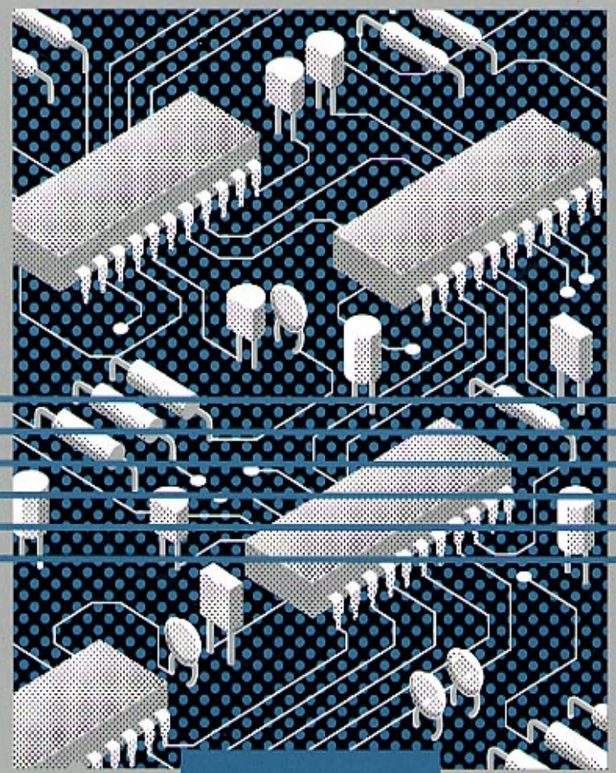
TOYOTA

RAV4

ELECTRICAL WIRING DIAGRAM

ACA 2_ Series
ZCA 2_ Series

May, 2000~



FOREWORD

This wiring diagram manual has been prepared to provide information on the electrical system of the RAV4.

Applicable models: ACA20, 21 Series
ZCA25, 26 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.
• RAV4 Chassis and Body Repair Manual	RM777E
• 1ZZ-FE Engine Repair Manual Supplement	RM773E
• 1AZ-FE Engine Repair Manual	RM774E
• RAV4 New Car Features	NCF185E

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.

English
Français
Español
Deutsch

RAV4
ELECTRICAL WIRING DIAGRAM

(English)	Section No.	Page
INTRODUCTION	A	4
HOW TO USE THIS MANUAL	B	5
TROUBLESHOOTING	C	14
ABBREVIATIONS	D	19
GLOSSARY OF TERMS AND SYMBOLS	E	20
RELAY LOCATIONS	F	76
ELECTRICAL WIRING ROUTING	G	88
SYSTEM CIRCUITS	H	132
GROUND POINT	I	320
POWER SOURCE (Current Flow Chart)	J	332
CONNECTOR LIST	K	340
PART NUMBER OF CONNECTORS	M	376
OVERALL ELECTRICAL WIRING DIAGRAM	N	380

English

Français

SCHEMA DE CABLAGE ELECTRIQUE DE LA RAV4

(Français)	*N° de section*	*Page*
INTRODUCTION	*A*	*22*
COMMENT UTILISER CE MANUEL	*B*	*23*
DEPANNAGE	*C*	*32*
ABREVIATIONS	*D*	*37*
GLOSSAIRE DES TERMES ET SYMBOLES	*E*	*38*
EMPLACEMENTS DES RELAIS	*F*	*76*
ACHEMINEMENT DES FILS ELECTRIQUES	*G*	*88*
CIRCUITS DU SYSTEME	*H*	*134*
POINT DE MISE A LA TERRE	*I*	*320*
SOURCE D'ALIMENTATION (Schéma du Courant)	*J*	*332*
LISTE DE CONNECTEUR	*K*	*340*
INFORMATIONS SUR LE CONNECTEUR	*L*	*352*
REFERENCE DES CONNECTEURS	*M*	*376*
SCHEMA GENERAL DE CABLAGE ELECTRIQUE	*N*	*382*

©2000 TOYOTA MOTOR CORPORATION
All rights reserved. This book may not be reproduced or copied, in whole or in part, without the written permission of Toyota Motor Corporation.

©2000 TOYOTA MOTOR CORPORATION
Tous droits réservés. Cette publication ne peut être reproduite, copiée, en totalité ou en partie, sans l'autorisation écrite de Toyota Motor Corporation.

A INTRODUCTION

This manual consists of the following 14 sections:

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

English

HOW TO USE THIS MANUAL B

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

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

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

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

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

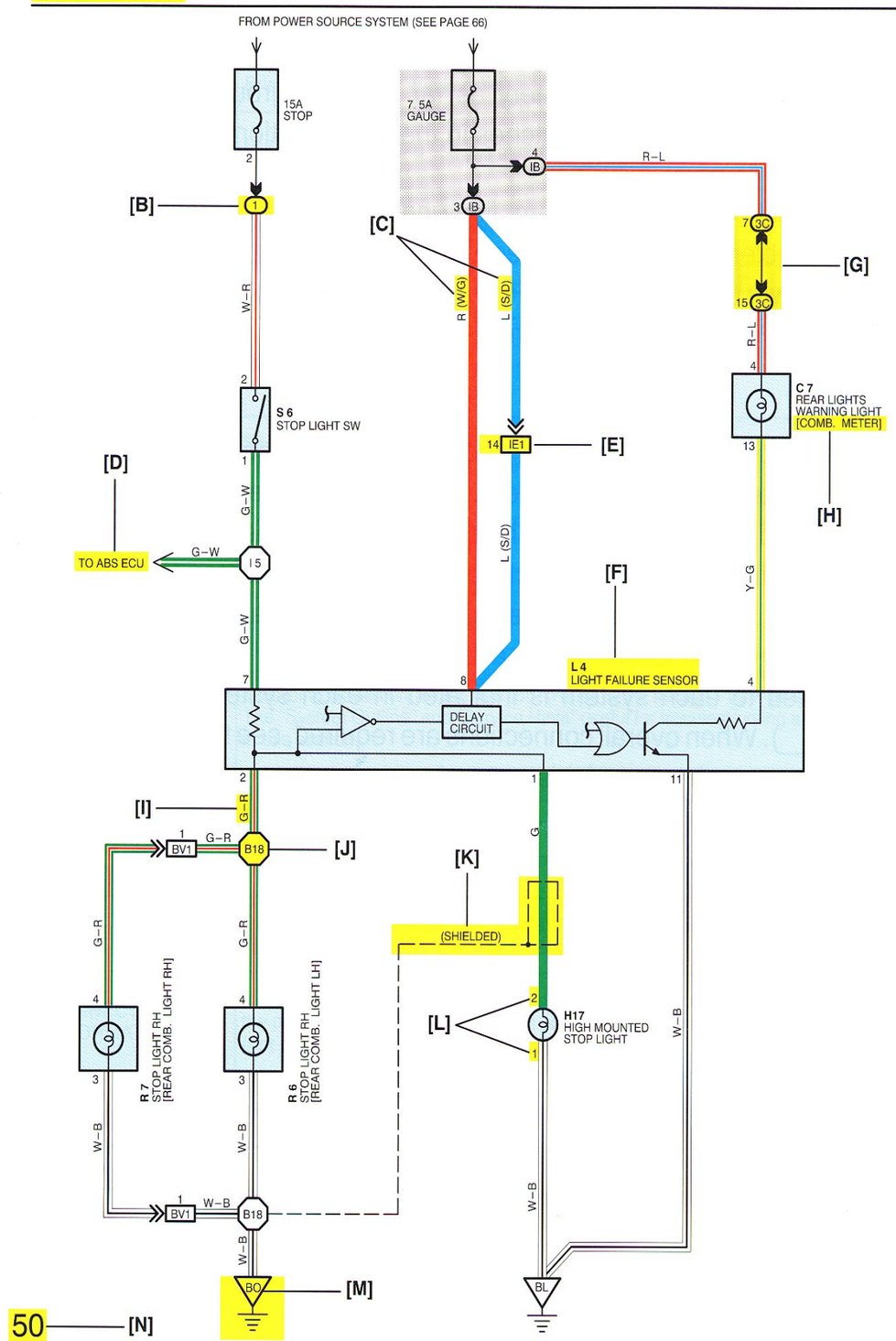
English

English

[A]

STOP LIGHT

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



English

[A] : System Title

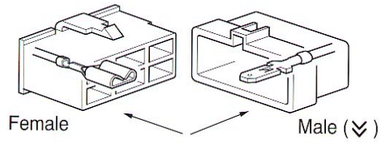
[B] : Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B

Example: (1) Indicates Relay Block No.1

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

[D] : Indicates related system.

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



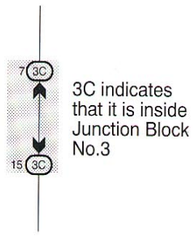
The first letter of the code for each wiring harness and wiring harness connector(s) indicates the component's location, e.g, "E" for the Engine Compartment, "I" for the Instrument Panel and Surrounding area, and "B" for the Body and Surrounding area.

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

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

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

Example:



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

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

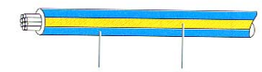
[I] : Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

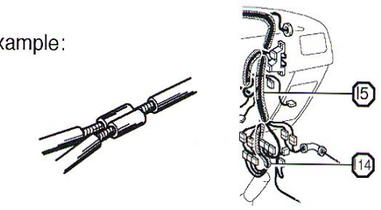
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L - Y



[J] : 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.

[K] : Indicates a shielded cable.

[L] : 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
1 2 3 / 4 5 6	3 2 1 / 6 5 4
Female	Male

[M] : 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.

[N] : Page No.

B HOW TO USE THIS MANUAL

[O] **SYSTEM OUTLINE**

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

STOP LIGHT DISCONNECTION WARNING

When the ignition SW is turned on and the brake pedal is pressed (Stop light SW on), if the stop light circuit is open, the current flowing from TERMINAL 7 of the light failure sensor to TERMINALS 1, 2 changes, so the light failure sensor detects the disconnection and the warning circuit of the light failure sensor is activated.
As a result, the current flows from TERMINAL 4 of the light failure sensor to TERMINAL 11 to GROUND and turns the rear lights warning light on. By pressing the brake pedal, the current flowing to TERMINAL 8 of the light failure sensor keeps the warning circuit on and holds the warning light on until the ignition SW is turned off.

[P] **SERVICE HINTS**

S6 STOP LIGHT SW

2–1 : Closed with the brake pedal depressed

L4 LIGHT FAILURE SENSOR

1, 2, 7–GROUND : Approx. **12** volts with the stop light SW on
4, 8–GROUND : Approx. **12** volts with the ignition SW at **ON** position
11–GROUND : Always continuity

[Q] ○ : PARTS LOCATION

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

[R] ▢ : RELAY BLOCKS

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

[S] ⬭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

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

[T] □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

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

[U] ▽ : GROUND POINTS

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

[V] ⯃ : SPLICE POINTS

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

English

[O] : Explains the system outline.

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

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

Example : Part "L4" (Light Failure Sensor) is on page 36 of the manual.
* The letter in the code is from the first letter of the part, and the number indicates its order in parts starting with that letter.

