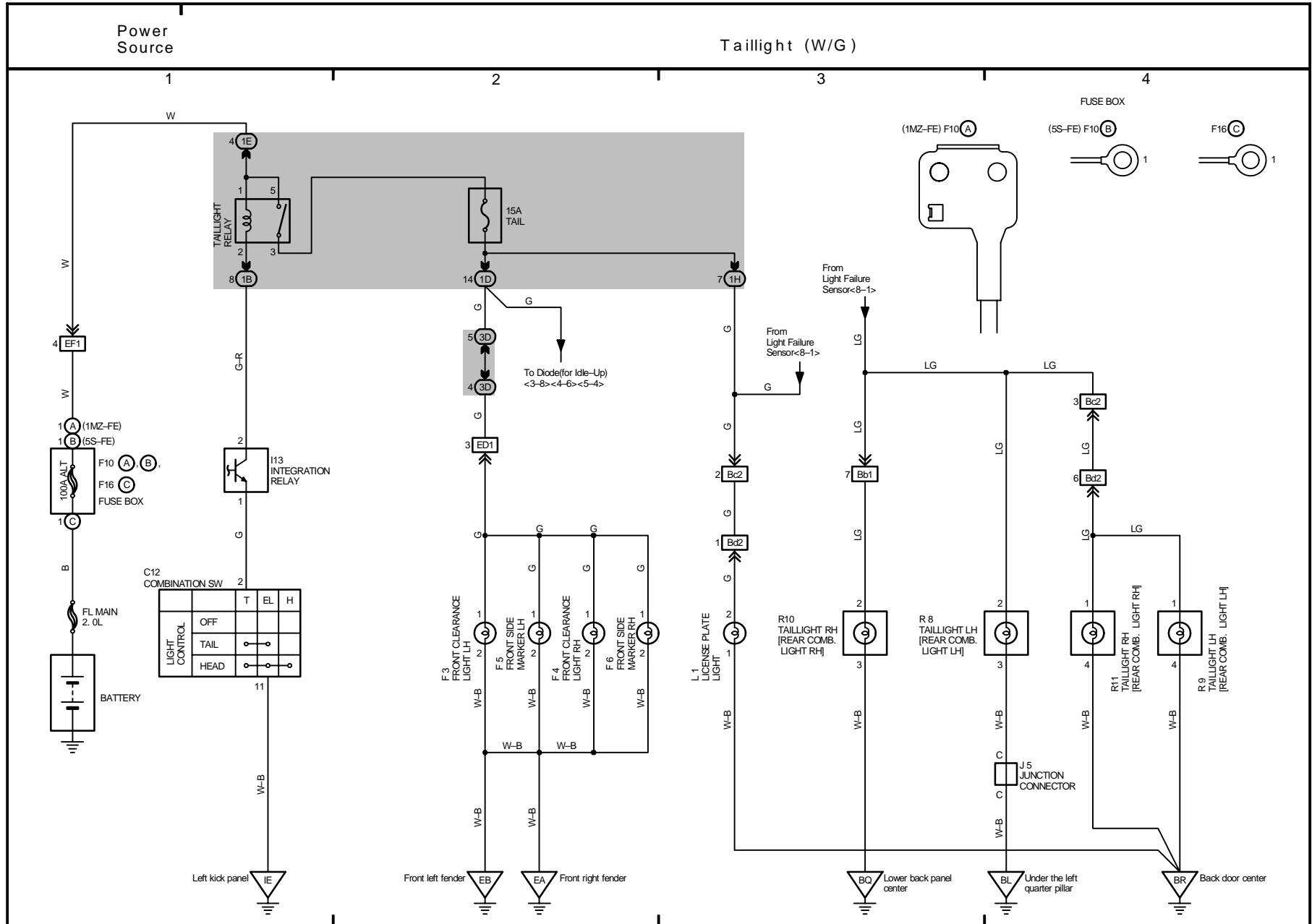
# 15 CAMRY



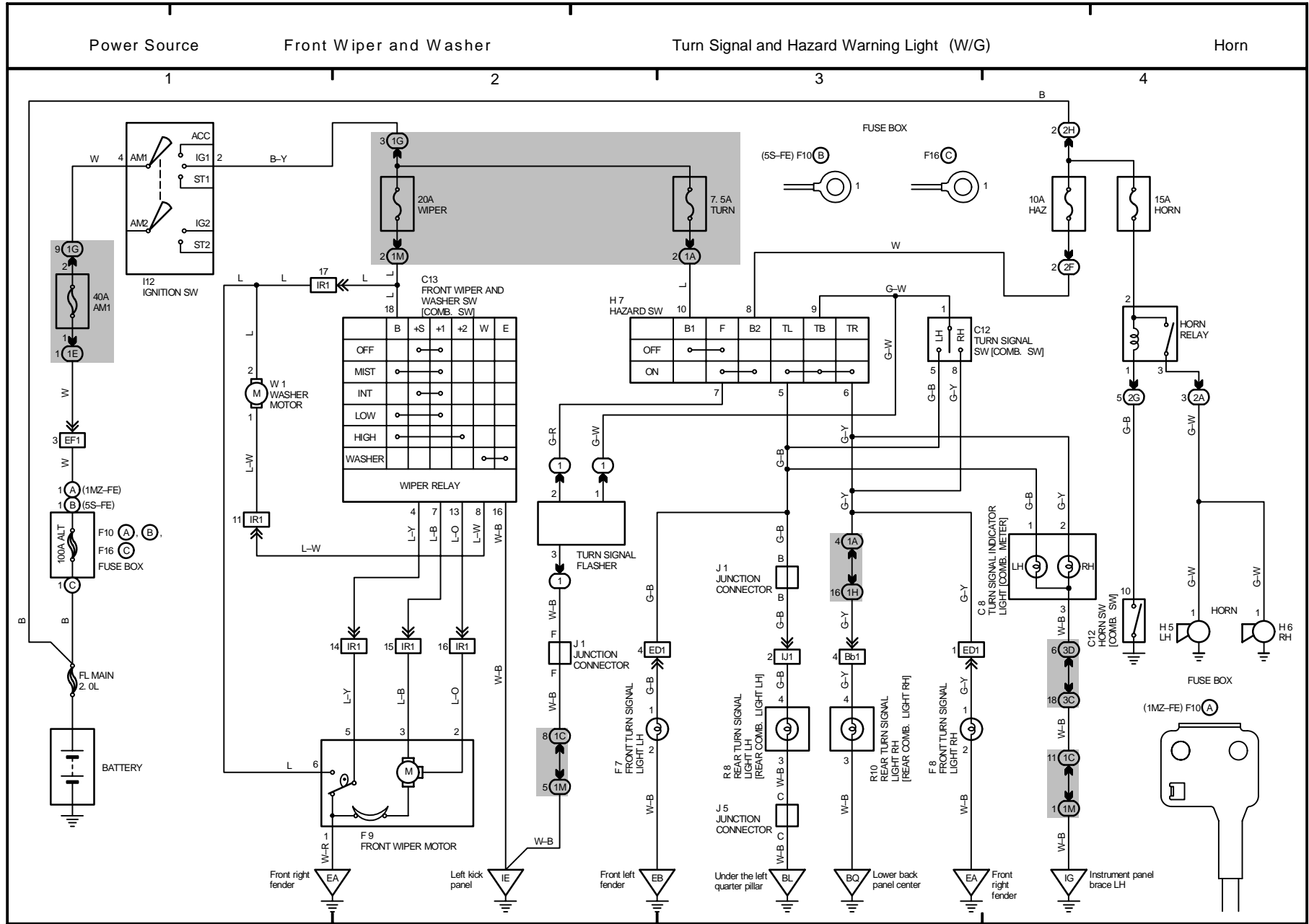
# 16 CAMRY



# 17 CAMRY

