

FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the 1993 LEXUS ES300.

Applicable models: VCV 10 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.
<ul style="list-style-type: none">1992 LEXUS ES300 Repair Manual Volume 1 Volume 2	RM223U1 RM223U2
<ul style="list-style-type: none">1993 LEXUS New Car Features	NCF089U

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

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 the 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.

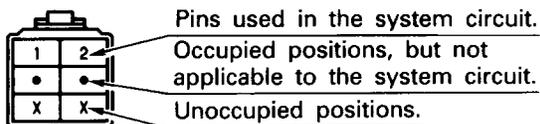
Wiring related to each system is indicated in each system circuit by arrows (from __, to __). When overall connections are required, see the Overall Wiring Diagram at the end of this manual.

- (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.)

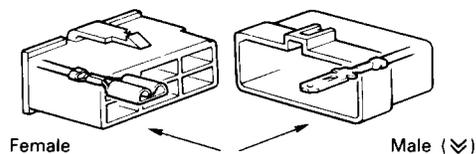
Explanation of pin use.



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.

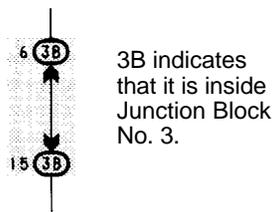


The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g., "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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.

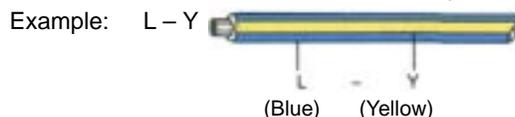
- (H) : Represents a part (all parts are shown in sky blue). The code is the same as the code used in parts position.
- (I) : Junction Block (The number in the circle is the J/B No. and the connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts (different junction blocks are shaded differently for further clarification).

Example:



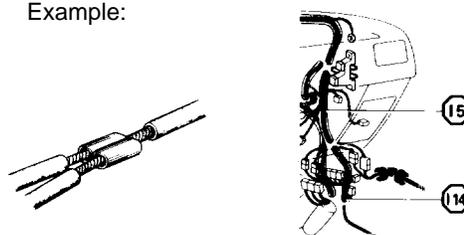
- (J) : Indicates the wiring color.
Wire colors are indicated by an alphabetical code.
B = Black L = Blue R = Red
BR = Brown LG = Light Green V = Violet
G = Green O = Orange W = White
GR = Gray P = Pink Y = Yellow

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).

Example:



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

P 2 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

P 4 POWER WINDOW MASTER SW

4-GROUND: ALWAYS CONTINUITY

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

WINDOW LOCK SW

OPEN WITH THE 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)



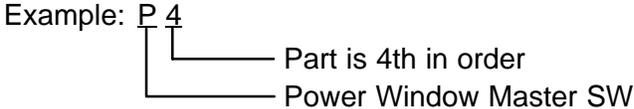
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINT LOCATION
IC	24	COWL LEFT

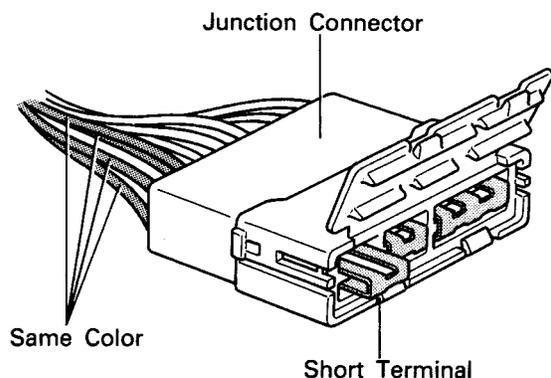


○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS 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 the 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.

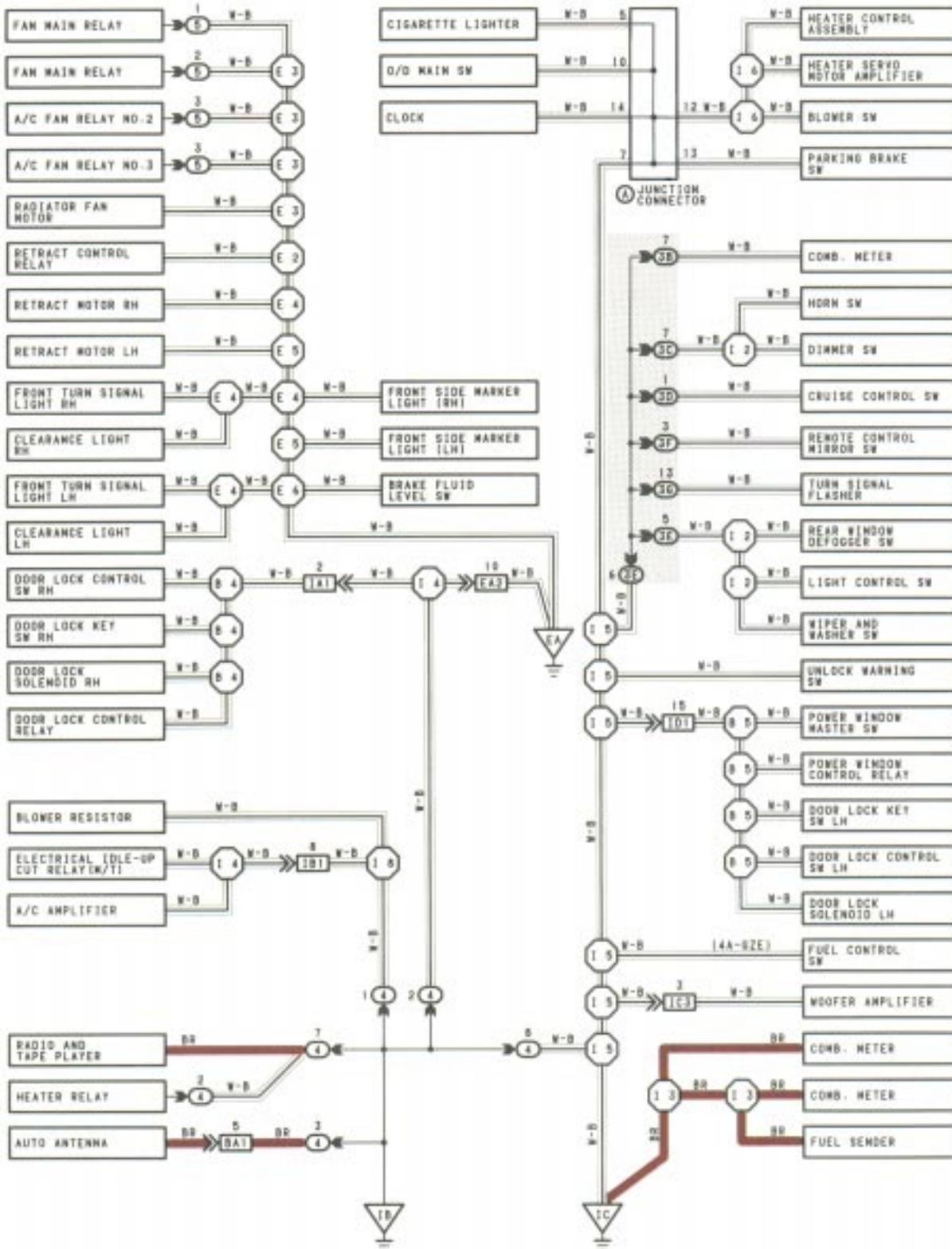
HINT



Junction connector (code: J1, J2, J3, J4, J5) 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 form a different part.)
 Wire harness sharing the same short terminal grouping have the same color.

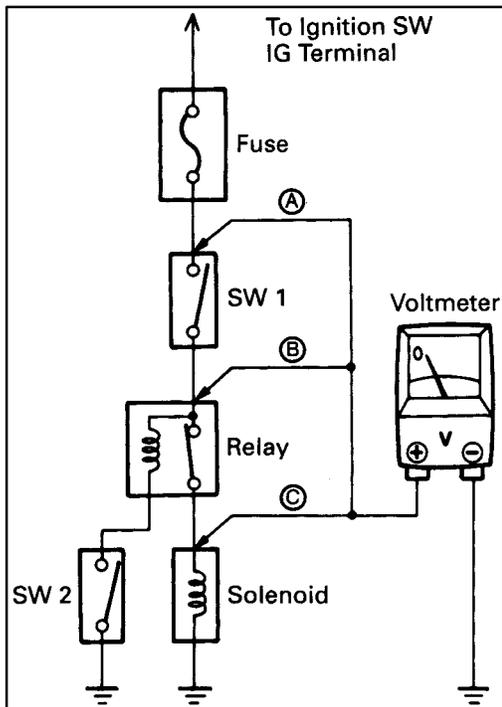
The ground points circuit diagram shows the connections from all major parts to the respective ground points. When troubleshooting a faulty ground point, checking the system circuits which use a common ground may help you identify the problem ground quickly. The relationship between ground points (EA,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

GROUND POINT



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

TROUBLESHOOTING

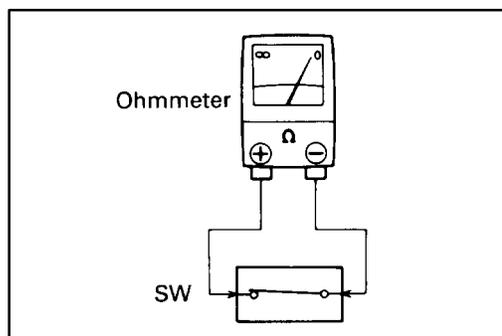


VOLTAGE CHECK

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

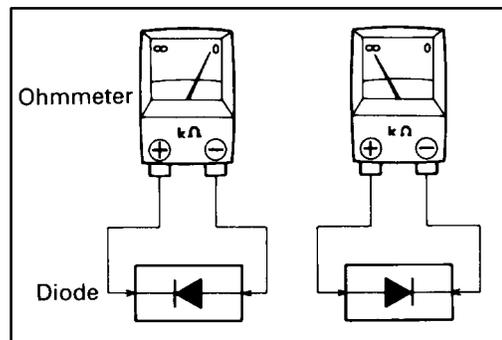
Example:

- Ⓐ – 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

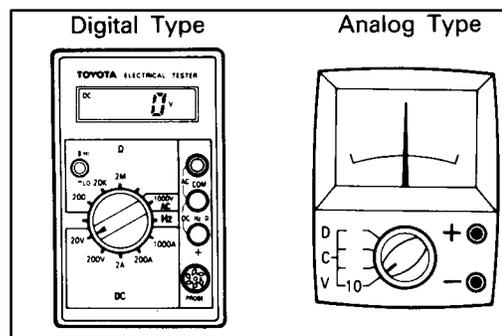
- (a) Disconnect the battery terminal or wire so there is no voltage between the check points.
- (b) Contact the two leads of an ohmmeter to each of the check points.



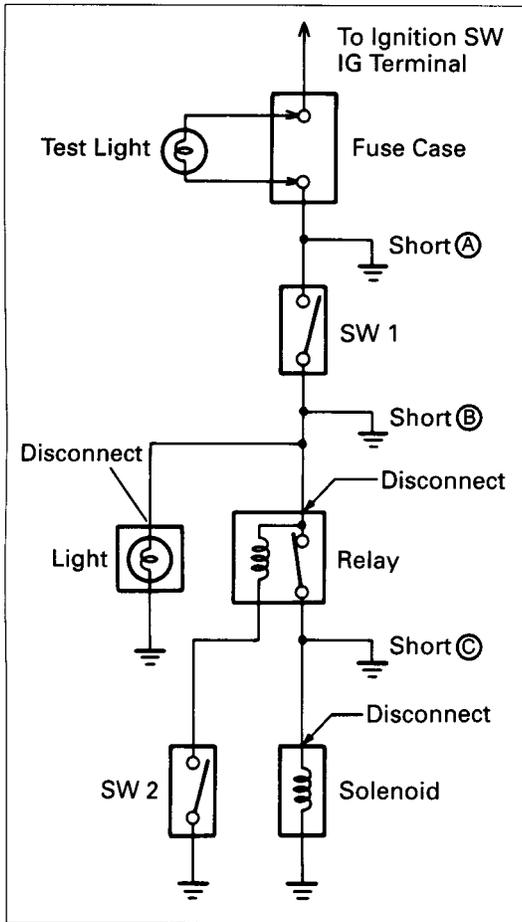
If the circuit has diodes, reverse the two leads and check again.

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



FINDING A SHORT CIRCUIT

- Remove the blown fuse and disconnect all loads of the fuse.
- Connect a test bulb in place of the fuse.
- Establish conditions in which the test bulb 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)
- Disconnect and reconnect the connectors while watching the test bulb.
The short lies between the connector where the test bulb stays lit and the connector where the bulb goes out.
 - Find the exact location of the short by lightly shaking the problem wire along the body.

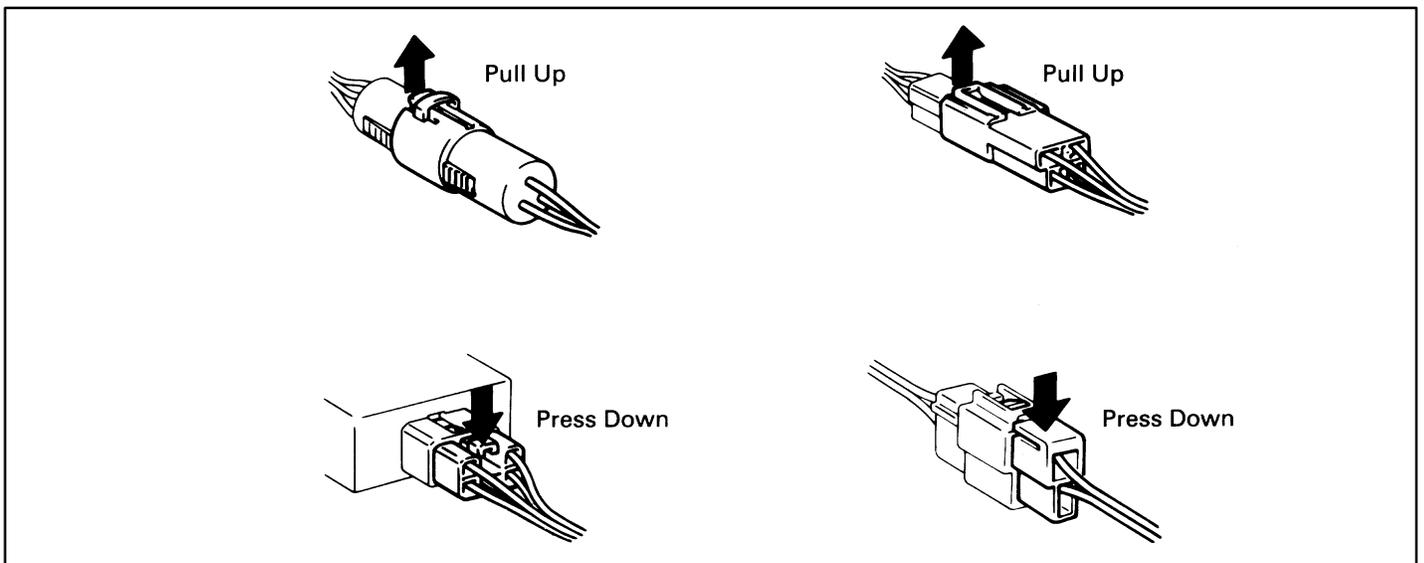
CAUTION

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

DISCONNECTION OF MALE AND FEMALE CONNECTORS

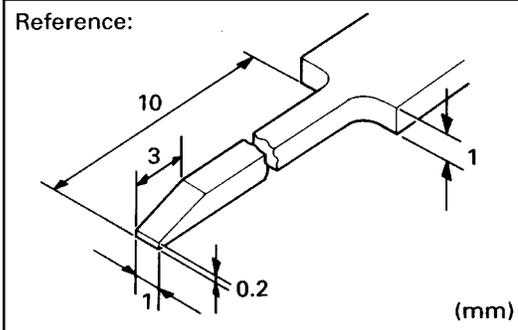
To pull apart the connectors, pull on the connector itself, not the wire harness.

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



TROUBLESHOOTING

Reference:



HOW TO REPLACE TERMINAL

(with terminal retainer or secondary locking device)

1. PREPARE THE SPECIAL TOOL

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

2. DISCONNECT CONNECTOR

3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

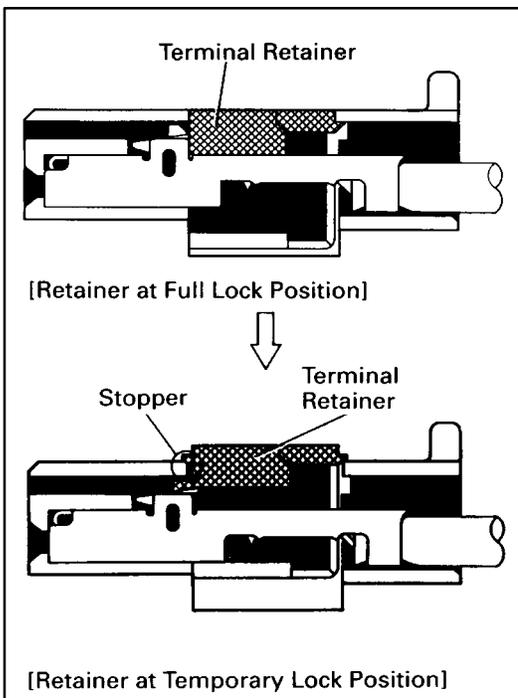
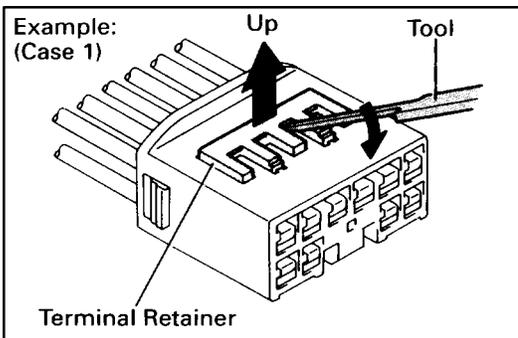
(a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.

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

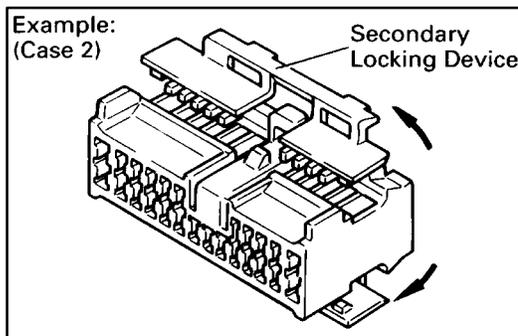
NOTICE:

Do not remove the terminal retainer from connector body.

Example:
(Case 1)



Example:
(Case 2)



- Ⓐ For Non-Waterproof Type Connector

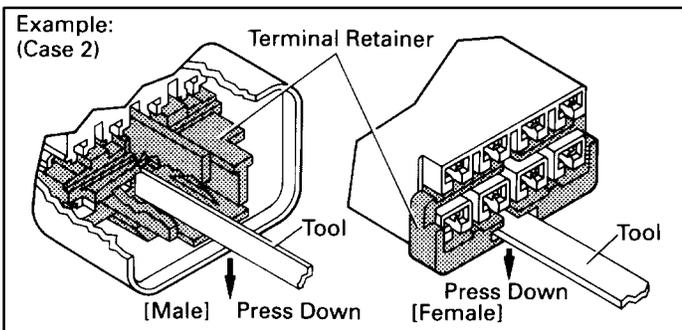
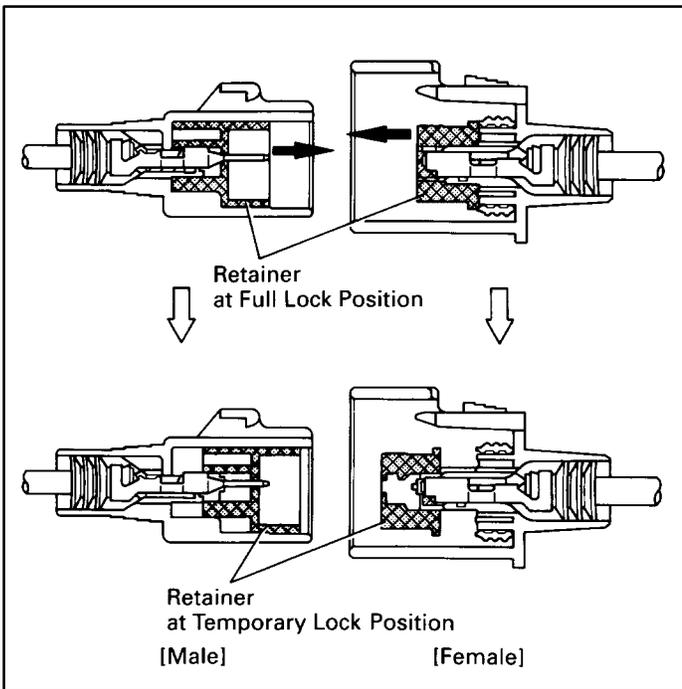
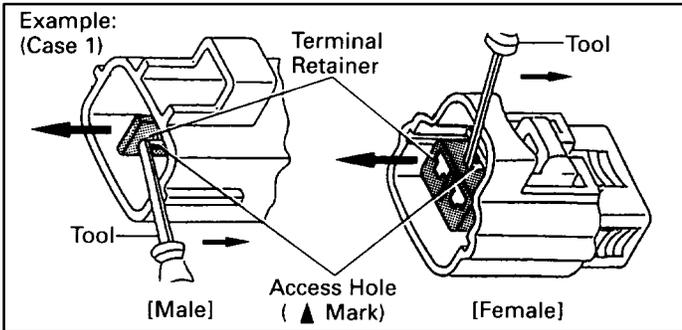
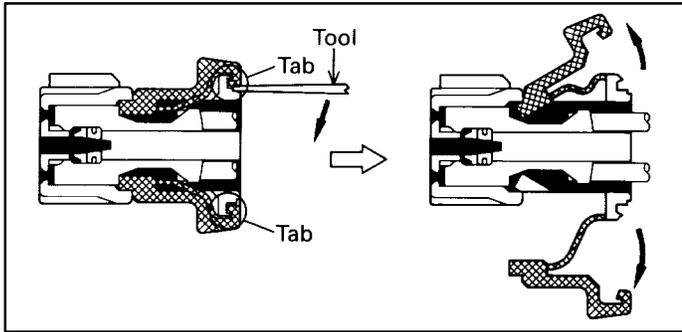
HINT: The needle insertion position varies according to the connector's shape (number of terminals etc.), so check the position before inserting it.

"Case 1"

Raise the terminal retainer up to the temporary lock position.

"Case 2"

Open the secondary locking device.



- ② 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”

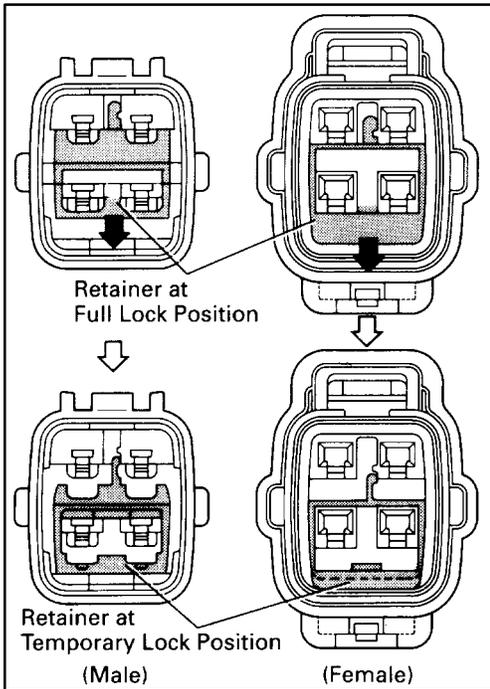
Type where terminal retainer is pulled up to the temporary lock position (Pull Type). Insert the special tool into the terminal retainer access hole (▲ Mark) and pull the terminal retainer up to the temporary lock position.

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

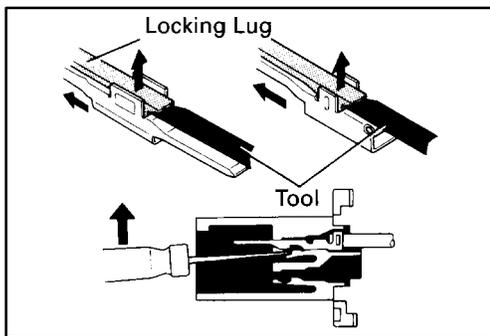
“Case 2”

Type which cannot be pulled as far as Power Lock

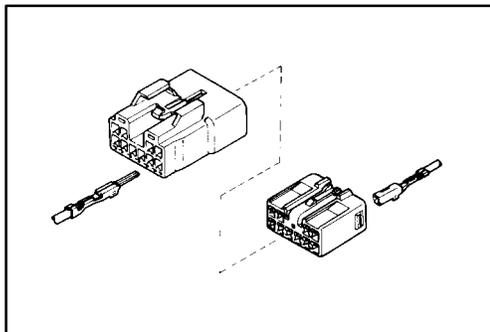
TROUBLESHOOTING



Insert the tool straight into the access hole of terminal retainer as shown.
Push the terminal retainer down to the temporary lock position.



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

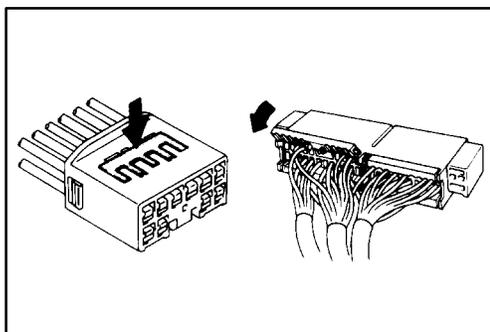


4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

HINT:

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



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

5. CONNECT CONNECTOR

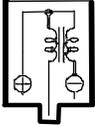
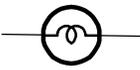
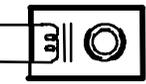
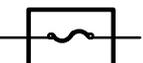
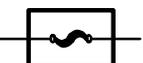
ABBREVIATIONS

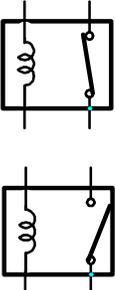
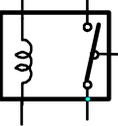
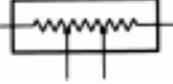
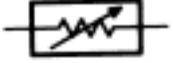
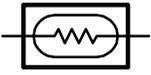
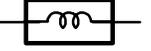
The following abbreviations are used in this manual.

A/C	=	Air Conditioning
ABS	=	Anti-Lock Brake System
A/T	=	Automatic Transmission
CB	=	Circuit Breaker
COMB.	=	Combination
ECU	=	Electronic Control Unit
EFI	=	Electronic Fuel Injection
EGR	=	Exhaust Gas Recirculation
Ex.	=	Except
FL	=	Fusible Link
J/B	=	Junction Block
LH	=	Left-Hand
M/T	=	Manual Transmission
O/D	=	Overdrive
R/B	=	Relay Block
RH	=	Right-Hand
SRS	=	Supplemental Restraint System
SW	=	Switch
TDCL	=	Total Diagnostic Communication Link
TEMP.	=	Temperature
VSV	=	Vacuum Switching Valve
W/	=	With
W/O	=	Without

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

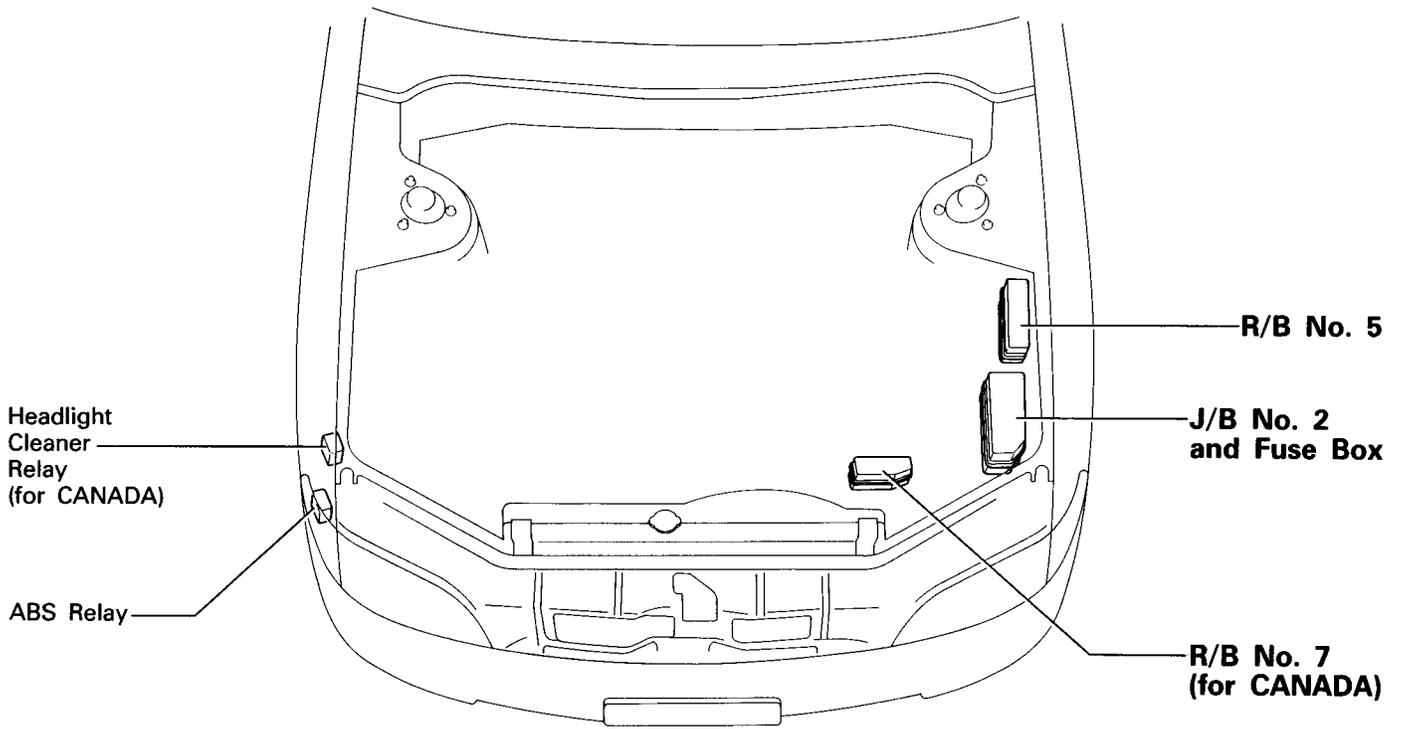
GLOSSARY OF TERMS AND SYMBOLS

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

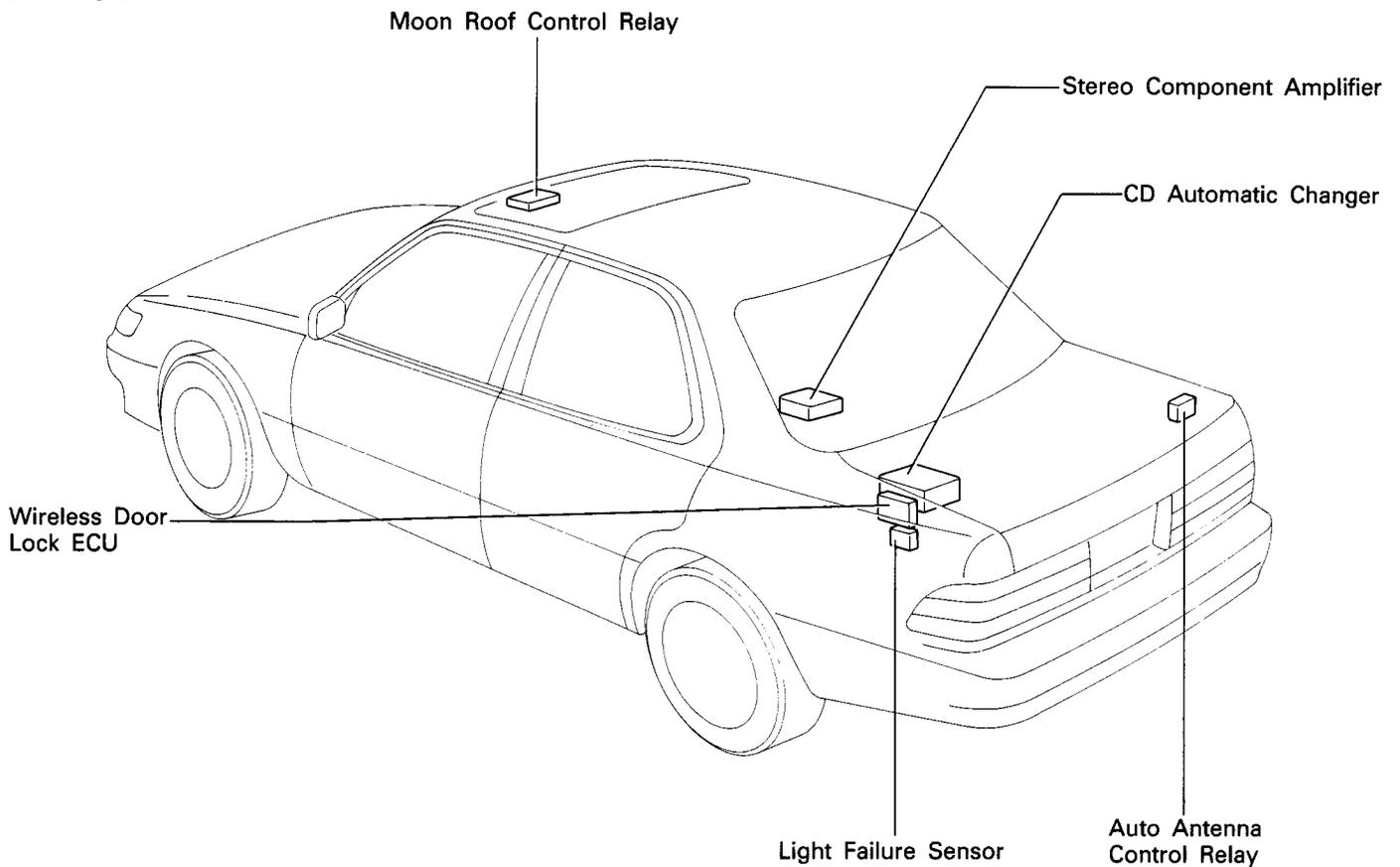
	<p>RELAY</p> <p>1. NORMALLY CLOSED</p> <p>2. NORMALLY OPEN</p> <p>Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p>	 <p>SPEAKER</p> <p>An electromechanical device which creates sound waves from current flow.</p>
	<p>RELAY, DOUBLE THROW</p> <p>A relay which passes current through one set of contacts or the other.</p>	<p>SWITCH, MANUAL</p> <p>1. NORMALLY OPEN</p> <p>2. NORMALLY CLOSED</p> <p>Opens and closes circuits, thereby stopping (1) or allowing (2) current flow.</p>
	<p>RESISTOR</p> <p>An electrical component with a fixed resistance, placed in a circuit to reduce voltage to a specific value.</p>	<p>SWITCH, DOUBLE THROW</p> <p>A switch which continuously passes current through one set of contacts or the other.</p>
	<p>RESISTOR, TAPPED</p> <p>A resistor which supplies two or more different non-adjustable resistance values.</p>	<p>SWITCH, IGNITION</p> <p>A key operated switch with several positions which allows various circuits, particularly the primary ignition circuit, to become operational.</p>
	<p>RESISTOR, VARIABLE or RHEOSTAT</p> <p>A controllable resistor with a variable rate of resistance. Also called a potentiometer or rheostat.</p>	<p>SWITCH, WIPER PARK</p> <p>Automatically returns wipers to the stop position when the wiper switch is turned off.</p>
	<p>SENSOR (Thermistor)</p> <p>A resistor which varies its resistance with temperature.</p>	<p>TRANSISTOR</p> <p>A solidstate device typically used as an electronic relay; stops or passes current depending on the voltage applied at "base."</p>
	<p>SENSOR, ANALOG SPEED</p> <p>Uses magnetic impulses to open and close a switch to create a signal for activation of other components.</p>	<p>WIRES</p> <p>(1) NOT CONNECTED</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>SHORT PIN</p> <p>Used to provide an unbroken connection within a junction block.</p>	<p>(2) SPLICED</p>
	<p>SOLENOID</p> <p>An electromagnetic coil which forms a magnetic field when current flows, to move a plunger, etc.</p>	

RELAY LOCATIONS

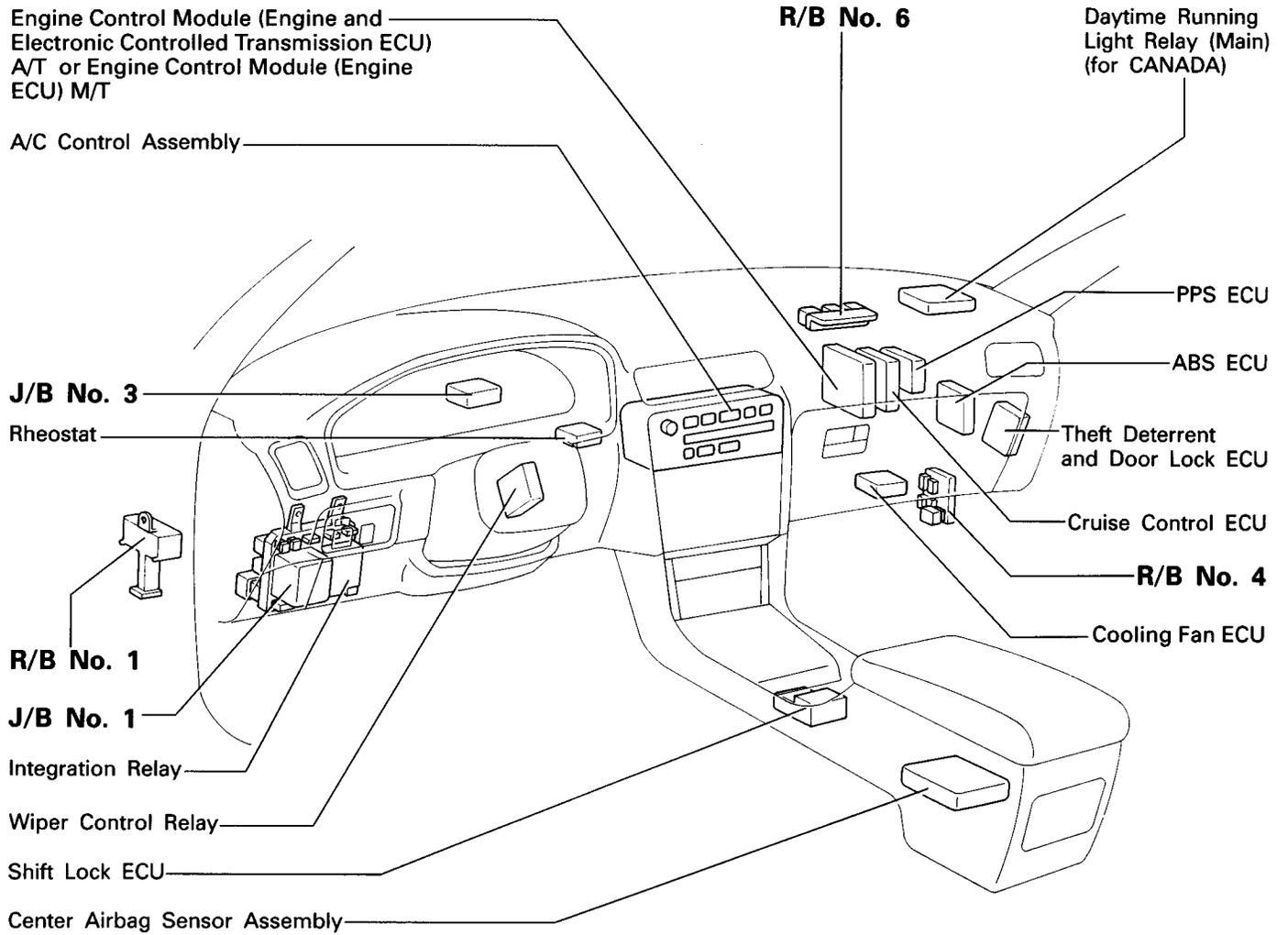
[Engine Compartment]



[Body]

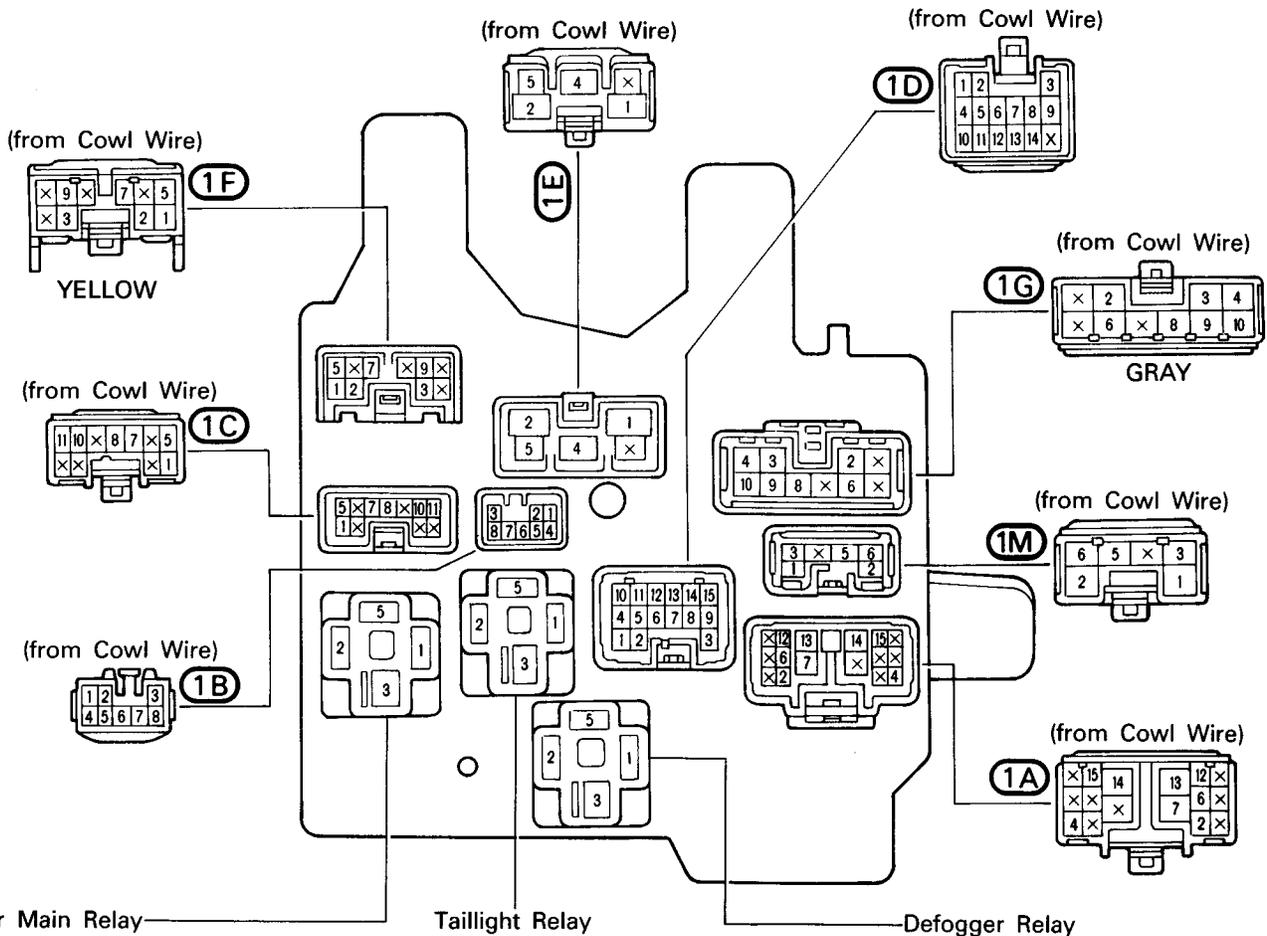
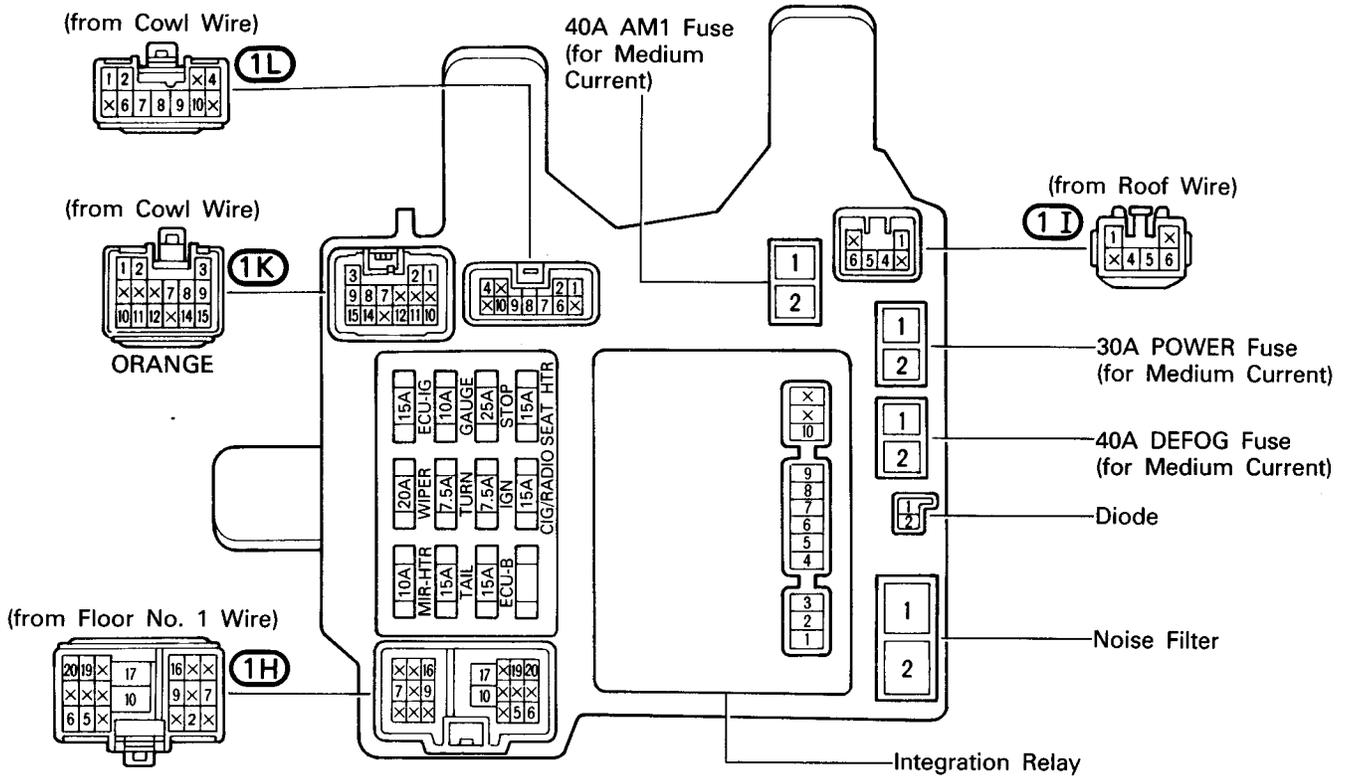


[Instrument Panel]

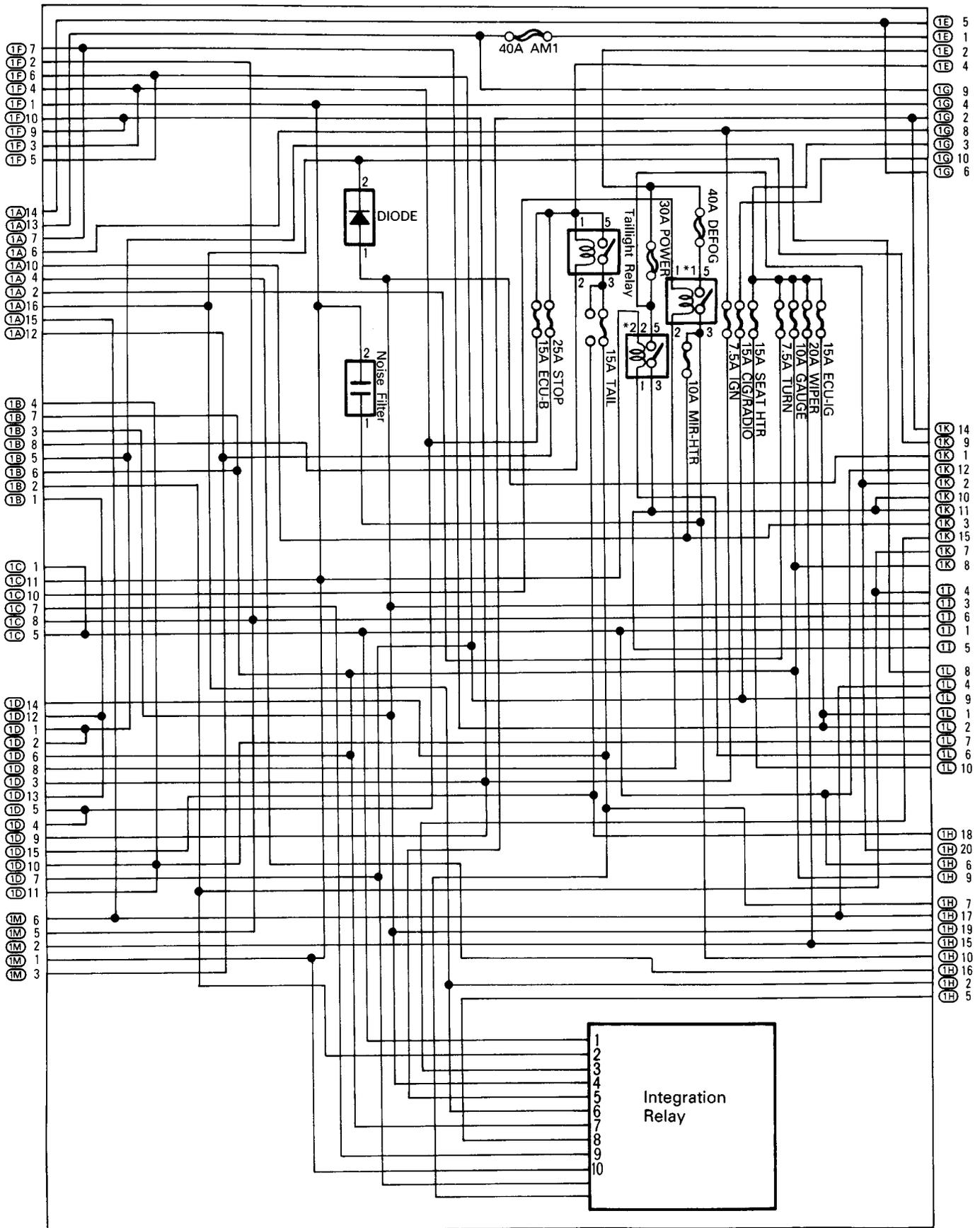


RELAY LOCATIONS

○ : J/B No. 1 Instrument Panel Left (See Page 19)



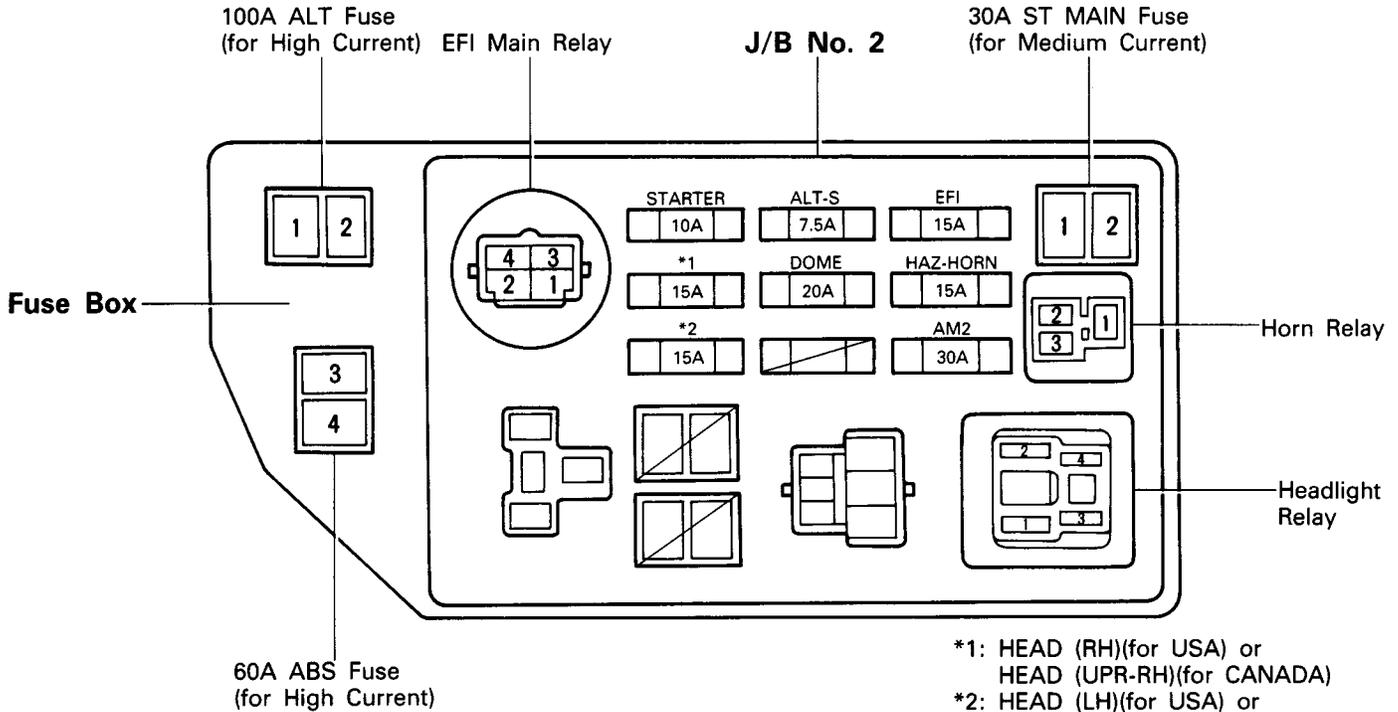
[J/B No. 1 Inner Circuit]



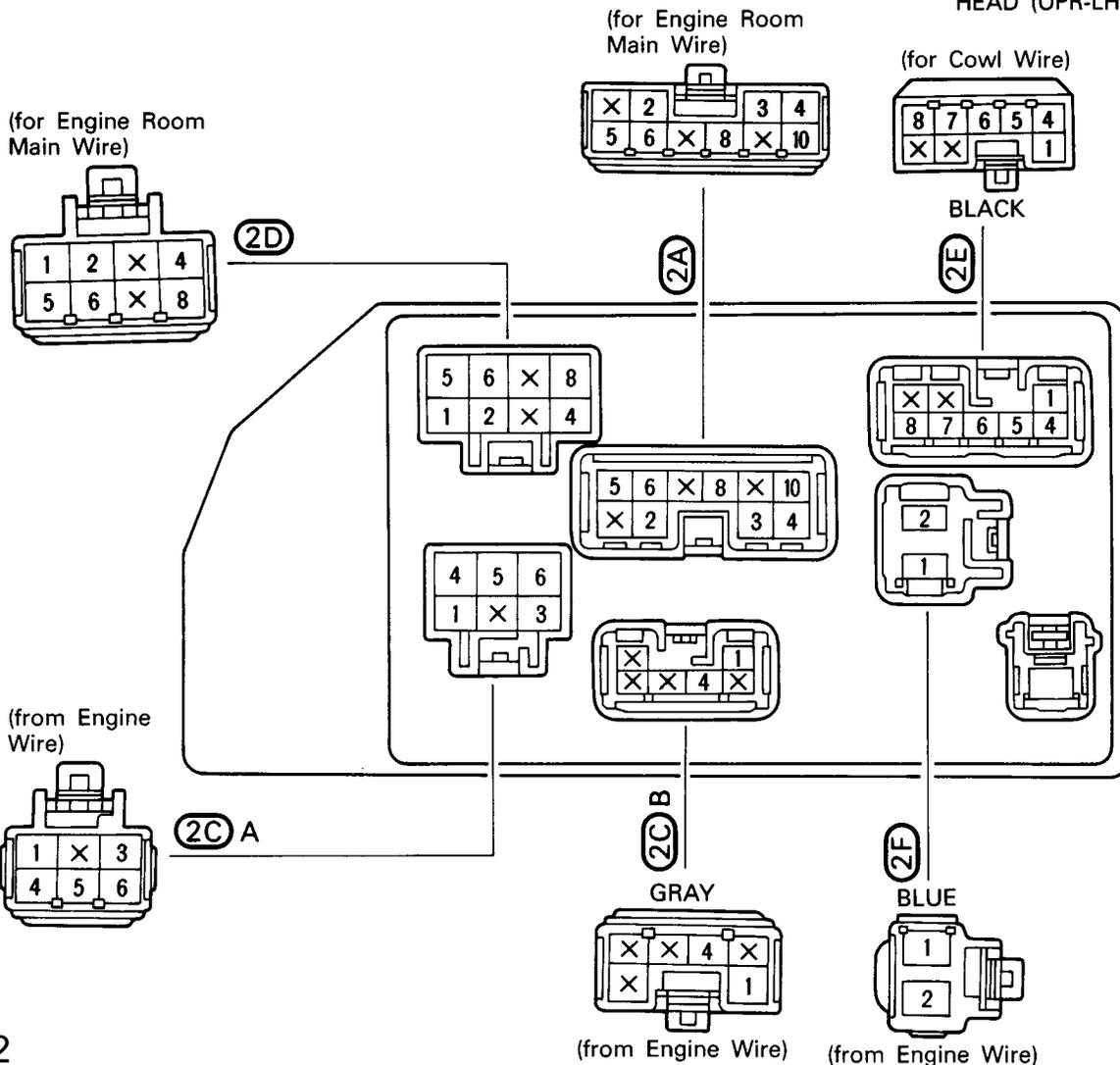
*1: Defogger Relay
 *2: Power Main Relay

RELAY LOCATIONS

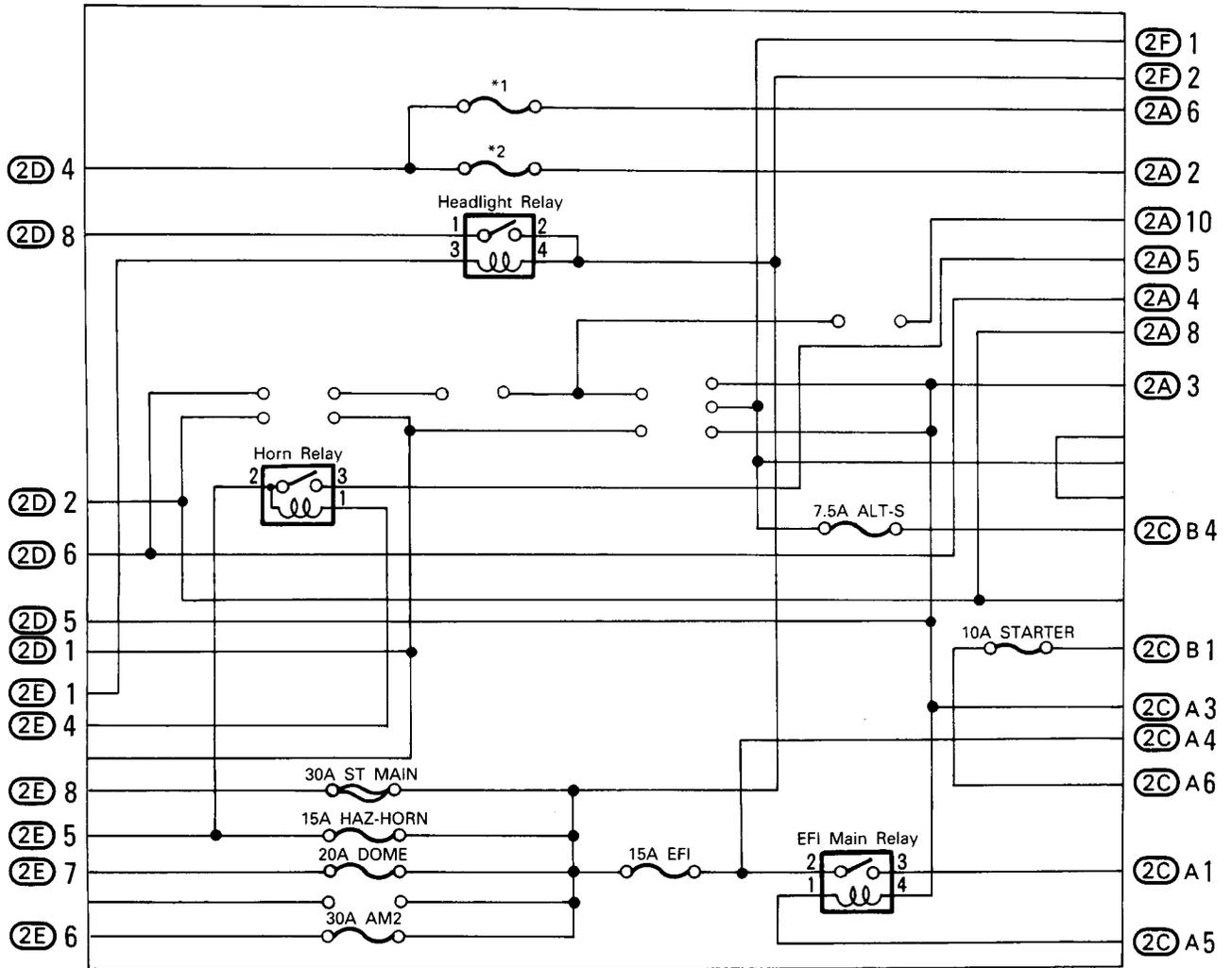
○ : J/B No. 2 **Engine Compartment Left (See Page 18)**



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



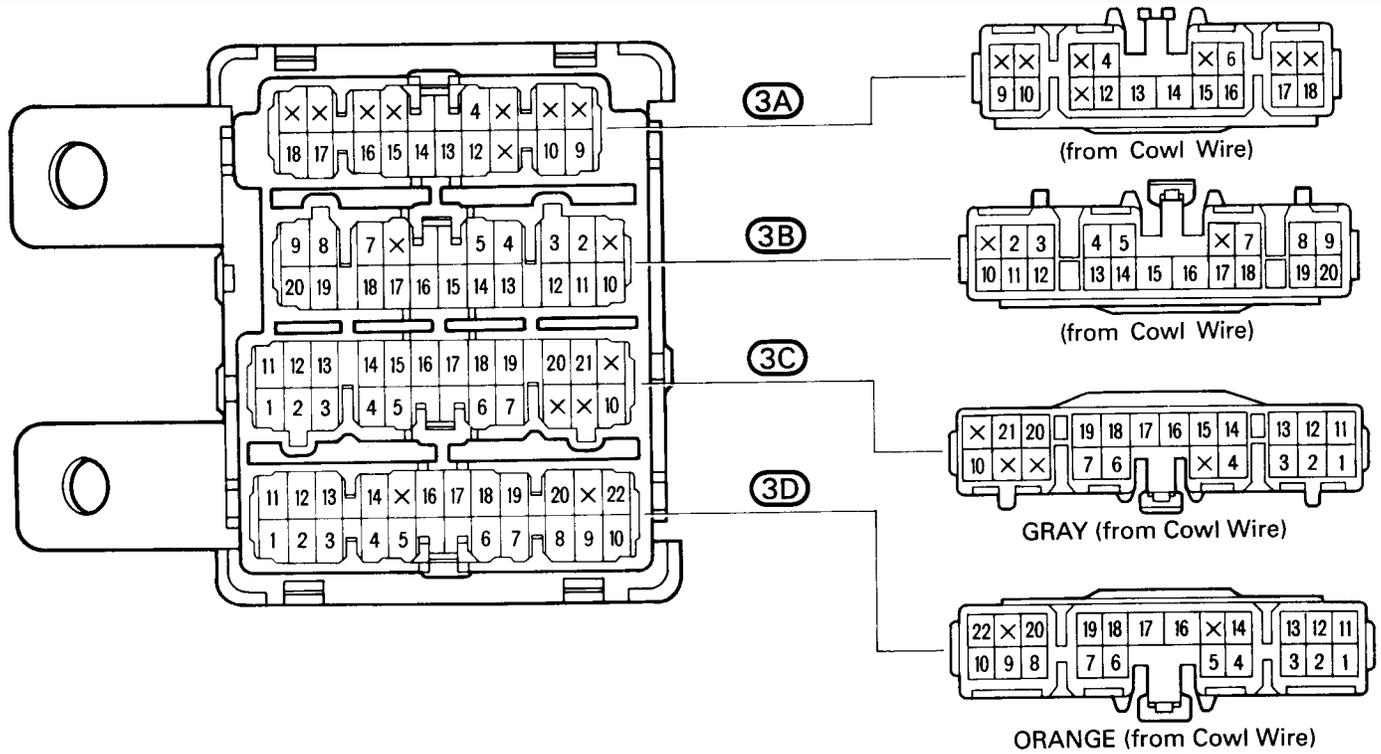
[J/B No. 2 Inner Circuit]



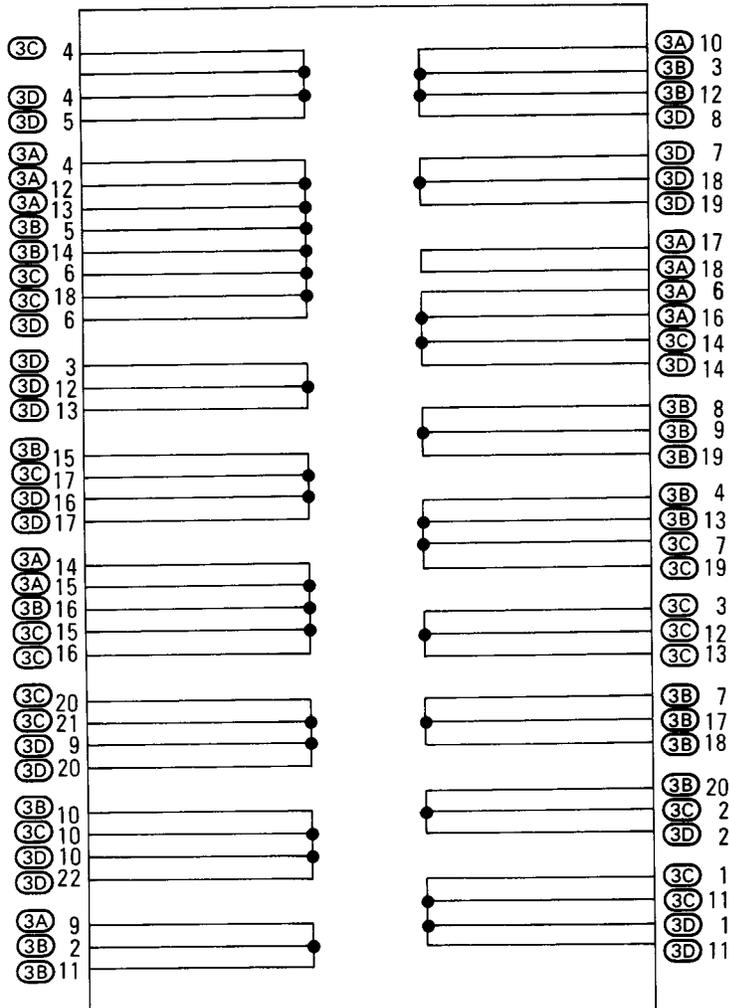
*1: 15A HEAD (RH)(for USA) or 15A HEAD (UPR-RH)(for CANADA)
 *2: 15A HEAD (LH)(for USA) or 15A HEAD (UPR-LH)(for CANADA)

RELAY LOCATIONS

○ : J/B No. 3 Behind Combination Meter (See Page 19)

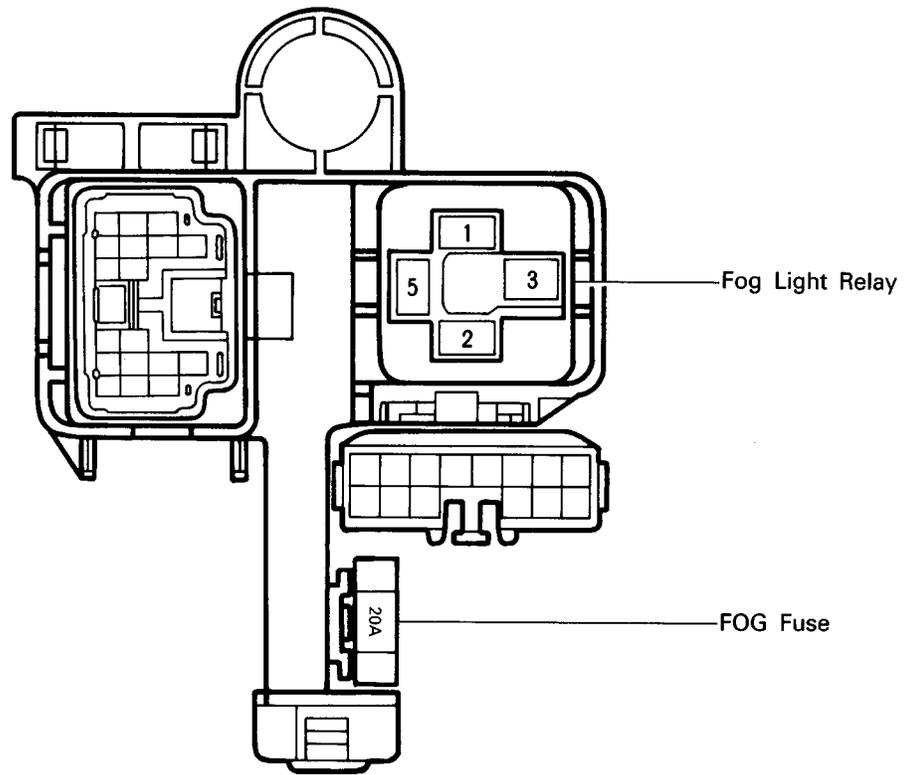


[J/B No. 3 Inner Circuit]



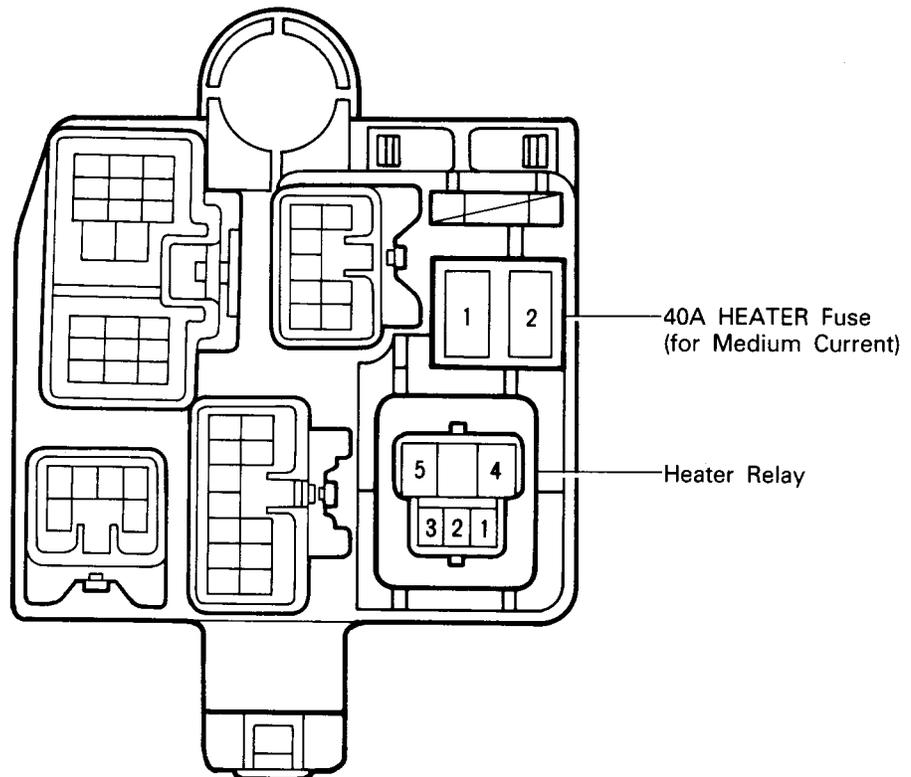
① : R/B No. 1

Left Kick Panel (See Page 19)



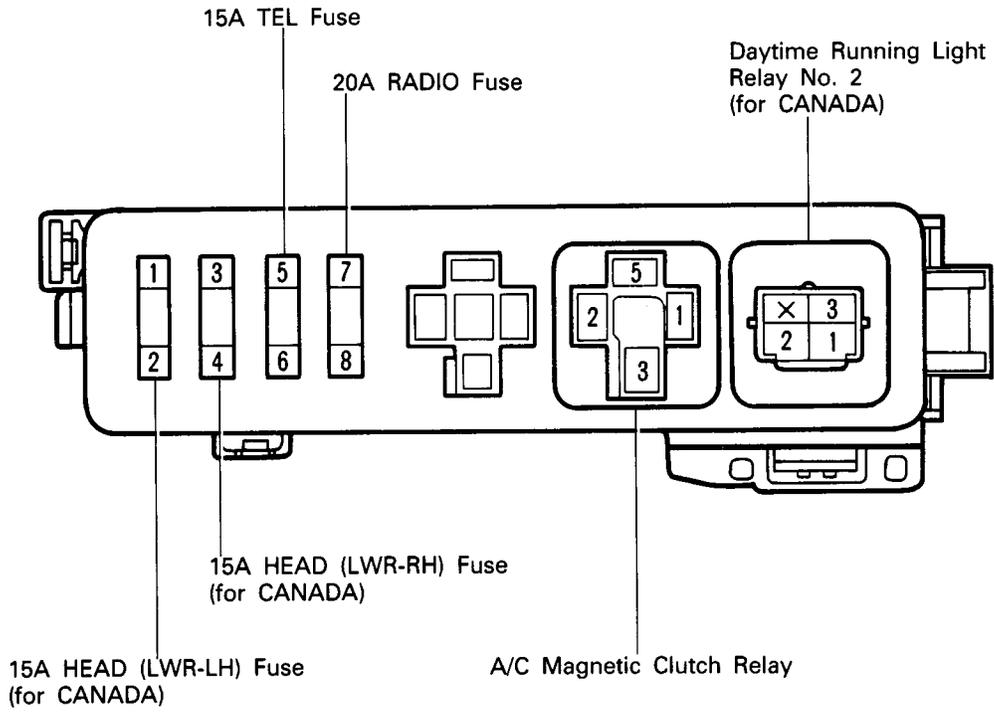
④ : R/B No. 4

Right Kick Panel (See Page 19)

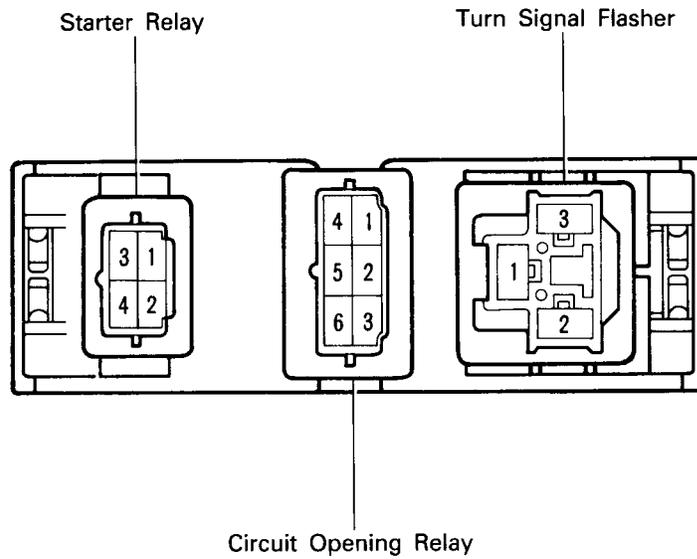


RELAY LOCATIONS

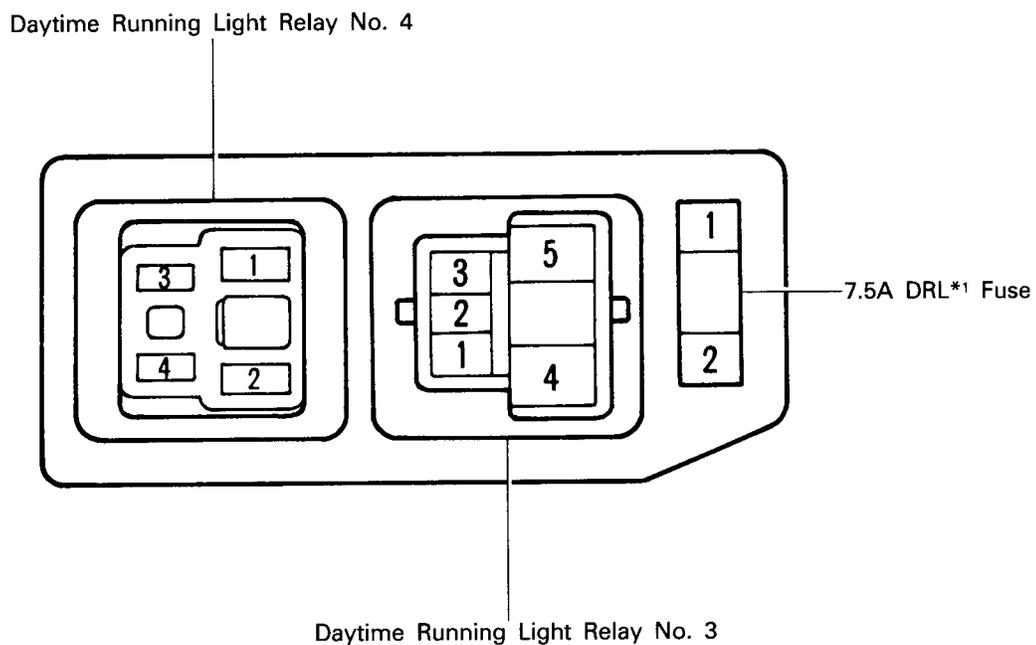
⑤ : R/B No. 5 Engine Compartment Left (See Page 18)