Example : L 4
- 4 — Parts is 4th in order
- L — Light Failure Sensor

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

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

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

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

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

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

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

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

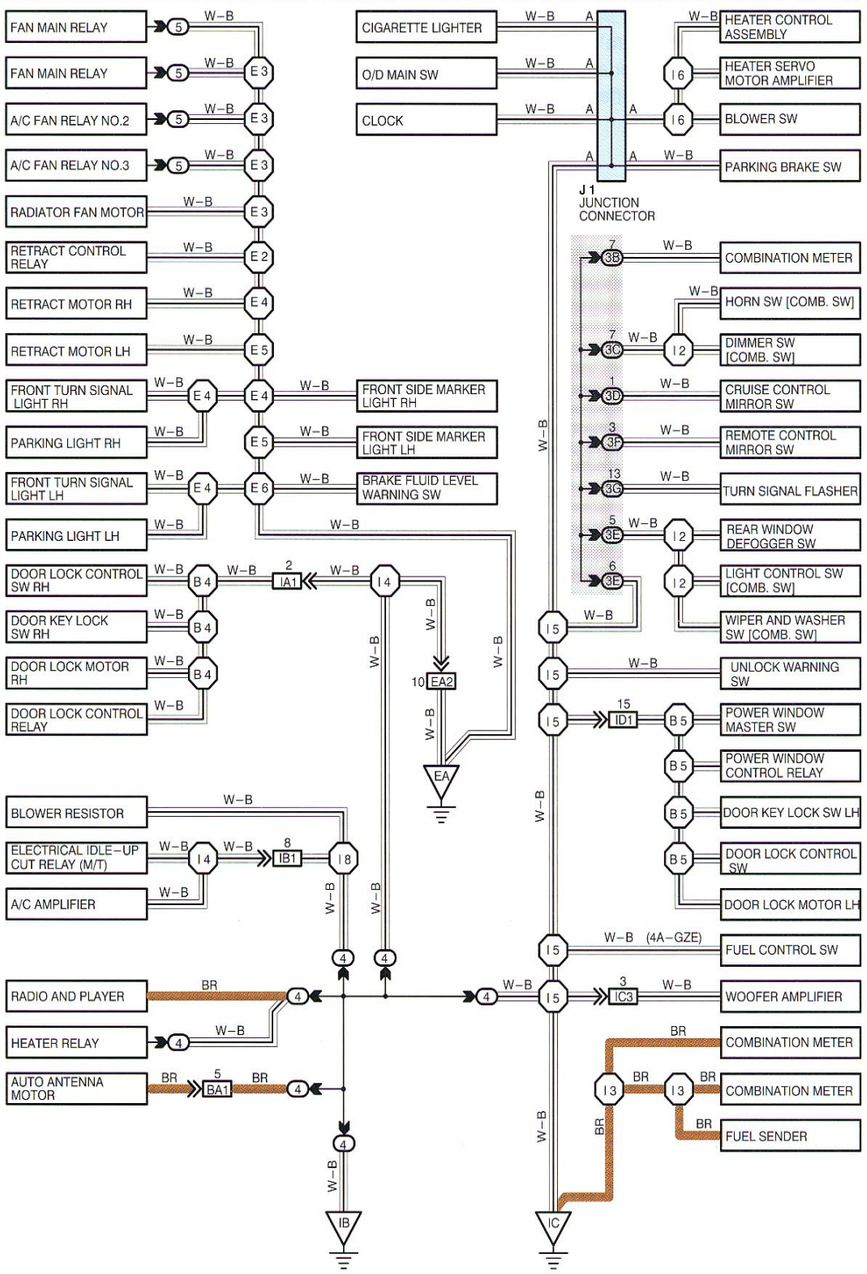
[V] : Indicates the reference page showing the position of the splice points on the vehicle.

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

B HOW TO USE THIS MANUAL

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

I GROUND POINT

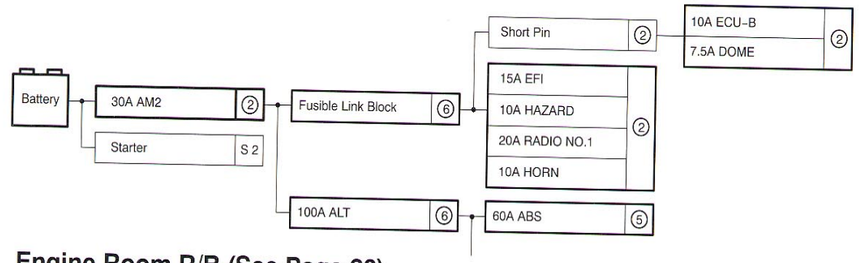


* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

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

J POWER SOURCE (Current Flow Chart)

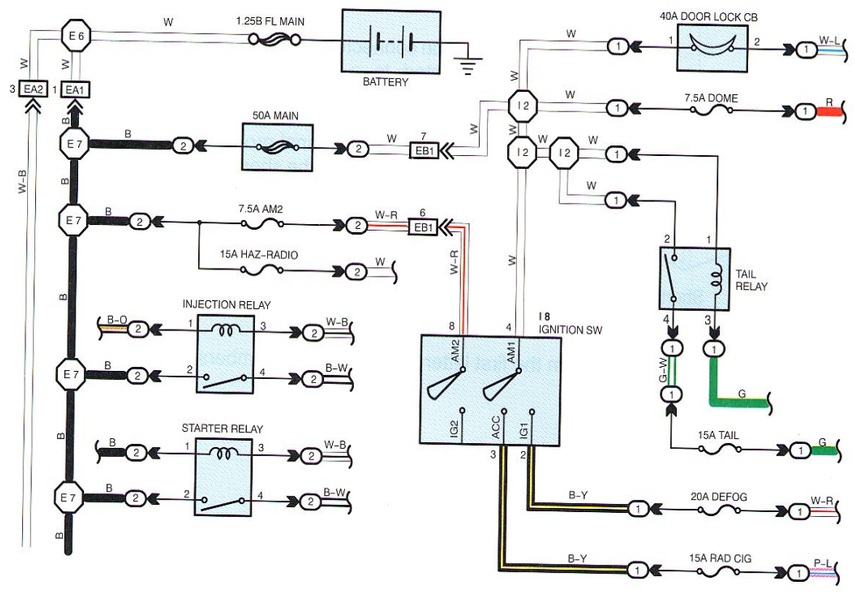
The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.



Engine Room R/B (See Page 20)

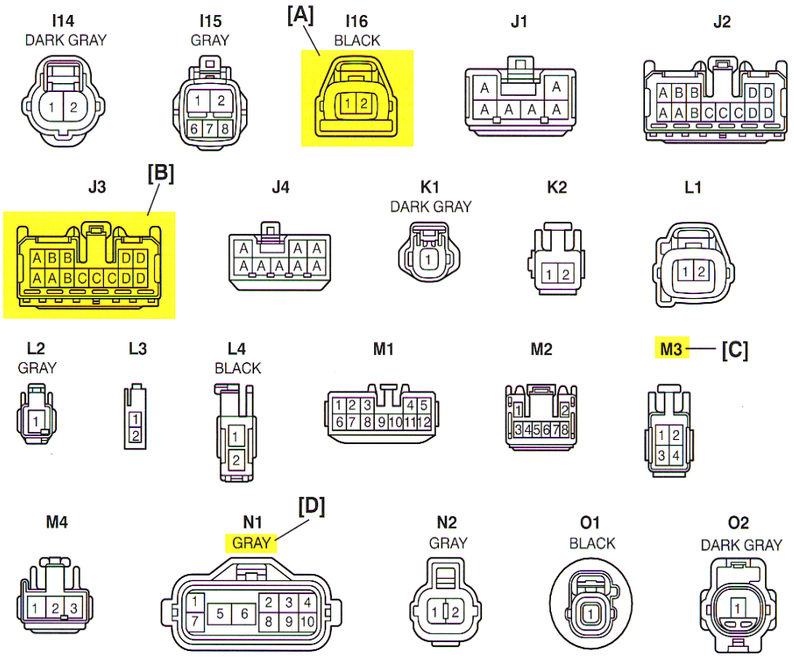
Fuse		System	Page
20A	STOP	ABS	194
		ABS and Traction Control	187
		Cruise Control	180
		Electronically Controlled Transmission and A/T Indicator	166
		Multiplex Communication System	210
10A	DOME	Cigarette Lighter and Clock	214
		Combination Meter	230
		Headlight	112
		Interior Light	122
		Key Reminder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

POWER SOURCE



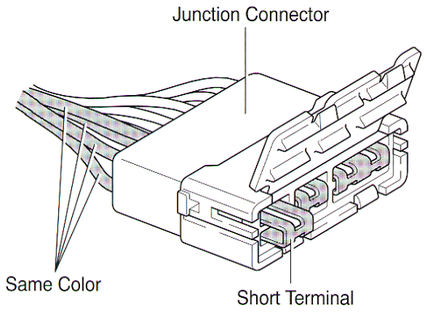
* The system shown here is an EXAMPLE ONLY. It is different to the actual circuit shown in the SYSTEM CIRCUITS SECTION.

K CONNECTOR LIST



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

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



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

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

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

M PART NUMBER OF CONNECTORS

Code	Part Name	Part Number
A 1	A/C Ambient Temp. Sensor	90980-11070
A 2	A/C Condenser Fan Motor	90980-11237
A 3	A/C Condenser Fan Relay	90980-10940
A 4	A/C Triple Pressure SW (A/C Dual and Single Pressure SW)	90980-10943
[A]	A/T Oil Temp. Sensor [B]	909 [C] 413
A 6	ABS Actuator	90980-11151
A 7	ABS Actuator	90980-11009
A 8	ABS Speed Sensor Front LH	90980-10941
A 9	ABS Speed Sensor Front RH	90980-11002
A10	Airbag Sensor Front LH	90980-11856
A11	Airbag Sensor Front RH	
A12		90980-11194
		90980-

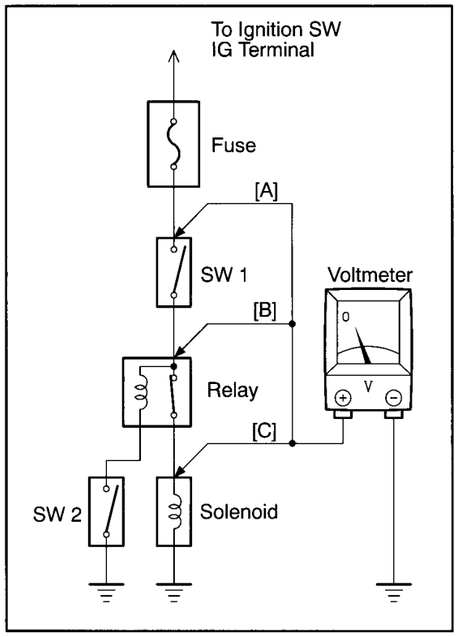
Code	Part Name	Part Number
D 4	Diode (Door Courtesy Light)	90980-11608
D 5	Diode (Key Off Operation)	90980-10962
D 6	Diode (Luggage Compartment Light)	90980-11608
D 7	Door Lock Control Relay	90980-10848
D 8	Door Courtesy Light LH	90980-11148
D 9	Door Courtesy Light RH	
D10	Door Courtesy SW LH	90980-11097
D11	Door Courtesy SW RH	
D12	Door Courtesy SW Front LH	90980-11156
D13	Door Courtesy SW Front RH	
D14	Door Courtesy SW Rear LH	
D15	Door Courtesy SW Rear RH	
D16	Unlock SW LH	90980-11170
	RH	

[A] : Part Code

[B] : Part Name

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

Not all of the above part numbers of the connector are established for the supply. In case of ordering a connector or terminal with wire, please confirm in advance if there is supply for it using "Parts Catalog News" (published by Parts Engineering Administration Dept.).