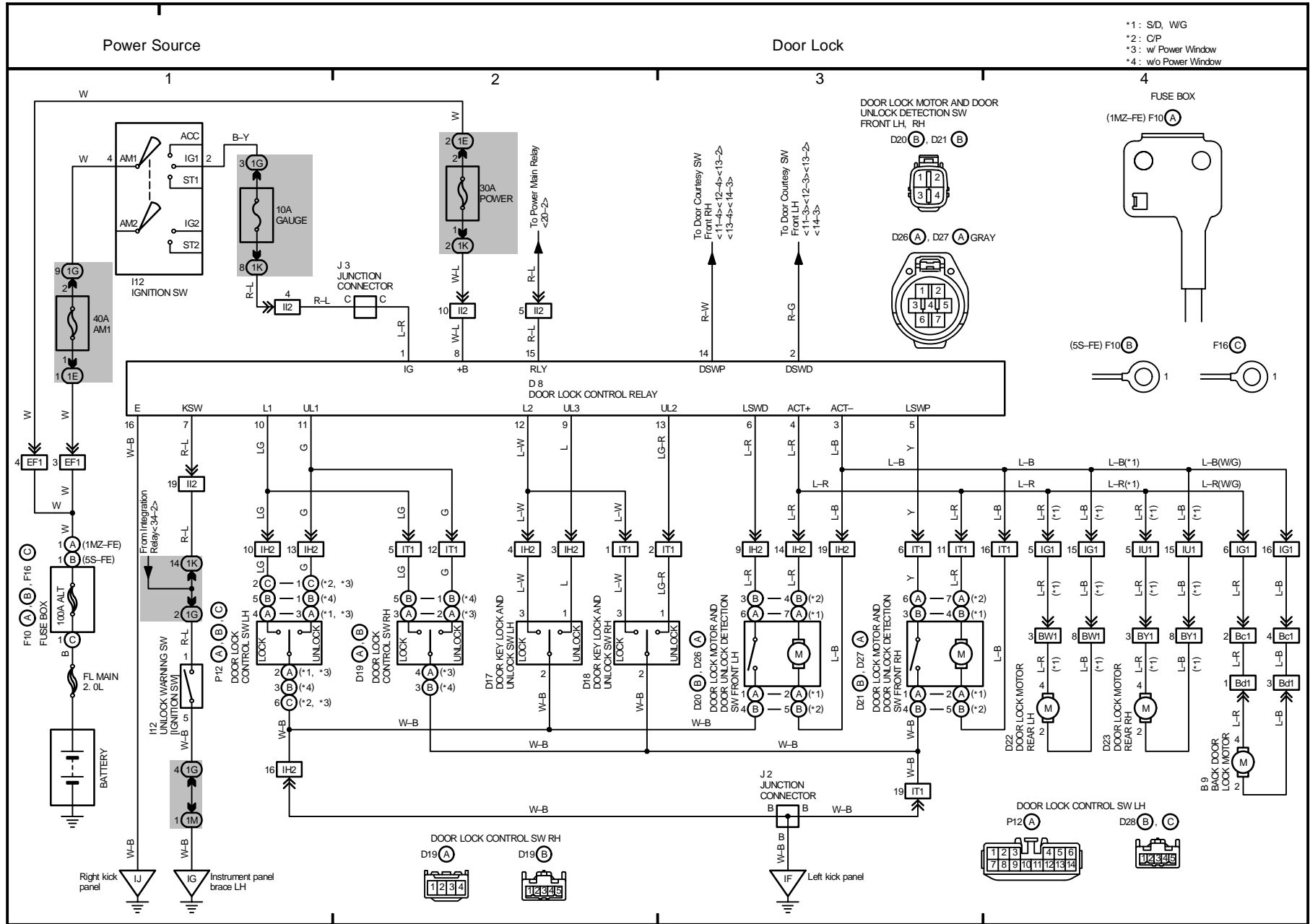


18 CAMRY

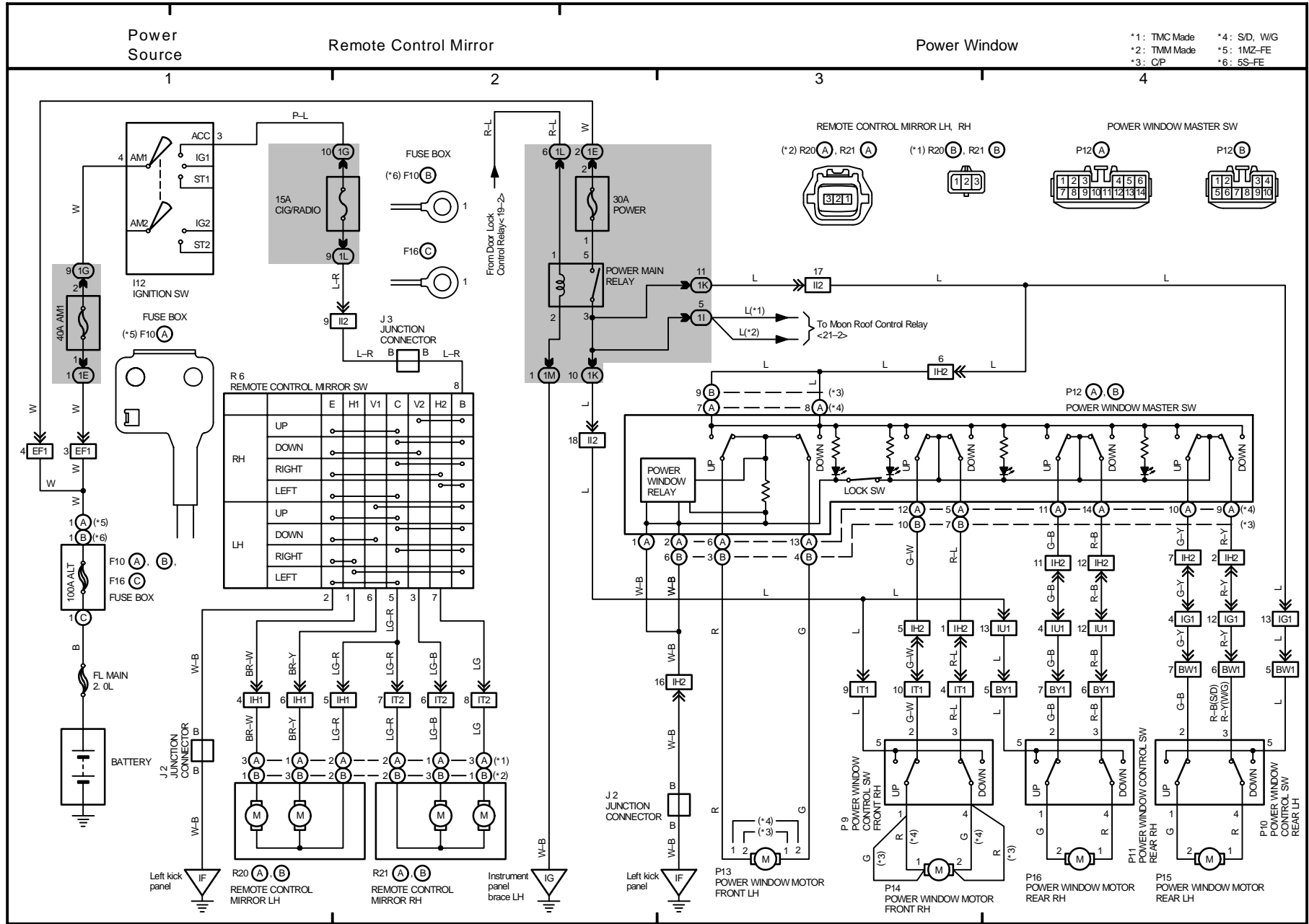




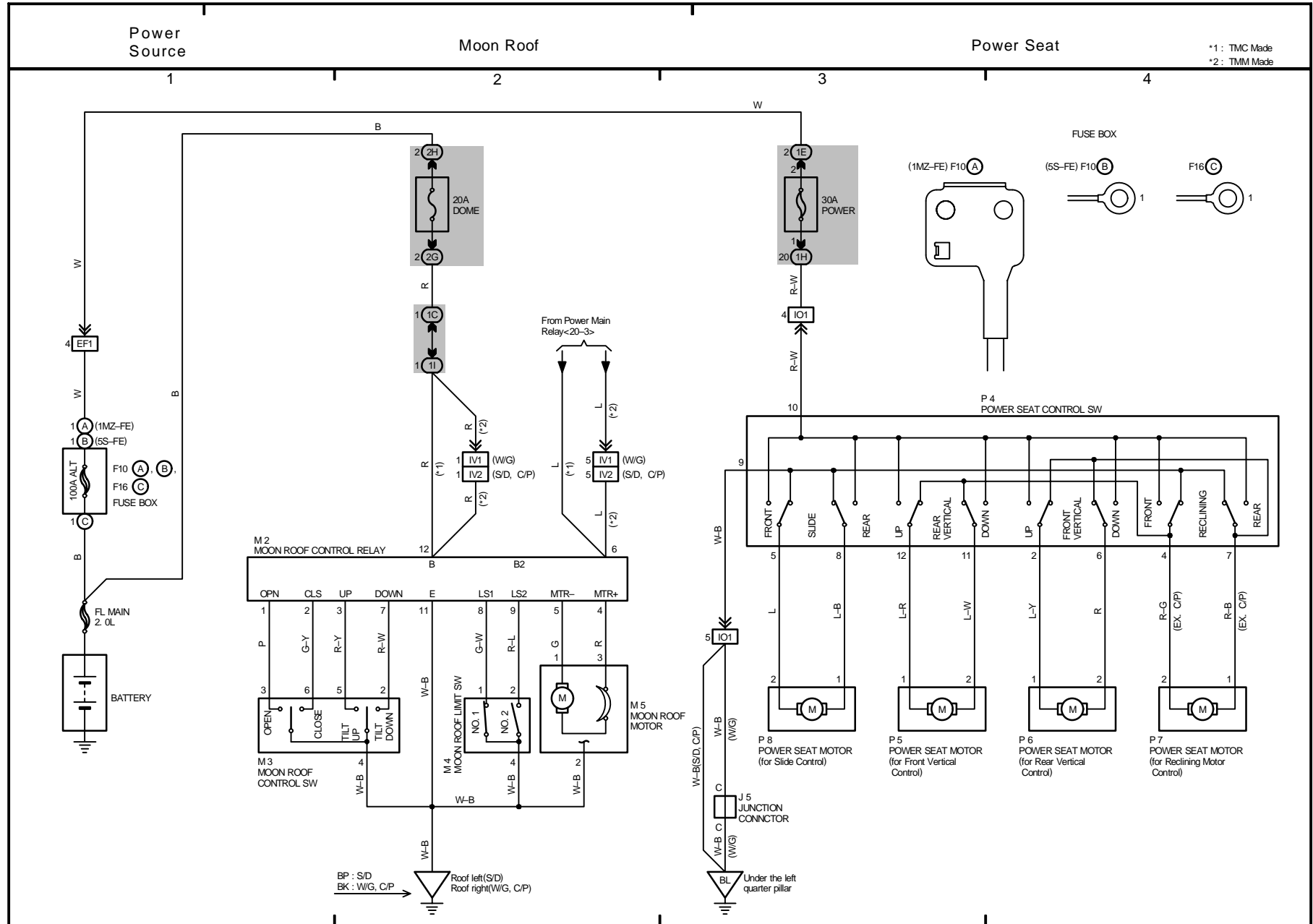
# 19 CAMRY



# 20 CAMRY