⑥ : R/B No. 6 Behind Glove Box (See Page 19)



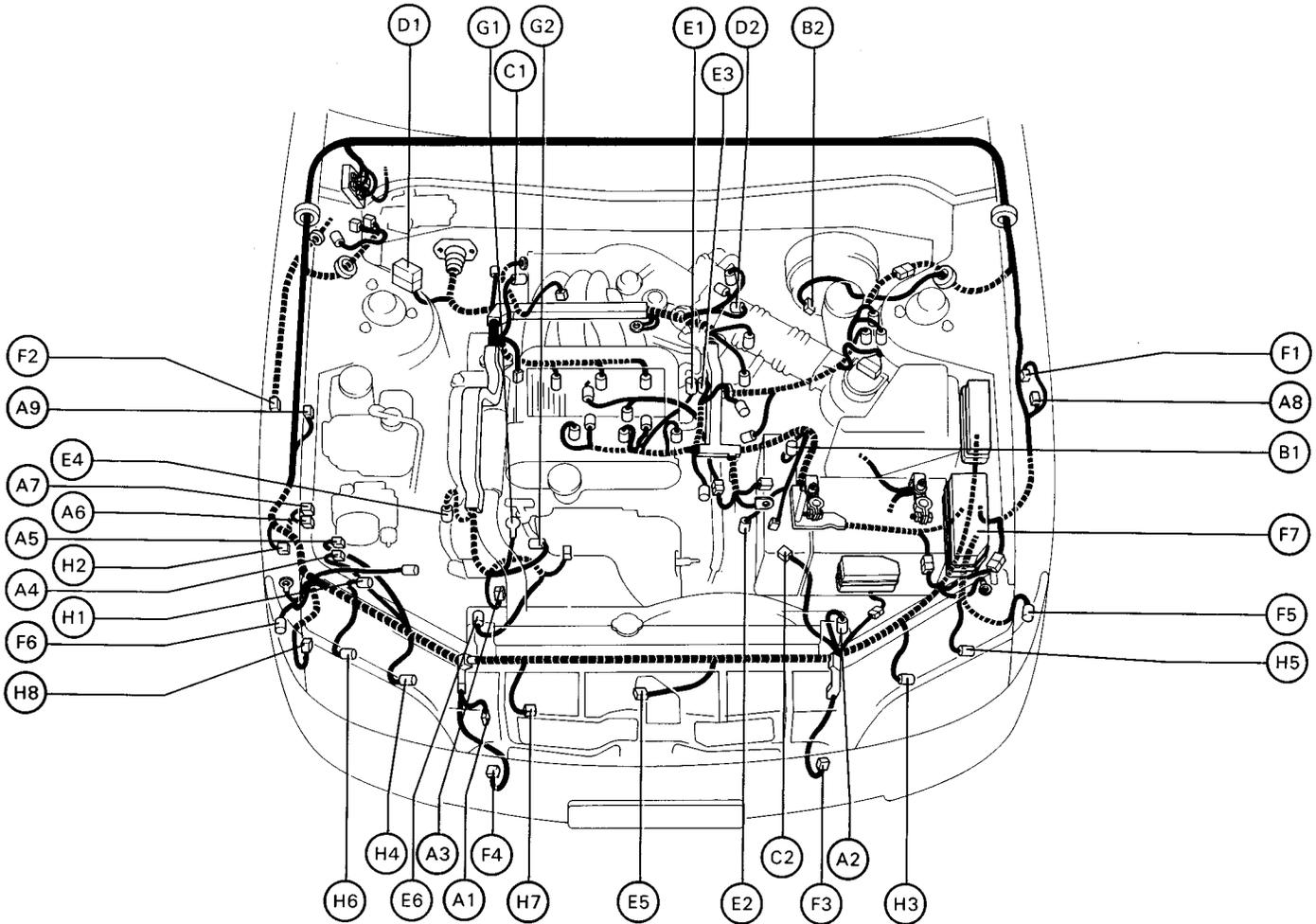
(for CANADA)



(*1: Daytime Running Light)

ELECTRICAL WIRING ROUTING

Position of Parts in Engine Compartment



- A 1 A/C Ambient Temp. Sensor
- A 2 A/C Dual and High 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 1 Cold Start Injector
- C 2 Cruise Control Actuator

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

- E 1 EGR Gas Temp. Sensor or Short Pin
- E 2 Electronic Controlled Transmission Solenoid
- E 3 Engine Coolant Temp. Sensor (EFI Water Temp. Sensor)
- E 4 Engine Coolant Temp. Sensor [Water Temp. Sensor (for Cooling Fan)]

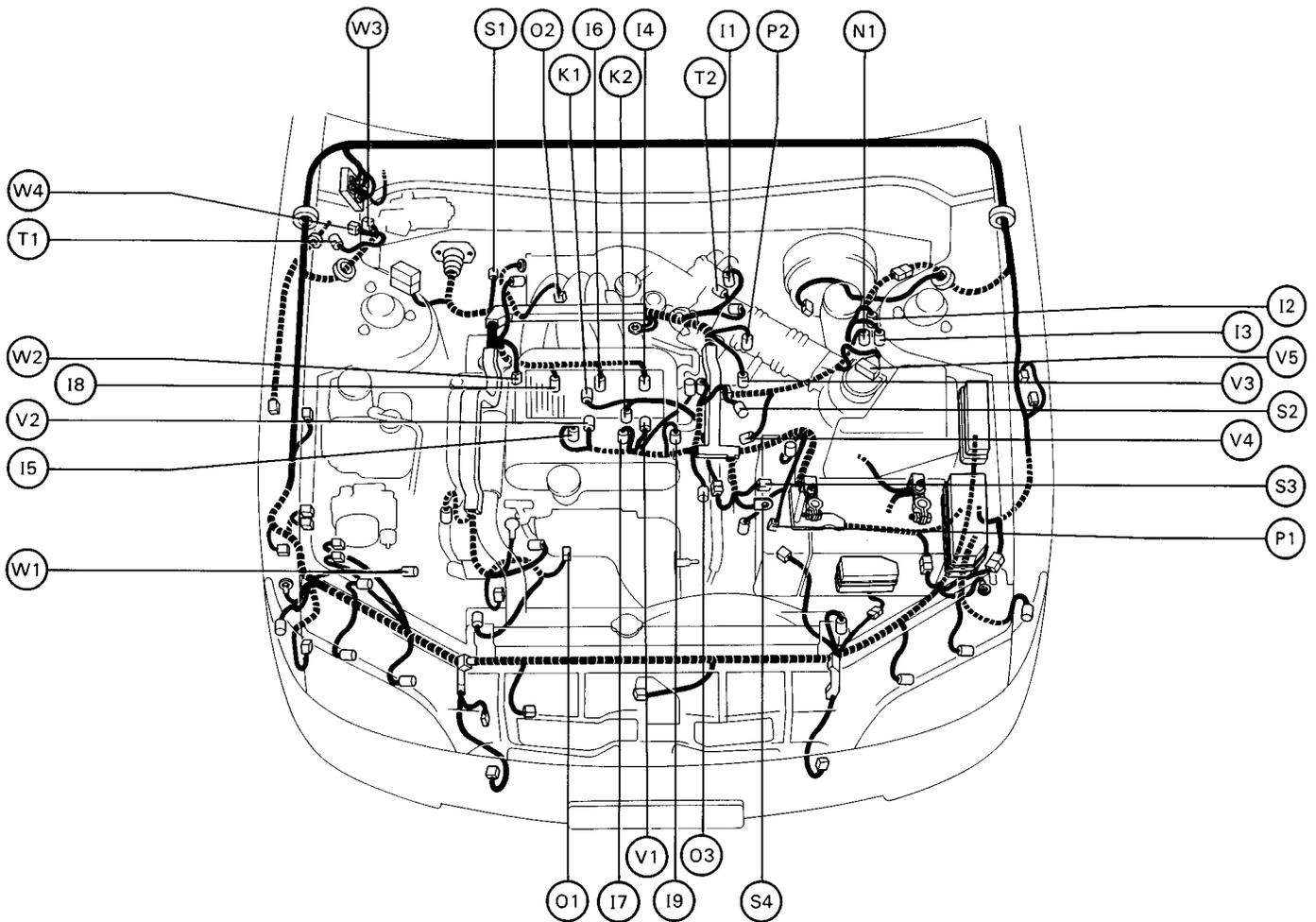
- E 5 Engine Hood Courtesy SW
- E 6 Engine Oil Level Warning SW

- F 1 Front Airbag Sensor LH
- F 2 Front Airbag Sensor RH
- F 3 Front Fog Light LH
- F 4 Front Fog Light RH
- F 5 Front Turn Signal and Clearance Light LH
- F 6 Front Turn Signal and Clearance Light RH
- F 7 Fuse Box

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

- H 1 Headlight Cleaner Motor
- H 2 Headlight Cleaner Relay
- H 3 Headlight Hi LH
- H 4 Headlight Hi RH
- H 5 Headlight Lo LH
- H 6 Headlight Lo RH
- H 7 Horn LH
- H 8 Horn RH

Position of Parts in Engine Compartment



- 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 8 Injector No. 5
- I 9 Injector No. 6

- K 1 Knock Sensor No. 1
- K 2 Knock Sensor No. 2

- N 1 Noise Filter (for Ignition System)

- O 1 Oil Pressure SW
- O 2 Oxygen Sensor No. 1 (Main)
- O 3 Oxygen Sensor No. 2 (Main)

- P 1 Park/Neutral Position SW (Neutral Start SW)
- P 2 PPS Solenoid

- S 1 Solenoid Valve (for Hydraulic Motor)
- S 2 Start Injector Time SW
- S 3 Starter
- S 4 Starter

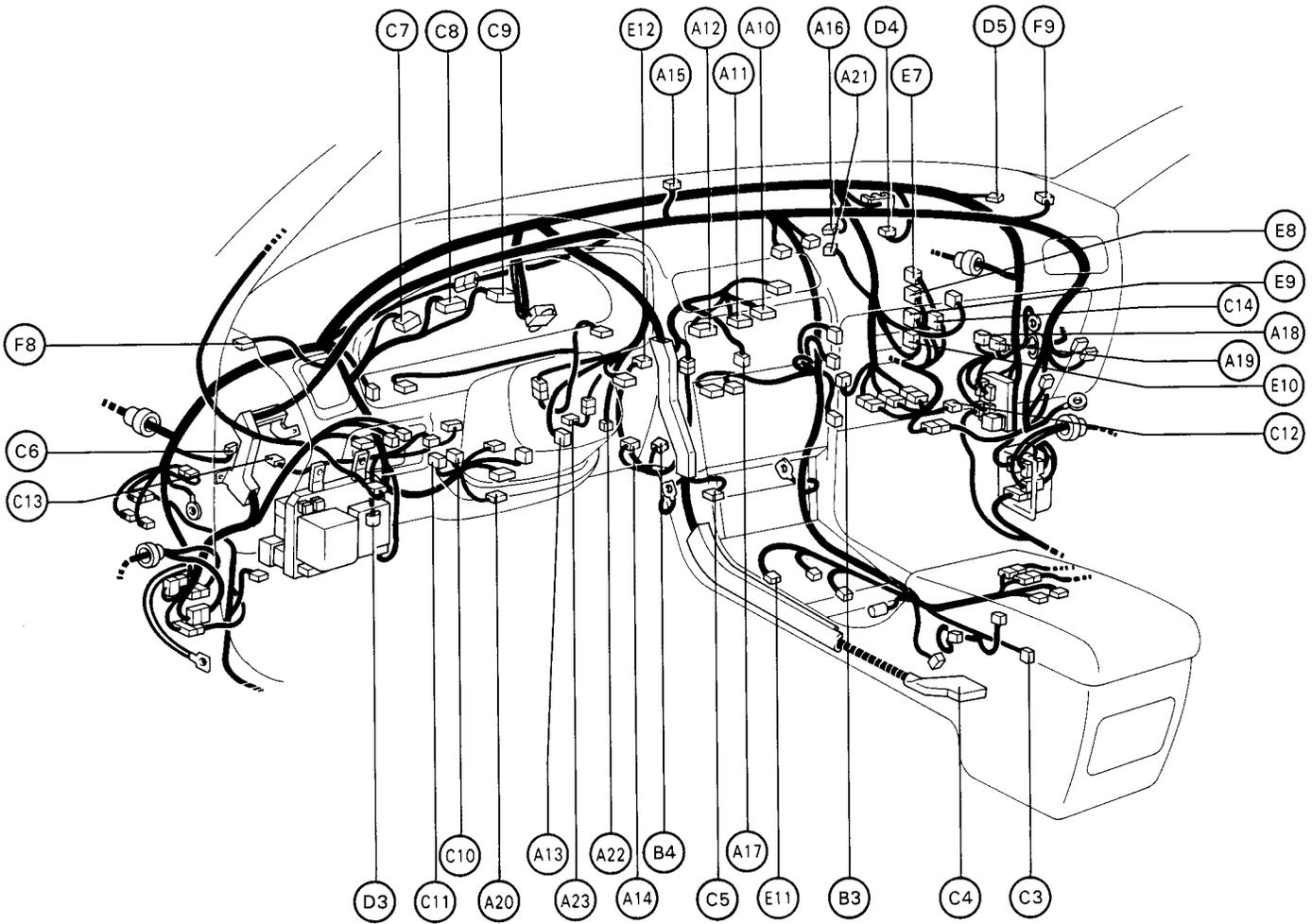
- T 1 Theft Deterrent Horn
- T 2 Throttle Position Sensor

- V 1 VSV (for Fuel Pressure Up)
- V 2 VSV (for Intake Air Control)
- V 3 Vehicle Speed Sensor (Speed Sensor)
- V 4 Vehicle Speed Sensor (Speed Sensor)
(for Electronic Controlled Transmission)
- V 5 Volume Air Flow (Air Flow Meter)

- W 1 Washer Motor
- W 2 Water Temp. Sender
- W 3 Wiper Angle Control Motor
- W 4 Wiper Motor

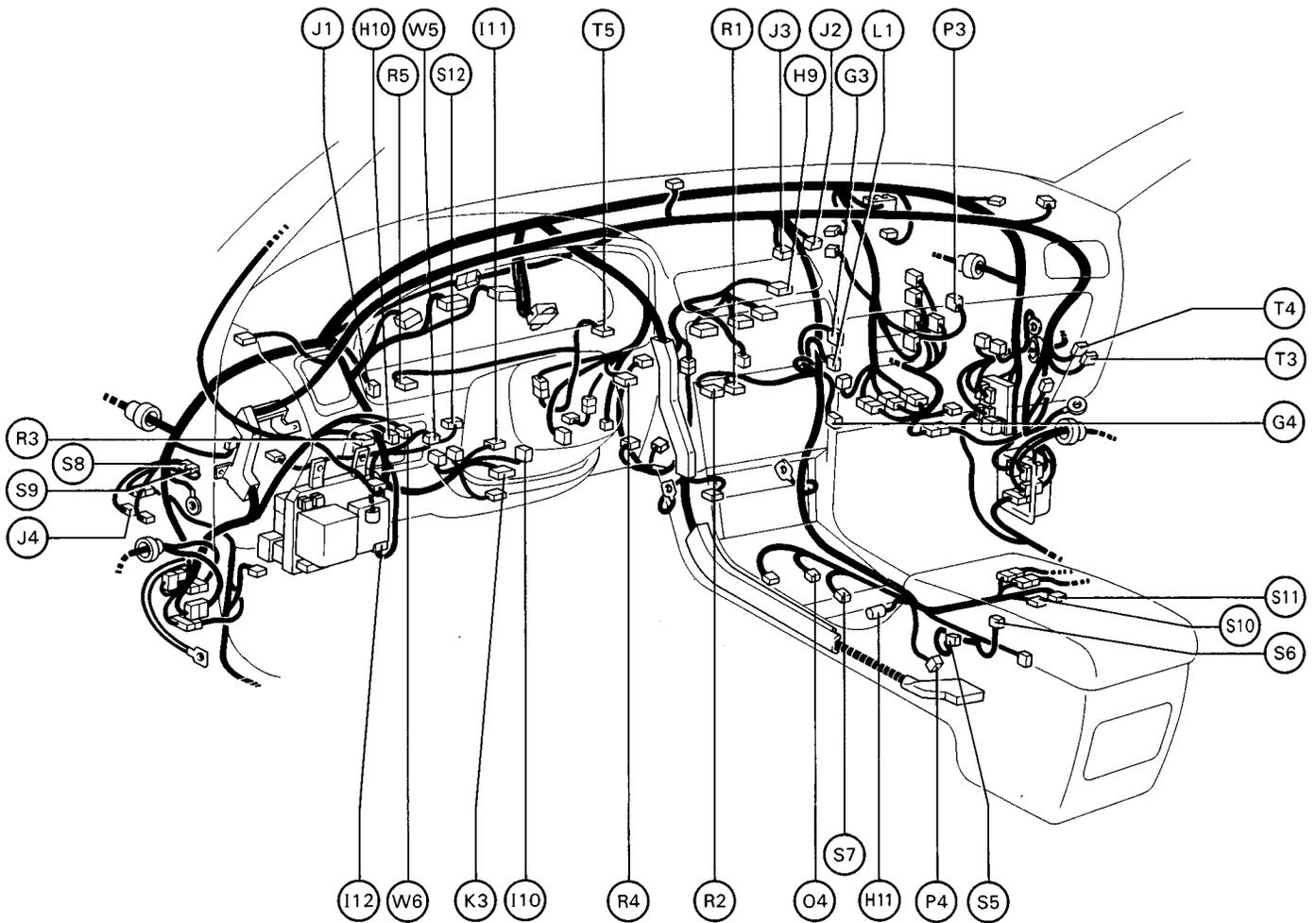
ELECTRICAL WIRING ROUTING

Position of Parts in Instrument Panel



- | | | | |
|------|--|------|---|
| A 10 | A/C Control Assembly | C 13 | Cruise Control Clutch SW (M/T) |
| A 11 | A/C Control Assembly | C 14 | Cruise Control ECU |
| A 12 | A/C Control Assembly | D 3 | Data Link Connector 2 [TDCL (Total Diagnostic Communication Link)] |
| A 13 | A/C Room Temp. Sensor | D 4 | Daytime Running Light Relay (Main) |
| A 14 | A/C Power Transistor | D 5 | Diode (for Cruise Control) |
| A 15 | A/C Solar Sensor | E 7 | Engine Control Module (Engine and Electronic Controlled Transmission ECU (A/T), Engine ECU M/T)) |
| A 16 | A/C Evaporator Temp. Sensor | E 8 | Engine Control Module (Engine and Electronic Controlled Transmission ECU (A/T), Engine ECU M/T)) |
| A 17 | A/C Thermistor (Engine Coolant Temp. Sensor) | E 9 | Engine Control Module (Engine and Electronic Controlled Transmission ECU (A/T), Engine ECU (M/T)) |
| A 18 | ABS ECU | E 10 | Engine Control Module (Engine and Electronic Controlled Transmission ECU (A/T), Engine ECU (M/T)) |
| A 19 | ABS ECU | E 11 | Electronic Controlled Transmission Pattern Select SW |
| A 20 | Airbag Squib | E 12 | Extra High Speed Relay |
| A 21 | Air Inlet Control Servo Motor | F 8 | Front Squawker (Speaker) LH |
| A 22 | Air Mix Control Servo Motor | F 9 | Front Squawker (Speaker) RH |
| A 23 | Air Vent Mode Control Servo Motor | | |
| B 3 | Blower Motor | | |
| B 4 | Blower Resistor (for Low Speed) | | |
| C 3 | Cellular Phone (Hand Set) | | |
| C 4 | Center Airbag Sensor Assembly | | |
| C 5 | Cigarette Lighter and Ashtray Illumination | | |
| C 6 | Clutch Start SW (M/T) | | |
| C 7 | Combination Meter | | |
| C 8 | Combination Meter | | |
| C 9 | Combination Meter | | |
| C 10 | Combination SW | | |
| C 11 | Combination SW | | |
| C 12 | Cooling Fan ECU | | |

Position of Parts in Instrument Panel



G 3 Glove Box Light
G 4 Glove Box Light SW

H 9 Hazard SW
H 10 Headlight Cleaner SW
H 11 Heated Oxygen Sensor (Oxygen Sensor (Sub))

I 10 Ignition Key Cylinder Light
I 11 Ignition SW and Unlock Warning SW
I 12 Integration Relay

J 1 Junction Connector
J 2 Junction Connector
J 3 Junction Connector
J 4 Junction Connector (for SRS)

K 3 Key Inter Lock Solenoid

L 1 Luggage Compartment Door Opener Main SW

O 4 O/D Main SW and A/T Indicator Light (Shift Lever)

P 3 PPS ECU
P 4 Parking Brake SW

R 1 Radio and Player
R 2 Radio and Player
R 3 Remote Control Mirror SW
R 4 Rheostat
R 5 Rheostat Volume and Theft Deterrent Indicator Light

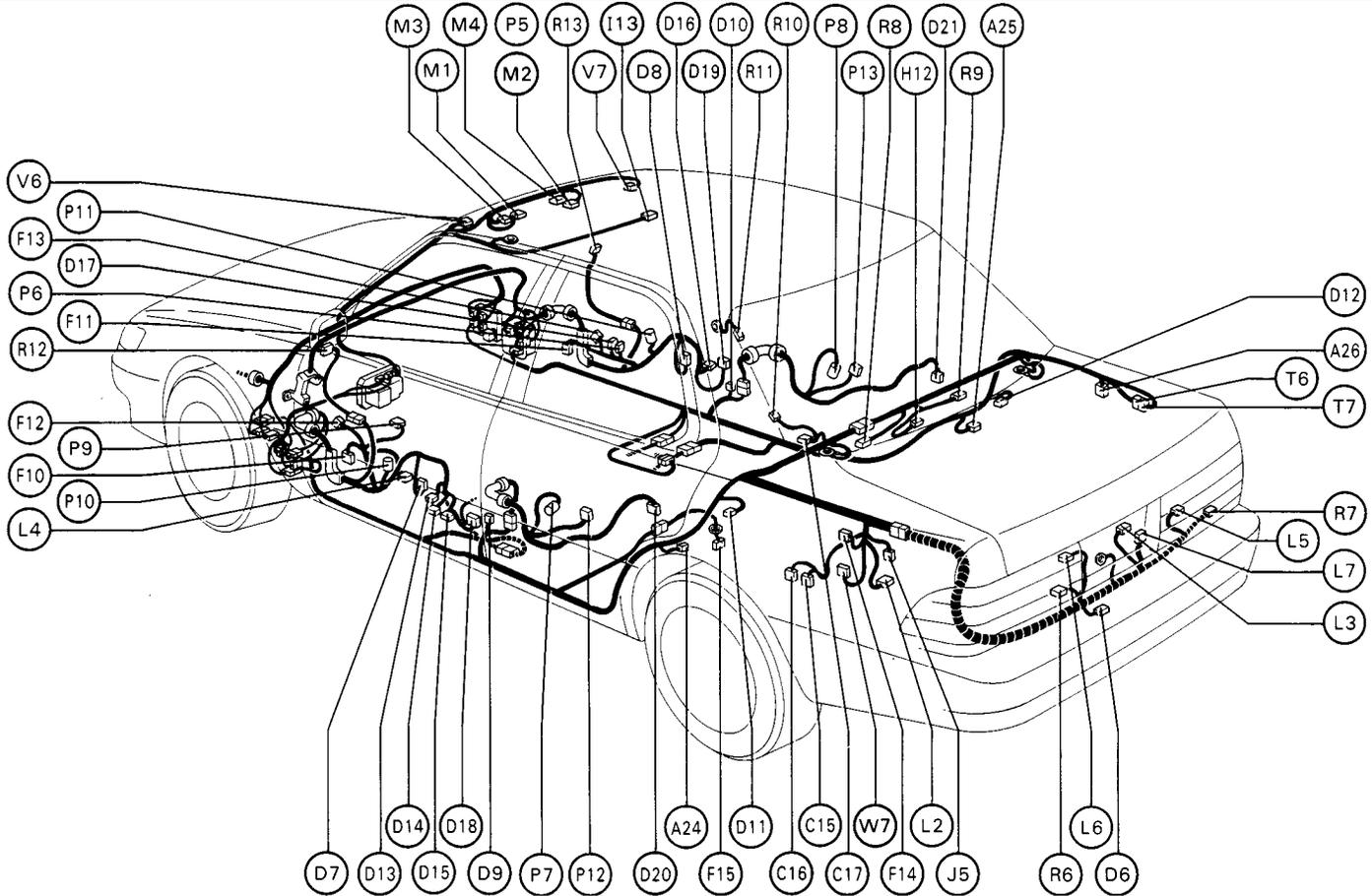
S 5 Seat Heater SW (Driver's)
S 6 Seat Heater SW (Passenger's)
S 7 Shift Lock ECU
S 8 Short Connector
S 9 Short Connector
S 10 Stereo Component Amplifier
S 11 Stereo Component Amplifier
S 12 Stop Light SW

T 3 Theft Deterrent and Door Lock ECU
T 4 Theft Deterrent and Door Lock ECU
T 5 Trip SW

W 5 Wiper Control Relay
W 6 Wireless Door Lock Main SW

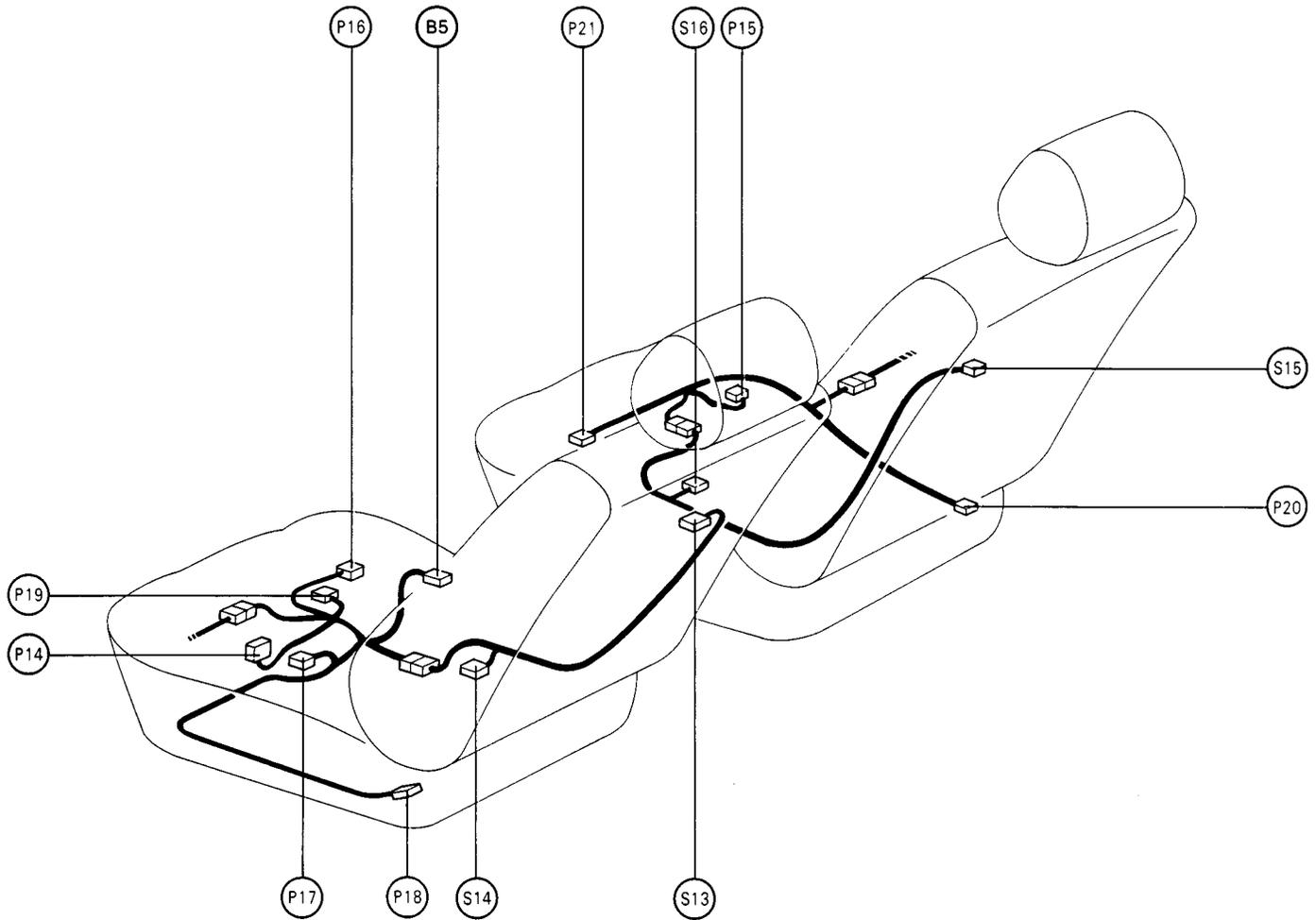
ELECTRICAL WIRING ROUTING

Position of Parts in Body



- | | | | |
|------|---|------|--|
| A 24 | ABS Speed Sensor Rear LH | J 5 | Junction Connector |
| A 25 | ABS Speed Sensor Rear RH | L 2 | Light Failure Sensor |
| A 26 | Auto Antenna Motor and Relay | L 3 | Luggage Compartment Door Opener Motor |
| C 15 | CD Automatic Changer | L 4 | Luggage Compartment Door and Fuel Lid Opener SW |
| C 16 | CD Automatic Changer | L 5 | Luggage Compartment Key Unlock SW |
| C 17 | Choke Coil | L 6 | Luggage Compartment Light |
| D 6 | Diode | L 7 | Luggage Compartment Light SW |
| D 7 | Door Courtesy Light Front LH | M 1 | Moon Roof Control Relay |
| D 8 | Door Courtesy Light Front RH | M 2 | Moon Roof Control SW and Personal Light (w/ Moon Roof) |
| D 9 | Door Courtesy SW Front LH | M 3 | Moon Roof Limit SW |
| D 10 | Door Courtesy SW Front RH | M 4 | Moon Roof Motor |
| D 11 | Door Courtesy SW Rear LH | P 5 | Personal Light (w/o Moon Roof) |
| D 12 | Door Courtesy SW Rear RH | P 6 | Power Window Control SW Front RH |
| D 13 | Door Handle SW | P 7 | Power Window Control SW Rear LH |
| D 14 | Door Key Cylinder Light | P 8 | Power Window Control SW Rear RH |
| D 15 | Door Key Lock and Unlock SW LH | P 9 | Power Window Master SW and Door Lock Control SW LH |
| D 16 | Door Key Lock and Unlock SW RH | P 10 | Power Window Motor Front LH |
| D 17 | Door Lock Control SW RH | P 11 | Power Window Motor Front RH |
| D 18 | Door Lock Motor, Door Unlock and Open Detection SW Front LH | P 12 | Power Window Motor Rear LH |
| D 19 | Door Lock Motor, Door Unlock and Open Detection SW Front RH | P 13 | Power Window Motor Rear RH |
| D 20 | Door Lock Motor, Door Unlock and Open Detection SW Rear LH | R 6 | Rear Combination Light LH |
| D 21 | Door Lock Motor, Door Unlock and Open Detection SW Rear RH | R 7 | Rear Combination Light RH |
| F 10 | Front Door Speaker LH | R 8 | Rear Speaker LH |
| F 11 | Front Door Speaker RH | R 9 | Rear Speaker RH |
| F 12 | Front Tweeter (Speaker) LH | R 10 | Rear Window Defogger (+) |
| F 13 | Front Tweeter (Speaker) RH | R 11 | Rear Window Defogger (-) |
| F 14 | Fuel Lid Opener Motor | R 12 | Remote Control Mirror and Mirror Heater LH |
| F 15 | Fuel Pump and Sender | R 13 | Remote Control Mirror and Mirror Heater RH |
| H 12 | High Mount Stop Light | T 6 | Telephone Transceiver and Speaker Relay |
| I 13 | Interior Light | T 7 | Telephone Transceiver and Speaker Relay |
| | | V 6 | Vanity Light LH |
| | | V 7 | Vanity Light RH |
| | | W 7 | Wireless Door Lock ECU |

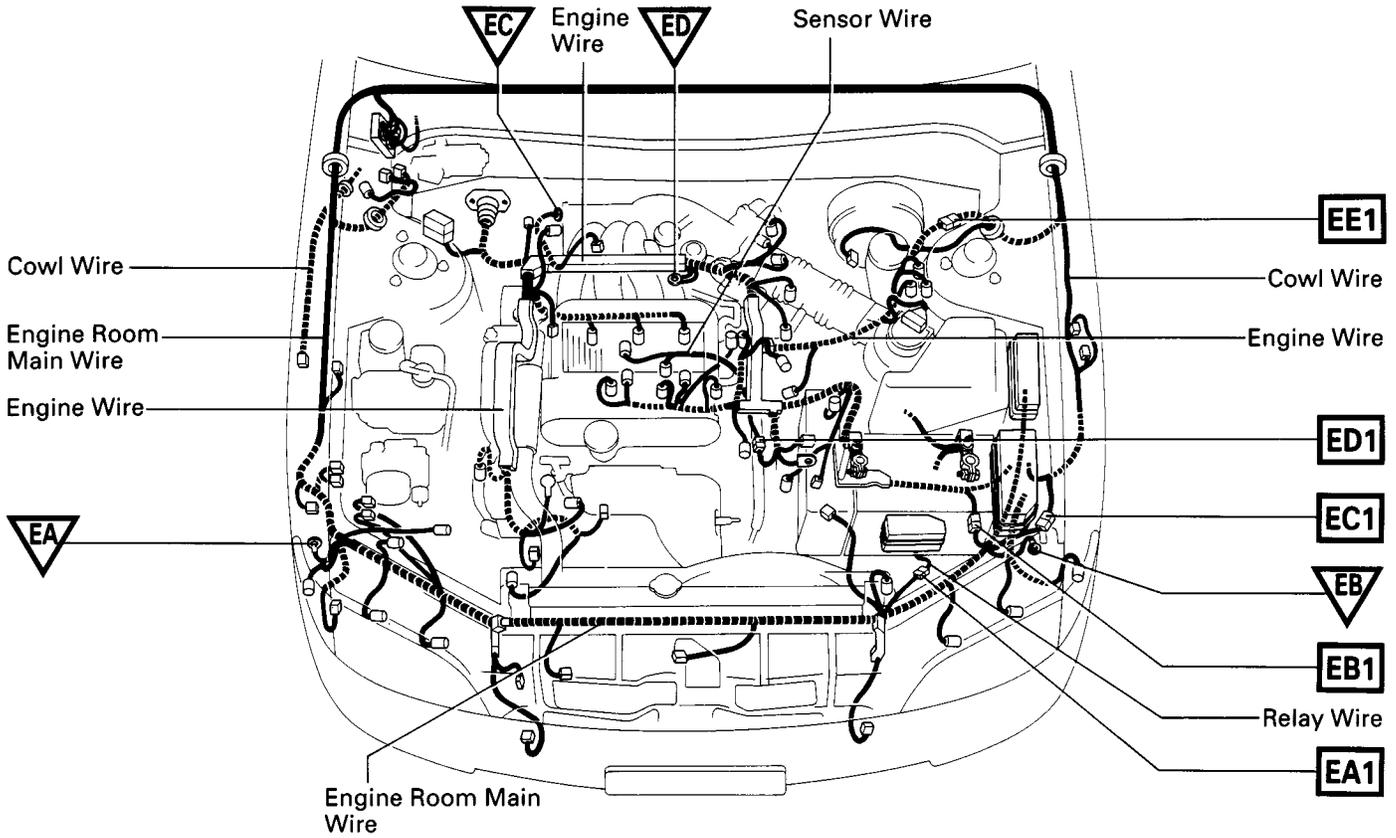
Position of Parts in Seat



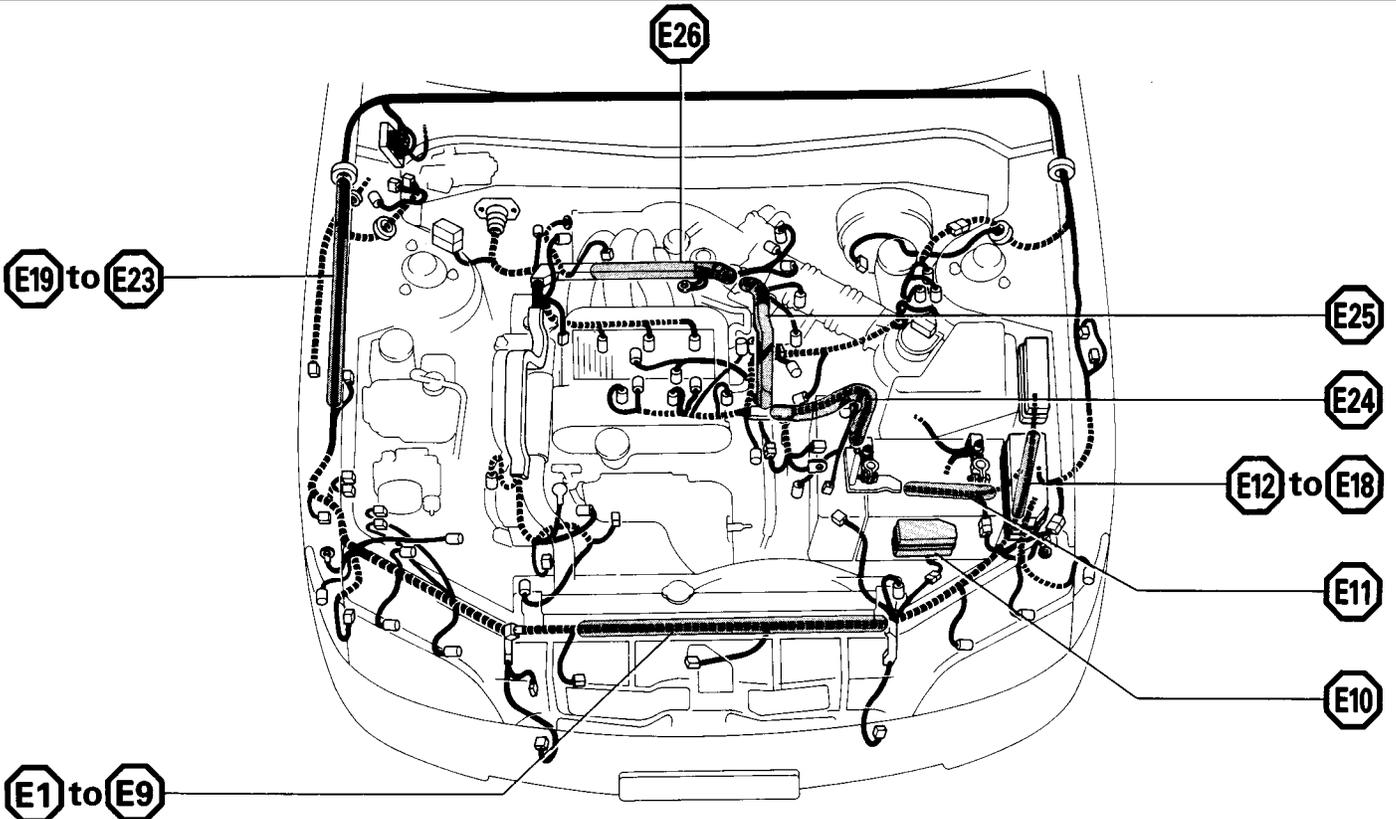
- | | |
|---|---|
| <p>B 5 Buckle SW</p> <p>P 14 Power Seat Control SW (for Driver's Seat)</p> <p>P 15 Power Seat Control SW (for Passenger's Seat)</p> <p>P 16 Power Seat Motor (for Driver's Seat Front Vertical Control)</p> <p>P 17 Power Seat Motor (for Driver's Seat Rear Vertical Control)</p> <p>P 18 Power Seat Motor (for Driver's Reclining Motor Control)</p> <p>P 19 Power Seat Motor (for Driver's Seat Slide Control)</p> | <p>P 20 Power Seat Motor (for Passenger's Seat Reclining Control)</p> <p>P 21 Power Seat Motor (for Passenger's Seat Slide Control)</p> <p>S 13 Seat Heater LH (for Seat Back)</p> <p>S 14 Seat Heater LH (for Seat Cushion)</p> <p>S 15 Seat Heater RH (for Seat Back)</p> <p>S 16 Seat Heater RH (for Seat Cushion)</p> |
|---|---|

ELECTRICAL WIRING ROUTING

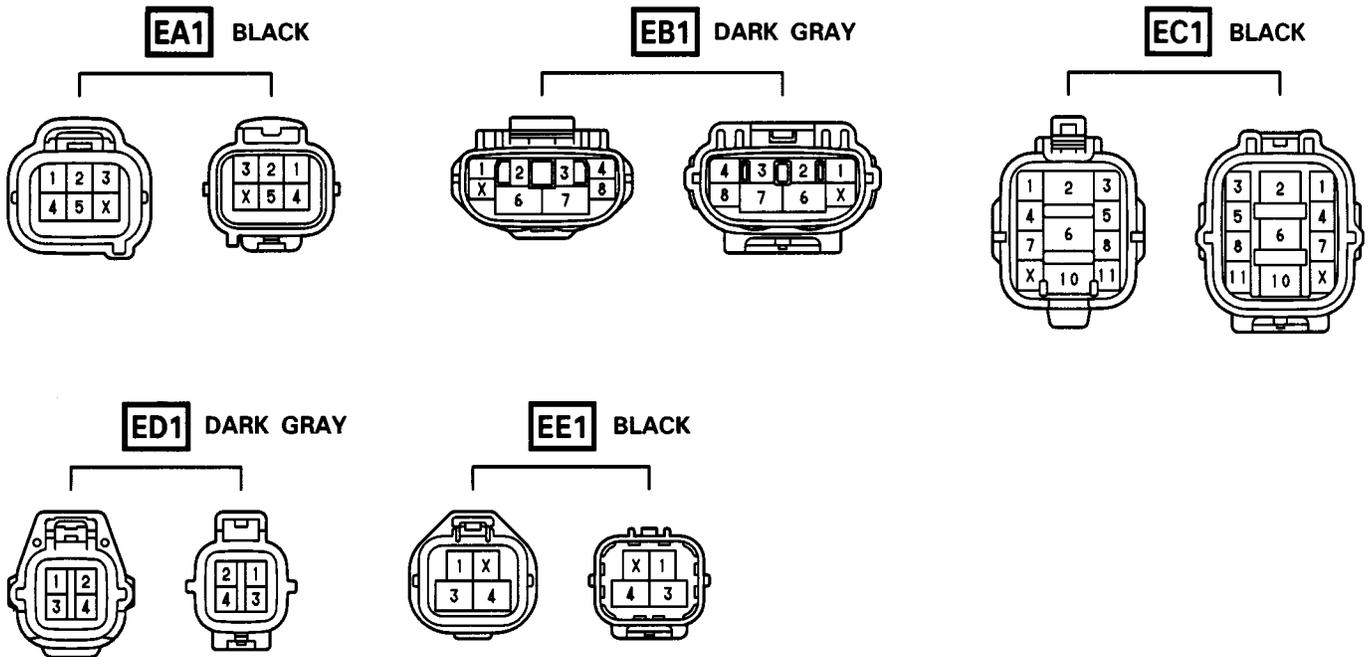
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points



- : Location of Splice Points



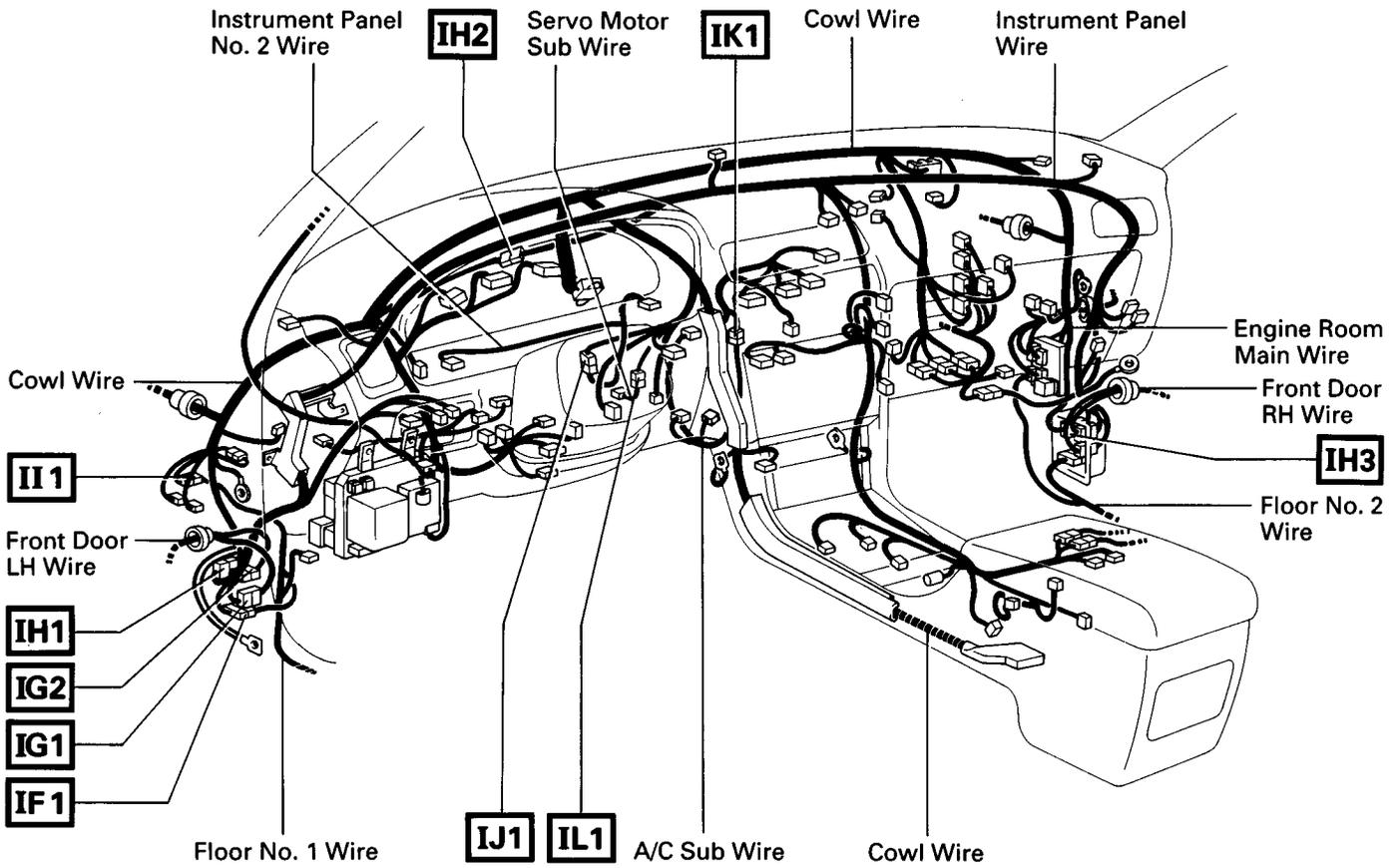
Connector Joining Wire Harness and Wire Harness



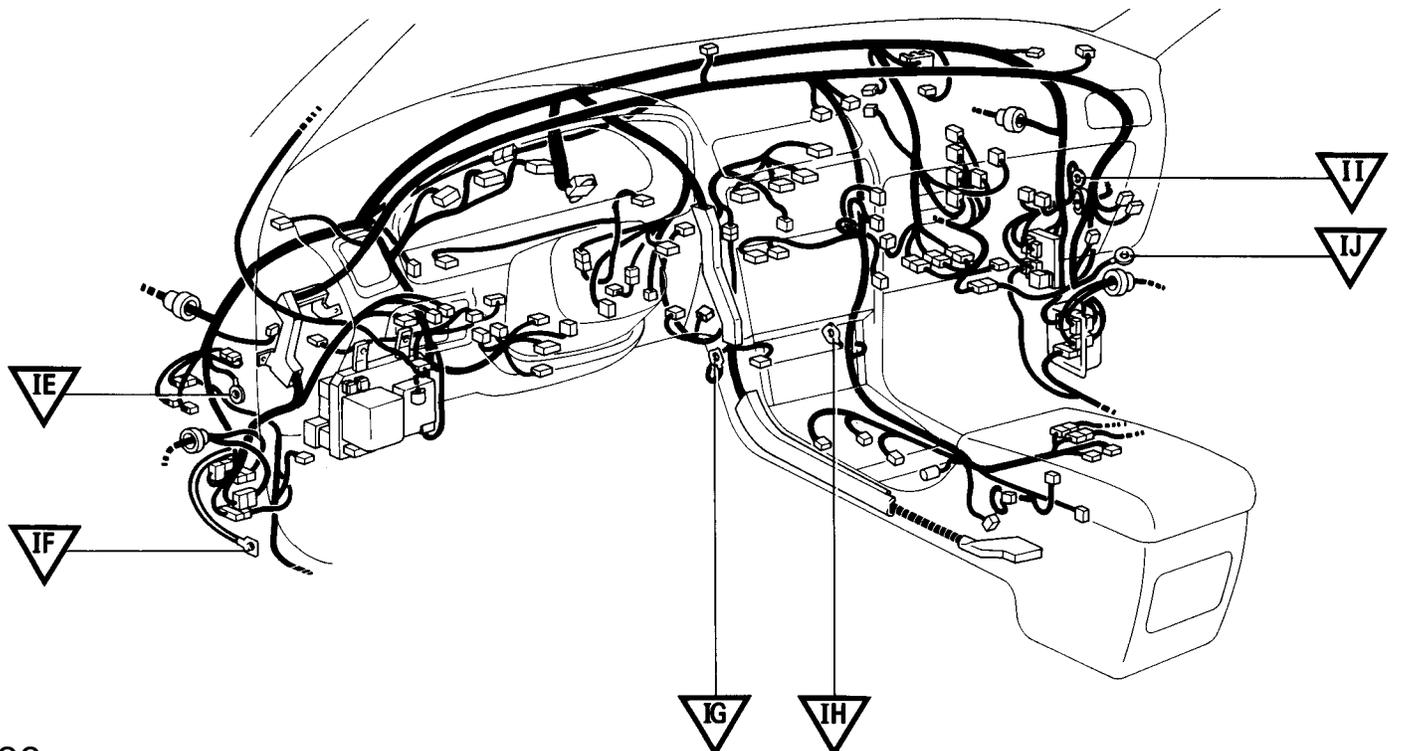
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	ENGINE ROOM MAIN WIRE AND RELAY WIRE (UNDER THE R/B NO. 7)
EB1	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EC1	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
ED1	ENGINE WIRE AND SENSOR WIRE (SIDE OF FRONT CYLINDER HEAD)
EE1	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)

ELECTRICAL WIRING ROUTING

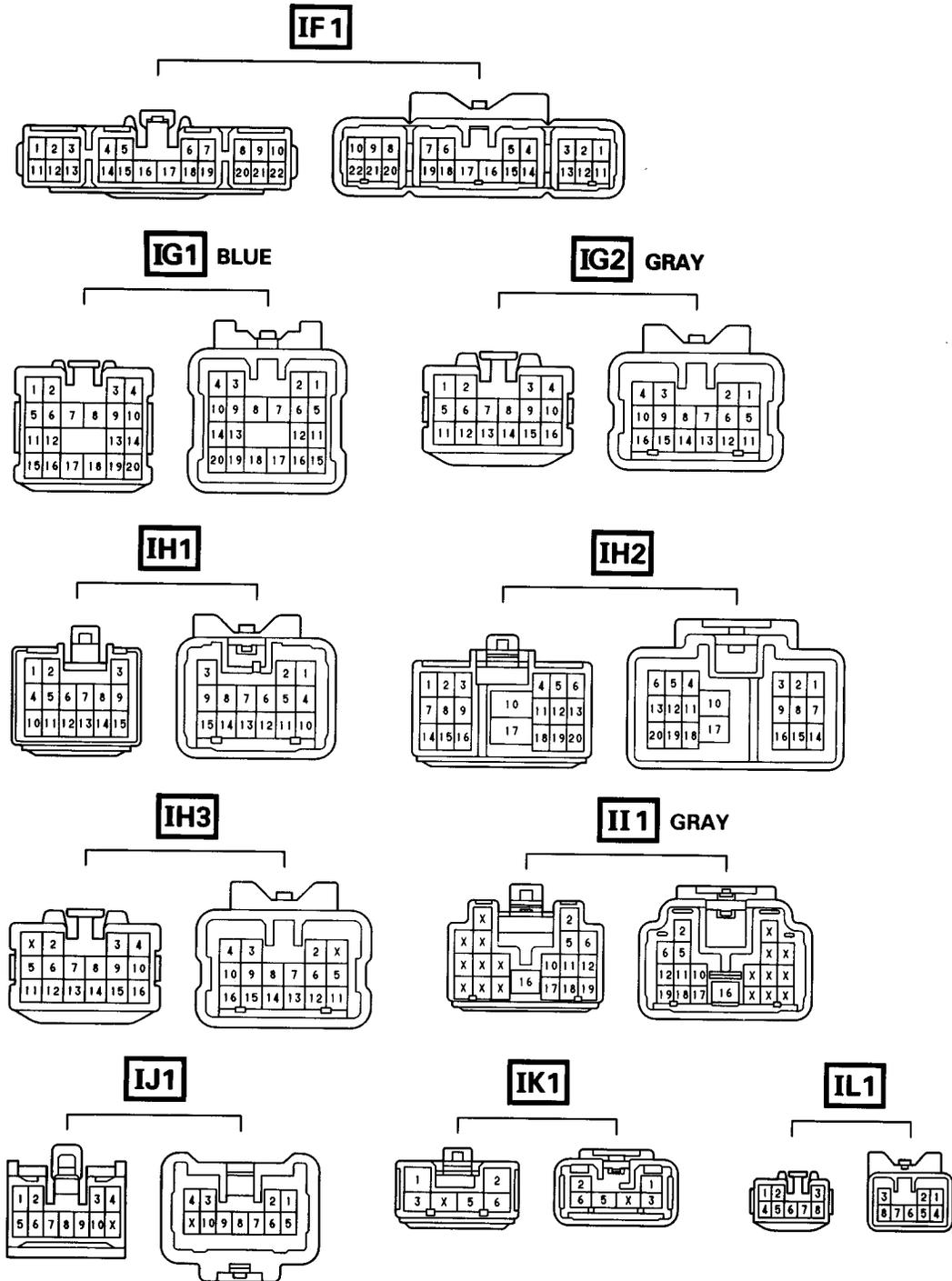
□ : Location of Connector Joining Wire Harness and Wire Harness



▽ : Location of Ground Points



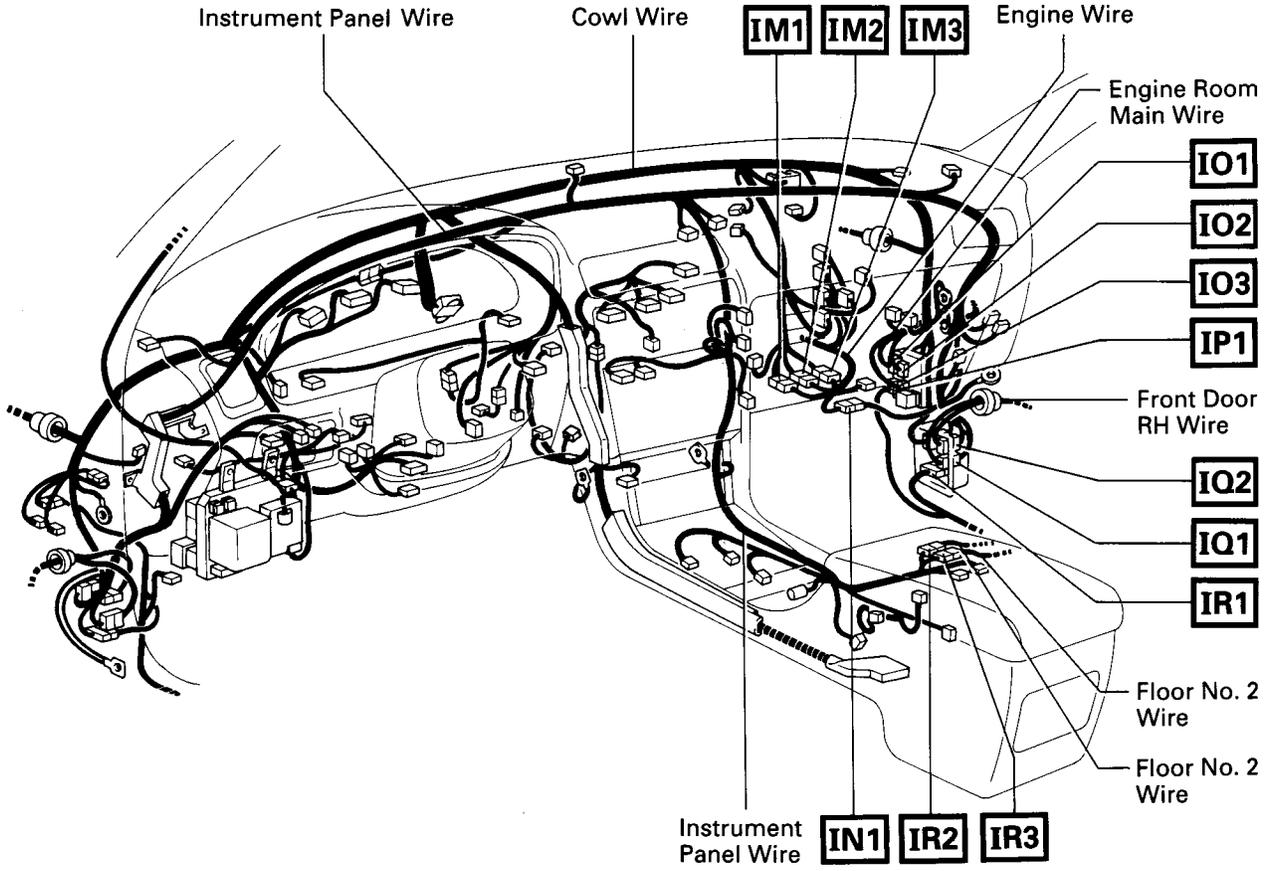
Connector Joining Wire Harness and Wire Harness



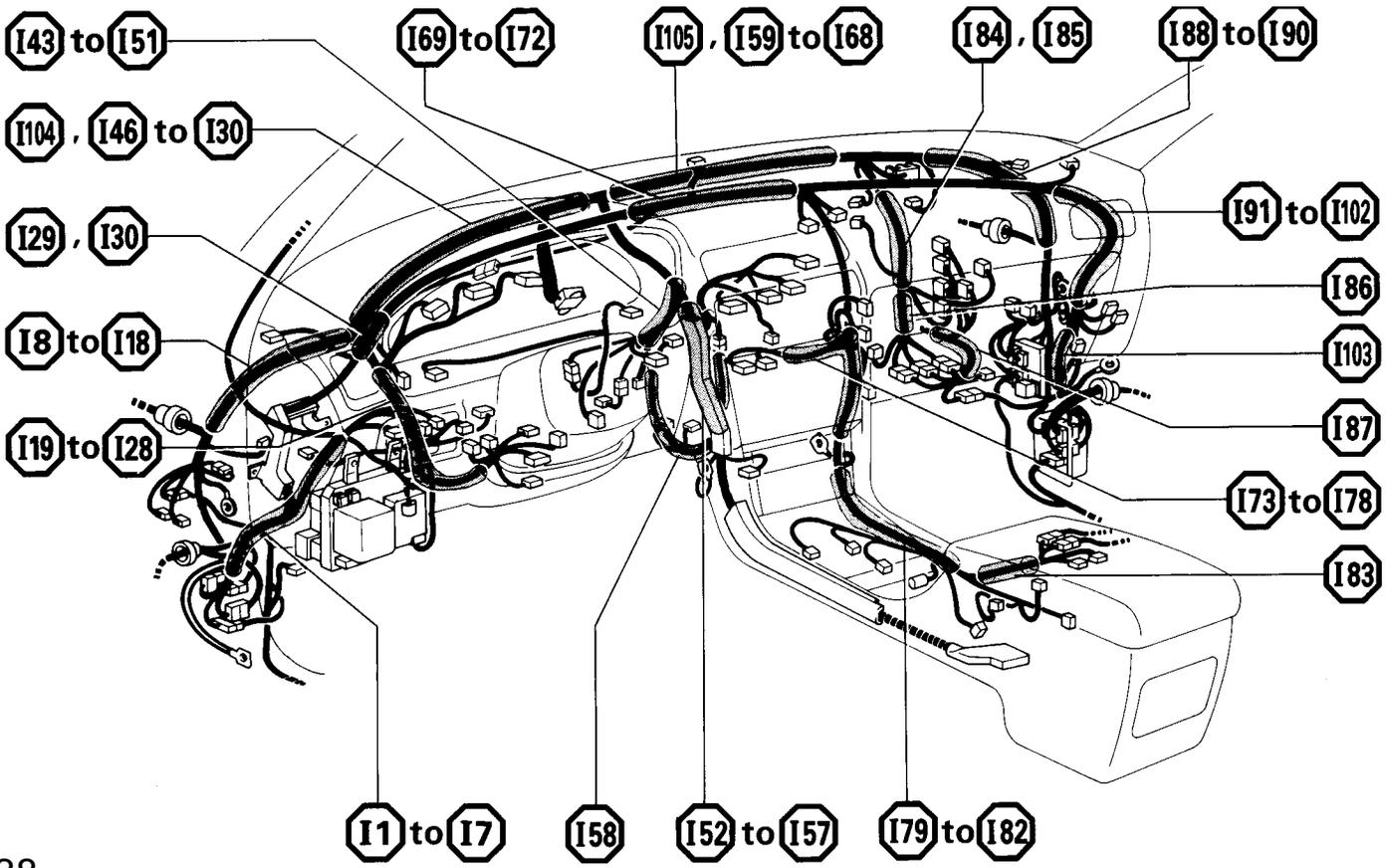
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IF1	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG1	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG2	
IH1	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IH3	COWL WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
II1	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
IJ1	INSTRUMENT PANEL NO. 2 WIRE AND COWL WIRE (UNDER THE COMBINATION METER)
IK1	COWL WIRE AND A/C SUB WIRE (NEAR THE RADIO AND PLAYER)
IL1	COWL WIRE AND SERVO MOTOR SUB WIRE (BEHIND RADIO AND PLAYER)

ELECTRICAL WIRING ROUTING

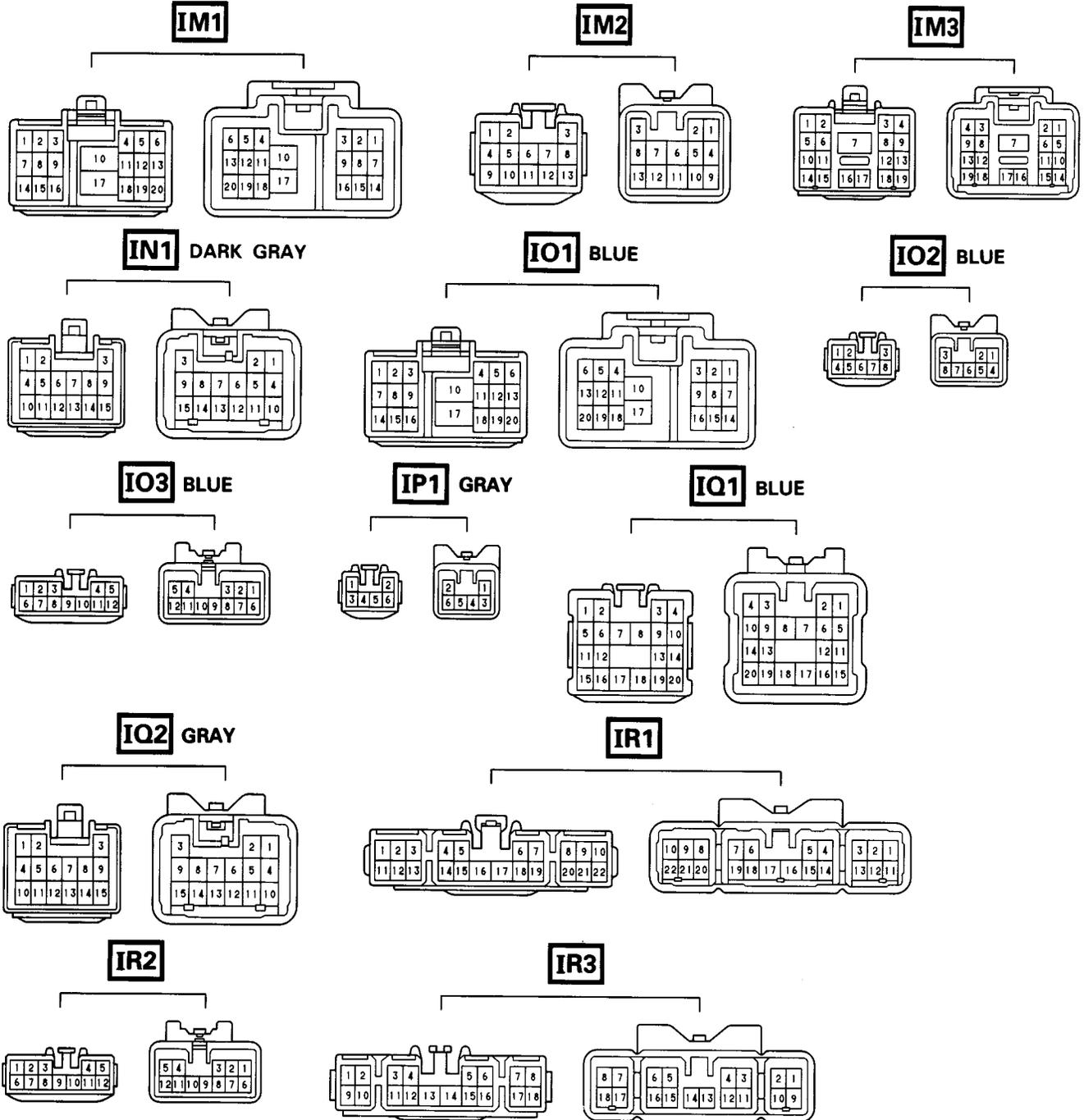
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Splice Points



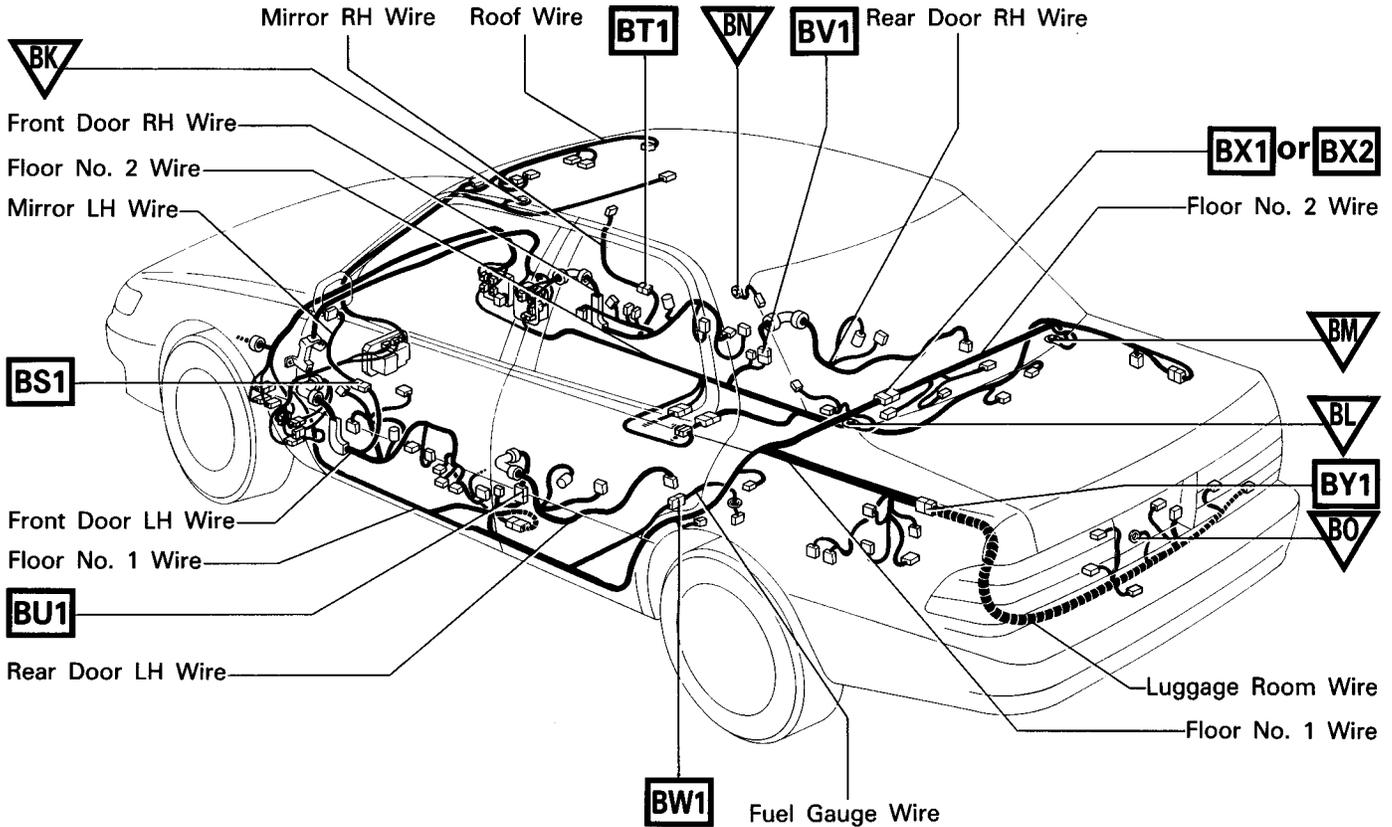
Connector Joining Wire Harness and Wire Harness



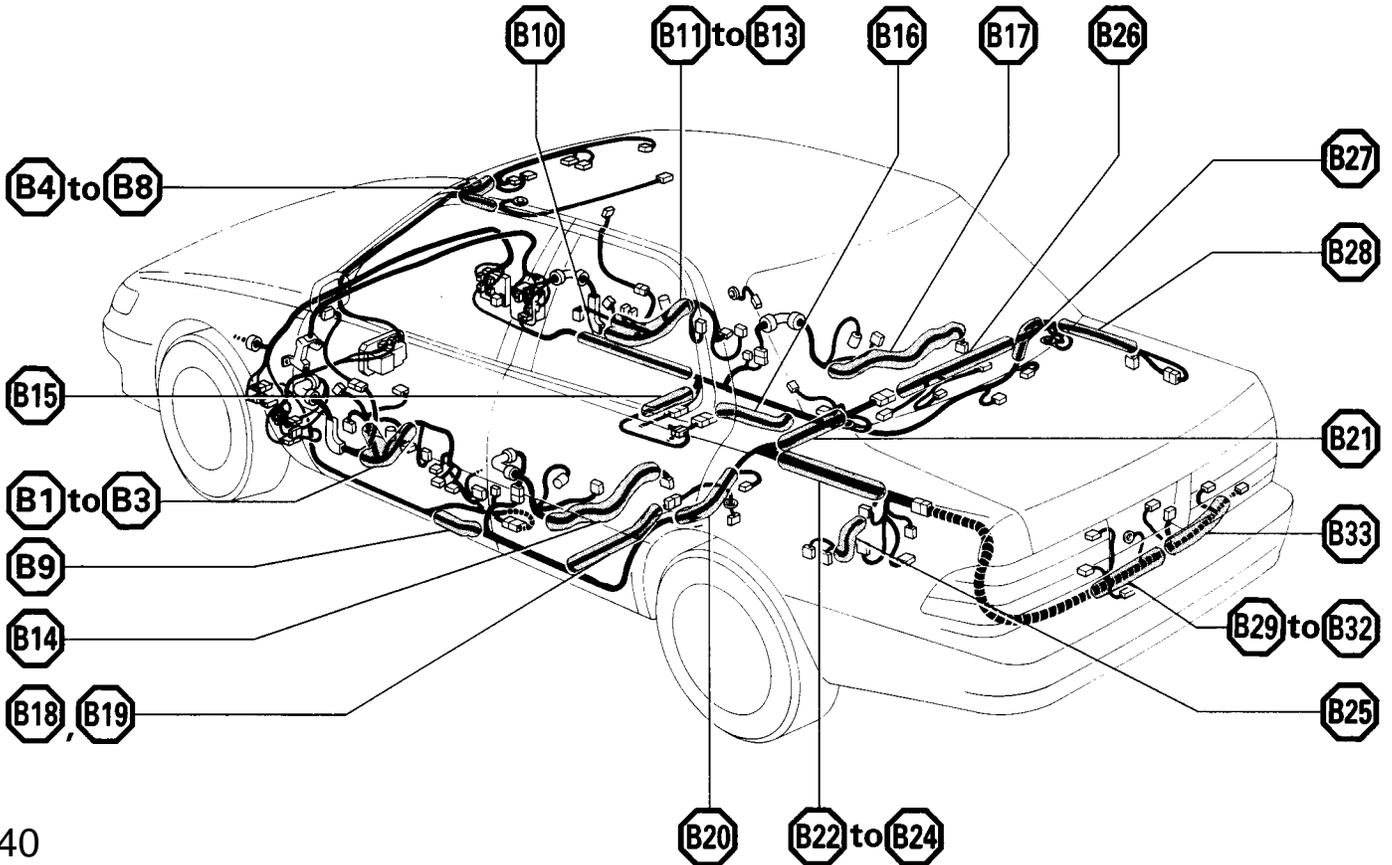
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IM1	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM2	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IN1	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE GLOVE BOX)
IO1	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IO2	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IO3	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IP1	FLOOR NO. 2 WIRE AND COWL WIRE (RIGHT KICK PANEL)
IQ1	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IQ2	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR2	INSTRUMENT PANEL WIRE AND FLOOR NO. 2 WIRE (UNDER THE PASSENGER'S SEAT)
IR3	INSTRUMENT PANEL WIRE AND FLOOR NO. 2 WIRE (UNDER THE PASSENGER'S SEAT)