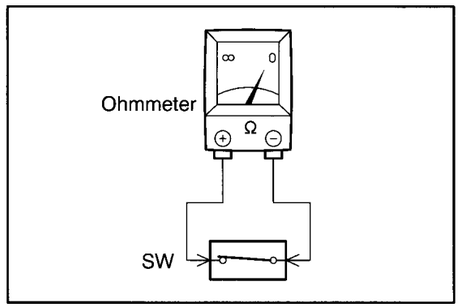


VOLTAGE CHECK

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

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

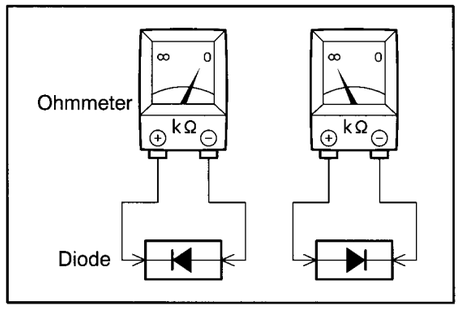
(b) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal, and the positive lead to the connector or component terminal.
This check can be done with a test light instead of a voltmeter.



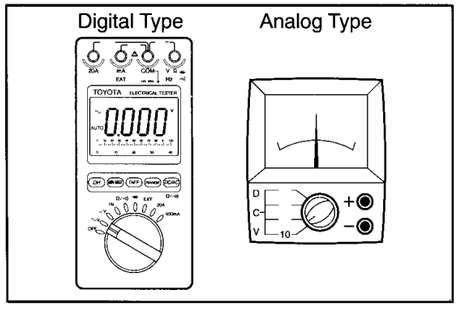
CONTINUITY AND RESISTANCE CHECK

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

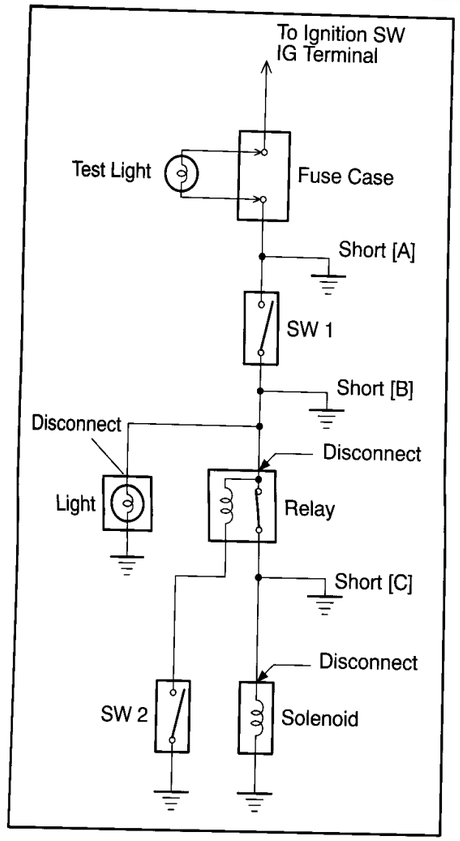
(b) Contact the two leads of an ohmmeter to each of the check points.



If the circuit has diodes, reverse the two leads and check again.
When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.
When contacting the two leads in reverse, there should be no continuity.



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



FINDING A SHORT CIRCUIT

(a) Remove the blown fuse and disconnect all loads of the fuse.

(b) Connect a test light in place of the fuse.

(c) Establish conditions in which the test light comes on.

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

(d) Disconnect and reconnect the connectors while watching the test light.
The short lies between the connector where the test light stays lit and the connector where the light goes out.

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

CAUTION:

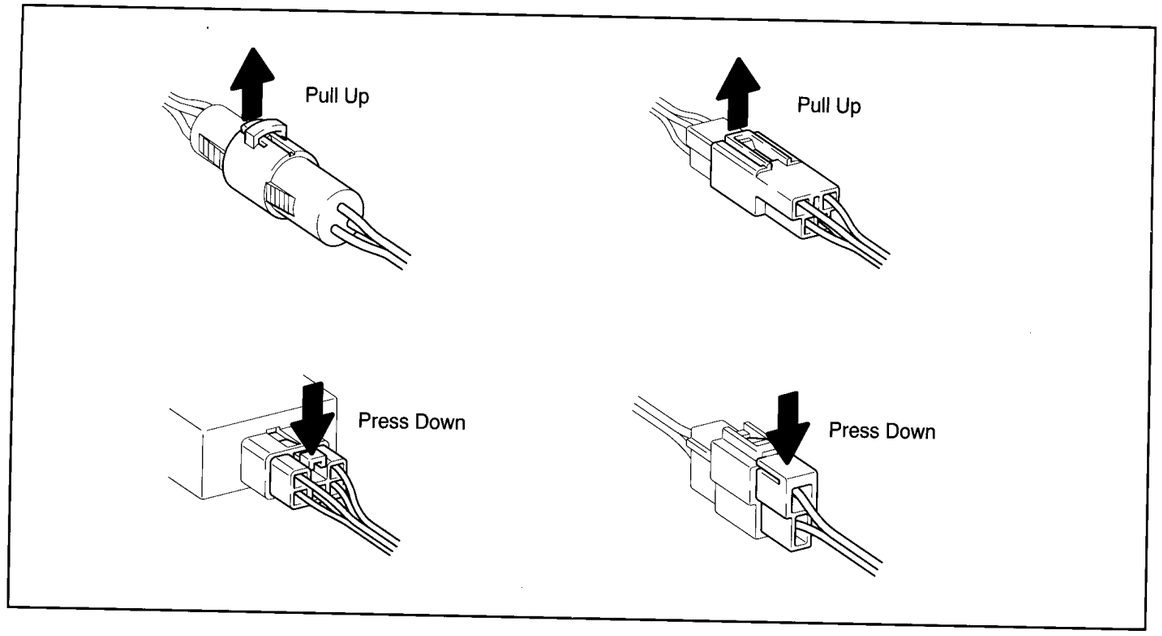
(a) Do not open the cover or the case of the ECU unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)

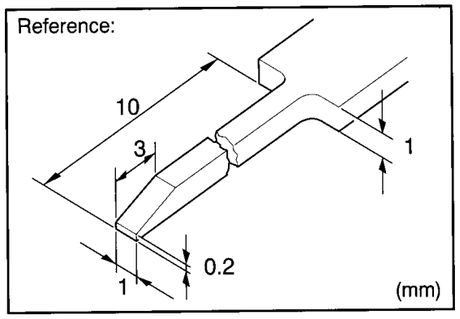
(b) When replacing the internal mechanism (ECU part) of the digital meter, be careful that no part of your body or clothing comes in contact with the terminals of leads from the IC, etc. of the replacement part (spare part).

DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

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



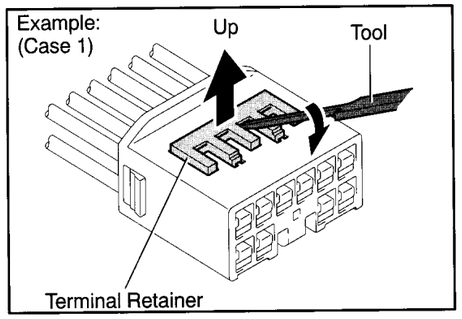


HOW TO REPLACE TERMINAL (with terminal retainer or secondary locking device)

1. PREPARE THE SPECIAL TOOL

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

2. DISCONNECT CONNECTOR

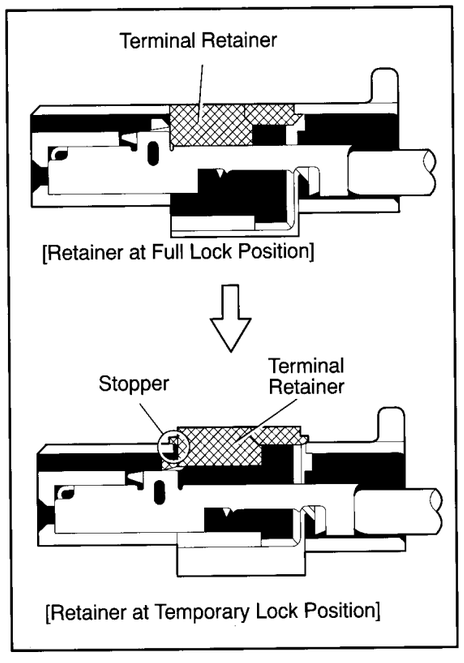


3. DISENGAGE THE SECONDARY LOCKING DEVICE OR TERMINAL RETAINER.

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

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

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

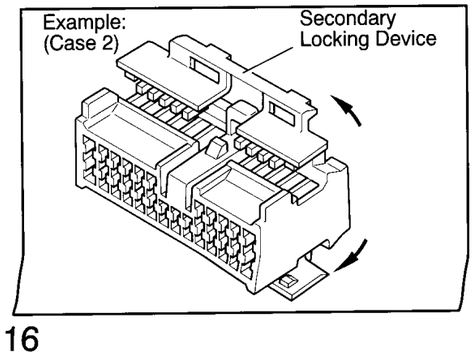


[A] For Non-Waterproof Type Connector

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

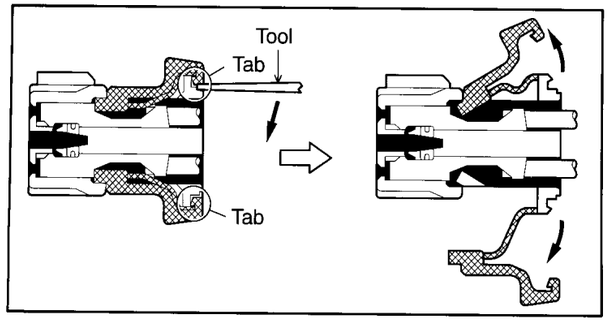
"Case 1"

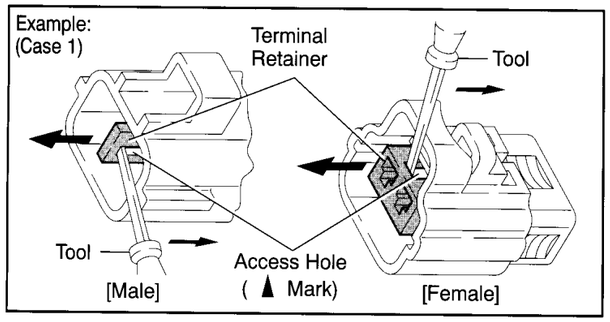
Raise the terminal retainer up to the temporary lock position.