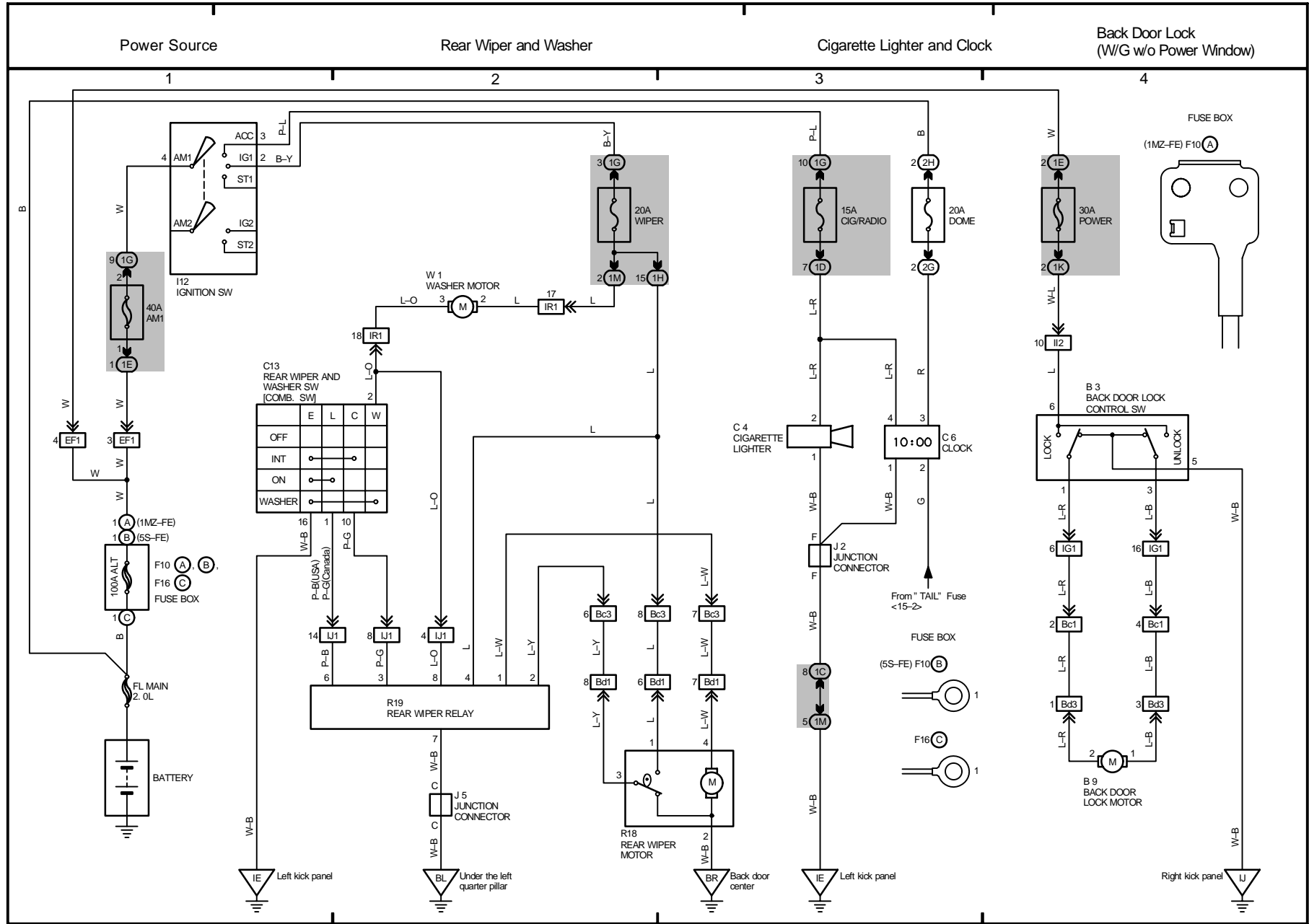


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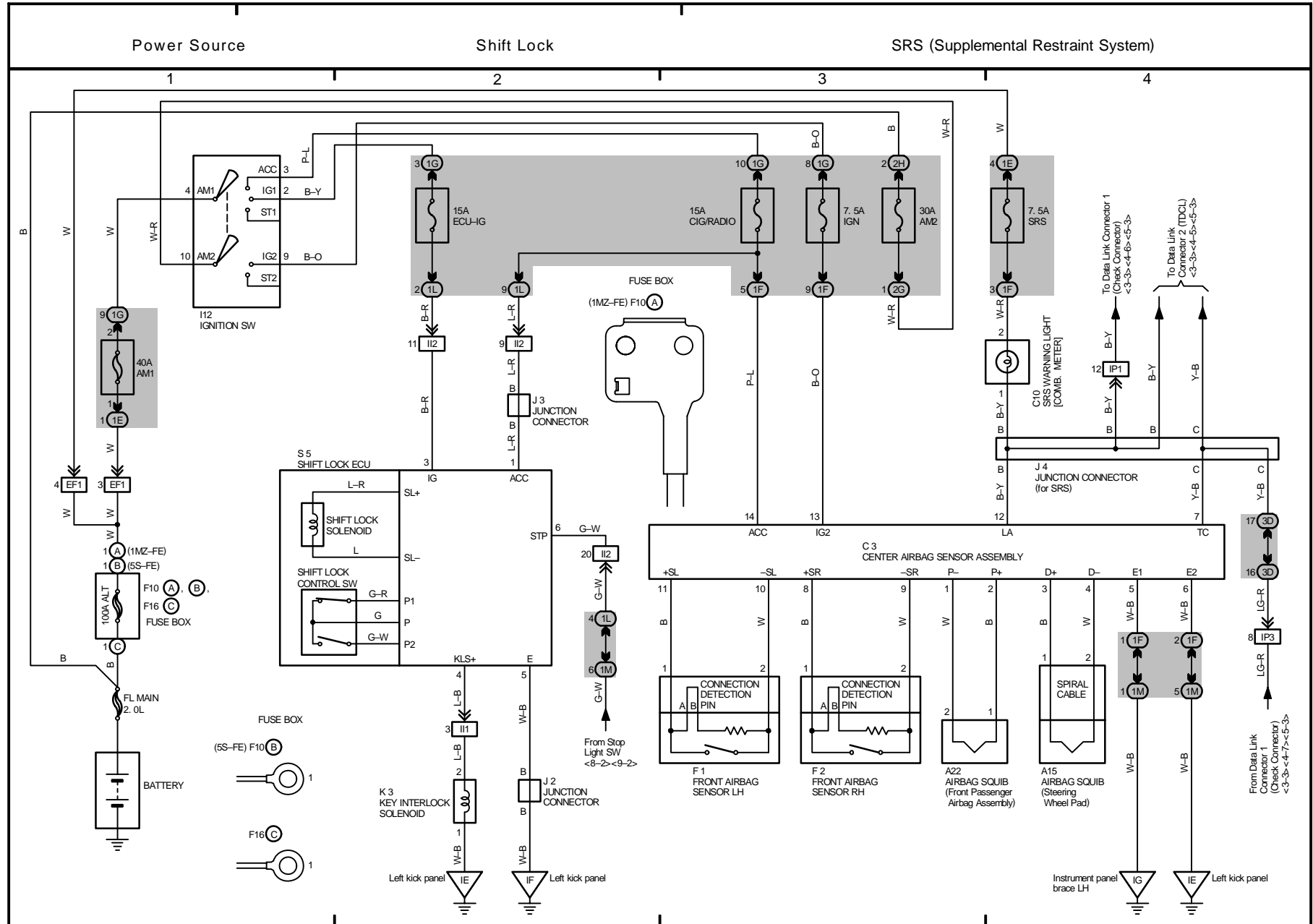