ELECTRICAL WIRING ROUTING

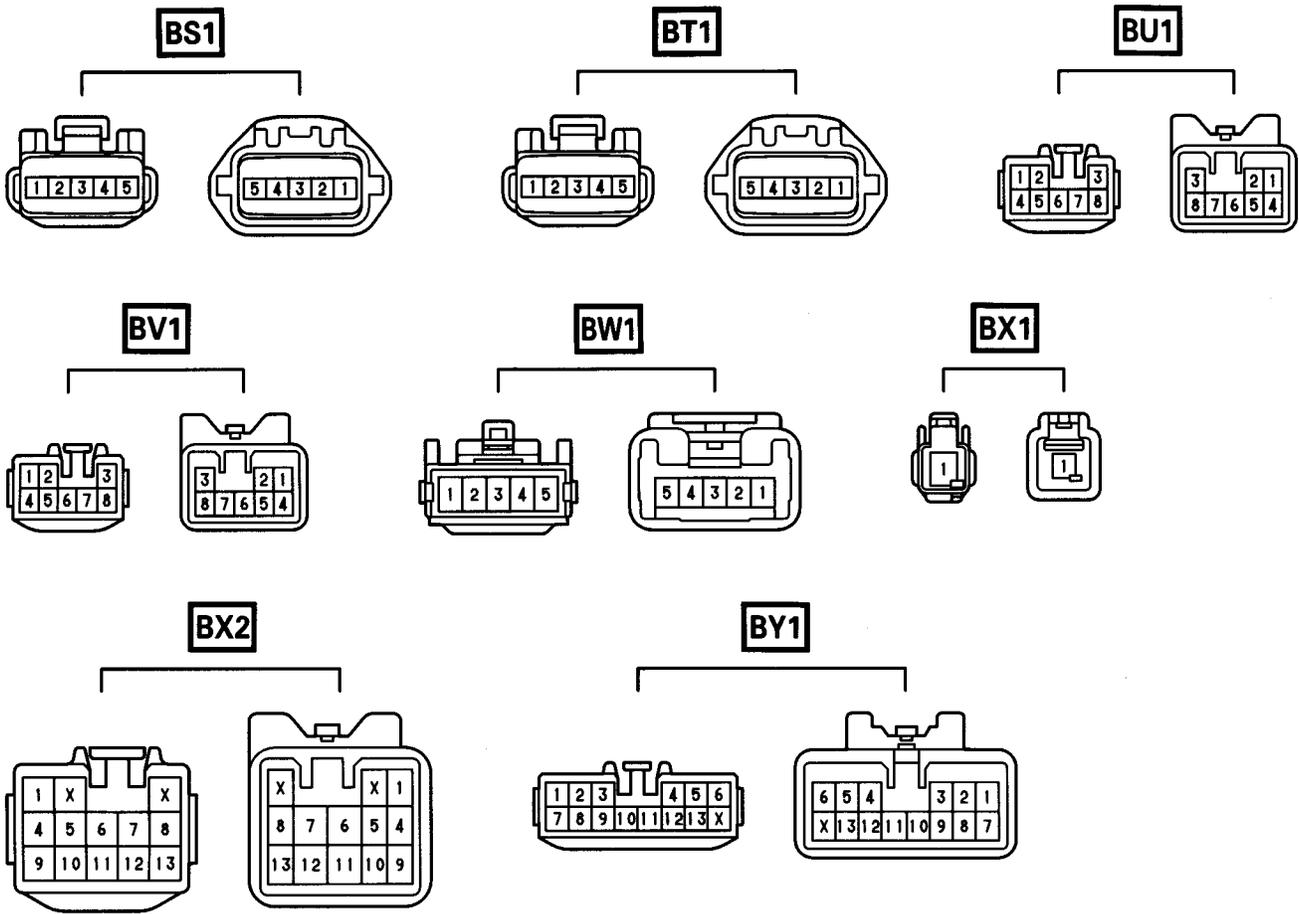
- : Location of Connector Joining Wire Harness and Wire Harness
- ▽ : Location of Ground Points



- : Location of Splice Points



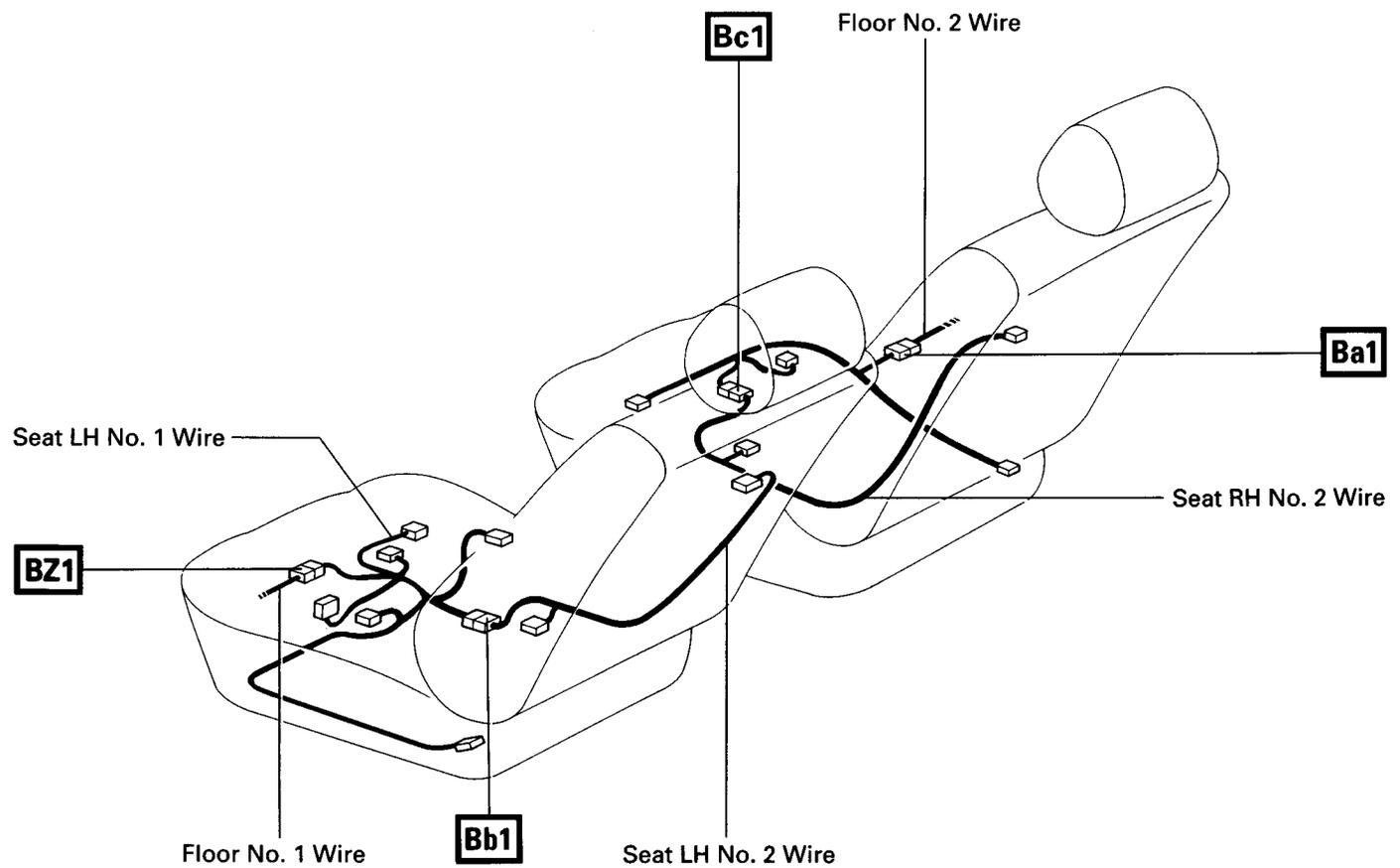
Connector Joining Wire Harness and Wire Harness



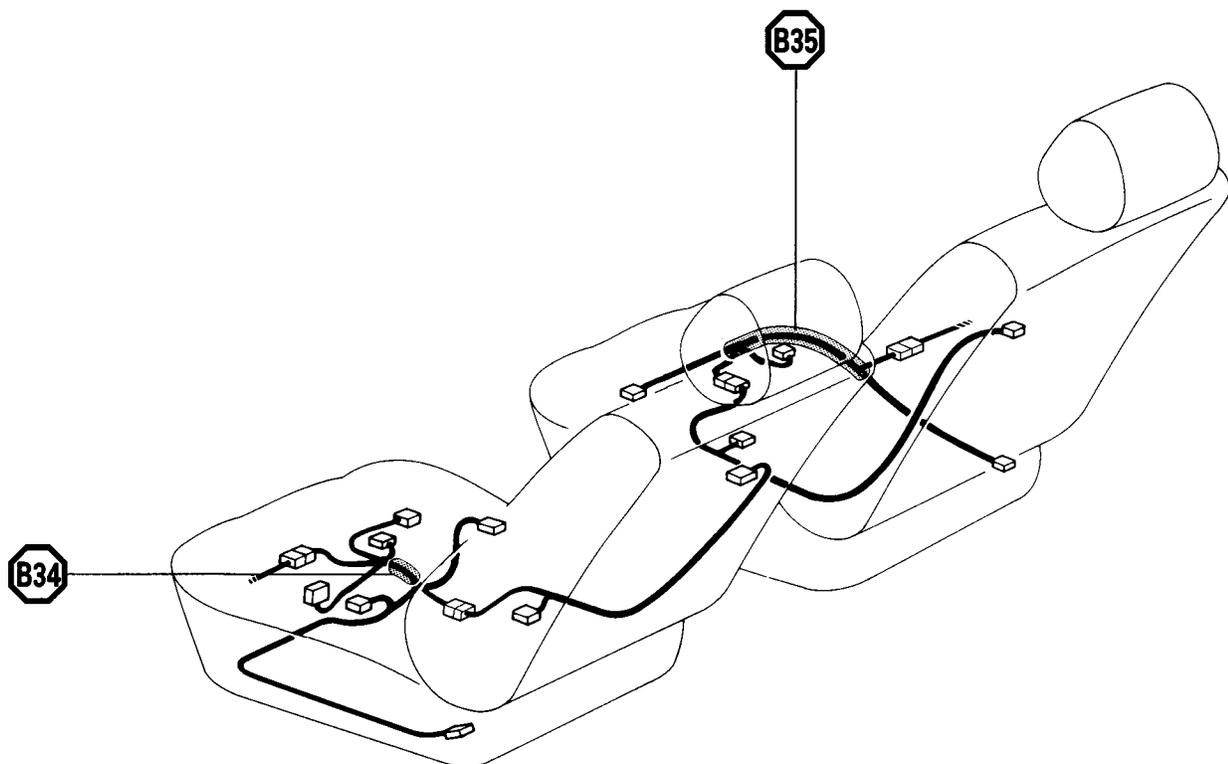
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
BS1	MIRROR LH WIRE AND FRONT DOOR LH WIRE (FRONT LH DOOR INSIDE)
BT1	MIRROR RH WIRE AND FRONT DOOR RH WIRE (FRONT RH DOOR INSIDE)
BU1	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE (LEFT CENTER PILLAR)
BV1	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE (RIGHT CENTER PILLAR)
BW1	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)
BX1	FLOOR NO. 1 WIRE AND FLOOR NO. 2 WIRE (BEHIND PACKAGE TRAY TRIM)
BX2	
BY1	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

ELECTRICAL WIRING ROUTING

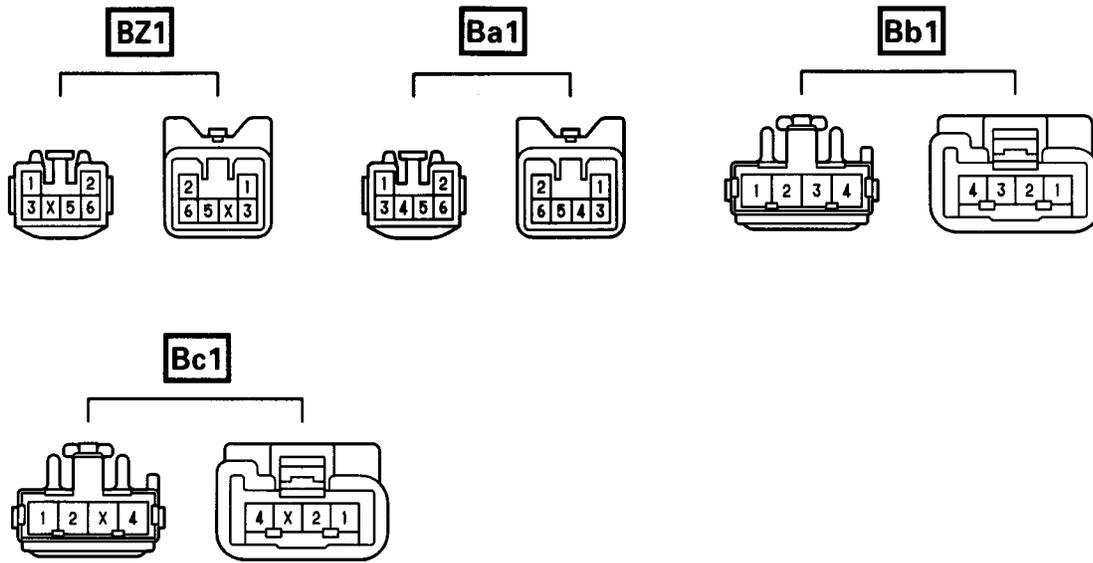
□ : Location of Connector Joining Wire Harness and Wire Harness



○ : Location of Ground Points



Connector Joining Wire Harness and Wire Harness

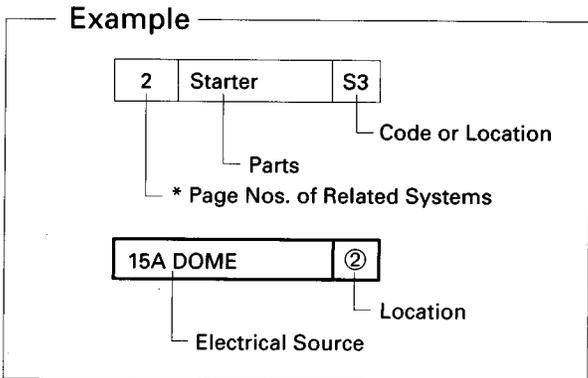
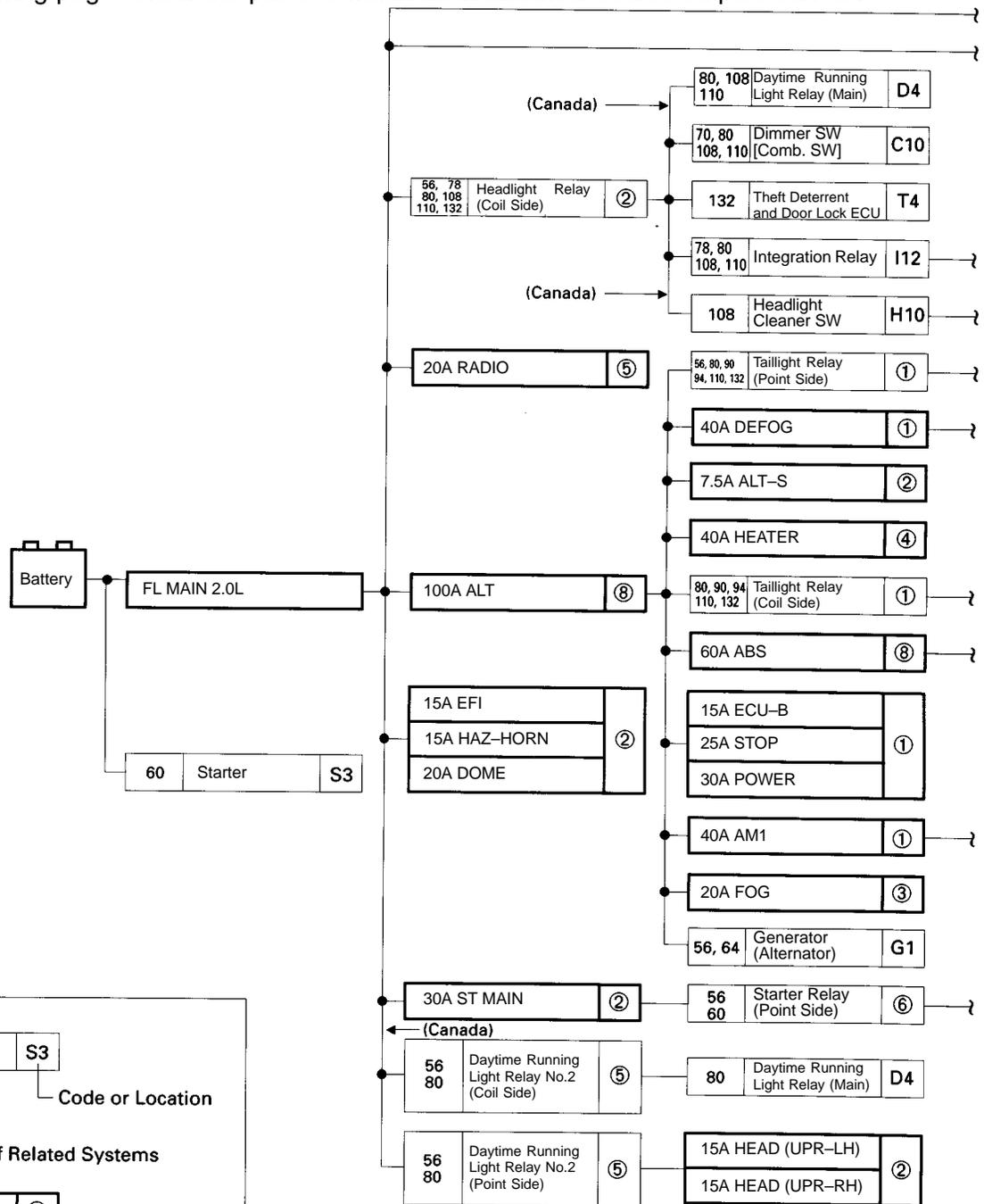


CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
BZ1	FLOOR NO. 1 WIRE AND SEAT LH NO. 1 WIRE (UNDER THE DRIVER'S SEAT)
Ba1	FLOOR NO. 2 WIRE AND SEAT RH NO. 1 WIRE (UNDER THE PASSENGER'S SEAT)
Bb1	SEAT LH NO. 2 WIRE AND SEAT LH NO. 1 WIRE (UNDER THE DRIVER'S SEAT)
Bc1	SEAT RH NO. 2 WIRE AND SEAT RH NO. 1 WIRE (UNDER THE PASSENGER'S SEAT)

POWER SOURCE (Current Flow Chart)

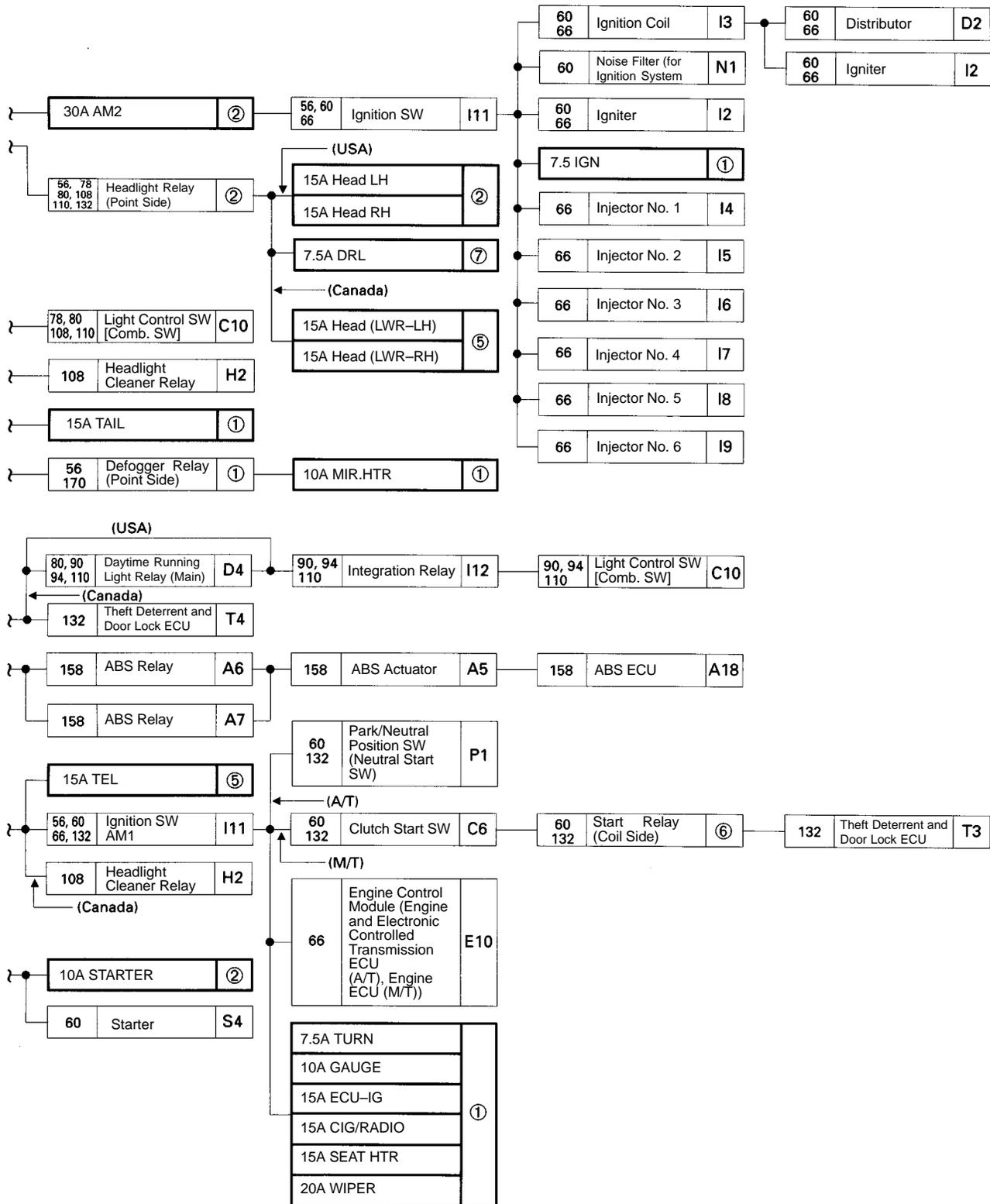
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.

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



* 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 (F7 See on page 28)



(4) : R/B No. 4 (See page 25)

(5) : R/B No. 5 (See page 26)

(6) : R/B No. 6 (See page 26)

64 100	94 142 144 192	144	66	86	150	90 103	125	150	192	78 80	100	78	80 98	177	80 94	100	112	76	144	170	66 158 163	66 144 150 163	80 94 192	86			
Turn Signal Indicator Light LH [Comb. Meter]	Combination Meter	Cruise Control Indicator Light [Comb. Meter]	Malfunction Indicator Lamp (Check Engine Warning Light) [Comb. Meter]	Open Door Indicator Light [Comb. Meter]	O/D Off Indicator Light [Comb. Meter]	Rear Light Warning Light [Comb. Meter]	Seat Belt Warning Light [Comb. Meter]	A/T Indicator Light [Comb. Meter]	Combination Meter	High Beam Indicator Light [Comb. Meter]	Turn Signal Indicator Light RH [Comb. Meter]	Dimmer SW [Comb. SW]	Fog Light SW [Comb. SW]	Horn SW [Comb. SW]	Light Control SW [Comb. SW]	Turn Signal SW [Comb. SW]	Wiper and Washer SW [Comb. SW]	Cooling Fan ECU	Cruise Control ECU	Choke Coil	Data Link Connector 1 (Check Connector)	Data Link Connector 2 (TDCL)	Daytime Running Light Relay (Main)	Diode	Door Courtesy Light Front LH	Door Courtesy Light Front RH	Door Courtesy SW Light Front LH
C7	C8						C9					C10				C11	C12	C14	C17	D1	D3	D4	D6	D7	D8	D9	
	●													●							●	●	●				
●									●		●				●		●					●	●				
	●	●	●		●	●	●	●	●									●	●	●	●	●					
																				●							
	●							●	●	●		●	●														
	●			●																	●			●	●	●	●
●											●		●														
												●															

(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		86										192	66 150	66	66 150	94 150	198	80 98	90 100	132	66 192	64 192	94	108
			Parts										Code or Location												
	CB or Fuse		Door Courtesy SW Front RH	Door Courtesy SW Rear LH	Door Courtesy SW Rear RH	Door Key Cylinder Light	Door Lock Motor, Door Unlock and Open Detection SW Front LH	Door Lock Motor, Door Unlock and Open Door Detection SW Front RH	Engine Oil Level Warning SW	Engine Control Module (Engine and Electronic Controlled Transmission (A/T), Engine ECU (M/T))	Electronic Controlled Transmission Pattern Select SW	Extra High Speed Relay	Front Fog Light LH	Front Fog Light RH	Front Turn Signal and Clearance Light LH	Front Turn Signal and Clearance Light RH	Fuel Lid Opener Motor	Fuel Pump and Sender	Generator (Alternator)	Glove Box Light	Glove Box Light SW	Headlight Cleaner Motor			
		D10	D11	D12	D14	D18	D19	E6	E7	E9	E10	E11	E12	F3	F4	F5	F6	F14	F15	G2	G3	G4	H1		
①	10A	MIR-HTR																							
	15A	TAIL																							
	15A	ECU-B											●				●	●				●	●		
	15A	FOG																							
	20A	WIPER																							
	7.5A	TURN															●	●							
	7.5A	IGN											●												
	15A	CIG/RADIO																				●	●		
	15A	ECU-IG																							
	10A	GAUGE							●			●	●							●	●				
	25A	STOP										●													
	15A	SEAT HTR																							
	30A	POWER																●							
	40A	DEFOG																							
40A	AM1																					●			
②	10A	STARTER									●														
	15A	HEAD(RH)(USA)																							
	15A	HEAD(LH)(USA)																							
	15A	HEAD (UPR-RH)(Canada)																							
	15A	HEAD (UPR-LH)(Canada)																							
	7.5A	ALT-S																				●			
	20A	DOME	●	●	●	●	●	●																	
	15A	EFI							●	●	●									●					
15A	HAZ-HORN															●	●								
③	20A	FOG												●	●										
④	40A	HEATER												●											
⑤	15A	HEAD (LWR-LH)(Canada)																							
	15A	HEAD (LWR-RH)(Canada)																							
	15A	TEL																							
	20A	RADIO																							
⑦	7.5A	DRL																							

* 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 (F7 See on page 28)

POWER SOURCE (Current Flow Chart)

Location	CB or Fuse	116										122										94	140	94	106	90
		Power Window Control SW Front RH	Power Window Control SW Rear LH	Power Window Control SW Rear RH	Power Window Master SW and Door Lock Control SW	Power Window Control Front LH	Power Window Motor Front RH	Power Window Motor Rear LH	Power Window Motor Rear RH	Power Seat Control SW (for Driver's Seat)	Power Seat Control SW (for Passenger's Seat)	Power Seat Motor (for Driver's Seat Front Vertical Control)	Power Seat Motor (for Driver's Seat Rear Vertical Control)	Power Seat Motor (for Driver's Seat Reclining Motor Control)	Power Seat Motor (for Driver's Seat Slide Control)	Power Seat Motor (for Passenger's Seat Reclining Control)	Power Seat Motor (for Passenger's Seat Sliding Control)	Radio and Player	Remote Control Mirror SW	Rheostat	Rheostat Volume and Theft Deterrent Indicator Light	Back-Up Light LH	License Plate Light LH	License Plate Light LH (Rear Comb. Light LH)		
		P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	R1	R3	R4	R5	R6				
①	10A MIR-HTR																									
	15A TAIL																	●		●	●				●	
	15A ECU-B																									
	15A FOG																									
	20A WIPER																									
	7.5A TURN																									
	7.5A IGN																									
	15A CIG/RADIO																		●	●						
	15A ECU-IG																									
	10A GAUGE																				●			●		
	25A STOP																									
	15A SEAT HTR																									
	30A POWER	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
	40A DEFOG																									
40A AM1																										
②	10A STARTER																									
	15A HEAD(RH)(USA)																									
	15A HEAD(LH)(USA)																									
	15A HEAD (UPR-RH)(Canada)																									
	15A HEAD (UPR-LH)(Canada)																									
	7.5A ALT-S																									
	20A DOME																									
	15A EFI																									
15A HAZ-HORN																										
③	20A FOG																									
④	40A HEATER																									
⑤	15A HEAD (LWR-LH)(Canada)																									
	15A HEAD (LWR-RH)(Canada)																									
	15A TEL																									
	20A RADIO																		●							
⑦	7.5A DRL																									

* 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.

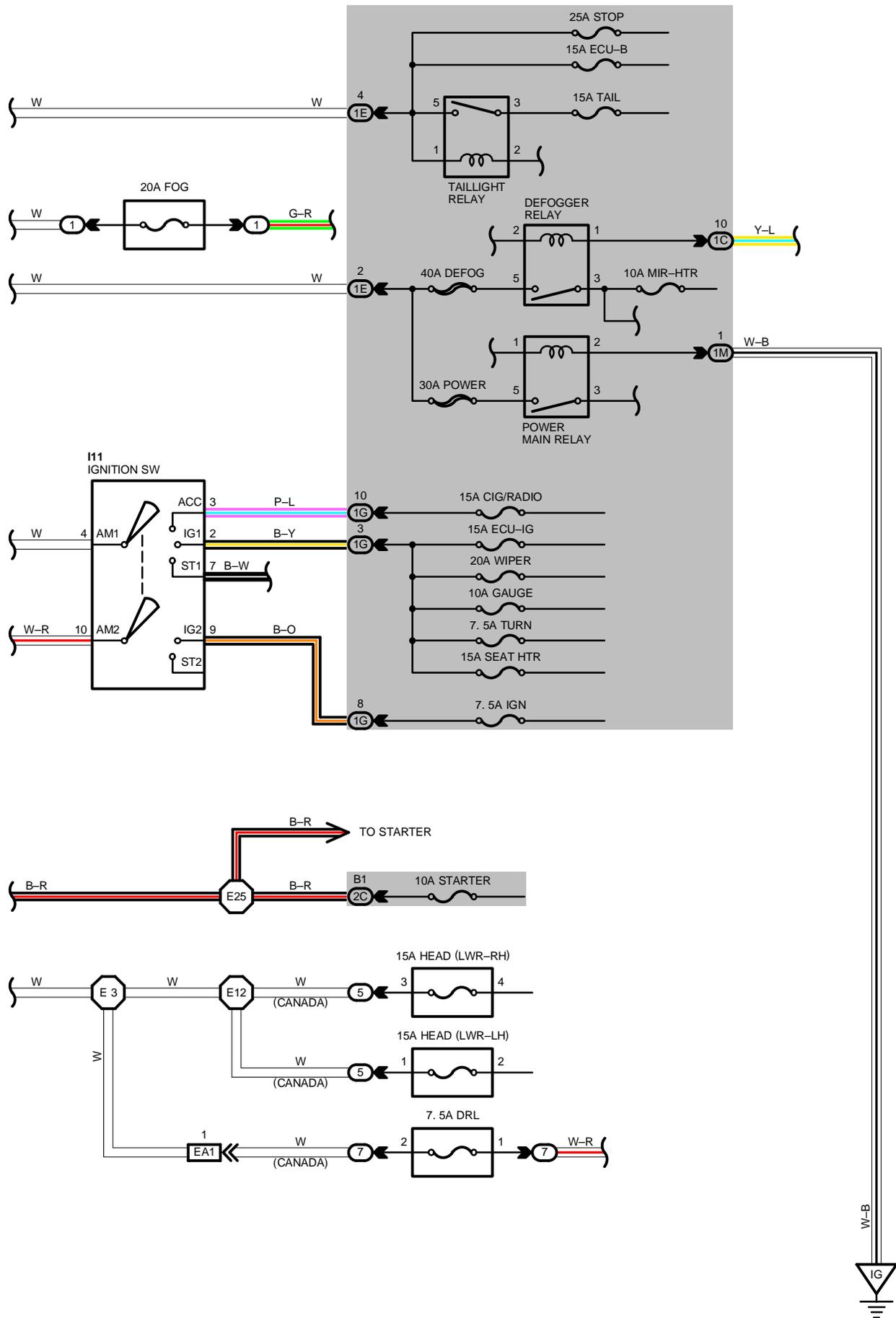
[LOCATION] (1) : J/B No. 1 (See page 20) (2) : J/B No. 2 (See page 22) (3) : R/B No. 1 (See page 25)
(7) : R/B No. 7 (See page 27) (8) : Fuse Box (F7 See on page 28)

POWER SOURCE (Current Flow Chart)

Location	CB or Fuse	*Page Nos. of Related Systems		Parts																				
		Telephone Transceiver and Speaker Relay	VSV (for Fuel Pressure Up)	VSV (for Intake Air Control)	Vehicle Speed Sensor (Speed Sensor)	Volume Air Flow (Air Flow Meter)	Vanity Light LH	Vanity Light RH	Washer Motor	Water Temp. Sender	Wiper Angle Control Motor	Wiper Motor	Wiper Control Relay	Wireless Door Lock Main SW	Wireless Door Lock ECU	Defogger Relay	Diode	Integration Relay	Noise Filter	Power Main Relay	EFI Main Relay	Horn Relay	Fog Light Relay	
		178	66	66	86	112	192			112		128	56	86	86	170	56	66	132	80				
		T7	V1	V2	V3	V5	V6	V7	W1	W2	W3	W4	W5	W6	W7	①			②					
①	10A	MIR-HTR																						
	15A	TAIL																						
	15A	ECU-B																						
	15A	FOG																						
	20A	WIPER							●		●	●	●											
	7.5A	TURN																						
	7.5A	IGN					●																	
	15A	CIG/RADIO																						
	15A	ECU-IG	●																					
	10A	GAUGE				●					●							●		●				
	25A	STOP																						
	15A	SEAT HTR																						
	30A	POWER																						
	40A	DEFOG																						
40A	AM1																							
②	10A	STARTER																						
	15A	HEAD(RH)(USA)																					●	
	15A	HEAD(LH)(USA)																						
	15A	HEAD (UPR-RH)(Canada)																						
	15A	HEAD (UPR-LH)(Canada)																						
	7.5A	ALT-S																						
	20A	DOME						●	●					●	●		●	●						
	15A	EFI		●	●																	●		
15A	HAZ-HORN																					●		
③	20A	FOG																					●	
④	40A	HEATER																					●	
⑤	15A	HEAD (LWR-LH)(Canada)																					●	
	15A	HEAD (LWR-RH)(Canada)																						
	15A	TEL	●																					
	20A	RADIO																						
⑦	7.5A	DRL																						

* 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 (F7 See on page 28)



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)

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)

I11 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
F 7	28	G 1	28	I11	31

○ : 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)
1A	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1C		
1E		
1G		
1M		
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2D	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

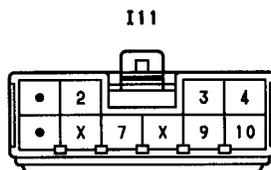
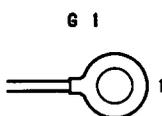
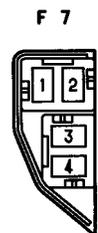
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	34	ENGINE ROOM MAIN WIRE AND RELAY WIRE (UNDER THE R/B NO. 7)
EB1	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		

▽ : GROUND POINTS

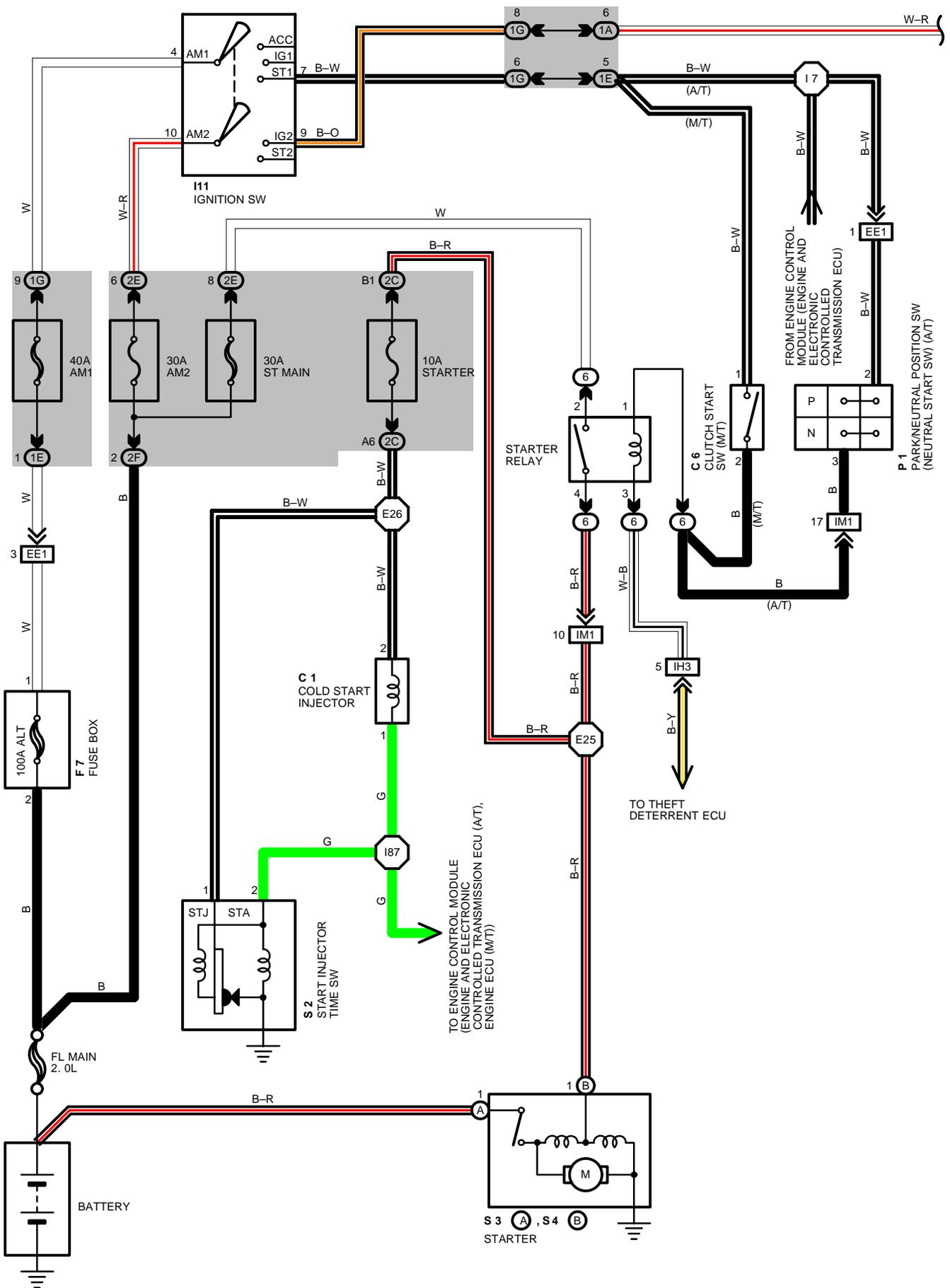
CODE	SEE PAGE	GROUND POINTS LOCATION
IG	36	INSTRUMENT PANEL BRACE LH

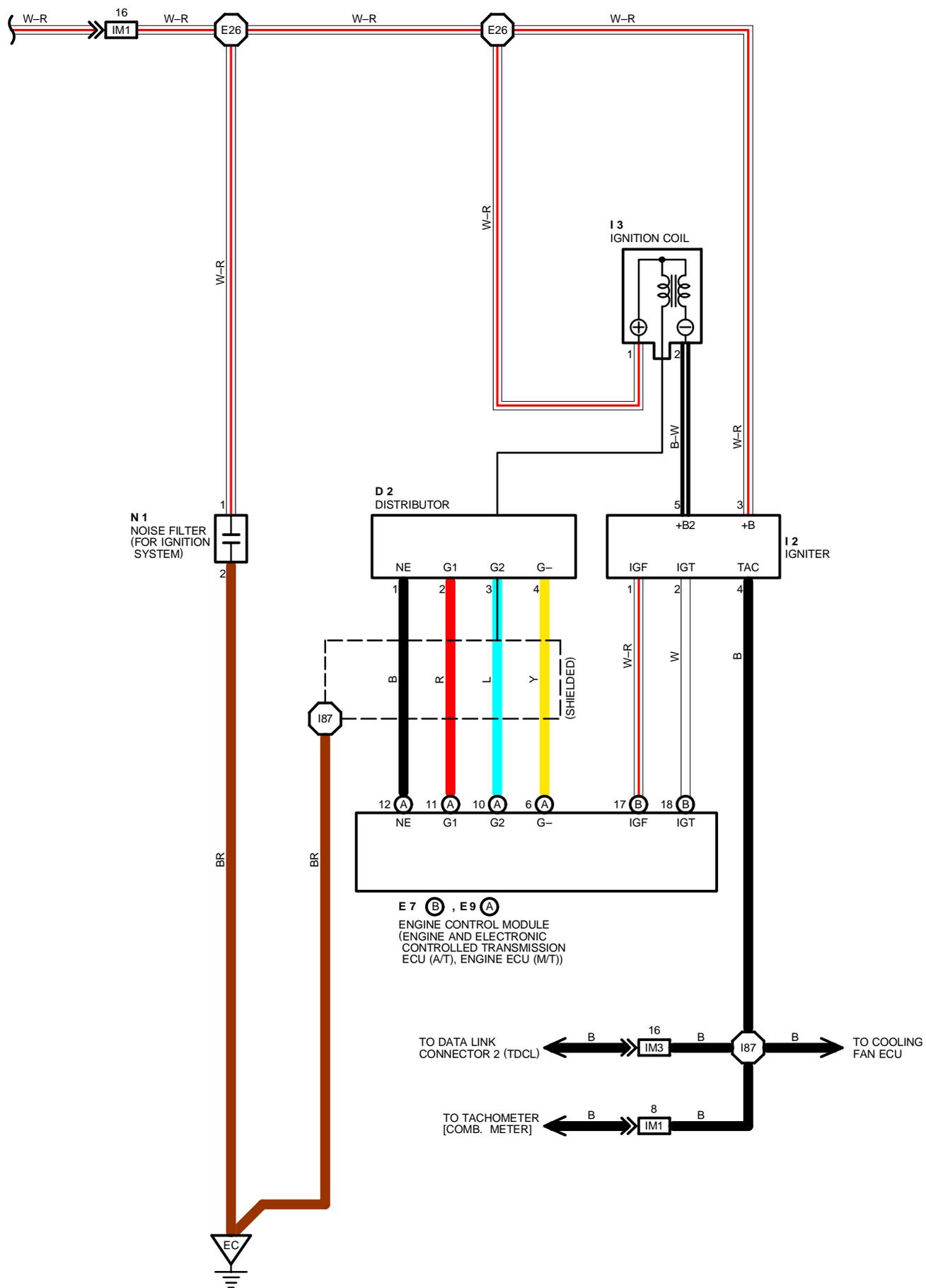
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 3	34	ENGINE ROOM MAIN WIRE	E 26	34	ENGINE WIRE
E 12			I 18	38	COWL WIRE
E 24	ENGINE WIRE	I 22			
E 25					



STARTING AND IGNITION





STARTING AND IGNITION

SERVICE HINTS

I11 IGNITION SW

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

C 6 CLUTCH START SW (M/T)

- 1-2 : CLOSED WITH CLUTCH PEDAL FULLY DEPRESSED

STARTER RELAY

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

S 3(A), S 4(B) 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

C 1 COLD START INJECTOR

- 2-1 : APPROX. 12 VOLTS WHILE START INJECTOR TIME SW IS CLOSED AND STARTER CRANKING

S 2 START INJECTOR TIME SW

- POINTS OPEN ABOVE 35°C (95°F)
- 2-1 : APPROX. 20-40 BELOW 30°C (86°F)
- 2-1 : APPROX. 40-60 ABOVE 40°C (104°F)
- 2-GROUND : APPROX. 20-80

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 1	28	F 7	28	P 1	29
C 6	30	I 2	29	S 2	29
D 2	28	I 3	29	S 3	A 29
E 7	B 30	I11	31	S 4	B 29
E 9	A 30	N 1	29		

○ : 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)
1E		
1G		
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	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)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
IH3	36	COWL WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EC	34	INTAKE MANIFOLD RH

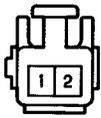
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 25	34	ENGINE WIRE	I 7	38	INSTRUMENT PANEL WIRE
E 26			I 87	38	ENGINE WIRE

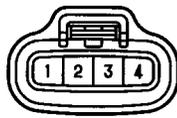
C 1 BLACK



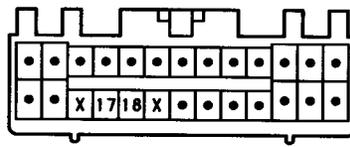
C 6



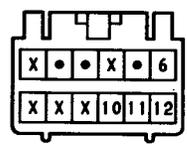
D 2 BLACK



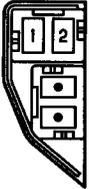
E 7 (B) DARK GRAY



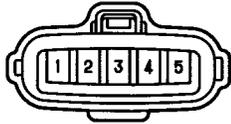
E 9 (A) DARK GRAY



F 7



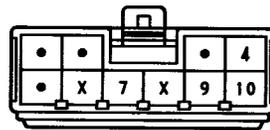
I 2 BLACK



I 3 BLACK



I11



N 1 GRAY



P 1 GRAY



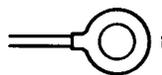
S 2 DARK GRAY



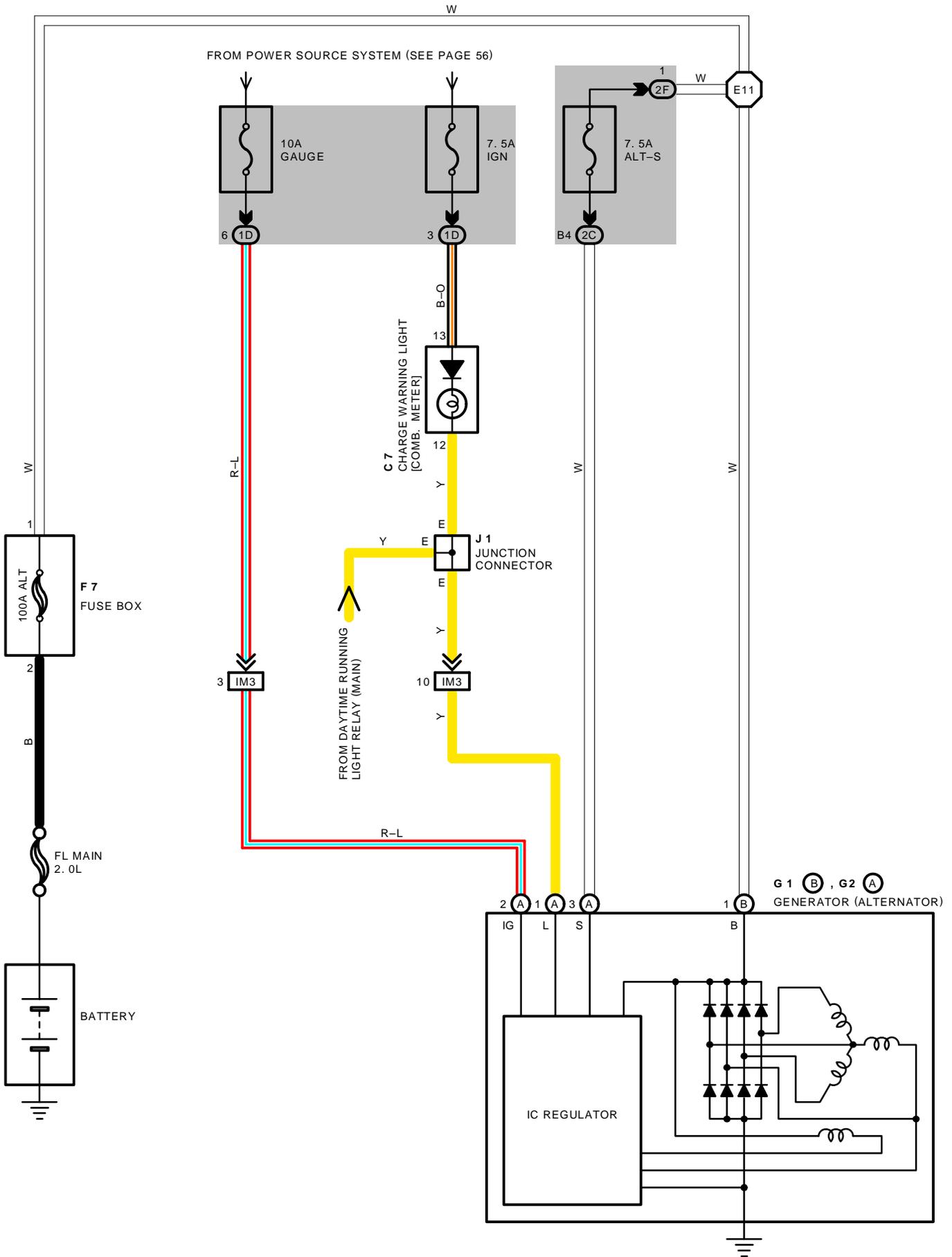
S 3 (A) BLACK



S 4 (B)



CHARGING



SERVICE HINTS

G 2(A) GENERATOR (ALTERNATOR)

- (A) 1-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)
 (A) 2-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 7	30	G 1	B	28	J 1	31
F 7	28	G 2	A	28		

○ : 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)
2F		

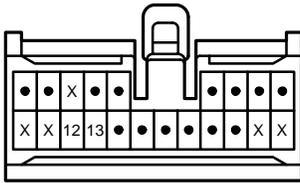
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IM3	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)

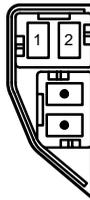
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 11	34	ENGINE WIRE			

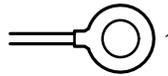
C 7 GRAY



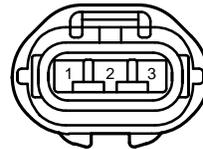
F 7



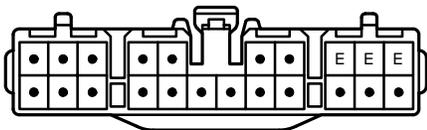
G 1 (B)



G 2 (A) GRAY



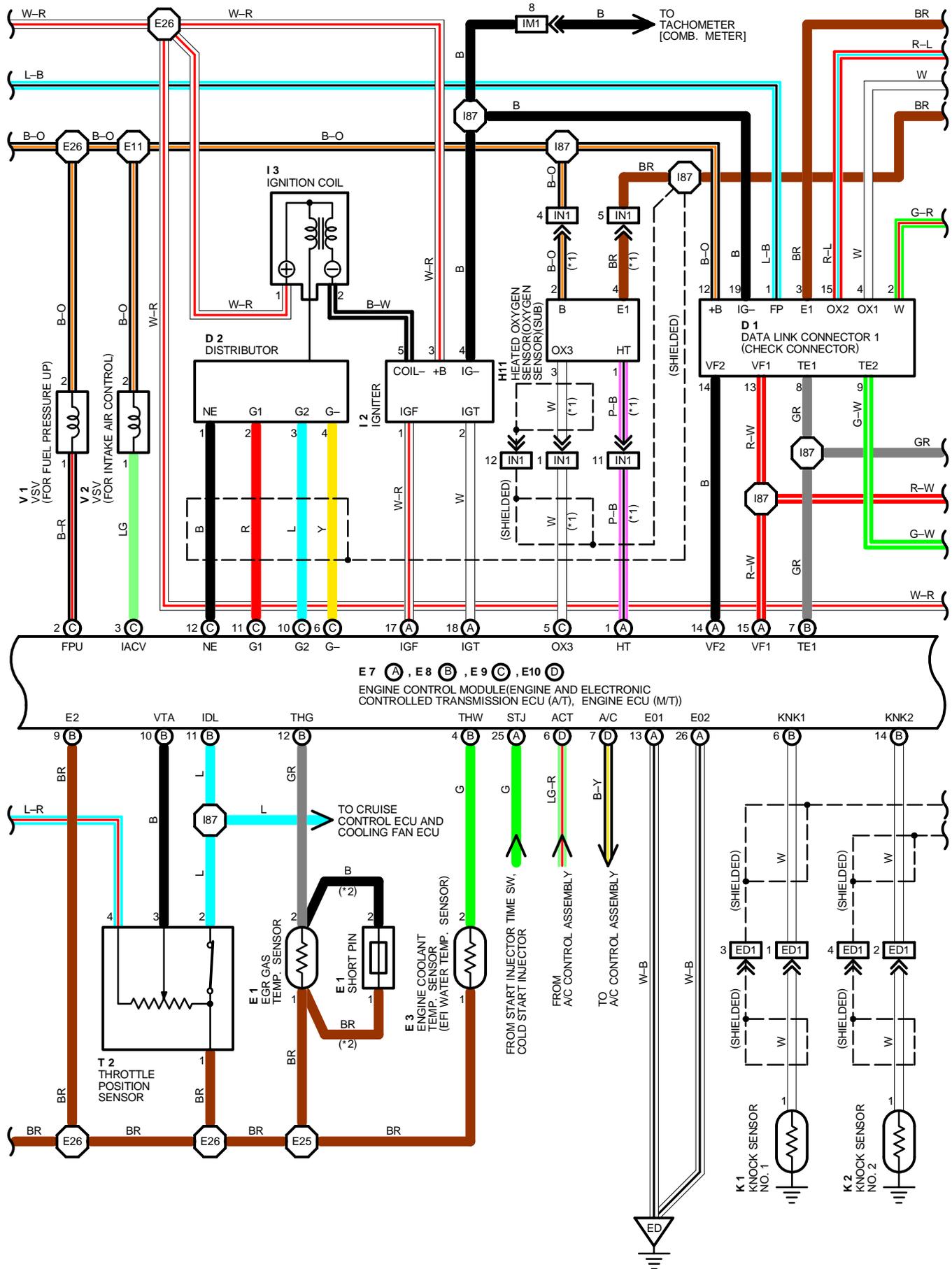
J 1 DARK GRAY

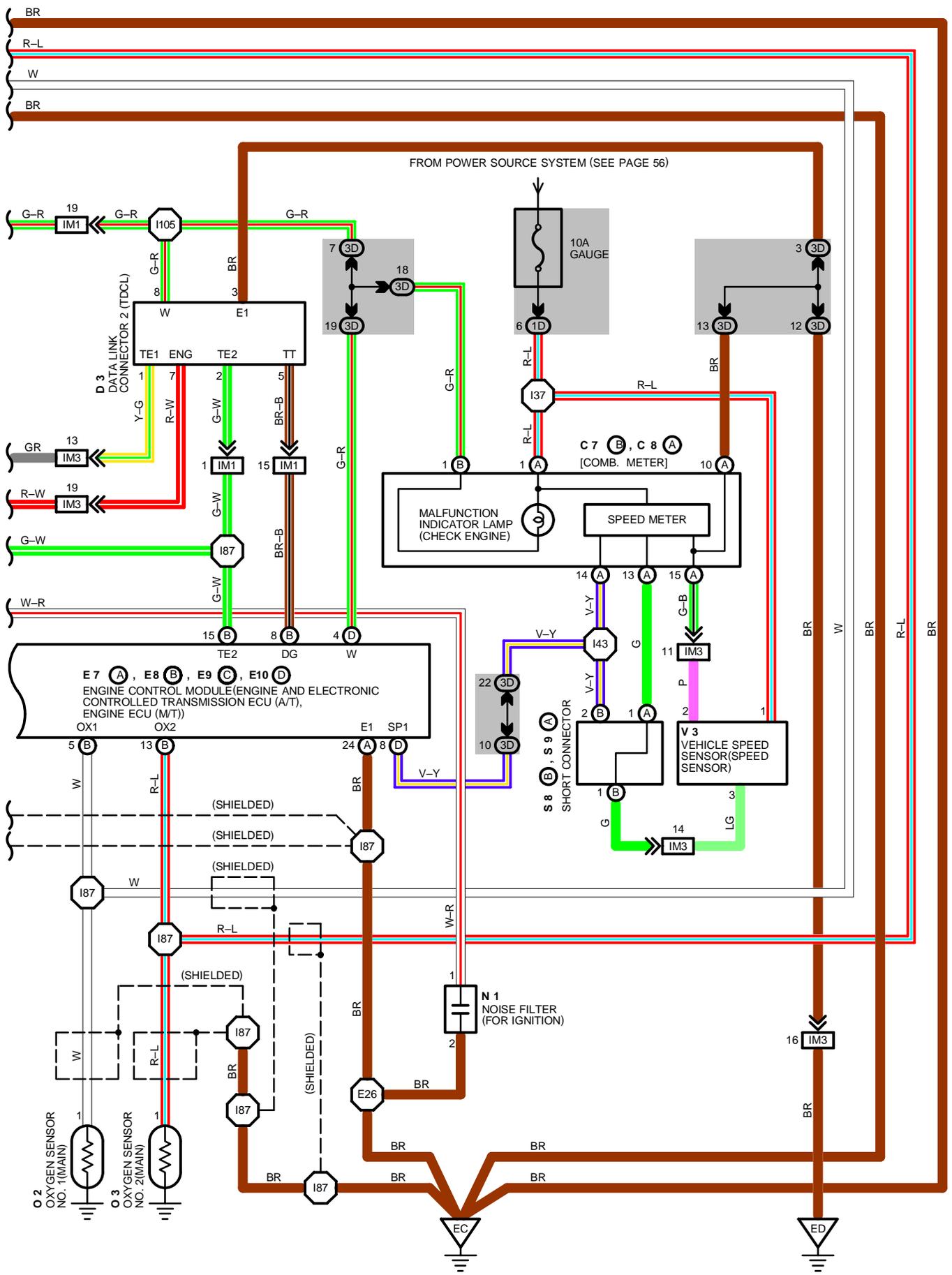


(HINT : SEE PAGE 7)

ENGINE CONTROL

*1 : CALIFORNIA
*2 : EX. CALIFORNIA





ENGINE CONTROL

SYSTEM OUTLINE

THIS SYSTEM UTILIZES AN ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU (A/T), ENGINE ECU (M/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 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 VOLUME 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 OX1, OX2** AND **OX3** (FOR CALIFORNIA) 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) (HT).
- (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 G1** AND **G2** 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 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 **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 VOLUME AIR FLOW (AIR FLOW METER) AND THE SIGNAL IS INPUT TO **TERMINAL VS** 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 SIGNAL IS INPUT INTO **TERMINALS KNK1** AND **KNK2** 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 OUTPUT TO **TERMINAL IGT**. 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 HT** AND CONTROL THE HEATER.

* IAC (IDLE AIR CONTROL (ISC)) SYSTEM

THE IAC (ISC) SYSTEM (STEP MOTOR 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 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 ISC1, ISC2, ISC3 AND ISC4** 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 THG** 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 IACV** 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. THE MALFUNCTIONING SYSTEM CAN BE FOUND BY READING THE CODE DISPLAYED BY THE MALFUNCTION INDICATOR LAMP (CHECK ENGINE WARNING LIGHT).

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

SERVICE HINTS

CIRCUIT OPENING RELAY

1-2 : 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

V 5 VOLUME AIR FLOW (AIR FLOW METER)

1-2 : CLOSED WITH STARTER RUNNING OR MEASURING PLATE OPEN

5-6: **0.2 - 0.6K** (MEASURING PLATE FULLY CLOSED)

0.02 - 1.2K (MEASURING PLATE FULLY OPEN)

4-5: **0.2 - 0.4K**

5-7: **10.0 - 20.0K** (-20°C, -4°F)

4.0 - 7.0K (0°C, 32°F)

2.0 - 3.0K (20°C, 68°F)

0.9 - 1.3K (40°C, 104°F)

0.4 - 0.7K (60°C, 140°F)

E 1 ENGINE COOLANT TEMP. SENSOR (EFI WATER TEMP. SENSOR)

1-2: **10.0 - 20.0K** (-20°C, -4°F)

4.0 - 7.0K (0°C, 32°F)

2.0 - 3.0K (20°C, 68°F)

0.9 - 1.3K (40°C, 104°F)

0.4 - 0.7K (60°C, 140°F)

0.2 - 0.4K (80°C, 176°F)

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

VOLTAGE AT ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU (A/T), ENGINE ECU (M/T)) WARNING CONNECTOR

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

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

M-REL-E1 : **9.0 - 14.0** VOLTS (IGNITION SW AT **ON** POSITION)

+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 FULLY OPEN)

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

VC - E2 : ALWAYS **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 FULLY OPEN)

VS - E2 : **4.0 - 5.5** VOLTS (IGNITION SW AT **ON** POSITION)

2.0 - 4.0 VOLTS (ENGINE IDLING)

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 (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)

IGT - E1 : PULSE GENERATION (ENGINE IDLING)

IGF - E1 : **4.5 - 5.5** VOLTS (IGNITION SW AT **ON** POSITION) PULSE GENERATION (ENGINE IDLING)

G1, G2 - G- : PULSE GENERATION (ENGINE IDLING)

NE - G- : PULSE GENERATION (ENGINE IDLING)

ISC1, ISC2, ISC3, ISC4 - E1 : PULSE GENERATION (ENGINE IDLING AND A/C OPERATION)

VF1, VF2 - E1 : **1.8 - 3.2** VOLTS (MAINTAIN ENGINE SPEED AT **2500RPM** FOR TWO MINUTES AFTER WARMING UP THEN RETURN TO IDLING)

OX1, OX2 - E1 : PULSE GENERATION (MAINTAIN ENGINE SPEED AT **2500RPM** FOR TWO MINUTES AFTER WARMING UP)

HT - E01 : **9.0 - 14.0** VOLTS (ENGINE SPEED **4000** RPM, COOLANT TEMP. **20°C, 68°C** OR HIGHER) BELOW **2.0** VOLTS (ENGINE IDLING)

KNK1, KNK2 - E1 : PULSE GENERATION (ENGINE IDLING)

NSW - E1 : **10.0 - 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)

OD1 - E1 : **4.5 - 5.5** VOLTS (IGNITION SW AT **ON** POSITION)

A/C - E1 : BELOW **3.0** VOLTS (A/C SW ON)

9.0 - 14.0 VOLTS (A/C SW OFF)

ACT - E1 : **9.0 - 14.0** VOLTS (A/C SW ON)

0 - 1.5 VOLTS (A/C SW OFF)

IACV - E01 : **9.0 - 14.0** VOLTS (IGNITION SW AT **ON** POSITION)

STA - E1 : **6.0** VOLTS OR MORE (ENGINE CRANKING)

STJ - E01 : **9.0 - 14.0** VOLTS (ENGINE STARTING)

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

1-2 : APPROX. **13.4-14.2**

T 2 THROTTLE POSITION SENSOR

3-1 : **0.28-6.4K** WITH CLEARANCE BETWEEN LEVER AND STOP SCREW **0MM (0 IN.)**

2-1 : LESS THAN **0.5K** WITH CLEARANCE BETWEEN LEVER AND STOP SCREW **0.35 MM (0.014 IN.)**

WITH CLEARANCE BETWEEN LEVER AND STOP SCREW **0.7MM (0.028 IN.)**

3-1 : **2.0-11.6K** WITH THROTTLE VALVE FULLY OPEN

 : PARTS LOCATION

CODE		SEE PAGE	CODE	SEE PAGE	CODE		SEE PAGE
C 7	B	30	H11	31	K 2		29
C 8	A	30	I 1	29	N 1		29
D 1		28	I 2	29	O 2		29
D 2		28	I 3	29	O 3		29
D 3		31	I 4	29	S 8	B	31
E 1		28	I 5	29	S 9	A	31
E 3		28	I 6	29	T 2		29
E 7	A	30	I 7	29	V 1		29
E 8	B	30	I 8	29	V 2		29
E 9	C	30	I 9	29	V 3		29
E10	D	30	I11	31	V 5		28
F15		32	K 1	29			

 : 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)
1C		
1D		
1E		
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)
3B		
3C		
3D		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ED1	34	ENGINE WIRE AND SENSOR WIRE (SIDE OF FRONT CYLINDER HEAD)
I11	36	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		
IN1	38	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE GLOVE BOX)
BW1	40	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)

 : GROUND POINTS

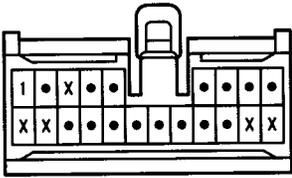
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD RH
ED	34	INTAKE MANIFOLD LH
IG	36	INSTRUMENT PANEL BRACE LH
BL	40	UNDER THE LEFT QUARTER PILLAR

 : SPLICE POINTS

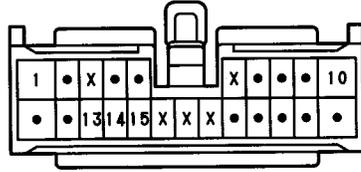
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 11	34	ENGINE WIRE	I 37	38	COWL WIRE
E 18	34	ENGINE ROOM MAIN WIRE	I 43		
E 25	34	ENGINE WIRE	I 66		
E 26			I 86		
I 7	38	INSTRUMENT PANEL WIRE	I 87	38	ENGINE WIRE
I 12	38	COWL WIRE	I105		

ENGINE CONTROL

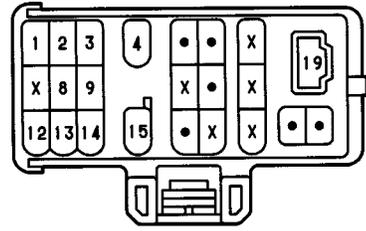
C 7 (B) GRAY



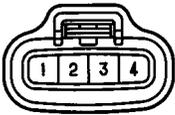
C 8 (A)



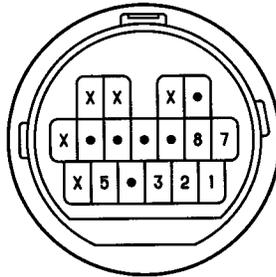
D 1 BLACK



D 2 BLACK



D 3 DARK GRAY



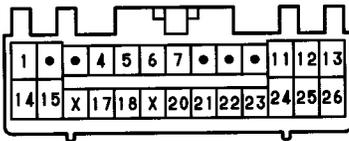
E 1 GRAY



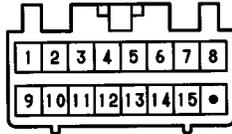
E 3 GRAY



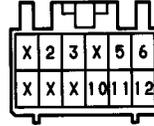
E 7 (A) DARK GRAY



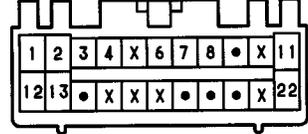
E 8 (B) DARK GRAY



E 9 (C) DARK GRAY



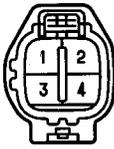
E10 (D) DARK GRAY



F15 DARK GRAY



H11



I 1 GRAY



I 2 BLACK



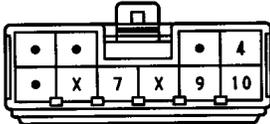
I 3 BLACK



I 4, I 5, I 6 GRAY



I11



K 1, K 2 DARK GRAY



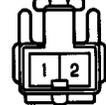
N 1 GRAY



O 2, O 3 DARK GRAY



S 8 (B)



S 9 (A)



T 2 BLACK



V 1 BLUE



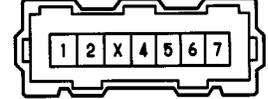
V 2 BROWN



V 3 BLACK

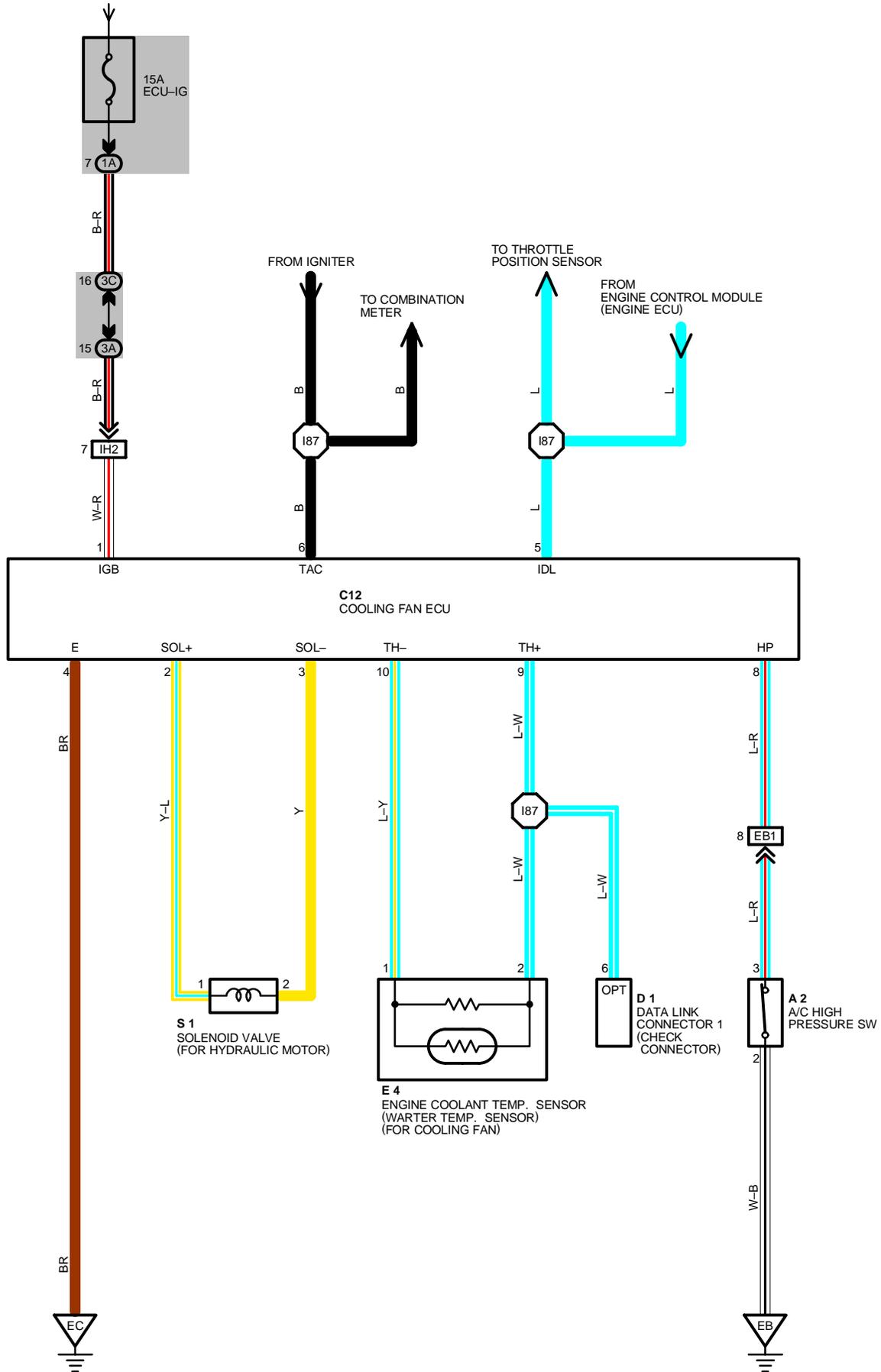


V 5 BLACK



ELECTRONICALLY CONTROLLED HYDRAULIC COOLING FAN

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



SYSTEM OUTLINE

THE COOLING FAN ECU RECEIVES VARIOUS SIGNALS, I.E., THE ENGINE RPM SIGNAL FROM THE IGNITOR, ENGINE IDLE SPEED SIGNAL FROM THE THROTTLE POSITION SENSOR, COOLANT TEMPERATURE SIGNAL FROM THE ENGINE COOLANT TEMP. SENSOR (WATER TEMP. SENSOR), A/C REFRIGERANT PRESSURE SIGNAL FROM A/C PRESSURE SW.

THE COOLING FAN ECU JUDGES THE ENGINE TEMPERATURE BASED ON THE ABOVE-MENTIONED SIGNALS FROM ABOVE MENTION, DRIVES THE SOLENOID VALVE AND CONTROLS THE SPEED OF THE COOLING FAN STEPLESSLY.

FAIL-SAFE FUNCTION

WHEN A MALFUNCTION IS DETECTED BY THE ENGINE COOLANT TEMP. SENSOR (WATER TEMP. SENSOR) OR SOLENOID VALVE. THE FAIL-SAFE FUNCTION OF THE COOLING FAN ECU EITHER RELIES ON THE DATA STORED IN ITS MEMORY TO ALLOW THE COOLING SYSTEM TO CONTINUE OPERATING.

SERVICE HINTS

A 2 A/C HIGH PRESSURE SW

2-3 : OPEN ABOVE APPROX. 15.58KG/CM² (221.2PSI, 1527KPA)
CLOSED BELOW APPROX. 12.56 KG/CM² (178.4PSI, 1231KPA)

C12 COOLING FAN ECU

1-GROUND : APPROX. 10-14 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 (CLOSED)
4-GROUND : ALWAYS CONTINUITY

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

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
C12	30	E 4	29		

○ : 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)
EB1	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)

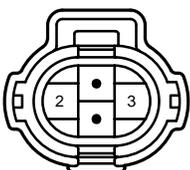
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD RH

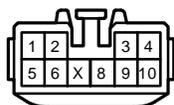
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 87	38	ENGINE WIRE			

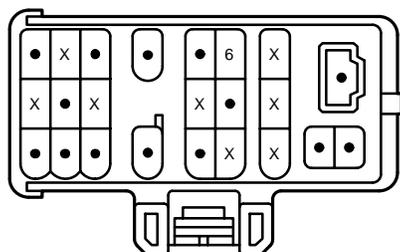
A 2 BLACK



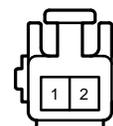
C12 GRAY



D 1 BLACK



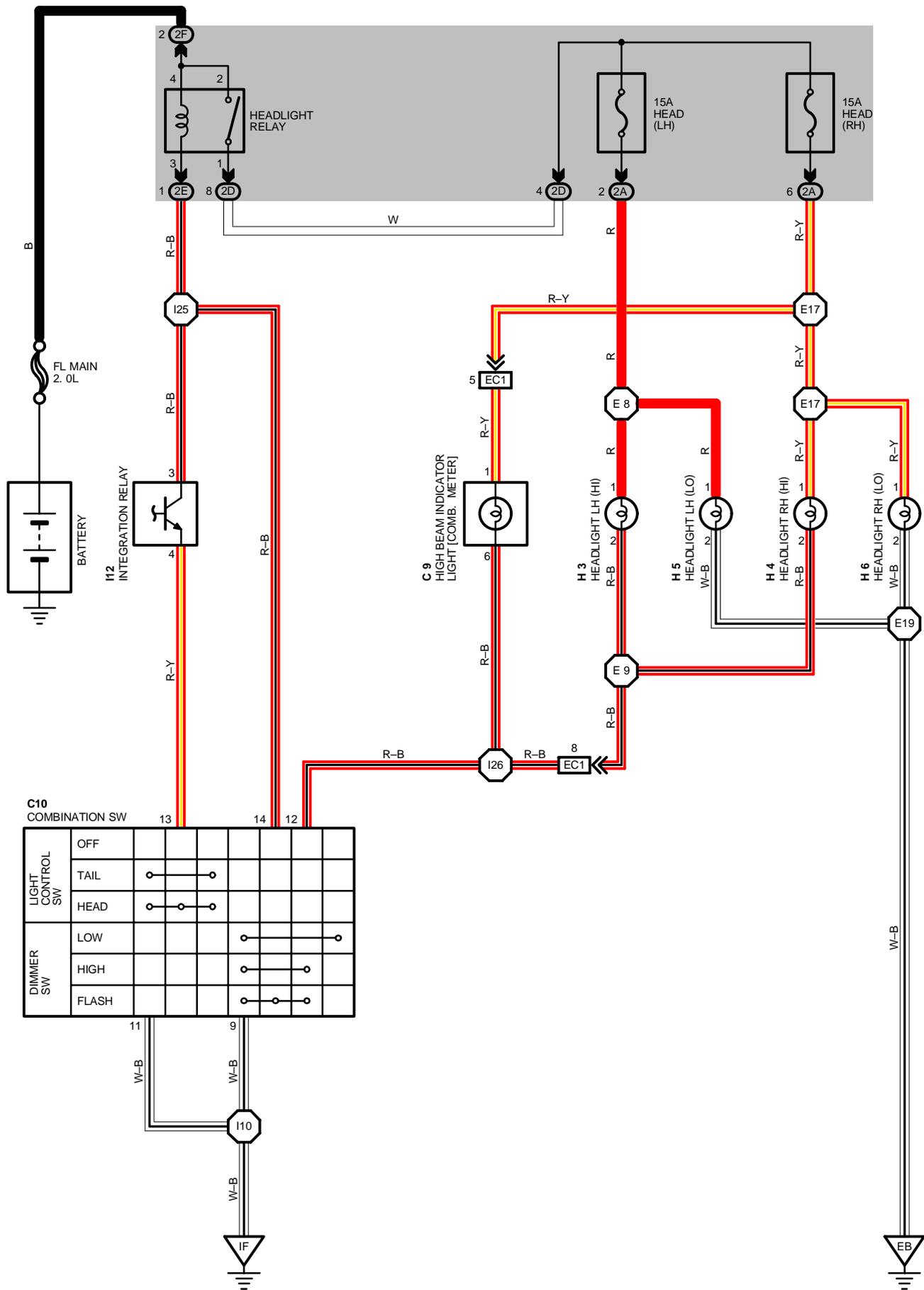
E 4



S 1



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 100)

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	30	H 4	28	I12	31
C10	30	H 5	28		
H 3	28	H 6	28		

○ : 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)
2D		
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	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)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)

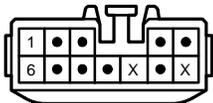
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
IF	36	LEFT KICK PANEL

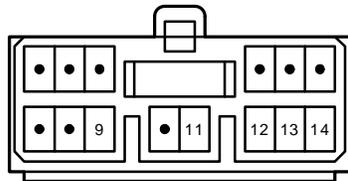
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 8	34	ENGINE ROOM MAIN WIRE	I 10	38	COWL WIRE
E 9			I 25		
E 17			I 26		
E 19					

C 9 BLUE



C10 BLACK



H 3, H 4 BLACK



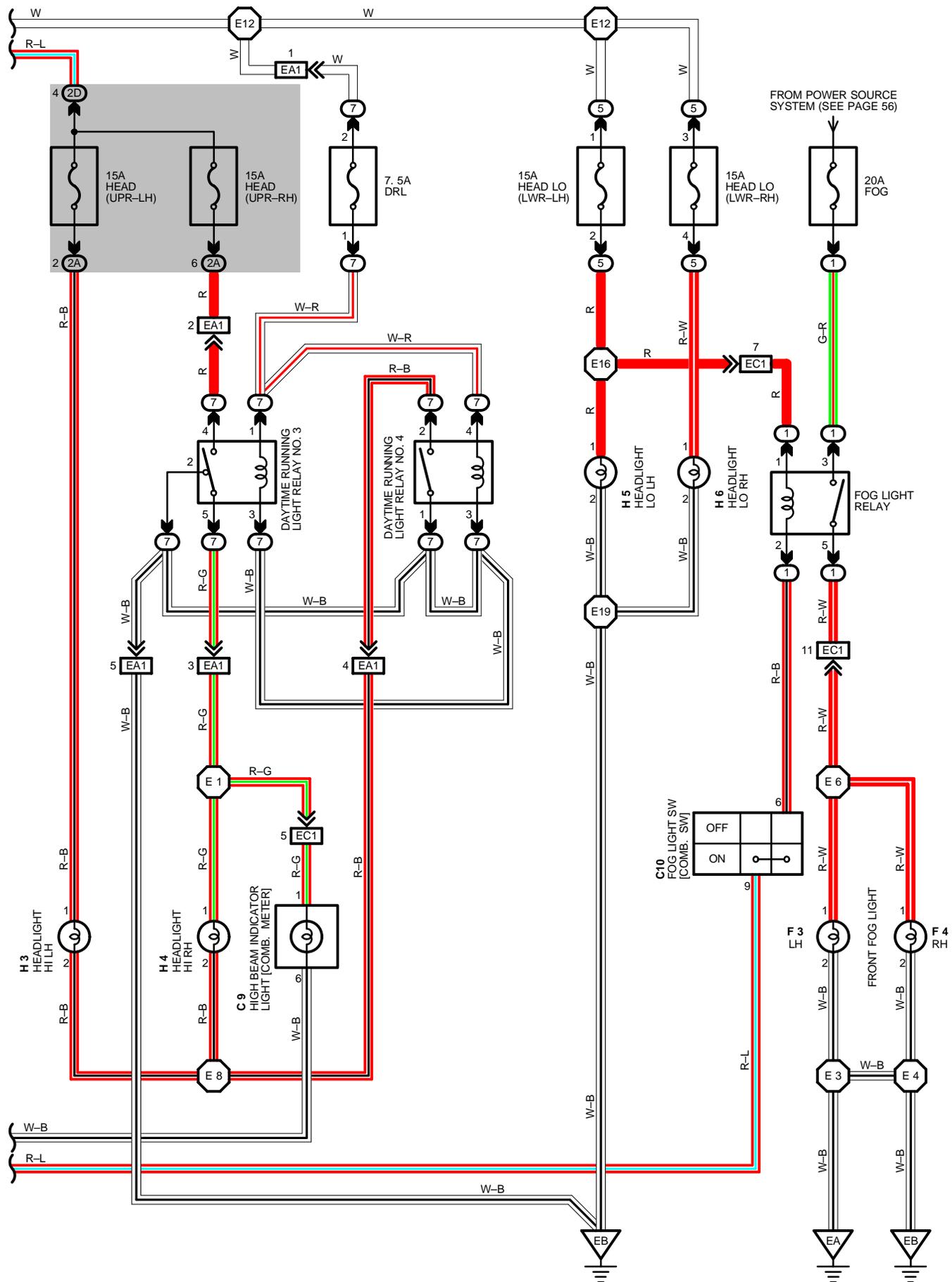
H 5, H 6 BLACK



I12



HEADLIGHT AND FOG LIGHT (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 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, FL MAIN → **ALT FUSE** → TAILLIGHT RELAY (COIL SIDE) → **TERMINAL 4** 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.