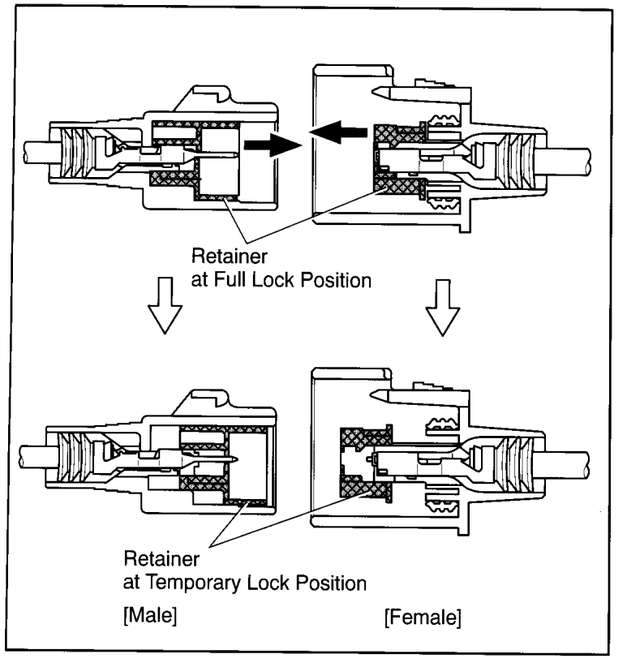


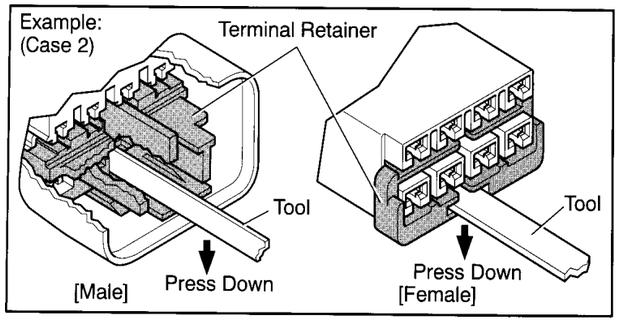
"Case 2"

Open the secondary locking device.









[B] For Waterproof Type Connector

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

Example:

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

"Case 1"

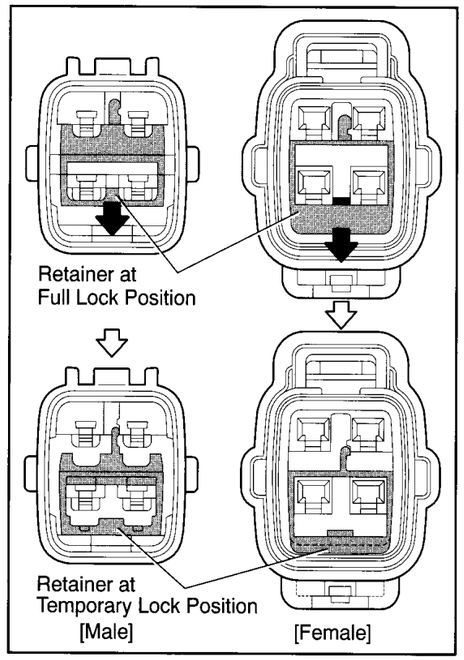
Type where terminal retainer is pulled up to the temporary lock position (Pull Type).

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

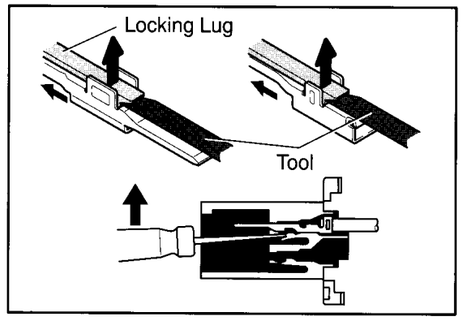
HINT : The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.

"Case 2"

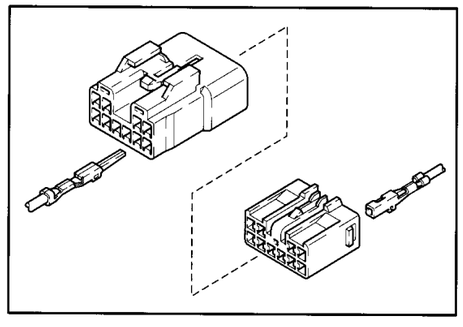
Type which cannot be pulled as far as Power Lock insert the tool straight into the access hole of terminal retainer as shown.



Push the terminal retainer down to the temporary lock position.



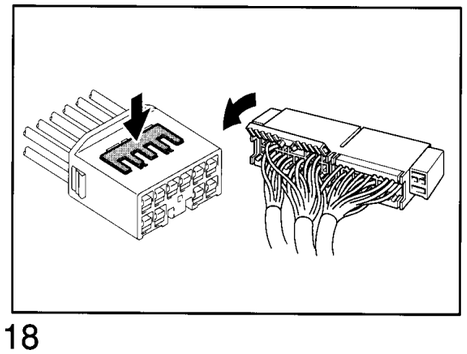
(c) Release the locking lug from terminal and pull the terminal out from rear.



4. INSTALL TERMINAL TO CONNECTOR

(a) Insert the terminal.

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



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

5. CONNECT CONNECTOR

ABBREVIATIONS

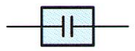
The following abbreviations are used in this manual.

ABS	=	Anti-Lock Brake System
A/C	=	Air Conditioner
A/T	=	Automatic Transaxle
COMB.	=	Combination
DLC3	=	Data Link Connector 3
ECT	=	Electronic Control Transmission
ECU	=	Electronic Control Unit
EFI	=	Electronic Fuel Injection
EVAP	=	Evaporative Emission
ISC	=	Idle Speed Control
J/B	=	Junction Block
LH	=	Left-Hand
LHD	=	Left-Hand Drive
M/T	=	Manual Transaxle
O/D	=	Overdrive
R/B	=	Relay Block
RH	=	Right-Hand
RHD	=	Right-Hand Drive
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	Temperature
VSV	=	Vacuum Switching Valve
w/	=	With
w/o	=	Without

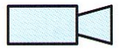
* The titles given inside the components are the names of the terminals (terminal codes) and are not treated as being abbreviations.

E GLOSSARY OF TERMS AND SYMBOLS

BATTERY
Stores chemical energy and converts it into electrical energy. Provides DC current for the auto's various electrical circuits.



CAPACITOR (Condenser)
A small holding unit for temporary storage of electrical voltage.



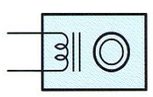
CIGARETTE LIGHTER
An electric resistance heating element.

CIRCUIT BREAKER
Basically a reusable fuse, a circuit breaker will heat and open if too much current flows through it. Some units automatically reset when cool, others must be manually reset.

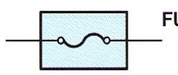
DIODE
A semiconductor which allows current flow in only one direction.

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.

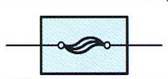
PHOTODIODE
The photodiode is a semiconductor which controls the current flow according to the amount of light.



DISTRIBUTOR, IIA
Channels high-voltage current from the ignition coil to the individual spark plugs.



(for Medium Current Fuse)

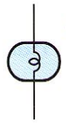


(for High Current Fuse or Fusible Link)

FUSE
A thin metal strip which burns through when too much current flows through it, thereby stopping current flow and protecting a circuit from damage.

FUSIBLE LINK
A heavy-gauge wire placed in high amperage circuits which burns through on overloads, thereby protecting the circuit. The numbers indicate the crosssection surface area of the wires.

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.

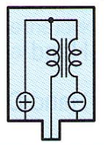


1. SINGLE FILAMENT

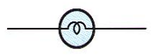
2. DOUBLE FILAMENT

HEADLIGHTS
Current flow causes a headlight filament to heat up and emit light. A headlight may have either a single (1) filament or a double (2) filament

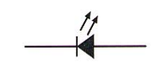
HORN
An electric device which sounds a loud audible signal.



IGNITION COIL
Converts low-voltage DC current into high-voltage ignition current for firing the spark plugs.



LIGHT
Current flow through a filament causes the filament to heat up and emit light.

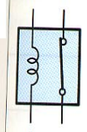


LED (LIGHT EMITTING DIODE)
Upon current flow, these diodes emit light without producing the heat of a comparable light.

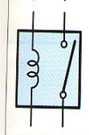
METER, ANALOG
Current flow activates a magnetic coil which causes a needle to move, thereby providing a relative display against a background calibration.

METER, DIGITAL
Current flow activates one or many LED's, LCD's, or fluorescent displays, which provide a relative or digital display.

MOTOR
A power unit which converts electrical energy into mechanical energy, especially rotary motion.

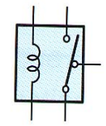


1. NORMALLY CLOSED



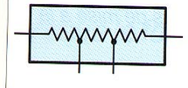
2. NORMALLY OPEN

RELAY
Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.



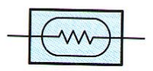
RELAY, DOUBLE THROW
A relay which passes current through one set of contacts or the other.

RESISTOR
An electrical component with a fixed resistance, placed in a circuit to reduce voltage to a specific value.

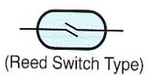


RESISTOR, TAPPED
A resistor which supplies two or more different non adjustable resistance values.

RESISTOR, VARIABLE or RHEOSTAT
A controllable resistor with a variable rate of resistance.
Also called a potentiometer or rheostat.

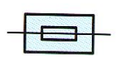


SENSOR (Thermistor)
A resistor which varies its resistance with temperature.

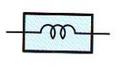


(Reed Switch Type)

SENSOR, SPEED
Uses magnetic impulses to open and close a switch to create a signal for activation of other components.

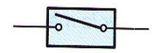


SHORT PIN
Used to provide an unbroken connection within a junction block.

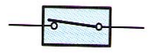


SOLENOID
An electromagnetic coil which forms a magnetic field when current flows, to move a plunger, etc.

SPEAKER
An electromechanical device which creates sound waves from current flow.

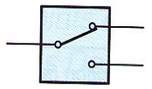


1. NORMALLY OPEN

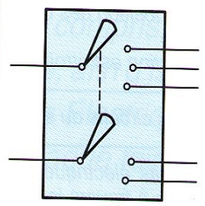


2. NORMALLY CLOSED

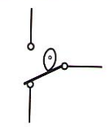
SWITCH, MANUAL
Opens and closes circuits, thereby stopping (1) or allowing (2) current flow.



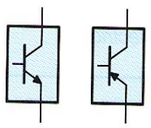
SWITCH, DOUBLE THROW
A switch which continuously passes current through one set of contacts or the other.



SWITCH, IGNITION
A key operated switch with several positions which allows various circuits, particularly the primary ignition circuit, to become operational.

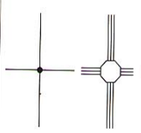


SWITCH, WIPER PARK
Automatically returns wipers to the stop position when the wiper switch is turned off.



TRANSISTOR
A solidstate device typically used as an electronic relay; stops or passes current depending on the voltage applied at "base".