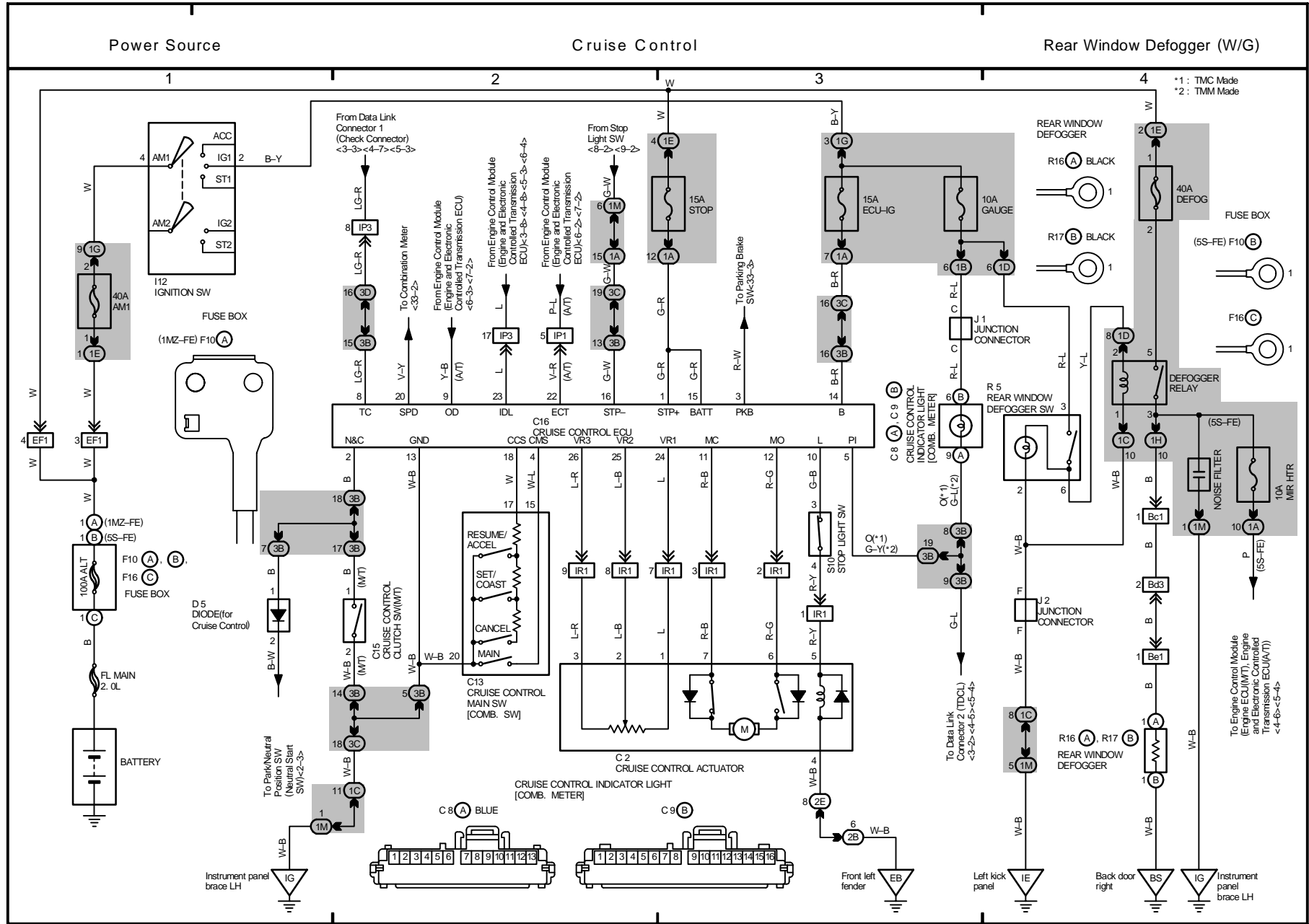
# 22 CAMRY

# OVERALL ELECTRICAL WIRING DIAGRAM

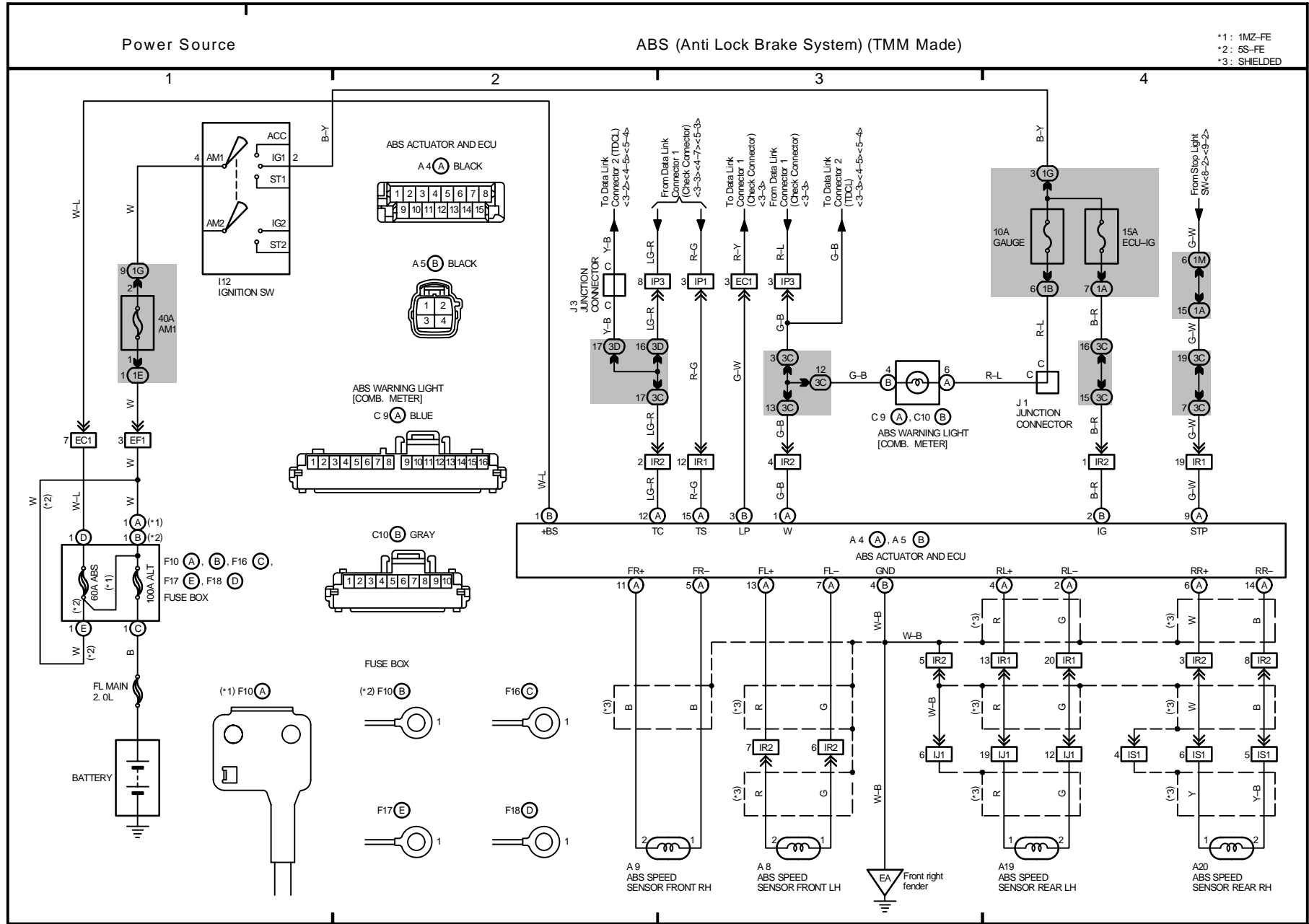


# 23 CAMRY