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 AND CURRENT FROM FL MAIN FLOWS TO **ALT FUSE** → TAILLIGHT RELAY (POINT SIDE) → **TAIL FUSE** → TAIL, LICENCE AND FRONT CLEARANCE LIGHT → **GROUND**. ALSO, CURRENT FROM FL MAIN FLOWS TO DAYTIME RUNNING LIGHT RELAY NO. 2 (POINT SIDE) → **HEAD (UPR-LH) FUSE** → **TERMINAL 1** OF THE HEAD HI-LH → **TERMINAL 2** → **TERMINAL 2** OF THE HEAD HI-RH → **TERMINAL 1** → **TERMINAL 5** 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 TAIL, HEAD HAVE LIGHT UP, TAIL, 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), TAIL, HEAD REMAIN ON. IF THE IGNITION SW IS THEN TURNED OFF, TAIL 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, HEAD LIGHT 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 SIDE) 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, ACTIVATING THE DAYTIME RUNNING LIGHT RELAY AND ALSO THE DAYTIME RUNNING LIGHT RELAY NO. 2 WHEN THE HEADLIGHT RELAY AND DAYTIME RUNNING LIGHT RELAY 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. 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. 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 HI-LH → **TERMINAL 2** → DAYTIME RUNNING LIGHT RELAY NO.4 (POINT SIDE) → **GROUND**, AND CURRENT ALSO SIMULTANEOUSLY FLOWS FROM **HEAD (RH-UPR) 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 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 AND FOG LIGHT (FOR CANADA)

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	30	F 7	28	I12	31
C10	30	H 3	28	J 1	31
D 4	30	H 4	28	P 4	31
F 3	28	H 5	28		
F 4	28	H 6	28		

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT 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)
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)
2D	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	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)
EA1	34	ENGINE ROOM MAIN WIRE AND RELAY WIRE (UNDER THE R/B NO. 7)
EB1	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)

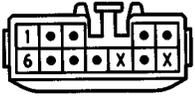
: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
IE	36	LEFT KICK PANEL
IF		
IG	36	INSTRUMENT PANEL BRACE LH

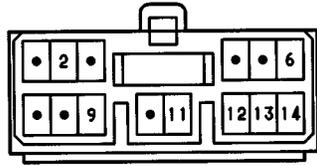
: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 1	34	ENGINE ROOM MAIN WIRE	E 16	34	ENGINE ROOM MAIN WIRE
E 3			E 19		
E 4			I 36	38	COWL WIRE
E 6			I 46		
E 8			I 54		
E 12			I 71	38	INSTRUMENT PANEL WIRE

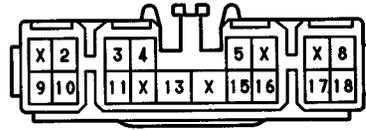
C 9 BLUE



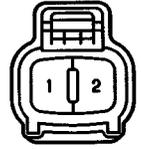
C10 BLACK



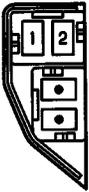
D 4 GRAY



F 3, F 4 BLACK



F 7



H 3, H 4 BLACK



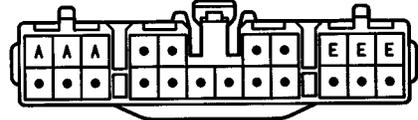
H 5, H 6 BLACK



I12



J 1



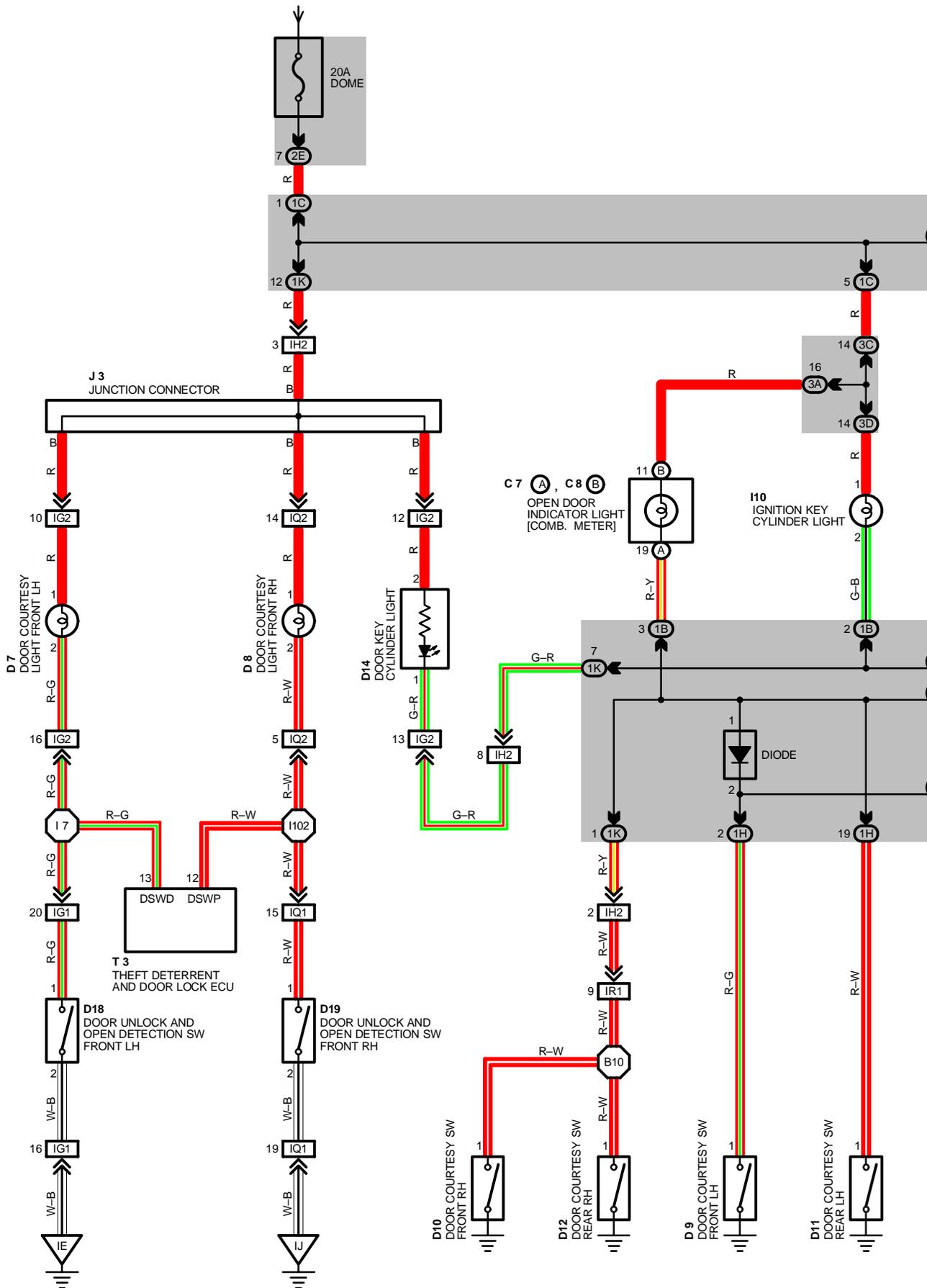
(HINT:SEE PAGE 7)

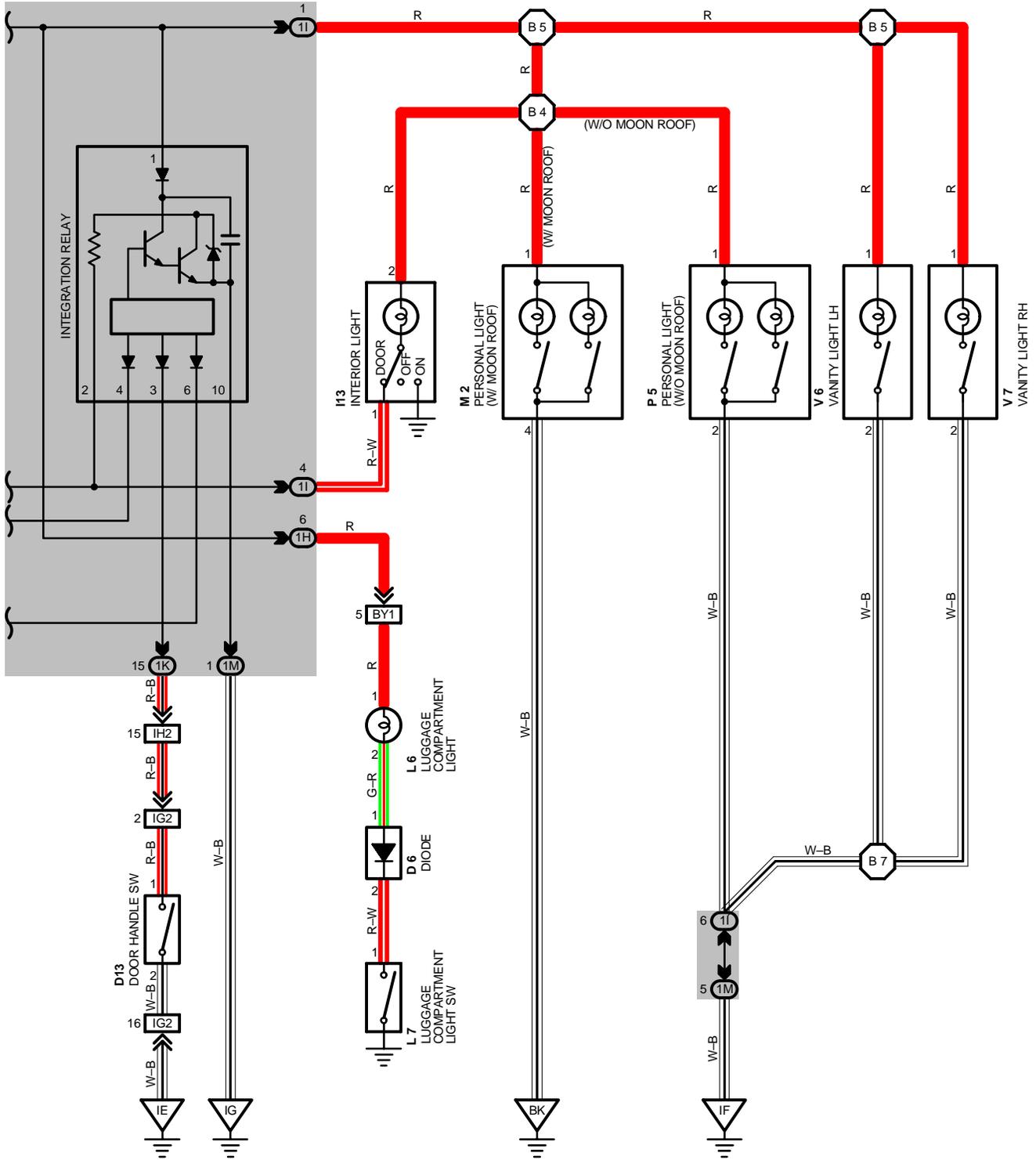
P 4



INTERIOR LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 56)





INTERIOR LIGHT

SERVICE HINTS

INTEGRATION RELAY

1-GROUND : ALWAYS APPROX. 12 VOLTS

4-GROUND : CONTINUITY WITH EACH DOOR (FRONT LH AND RH, REAR LH AND RH) OPEN

2-GROUND : CONTINUITY WITH FRONT LH DOOR OPEN

D 9, D10, D11, D12 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPEN

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 7	A 30	D12	32	L 6	32
C 8	B 30	D13	32	L 7	32
D 6	32	D14	32	M 2	32
D 7	32	D18	32	P 5	32
D 8	32	D19	32	T 3	31
D 9	32	I10	31	V 6	32
D10	32	I13	32	V 7	32
D11	32	J 3	31		

○ : 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 AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1I	20	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2E	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)
IG1	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG2		
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IQ2		
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

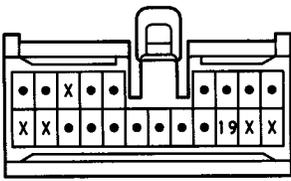
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	36	LEFT KICK PANEL
IF		
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL
BK	40	ROOF LEFT

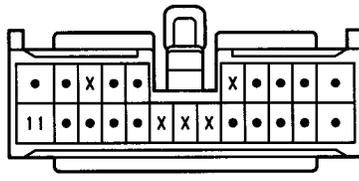
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 7	38	INSTRUMENT PANEL WIRE	B 5	40	ROOF WIRE
I102			B 7		
B 4	40	ROOF WIRE	B 10	40	FLOOR NO. 2 WIRE

C 7 (A) GRAY



C 8 (B)



D 6



D 7, D 8



D 9, D10, D11, D12



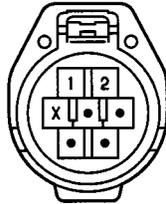
D13 DARK GRAY



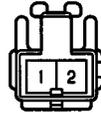
D14



D18, D19 GRAY



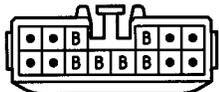
I10 DARK GRAY



I13



J 3 DARK GRAY



(HINT:SEE PAGE 7)

L 6 GRAY



L 7 GRAY



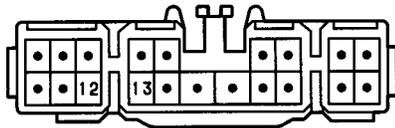
M 2



P 5



T 3 ORANGE



V 6, V 7



TAILLIGHT

SYSTEM OUTLINE

WHEN THE LIGHT CONTROL SW IS TURNED TO **TAIL** OR **HEAD** POSITION, THE CURRENT FLOWS TO **TERMINAL 5** 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 5** OF THE LIGHT FAILURE SENSOR TO **TERMINAL 7, 12** 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

5-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
C 8	A	F 6	28	L 2	32
C 9	B	F 7	28	R 6	32
C10	30	I12	31	R 7	32
D 4	30	J 1	32		
F 5	28	J 5	32		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B		
1D	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1E		
1H	20	FLOOR NO. 1 WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
3D	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)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
II1	36	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

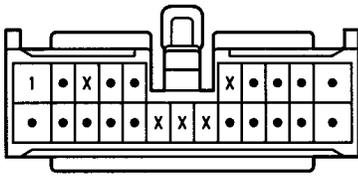
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
IF	36	LEFT KICK PANEL
BL	40	UNDER THE LEFT QUARTER PILLAR
BO	40	BACK PANEL CENTER

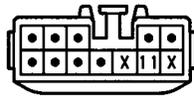
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 2			B 22	40	FLOOR NO. 1 WIRE
E 3	34	ENGINE ROOM MAIN WIRE	B 29	40	LUGGAGE ROOM WIRE
E 4			B 31		

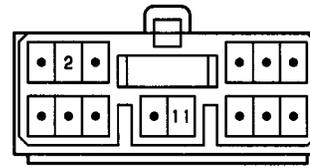
C 8 (A)



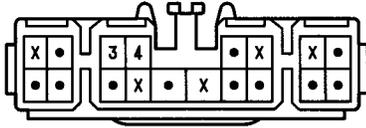
C 9 (B) BLUE



C10 BLACK



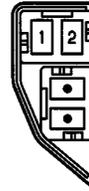
D 4 GRAY



F 5, F 6 GRAY



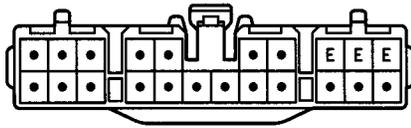
F 7



I12



J 1



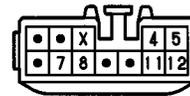
(HINT: SEE PAGE 7)

J 5

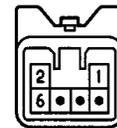


(HINT: SEE PAGE 7)

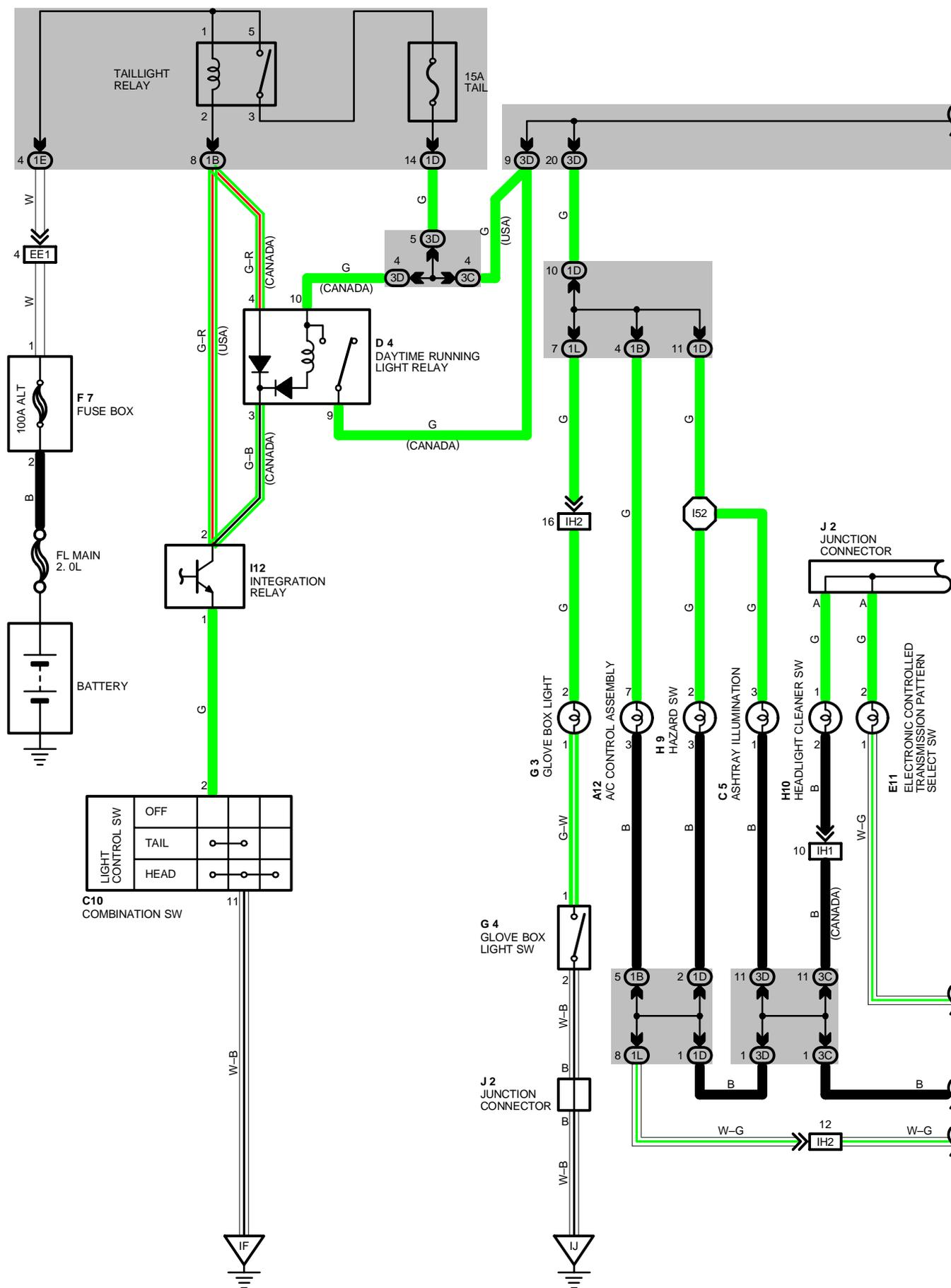
L 2



R 6, R 7



ILLUMINATION



ILLUMINATION

SERVICE HINTS

TAILLIGHT RELAY

3-5 : 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 4 RHEOSTAT

2-4, 8 : APPROX. 12 VOLTS WITH RHEOSTAT FULLY TURNED COUNTERCLOCKWISE AND 0 VOLT WITH FULLY TURNED CLOCKWISE

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A12	30	G 3	31	R 1	31
C 5	30	G 4	31	R 4	31
C 8	30	H 9	31	R 5	31
C10	30	H10	31	S 5	31
D 4	30	H2	31	S 6	31
E11	30	J 2	31		
F 7	28	O 4	31		

○ : 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		
1L		
1M	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)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IJ1	36	INSTRUMENT PANEL NO. 2 WIRE AND COWL WIRE (UNDER THE COMBINATION METER)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL

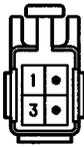
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 47	38	COWL WIRE	I 69	38	INSTRUMENT PANEL WIRE
I 48			I 74		
I 49			I 78		
I 51			I 79		
I 52			I 80		

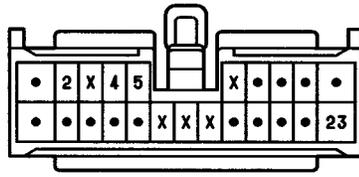
A12 BLUE



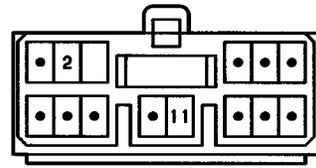
C 5



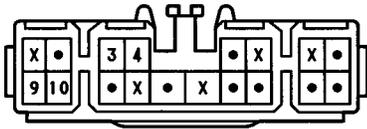
C 8



C10 BLACK



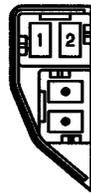
D 4 GRAY



E11



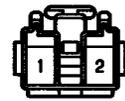
F 7



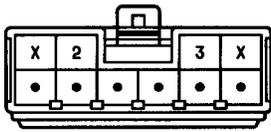
G 3 GRAY



G 4



H 9 BLACK



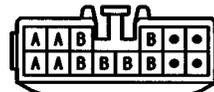
H10 BLACK



I12



J 2

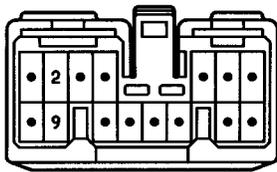


(HINT:SEE PAGE 7)

O 4 BLUE



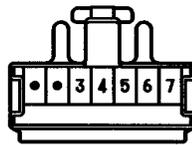
R 1



R 4



R 5



S 5



S 6 BLUE



SERVICE HINTS

(1) FOG LIGHT RELAY

3-5 : CLOSED WITH LIGHT CONTROL SW AT **HEAD** POSITION, DIMMER SW AT **LOW** POSITION AND FOG LIGHT SW ON

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C10	30	F 3	28	F 4	28

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	25	R/B NO. 1 (LEFT KICK PANEL)
5	26	R/B NO. 5 (ENGINE COMPARTMENT LEFT)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)

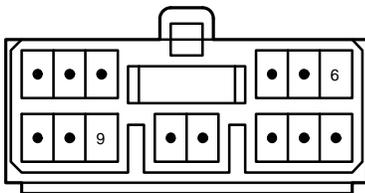
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
IF	36	LEFT KICK PANEL

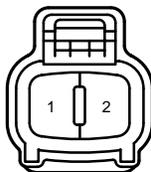
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 3	34	ENGINE ROOM MAIN WIRE	E 6	34	ENGINE ROOM MAIN WIRE
E 4			E 17		

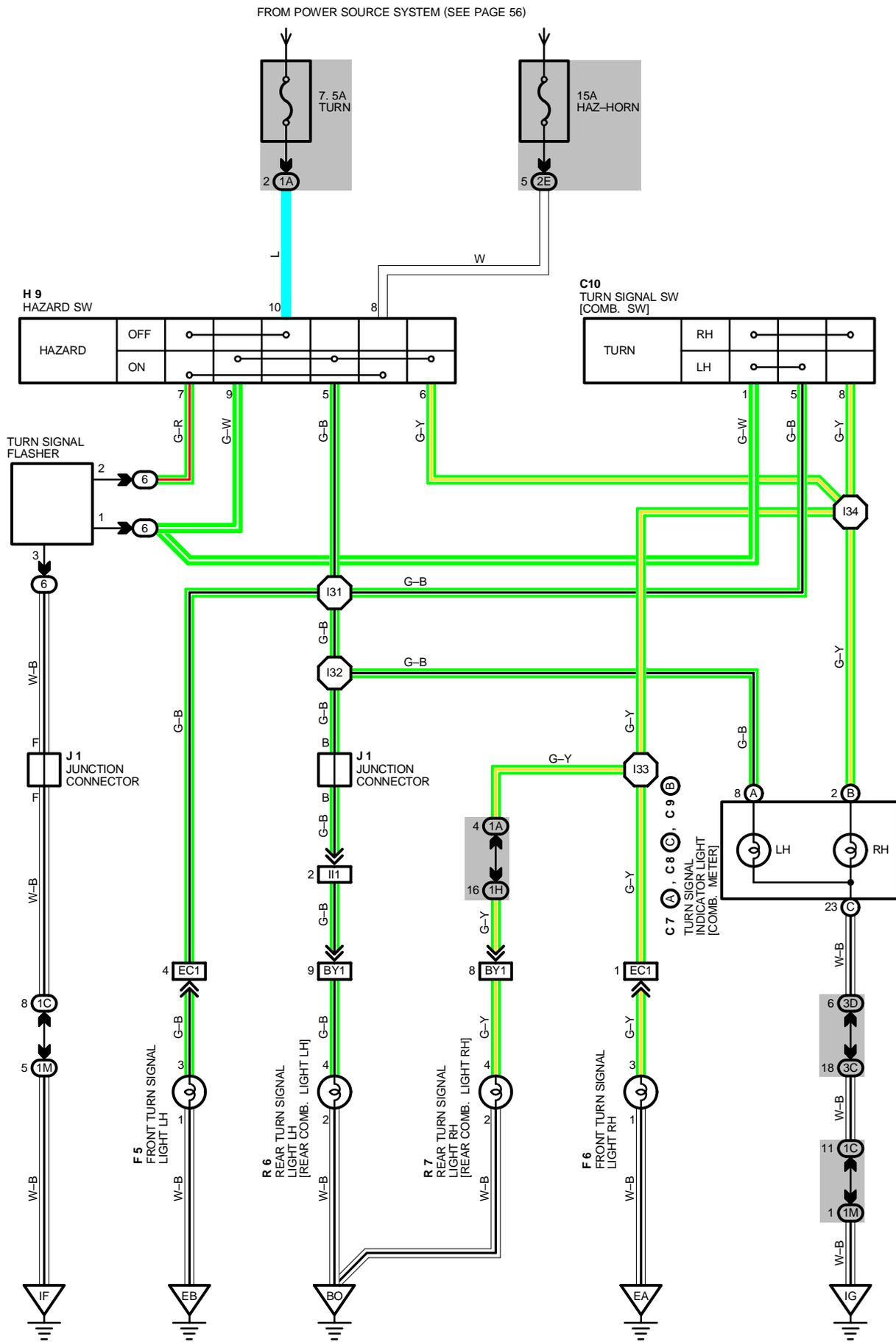
C10 BLACK



F 3, F 4 BLACK



TURN SIGNAL AND HAZARD WARNING LIGHT



SERVICE HINTS

TURN SIGNAL FLASHER

- (6) 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON OR HAZARD SW ON
- (6) 1-GROUND : CHANGES FROM APPROX. 12 TO 0 VOLTS WITH IGNITION SW ON AND TURN SIGNAL SW LEFT OR RIGHT, OR HAZARD SW ON
- (6) 3-GROUND: ALWAYS CONTINUITY

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 7	A 30	F 5	28	R 6	32
C 8	C 30	F 6	28	R 7	32
C 9	B 30	H 9	31		
C10	30	J 1	31		

: 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)
1C		
1H	20	FLOOR NO. 1 WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2E	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)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
II1	36	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

: GROUND POINTS

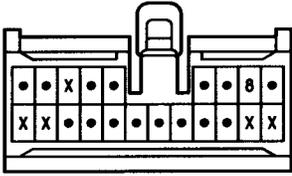
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
BO	40	BACK PANEL CENTER

: SPLICE POINTS

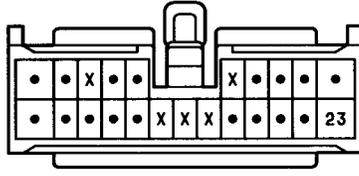
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 31	38	COWL WIRE	I 33	38	COWL WIRE
I 32			I 34		

TURN SIGNAL AND HAZARD WARNING LIGHT

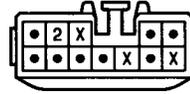
C 7 (A) GRAY



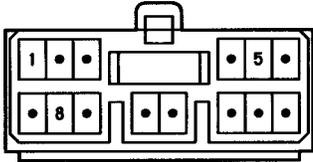
C 8 (C)



C 9 (B) BLUE



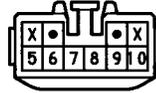
C10 BLACK



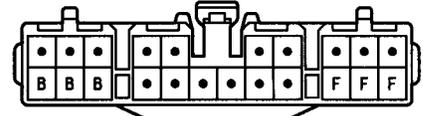
F 5, F 6 GRAY



H 9

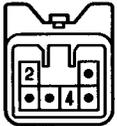


J 1

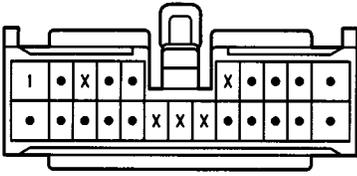


(HINT:SEE PAGE 7)

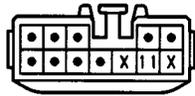
R 6, R 7



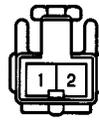
C 8 (A)



C 9 (B) BLUE



H12

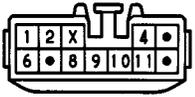


J 5

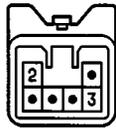


(HINT:SEE PAGE 7)

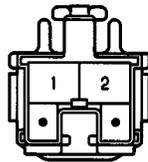
L 2 ORANGE



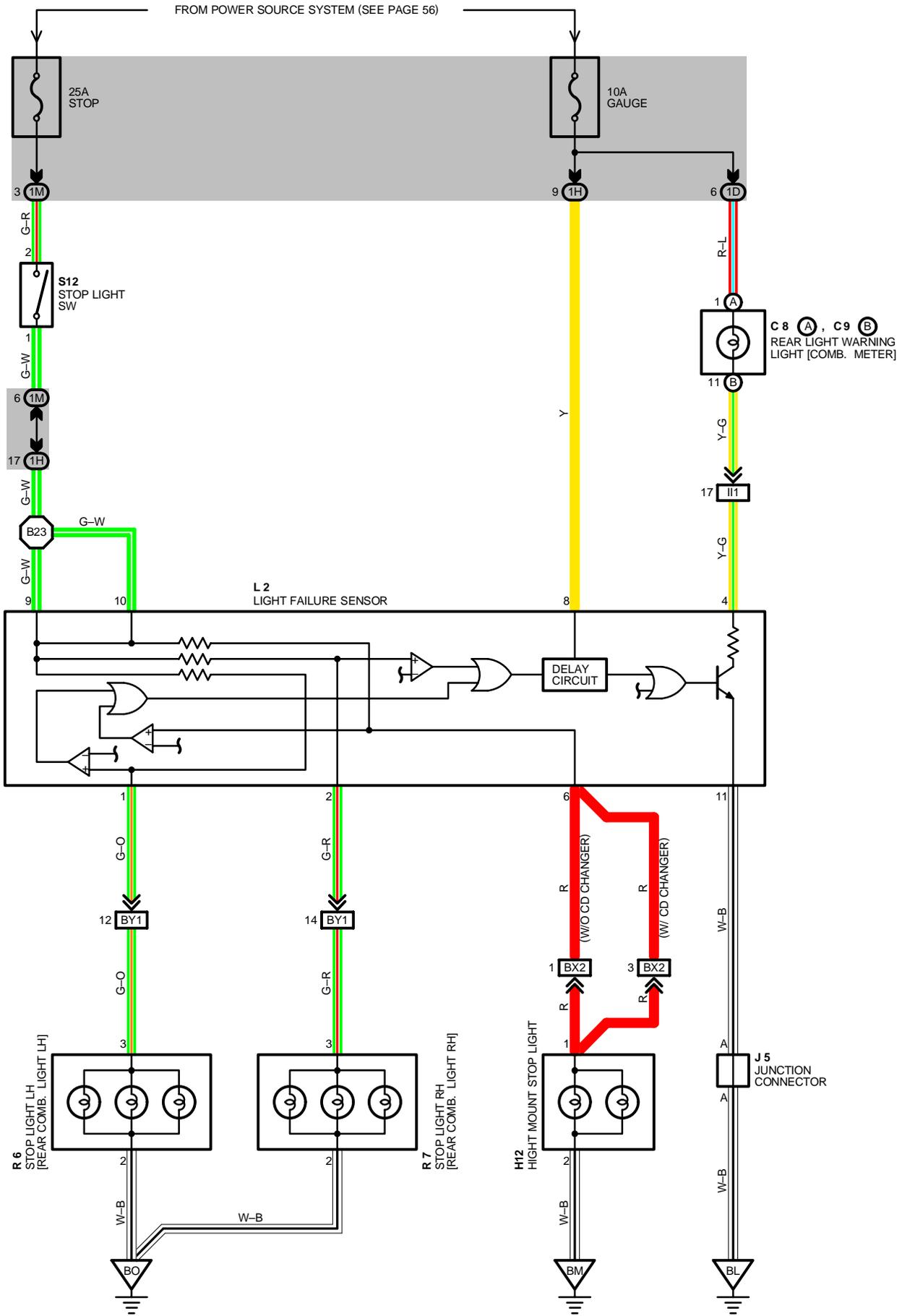
R 6, R 7



S12 BLUE



STOP LIGHT



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 9, 10** OF THE LIGHT FAILURE SENSOR TO **TERMINALS 1, 2, 6** 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

S12 STOP LIGHT SW

2-1: CLOSED WITH BRAKE PEDAL DEPRESSED

L 2 LIGHT FAILURE SENSOR

1, 2, 6, 9, 10-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
C 8	A	30	J 5	32	R 7	32
C 9	B	30	L 2	32	S12	31
H12		32	R 6	32		

○ : 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)
1H	20	FLOOR NO. 1 WIRE AND 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)
II1	36	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
BX2	40	FLOOR NO. 1 WIRE AND FLOOR NO. 2 WIRE (BEHIND PACKAGE TRAY TRIM)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

▽ : GROUND POINTS

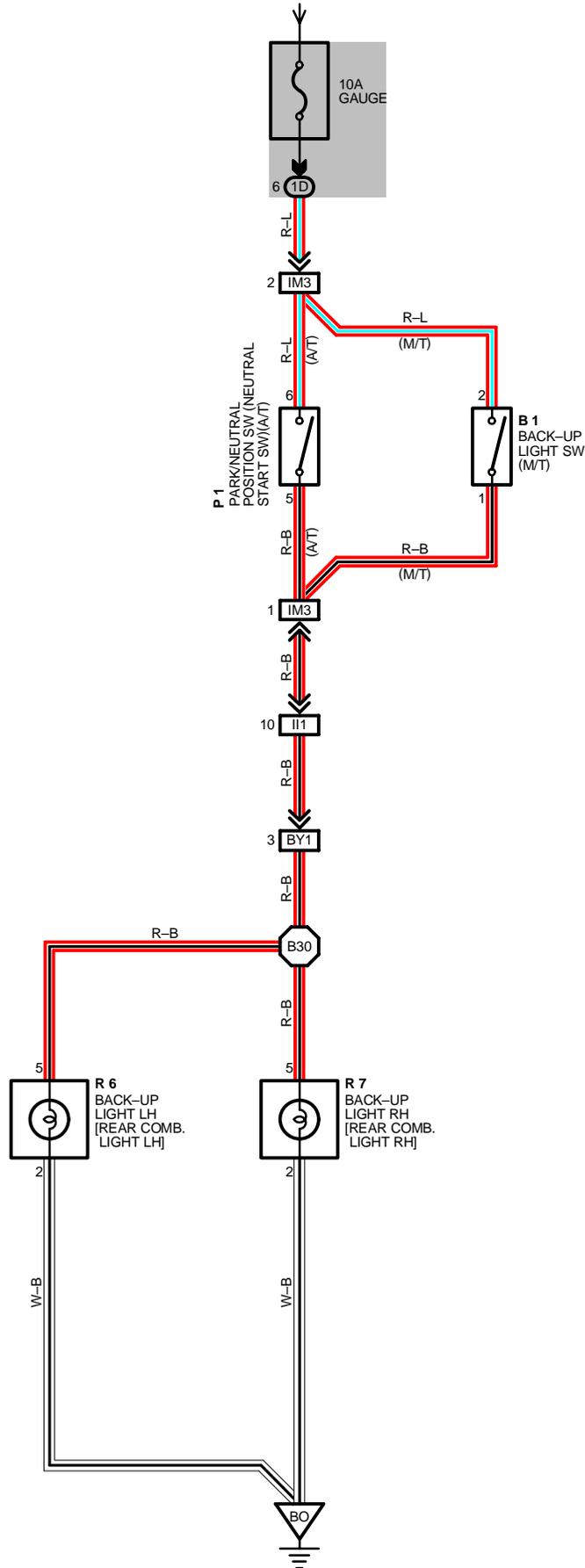
CODE	SEE PAGE	GROUND POINTS LOCATION
BL	40	UNDER THE LEFT QUARTER PILLAR
BM	40	UNDER THE RIGHT QUARTER PILLAR
BO	40	BACK PANEL CENTER

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B 23	40	FLOOR NO. 1 WIRE			

BACK-UP LIGHT

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



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	28	R 6	32		
P 1	29	R 7	32		

○ : 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)
II1	36	FLOOR NO. 1 WIRE AND COWL WIRE
IM3	38	ENGINE WIRE AND COWL WIRE
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE

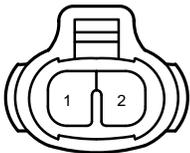
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
BO	40	BACK PANEL CENTER

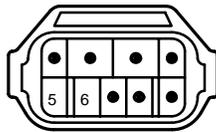
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B30	40	LUGGAGE ROOM MAIN WIRE			

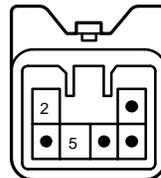
B 1 GRAY



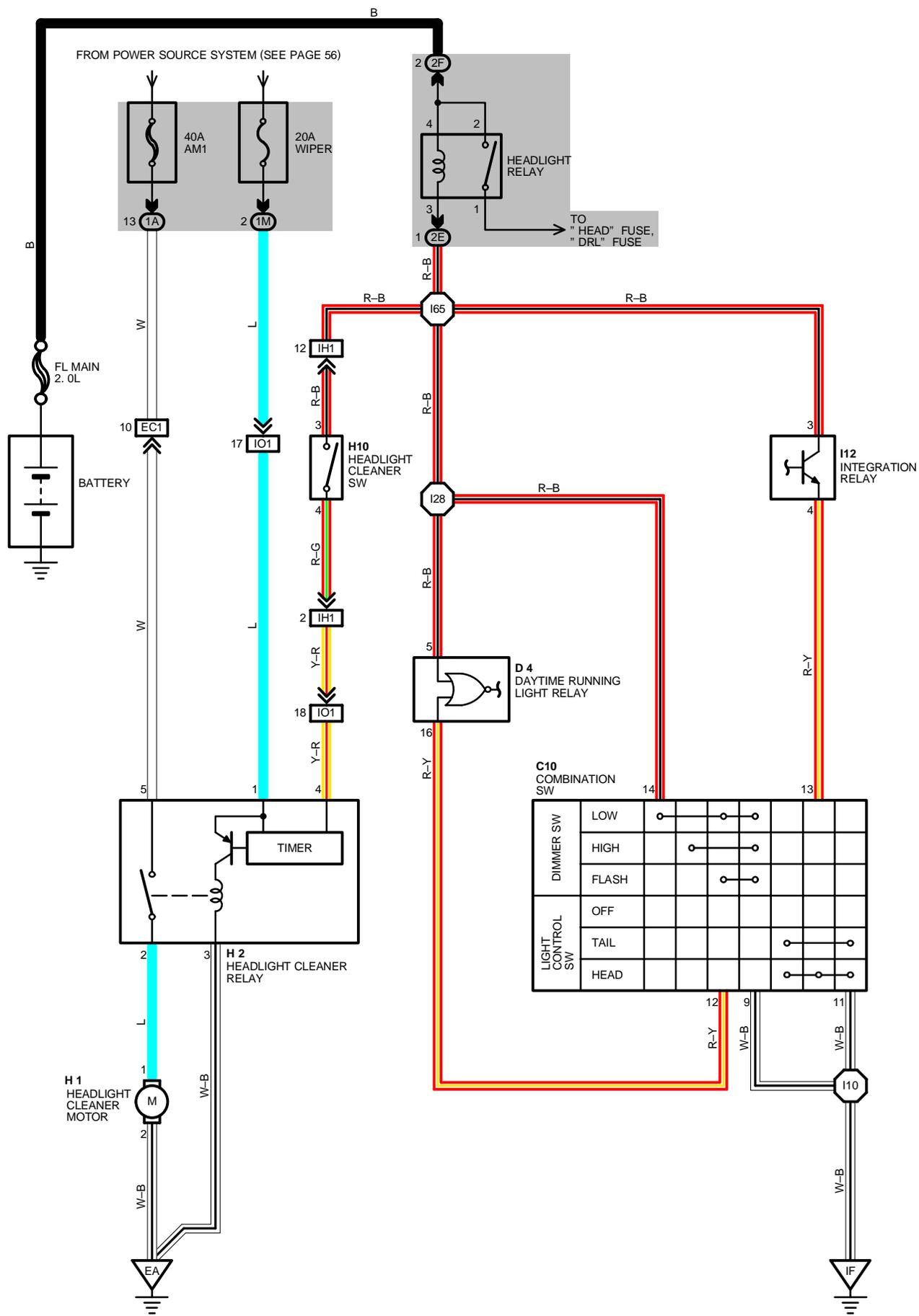
P 1 GRAY



R 6, R 7



HEADLIGHT CLEANER (FOR CANADA)



SERVICE HINTS

H 2 HEADLIGHT CLEANER RELAY

5-2 : CLOSED WITH LIGHT CONTROL SW AT **HEAD** POSITION AND HEADLIGHT CLEANER SW ON
 CLOSED WITH DIMMER SW AT **FLASH** POSITION AND HEADLIGHT CLEANER SW ON

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C10	30	H 1	28	H10	31
D 4	30	H 2	28	I12	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)
1M		
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	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)
EC1	34	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
I01	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)

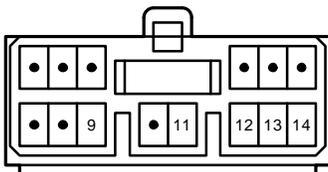
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
IF	36	LEFT KICK PANEL

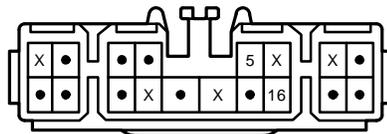
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 10	38	COWL WIRE	I 65	38	COWL WIRE
I 28					

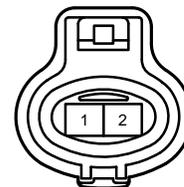
C10 BLACK



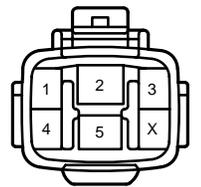
D 4 GRAY



H 1 GRAY



H 2 BLACK



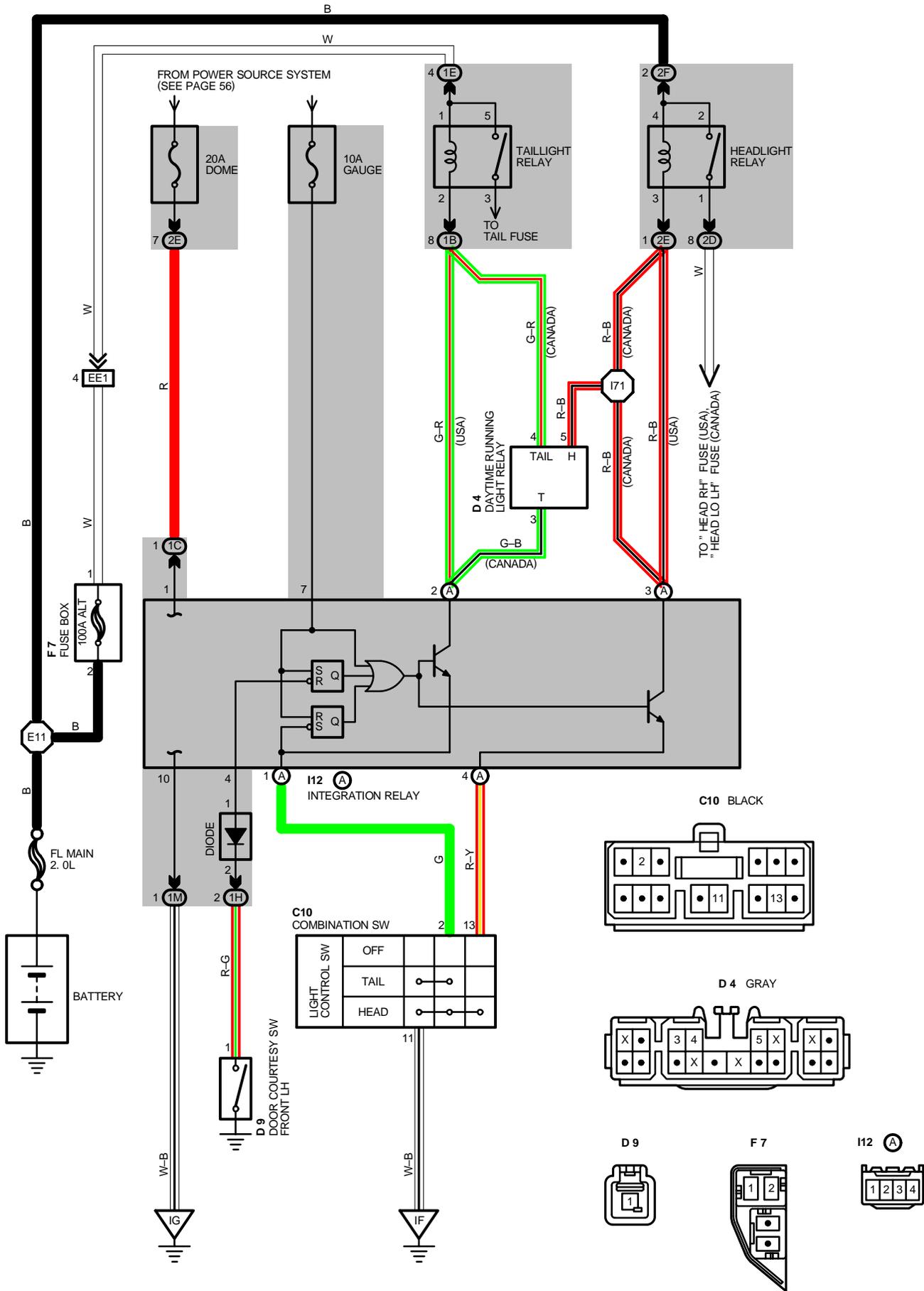
H10 BLACK



I12



LIGHT AUTO TURN OFF



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 **TAIL** 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 **HEAD** 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 4** 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

112 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

4-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
C10	30	D 9	32	I12	A 31
D 4	30	F 7	28		

○ : 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 AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
2D	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	22	COWL WIRE AND J/B NO.2 (ENGINE COMPARTMENT LEFT)
2F	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)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)

▽ : GROUND POINTS

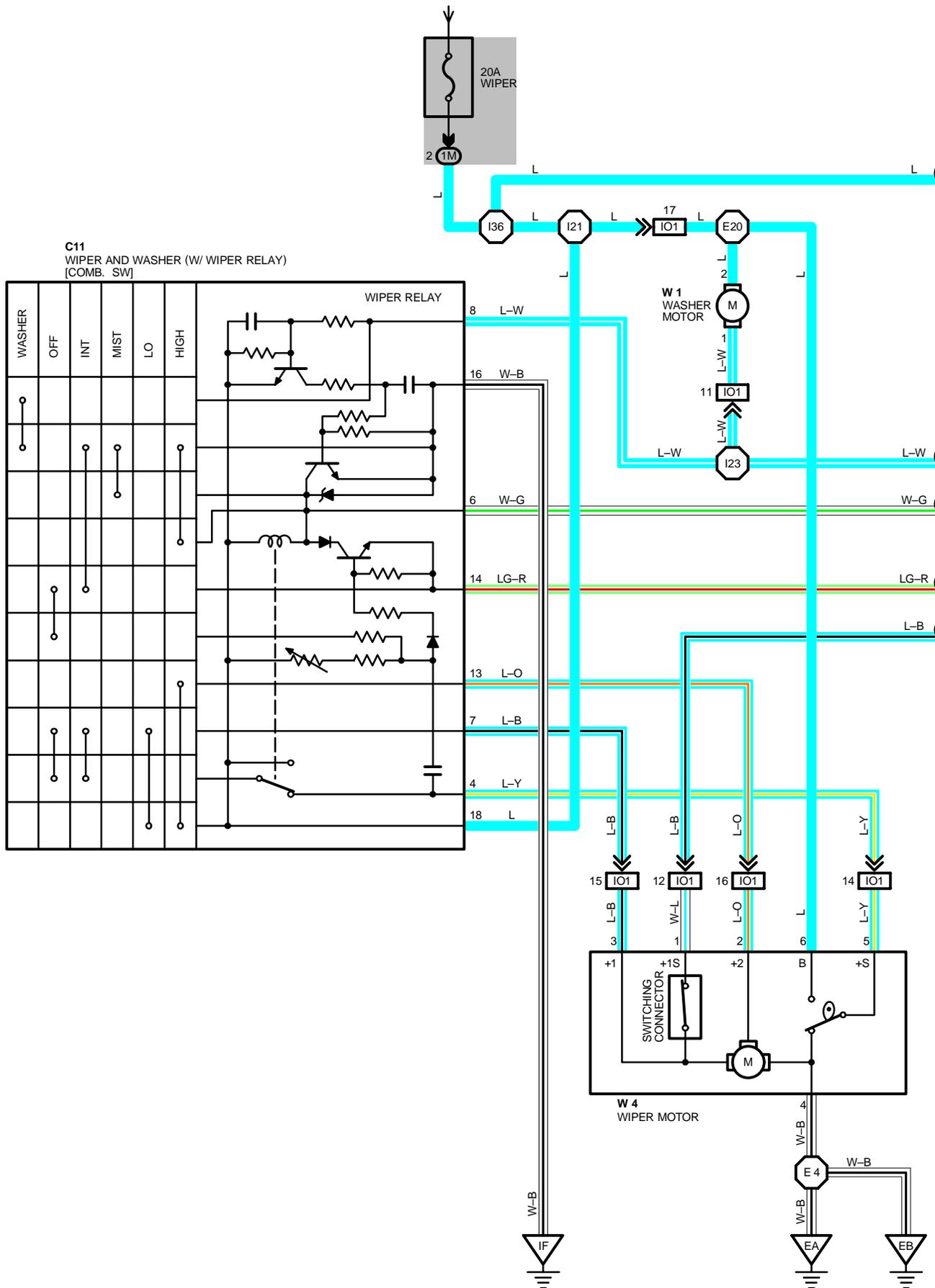
CODE	SEE PAGE	GROUND POINTS LOCATION
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH

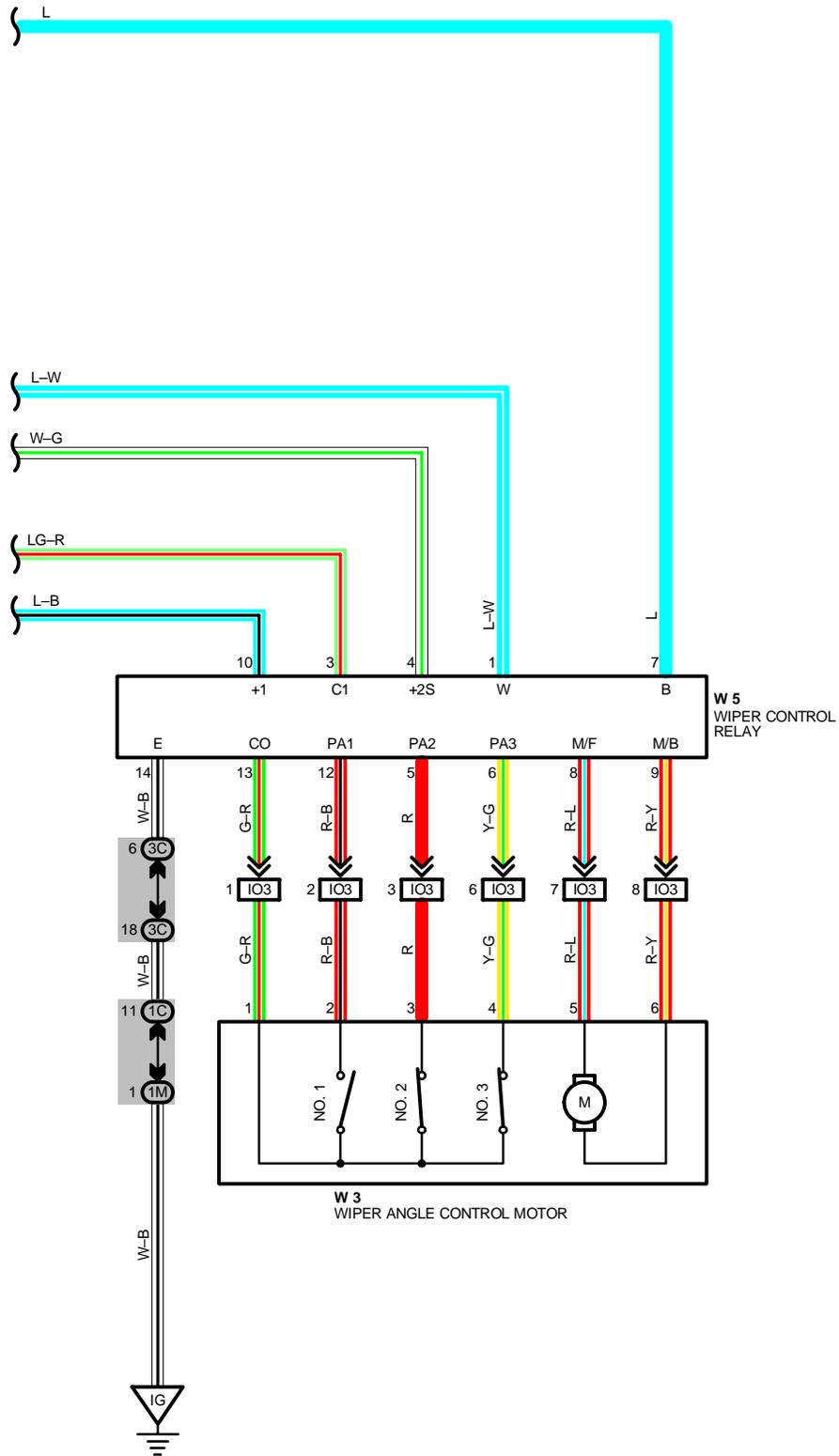
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 11	34	ENGINE WIRE	I71	38	INSTRUMENT PANEL WIRE

WIPER AND WASHER

FROM POWER SOURCE SYSTEM (SEE PAGE 56)





WIPER AND WASHER

SYSTEM OUTLINE

1. LOW SPEED OPERATION

WHEN THE WIPER SW IS TURNED TO **LO** POSITION, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF THE WIPER MOTOR → **TERMINAL 4** → **GROUND**, CAUSING THE WIPER MOTOR TO OPERATE AT LOW SPEED. INPUT OF A SIGNAL TO **TERMINAL 10** OF THE WIPER CONTROL RELAY FROM **TERMINAL 1** OF THE WIPER MOTOR AT THIS TIME CAUSES THE WIPER CONTROL RELAY TO OPERATE AS EXPLAINED FOR **INT** POSITION OPERATION.

2. HIGH SPEED OPERATION

WHEN THE WIPER SW IS TURNED TO **HI** POSITION, A SIGNAL IS INPUT TO **TERMINAL 4** OF THE WIPER CONTROL RELAY FROM **TERMINAL 6** OF THE WIPER AND WASHER SW. THE WIPER CONTROL RELAY SENDS CURRENT FROM THE **WIPER FUSE** TO **TERMINAL 7** OF THE WIPER CONTROL RELAY → **TERMINAL 8** → **TERMINAL 5** OF WIPER ANGLE CONTROL MOTOR → **TERMINAL 6** → **TERMINAL 9** OF WIPER CONTROL RELAY → **TERMINAL 14** → **GROUND**, CAUSING THE WIPER ANGLE CONTROL MOTOR TO ROTATE UNTIL THE NO. 2 SW INSIDE THE WIPER ANGLE CONTROL MOTOR IS ON AND THE NO. 3 SW IS OFF. SIMULTANEOUSLY, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 13** → **TERMINAL 2** OF WIPER MOTOR → **TERMINAL 4** → **GROUND**, CAUSING THE WIPER MOTOR TO OPERATE AT HIGH SPEED.

3. INT POSITION

WHEN THE WIPER SW IS TURNED TO **INT** POSITION, CURRENT FLOWS FROM **TERMINAL 14** OF THE WIPER AND WASHER SW TO **TERMINAL 3** OF THE WIPER CONTROL RELAY. THE WIPER CONTROL RELAY DOES NOT OPERATE WHEN NO. 1 SW INSIDE THE WIPER ANGLE CONTROL MOTOR IS ON. AT OTHER TIMES, WHEN NO. 3 SW INSIDE THE WIPER ANGLE CONTROL MOTOR IS ON, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 7** OF WIPER CONTROL RELAY → **TERMINAL 8** → **TERMINAL 5** OF WIPER ANGLE CONTROL MOTOR → **TERMINAL 6** → **TERMINAL 9** OF WIPER CONTROL RELAY → **TERMINAL 14** → **GROUND**, CAUSING THE WIPER ANGLE CONTROL MOTOR TO ROTATE UNTIL NO. 1 SW INSIDE THE WIPER ANGLE CONTROL MOTOR IS TURNED ON.

WHEN NO. 3 SW INSIDE WIPER ANGLE CONTROL MOTOR IS OFF, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 7** OF THE WIPER CONTROL RELAY → **TERMINAL 9** → **TERMINAL 6** OF WIPER ANGLE CONTROL MOTOR → **TERMINAL 5** → **TERMINAL 8** OF WIPER CONTROL RELAY → **TERMINAL 14** → **GROUND**, ROTATING THE WIPER ANGLE CONTROL MOTOR UNTIL NO. 1 SW INSIDE THE WIPER ANGLE CONTROL MOTOR IS TURNED ON. SIMULTANEOUSLY, CURRENT FROM THE **WIPER FUSE** FLOWS TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 16** → **GROUND**, ACTIVATING THE INTERMITTENT CIRCUIT OF THE WIPER RELAY. THIS CAUSES CURRENT TO FLOW FROM THE **WIPER FUSE** TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF WIPER MOTOR → **TERMINAL 4** → **GROUND**, ACTIVATING THE WIPER MOTOR. THE INTERMITTENT OPERATION IS CONTROLLED BY THE CHARGED/DISCHARGED STATE OF THE CONDENSER INSIDE THE WIPER RELAY.

BY ADJUSTING THE "INT TIME" CONTROL VOLUME SW, THE CONDENSER RECHARGE INTERVAL IS ADJUSTED, THEREBY CHARGING THE INTERMITTENT INTERVAL.

4. MIST POSITION

WHEN THE WIPER SW IS TURNED TO **MIST** POSITION, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 16** → **GROUND**, ACTIVATING THE MIST CIRCUIT OF THE WIPER RELAY. ACCORDINGLY, WHEN THE WIPER SW IS AT **OFF** OR **INT** POSITION ONLY, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF WIPER MOTOR → **TERMINAL 4** → **GROUND**, ACTIVATING THE WIPER MOTOR. AT THIS TIME, INPUT OF A SIGNAL TO **TERMINAL 10** OF THE WIPER CONTROL RELAY FROM **TERMINAL 1** OF THE WIPER MOTOR CAUSES THE WIPER CONTROL RELAY TO OPERATE AS DESCRIBED FOR **INT** POSITION OPERATION.

5. OFF POSITION

WHEN THE WIPER SW IS TURNED TO **OFF** POSITION FROM ANOTHER POSITION AND A SIGNAL IS OUTPUT FROM THE WIPER AND WASHER SW, AND A WIPER MOTOR STOP SIGNAL IS INPUT TO **TERMINAL 10** OF THE WIPER CONTROL RELAY FROM **TERMINAL 1** OF THE WIPER MOTOR THE WIPER CONTROL RELAY THEN SENDS CURRENT FROM THE **WIPER FUSE** TO **TERMINAL 7** OF THE WIPER CONTROL RELAY → **TERMINAL 9** → **TERMINAL 6** OF WIPER ANGLE CONTROL MOTOR → **TERMINAL 5** → **TERMINAL 8** OF WIPER CONTROL RELAY → **TERMINAL 14** → **GROUND**, CAUSING THE WIPER ANGLE CONTROL MOTOR TO ROTATE UNTIL THE NO. 2 SW AND NO. 3 SW INSIDE THE WIPER ANGLE CONTROL MOTOR BOTH TURN ON.

WHEN THE SWITCHING CONNECTOR ON THE WIPER MOTOR IS TURNED OFF, THE OPERATION EXPLAINED ABOVE IS CANCELLED.

SYSTEM OUTLINE

6. WASHER LINKED OPERATION

WHEN THE WASHER SW IS TURNED ON, CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 2** OF THE WASHER MOTOR → **TERMINAL 1** → **TERMINAL 8** OF WIPER AND WASHER SW → **TERMINAL 16** → **GROUND**, CAUSING THE WASHER TO OPERATE AND THE WINDSHIELD WASHER TO SPRAY.

THIS CURRENT FLOW ALSO ACTIVATES THE WASHER LINKED CIRCUIT OF THE WIPER RELAY, SO CURRENT FLOWS FROM THE **WIPER FUSE** TO **TERMINAL 18** OF THE WIPER AND WASHER SW → **TERMINAL 7** → **TERMINAL 3** OF WIPER MOTOR → **TERMINAL 4** → **GROUND**, ACTIVATING THE WIPER MOTOR. AT THIS TIME, INPUT OF A SIGNAL TO **TERMINAL 10** OF THE WIPER CONTROL RELAY FROM **TERMINAL 1** OF THE WIPER MOTOR CAUSES THE WIPER CONTROL RELAY TO OPERATE AS DESCRIBED FOR **INT** POSITION OPERATION.

DUE TO THE OPERATION OF THE CONDENSER INSIDE THE WIPER RELAY, THE WIPER MOTOR DOES NOT IMMEDIATELY STOP WHEN THE WASHER SW IS TURNED OFF.

SERVICE HINTS

C11 WIPER AND WASHER SW (W/ WIPER RELAY)

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 11 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

W 3 WIPER MOTOR

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

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C11	30	W 3	29	W 5	31
W 1	29	W 4	29		

○ : 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)
1M		
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

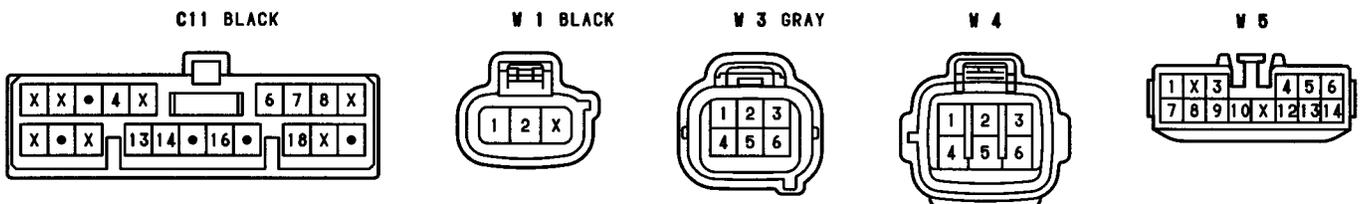
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IO1	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IO3		

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH

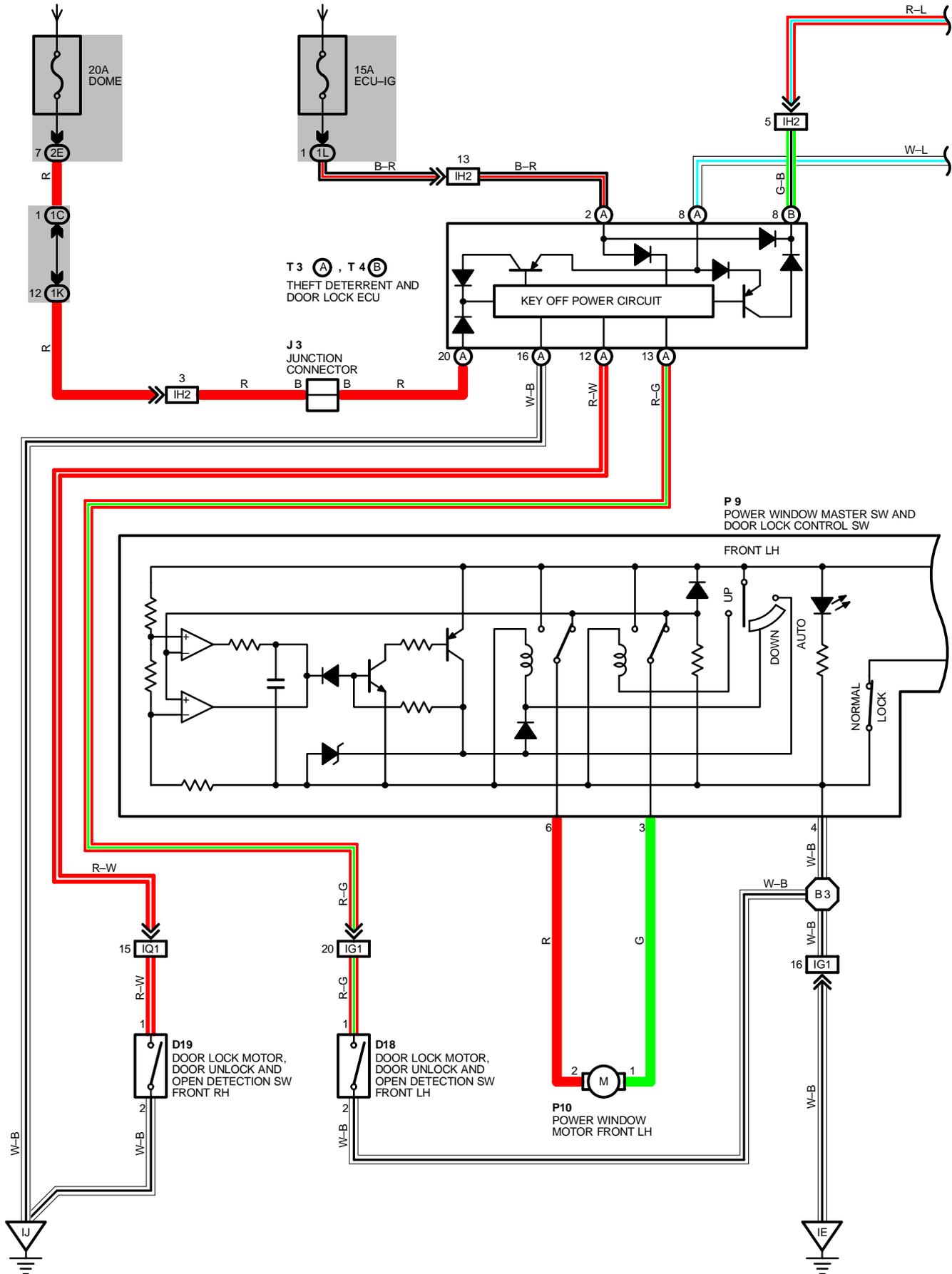
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 4	34	ENGINE ROOM MAIN WIRE	I 23	38	COWL WIRE
E 20			I 36		
I 21	38	COWL WIRE			

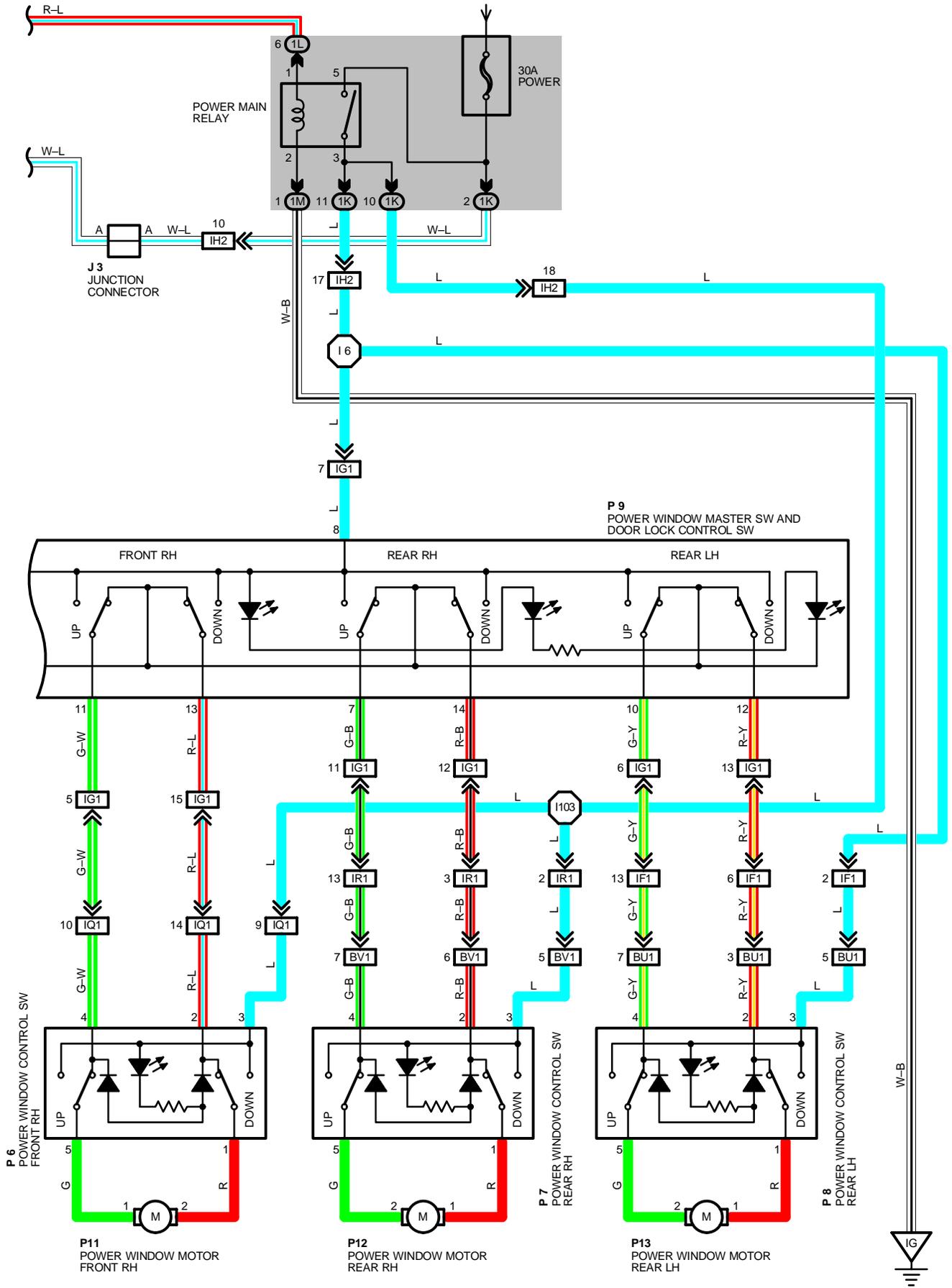


POWER WINDOW

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



FROM POWER SOURCE SYSTEM (SEE PAGE 56)



POWER WINDOW

SYSTEM OUTLINE

WHEN THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE **ECU-IG** FUSE → **TERMINAL (A)2** OF THEFT DETERRENT AND DOOR LOCK ECU → **TERMINAL (B)8** → **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 8** OF THE POWER WINDOW MASTER SW, **TERMINAL 3** (FRONT RH) AND **TERMINAL 3** (REAR LH, RH) OF THE POWER WINDOW SW.

1. MANUAL OPERATION (DRIVER'S WINDOW)

WITH THE IGNITION SW TURNED ON AND WITH THE POWER WINDOW MASTER SW (DRIVER'S) IN **UP** POSITION, THE CURRENT FLOWING TO **TERMINAL 8** OF THE POWER WINDOW MASTER SW FLOWS TO **TERMINAL 3** OF THE MASTER SW → **TERMINAL 1** OF THE POWER WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 6** OF THE MASTER SW → **TERMINAL 4** → **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 8** OF THE POWER WINDOW MASTER SW TO **TERMINAL 6** OF THE MASTER SW CAUSES THE FLOW OF CURRENT FROM **TERMINAL 2** OF THE MOTOR → **TERMINAL 1** → **TERMINAL 3** OF THE MASTER SW → **TERMINAL 4** → **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

WHEN THE DRIVER'S WINDOW SW IN THE POWER WINDOW MASTER SW IS PUSHED STRONGLY ON THE DOWN SIDE, CURRENT FLOWS FROM **TERMINAL 8** OF THE MASTER SW → **TERMINAL 6** → **TERMINAL 2** OF THE POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 3** OF THE MASTER SW → **TERMINAL 4** → **GROUND**. BECAUSE THE HOLD CIRCUIT INSIDE THE MASTER SW KEEPS THE RELAY ON THE DOWN SIDE ACTIVATED, THE POWER WINDOW MOTOR CONTINUES OPERATING EVEN IF THE POWER WINDOW MASTER SW IS RELEASED. WHEN THE DRIVER'S WINDOW IS FULLY LOWERED, THE HOLD CIRCUIT TURNS OFF AND THE RELAY ON THE DOWN SIDE TURNS OFF, SO AUTO DOWN OPERATION STOPS.