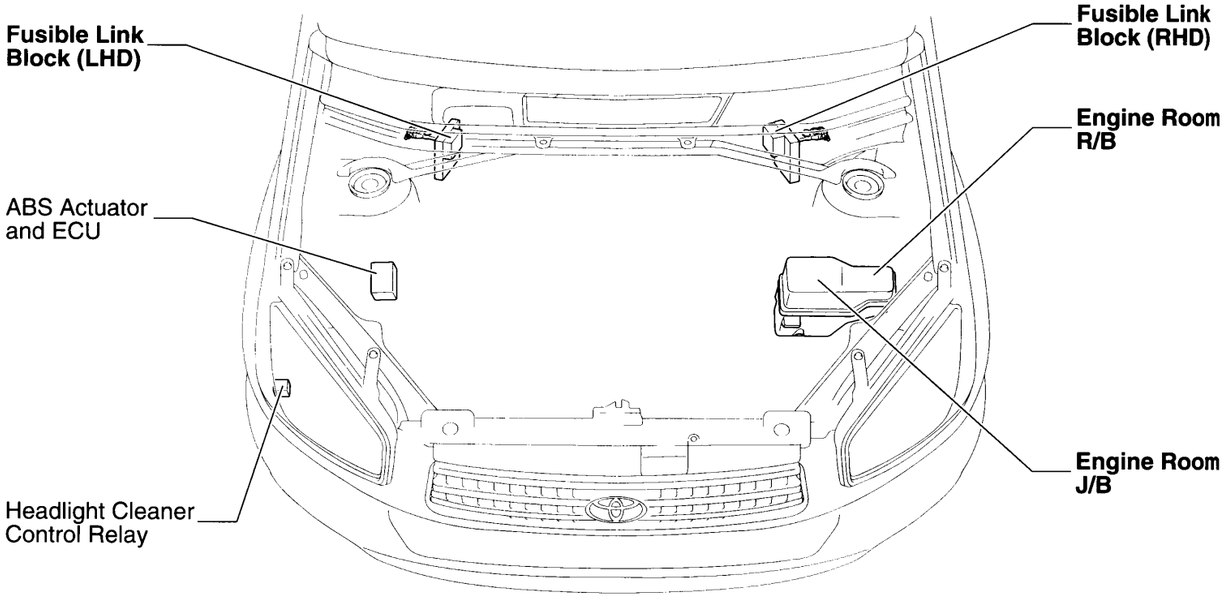
(1) NOT CONNECTED



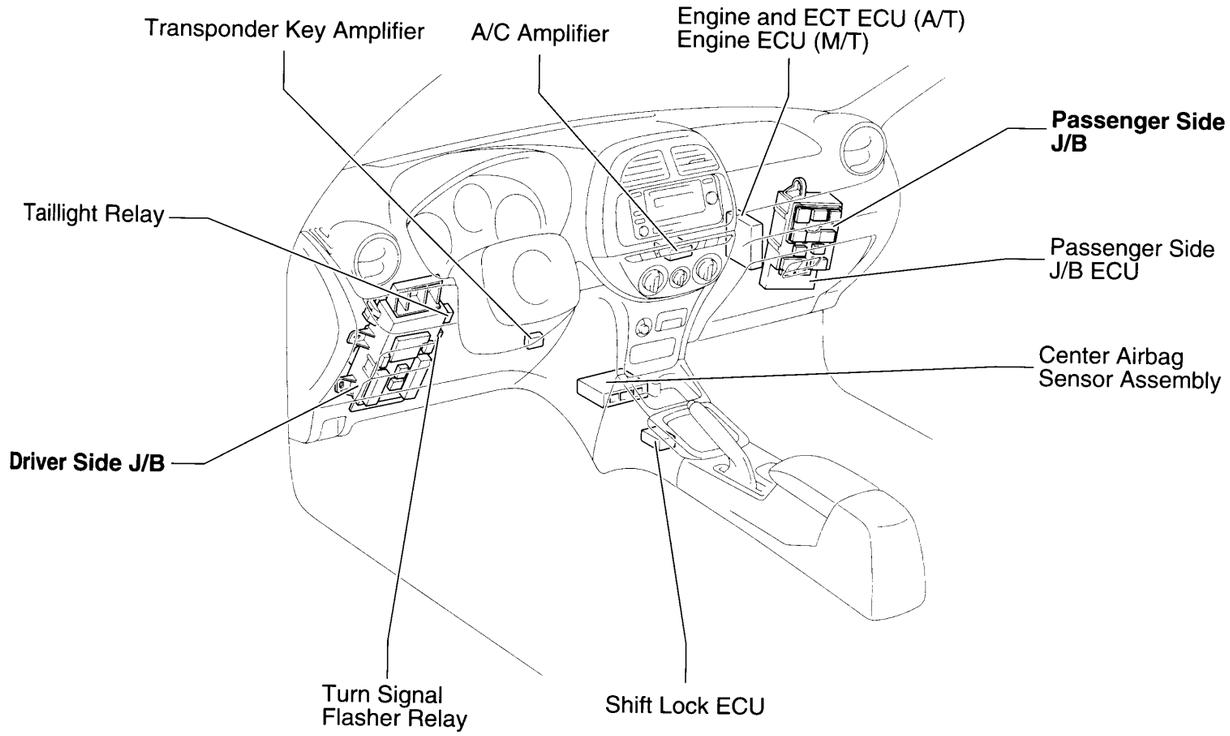
(2) SPLICED

WIRES
Wires are always drawn as straight lines on wiring diagrams.
Crossed wires (1) without a black dot at the junction are not joined;
crossed wires (2) with a black dot or octagonal (⬡) mark at the junction are spliced (joined) connections.

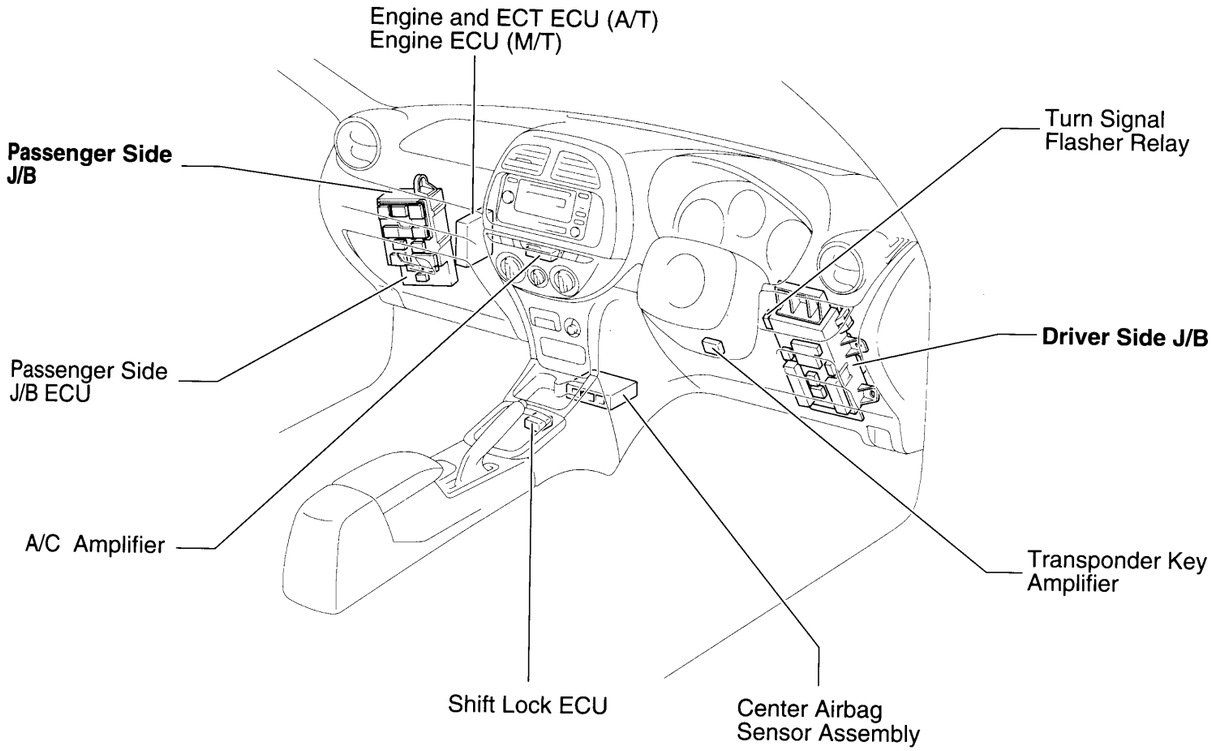
[Engine Compartment]



[Instrument Panel]
(LHD)



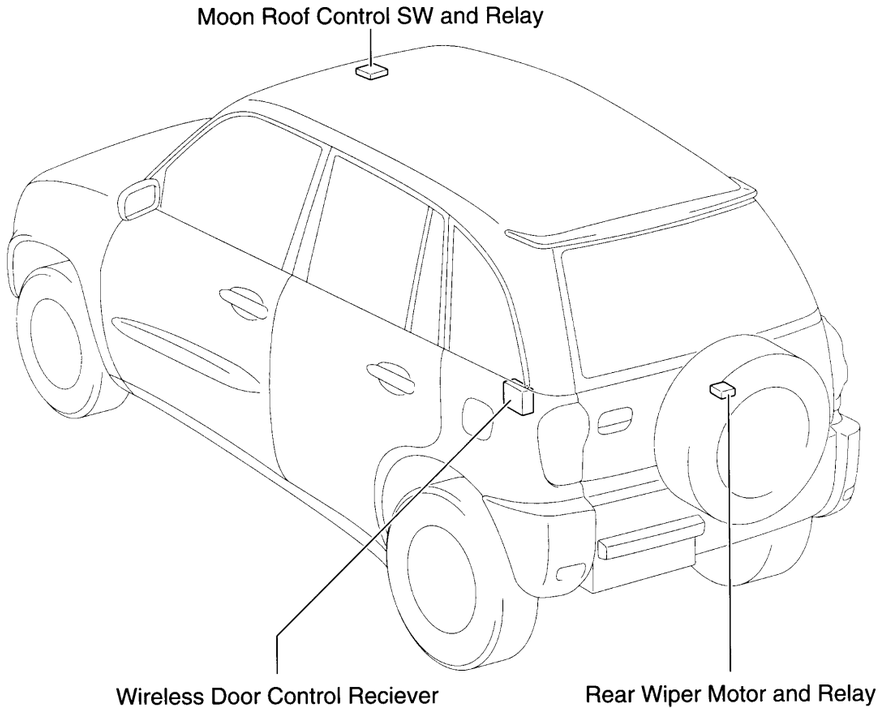
(RHD)



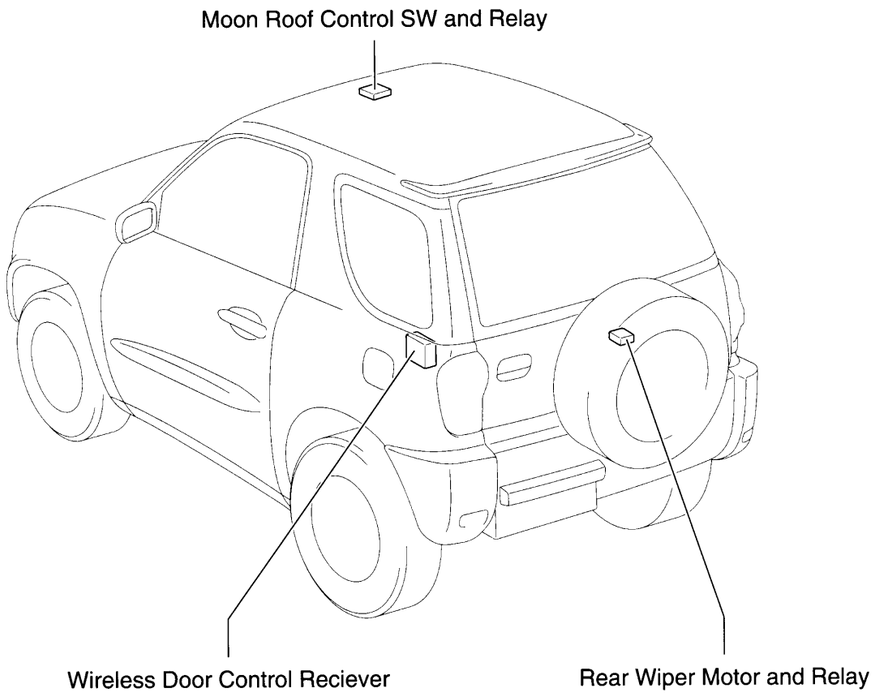
F RELAY LOCATIONS

[Body]