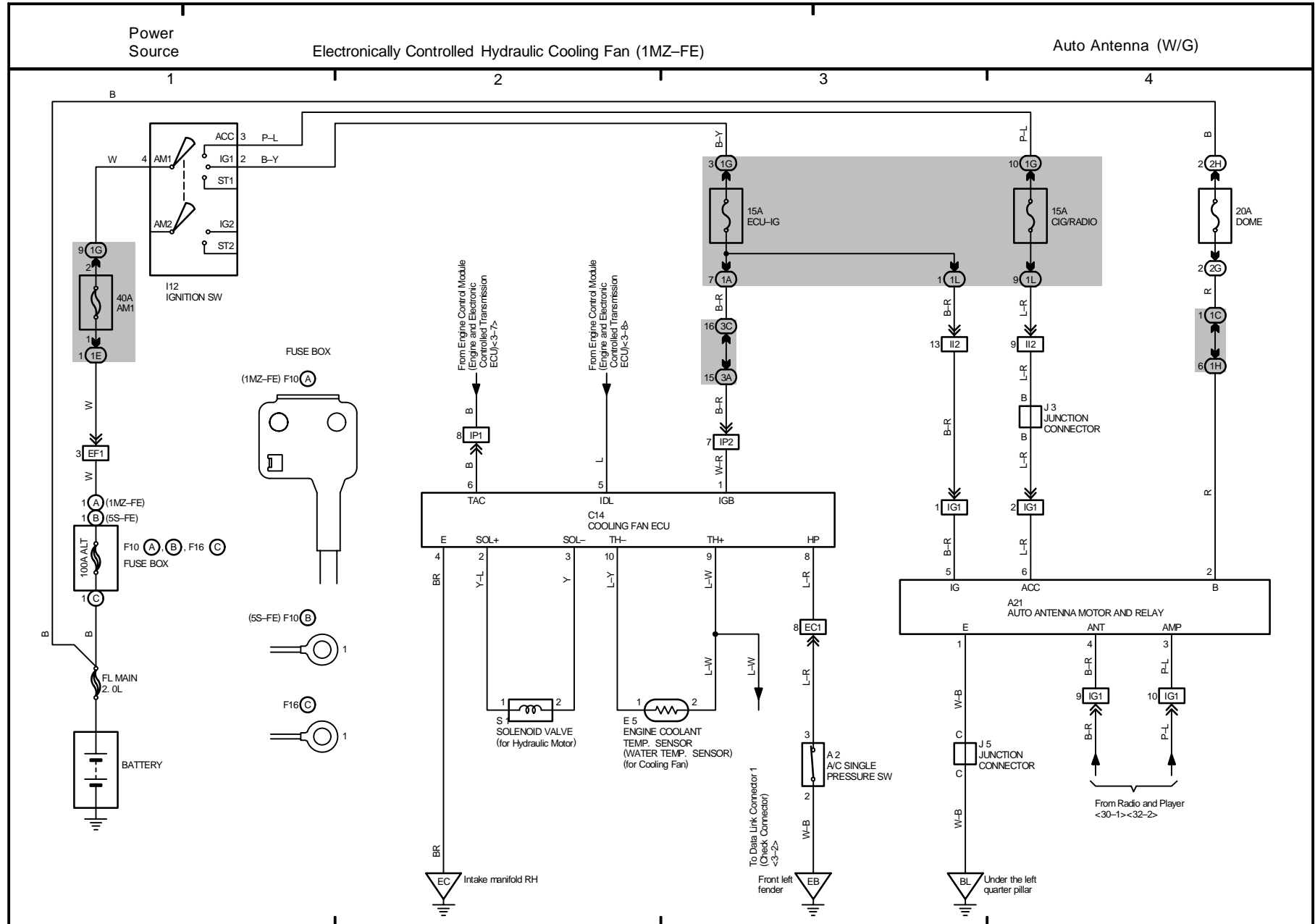






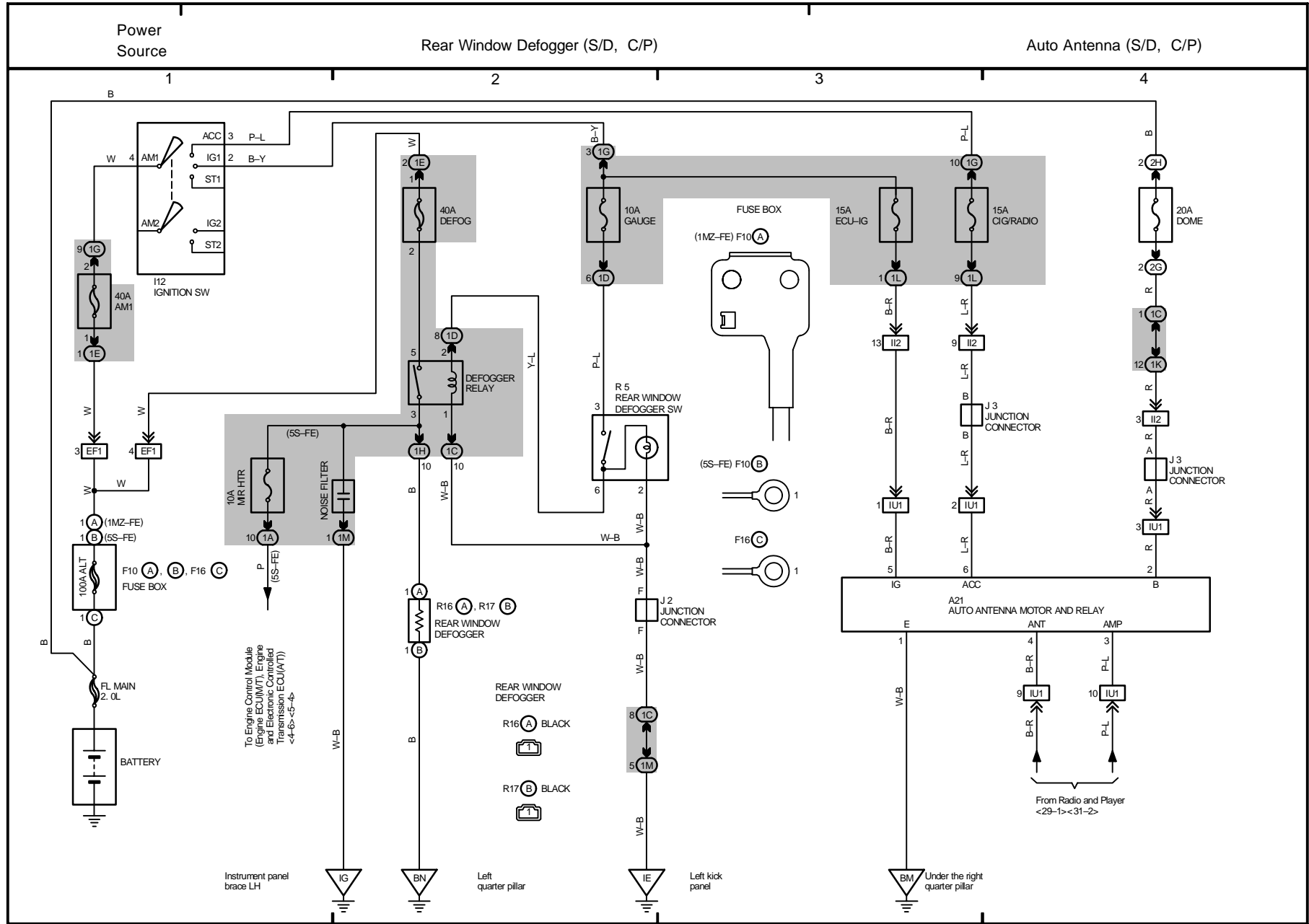


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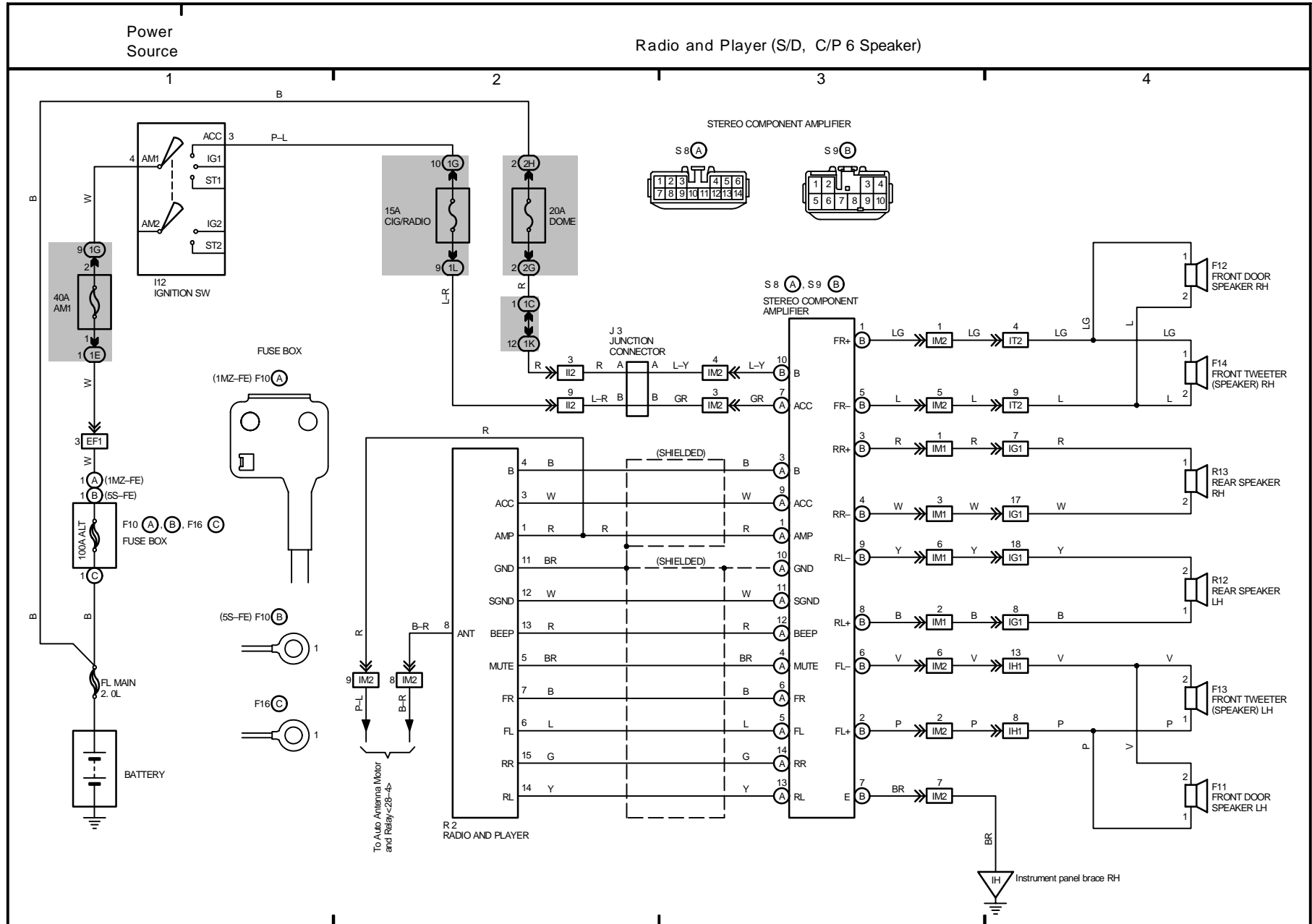