3. STOPPING OF AUTO DOWN AT DRIVER'S WINDOW

WHEN THE MANUAL SW (DRIVER'S) IS PULLED TO THE UP SIDE DURING AUTO DOWN OPERATION, A GROUND CIRCUIT OPENS IN THE MASTER SW AND CURRENT DOES NOT FLOW FROM **TERMINAL 3** OF THE MASTER SW → **TO TERMINAL 4**, SO THE MOTOR STOPS, CAUSING AUTO DOWN OPERATION TO STOP. IF THE MASTER SW IS PULLED CONTINUOUS, 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 3** OF THE POWER WINDOW SW FLOWS TO **TERMINAL 5** OF THE POWER WINDOW SW → **TERMINAL 1** OF THE POWER WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 1** OF THE POWER WINDOW SW → **TERMINAL 2** → **TERMINAL 13** OF THE MASTER SW → **TERMINAL 4** → **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 4** 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, THE THEFT DETERRENT AND DOOR LOCK ECU OPERATES AND CURRENT FLOWS FROM **POWER** FUSE TO **TERMINAL (A)8** OF THE ECU OR **DOM**E FUSE TO **TERMINAL (A)20** OF THE ECU → **TERMINAL (B)8** → **TERMINAL 1** OF POWER MAIN RELAY → **TERMINAL 2** → **TO GROUND** FOR ABOUT **60** SECONDS. THE SAME AS NORMAL OPERATION, THE CURRENT FLOWS FROM **POWER** FUSE → **TERMINAL 5** OF THE POWER MAIN RELAY → **TERMINAL 3** → **TERMINAL 8** OF THE POWER WINDOW MASTER SW AND **TERMINAL 3** OF THE POWER MAIN RELAY → **TO TERMINAL 3** OF THE POWER WINDOW SW. AS A RESULT, FOR ABOUT **60** SECONDS 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** SECONDS AFTER TURNING THE IGNITION SW TO OFF, A SIGNAL IS INPUT TO **TERMINALS (A)12** OR **(A)13** OF THEFT DETERRENT AND DOOR LOCK ECU. AS A RESULT, THE ECU TURNS OFF AND UP AND DOWN MOVEMENT OF THE POWER WINDOW STOPS.

SERVICE HINTS

P9 POWER WINDOW MASTER SW AND DOOR LOCK CONTROL SW

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

4-GROUND: ALWAYS CONTINUITY

3-GROUND: APPROX. 12 VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) UP

6-GROUND: APPROX. 12 VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) AT DOWN OR AUTO DOWN POSITION

WINDOW LOCK SW

OPEN WITH WINDOW LOCK SW AT LOCK POSITION

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D18	32	P 8	32	P13	32
D19	32	P 9	32	T 3	A 31
J 3	31	P10	32	T 4	B 31
P 6	32	P11	32		
P 7	32	P12	32		

○ : 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		
1M		
2E	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)
IF1	34	FLOOR NO. 1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG1	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BW1	40	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)
BX1	40	FLOOR NO. 1 WIRE AND FLOOR NO. 2 WIRE (BEHIND PACKAGE TRAY TRIM)

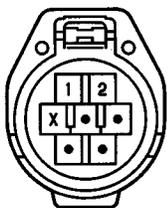
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 6	38	INSTRUMENT PANEL WIRE	B 3	40	FRONT DOOR LH WIRE
I103					

D18, D19 GRAY



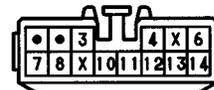
J 3 DARK GRAY



P 6, P 7, P 8



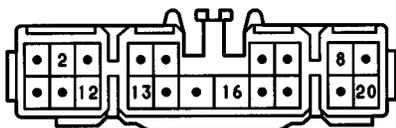
P 9



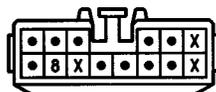
P10, P11, P12, P13



T 3 (A) ORANGE

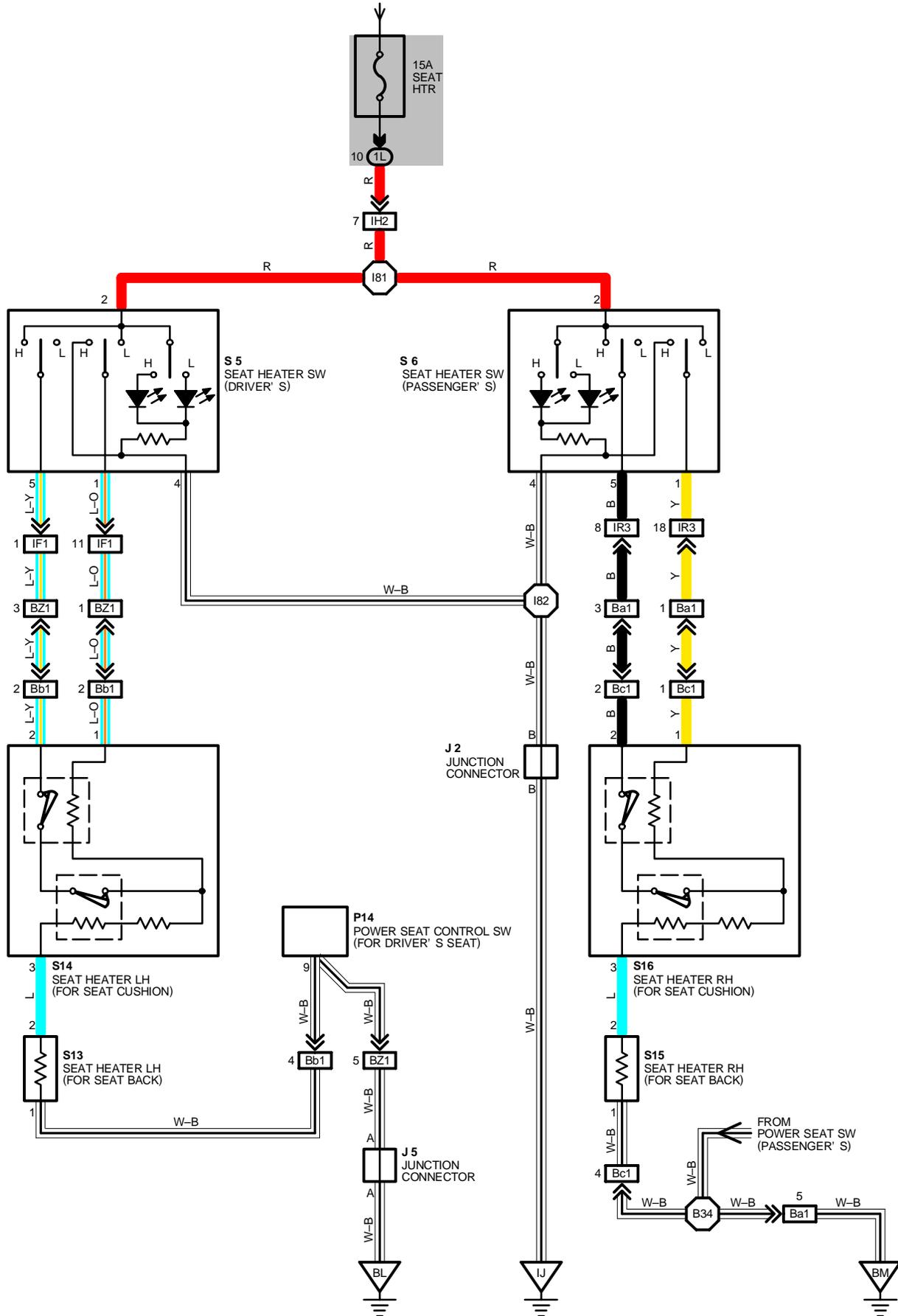


T 4 (B) ORANGE



SEAT HEATER

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



SERVICE HINTS

S 5, S 6 SEAT HEATER SW

- 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 4-GROUND : ALWAYS CONTINUITY
- 2-5 : CONTINUITY WITH SEAT HEATER SW AT **HIGH** POSITION
- 2-1 : CONTINUITY WITH SEAT HEATER SW AT **LOW** POSITION

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	31	S 5	31	S14	33
J 5	32	S 6	31	S15	33
P14	33	S13	33	S16	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)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

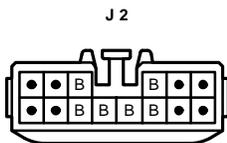
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IF1	34	FLOOR NO.1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IR3	38	INSTRUMENT PANEL WIRE AND FLOOR NO. 2 WIRE (UNDER THE PASSENGER'S SEAT)
BZ1	42	FLOOR NO. 1 WIRE AND SEAT LH NO. 1 WIRE (UNDER THE DRIVER'S SEAT)
Ba1	42	FLOOR NO.2 WIRE AND SEAT RH NO.1 WIRE (UNDER THE PASSENGER'S SEAT)
Bb1	42	SEAT LH NO. 2 WIRE AND SEAT LH NO.1 WIRE (UNDER THE DRIVER'S SEAT)
Bc1	42	SEAT RH NO. 2 WIRE AND SEAT RH NO.1 WIRE (UNDER THE PASSENGER'S SEAT)

▽ : GROUND POINTS

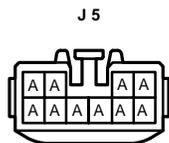
CODE	SEE PAGE	GROUND POINTS LOCATION
IJ	36	RIGHT KICK PANEL
BL	40	UNDER THE LEFT QUARTER PILLAR
BM	40	UNDER THE RIGHT QUARTER PILLAR

○ : SPLICE POINTS

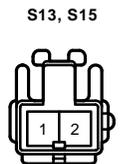
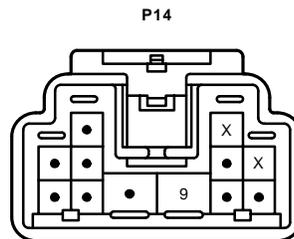
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 81	38	INSTRUMENT PANEL WIRE	B 34	42	SEAT LH NO. 1 WIRE
I 82					



(HINT : SEE PAGE 7)



(HINT : SEE PAGE 7)

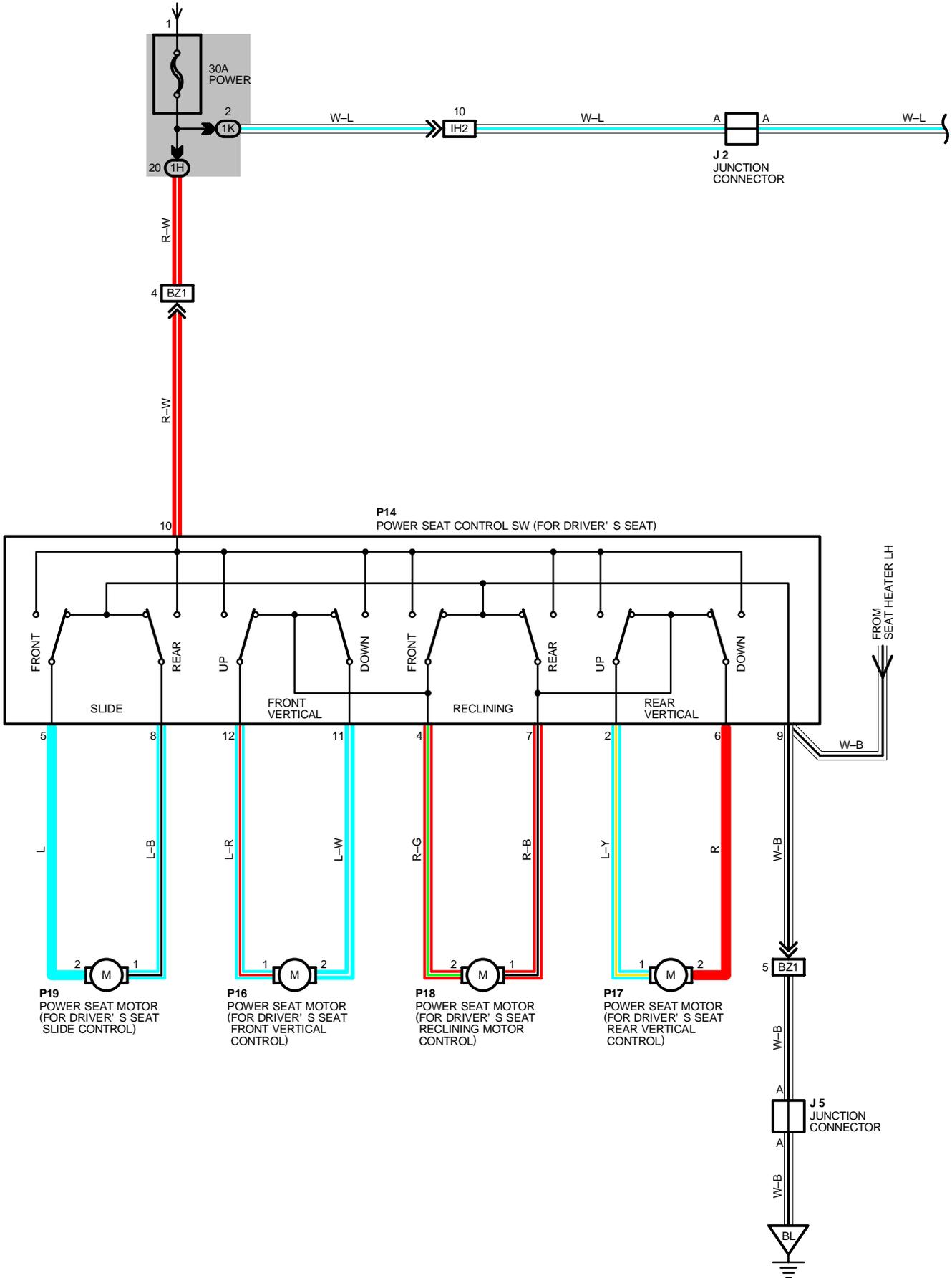


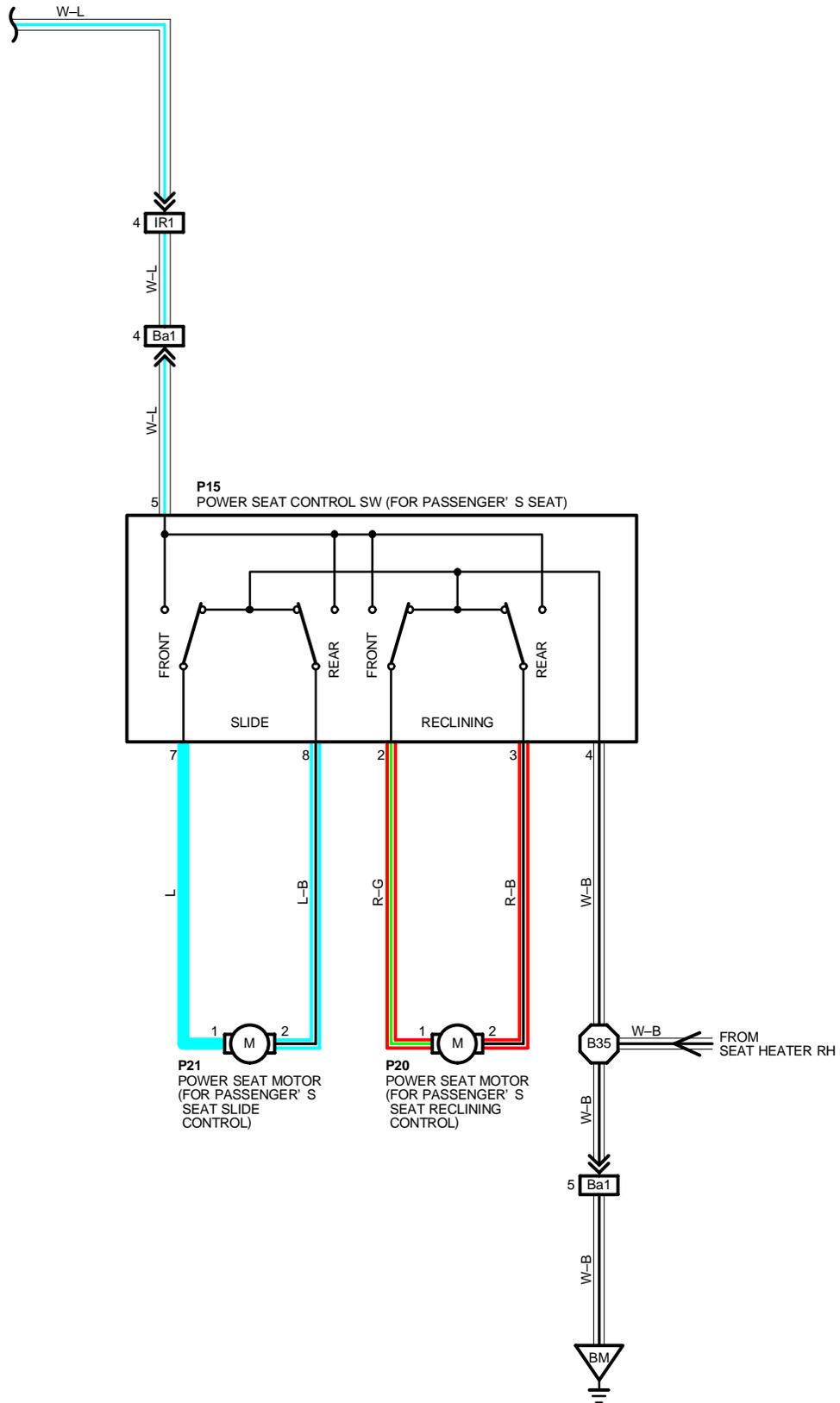
S14, S16



POWER SEAT

FROM POWER SOURCE SYSTEM (SEE PAGE 56)





POWER SEAT

SERVICE HINTS

P14 POWER SEAT CONTROL SW (FOR DRIVER'S SEAT)

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

P15 POWER SEAT CONTROL SW (FOR PASSENGER'S SEAT)

- 5-GROUND : ALWAYS APPROX. 12 VOLTS
- 4-GROUND : ALWAYS CONTINUITY

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	31	P16	33	P20	33
J 5	32	P17	33	P21	33
P14	33	P18	33		
P15	33	P19	33		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1H	20	FLOOR NO. 1 WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K	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)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BZ1	42	FLOOR NO. 1 WIRE AND SEAT LH NO. 1 WIRE (UNDER THE DRIVER'S SEAT)
Ba1	42	FLOOR NO. 2 WIRE AND SEAT RH NO. 1 WIRE (UNDER THE PASSENGER'S SEAT)

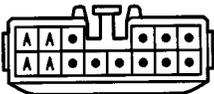
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
BL	40	UNDER THE LEFT QUARTER PILLAR
BM	40	UNDER THE RIGHT QUARTER PILLAR

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B 35	42	SEAT RH NO. 1 WIRE			

J 2



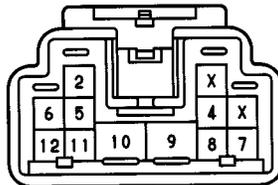
(HINT:SEE PAGE 7)

J 5

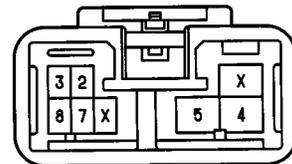


(HINT:SEE PAGE 7)

P14 WHITE



P15 WHITE



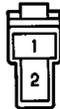
P16, P17 ORANGE



P18, P20 WHITE



P19, P21 GRAY

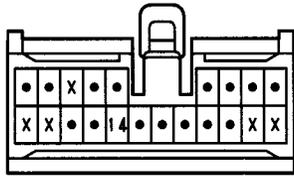


UNLOCK AND SEAT BELT WARNING

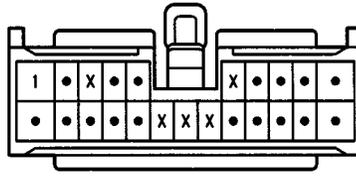
B 5 WHITE



C 7 (B) GRAY



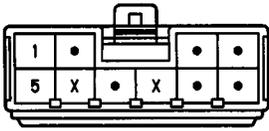
C 8 (A)



D 9



I 11

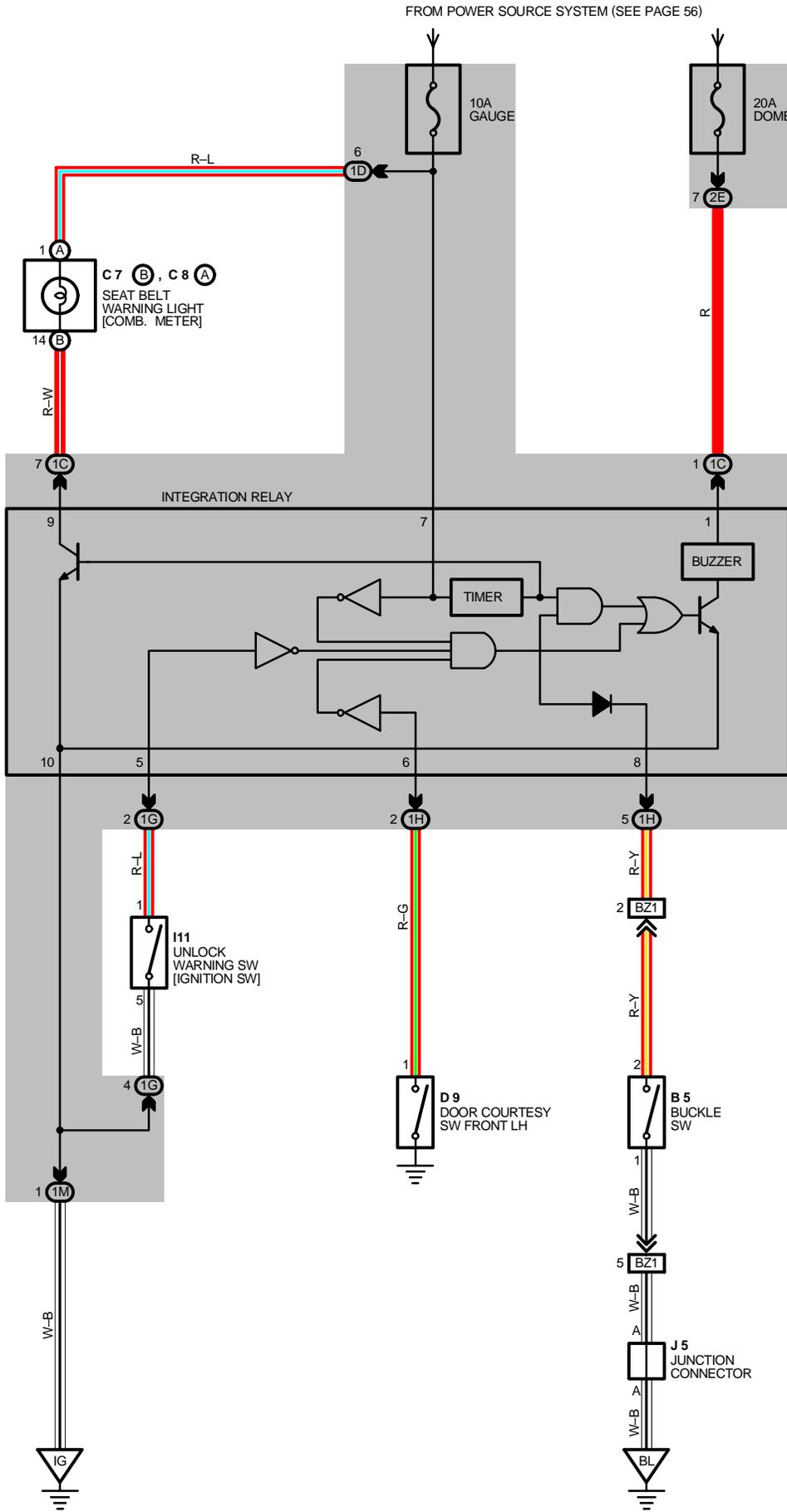


J 5



(HINT: SEE PAGE 7)

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, FOR APPROX. **4-8** SECONDS, 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 4** 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 **TERMINALS 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 5 BUCKLE SW

1-2 : CLOSED WITH DRIVER'S LAP BELT USE

D 9 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 FOR 4-8 SECONDS WITH IGNITION SW ON AND 12 VOLTS 4-8 SECONDS AFTER IGNITION SW ON

1-GROUND : ALWAYS APPROX. 12 VOLTS

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

I11 UNLOCK WARNING SW [IGNITION SW]

1-5 : CLOSED WITH IGNITION KEY CYLINDER

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B 5	33	C 8	A 30	I11	31
C 7	B 30	D 9	32	J 5	32

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

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

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

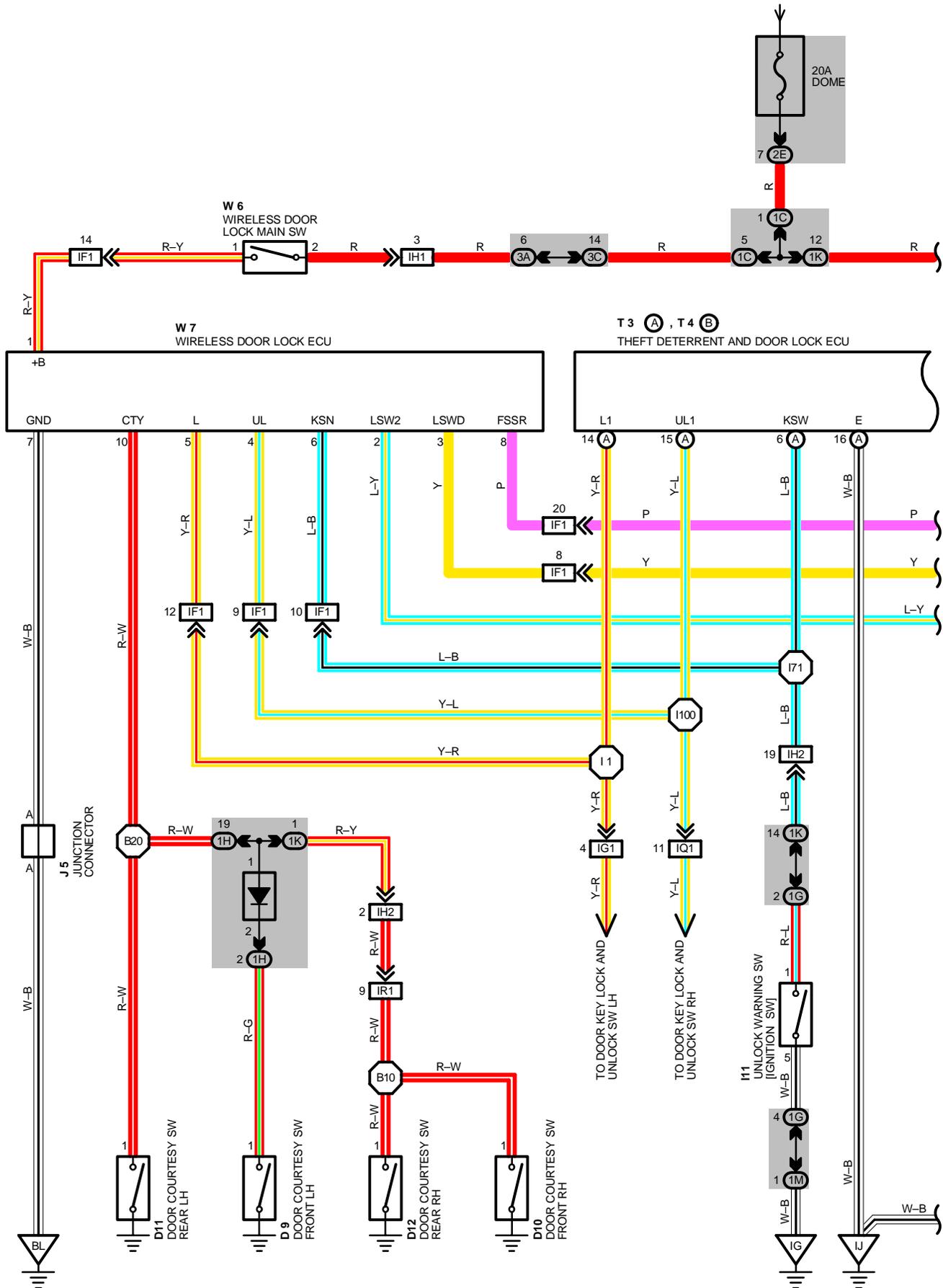
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
BZ1	42	FLOOR NO. 1 WIRE AND SEAT LH NO. 1 WIRE (UNDER THE DRIVER'S SEAT)

▽ : GROUND POINTS

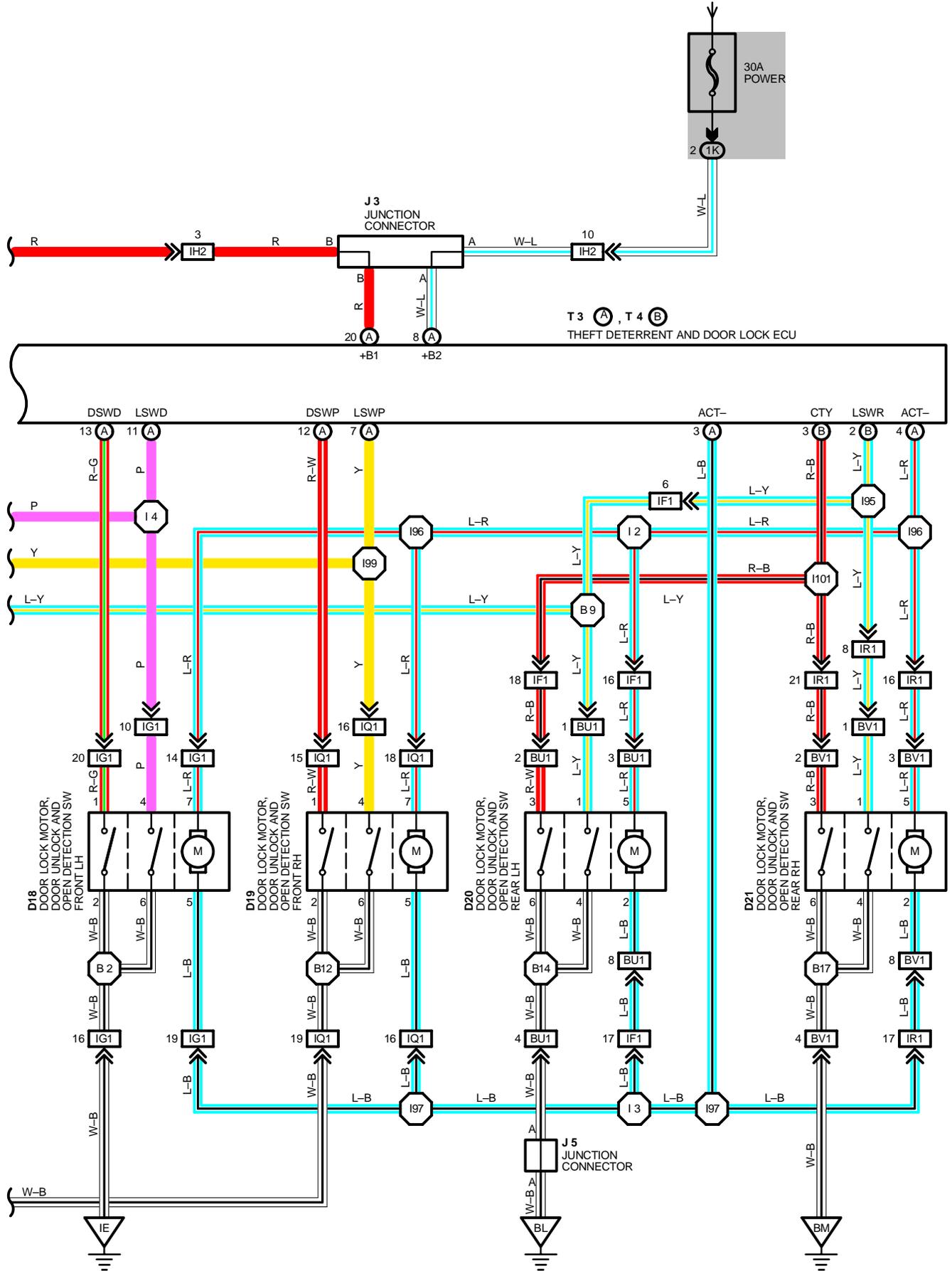
CODE	SEE PAGE	GROUND POINTS LOCATION
IG	36	INSTRUMENT PANEL BRACE LH
BL	40	UNDER THE LEFT QUARTER PILLAR

WIRELESS DOOR LOCK CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



FROM POWER SOURCE SYSTEM (SEE PAGE 56)



WIRELESS DOOR LOCK CONTROL

SYSTEM OUTLINE

DOOR LOCK CONTROL (LOCK AND UNLOCK) IS PERFORMED BY REMOTE CONTROL, WITHOUT THE IGNITION KEY INSERTED IN THE DOOR KEY CYLINDER, USING LOW-POWER RADIO WAVES EMITTED BY A TRANSMITTER BUILT INTO IGNITION KEY.

1. WIRELESS DOOR LOCK OR UNLOCK NORMAL OPERATION

WITH THE WIRELESS DOOR LOCK MAIN SW ON, THE IGNITION KEY NOT INSERTED INTO THE IGNITION KEY CYLINDER (UNLOCK WARNING SW OFF) AND ALL THE DOORS COMPLETELY CLOSED, WHEN THE SW (TRANSMITTER) ON THE IGNITION KEY IS PUSHED, THE WIRELESS DOOR LOCK ECU RECEIVES THE ELECTRICAL WAVES FROM THE IGNITION KEY (TRANSMITTER), CAUSING IT TO OPERATE.

AS A RESULT, THE ECU JUDGES WHETHER THE DOOR IS LOCKED OR UNLOCKED BASED ON THE SIGNAL FROM THE DOOR LOCK MOTOR, AND SENDS A SIGNAL TO THE DOOR LOCK ECU TO SW THE CONDITION FROM LOCK TO UNLOCK OR VICE VERSA, CAUSING THE DOOR LOCK MOTOR TO OPERATE (FOR THE CURRENT FLOW DURING LOCK AND UNLOCK REFER TO THE DOOR LOCK CONTROL SYSTEM.)

2. AUTO LOCK OPERATION

AFTER PUSHING THE IGNITION KEY SW (TRANSMITTER) TO UNLOCK ALL THE DOORS, IF A DOOR IS NOT OPENED WITHIN 30 SECONDS, ALL OF THE DOORS ARE AUTOMATICALLY LOCKED AGAIN.

3. WIRELESS DOOR LOCK STOP FUNCTION

IF A DOOR IS OPEN (DOOR COURTESY SW ON), A SIGNAL IS INPUT FROM THE DOOR COURTESY SW TO THE WIRELESS DOOR LOCK ECU, STOPPING WIRELESS DOOR LOCK OR UNLOCK.

IF THE IGNITION KEY IS IN THE IGNITION KEY CYLINDER (UNLOCK WARNING SW ON), THE UNLOCK WARNING SW INPUT A SIGNAL TO THE WIRELESS DOOR LOCK ECU, STOPPING WIRELESS DOOR LOCK OR UNLOCK.

4. DOOR LOCK MOTOR PROTECTIVE FUNCTION

IF THE DOOR LOCK OR UNLOCK CONDITION DOES NOT CHANGE AFTER WIRELESS DOOR LOCK OR UNLOCK OPERATION, THE DOOR LOCK ECU SENDS CURRENT TEN TIMES TO THE DOOR LOCK MOTOR. IF THE DOOR LOCK CONDITION STILL HAS NOT CHANGED AS A RESULT THE WIRELESS DOOR LOCK ECU STOPS RECEPTION AND STOPS DOOR LOCK AND UNLOCK FUNCTION.

BY MANUALLY OPERATION THE DOOR LOCK OR UNLOCK, THE STOP CONDITION OF THE WIRELESS DOOR LOCK FUNCTION IS RELEASED.

SERVICE HINTS

D 9, D10, D11, D12 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPENED

I11 UNLOCK WARNING SW [IGNITION SW]

1-5 : CLOSED WITH IGNITION KEY IN CYLINDER

W 7 WIRELESS DOOR LOCK ECU

1-GROUND: APPROX. 12 VOLTS WITH WIRELESS DOOR LOCK MAIN SW ON

7-GROUND: ALWAYS CONTINUITY

10-GROUND: CONTINUITY WITH EACH DOOR OPENED

6-GROUND: CONTINUITY WITH IGNITION KEY IN CYLINDER

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D 9	32	D19	32	J 5	32
D10	32	D20	32	T 3	A 31
D11	32	D21	32	T 4	B 31
D12	32	I11	31	W 6	31
D18	32	J 3	31	W 7	32

○ : 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)
1G		
1H	20	FLOOR NO. 1 WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT 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)
IF1	34	FLOOR NO.1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG1	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BU1	40	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE (LEFT CENTER PILLAR)
BV1	40	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE (RIGHT CENTER PILLAR)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL
BL	40	UNDER THE LEFT QUARTER PILLAR
BM	40	UNDER THE RIGHT QUARTER PILLAR

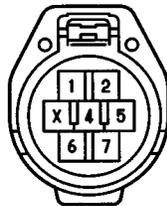
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
I1	38	INSTRUMENT PANEL WIRE	I100	38	INSTRUMENT PANEL WIRE	
I2			I101			
I3			B 2	40		FRONT DOOR LH WIRE
I4			B 9	40		FLOOR NO. 1 WIRE
I71	38	INSTRUMENT PANEL WIRE	B 10	40	FLOOR NO. 2 WIRE	
I95	38	INSTRUMENT PANEL WIRE	B 12	40	FRONT DOOR RH WIRE	
I96			B 14	40	REAR DOOR LH WIRE	
I97			B 17	40	REAR DOOR RH WIRE	
I99			B 20	40	FLOOR NO. 1 WIRE	

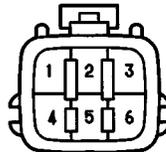
D 9, D10, D11, D12



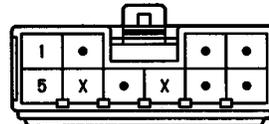
D18, D19 GRAY



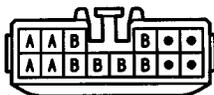
D20, D21



I11



J 3 DARK GRAY



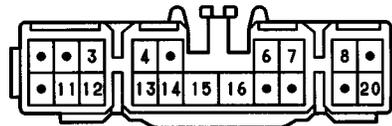
(HINT:SEE PAGE 7)

J 5

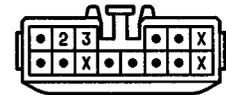


(HINT:SEE PAGE 7)

T 3 (A) ORANGE



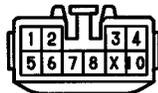
T 4 (B) ORANGE



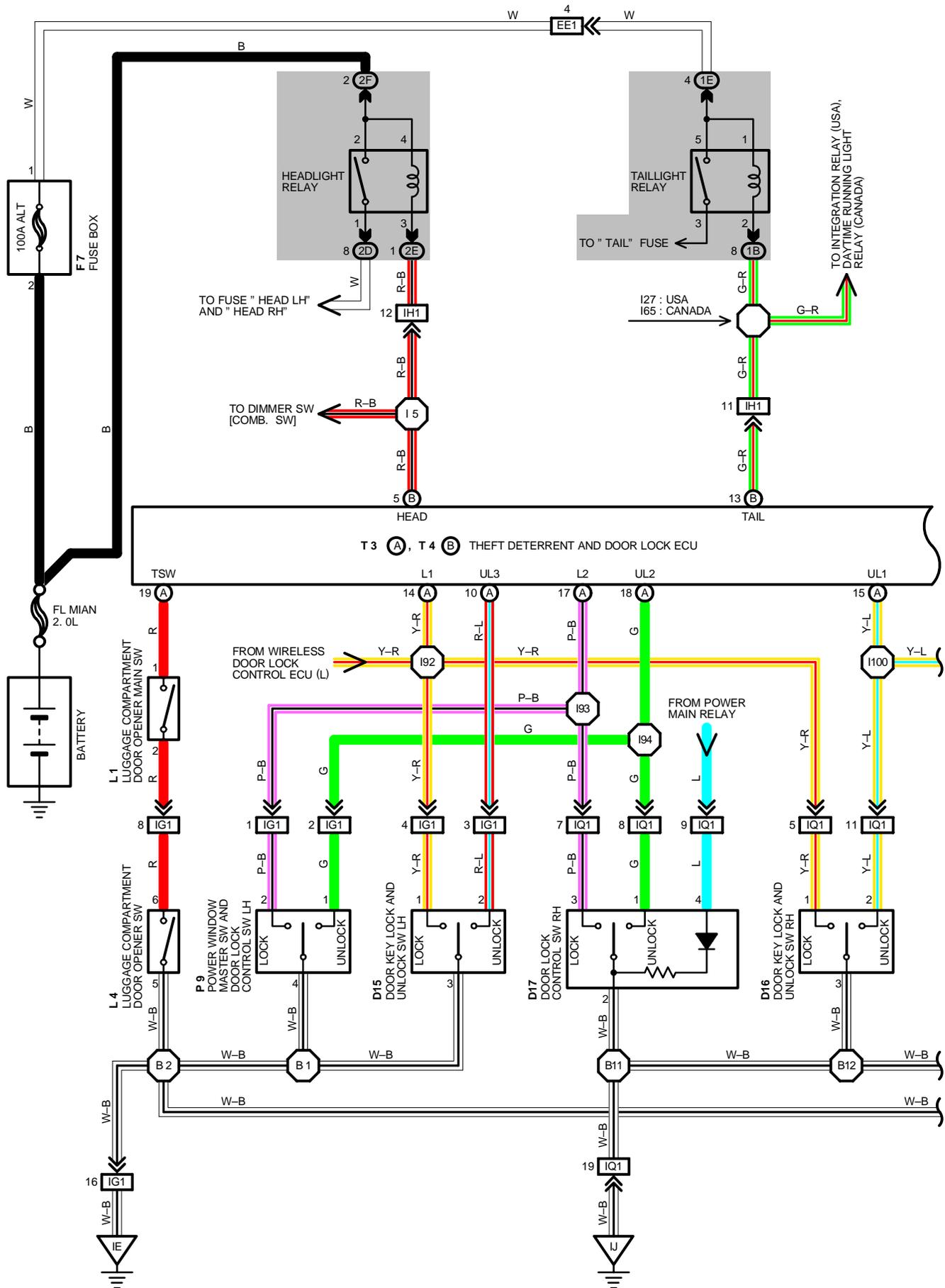
W 6



W 7

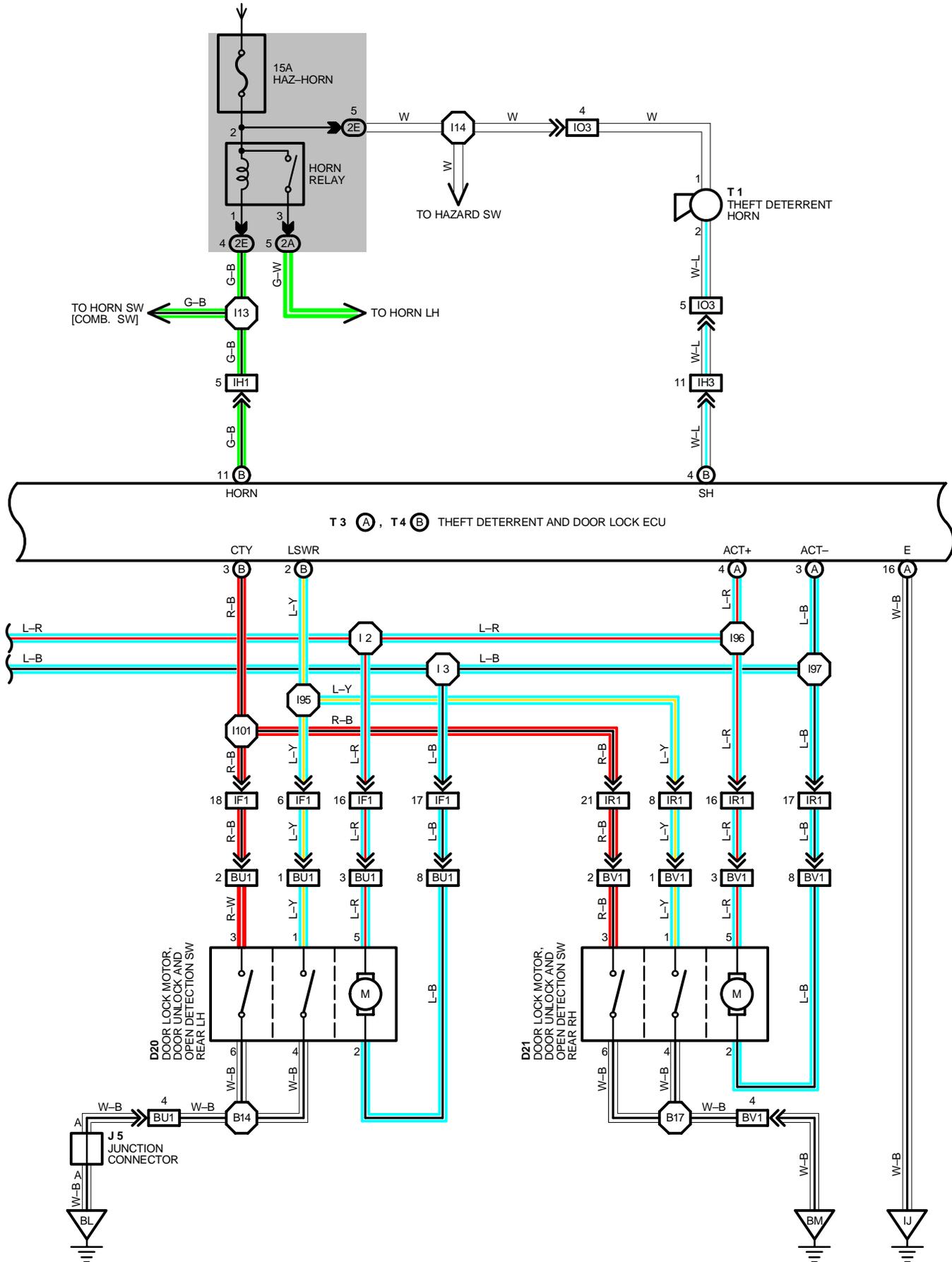


THEFT DETERRENT AND DOOR LOCK CONTROL

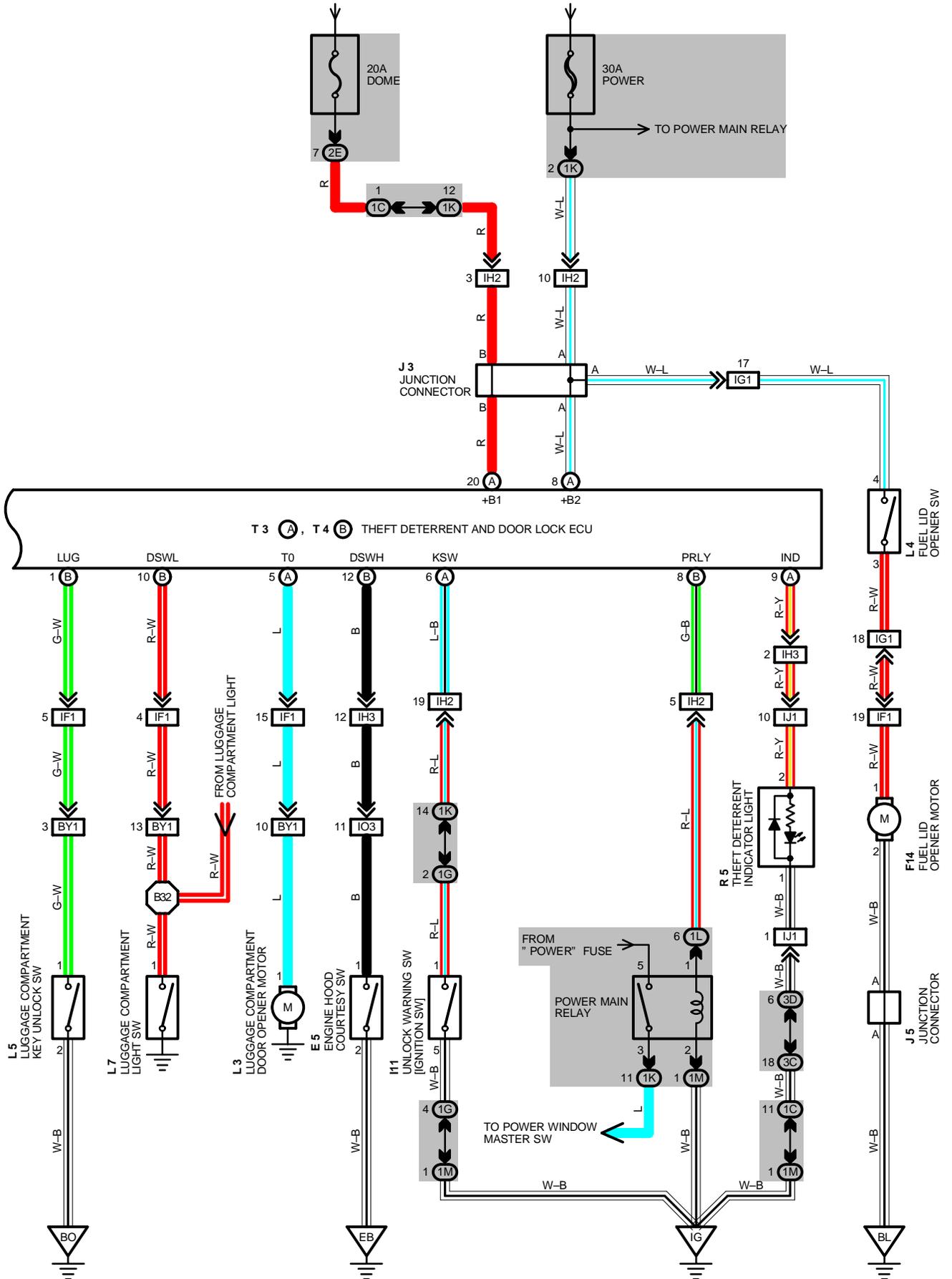


THEFT DETERRENT AND DOOR LOCK CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



FROM POWER SOURCE SYSTEM (SEE PAGE 56)



THEFT DETERRENT AND DOOR LOCK CONTROL

SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL (A)8** OF THE DOOR LOCK ECU THROUGH THE **POWER FUSE**, AND TO **TERMINAL (A)20** THROUGH THE **DOME FUSE**.

WHEN THE IGNITION SW TURNED ON, THE CURRENT FLOWING THROUGH THE **ECU-IG FUSE** → **TERMINAL (A)2** OF THE ECU → **TERMINAL (B)8** 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 DOOR LOCK CONTROL SWITCHES, CAUSING THE INDICATOR LIGHT TO LIGHT UP.

1. MANUAL LOCK OPERATION

WHEN THE DOOR CONTROL SW OR KEY SW ARE PUSHED TO **LOCK** POSITION, A LOCK SIGNAL IS INPUT TO **TERMINAL (A)17, (A)14** (FOR KEY SW) OF THE DOOR LOCK ECU AND CAUSES THE ECU TO FUNCTION. CURRENT FLOWS FROM **TERMINAL (A)8** OF THE ECU → **TERMINAL (A)4** → **TERMINAL 7 (FRONT), TERMINAL 5 (REAR)** OF THE DOOR LOCK MOTORS → **TERMINAL 5 (FRONT), 2 (REAR)** → **TERMINAL (A)3** OF THE ECU → **TERMINAL (A) 16** → TO **GROUND** AND THE DOOR LOCK MOTOR CAUSES THE DOOR TO LOCK.

2. MANUAL UNLOCK OPERATION

WHEN THE DOOR LOCK CONTROL SW OR KEY SW ARE PUSHED TO **UNLOCK** POSITION, AN UNLOCK SIGNAL IS INPUT TO **TERMINAL (A)18, (A)10** (FOR KEY SW LH) OR **(A)15** (FOR KEY SW RH) OF THE DOOR LOCK ECU AND CAUSES TO FUNCTION. CURRENT FLOWS FROM **TERMINAL (A)8** OF THE ECU → **TERMINAL (A)3** → **TERMINAL 5 (FRONT), 2 (REAR)** OF THE DOOR LOCK MOTORS → **TERMINAL 7 (FRONT), TERMINAL 5 (REAR)** → **TERMINAL (A)4** OF THE ECU → **TERMINAL (A)16** → TO **GROUND** AND THE DOOR LOCK MOTOR CAUSES THE DOOR TO UNLOCK.

WHEN UNLOCK OPERATION OCCURS USING THE LH DOOR KEY SW, PERFORMING THE UNLOCK OPERATION ONCE UNLOCKS ONLY THE DRIVER'S DOOR. TO UNLOCK ALL THE OTHER DOORS TOGETHER, UNLOCK OPERATION MUST BE PERFORMED AGAIN WITHIN **3 SECONDS** OF THE FIRST OPERATION.

3. IGNITION KEY REMINDER OPERATION

* OPERATION OF DOOR LOCK BUTTON (OPERATION OF DOOR LOCK MOTORS)

WHEN THE IGNITION KEY IS IN THE CYLINDER (UNLOCK WARNING SW ON) AND THE DOOR IS OPENED AND LOCKED USING DOOR LOCK BUTTON (DOOR LOCK MOTOR), THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCKED SOON BY THE OPERATION OF THE ECU. AS A RESULT OF ECU ACTIVATION, THE CURRENT FLOWS FROM **TERMINAL (A)8** OF THE ECU → **TERMINAL (A)3** → **TERMINAL 5 (FRONT), 2 (REAR)** OF THE DOOR LOCK MOTORS → **TERMINAL 7 (FRONT), TERMINAL 5 (REAR)** → **TERMINAL (A)4** OF THE ECU → **TERMINAL (A)16** → TO **GROUND** AND CAUSES ALL THE DOOR LOCK → CONTROL SW AND DOOR LOCK KEY SW.

* KEY LESS LOCK OPERATION

WHEN THE IGNITION KEY IS STILL INSERTED IN THE CYLINDER (UNLOCK WARNING SW ON), THE DOOR IS OPEN AND UNLOCK OPERATION IS PREVENTED BY KEEPING THE DOOR LOCK BUTTON PRESSED TO THE LOCK SIDE, THE DOOR IS KEPT IN THE LOCK CONDITION. IF THE DOOR IS THEN CLOSED, A SIGNAL IS INPUT TO THE ECU FROM THE DOOR COURTESY SW. THIS ACTIVATES THE ECU AND EACH DOOR IS UNLOCKED.

SERVICE HINTS

D15, D16 DOOR KEY LOCK AND UNLOCK SW LH, RH

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

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

D18, D19 DOOR LOCK MOTOR FRONT LH, RH

4-6 : CLOSED WITH **UNLOCK** POSITION

D20, D21 DOOR LOCK MOTOR REAR LH, RH

1-4 : CLOSED WITH **UNLOCK** POSITION

E 5 ENGINE HOOD COURTESY SW

1-2 : CLOSED WITH ENGINE HOOD OPEN

I11 UNLOCK WARNING SW [IGNITION SW]

1-5 : CLOSED WITH IGNITION KEY IN CYLINDER

L 5 LUGGAGE COMPARTMENT KEY UNLOCK SW

1-2 : CLOSED WITH LUGGAGE COMPARTMENT DOOR LOCK CYLINDER UNLOCK WITH KEY

L 7 LUGGAGE COMPARTMENT LIGHT SW

1-GROUND: CLOSED WITH DOOR OPEN

T 3(A) THEFT DETERRENT AND DOOR LOCK ECU

- 1-GROUND: APPROX. 12 VOLTS WITH SHIFT LEVER IN **N** OR **P** POSITION AND IGNITION SW AT **ST** POSITION
- 2-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 6-GROUND: CONTINUITY WITH IGNITION KEY IN CYLINDER
- 7-GROUND: CONTINUITY WITH FRONT RH DOOR TO **UNLOCK** POSITION
- 8-GROUND: ALWAYS APPROX. 12 VOLTS
- 10-GROUND: CONTINUITY WITH DOOR LOCK KEY SW LH TO **UNLOCK** POSITION
- 11-GROUND: CONTINUITY WITH FRONT LH DOOR TO **UNLOCK** POSITION
- 12-GROUND: CONTINUITY WITH FRONT RH DOOR OPENED
- 13-GROUND: CONTINUITY WITH FRONT LH DOOR OPENED
- 14-GROUND: CONTINUITY WITH DOOR LOCK KEY SW RH TO **LOCK** POSITION
- 16-GROUND: ALWAYS CONTINUITY
- 15-GROUND: CONTINUITY WITH DOOR LOCK KEY SW RH TO **UNLOCK** POSITION
- 20-GROUND: ALWAYS APPROX. 12 VOLTS

T 4(B) THEFT DETERRENT AND DOOR LOCK ECU

- 1-GROUND: CONTINUITY WITH LUGGAGE COMPARTMENT DOOR TO **UNLOCK** POSITION
- 3-GROUND: CONTINUITY WITH DOOR OPEN
- 12-GROUND: CONTINUITY WITH ENGINE HOOD OPEN
- 10-GROUND: CONTINUITY WITH LUGGAGE COMPARTMENT DOOR OPEN
- 7-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 2-GROUND: CONTINUITY WITH REAR DOOR TO **UNLOCK** POSITION

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 6	30	F 7	28	L 7	32
D15	32	F14	32	P 1	29
D16	32	I11	31	P 9	32
D17	32	J 3	31	R 5	31
D18	32	J 5	32	T 1	29
D19	32	L 1	31	T 3	A 31
D20	32	L 3	32	T 4	B 31
D21	32	L 4	32		
E 5	28	L 5	32		

○ : 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)
1B	20	COWL WIRE AND J/B NO.1 (INSTRUMENT PANEL LEFT)
1C		
1E		
1G		
1K		
1L		
1M		
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2D		
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2F	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

THEFT DETERRENT AND DOOR LOCK CONTROL

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
IF1	34	FLOOR NO.1 WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG1	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IH3	36	COWL WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IJ1	36	INSTRUMENT PANEL NO. 2 WIRE AND COWL WIRE (UNDER THE COMBINATION METER)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IO3	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BU1	40	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE (LEFT CENTER PILLAR)
BV1	40	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE (RIGHT CENTER PILLAR)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

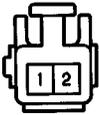
: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
IE	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL
BL	40	UNDER THE LEFT QUARTER PILLAR
BM	40	UNDER THE RIGHT QUARTER PILLAR
BO	40	BACK PANEL CENTER

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 2	38	INSTRUMENT PANEL WIRE	I 97	38	INSTRUMENT PANEL WIRE
I 3			I100		
I 5			I101		
I 13	38	COWL WIRE	B 1	40	FRONT DOOR LH WIRE
I 14			B 2		
I 27			B 3		
I 65			B 11		
I 92	38	INSTRUMENT PANEL WIRE	B 12	40	FRONT DOOR RH WIRE
I 93			B 14		
I 94			B 17		
I 95			B 32		
I 96					

C 6



D15, D16 GRAY



D17



D18, D19 GRAY



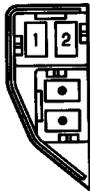
D20, D21



E 5



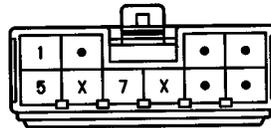
F 7



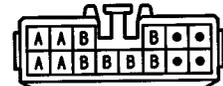
F14



I11



J 3 DARK GRAY



(HINT:SEE PAGE 7)

J 5



(HINT:SEE PAGE 7)

L 1



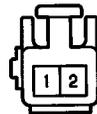
L 3



L 4 BLACK



L 5



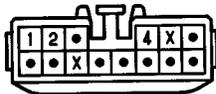
L 7 GRAY



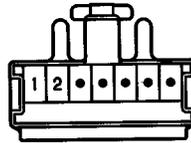
P 1 GRAY



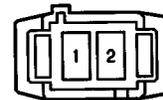
P 9



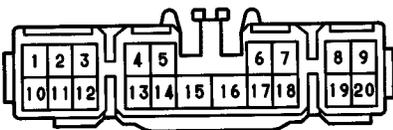
R 5



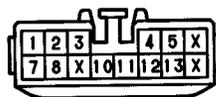
T 1 BLACK



T 3 (A) ORANGE

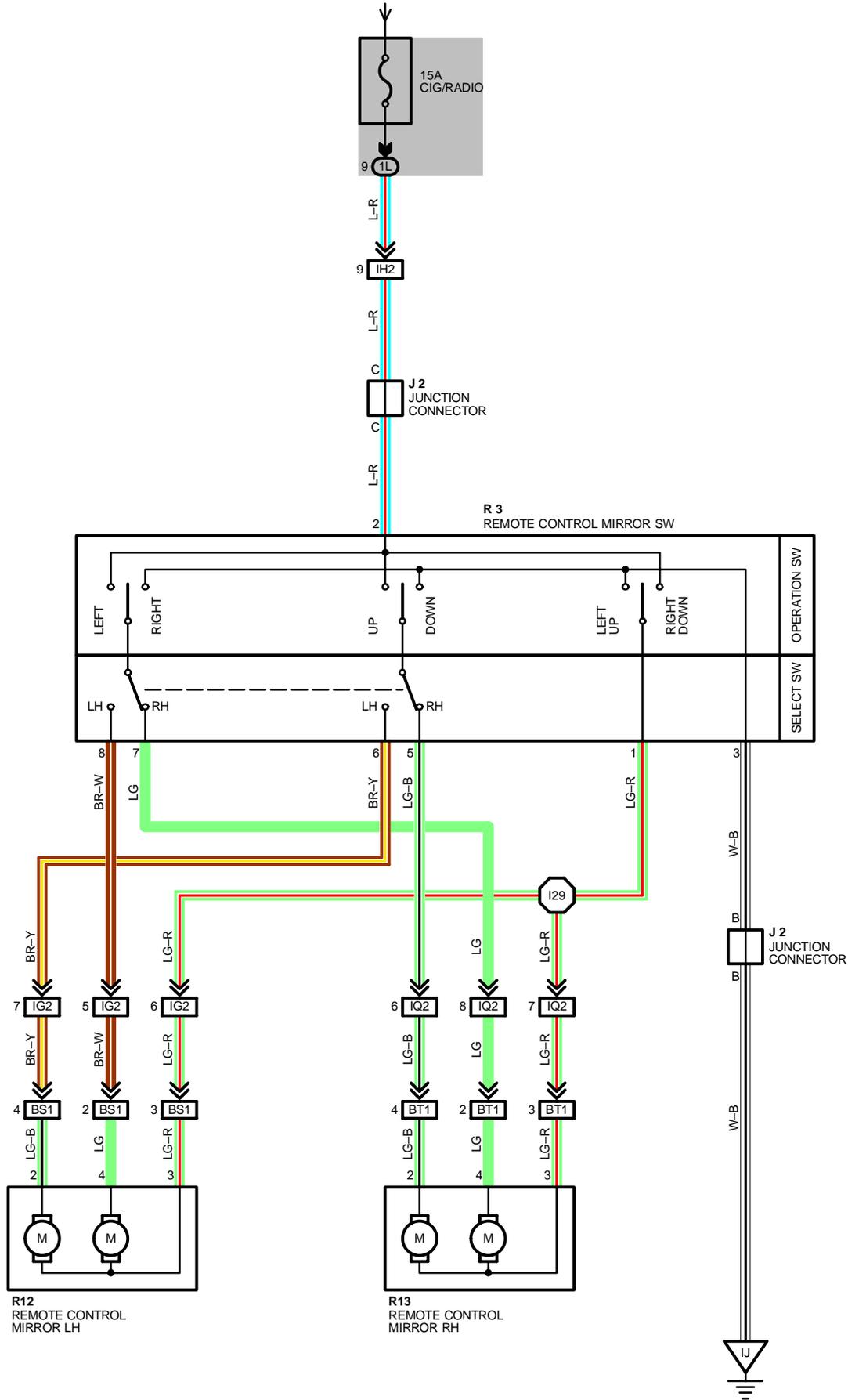


T 4 (B) ORANGE



REMOTE CONTROL MIRROR

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



SERVICE HINTS

R 3 REMOTE CONTROL MIRROR SW

- 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 1-3 : CONTINUITY WITH OPERATION SW AT **UP** OR **LEFT** POSITION
- 1-2 : CONTINUITY WITH OPERATION SW AT **DOWN** OR **RIGHT** POSITION

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	31	R12	32		
R 3	31	R13	32		

○ : 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)
IG2	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IQ2	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BS1	40	MIRROR LH WIRE AND FRONT DOOR LH WIRE (FRONT LH DOOR INSIDE)
BT1	40	MIRROR RH WIRE AND FRONT DOOR RH WIRE (FRONT RH DOOR INSIDE)

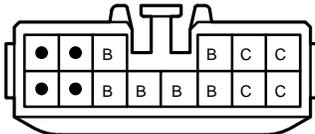
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IJ	36	RIGHT KICK PANEL

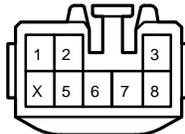
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 29	38	INSTRUMENT PANEL WIRE			

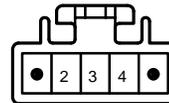
J 2



R 3

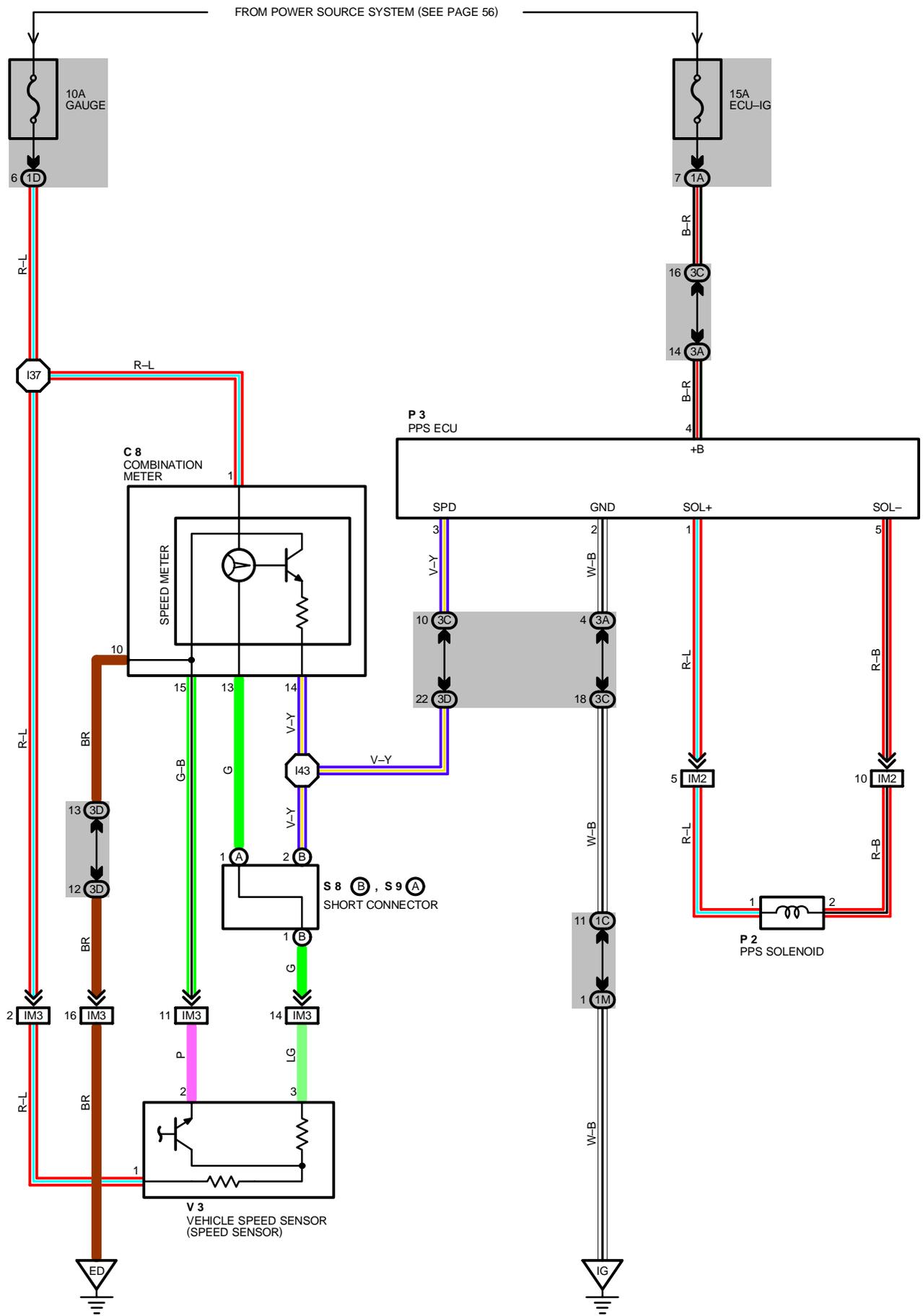


R 12, R 13



(HINT : SEE PAGE 7)

PPS (PROGRESSIVE POWER STEERING)



SYSTEM OUTLINE

THE PPS (HYDRAULIC REACTION TYPE) CONTROLS THE HYDRAULIC PRESSURE APPLIED TO THE HYDRAULIC REACTION CHAMBER IN THE GEAR BOX CONTROL UNIT USING THE PPS ECU, CHANGE THE STEERING FORCE AND PROVIDE OPTIMUM STEERING FEELING AT ANY VEHICLE SPEED AND UNDER ANY STEERING CONDITIONS.

(PPS OPERATION)

WHEN THE IGNITION SW IS TURNED ON THE STARTING CURRENT FLOWS FROM THE ECU-IG FUSE TO **TERMINAL 4** OF THE PPS ECU. THE SPEED SENSOR MONITORS THE VEHICLE SPEED AND TRANSMITS CONTROL SIGNALS TO **TERMINAL 3** OF THE ECU.

WHEN THE VEHICLE SPEED IS LOW, THE PPS ECU SENDS A HIGHER-CURRENT FROM **TERMINAL 1** OF THE ECU → **TERMINAL 1** OF THE SOLENOID VALVE → **TERMINAL 2** → **TERMINAL 5** OF THE ECU → **GROUND**, INCREASING THE SOLENOID VALVE OPENING ANGLE TO PROVIDE COMFORTABLE STEERING OPERATION. WHEN THE VEHICLE SPEED IS HIGH, THE PPS ECU DECREASES THE SOLENOID VALVE OPENING ANGLE BY REDUCING THE CURRENT TO THE VALVE TO PROVIDE RESPONSIVE STEERING FEELING.

SERVICE HINTS

P3 PPS ECU

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

2-GROUND : ALWAYS CONTINUITY

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 8	30	P 3	31	S 9 A	31
P 2	29	S 8 B	31	V 3	29

○ : 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		
1D		
1M		
3A	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C		
3D		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

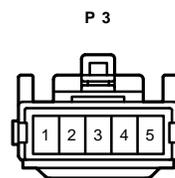
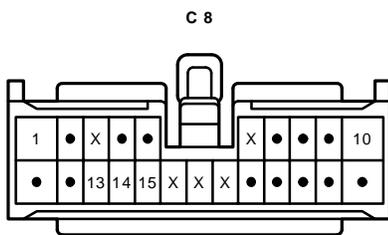
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IM2	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
ED	34	INTAKE MANIFOLD LH
IG	36	INSTRUMENT PANEL BRACE LH

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 37	38	COWL WIRE	I 43	38	COWL WIRE

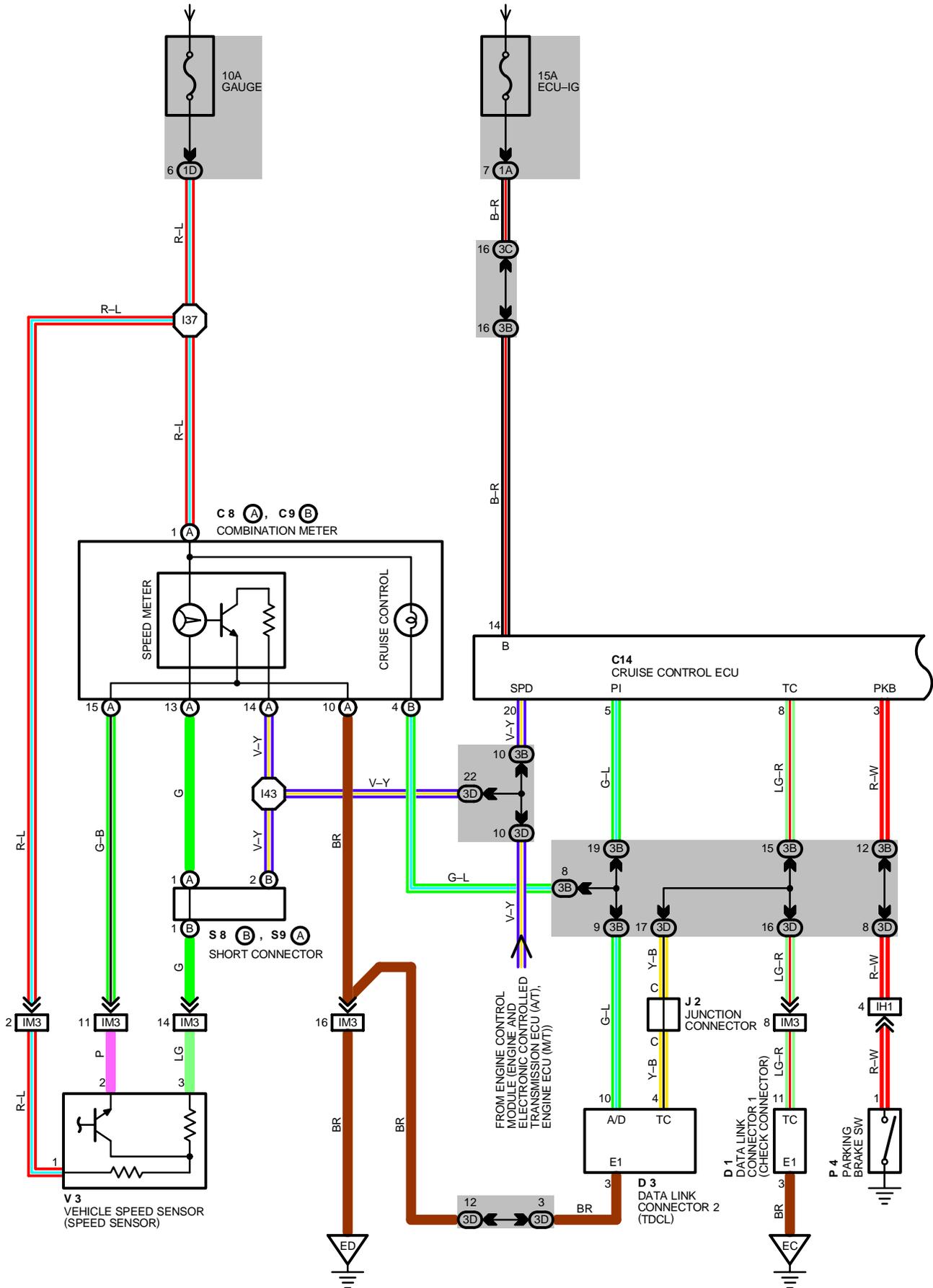


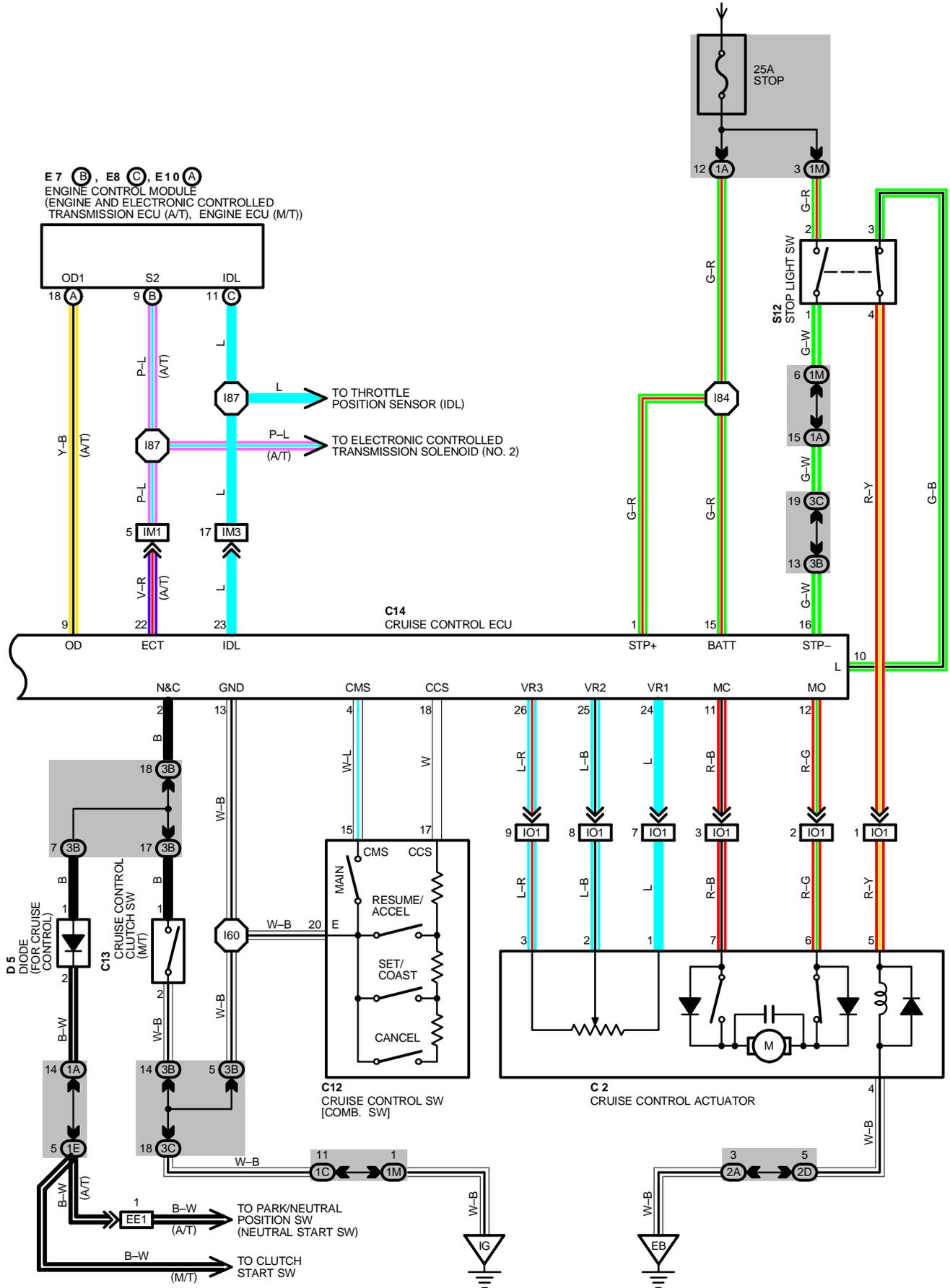
V 3 BLACK



CRUISE CONTROL

FROM POWER SOURCE SYSTEM (SEE PAGE 56)





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 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, TURNING ON 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 OFF AND THE MOTOR ROTATES TO CLOSE THE THROTTLE VALVE AND THE CRUISE CONTROL IS RELEASED.