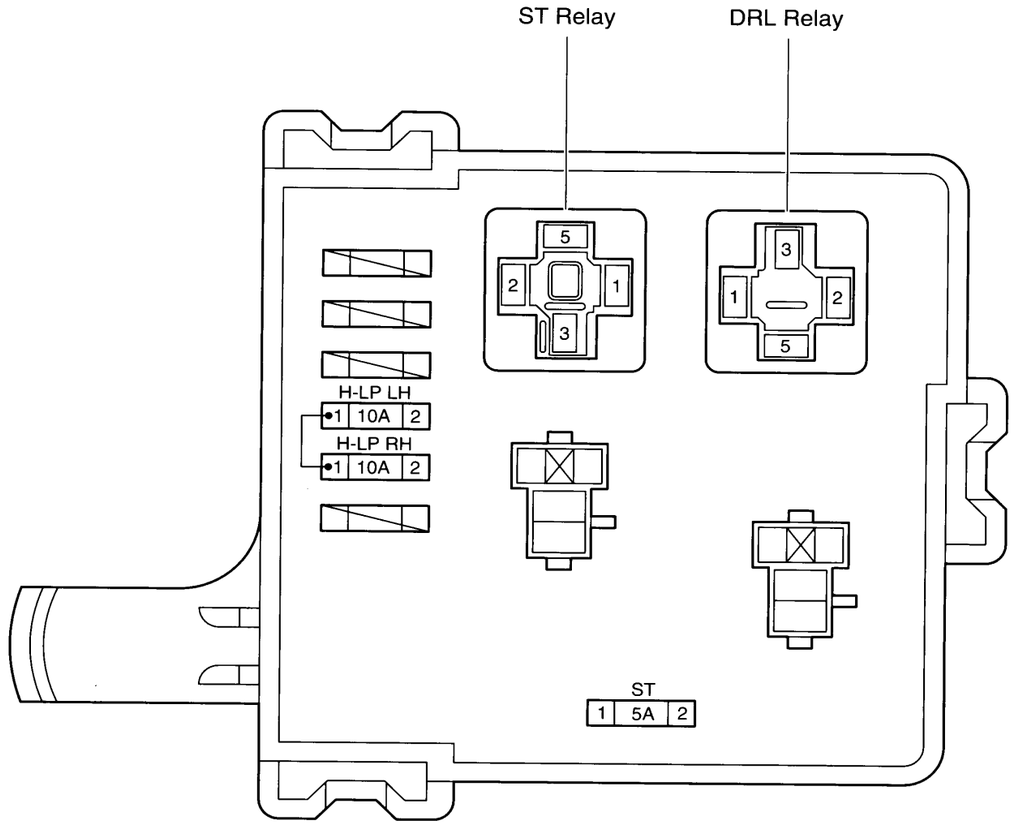
(5-Door)



(3-Door)

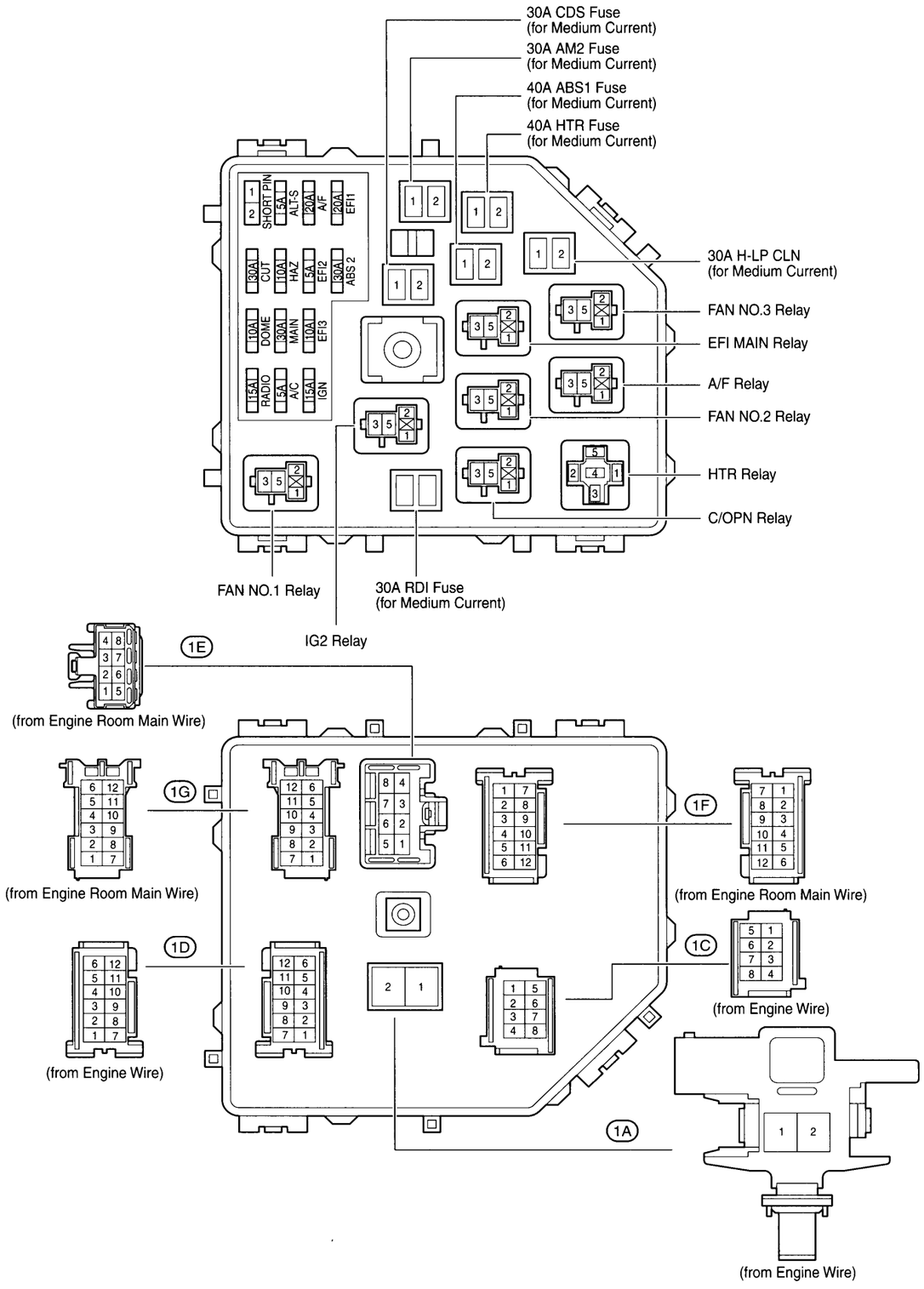


① : Engine Room R/B	Engine Compartment Left (See Page 76)

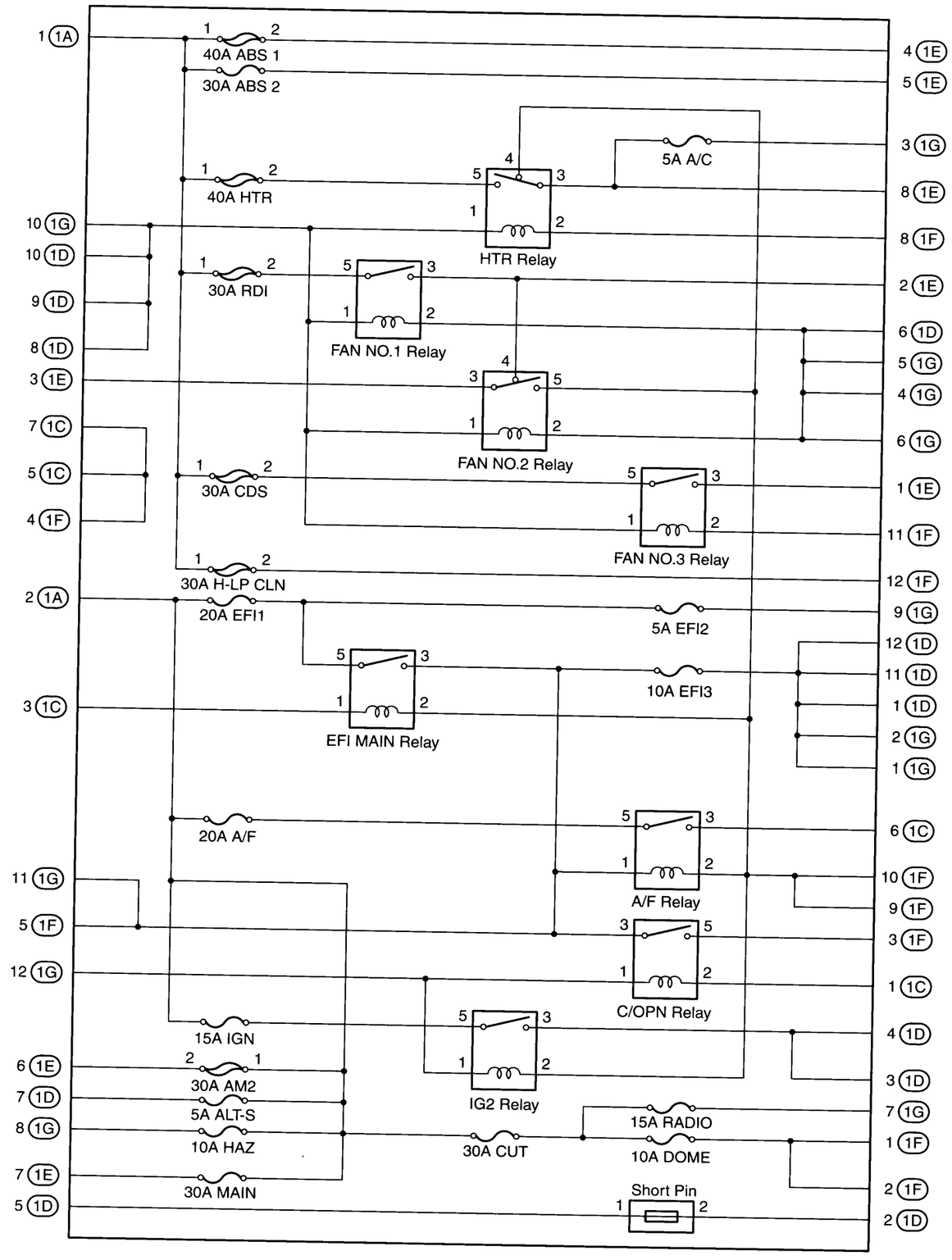


F RELAY LOCATIONS

: Engine Room J/B	Engine Compartment Left (See Page 76)