# 28 CAMRY

# OVERALL ELECTRICAL WIRING DIAGRAM

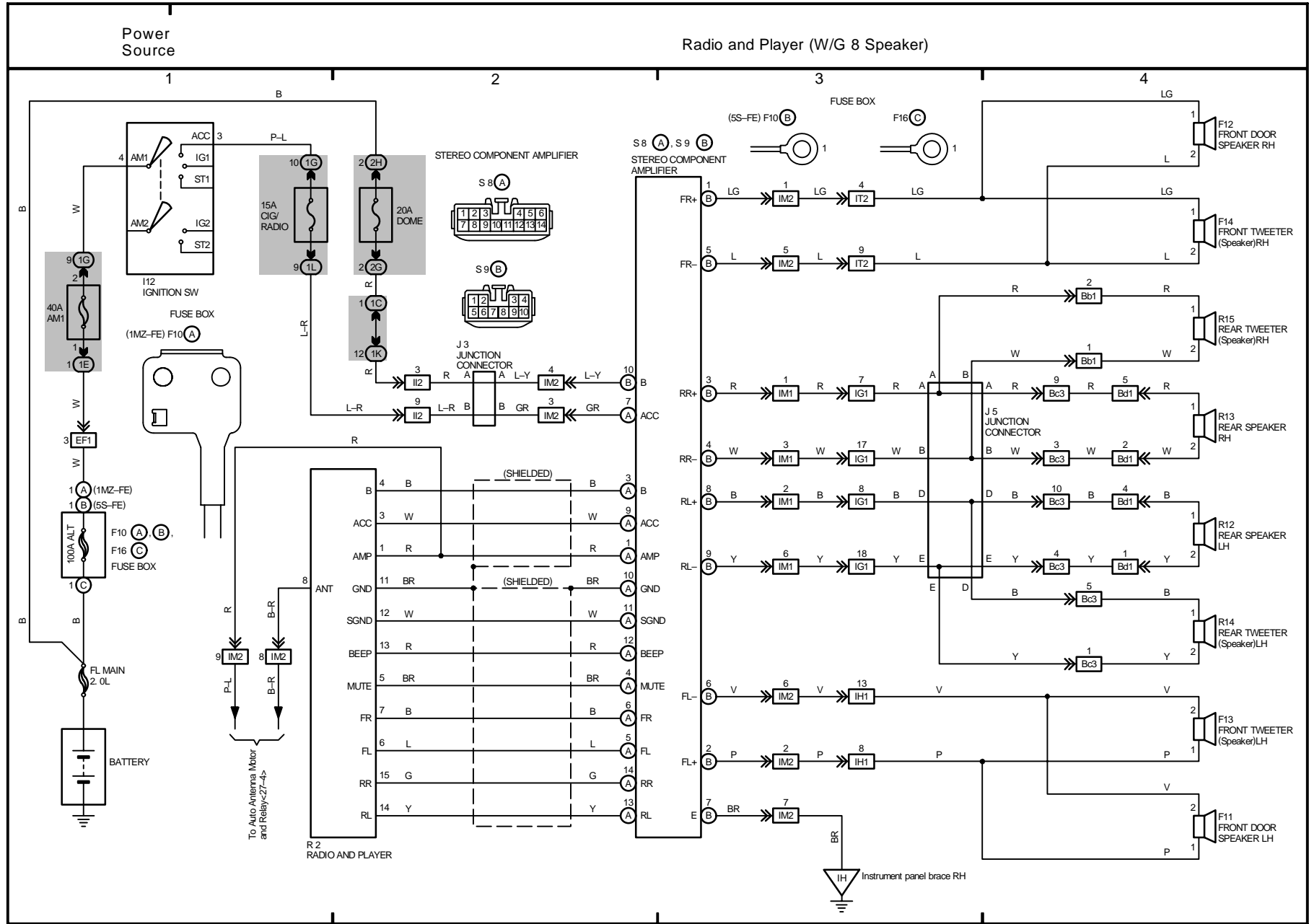


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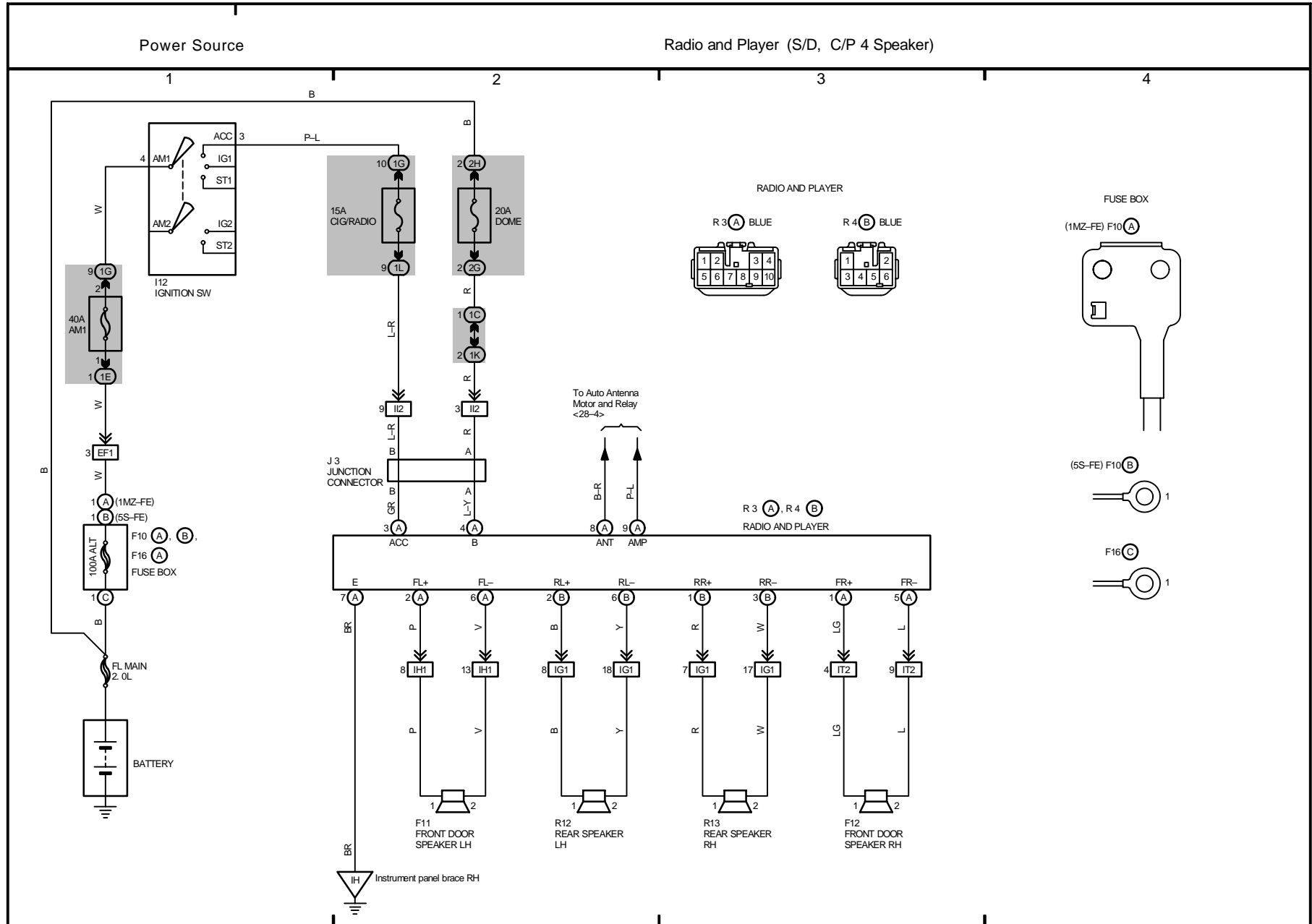