- * PLACING THE SHIFT LEVER IN "N" RANGE (NEUTRAL START SW ON). "SIGNAL INPUT TO **TERMINAL 2** OF ECU" (A/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 CLUTCH PEDAL (CLUTCH SW ON). "SIGNAL INPUT TO **TERMINAL 2** OF ECU" (M/T)
- * PULLING THE PARKING BRAKE LEVER (PARKING BRAKE SW ON). "SIGNAL INPUT TO **TERMINAL 3** OF ECU"

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 TRANSISTER 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 (2.5 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

C2 CRUISE CONTROL ACTUATOR

- 1-3 : APPROX. **2K**
- 5-4 : APPROX. **38**

C11 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

C14 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 (DRIVE SLOWLY)
- 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)

CRUISE CONTROL

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 2	28	D 1	28	J 2	31
C 8	A 30	D 3	30	P 4	31
C 9	B 30	D 5	30	S10	B 31
C11	30	E 7	B 30	S11	A 31
C13	30	E 8	C 30	S12	31
C14	30	E10	A 30	V 3	29

: 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		
1D		
1E		
1M		
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2D		
3B		
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)
EE1	34	ENGINE WIRE AND COWL WIRE (NEAR THE BRAKE MASTER CYLINDER)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		
IO1	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)

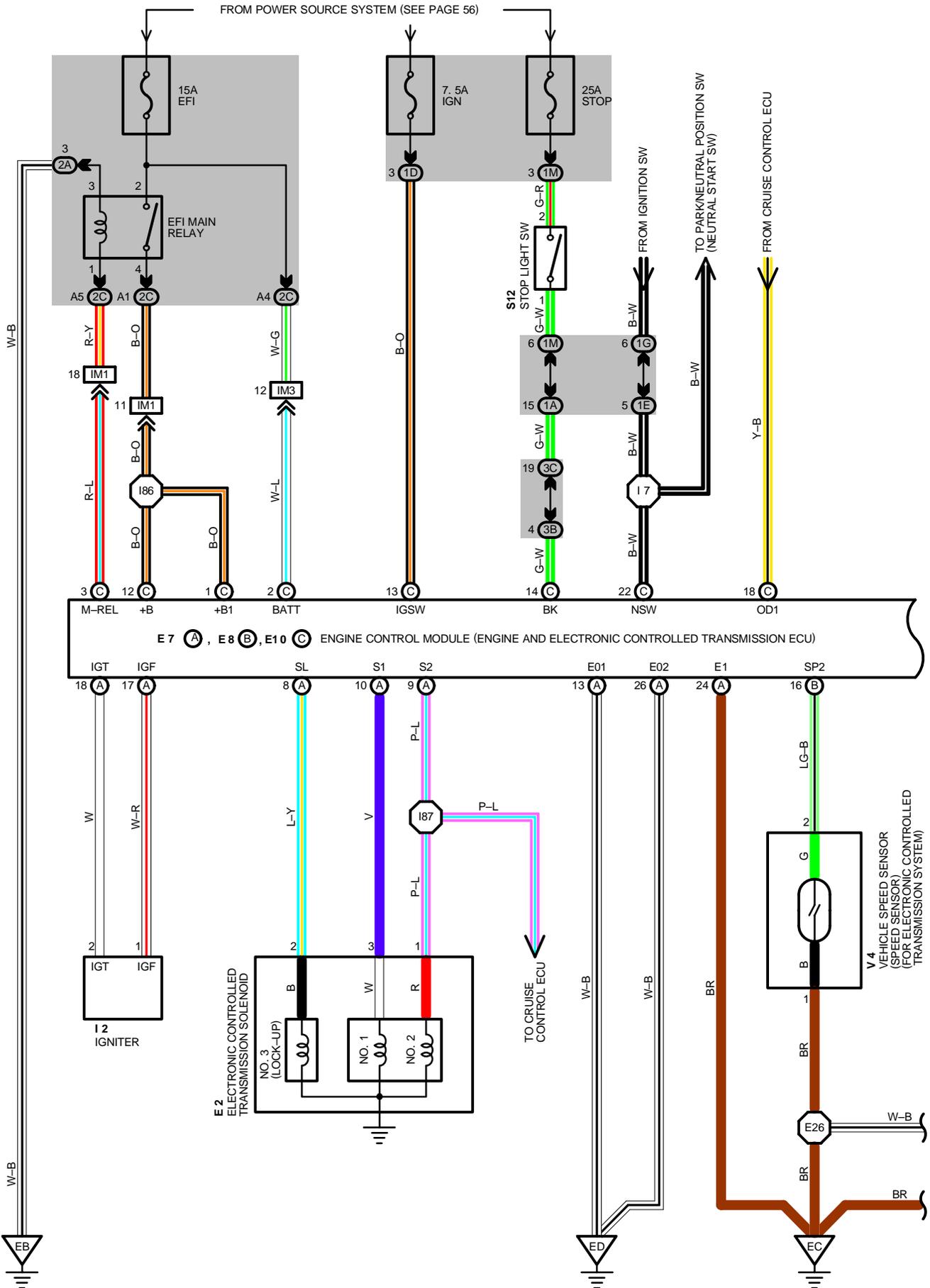
: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD RH
ED	34	INTAKE MANIFOLD LH
IG	36	INSTRUMENT PANEL BRACE LH

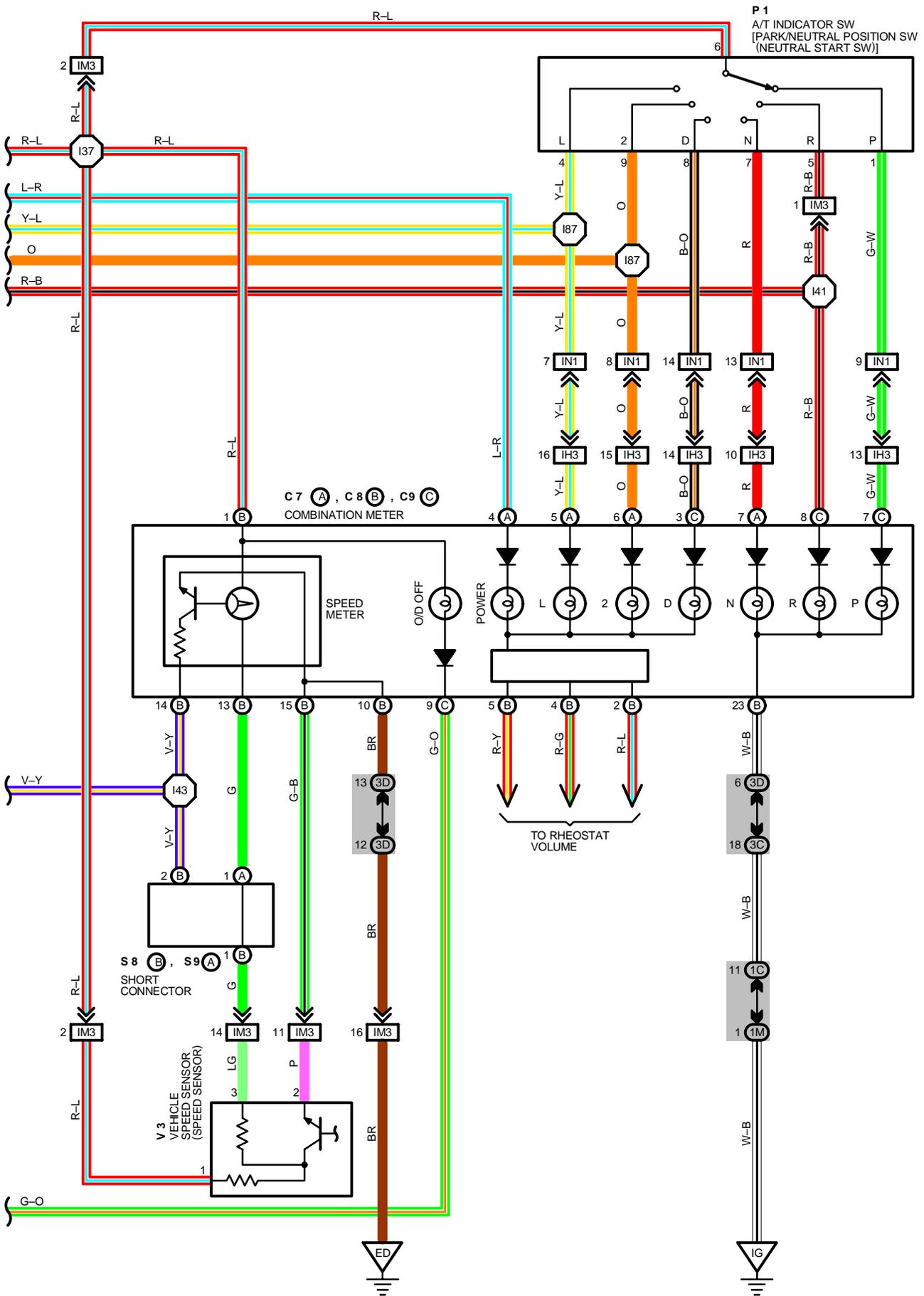
: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 37	38	COWL WIRE	I 84	38	COWL WIRE
I 43			I 87	38	ENGINE WIRE
I 60					

ELECTRONICALLY CONTROLLED TRANSMISSION AND AT INDICATOR



ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR



SYSTEM OUTLINE

THE ELECTRONIC CONTROLLED TRANSMISSION IS A SYSTEM WHICH PRECISELY CONTROLS GEAR SHIFT TIMING AND LOCK-UP TIMING IN THE RESPONSE TO THE VEHICLE'S DRIVING CONDITIONS AND THE ENGINE OPERATING CONDITIONS DETECTED BY VARIOUS SENSORS, MAKING SMOOTH DRIVING POSSIBLE BY SHIFT SELECTION FOR EACH GEAR WHICH IS THE MOST APPROPRIATE TO THE DRIVING CONDITIONS AT THAT TIME, AND CONTROLS THE ENGINE TORQUE DURING SHIFTING TO ACHIEVE OPTIMUM SHIFT FEELING.

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 (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU), AND ALSO THE INPUT SIGNALS TO **TERMINAL SP2** OF THE ENGINE CONTROL MODULE (ECU) FROM THE VEHICLE SPEED SENSOR (SPEED SENSOR) DEVOTED TO THE ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION ECU). 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 BK** 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.

ELECTRONICALLY CONTROLLED TRANSMISSION AND A/T INDICATOR

SERVICE HINTS

E 7(A), E 8(B), E10(C) 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

BK – E1 : 9.0–14.0 VOLTS WITH BRAKE PEDAL DEPRESSED

THW – E2 : 0.2–1.0 VOLTS 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

O/D1 – E1 : 4.5–5.5 VOLTS WITH IGNITION SW AT ON POSITION

**O/D2 – 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

M-REL – E1 : 9.0–14.0 VOLTS WITH IGNITION SW AT ON POSITION

E 2 ELECTRONIC CONTROLLED TRANSMISSION SOLENOID

1, 2, 3–GROUND : EACH 11–15

O 4 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 7	A 30	E 8	B 28	S 8	B 31
C 8	B 30	E10	C 30	S 9	A 31
C 9	C 30	E11	30	S12	31
D 1	28	I 2	29	T 2	29
D 3	30	J 1	31	V 3	29
E 2	28	J 2	31	V 4	29
E 3	28	O 4	31		
E 7	A 28	P 1	29		

○ : 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		
1D		
1E		
1G		
1K		
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)
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)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IH3	36	COWL WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		
IN1	38	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE GLOVE BOX)

▽ : GROUND POINTS

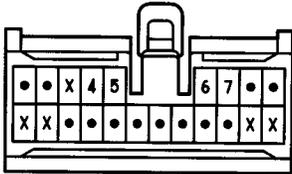
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD RH
ED	34	INTAKE MANIFOLD LH
IE	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH



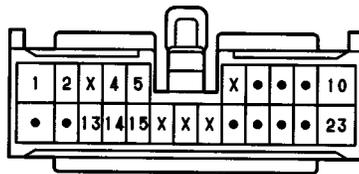
: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 26	34	ENGINE WIRE	I 43	38	COWL WIRE
I 17	38	INSTRUMENT PANEL WIRE	I 86		
I 37	38	COWL WIRE	I 87	38	ENGINE WIRE
I 41			I 90	38	COWL WIRE

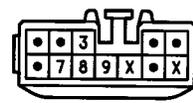
C 7 (A) GRAY



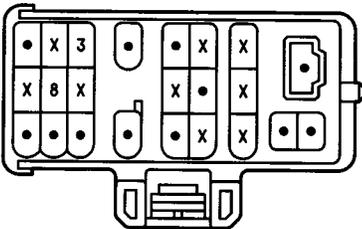
C 8 (B)



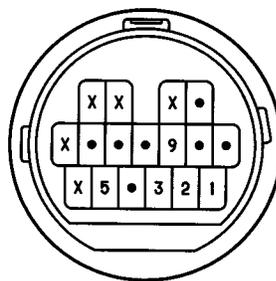
C 9 (C) BLUE



D 1 BLACK



D 3 DARK GRAY



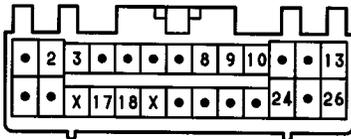
E 2 BLACK



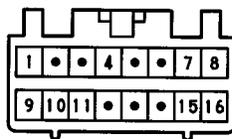
E 3 GREEN



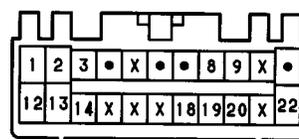
E 7 (A) DARK GRAY



E 8 (B) DARK GRAY



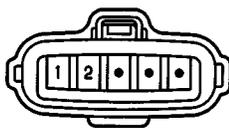
E10 (C) DARK GRAY



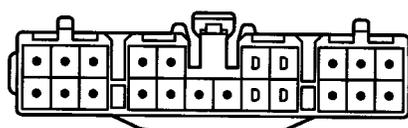
E11



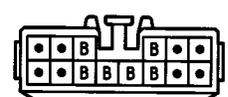
I 2 BLACK



J 1 DARK GRAY



J 2



(HINT:SEE PAGE 7)

(HINT:SEE PAGE 7)

O 4 BLUE



P 1 GRAY



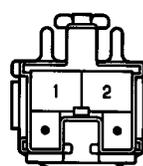
S 8 (B)



S 9 (A)



S12



T 2 BLACK



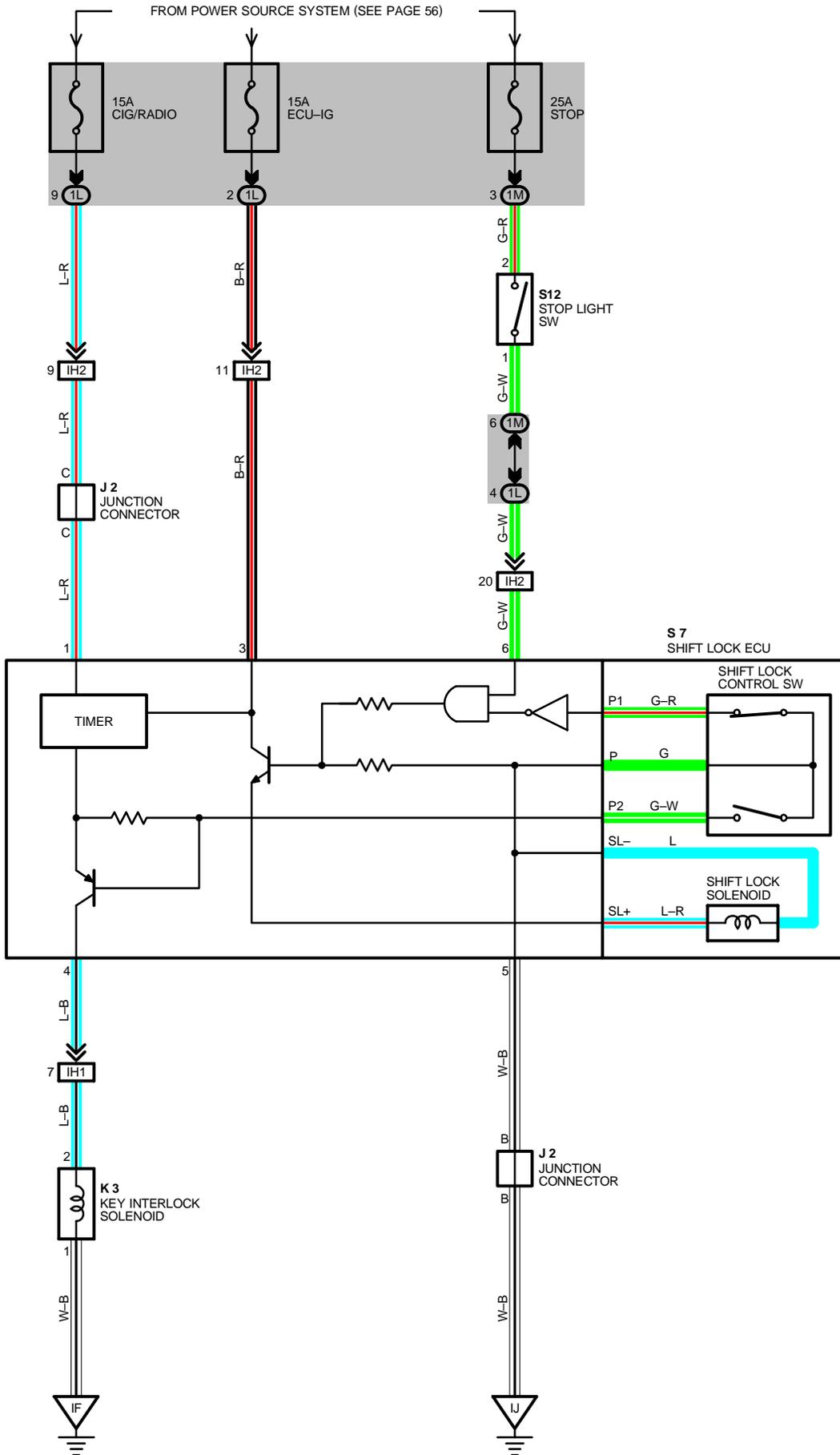
V 3 BLACK



V 4



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) ARE 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 RANGE 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 → KEY INTERLOCK SOLENOID IS CUT OFF. THIS CAUSES THE KEY INTERLOCK SOLENOID TO TURN OFF (LOCK LEVER DISENGAGES FROM **LOCK** POSITION) AND THE IGNITION KEY CAN BE TURNED FROM **ACC** TO **LOCK** POSITION. IF THE IGNITION IS LEFT IN **ACC** OR **ON** POSITION WITH THE SHIFT LEVER IN OTHER THAN "P" POSITION, THEN AFTER APPROX. ONE HOUR THE ECU OPERATES TO RELEASE THE LOCK.

SERVICE HINTS

S9 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 IGNITION SW AT **ACC** POSITION AND SHIFT LEVER POSITION IN EXCEPT **P** POSITION

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 2	31	S 7	31		
K 3	31	S12	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

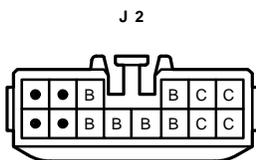
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1L	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

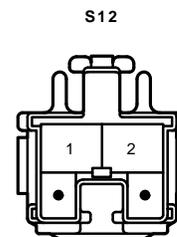
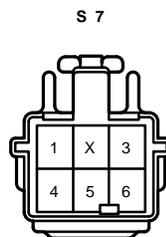
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IF	36	LEFT KICK PANEL
IJ	36	RIGHT KICK PANEL

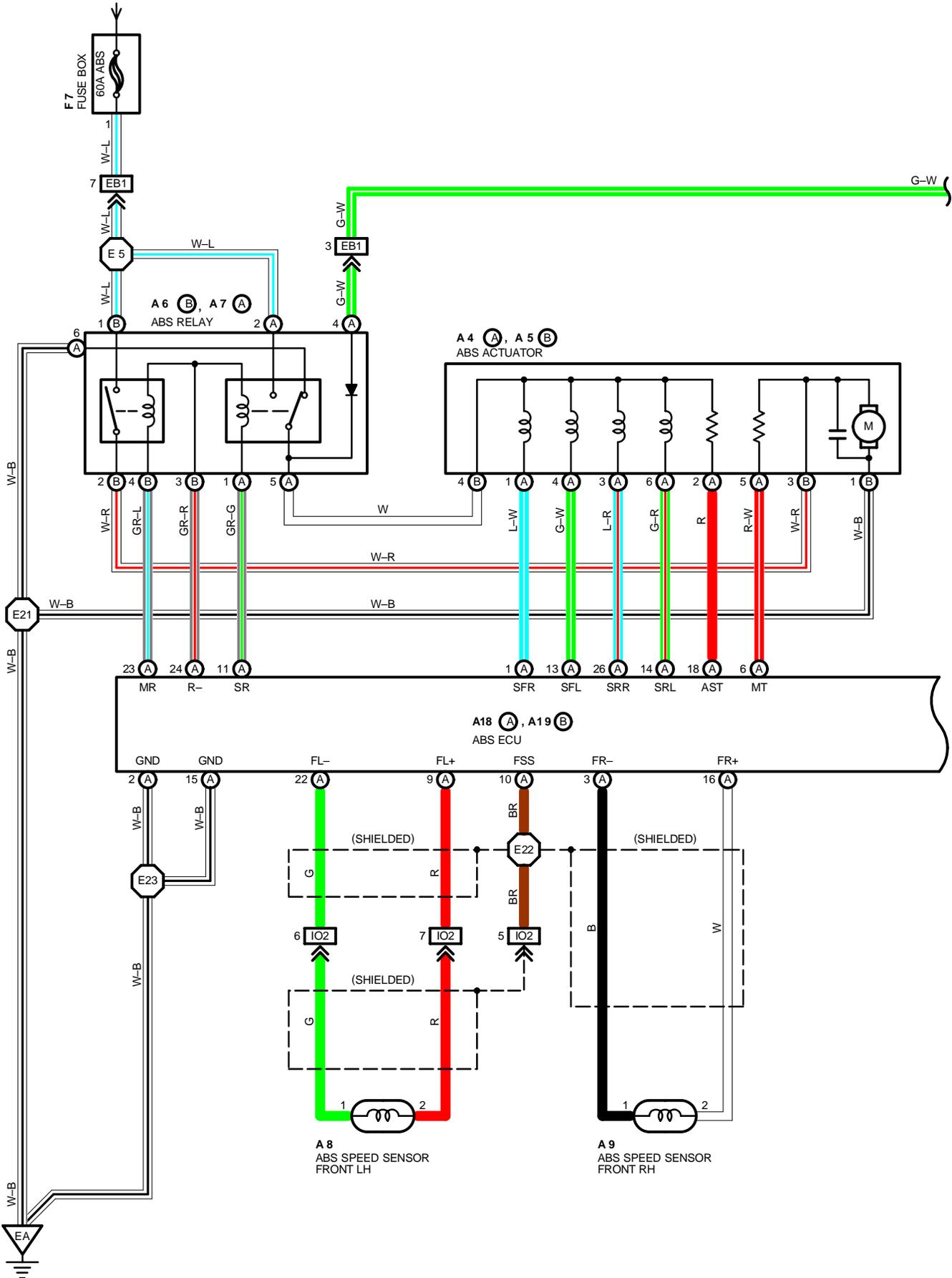


(HINT : SEE PAGE 7)



ABS (ANTI-LOCK BRAKE SYSTEM)

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



ABS (ANTI-LOCK BRAKE SYSTEM)

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 THE 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

A18(A), A19(B) ABS ECU

(CONNECT THE ECU CONNECTOR)

(A) 5-GROUND } APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND DATA LINK CONNECTOR 1 (CHECK CONNECTOR)

(B) 15-GROUND } **TS -E1** NOT CONNECTED

(A) 11-GROUND, (A) 13-GROUND :

(A) 14-GROUND, (A) 1-GROUND : } APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION ABS WARNING LIGHT GOES OFF

(A) 26-GROUND, (A) 18-GROUND :

(A) 2-GROUND } ALWAYS CONTINUITY

(A) 15-GROUND }

(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

(A) 14-GROUND : APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE PEDAL DEPRESSED OR PARKING LEVER PULLED UP

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

(B) 1, (A) 2-GROUND : ALWAYS APPROX. 12 VOLTS

(A) 6-GROUND : ALWAYS CONTINUITY

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

(A) 2-GROUND : APPROX. 5 (IGNITION SW OFF)

(A) 1, (A) 3, (A) 4, (A) 6-GROUND : APPROX. 1.15 (IGNITION SW OFF)

(B) 1-GROUND : ALWAYS CONTINUITY

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

1-2 : APPROX. 1.07K (20°C, 68°F)

A24, A25 ABS SPEED SENSOR REAR LH, RH

1-2 : APPROX. 1.25K (20°C, 68°F)

P 4 PARKING BRAKE SW

1-GROUND : CLOSED WITH PARKING BRAKE LEVER PULLED UP

S10 STOP LIGHT SW

2-1 : CLOSED WITH BRAKE PEDAL DEPRESSED

○ : PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A 4	A	28	A18	A	30	D 1	28	
A 5	B	28	A19	B	30	D 3	30	
A 6	B	28	A24		32	F 7	28	
A 7	A	28	A25		32	J 4	31	
A 8		28	C 7	A	30	P 4	31	
A 9		28	C 8	B	30	S12	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		
1M		
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	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
II1	36	FLOOR NO. 1 WIRE AND COWL WIRE (LEFT KICK PANEL)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		
IO2	38	ENGINE ROOM MAIN WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IP1	38	FLOOR NO. 2 WIRE AND COWL WIRE (RIGHT KICK PANEL)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD RH

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
E 5	34	ENGINE ROOM MAIN WIRE	E 23	34	ENGINE ROOM MAIN WIRE	
E 21			38	I 88	38	COWL WIRE
E 22				I 89		

A 4 (A) GRAY



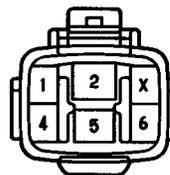
A 5 (B) BLACK



A 6 (B) GRAY



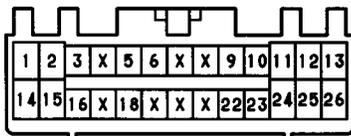
A 7 (A) GRAY



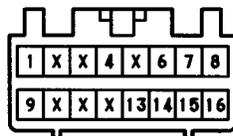
A 8, A 9 GRAY



A18 (A) DARK GRAY



A19 (B) DARK GRAY

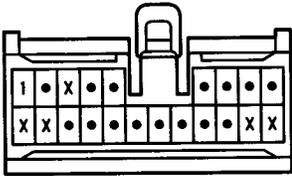


A24, A25 GRAY

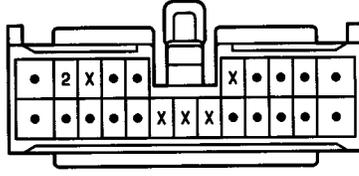


ABS (ANTI-LOCK BRAKE SYSTEM)

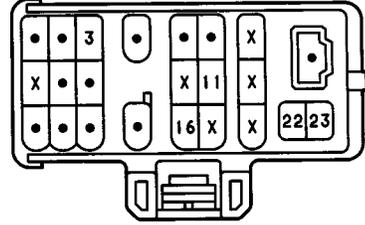
C 7 (A) GRAY



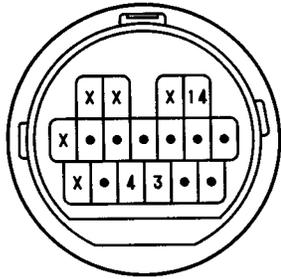
C 8 (B)



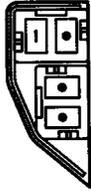
D 1 BLACK



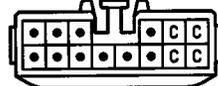
D 3 DARK GRAY



F 7



J 4

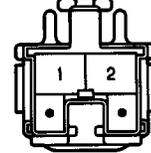


(HINT:SEE PAGE 7)

P 4



S12



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.

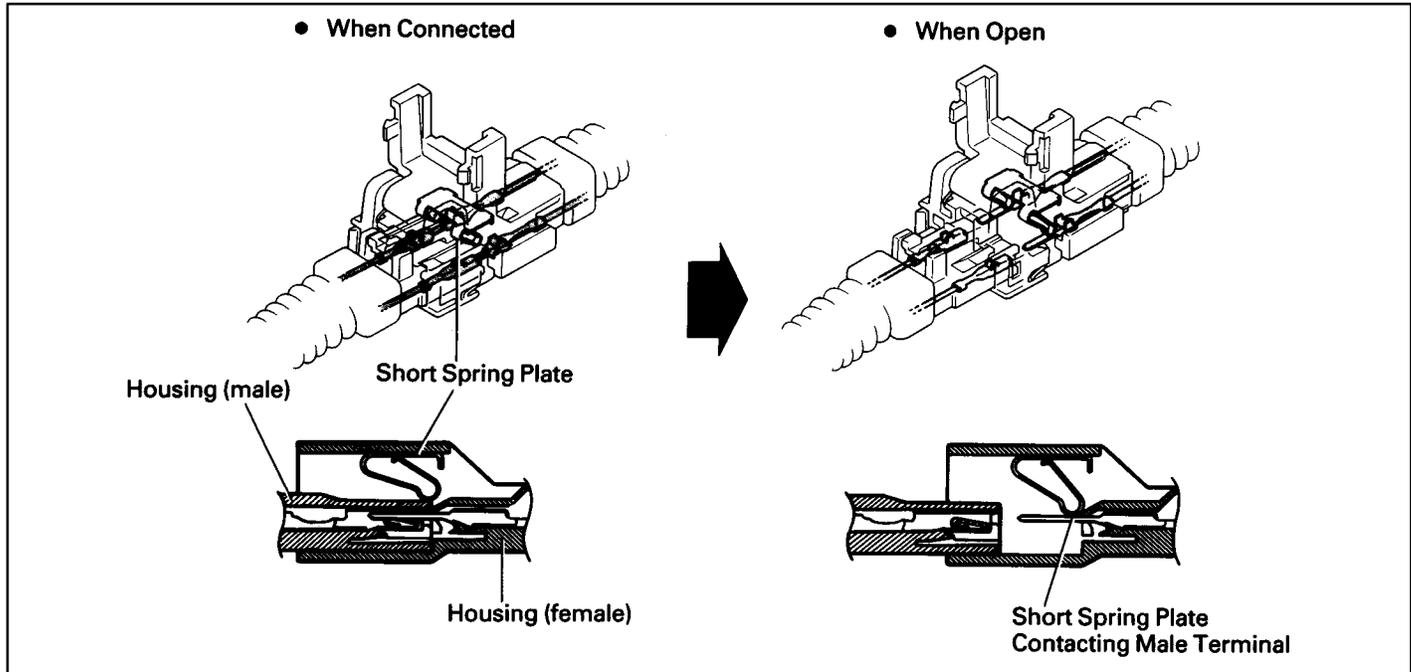
- ▼ Malfunction symptoms of the supplemental restraint system are difficult to confirm, so the diagnostic trouble codes become the most important source of information when troubleshooting.
When troubleshooting the supplemental restraint system, always inspect the diagnostic trouble codes before disconnecting 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 memory contents. So when the work is finished, therefore it will be necessary to explain this fact to the customer, and ask the customer to adjust the features and reset the memory.
To avoid erasing the memory 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 Ω) tester.
- ▼ The wire harness of the supplemental restraint system is integrated with the cowl wire harness assembly, engine room main wire harness assembly and cowl No. 2 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.

SRS (SUPPLEMENTAL RESTRAINT SYSTEM)

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

1. SRS ACTIVATION PREVENTION MECHANISM

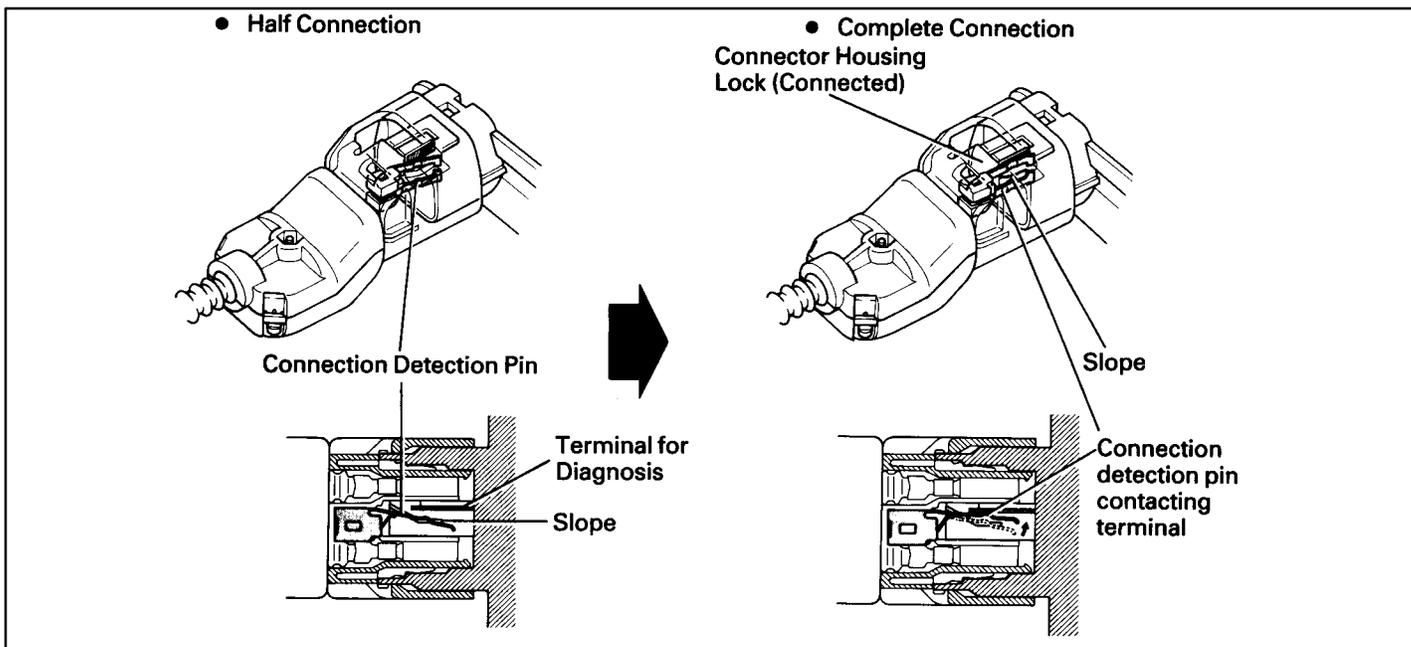
Each connector contains a short spring plate. When the connector is disconnected, the short spring plate automatically connects the power source and grounding terminals of the squib to preclude a potential difference between the terminals.



2. ELECTRICAL CONNECTION CHECK MECHANISM

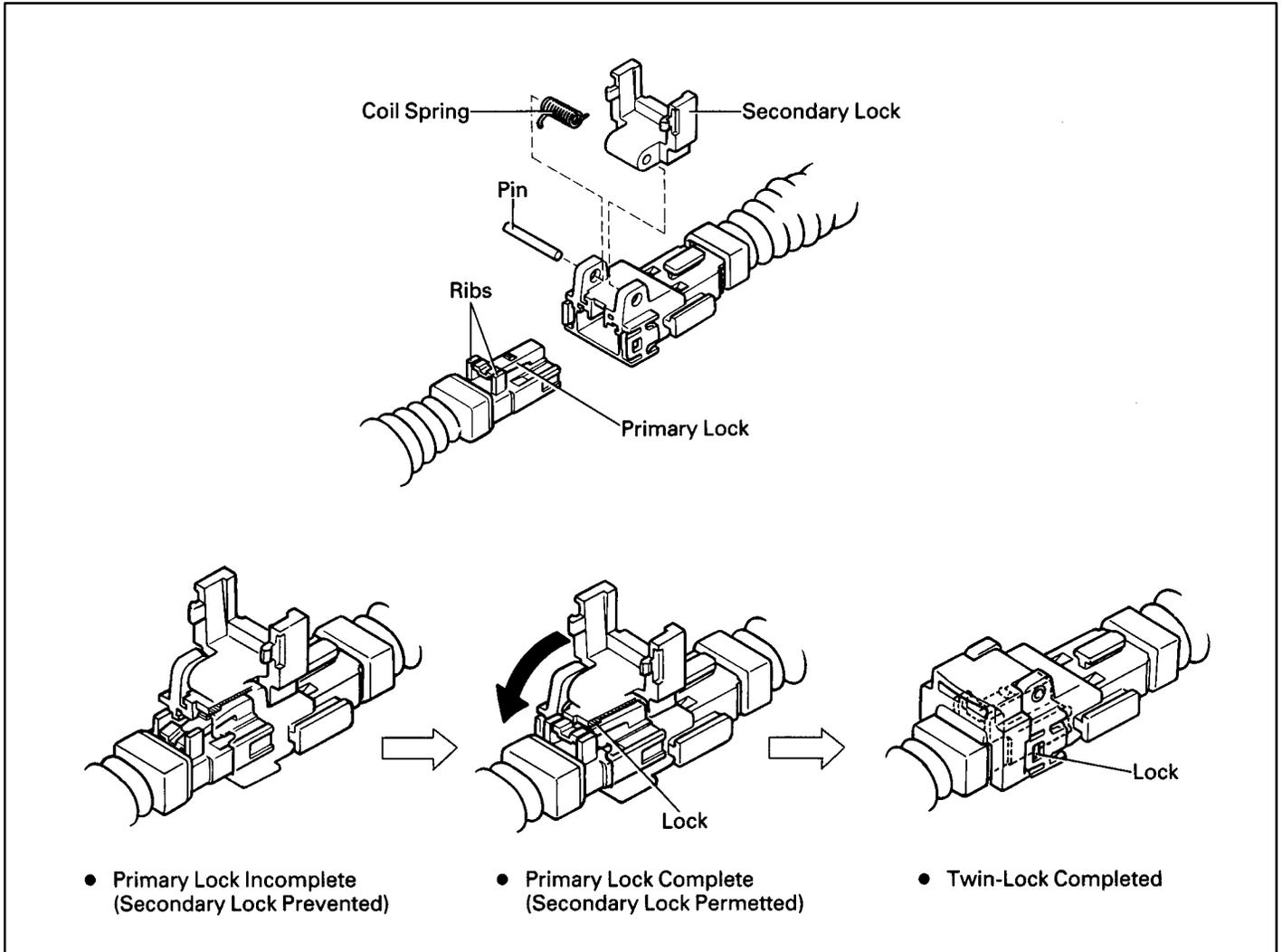
This mechanism is designed to electrically check if connectors are connected correctly and completely.

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.

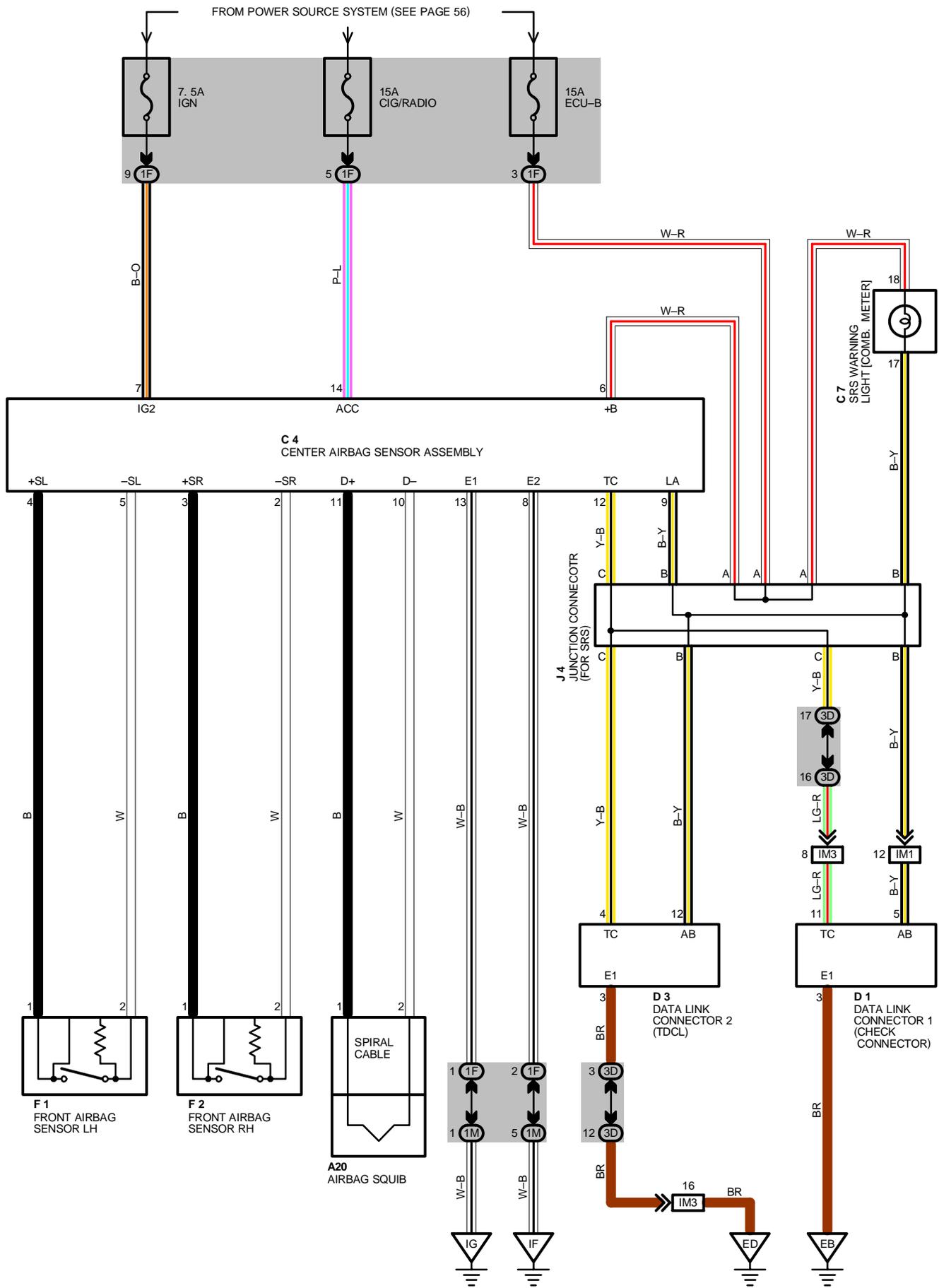


3. CONNECTOR TWIN-LOCK MECHANISM

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.



SRS (SUPPLEMENTAL RESTRAINT SYSTEM)



SYSTEM OUTLINE

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

CURRENT FLOWS CONSTANTLY TO **TERMINAL 6** OF THE CENTER AIRBAG SENSOR ASSEMBLY. 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 TO **TERMINAL 7**.

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** OR **IGN** FUSE FLOWS TO **TERMINAL 11** OF THE CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 1** OF THE AIRBAG SQUIB → SQUIB → **TERMINAL 2** → **TERMINAL 10** OF CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 8, TERMINAL 13 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 **TERMINAL 11** OF THE CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 1** OF THE AIRBAG SQUIB → SQUIB → **TERMINAL 2** → **TERMINAL 10** OF CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 4 OR 3** → **TERMINAL 1** OF FRONT AIRBAG SENSOR → **TERMINAL 2** → **TERMINAL 5 OR 2** OF CENTER AIRBAG SENSOR ASSEMBLY → **TERMINAL 8, TERMINAL 13 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
A20	30	D 1	28	F 2	28
C 4	28	D 3	30	J 4	31
C 7	30	F 1	28		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1F	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		
3D	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)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		

▽ : GROUND POINTS

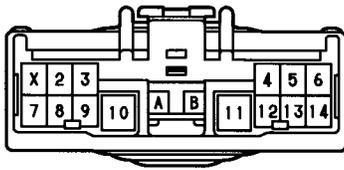
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
ED	34	INTAKE MANIFOLD LH
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH

SRS (SUPPLEMENTAL RESTRAINT SYSTEM)

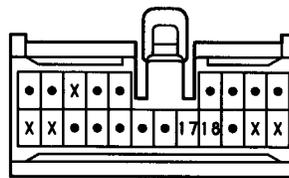
A20 YELLOW



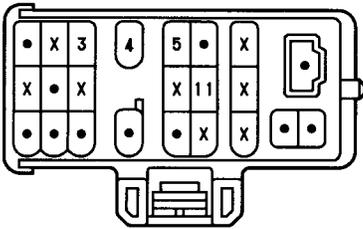
C 4 YELLOW



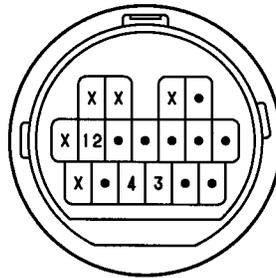
C 7 GRAY



D 1 BLACK



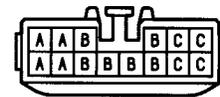
D 3 DARK GRAY



F 1, F 2 YELLOW



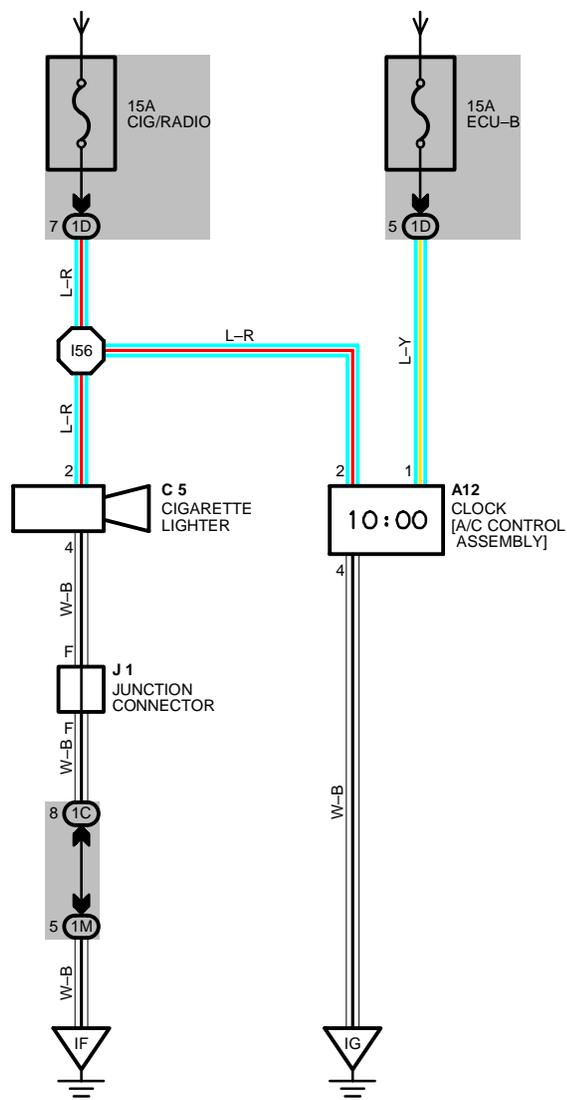
J 4



(HINT: SEE PAGE 7)

CIGARETTE LIGHTER AND CLOCK

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



SERVICE HINTS

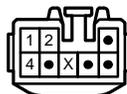
C5 CIGARETTE LIGHTER

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

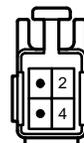
A12 CLOCK

- 1-GROUND : ALWAYS 12VOLTS (POWER FOR CLOCK)
- 2-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ACC OR ON POSITION (POWER FOR INDICATION)
- 4-GROUND : ALWAYS CONTINUITY

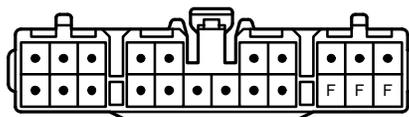
A12 BLUE



C 5 DARK GRAY



J 1 DARK GRAY



(HINT : SEE PAGE 7)

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A12	30	C 5	30	J 1	31

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

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

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I56	38	COWL WIRE			

SERVICE HINTS

DEFOGGER RELAY

5-3 : CLOSED WITH IGNITION SW AT **ON** POSITION AND DEFOGGER SW (A/C CONTROL ASSEMBLY) ON

○ : PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
A10	A	30	R10	A	32	R13	32	
A12	B	30	R11	B	32			
C17		32	R12		32			

○ : 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 AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

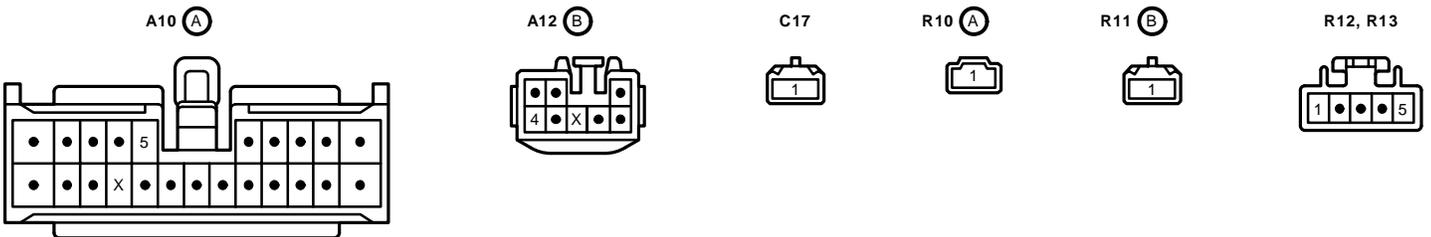
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG2		
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IQ2		
BS1	40	MIRROR LH WIRE AND FRONT DOOR LH WIRE (FRONT LH DOOR INSIDE)
BT1	40	MIRROR RH WIRE AND FRONT DOOR RH WIRE (FRONT RH DOOR INSIDE)

▽ : GROUND POINTS

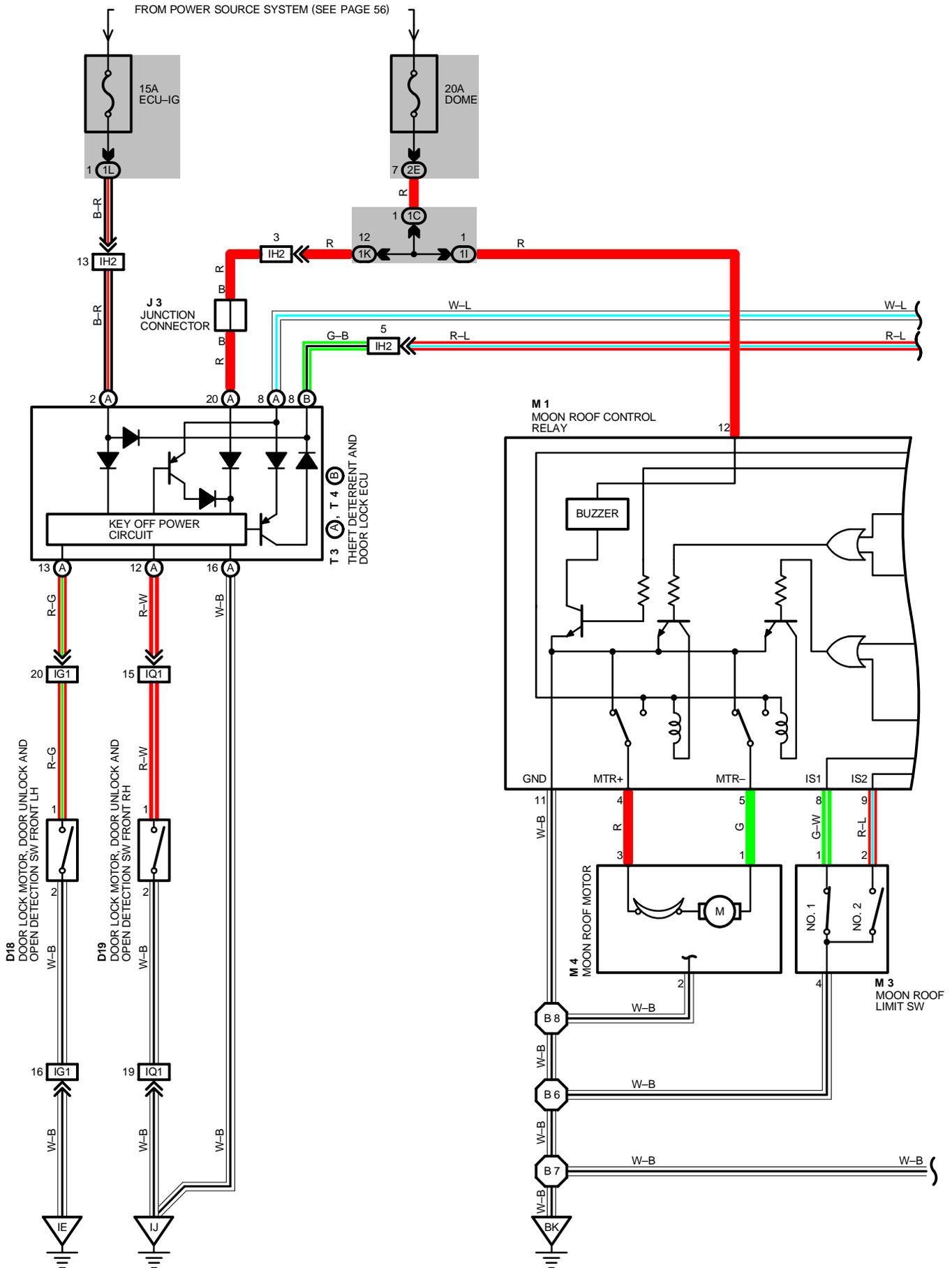
CODE	SEE PAGE	GROUND POINTS LOCATION
IE	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL
BN	36	LEFT QUARTER PILLAR

○ : SPLICE POINTS

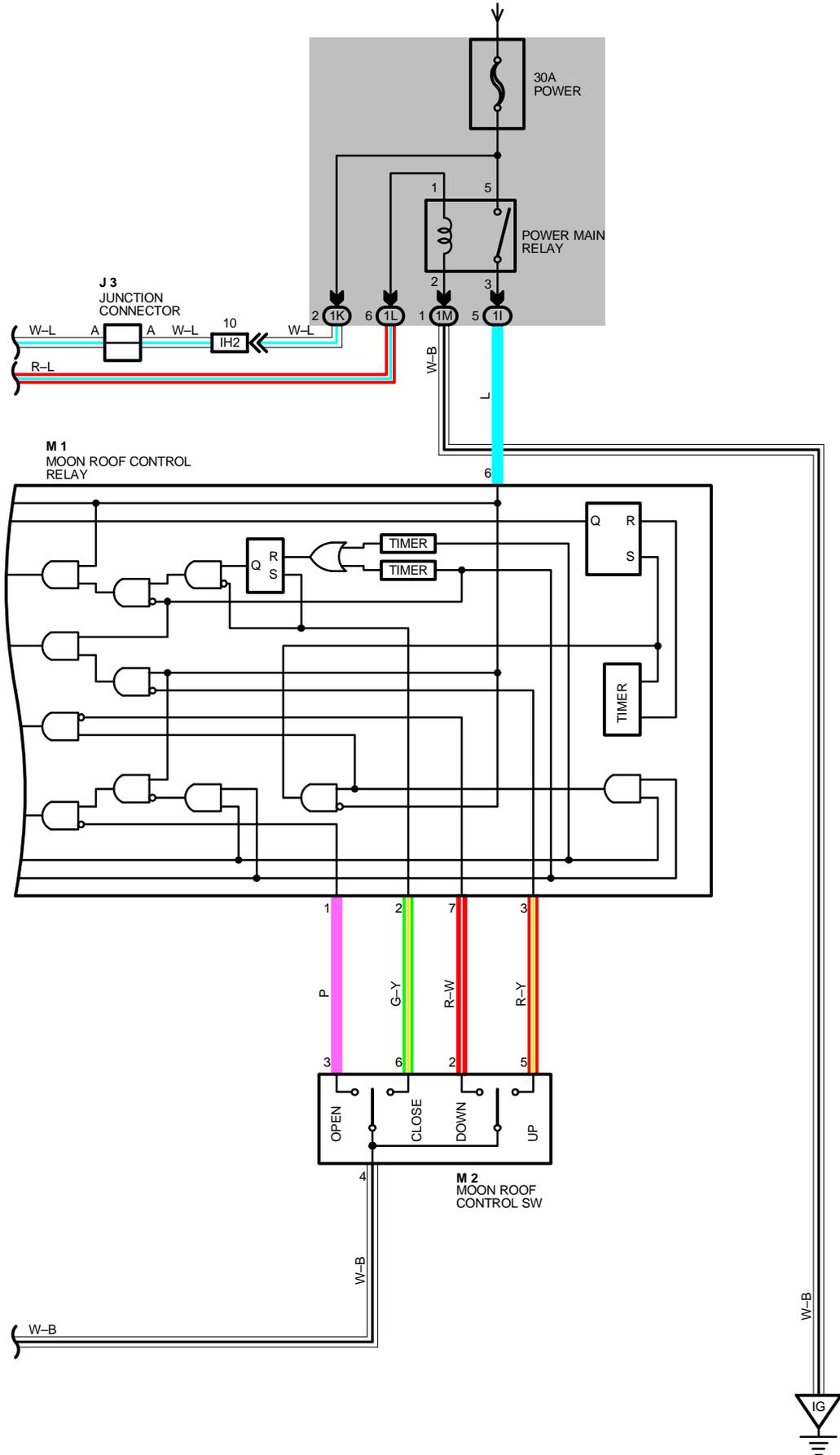
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 54	38	COWL WIRE	I 72	38	INSTRUMENT PANEL WIRE



MOON ROOF



FROM POWER SOURCE SYSTEM (SEE PAGE 56)



MOON ROOF

SYSTEM OUTLINE

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

WHEN THE IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **TERMINAL 1** OF POWER MAIN RELAY → **TERMINAL 2** → TO **GROUND** THROUGH **ECU-IG 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. 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 **100MM** 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 THE 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. KEY OFF MOON ROOF OPERATION

WITH THE IGNITION SW TURNED FROM ON TO OFF, THE THEFT DETERRENT AND DOOR LOCK ECU OPERATES AND CURRENT FLOWS FROM POWER FUSE TO **TERMINAL (A)8** OF THE ECU OR **DOME FUSE** TO **TERMINAL (A)20** OF THE ECU → **TERMINAL (B)8** → **TERMINAL 1** OF POWER MAIN RELAY → **TERMINAL 2** → TO **GROUND** FOR ABOUT **60** SECONDS. THE SAME AS NORMAL OPERATION, THE CURRENT FLOWS FROM POWER FUSE → **TERMINAL 5** OF THE POWER MAIN RELAY → **TERMINAL 3** → **TERMINAL 6** OF THE MOON ROOF CONTROL RELAY. AS A RESULT, FOR ABOUT **60** SECONDS AFTER THE IGNITION SW IS TURNED OFF, THE FUNCTIONING OF THIS RELAY MAKES IT POSSIBLE TO OPEN AND CLOSE THE MOON ROOF. ALSO, BY OPENING THE FRONT DOOR (DOOR DETECT SW ON) WITHIN ABOUT **60** SECONDS AFTER TURNING THE IGNITION SW TO OFF, A SIGNAL IS INPUT TO **TERMINAL (A)12** OR **(A)13** OF THEFT DETERRENT AND DOOR LOCK ECU. AS A RESULT, THE ECU TURNS OFF AND OPEN AND CLOSE MOVEMENT OF THE MOON ROOF STOPS.

SYSTEM OUTLINE

6. TILT UP REMINDER SYSTEM

WITH THE IGNITION SW IS SWITCHED FROM **ON** TO **ACC** OR **OFF**, AND **60** SECONDS THEN ELAPSES OR THE FRONT DOOR IS OPENED, A SIGNAL IS INPUT TO **TERMINAL 6** OF THE MOON ROOF CONTROL RELAY. 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.

SERVICE HINTS

POWER MAIN RELAY

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

M 1 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.)** BEFORE FULLY **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 2 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
D18	32	M 1	32	M 4	32
D19	32	M 2	32	T 3	A 31
J 3	31	M 3	32	T 4	B 31

○ : 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 LEFT)
1K	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1L		
1M		
2E	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	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)

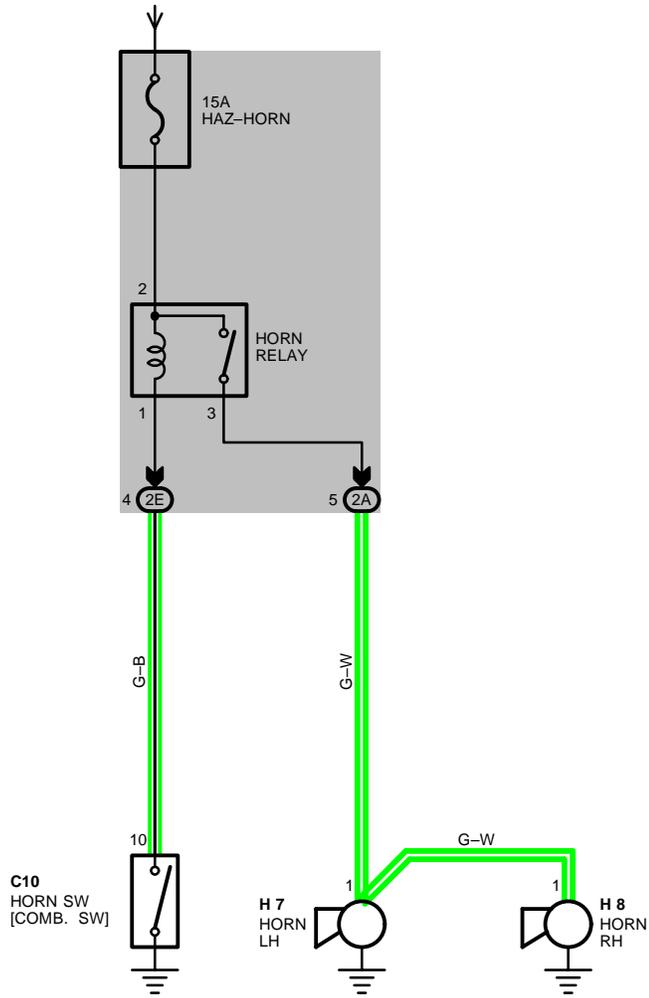
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH
IJ	36	RIGHT KICK PANEL
BK	40	ROOF LEFT

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B 6	40	ROOF WIRE	B 8	40	ROOF WIRE
B 7					

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



SERVICE HINTS

HORN RELAY

2-3 : CLOSED WITH HORN SW ON

○ : PARTS LOCATION

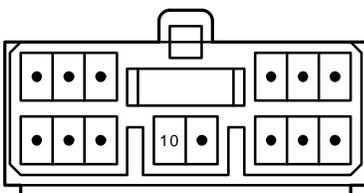
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C10	30	H 7	28	H 8	28

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

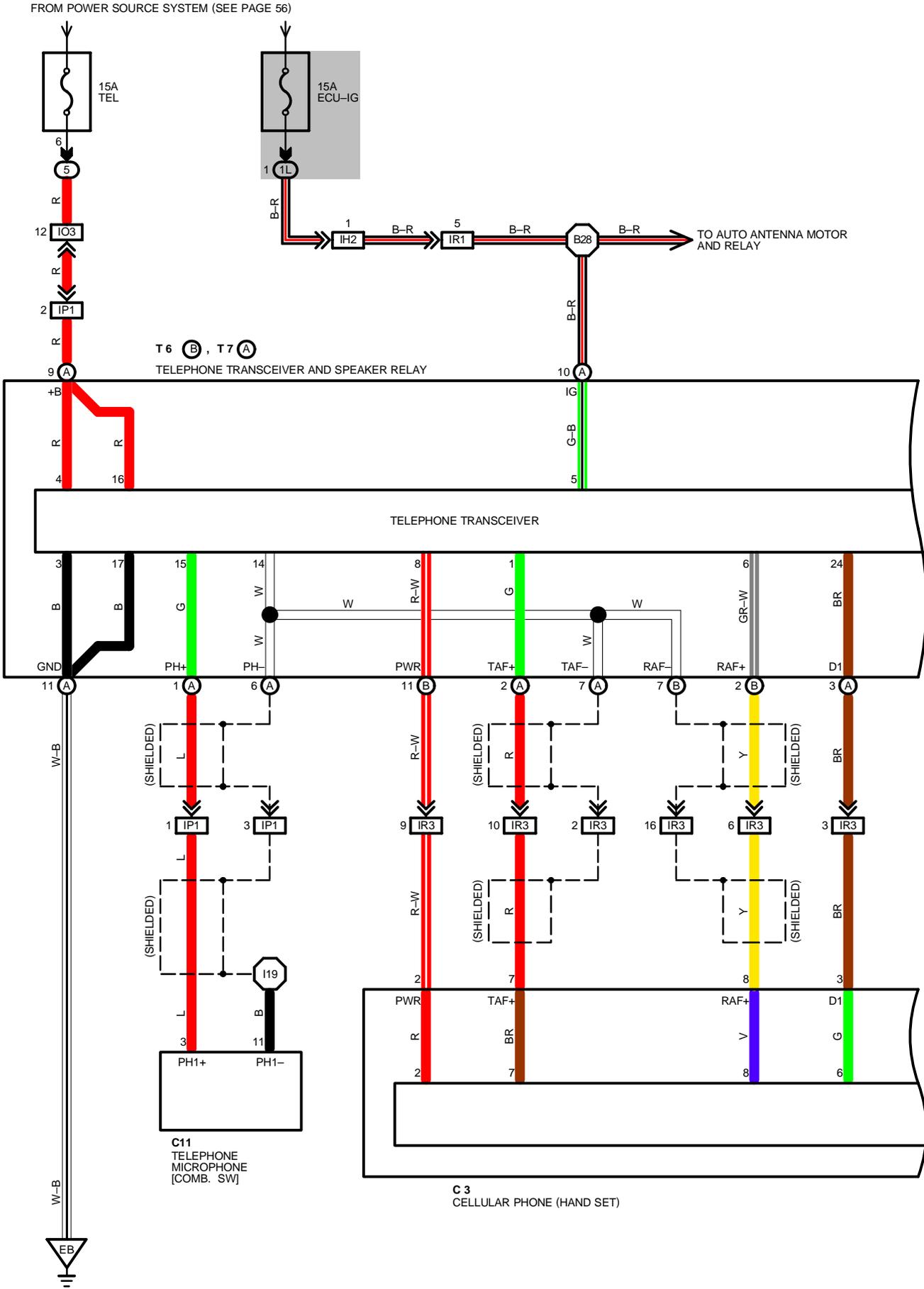
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
2A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)

C10 BLACK

H 7, H 8

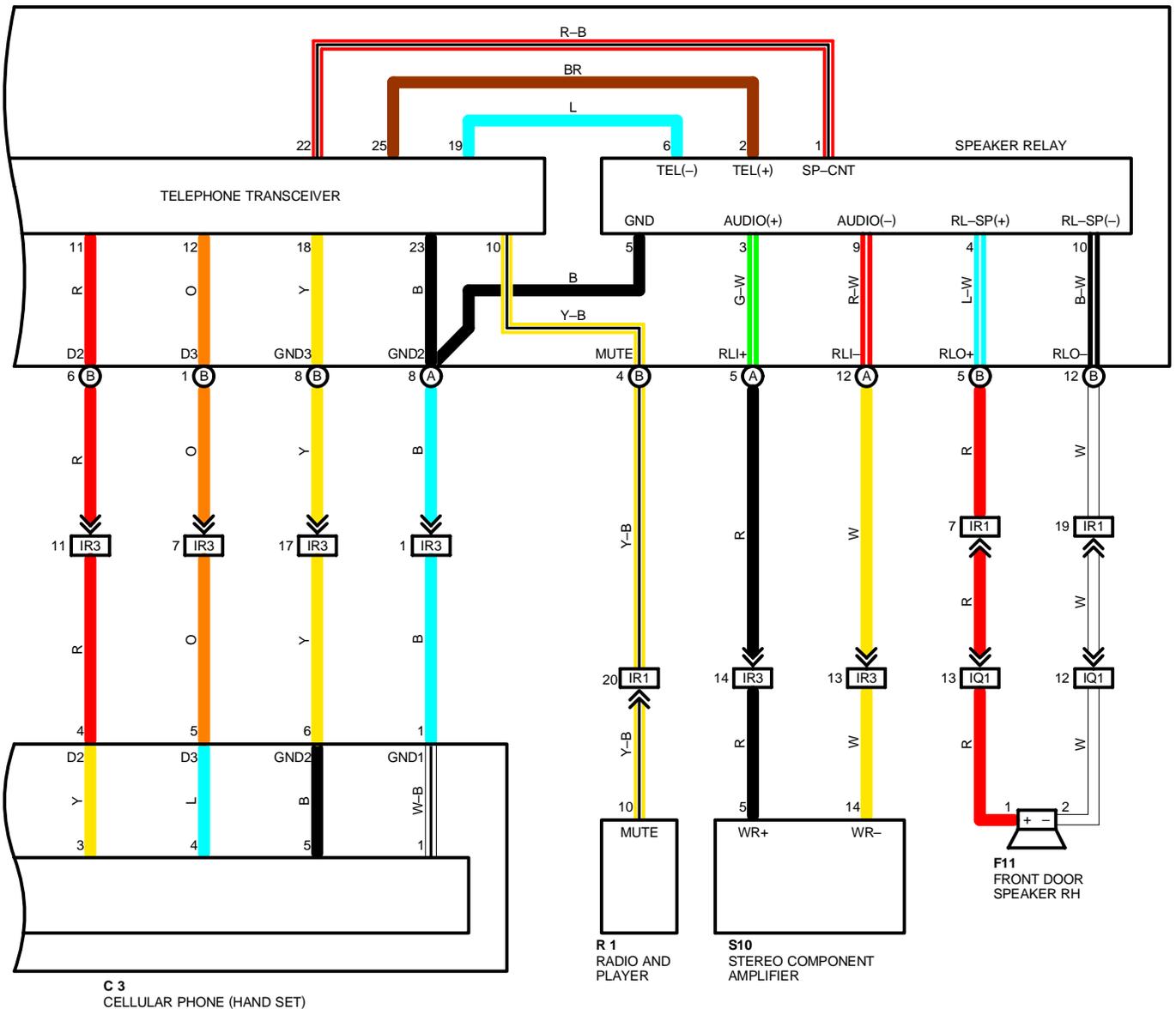


CELLULAR MOBILE TELEPHONE



T 6 (B), T 7 (A)

TELEPHONE TRANSCEIVER AND SPEAKER RELAY



CELLULAR MOBILE TELEPHONE

SERVICE HINTS

T 7(A) TELEPHONE TRANSCEIVER AND SPEAKER RELAY

- (A) 9-GROUND : ALWAYS APPROX. 12 VOLTS
- (A) 10-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION
- (A) 11-GROUND : ALWAYS CONTINUITY

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 3	30	R 1	31	T 7	A 32
C11	30	S10	31		
F11	32	T 6	B 32		

○ : 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)
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)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IO3	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IP1	38	FLOOR NO. 2 WIRE AND COWL WIRE (RIGHT KICK PANEL)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR3	38	INSTRUMENT PANEL WIRE AND FLOOR NO. 2 WIRE (UNDER THE PASSENGER'S SEAT)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER

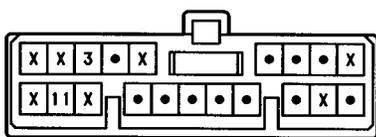
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 19	38	COWL WIRE	B 28	40	FLOOR NO. 2 WIRE

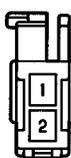
C 3



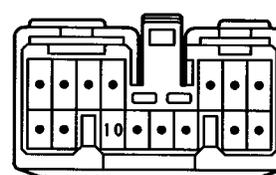
C11



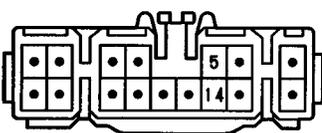
F11



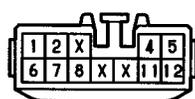
R 1



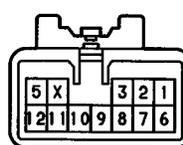
S10 BLUE



T 6 (B)

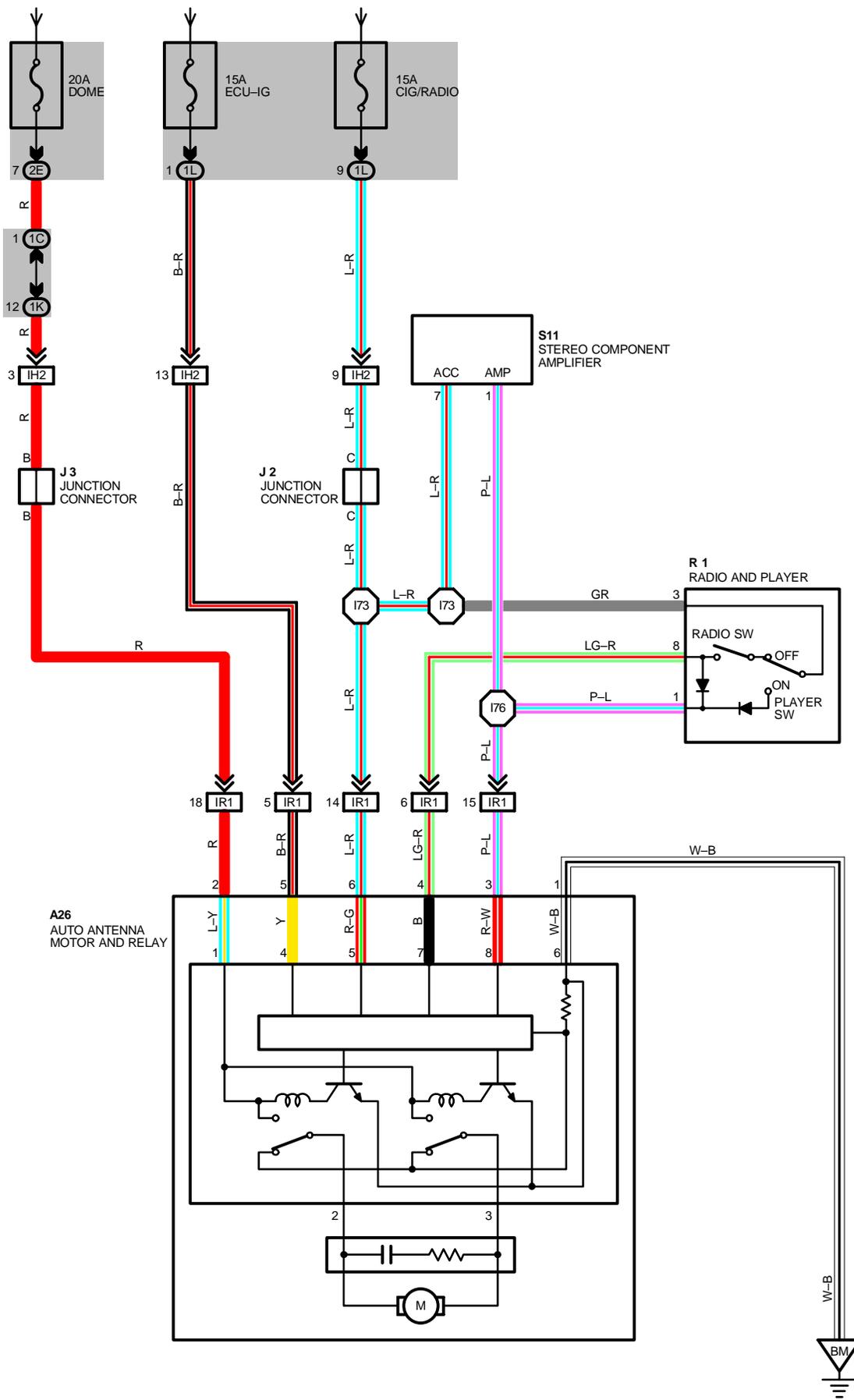


T 7 (A)