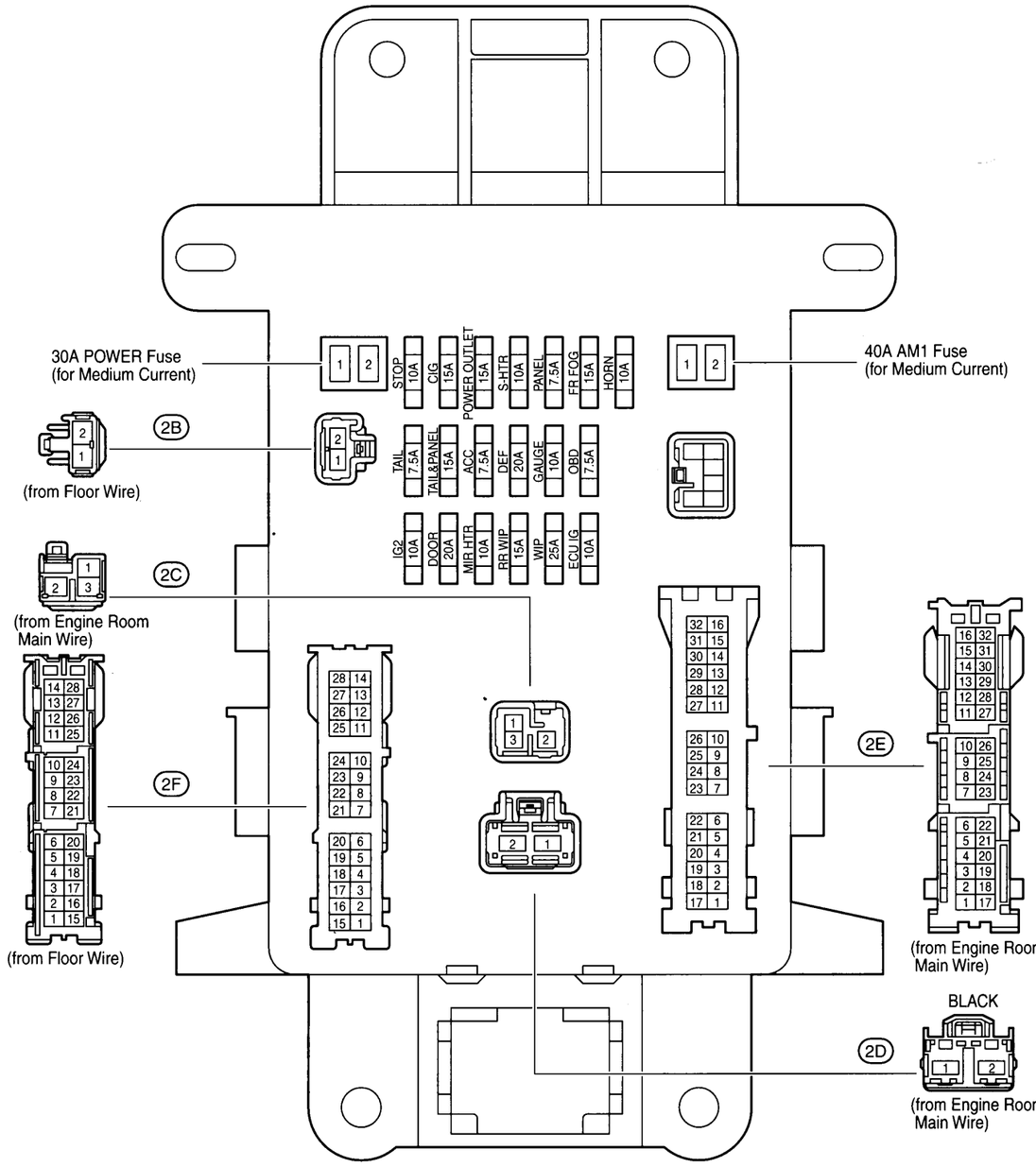


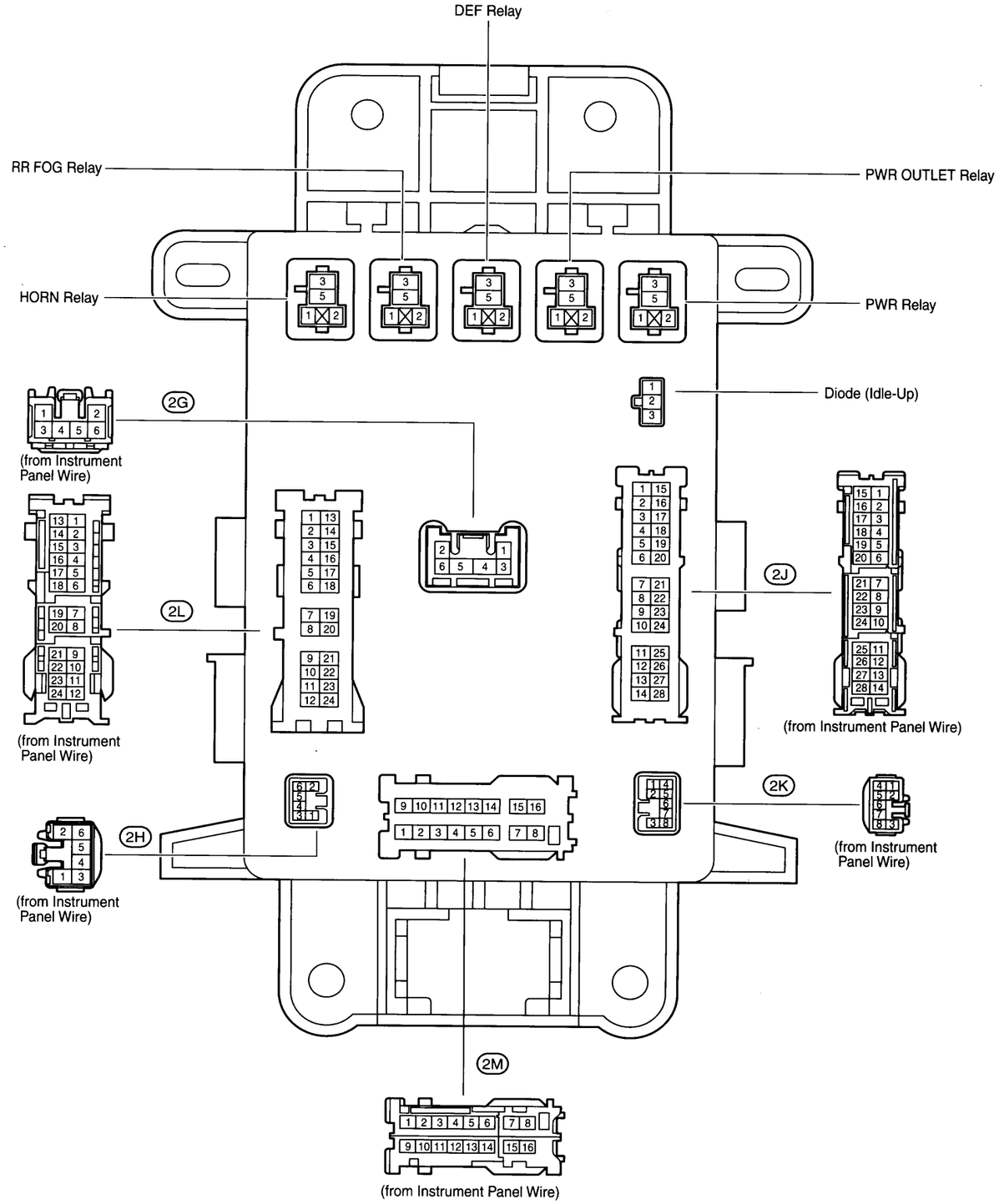
[Engine Room J/B Inner Circuit]



F RELAY LOCATIONS

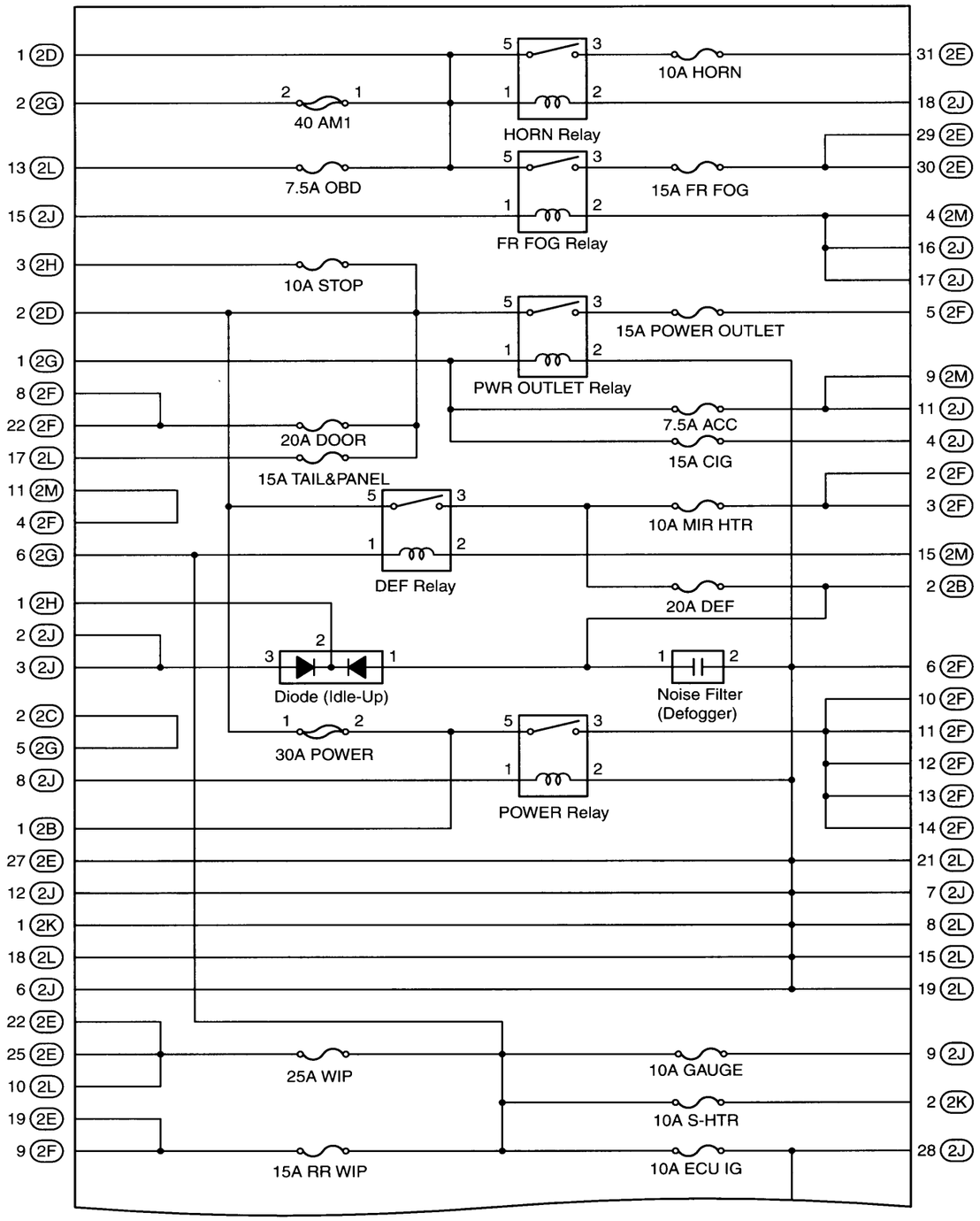
: Driver Side J/B	Lower Finish Panel (See Page 77)