# 30 CAMRY

# OVERALL ELECTRICAL WIRING DIAGRAM

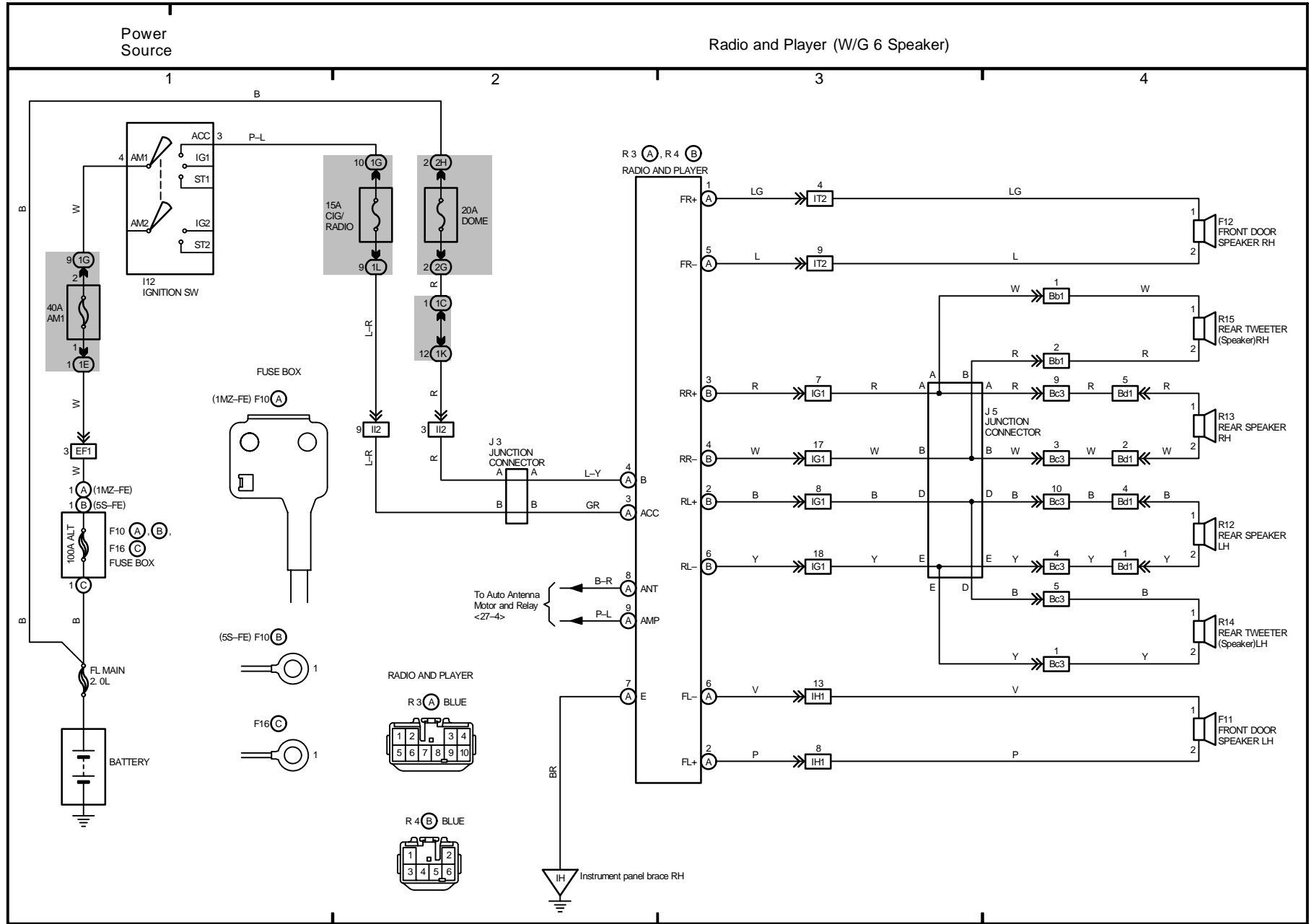


# 31 CAMRY

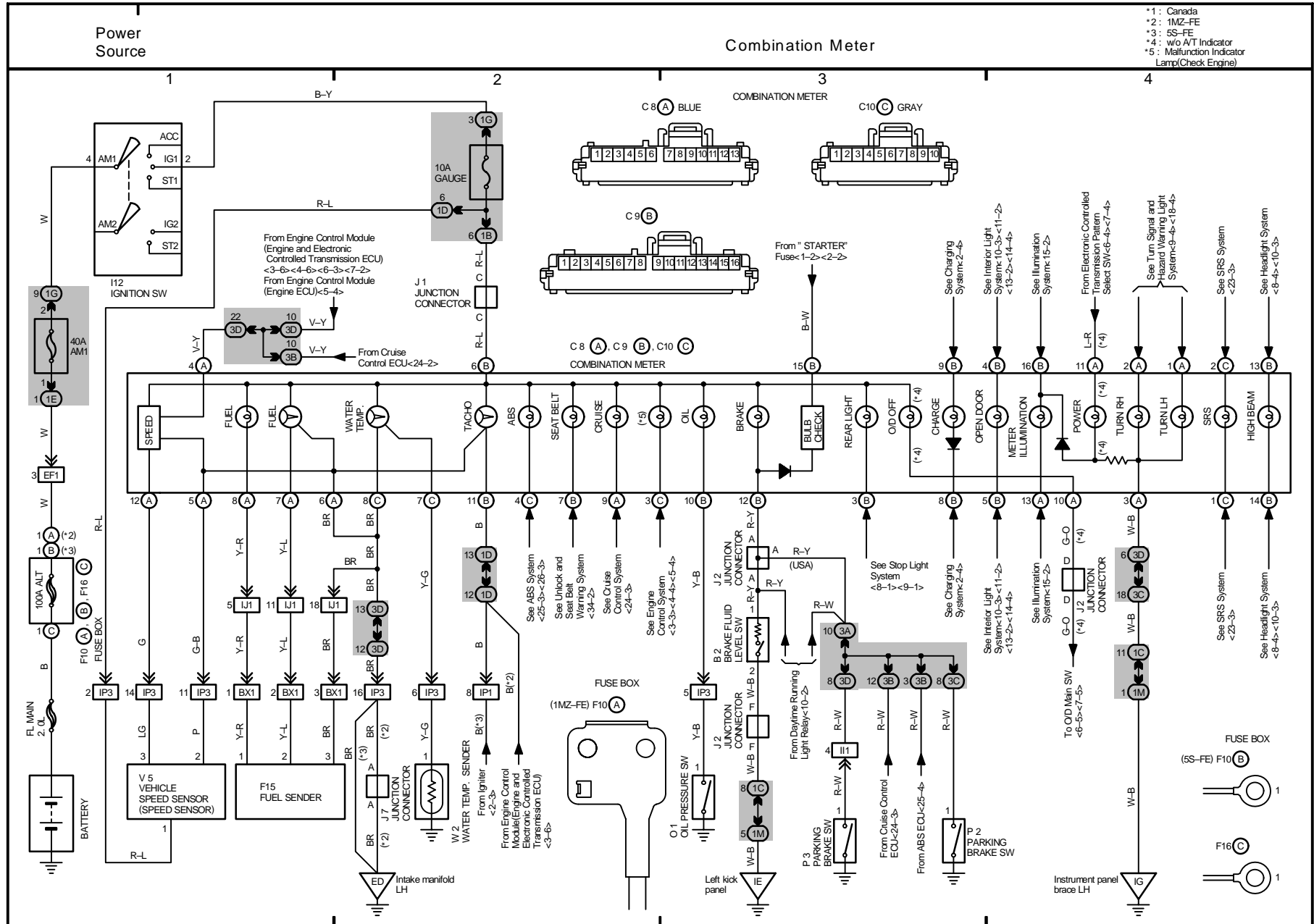


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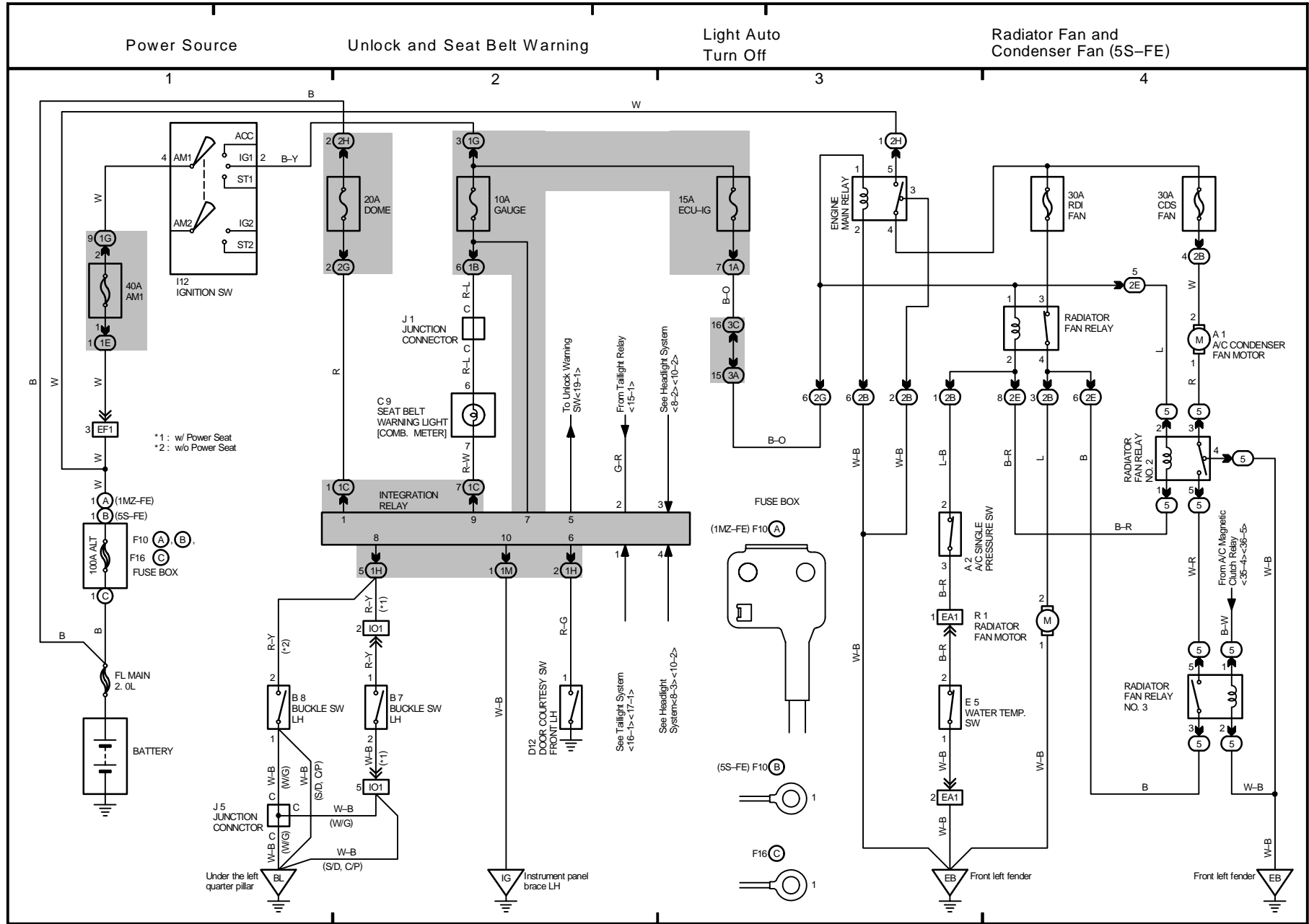
# OVERALL ELECTRICAL WIRING DIAGRAM