AUTO ANTENNA

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



SERVICE HINTS

A26 AUTO ANTENNA MOTOR AND RELAY

- 5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION
- 2-GROUND : ALWAYS APPROX. 12 VOLTS
- 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION AND RADIO SW ON
- 1-GROUND : ALWAYS CONTINUITY

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A26	32	J 3	31	S 11	31
J 2	31	R 1	31		

○ : 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		
2E	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)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
BM	40	UNDER THE RIGHT QUARTER PILLAR

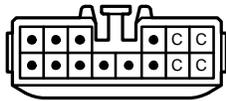
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 73	38	INSTRUMENT PANEL WIRE	I 76	38	INSTRUMENT PANEL WIRE

A26

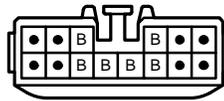


J 2



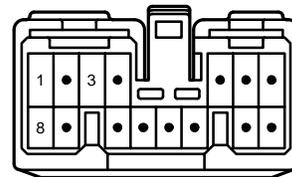
(HINT : SEE PAGE 7)

J 3 DARK GRAY

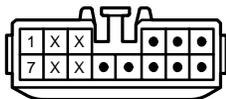


(HINT : SEE PAGE 7)

R 1



S11 GRAY



RADIO AND PLAYER (w/ CD CHANGER)

SERVICE HINTS

R 1(A) RADIO AND PLAYER

(A) 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** OR **ACC** POSITION

(A) 4-GROUND : ALWAYS APPROX. 12 VOLTS

S12(A), S13(B) STEREO COMPONENT AMPLIFIER

(A)12, (A) 13-GROUND : ALWAYS CONTINUITY

(B) 7-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** OR **ACC** POSITION

(A)16, (A) 17-GROUND : ALWAYS APPROX. 12 VOLTS

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A26	32	F12	32	R 8	32
C15	B 32	F13	32	R 9	32
C16	A 32	J 2	31	S10	A 31
F 8	30	J 3	31	S11	B 31
F 9	30	L 7	32	T 6	B 32
F10	32	R 1	A 31	T 7	A 32
F11	32	R 2	B 31		

○ : 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)
IL	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)
IG2	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IH3	36	COWL WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IO1	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IQ2	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR2	38	INSTRUMENT PANEL WIRE AND FLOOR NO. 2 WIRE (UNDER THE PASSENGER'S SEAT)
IR3		
BX2	40	FLOOR NO. 1 WIRE AND FLOOR NO. 2 WIRE (BEHIND PACKAGE TRAY TRIM)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IH	36	INSTRUMENT PANEL BRACE RH

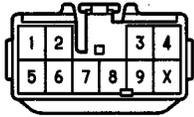
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I73	38	INSTRUMENT PANEL WIRE	B 16	40	FLOOR NO. 2 WIRE
I75			B 21	40	FLOOR NO. 1 WIRE
I76			B 24		
I77			B 25		
I83			B 26	40	FLOOR NO. 2 WIRE

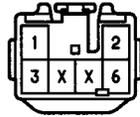
A26



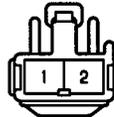
C16 (B)



C16 (A)



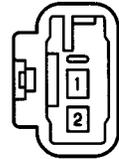
F 8, F 9 BLUE



F10, F11



F12, F13 BLUE

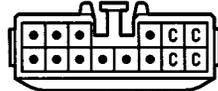


J 2



(HINT:SEE PAGE 7)

J 3 DARK GRAY

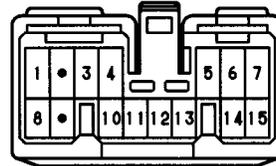


(HINT:SEE PAGE 7)

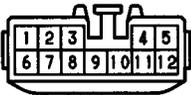
L 7 GRAY



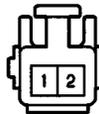
R 1 (A)



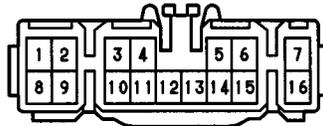
R 2 (B)



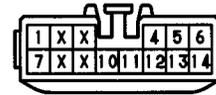
R 8, R 9



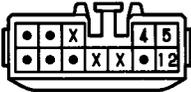
S10 (A) BLUE



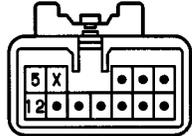
S11 (B) GRAY



T 6 (B)

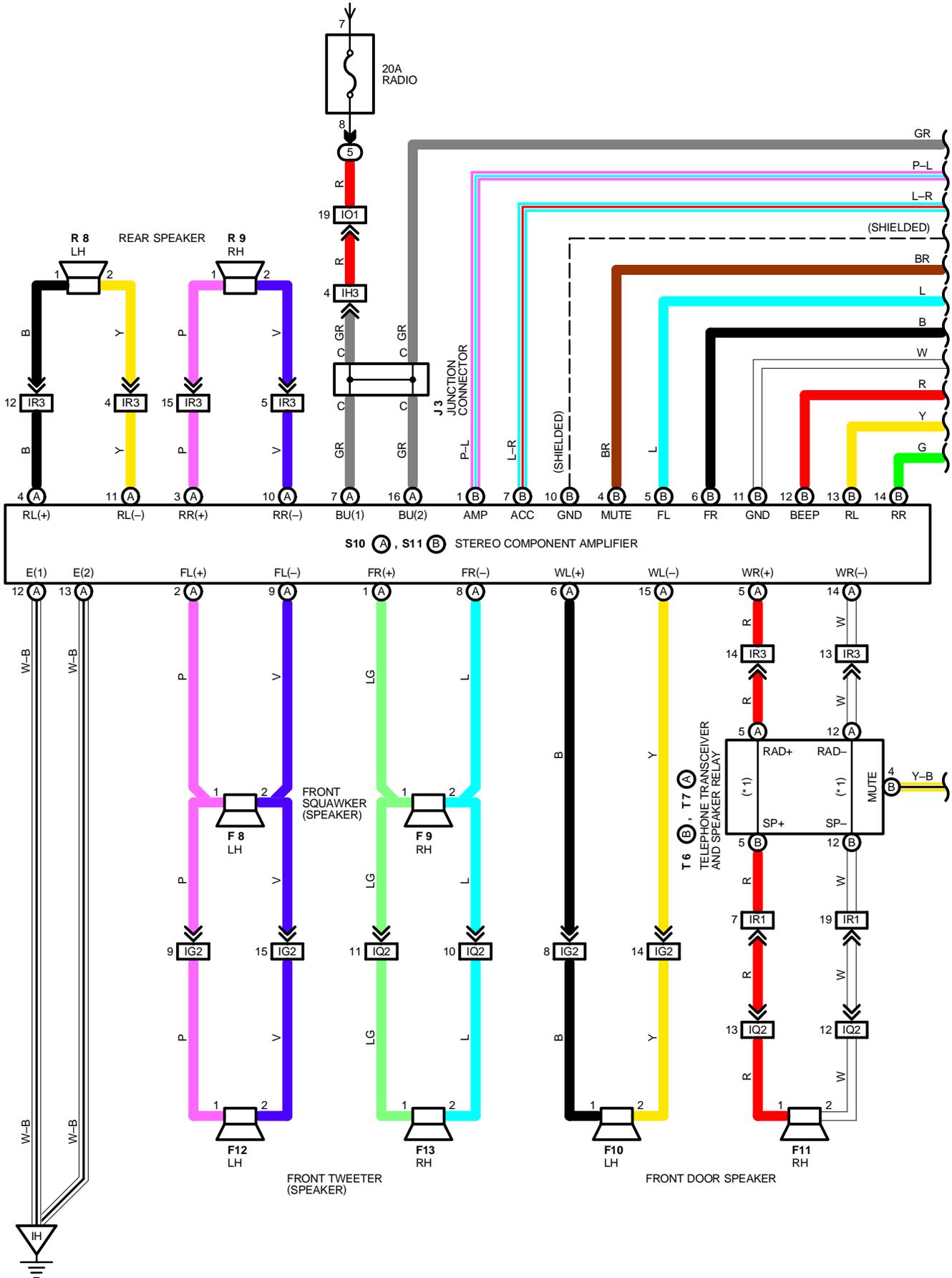


T 7 (A)

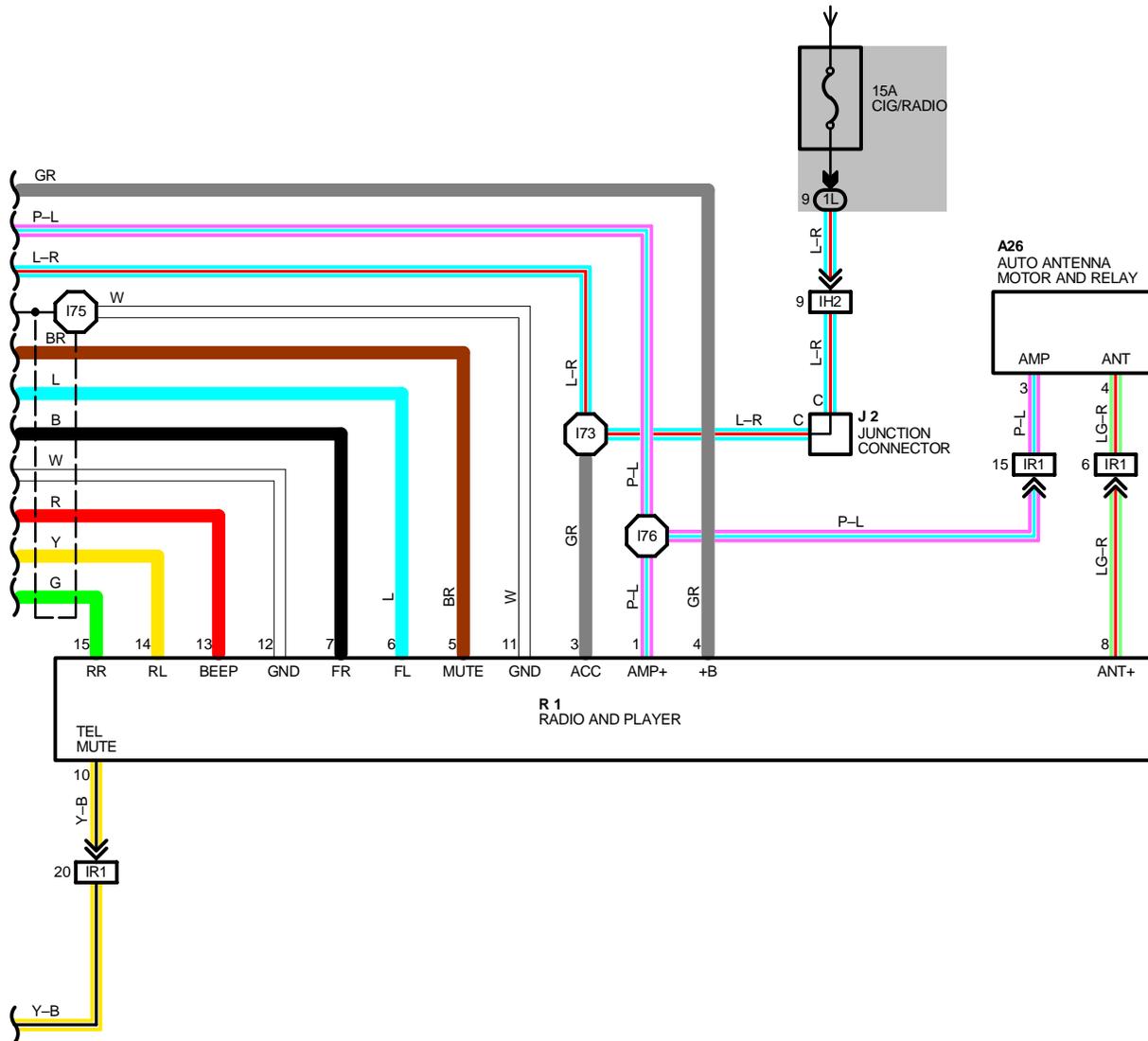


RADIO AND PLAYER (w/o CD CHANGER)

FROM POWER SOURCE SYSTEM (SEE PAGE 56)



FROM POWER SOURCE SYSTEM (SEE PAGE 56)



RADIO AND PLAYER (w/o CD CHANGER)

SERVICE HINTS

S10(A), S11(B) STEREO COMPONENT AMPLIFIER

(A) 7, (A)16-GROUND : ALWAYS APPROX. 12 VOLTS

(B) 7-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON OR ACC POSITION

(A)12, (A)13-GROUND : ALWAYS CONTINUITY

R 1 RADIO AND PLAYER

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

4-GROUND : ALWAYS APPROX. 12 VOLTS

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A26	32	F13	32	S10	A 31
F 8	30	J 2	31	S11	B 31
F 9	30	J 3	31	T 6	B 32
F10	32	R 1	31	T 7	A 32
F11	32	R 8	32		
F12	32	R 9	32		

○ : 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)
IL	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)
IG2	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IH2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
IH3	36	COWL WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IO1	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IQ2	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR1	38	FLOOR NO. 2 WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IR3	38	INSTRUMENT PANEL WIRE AND FLOOR NO. 2 WIRE (UNDER THE PASSENGER'S SEAT)

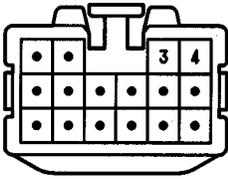
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IH	36	INSTRUMENT PANEL BRACE RH

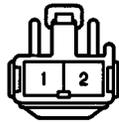
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 73	38	INSTRUMENT PANEL WIRE	I 76	38	INSTRUMENT PANEL WIRE
I 75					

A26



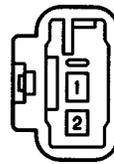
F 8, F 9 BLUE



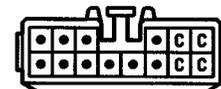
F10, F11 BLUE



F12, F13

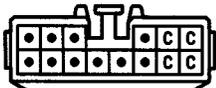


J 2



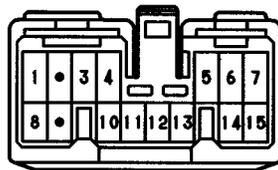
(HINT:SEE PAGE 7)

J 3 DARK GRAY



(HINT:SEE PAGE 7)

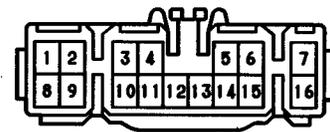
R 1



R 8, R 9



S10 (A) BLUE



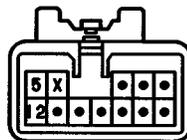
S11 (B) GRAY



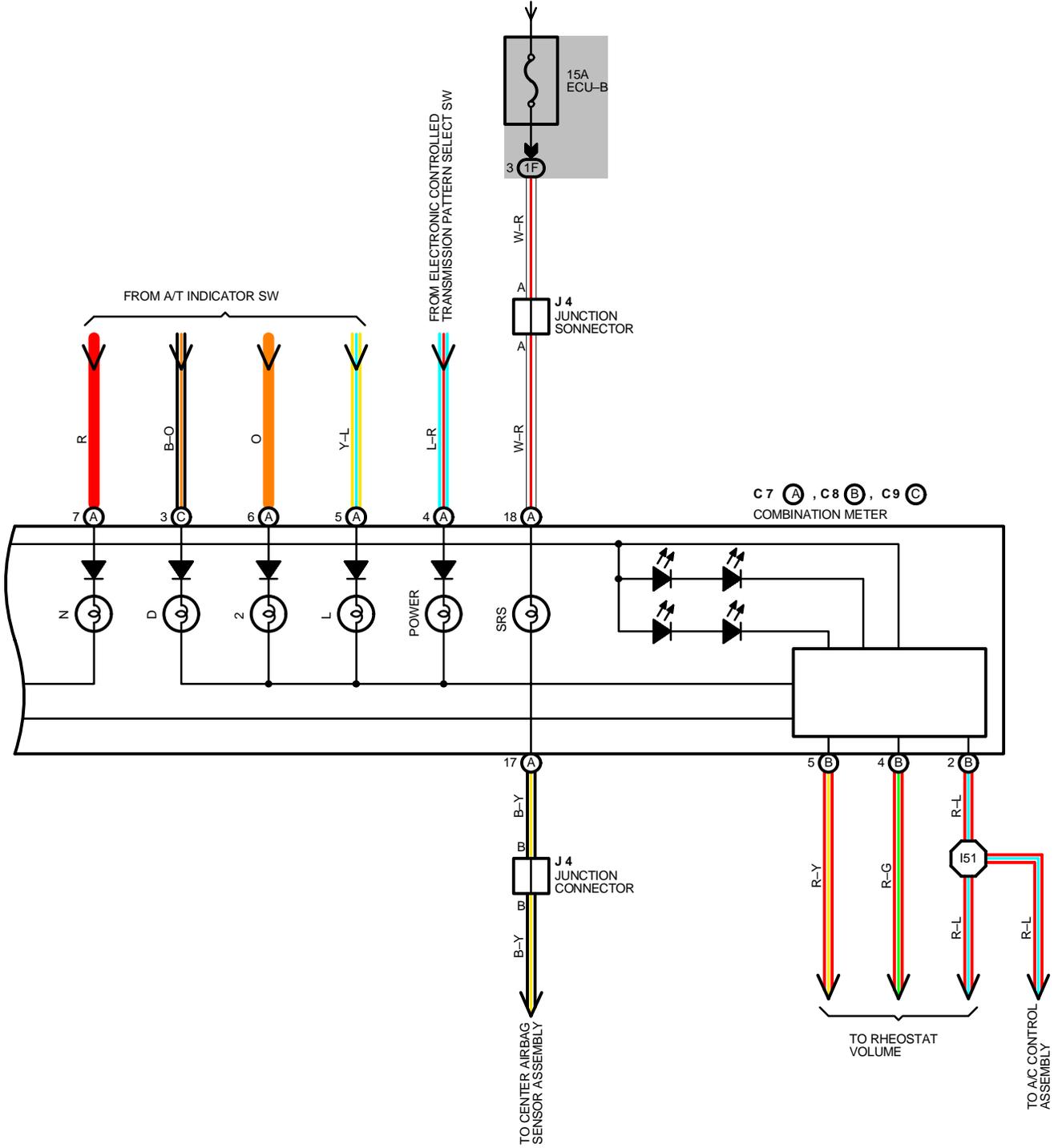
T 6 (B)



T 7 (A)



FROM POWER SOURCE SYSTEM (SEE PAGE 56)



COMBINATION METER

SERVICE HINTS

B 2 BRAKE FLUID LEVEL SW

1-2 : CLOSED WITH FLOAT DOWN

P 4 PARKING BRAKE SW

1-GROUND : CLOSED WITH PARKING BRAKE LEVER PULLED UP

O 1 OIL PRESSURE SW

1-GROUND : CLOSED WITH OIL PRESSURE BELOW APPROX. 0.2 KG/CM² (2.8 PSI, 20 KPA)

W 2 WATER TEMP. SENDER

1-GROUND : APPROX. 226 (50°C, 122°F)
APPROX. 25 (115°C, 239°F)

E 6 ENGINE OIL LEVEL WARNING SW

1-2 : CLOSED WITH FLOAT UP AND ENGINE OIL TEMP. AT BELOW APPROX. 55°C (131°F)
OPEN WITH FLOAT DOWN AND ENGINE OIL TEMP. AT BELOW APPROX. 60°C (140°F)

F15 FUEL SENDER

2-3 : APPROX. 3 AT FUEL FULL
APPROX. 110 AT FUEL EMPTY

C 8(B), C 9(C) COMBINATION METER

(B) 1-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION

(B)10-GROUND : ALWAYS CONTINUITY

(B)22-GROUND : ALWAYS CONTINUITY

(B)11-GROUND : ALWAYS APPROX. 12 VOLTS

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B 2	28	F15	32	P 4	31
C 7	A 30	G 2	28	S 8	B 31
C 8	B 30	I 2	29	S 9	A 31
C 9	C 30	J 1	31	T 5	31
D 4	30	J 4	31	V 3	29
E 6	28	O 1	29	W 2	29

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C		
1D	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1F		
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
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)
2E	22	COWL WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
3A		
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)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
II1	36	FLOOR NO.1 WIRE AND COWL WIRE (LEFT KICK PANEL)
IJ1	36	INSTRUMENT PANEL NO. 2 WIRE AND COWL WIRE (UNDER THE COMBINATION METER)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		
BW1	40	FUEL GAUGE WIRE AND FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EC	34	INTAKE MANIFOLD RH
ED	34	INTAKE MANIFOLD LH
IF	36	LEFT KICK PANEL
IG	36	INSTRUMENT PANEL BRACE LH



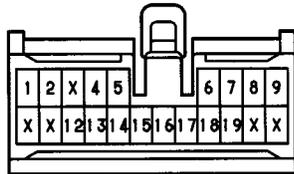
: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 17	34	ENGINE ROOM MAIN WIRE	I 51	38	COWL WIRE
I 37	38	COWL WIRE	I 62		
I 38			I 67		
I 43					

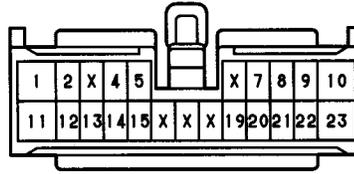
B 2 GRAY



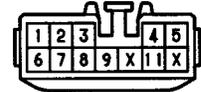
C 7 (A) GRAY



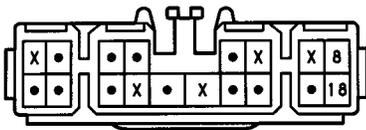
C 8 (B)



C 9 (C) BLUE



D 4 GRAY



E 6



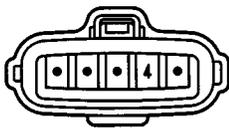
F 15 DARK GRAY



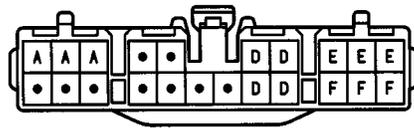
G 2 GRAY



I 2 BLACK

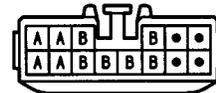


J 1 DARK GRAY



(HINT:SEE PAGE 7)

J 4



(HINT:SEE PAGE 7)

O 1



P 4



S 8 (B)



S 9 (A)



T 5

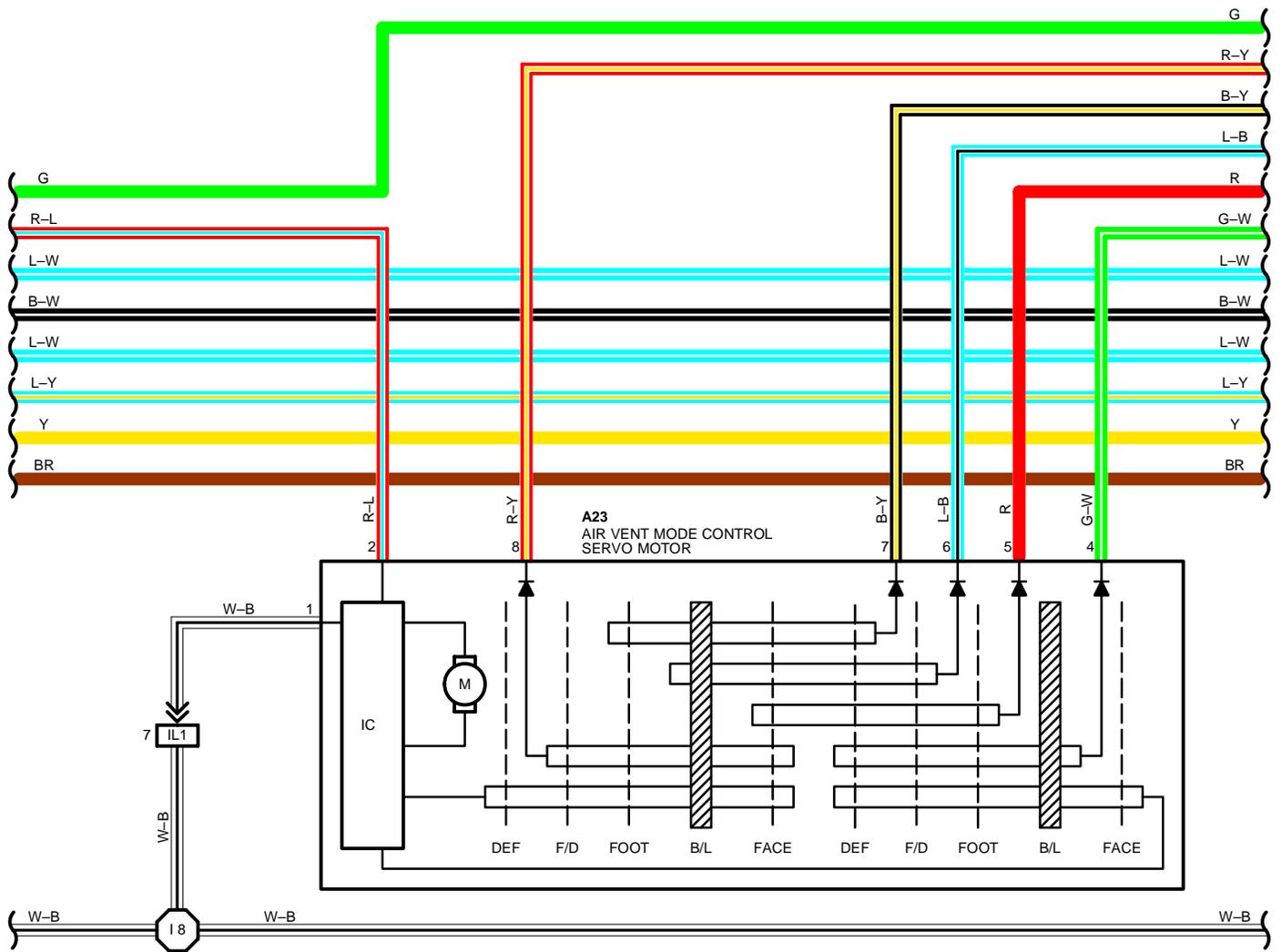


V 3 BLACK

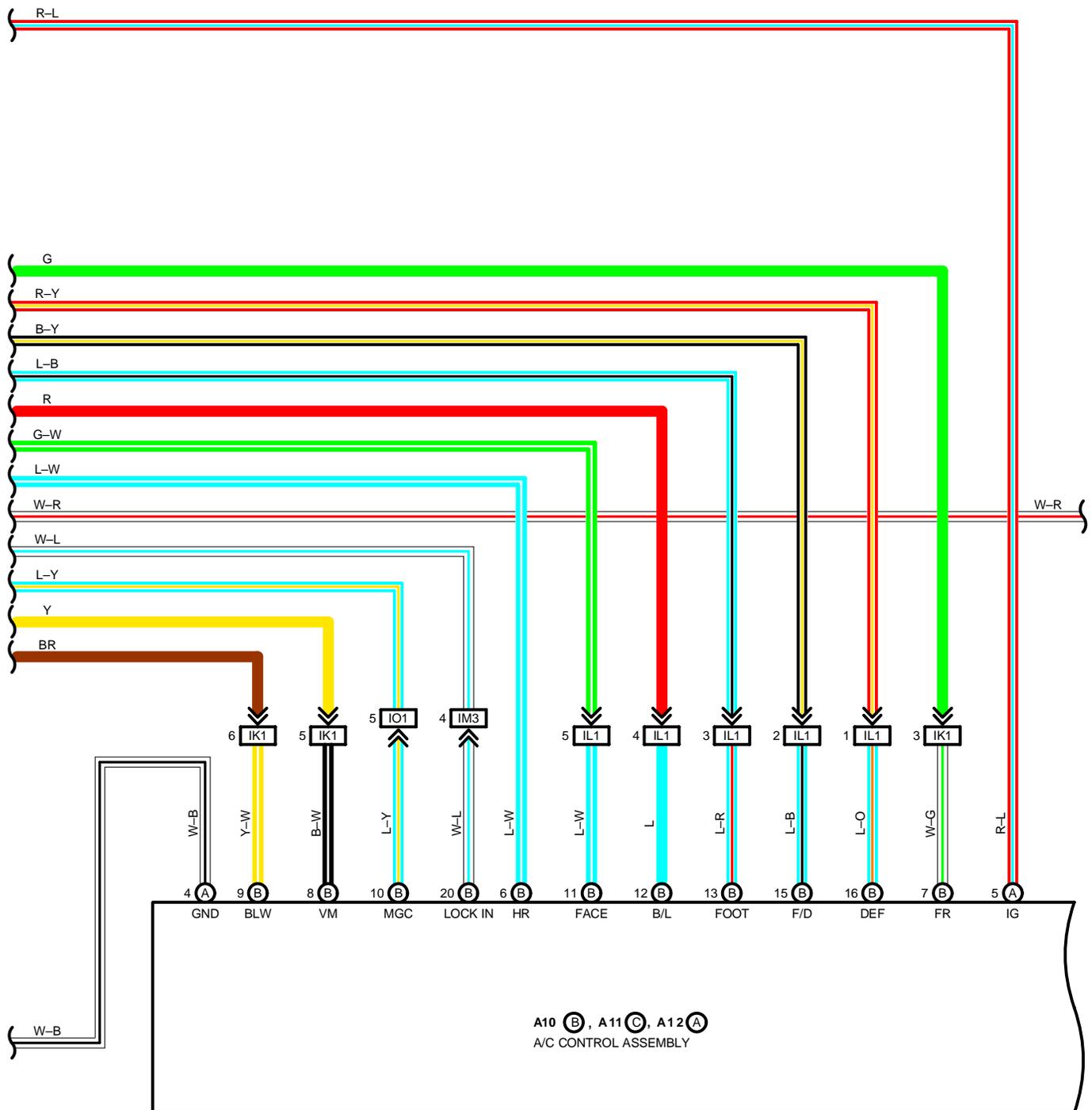


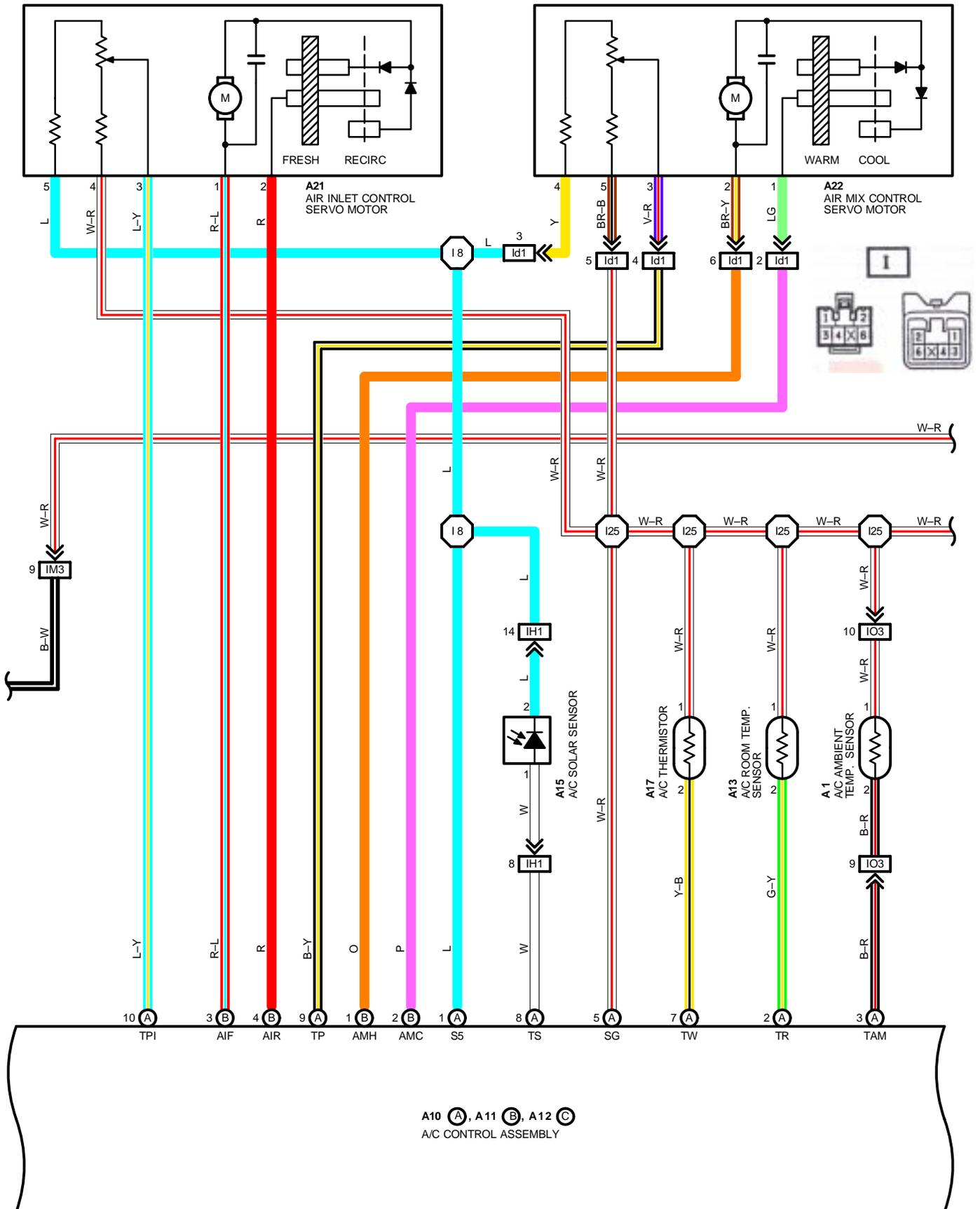
W 2 BLACK





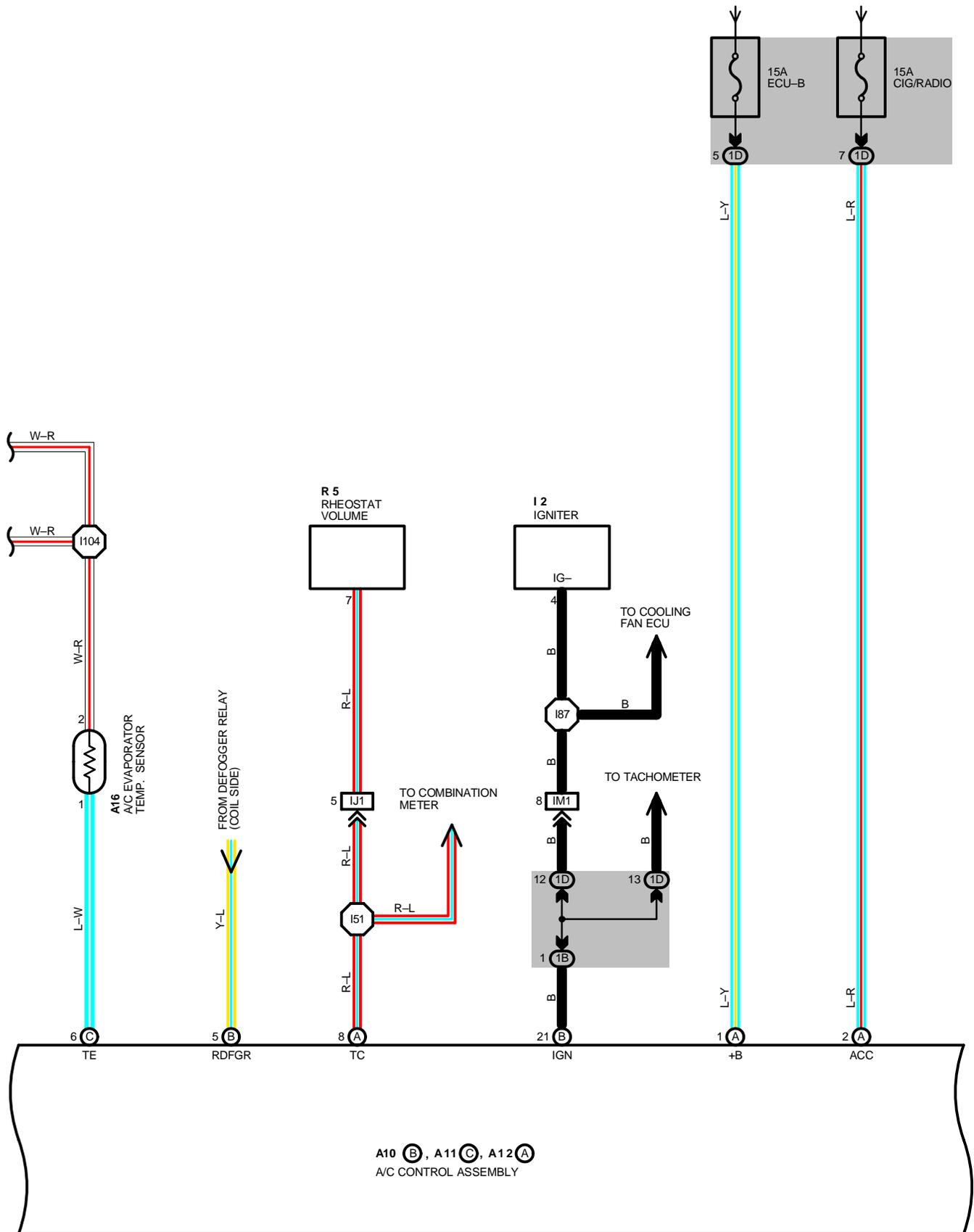
AUTOMATIC AIR CONDITIONING

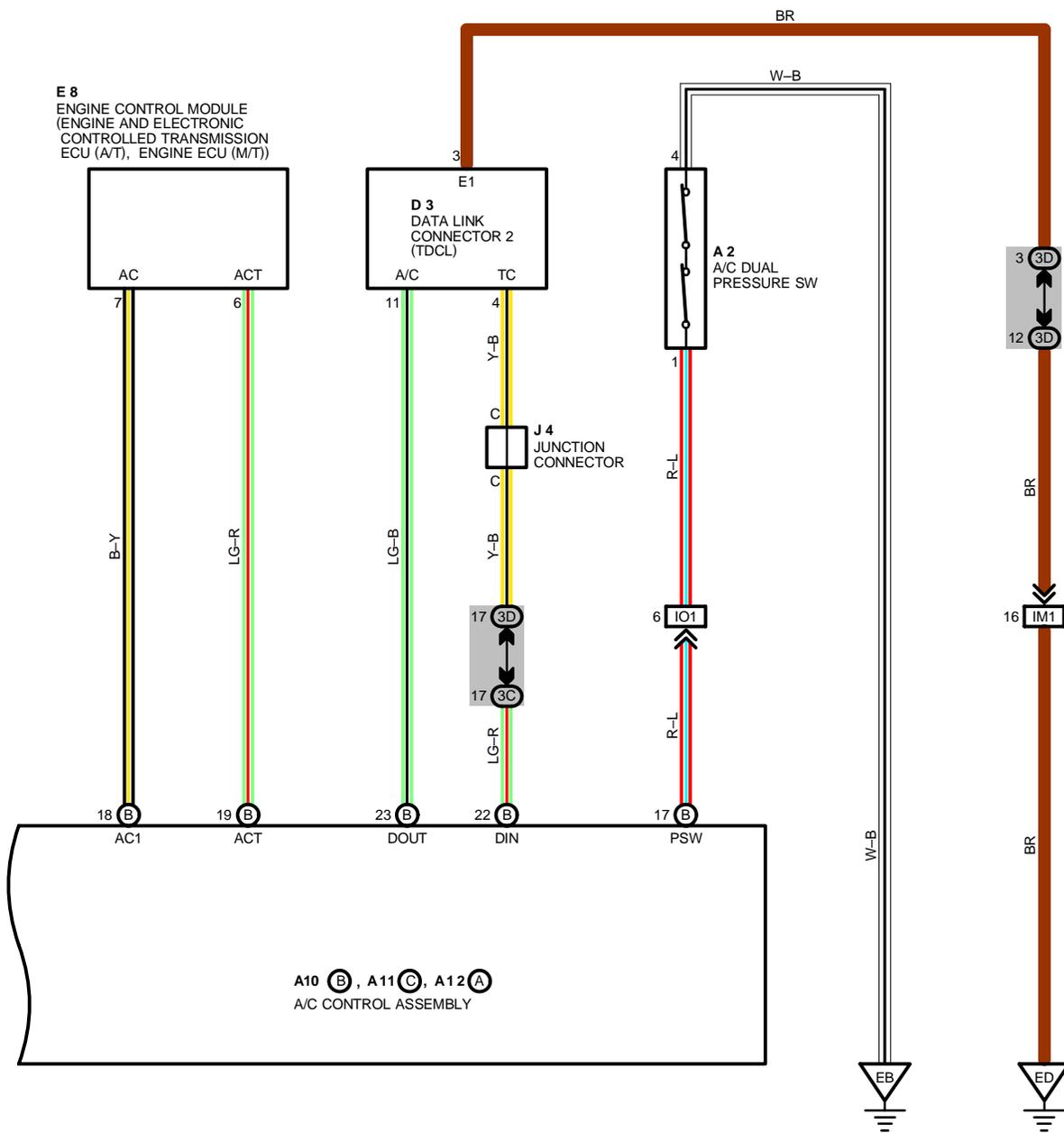




AUTOMATIC AIR CONDITIONING

FROM POWER SOURCE SYSTEM (SEE PAGE 56)





AUTOMATIC AIR CONDITIONING

SYSTEM OUTLINE

1. HEATER BLOWER MOTOR OPERATION

CURRENT IS APPLIED AT ALL TIMES THROUGH **HEATER FUSE** TO **TERMINAL 5** OF HEATER RELAY. WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS THROUGH **GAUGE FUSE** TO **TERMINAL 1** OF HEATER RELAY → **TERMINAL 3** → **TERMINAL HR** OF A/C CONTROL ASSEMBLY. AT THE SAME TIME, CURRENT ALSO FLOWS FROM **GAUGE FUSE** TO **TERMINAL IG** OF A/C CONTROL ASSEMBLY AND **TERMINAL 1** OF EXTRA HIGH SPEED RELAY → **TERMINAL 3** → **TERMINAL FR** OF A/C CONTROL ASSEMBLY.

* LOW SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **LOW SPEED** POSITION, THE CURRENT TO **TERMINAL HR** OF A/C CONTROL ASSEMBLY FLOWS TO **TERMINAL GND** OF A/C CONTROL ASSEMBLY → **GROUND** AND TURNS THE HEATER RELAY ON. AS A RESULT, THE CURRENT TO **TERMINAL 5** OF HEATER RELAY FLOWS TO **TERMINAL 4** OF RELAY → **TERMINAL 2** OF BLOWER MOTOR → **TERMINAL 1** → **TERMINAL 1** OF POWER TRANSISTOR → **TERMINAL 4** → **GROUND** AND CAUSES THE BLOWER MOTOR TO ROTATE AT LOW SPEED.

* HIGH SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **HIGH SPEED** POSITION, THE CURRENT TO **TERMINAL HR** OF A/C CONTROL ASSEMBLY FLOWS TO **TERMINAL GND** OF A/C CONTROL ASSEMBLY → **GROUND** AND TURNS THE HEATER RELAY ON. AT THE SAME TIME, THE CURRENT TO **TERMINAL 1** OF EXTRA HIGH SPEED RELAY ALSO TO **TERMINAL 3** OF RELAY **TERMINAL FR** OF A/C CONTROL ASSEMBLY → **TERMINAL GND** → **GROUND** AND TURNS THE EXTRA HIGH SPEED RELAY ON. AS A RESULT, THE CURRENT TO **TERMINAL 5** OF HEATER RELAY FLOWS TO **TERMINAL 4** → **TERMINAL 2** OF BLOWER MOTOR → **TERMINAL 1** → **TERMINAL 2** OF EXTRA HIGH SPEED RELAY → **TERMINAL 4** → **GROUND** WITHOUT PASSING THROUGH THE BLOWER RESISTOR, CAUSING THE BLOWER MOTOR TO ROTATE AT HIGH SPEED.

* MEDIUM SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **MED** POSITION, THE CURRENT TO **TERMINAL HR** OF A/C CONTROL ASSEMBLY FLOWS TO **TERMINAL GND** → **GROUND** AND TURNS THE HEATER RELAY ON. THEN, THE CURRENT TO **TERMINAL IG** OF A/C CONTROL ASSEMBLY FLOWS TO **TERMINAL BLW** → **TERMINAL 2** OF POWER TRANSISTOR → **TERMINAL 1** → **GROUND**.

AS A RESULT, THE CURRENT TO **TERMINAL 5** OF HEATER RELAY FLOWS TO **TERMINAL 4** → **TERMINAL 2** OF BLOWER MOTOR → **TERMINAL 1** → **TERMINAL 1** OF POWER TRANSISTOR → **TERMINAL 4** → **GROUND** AND BLOWER MOTOR IS ROTATED AT MEDIUM SPEED BY THE A/C CONTROL ASSEMBLY CONTROLLING THE CURRENT FLOW FROM **TERMINAL 2** OF POWER TRANSISTOR TO **TERMINAL 4**.

* AUTO FUNCTION

WHEN THE AUTO SW IN HEATER CONTROL SW (A/C CONTROL ASSEMBLY) IS SELECTED, THE CURRENT FLOW IS THE SAME FOR MED POSITION, BUT THE A/C CONTROL ASSEMBLY DECIDES THE APPROPRIATE AIR FLOW VOLUME ACCORDING TO THE SET TEMPERATURE AND THE INPUT SIGNALS FROM EACH SENSOR. BY CONTROLLING THE CURRENT FLOW FROM **TERMINAL BLW** OF THE A/C CONTROL ASSEMBLY TO **TERMINAL 2** OF POWER TRANSISTOR → **TERMINAL 4** → **GROUND**, THE A/C CONTROL ASSEMBLY CONTROLS THE BLOWER MOTOR STEPLESSLY.

2. OPERATION AIR INLET CONTROL SERVO MOTOR

(SWITCHING FROM FRESH TO RECIRC)

WITH IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **GAUGE FUSE** TO **TERMINAL IG** OF A/C CONTROL ASSEMBLY → **TERMINAL AIR** → **TERMINAL 2** OF AIR INLET CONTROL SERVO MOTOR → **TERMINAL 1** → **TERMINAL AIF** OF A/C CONTROL ASSEMBLY → **TERMINAL GND** → **GROUND**, THE MOTOR ROTATES AND THE DAMPER MOVES TO THE **RECIRC** SIDE. WHEN THE DAMPER OPERATES WITH THE A/C SW AT **RECIRC** POSITION, THE DAMPER POSITION SIGNAL IS INPUT FROM **TERMINAL 3** OF THE SERVO MOTOR TO **TERMINAL TPI** OF THE ECU (BUILT INTO THE A/C CONTROL ASSEMBLY). AS A RESULT, CURRENT TO THE SERVO MOTOR CIRCUIT IS CUT OFF BY THE ECU, SO THE DAMPER STOPS AT THAT POSITION.

(SWITCHING FROM RECIRC TO FRESH)

WITH IGNITION SW TURNED ON, WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE FRESH SIDE, THE CURRENT FLOWS FROM **TERMINAL IG** OF A/C CONTROL ASSEMBLY → **TERMINAL AIF** → **TERMINAL 1** OF AIR INLET CONTROL SERVO MOTOR → **TERMINAL 2** → **TERMINAL AIR** OF A/C CONTROL ASSEMBLY → **TERMINAL GND** → **GROUND**, THE MOTOR ROTATES AND THE DAMPER STOPS AT THAT POSITION.

3. OPERATION OF AIR VENT MODE CONTROL SERVO MOTOR

WITH IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **GAUGE** FUSE TO **TERMINAL IG** OF A/C CONTROL ASSEMBLY.
(SWITCHING FROM DEF TO FACE)

THE CURRENT FLOWS FROM **TERMINAL FACE** OF A/C CONTROL ASSEMBLY → **TERMINAL 5** OF AIR VENT MODE CONTROL SERVO MOTOR → **TERMINAL 1** → **TERMINAL DEF** OF A/C CONTROL ASSEMBLY → **TERMINAL GND** → **GROUND**. THE MOTOR ROTATES AND THE DAMPER MOVES TO THE FACE SIDE. WHEN THE DAMPER OPERATES WITH THE A/C SW AT **FACE** POSITION, THE DAMPER POSITION SIGNAL IS INPUT FROM **TERMINAL 1** OF THE SERVO MOTOR TO THE **TERMINAL TPM** OF THE ECU (BUILT INTO THE A/C CONTROL ASSEMBLY). AS A RESULT, CURRENT TO THE SERVO MOTOR CIRCUIT IS CUT OFF BY THE ECU, SO THE DAMPER STOPS AT THAT POSITION.

(SWITCHING FROM FACE TO DEF)

THE CURRENT FLOWS FROM **TERMINAL DEF** OF A/C CONTROL ASSEMBLY → **TERMINAL 1** OF AIR VENT CONTROL SERVO MOTOR → **TERMINAL 5** → **TERMINAL FACE** OF A/C CONTROL ASSEMBLY → **TERMINAL GND** → **GROUND**, THE MOTOR ROTATES AND THE DAMPER STOPS AT THAT POSITION.

4. OPERATION OF AIR MIX CONTROL SERVO MOTOR

WHEN THE TEMPERATURE SW IS TURNED TO "COOL" SIDE THE CURRENT FLOWS FROM **TERMINAL AMC** OF A/C CONTROL ASSEMBLY → **TERMINAL 2** OF AIR MIX CONTROL SERVO MOTOR → MOTOR → **TERMINAL 6** → **TERMINAL AMH** OF A/C CONTROL ASSEMBLY → **GROUND** AND THE MOTOR ROTATES. THE DAMPER OPENING ANGLE AT THIS TIME IS INPUT FROM **TERMINAL 4** OF SERVO MOTOR TO **TERMINAL TP** OF A/C CONTROL ASSEMBLY, THIS IS USED TO DETERMINE THE **DAMPER STOP** POSITION AND MAINTAIN THE SET TEMPERATURE.

WHEN THE TEMPERATURE CONTROL SW IS TURNED TO THE "HOT" SIDE, THE CURRENT FLOWS FROM SERVO MOTOR → **TERMINAL AMH** OF A/C CONTROL ASSEMBLY → **TERMINAL 6** OF AIR MIX CONTROL SERVO MOTOR → MOTOR → **TERMINAL 2** → **TERMINAL AMC** OF A/C CONTROL ASSEMBLY, ROTATING THE MOTOR IN REVERSE AND SWITCHING THE DAMPER FROM "COOL" TO "HOT" SIDE.

5. AIR CONDITIONING OPERATION

THE A/C CONTROL ASSEMBLY RECEIVES VARIOUS SIGNALS, I.E., THE ENGINE RPM FROM THE IGNITER, OUTLET TEMPERATURE SIGNAL FROM THE A/C AMBIENT TEMP. SENSOR, COOLANT TEMPERATURE FROM THE A/C THERMISTOR AND THE LOCK SIGNAL FROM THE A/C COMPRESSOR, ETC.

WHEN THE ENGINE IS STARTED AND THE A/C SW (A/C CONTROL ASSEMBLY) IS ON, A SIGNAL IS INPUT TO THE ECU. (BUILT IN THE A/C CONTROL ASSEMBLY).

AS A RESULT, THE GROUND CIRCUIT IN A/C CONTROL ASSEMBLY IS CLOSED AND CURRENT FLOWS FROM **GAUGE** FUSE TO **TERMINAL 1** OF A/C MAGNETIC CLUTCH RELAY → **TERMINAL 2** → **TERMINAL MGC** OF A/C CONTROL ASSEMBLY → **TERMINAL GND** → **GROUND**, TURNING THE A/C MAGNETIC RELAY ON, SO THAT THE MAGNETIC CLUTCH IS ON AND THE A/C COMPRESSOR OPERATES.

AT THE SAME TIME, THE ENGINE CONTROL MODULE (ENGINE AND ELECTRONIC CONTROLLED TRANSMISSION). DETECTS THE MAGNETIC CLUTCH IS ON AND THE A/C COMPRESSOR OPERATES.

OPEN DIRECTION TO AVOID LOWERING THE ENGINE RPM DURING A/C OPERATING.

IF THE A/C CONTROL ASSEMBLY DETECTS THE FOLLOWING CONDITIONS, IT STOPS THE AIR CONDITIONING:

- * THE TEMPERATURE AT THE AIR VENTS IS LOW.
- * THERE IS A MARKED DIFFERENCE BETWEEN THE COMPRESSOR SPEED AND THE ENGINE SPEED.
- * THE REFRIGERANT PRESSURE IS ABNORMALLY HIGH OR ABNORMALLY LOW.
- * THE ENGINE SPEED DECREASES.
- * RAPID ACCELERATION OCCURS.

AUTOMATIC AIR CONDITIONING

SERVICE HINTS

A 2 A/C DUAL PRESSURE SW

4-1 : OPEN ABOVE APPROX. 15.5KG/CM² (30 PSI, 206 KPA) OR 27KG/CM² (384PSI, 2648KPA)

A 3 A/C MAGNETIC CLUTCH

4-GROUND : APPROX. 3.7

A10(B), A11(C), A12(A) A/C CONTROL ASSEMBLY

+B - GROUND: ALWAYS APPROX. 10-14 VOLTS

IG - GROUND: APPROX. 10-14 VOLTS WITH IGNITION SW AT **ON** POSITION

HR - GROUND: APPROX. 10-14 VOLTS WITH IGNITION SW AT **ON** POSITION AND DO NOT TURN THE BLOWER MOTOR

BELOW 1 VOLTS WITH IGNITION SW AT **ON** POSITION AND TURN THE BLOWER MOTOR

PSW - BELOW 1 VOLTS WITH IGNITION SW AT **ON**

ACC - GROUND: APPROX. 10-14 VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION

AC1 - GROUND: BELOW 1 VOLTS AT START THE ENGINE, OPERATE THE COMPRESSOR

+OR MORE VOLTS AT START THE ENGINE, DO NOT OPERATE THE COMPRESSOR

BLW - GROUND: BELOW 1.5 VOLTS WITH THE IGNITION SW ON AND TURN THE BLOWER MOTOR

S5 - SG : 4-6 VOLTS WITH THE IGNITION SW ON

SG - GROUND: ALWAYS CONTINUITY

AMH - AMC : 13-19 VOLTS WITH THE IGNITION SW OFF

AIF - GROUND: APPROX. 12 VOLTS WITH FRESH SW ON

AIR - GROUND: APPROX. 12 VOLTS WITH RECIRC SW ON

FACE - GROUND: APPROX. 12 VOLTS WITH FACE SW ON

DEF - GROUND: APPROX. 12 VOLTS WITH DEF SW ON

GND - GROUND: ALWAYS CONTINUITY

A14 A/C POWER TRANSISTOR

1-2 : APPROX. 2.0-2.4K

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 1	28	A15	30	D 3	30
A 2	28	A16	30	E 8	30
A 3	28	A17	30	E12	30
A10	B 30	A21	30	I 2	29
A11	C 30	A22	30	J 1	31
A12	A 30	A23	30	J 4	31
A13	30	B 3	30	R 5	31
A14	30	B 4	30		

○ : 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		
3C	24	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

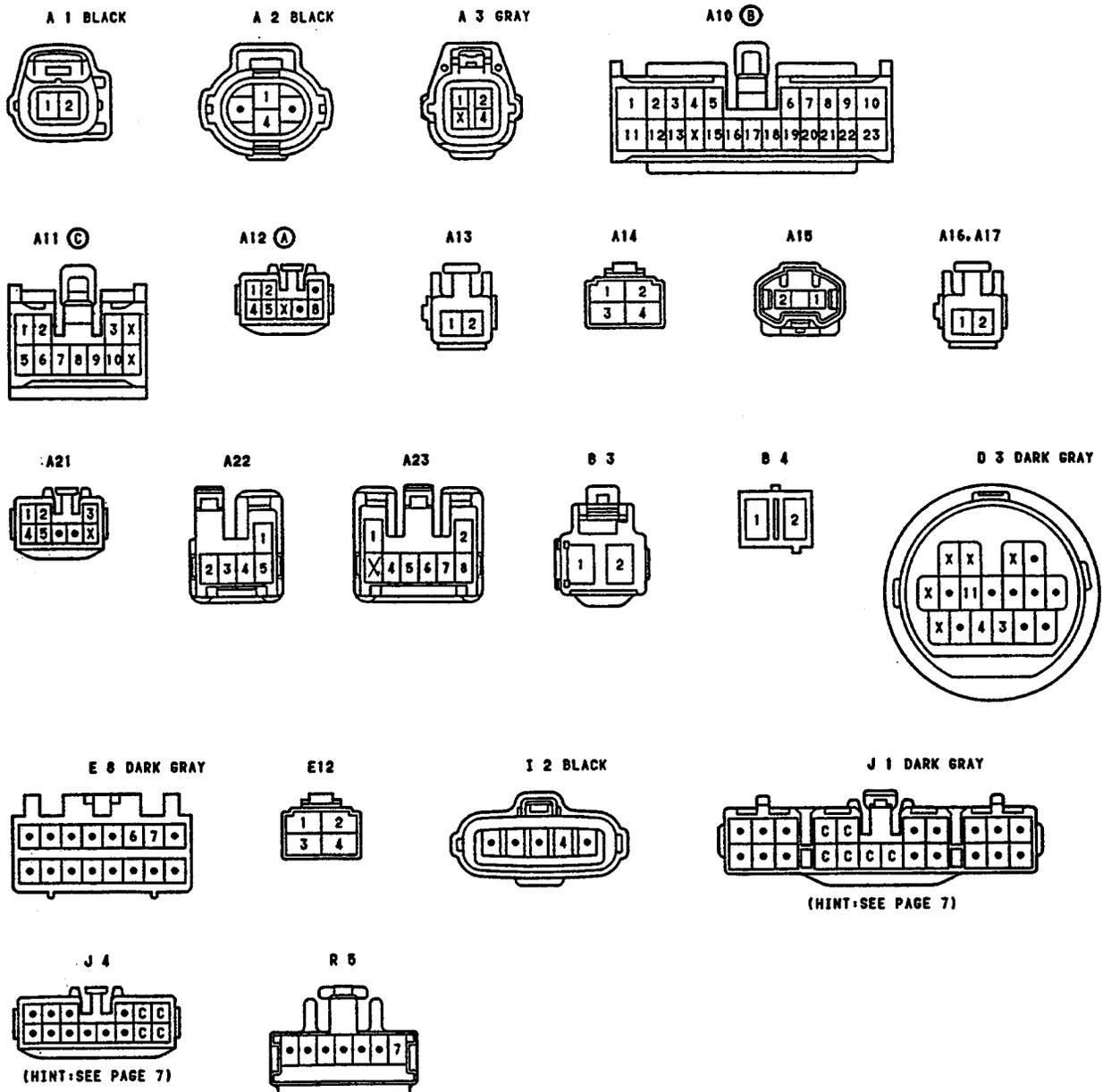
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE J/B NO. 1)
IH1	36	COWL WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IJ1	36	INSTRUMENT PANEL NO. 2 WIRE AND COWL WIRE (UNDER THE COMBINATION METER)
IK1	36	COWL WIRE AND A/C SUB WIRE (NEAR THE RADIO AND PLAYER)
IL1	36	COWL WIRE AND SERVO MOTOR SUB WIRE (BEHIND RADIO AND PLAYER)
IM1	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IM3		
IO1	38	ENGINE ROOM MAIN WIRE AND COWL WIRE (RIGHT KICK PANEL)
IO3		

▽ : GROUND POINTS

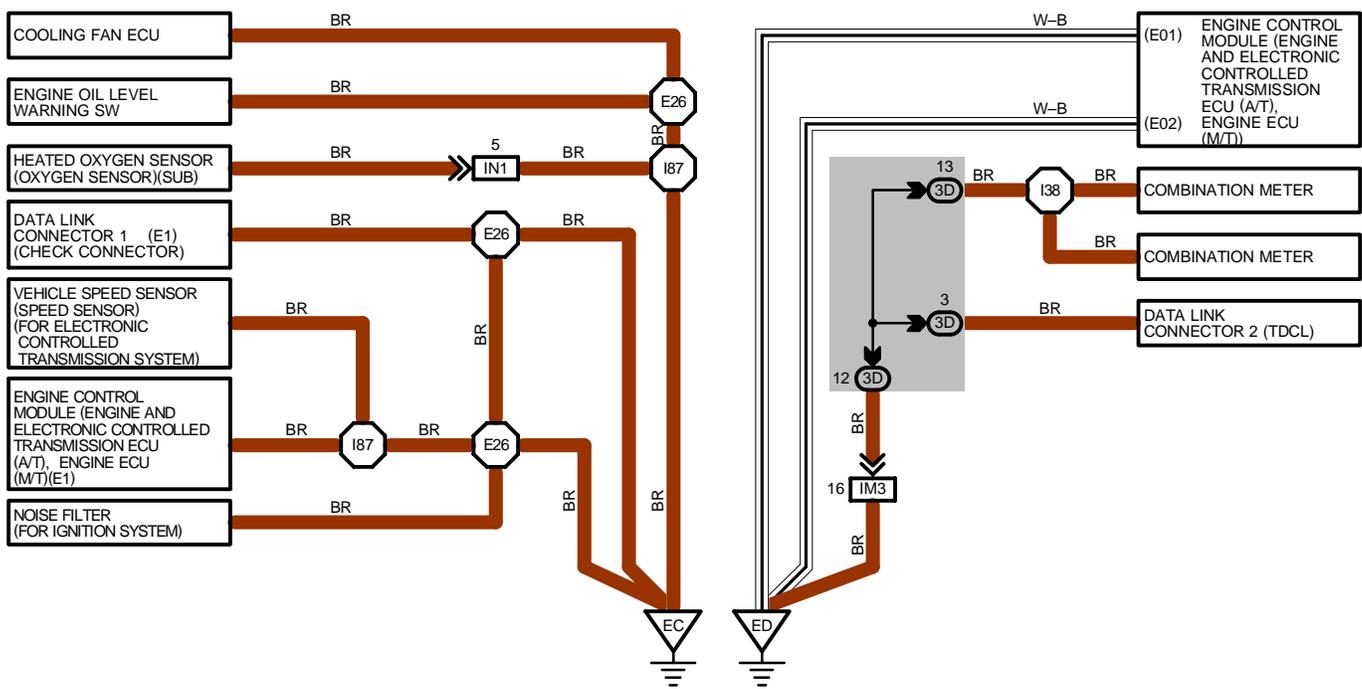
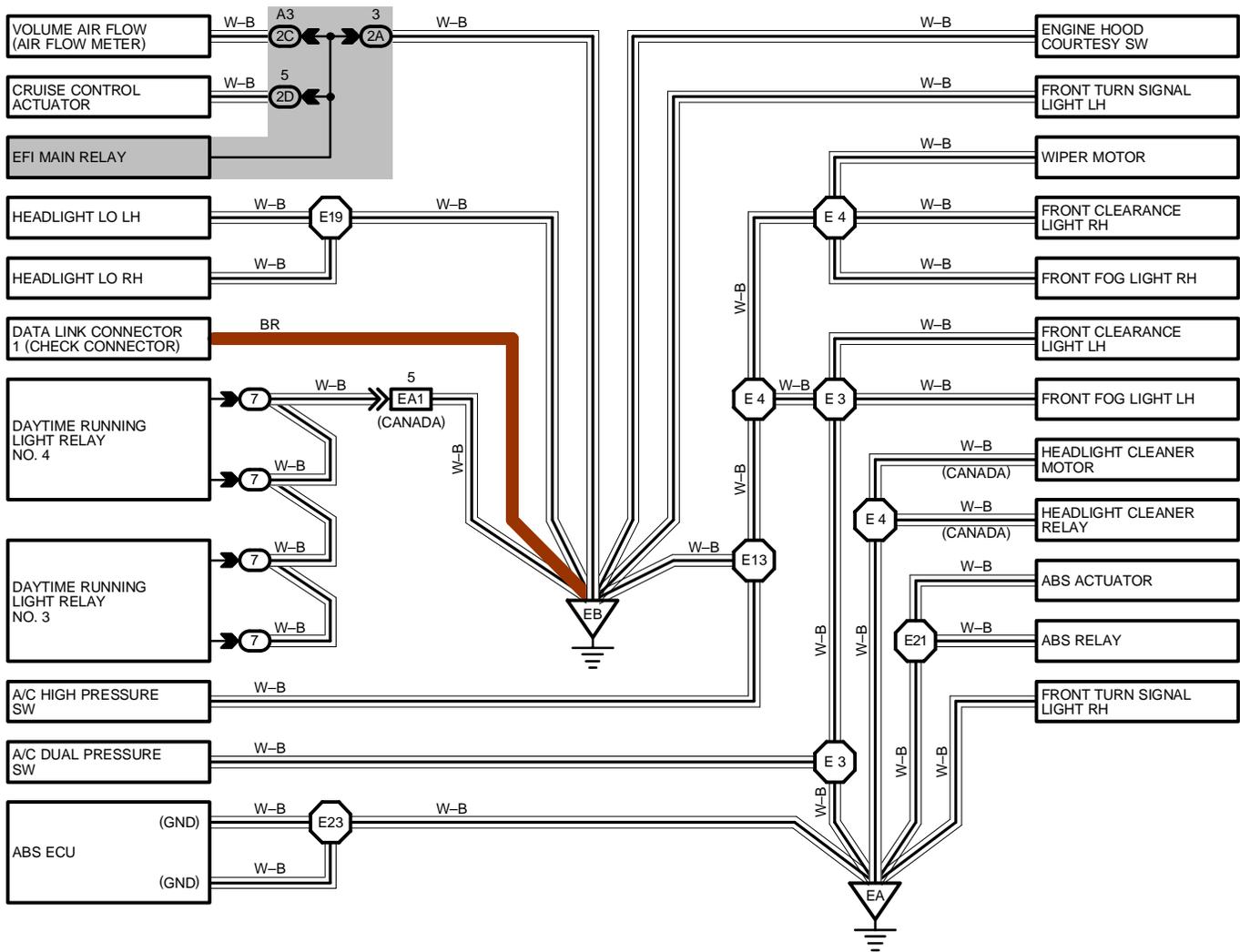
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
ED	34	INTAKE MANIFOLD LH
IG	36	INSTRUMENT PANEL BRACE LH
II	36	RIGHT KICK PANEL

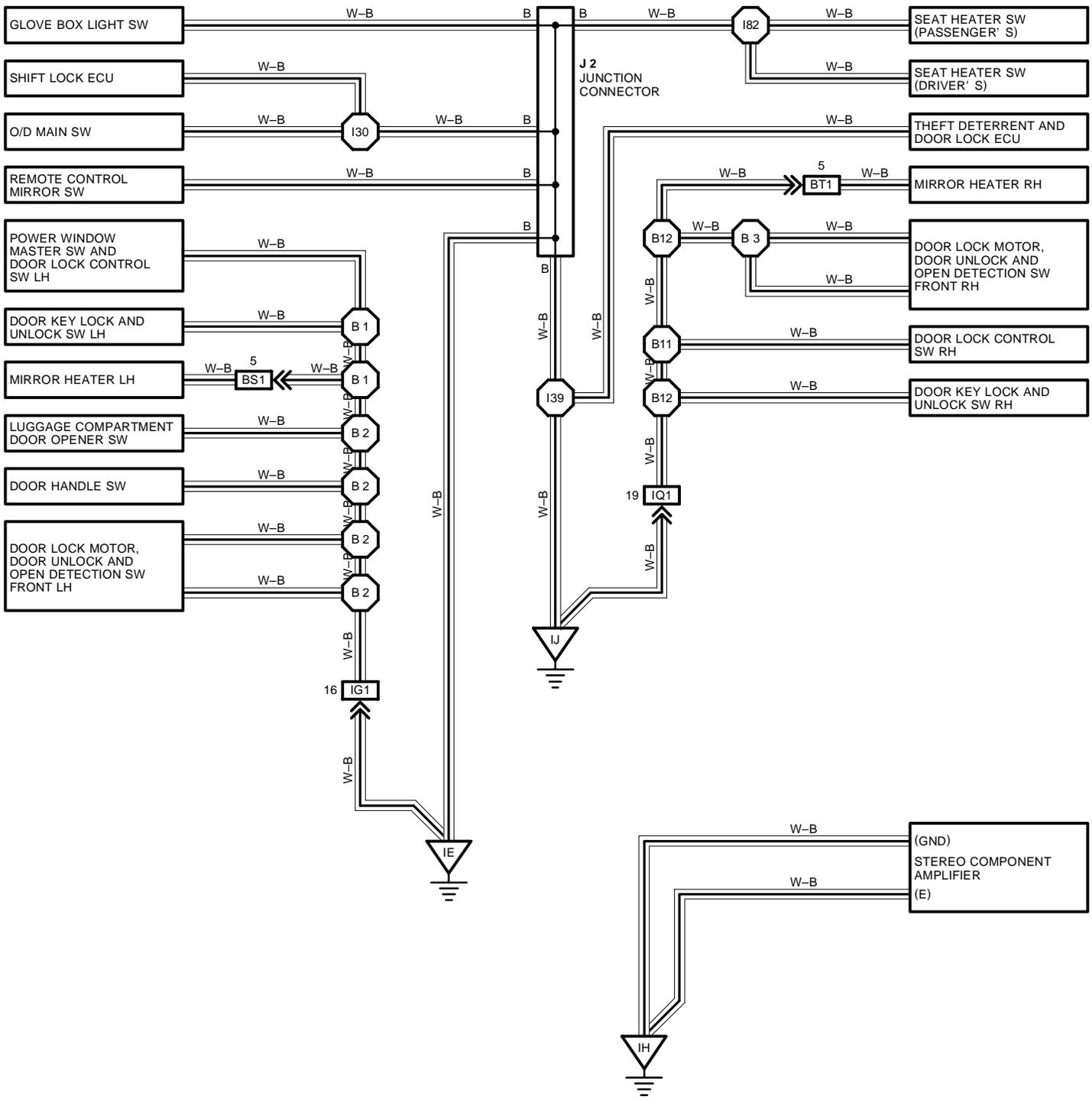
○ : SPLICE POINTS

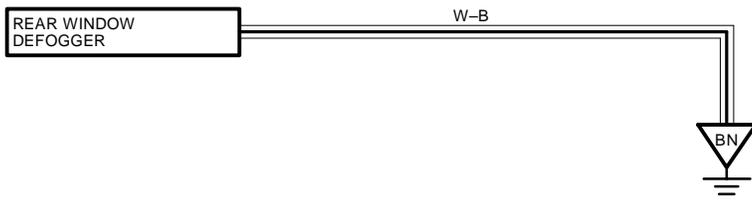
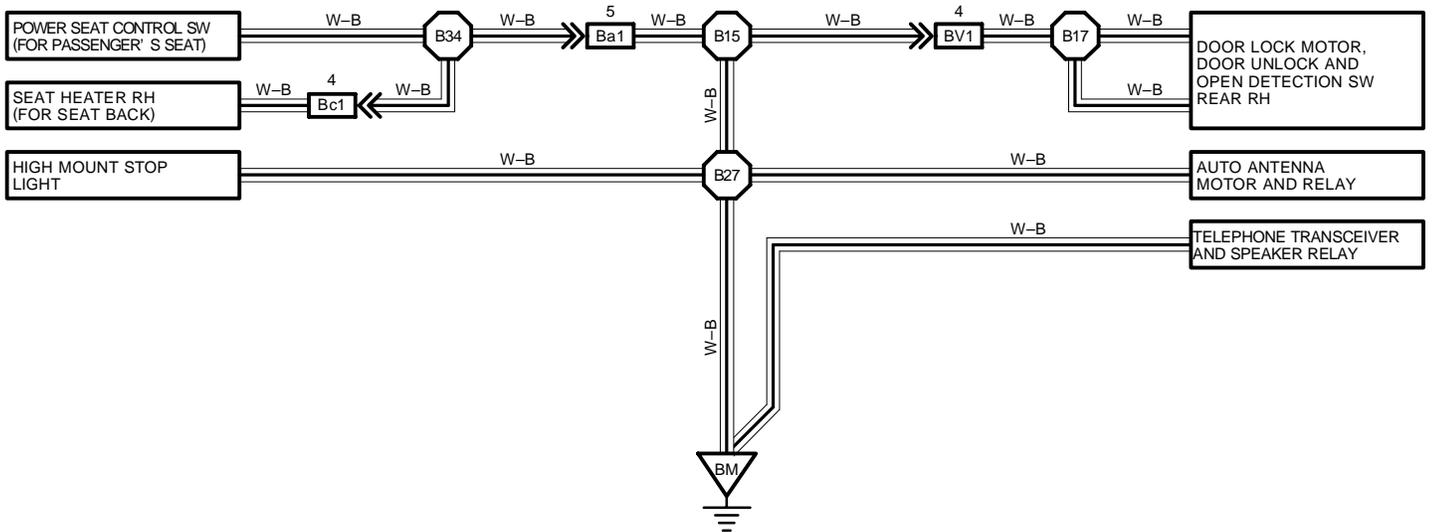
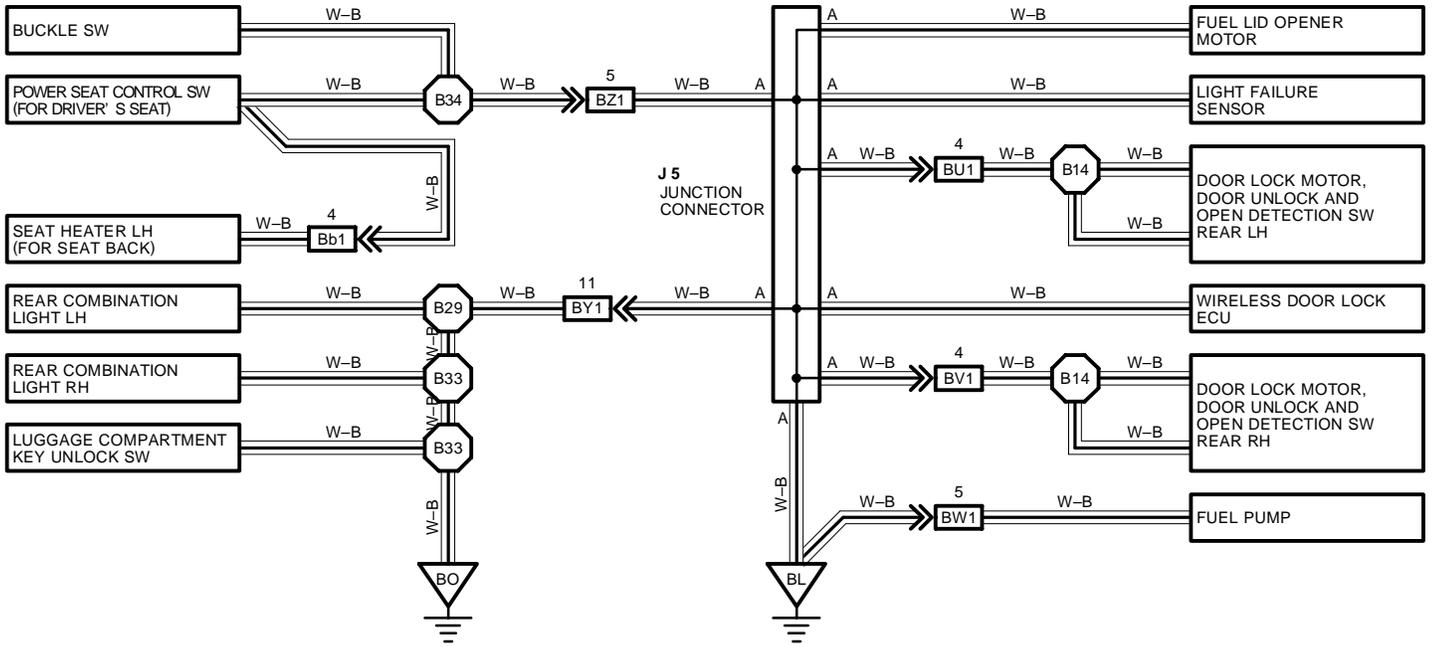
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 44	38	COWL WIRE	I 57	38	COWL WIRE
I 51			I 58	38	A/C SUB WIRE
I 53			I 87	38	ENGINE WIRE
I 54			I 104	38	COWL WIRE
I 55					



GROUND POINT







GROUND POINT

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J 1	31	J 2	31	J 5	32

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
4	25	R/B NO. 4 (RIGHT KICK PANEL)
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	ROOF WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
1M	20	COWL WIRE AND J/B NO. 1 (INSTRUMENT PANEL LEFT)
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)
2D	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (BEHIND COMBINATION METER)
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	34	ENGINE ROOM MAIN WIRE AND RELAY WIRE (UNDER THE R/B NO.7)
IG1	36	FRONT DOOR LH WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IJ1	36	INSTRUMENT PANEL NO. 2 WIRE AND COWL WIRE (UNDER THE COMBINATION METER)
IK1	36	COWL WIRE AND A/C SUB WIRE (NEAR THE RADIO AND PLAYER)
IL1	36	COWL WIRE AND SERVO MOTOR SUB WIRE (BEHIND RADIO AND PLAYER)
IM3	38	ENGINE WIRE AND COWL WIRE (UNDER THE GLOVE BOX)
IN1	38	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE GLOVE BOX)
IQ1	38	FRONT DOOR RH WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
BS1	40	MIRROR LH WIRE AND FRONT DOOR LH WIRE (FRONT LH DOOR INSIDE)
BT1	40	MIRROR RH WIRE AND FRONT DOOR RH WIRE (FRONT RH DOOR INSIDE)
BU1	40	REAR DOOR LH WIRE AND FLOOR NO.1 WIRE (LEFT CENTER PILLAR)
BV1	40	REAR DOOR RH WIRE AND FLOOR NO.2 WIRE (RIGHT CENTER PILLAR)
BW1	40	FUEL GAUGE WIRE FLOOR NO. 1 WIRE (UNDER THE REAR SEAT CUSHION)
BY1	40	LUGGAGE ROOM WIRE AND FLOOR NO. 1 WIRE (LUGGAGE ROOM LEFT)
BZ1	42	FLOOR NO. 1 WIRE AND SEAT LH NO.1 WIRE (UNDER THE DRIVER'S SEAT)
Ba1	42	FLOOR NO. 2 WIRE AND SEAT RH NO.1 WIRE (UNDER THE PASSENGER'S SEAT)
Bb1	42	SEAT LH NO. 2 WIRE AND SEAT LH NO. 1 WIRE (UNDER THE DRIVER'S SEAT)
Bc1	42	SEAT RH NO.2 WIRE AND SEAT RH NO.1 WIRE (UNDER THE PASSENGER'S SEAT)

▽ : GROUND POINTS

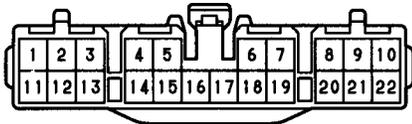
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	34	FRONT RIGHT FENDER
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD RH
ED	34	INTAKE MANIFOLD LH
IE	36	LEFT KICK PANEL
IF		
IG	36	INSTRUMENT PANEL BRACE LH
IH	36	INSTRUMENT PANEL BRACE RH
II	36	RIGHT KICK PANEL
IJ		
BK	40	ROOF LEFT
BL	40	UNDER THE LEFT QUARTER PILLAR
BM	40	UNDER THE RIGHT QUARTER PILLAR
BN	40	LEFT QUARTER PILLAR
BO	40	BACK PANEL CENTER



: SPLICE POINTS

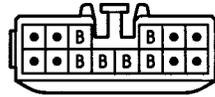
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 3	34	ENGINE ROOM MAIN WIRE	I 60	38	COWL WIRE
E 4			I 82	38	INSTRUMENT PANEL WIRE
E 10	34	RELAY WIRE	I 87	38	ENGINE WIRE
E 13	34	ENGINE ROOM MAIN WIRE	B 1	40	FRONT DOOR LH WIRE
E 19			B 2		
E 21			B 3		
E 23			B 6		
E 26	34	ENGINE WIRE	B 7	40	ROOF WIRE
I 30	38	COWL WIRE	B 8	40	FRONT DOOR RH WIRE
I 36			B 11		
I 38			B 12		
I 39			B 14	40	REAR DOOR LH WIRE
I 42			B 15	40	FLOOR NO. 2 WIRE
I 46			B 17	40	REAR DOOR RH WIRE
I 47			B 27	40	FLOOR NO .2 WIRE
I 53			B 29	40	LUGGAGE ROOM WIRE
I 54			B 33		
I 58			38	A/C SUB WIRE	B 34
I 59	38	COWL WIRE			

J 1 DARK GRAY



(HINT:SEE PAGE 7)

J 2



(HINT:SEE PAGE 7)

J 5

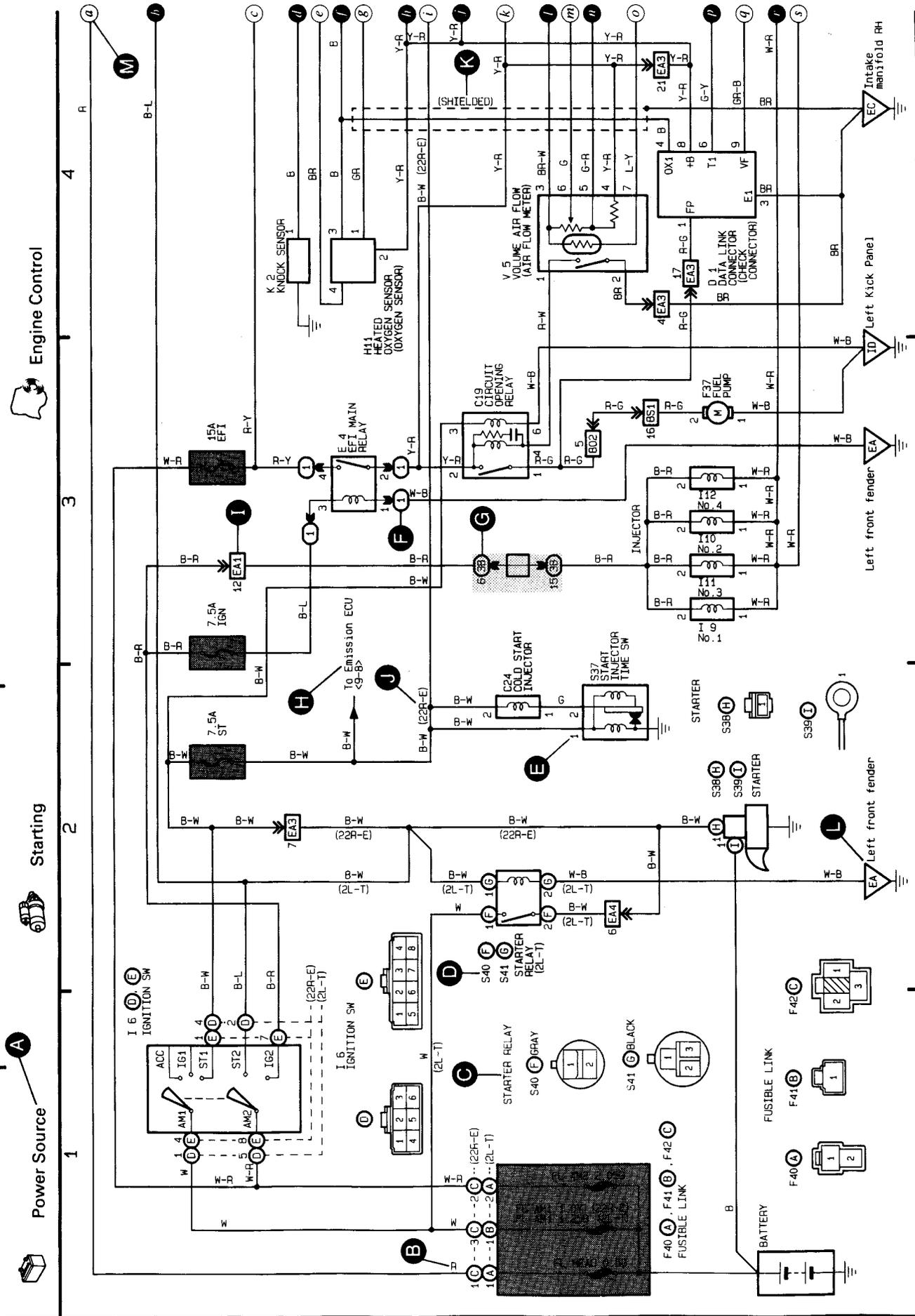


(HINT:SEE PAGE 7)

OVERALL ELECTRICAL WIRING DIAGRAM

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

HOW TO USE THIS MANUAL

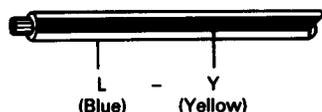


- A**: System Title
- B**: Indicates the wiring color.
Wire colors are indicated by an alphabetical code.