# 33 CAMRY

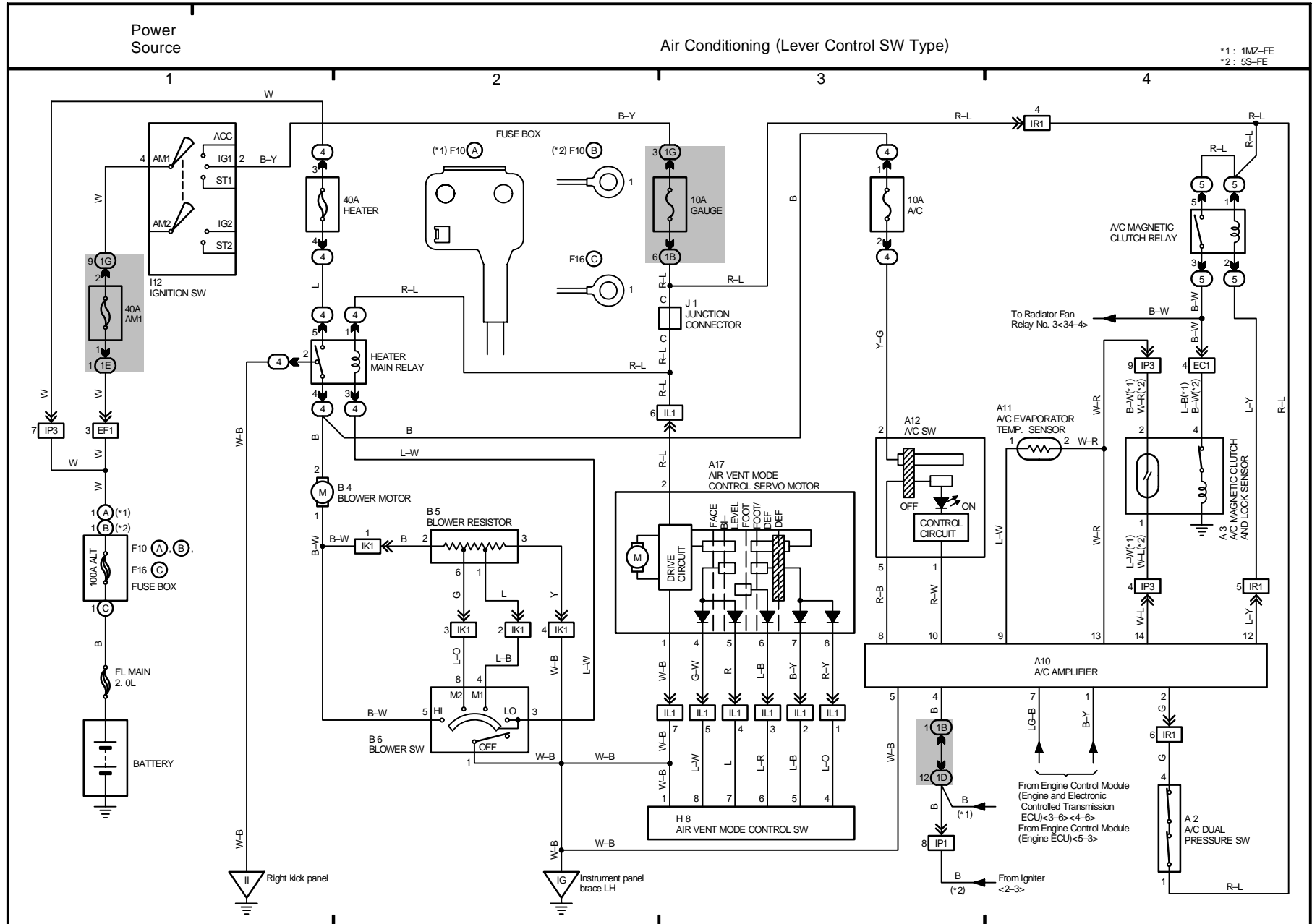


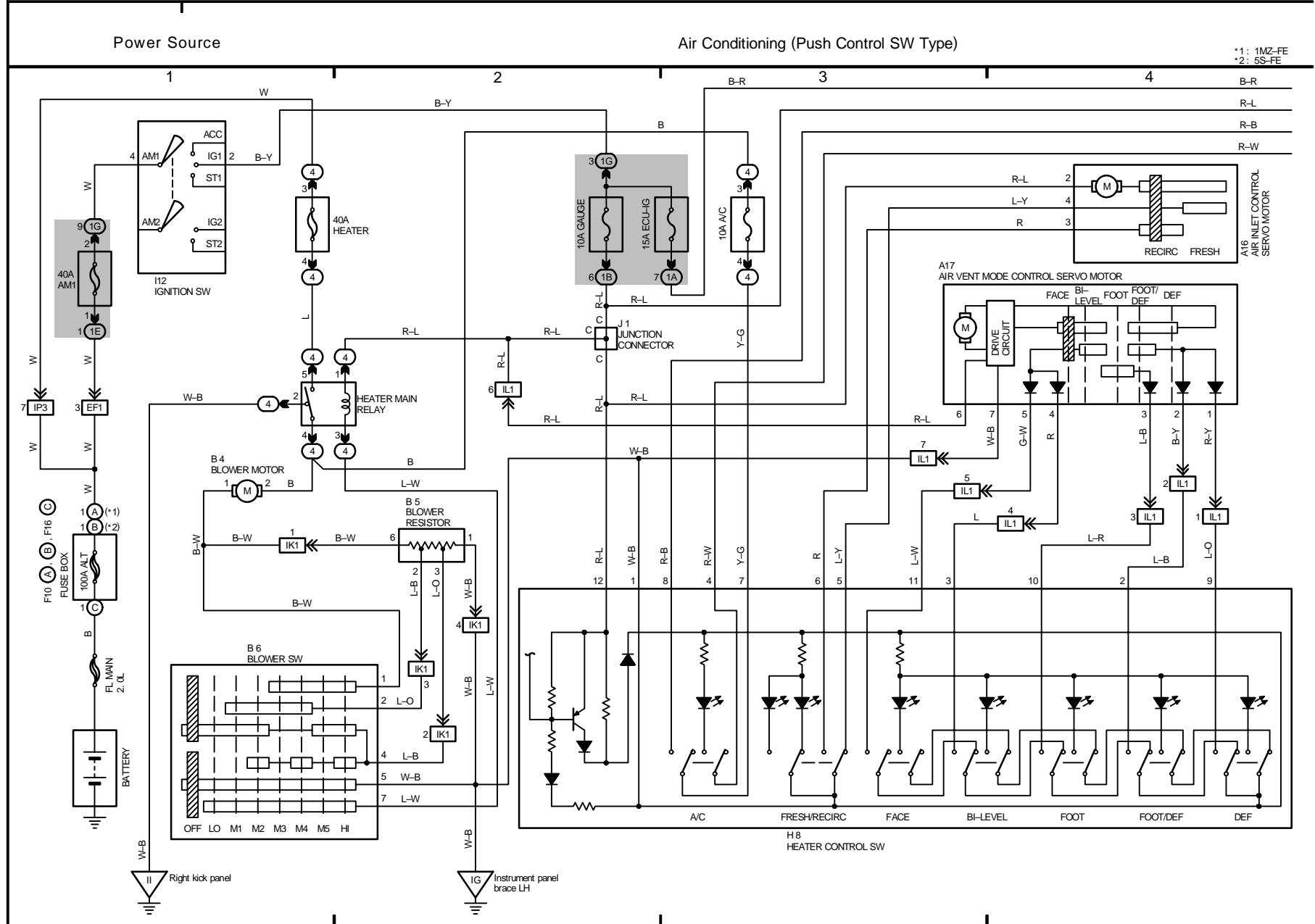
# 34 CAMRY





# 35 CAMRY





# 36 CAMRY (Cont' d)

## Air Conditioning (Push Control SW Type)

## Electric Tension Reducer

\*1: 1MZ-FE  
\*2: 5S-FE