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

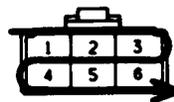
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L - Y

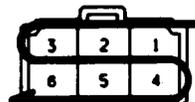


- C**: Indicates the connector to be connected to a part (the numeral indicates the pin No.)
- D**: The position of the parts is the same as shown in the wiring diagram and wire routing.
- E**: Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: **Numbered in order from upper left to lower right** **Numbered in order from upper right to lower left**



Female



Male

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.

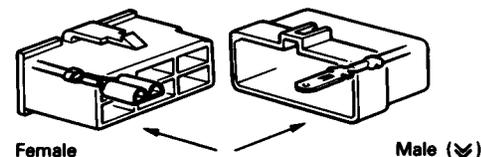
- G**: Junction Block (The number in the circle is the J/B No. and connector code is shown beside it). Junction Blocks are shaded to clearly separate them from other parts (different junction blocks are shaded differently for further clarification.).

Example:



3B indicates that it is inside Junction Block No. 3.

- 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.

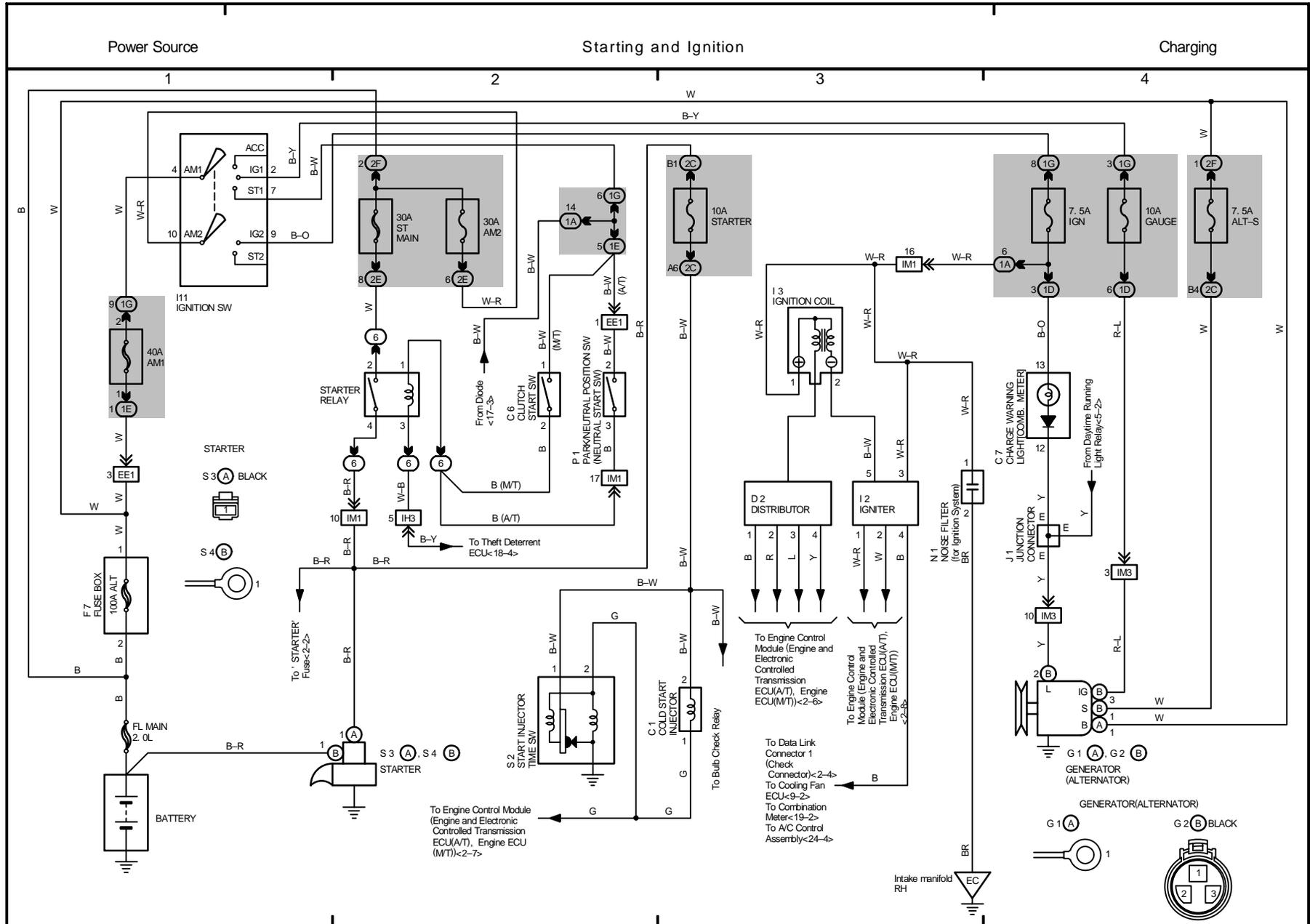


- L**: Indicates and located on ground point.
- M**: The same code occurring on the next page indicates that the wire harness is continuous.

SYSTEM INDEX

SYSTEMS	LOCATION	SYSTEMS	LOCATION	SYSTEMS	LOCATION
ABS (Anti-Lock Brake System)	16-2	Headlight (for USA)	4-2	Remote Window Defogger and Mirror Heater	10-4
Auto Antenna	15-2	Headlight Cleaner (for Canada)	5-2	Remote Control Mirror	15-3
Automatic Air Conditioning	24-2	Headlight Cleaner	10-2	Seat Heater	11-2
Back-Up Light	3-7	Horn	9-4	Shift Lock	12-2
Cellular Mobile Telephone	20-3	Illumination	7-2	SRS (Supplemental Restraint System)	12-3
Charging	1-4	Interior Light	8-2	Starting and Ignition	1-2
Cigarette Lighter and Clock	11-4	Light Auto Turn Off	20-2	Stop Light	6-4
Combination Meter	19-2	Moon Roof	13-2	Taillight	6-2
Cruise Control	17-2	Power Seat	14-2	Theft Deterrent and Door Lock	18-2
Electronic Controlled Transmission and A/T Indicator	3-2	Power Source	1~24-1	Turn Signal and Hazard Warning Light	9-3
Electronically Controlled Hydraulic Cooling Fan	9-2	Power Window	13-3	Unlock and Seat Belt Warning	10-3
Engine Control	2-2	PPS (Progressive Power Steering)	12-2	Wiper and Washer	23-2
Front Fog Light	4-4	Radio and Player	21-2 (w/ CD Player) 22-2 (w/o CD Player)	Wireless Door Lock Remote Control	18-8

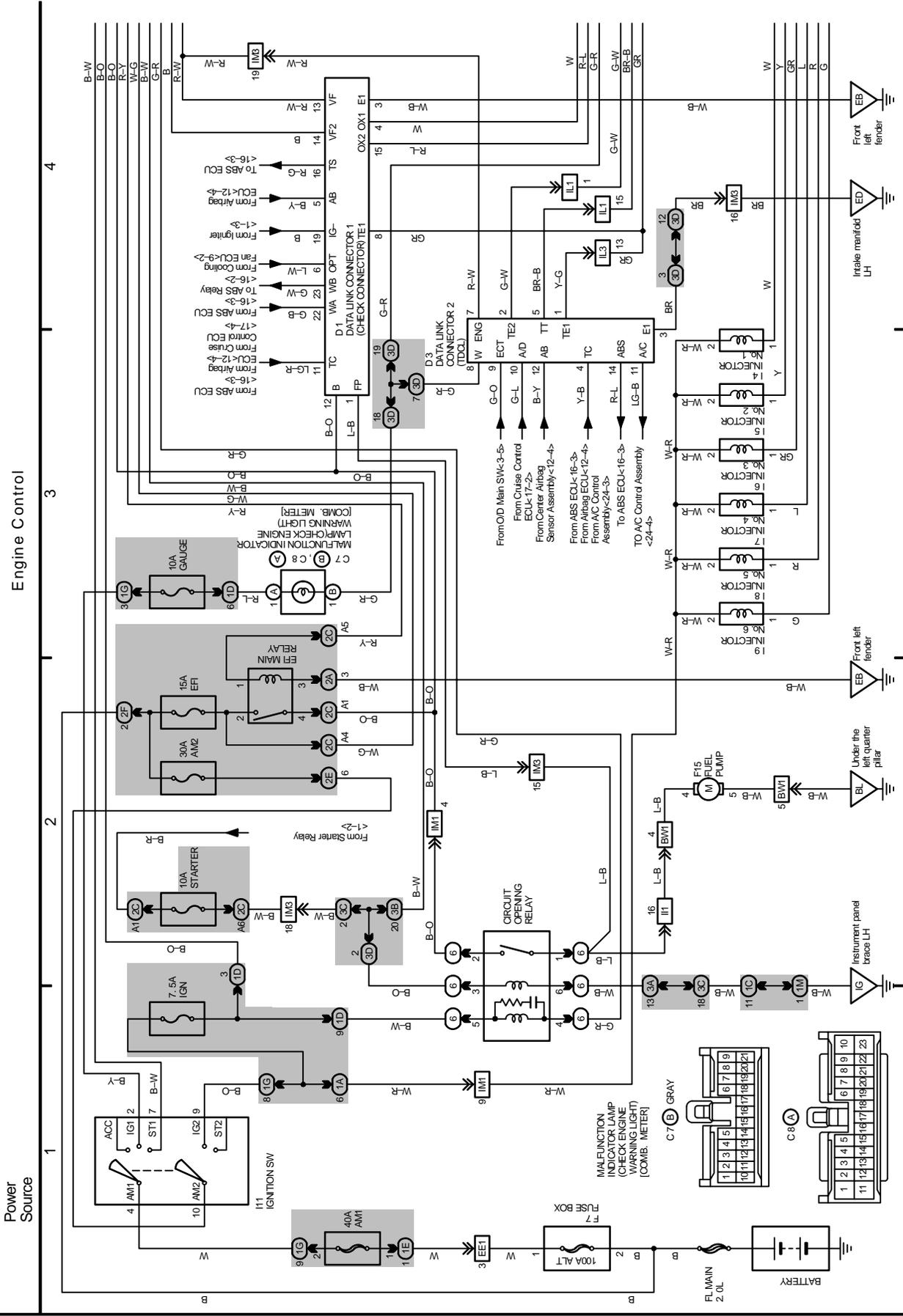
1 LEXUS ES300 ELECTRICAL WIRING DIAGRAM



OVERALL ELECTRICAL WIRING DIAGRAM

2 LEXUS ES300

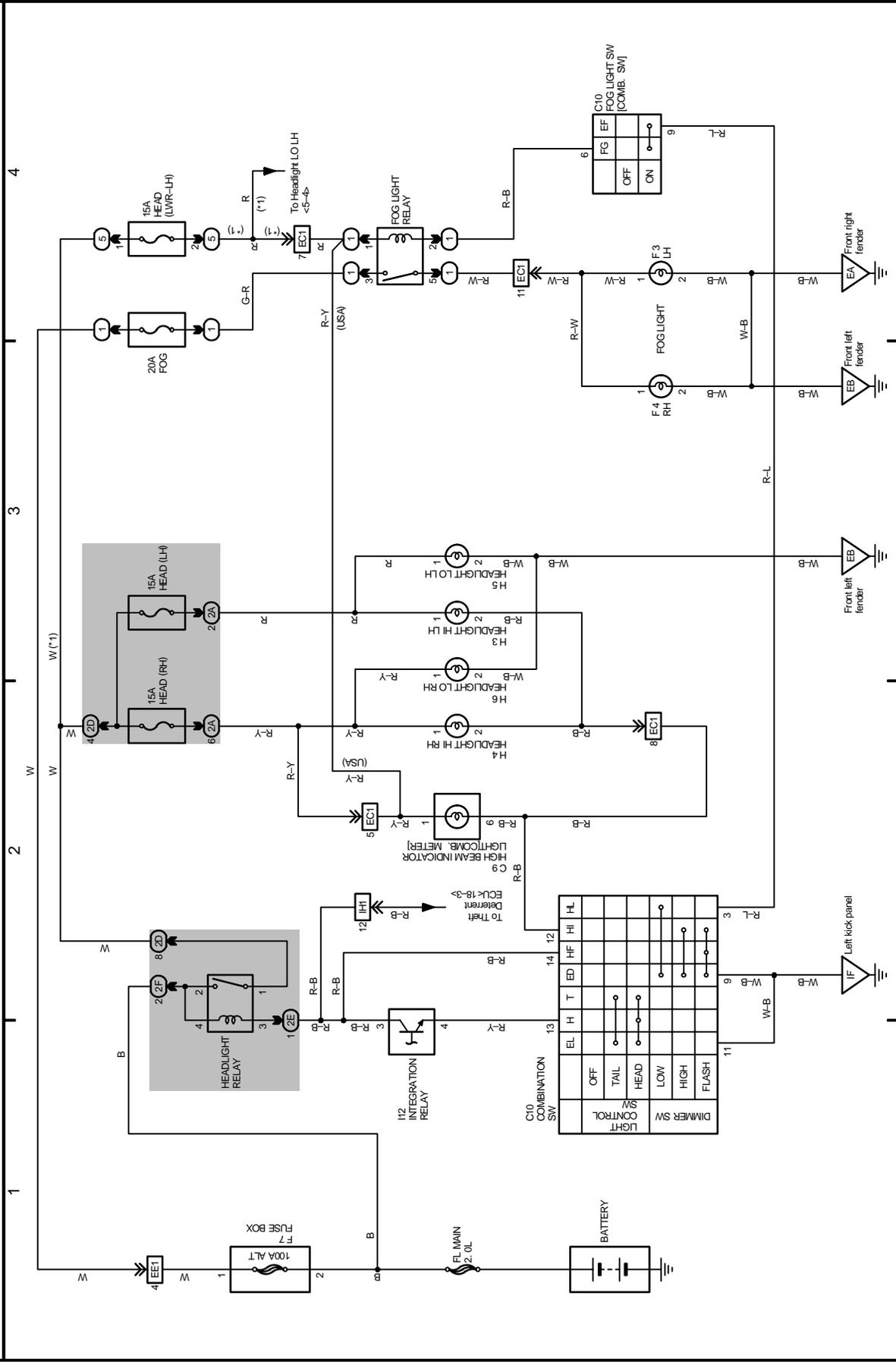
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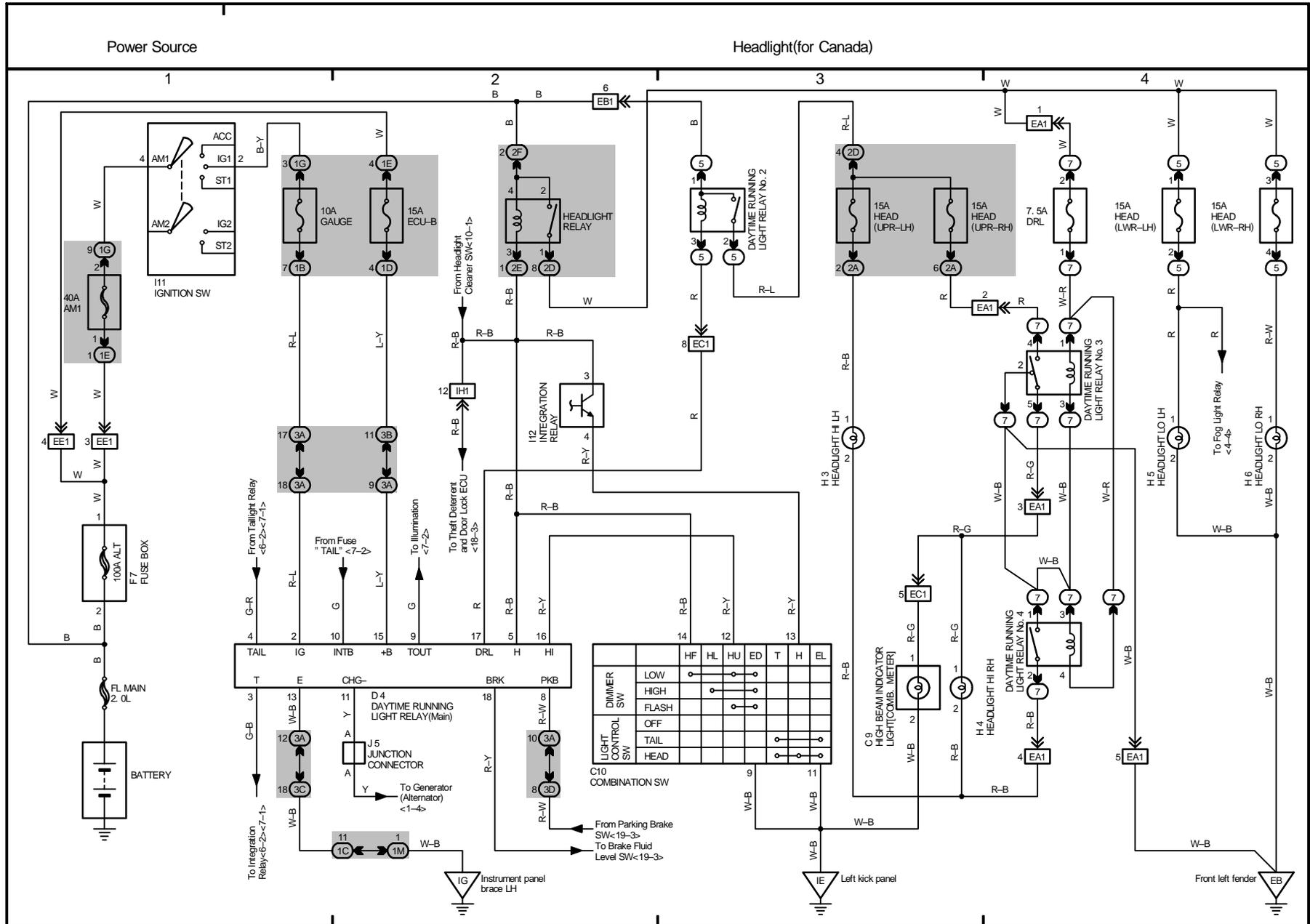
OVERALL ELECTRICAL WIRING DIAGRAM

4 LEXUS ES300

Power Source
 Headlight(for USA)
 Front Fog Light
 *1: Canada

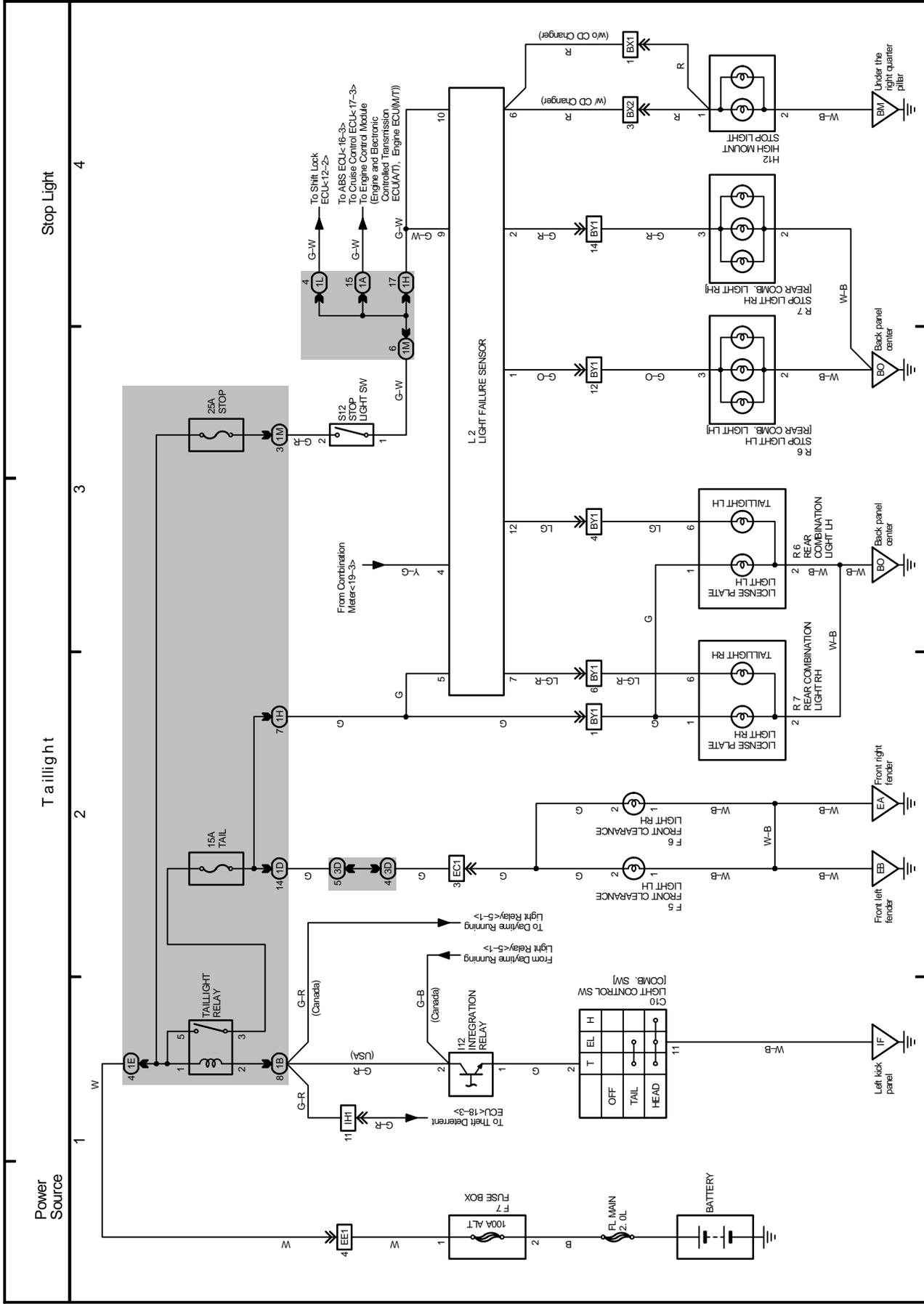


5 LEXUS ES300

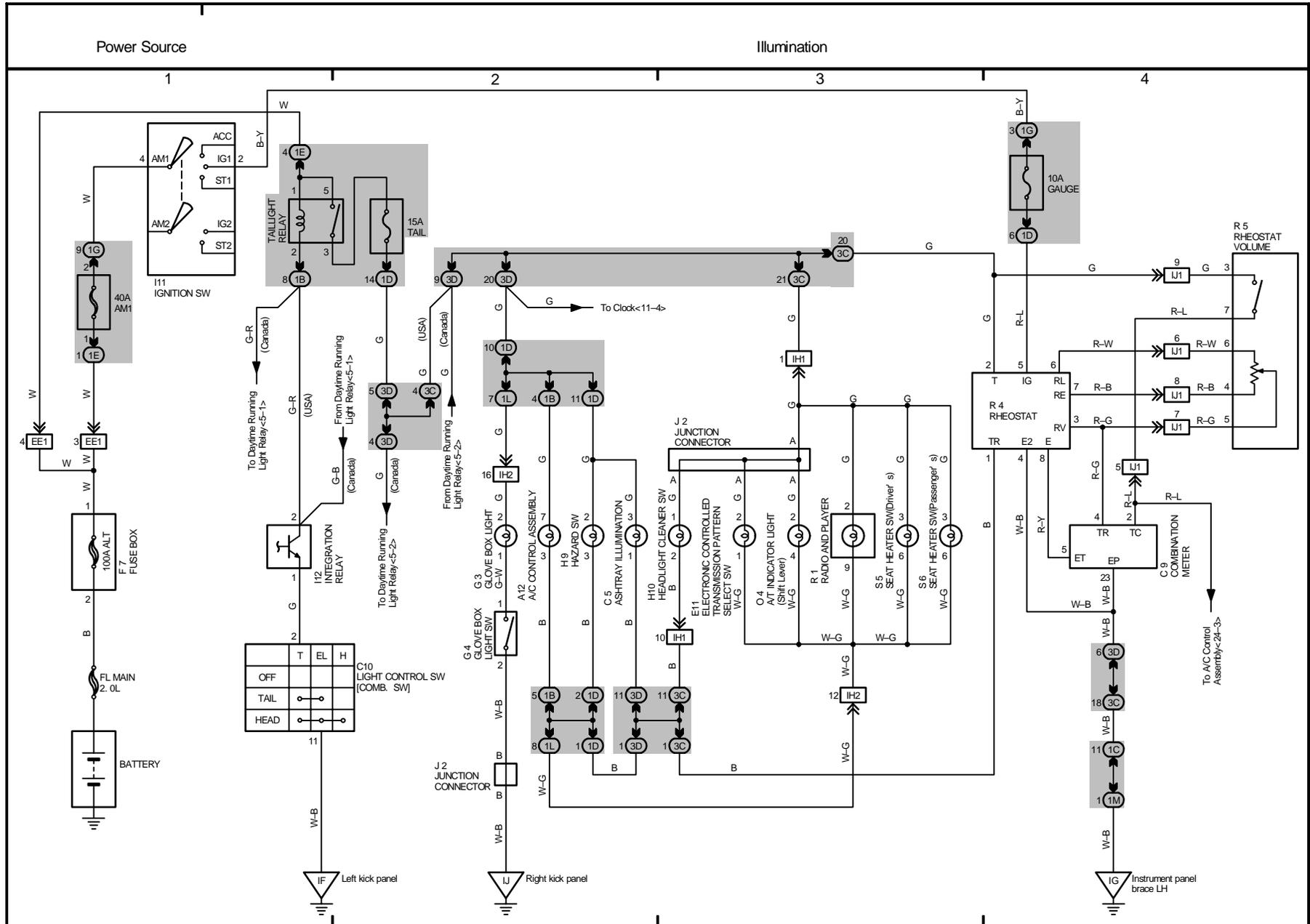


OVERALL ELECTRICAL WIRING DIAGRAM

6 LEXUS ES300

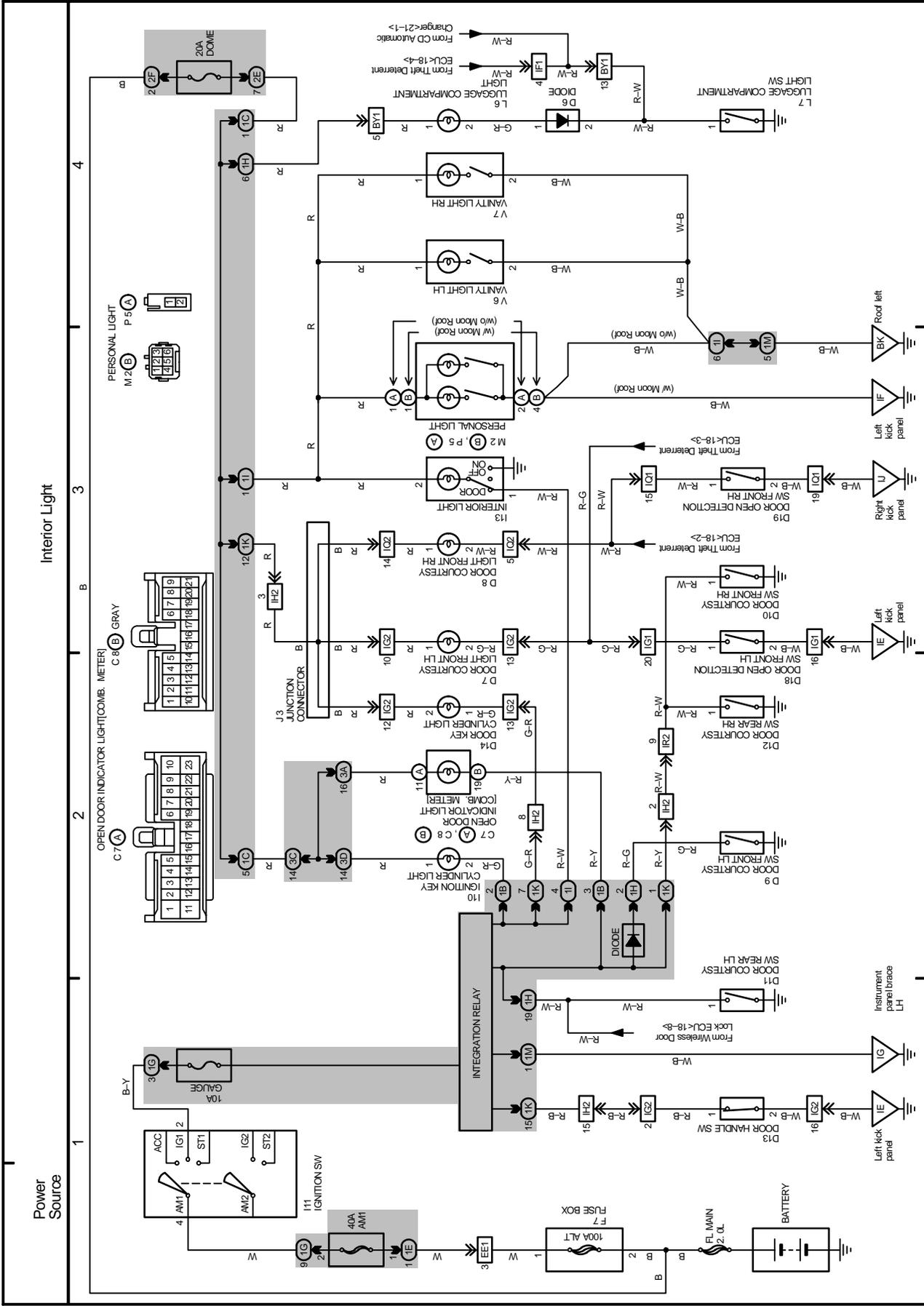


7 LEXUS ES300

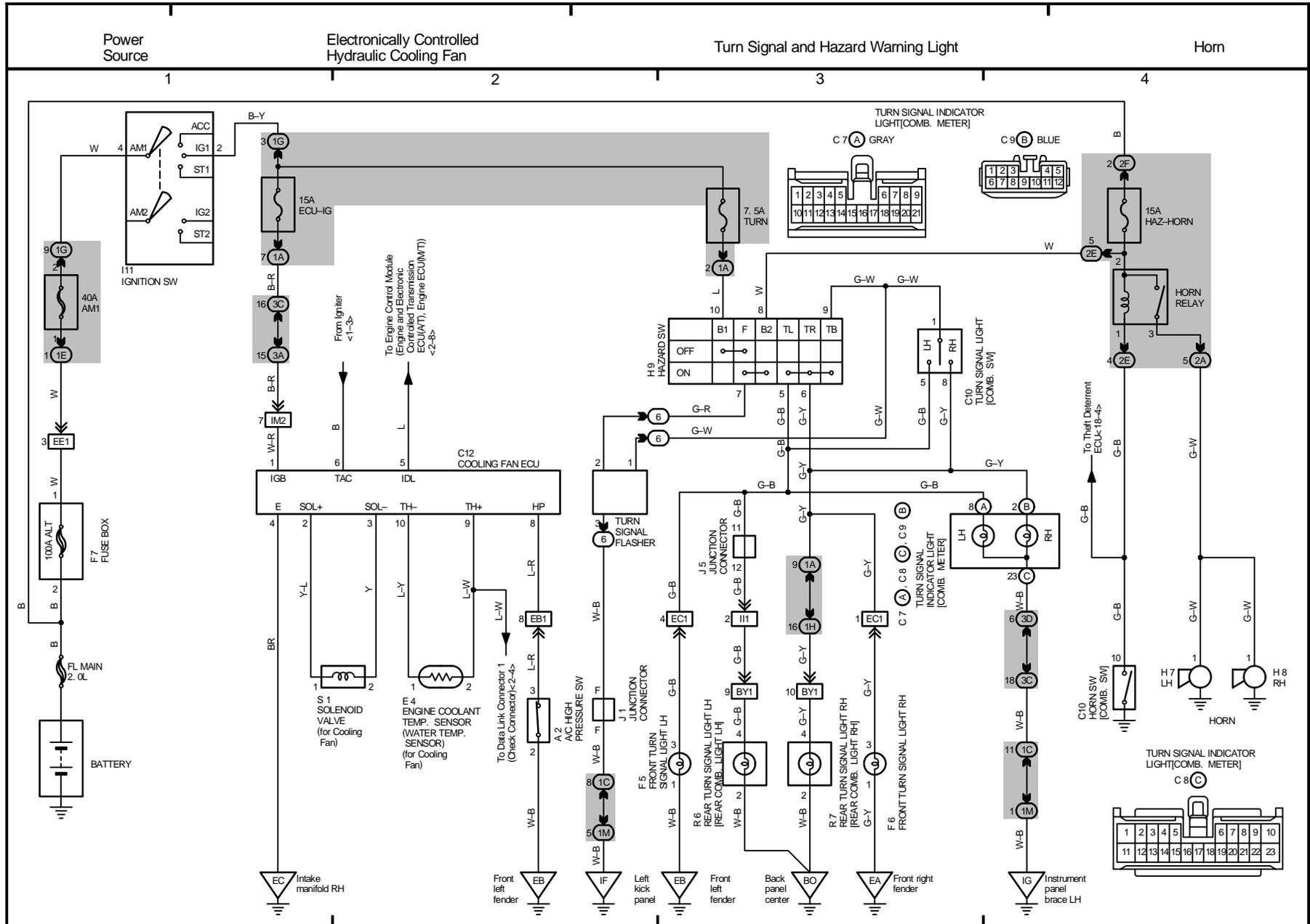


OVERALL ELECTRICAL WIRING DIAGRAM

8 LEXUS ES300

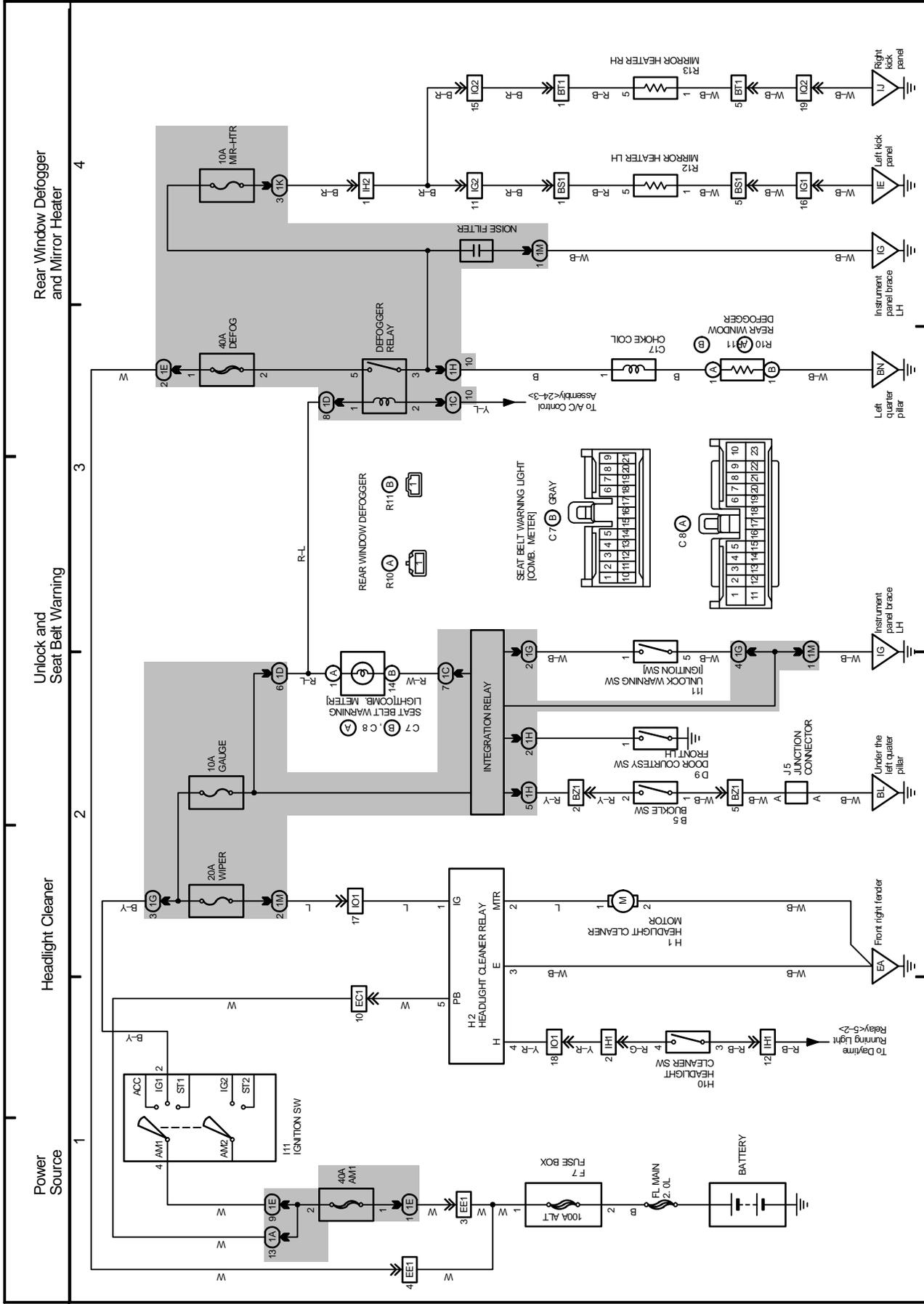


9 LEXUS ES300

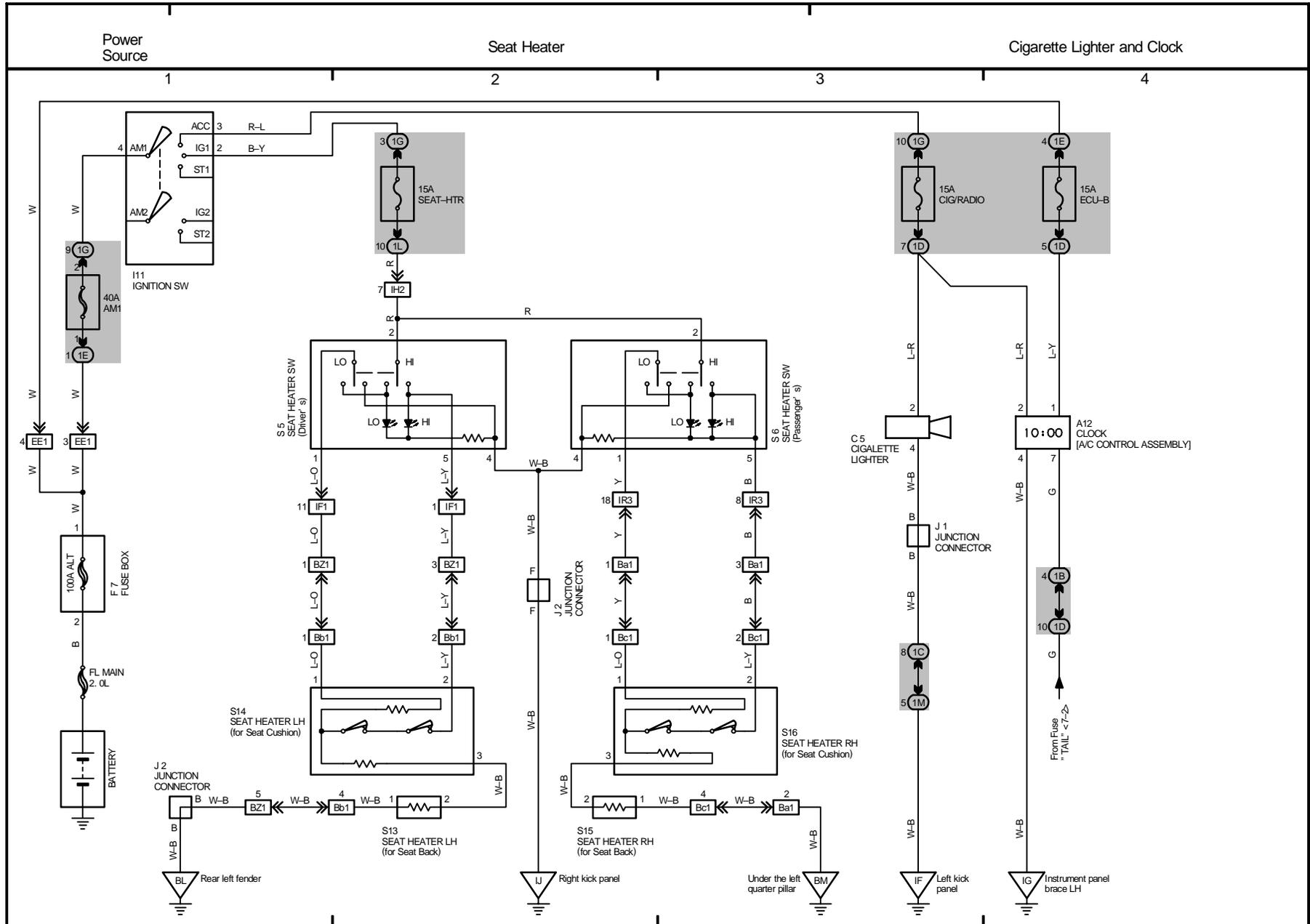


OVERALL ELECTRICAL WIRING DIAGRAM

10 LEXUS ES300

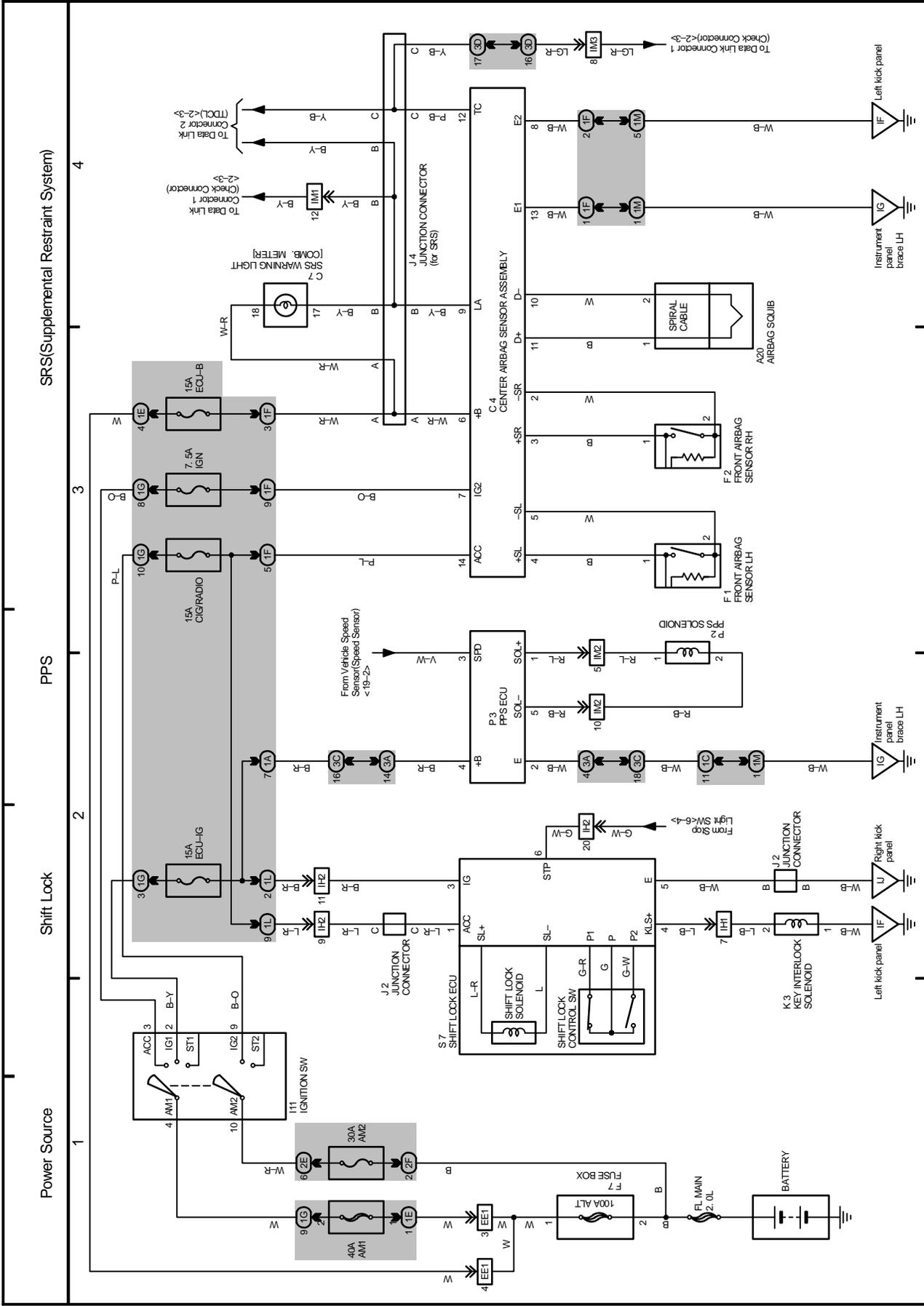


11 LEXUS ES300

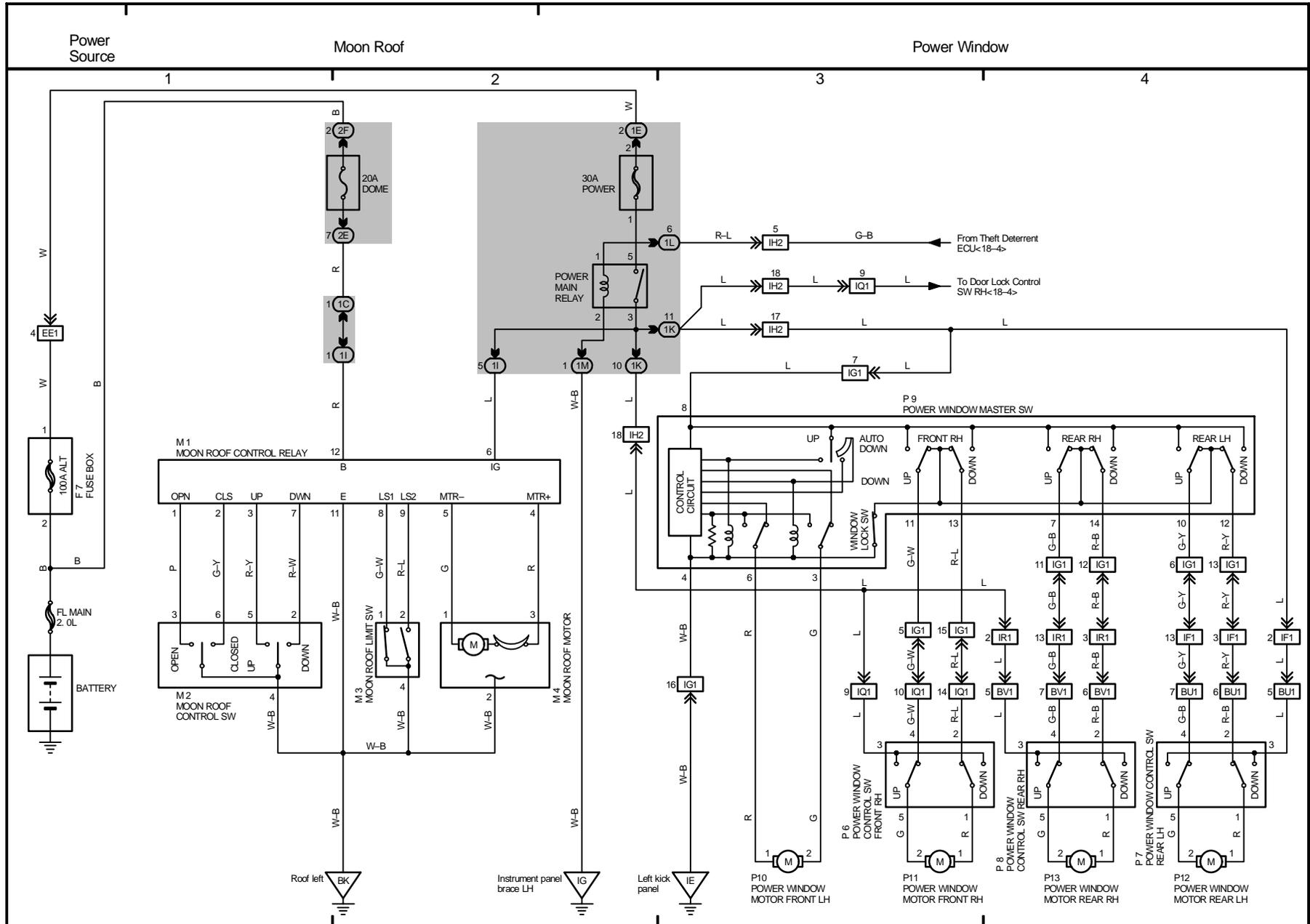


OVERALL ELECTRICAL WIRING DIAGRAM

12 LEXUS ES300

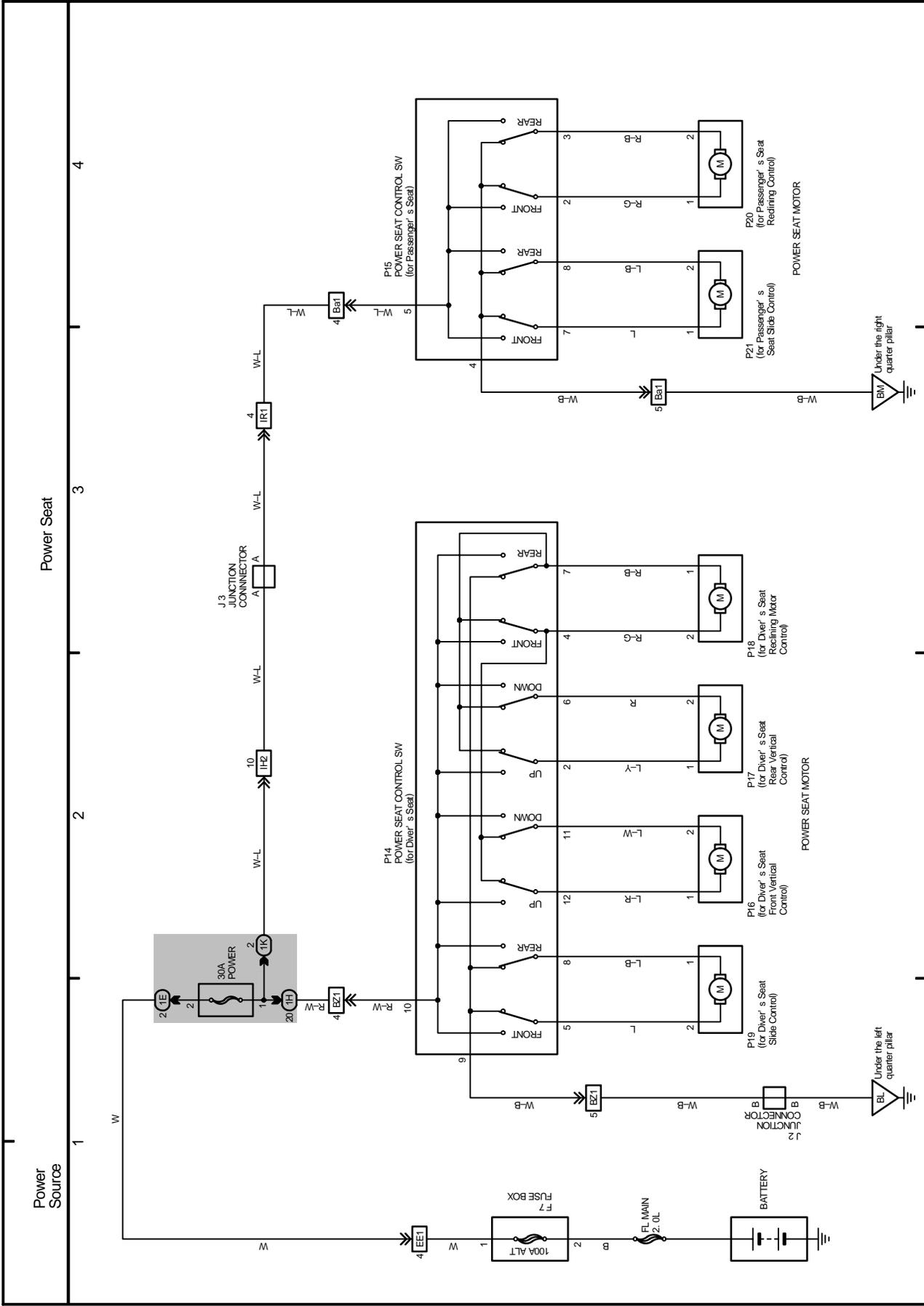


13 LEXUS ES300

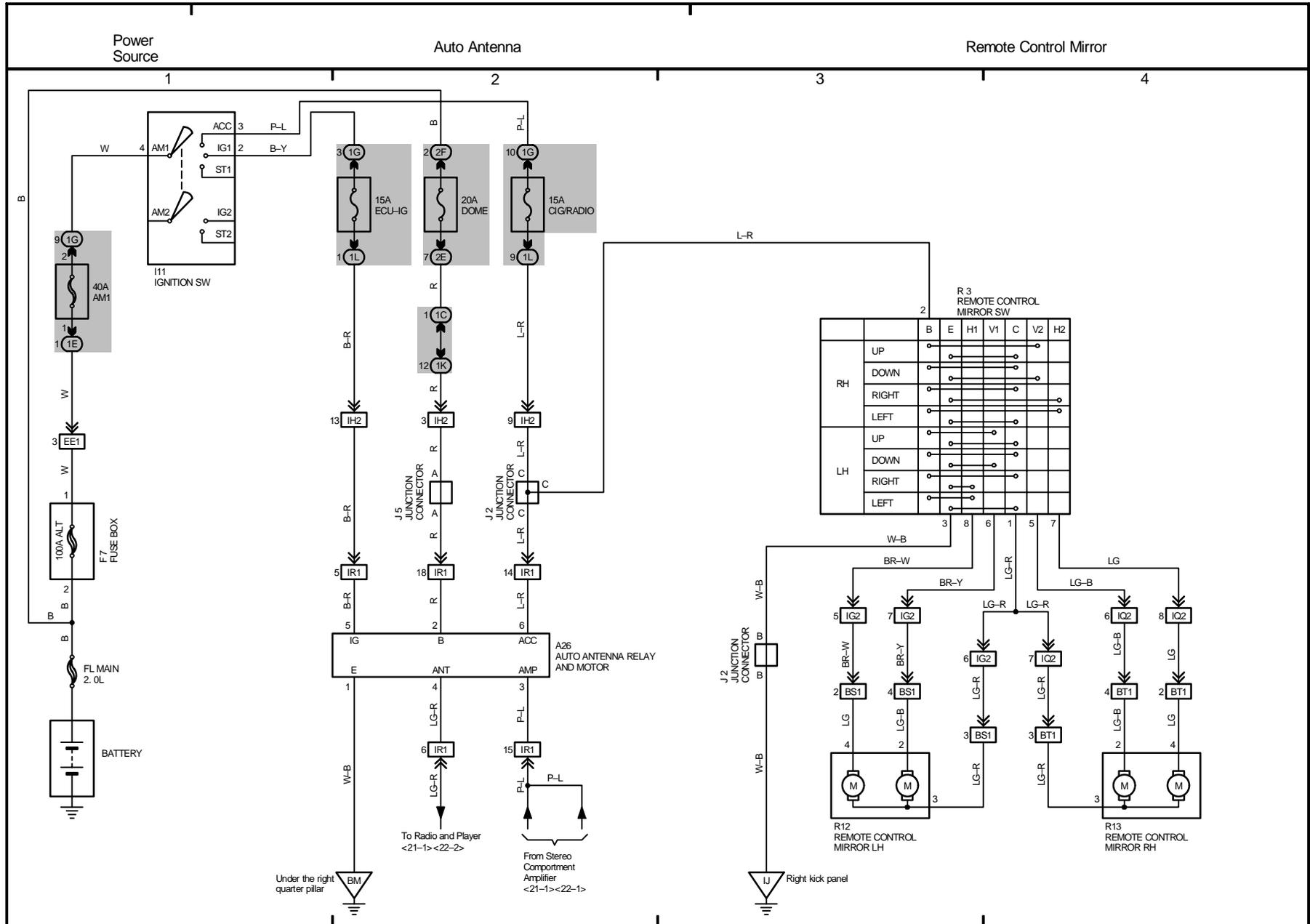


OVERALL ELECTRICAL WIRING DIAGRAM

14 LEXUS ES300

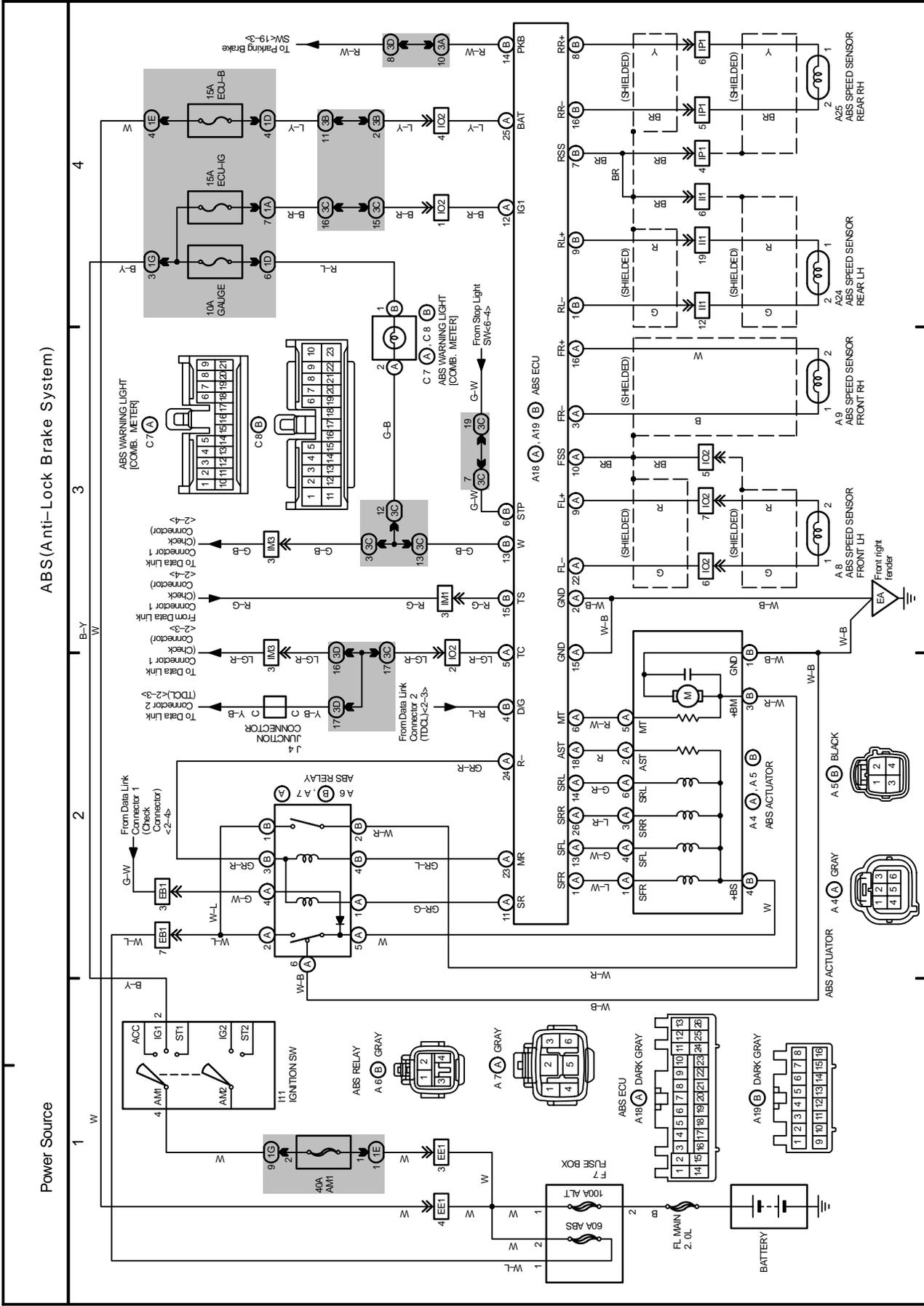


15 LEXUS ES300



OVERALL ELECTRICAL WIRING DIAGRAM

16 LEXUS ES300

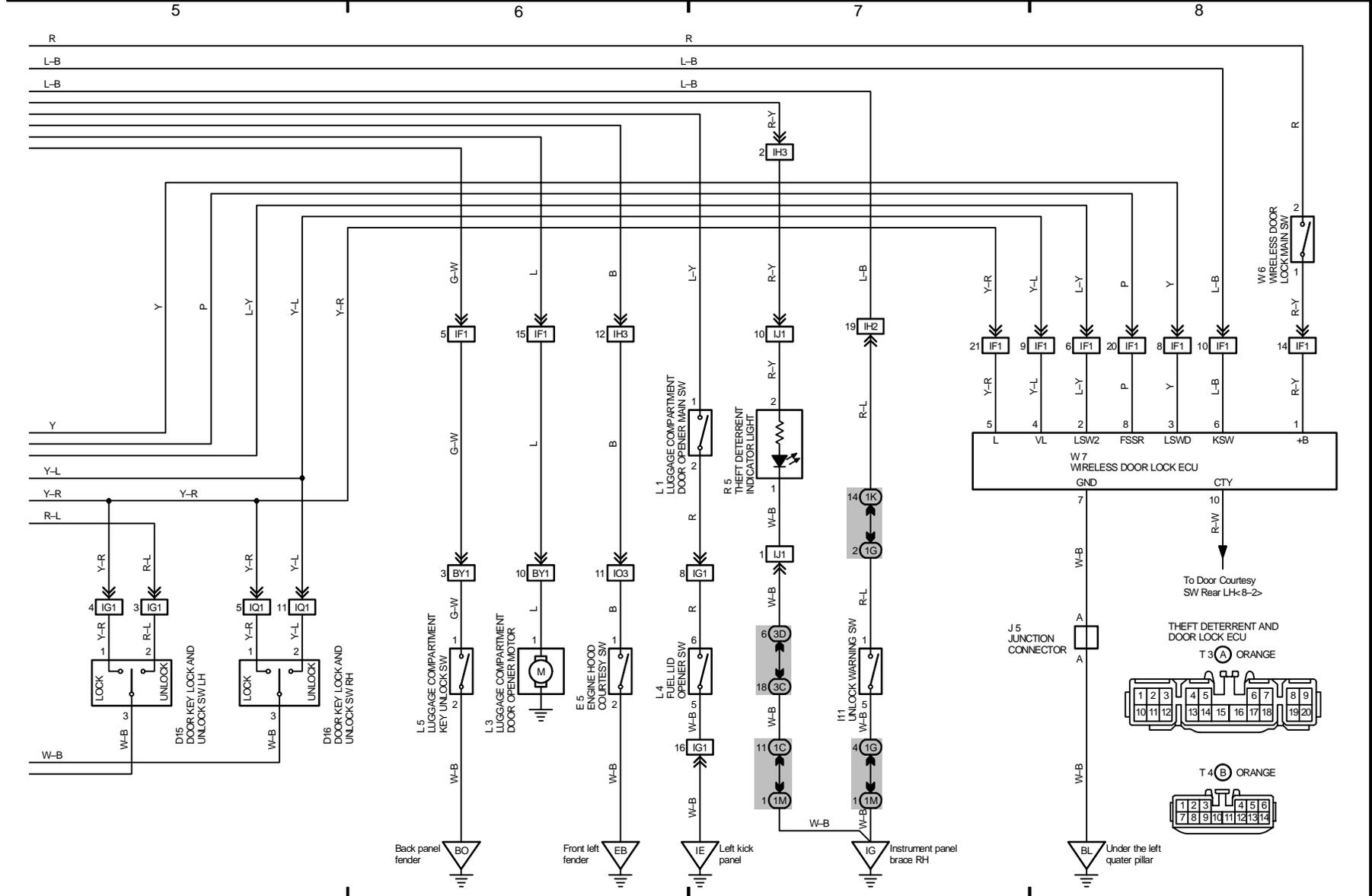


ABS (Anti-Lock Brake System)

18 LEXUS ES300(Carr' d)

Theft Deterrent and Door Lock

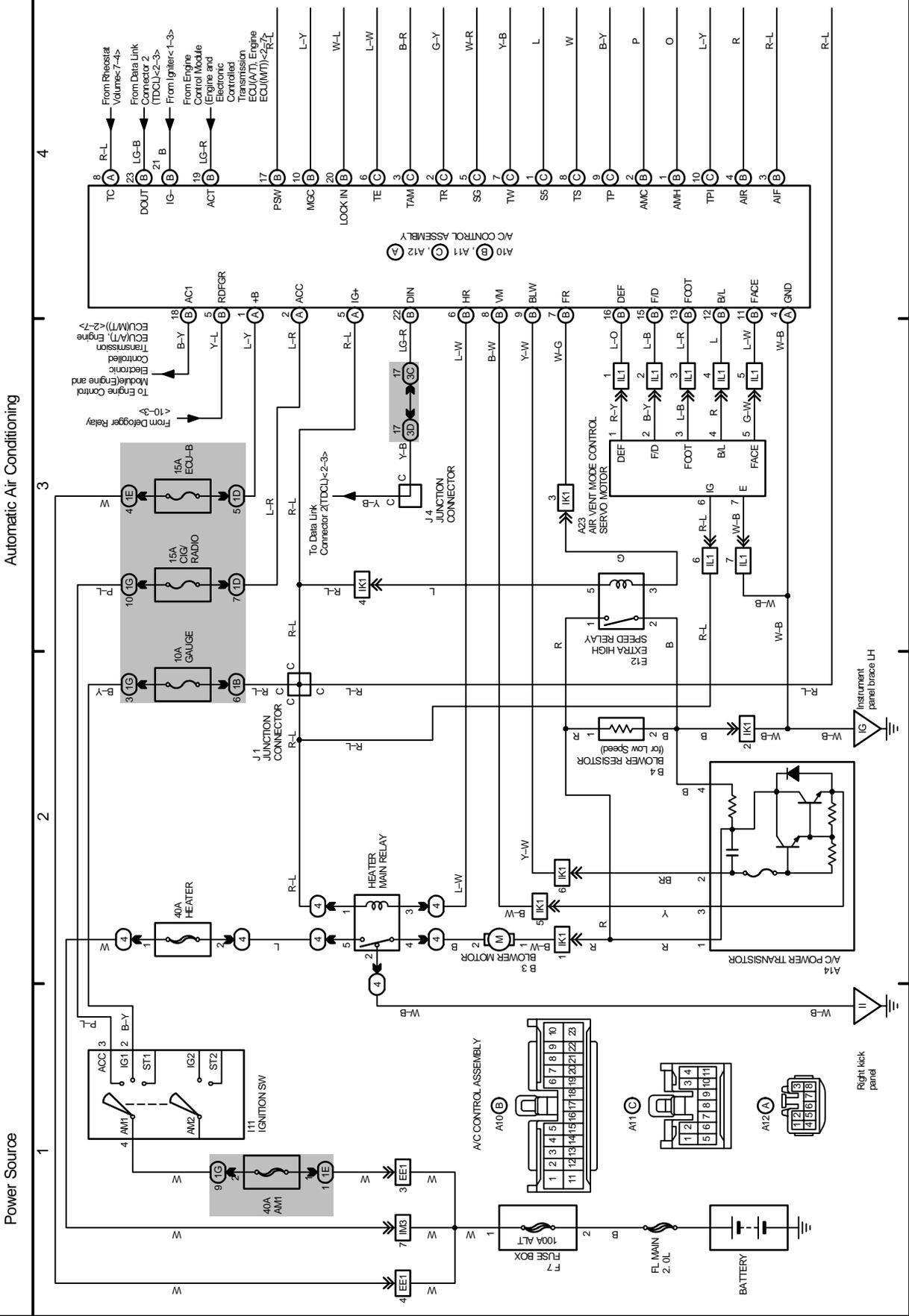
Wireless Door Lock Remote Control



OVERALL ELECTRICAL WIRING DIAGRAM

24 LEXUS ES300

(Cont. next page)



Automatic Air Conditioning