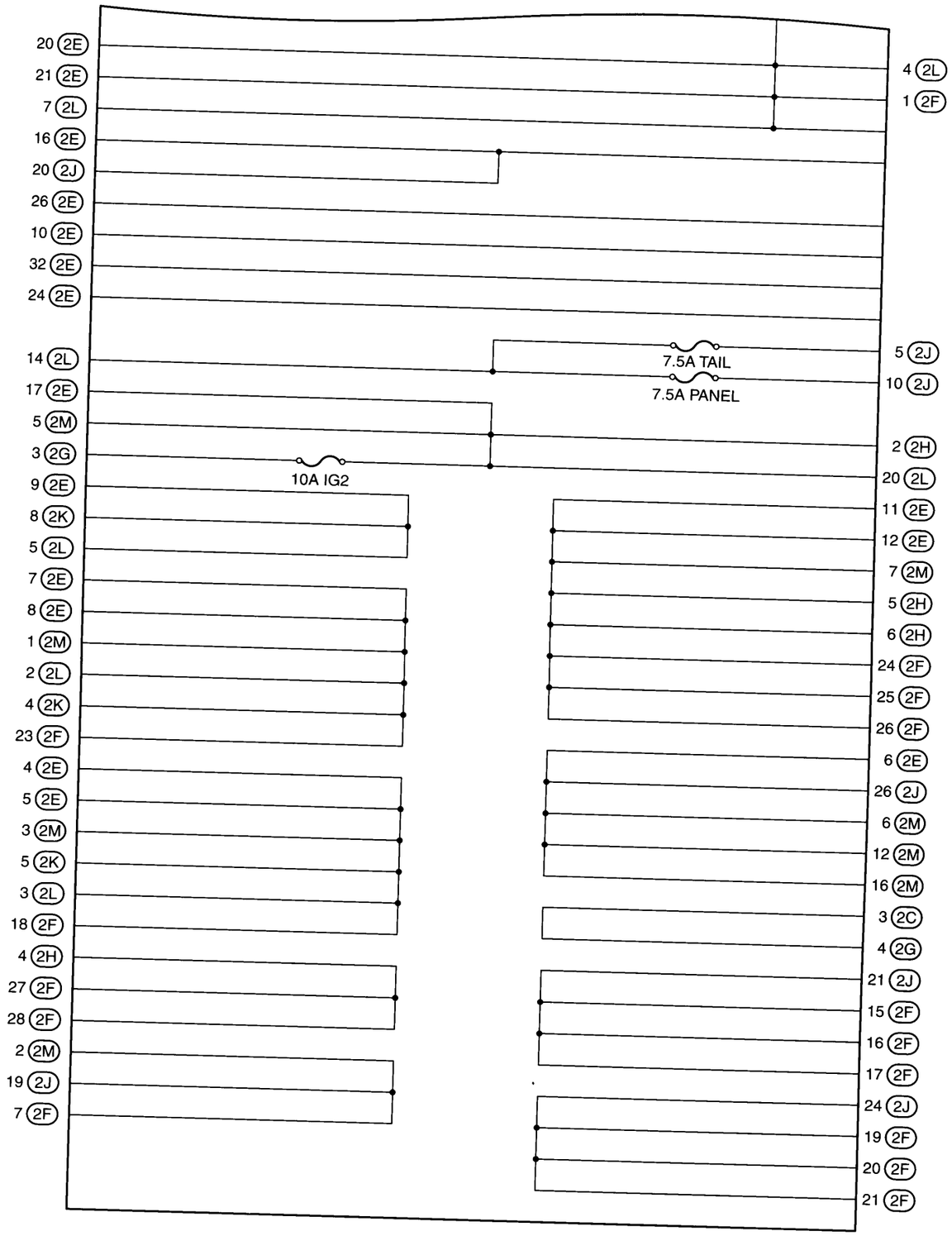
F RELAY LOCATIONS

[Driver Side J/B Inner Circuit]

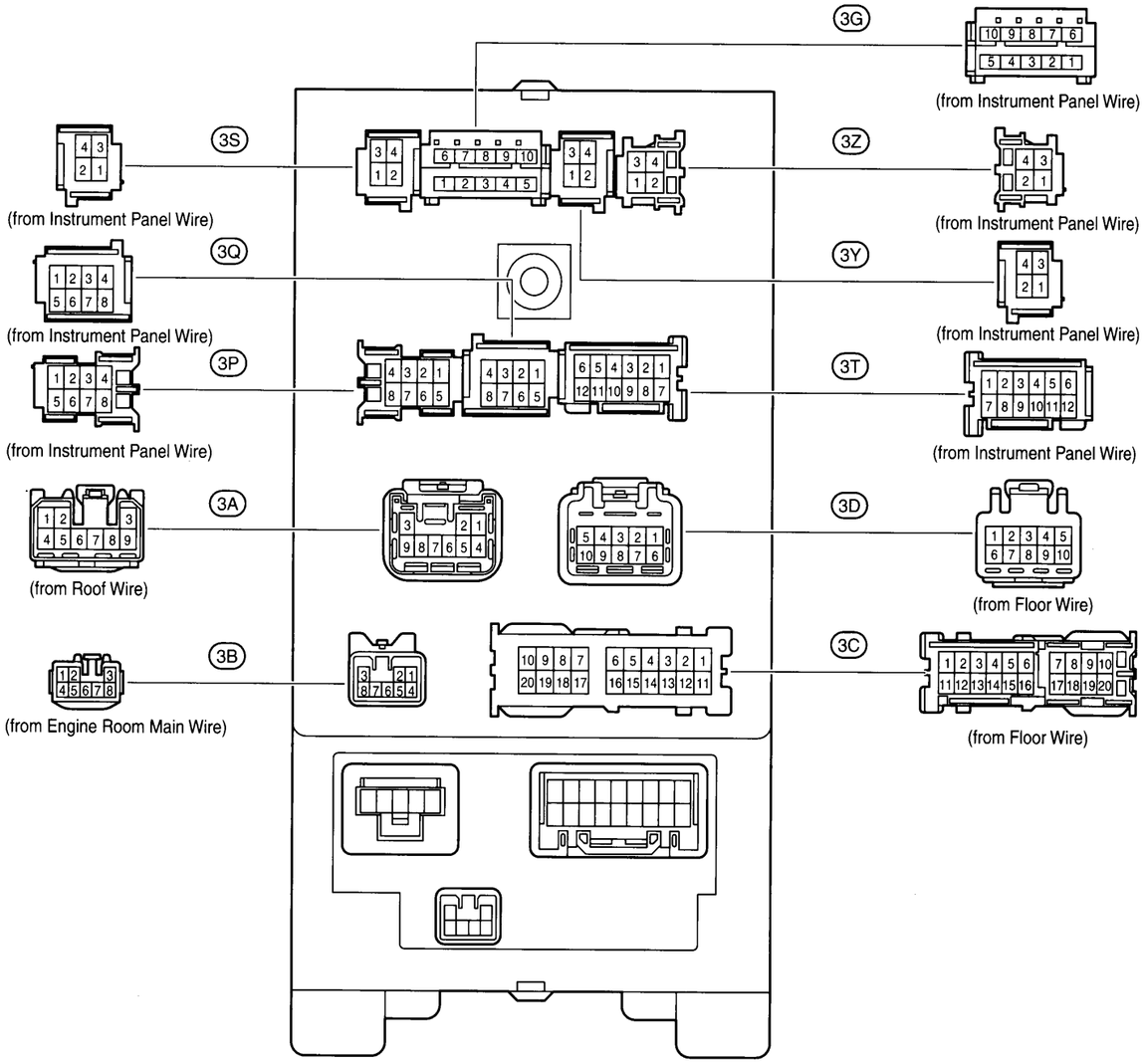


Cont. next page

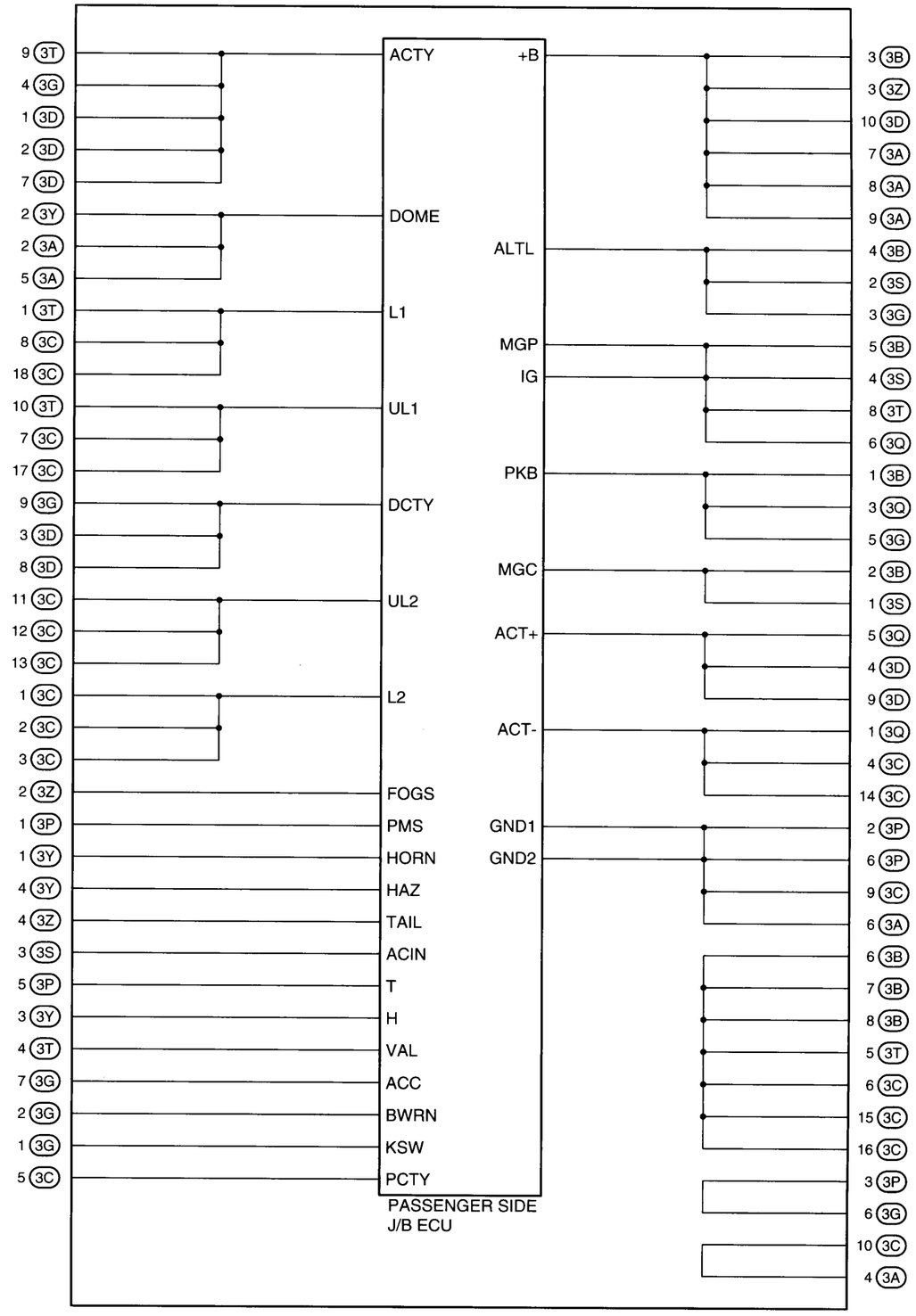
Cont'd



: Passenger Side J/B	Behind the Glove Box (See Page 77)

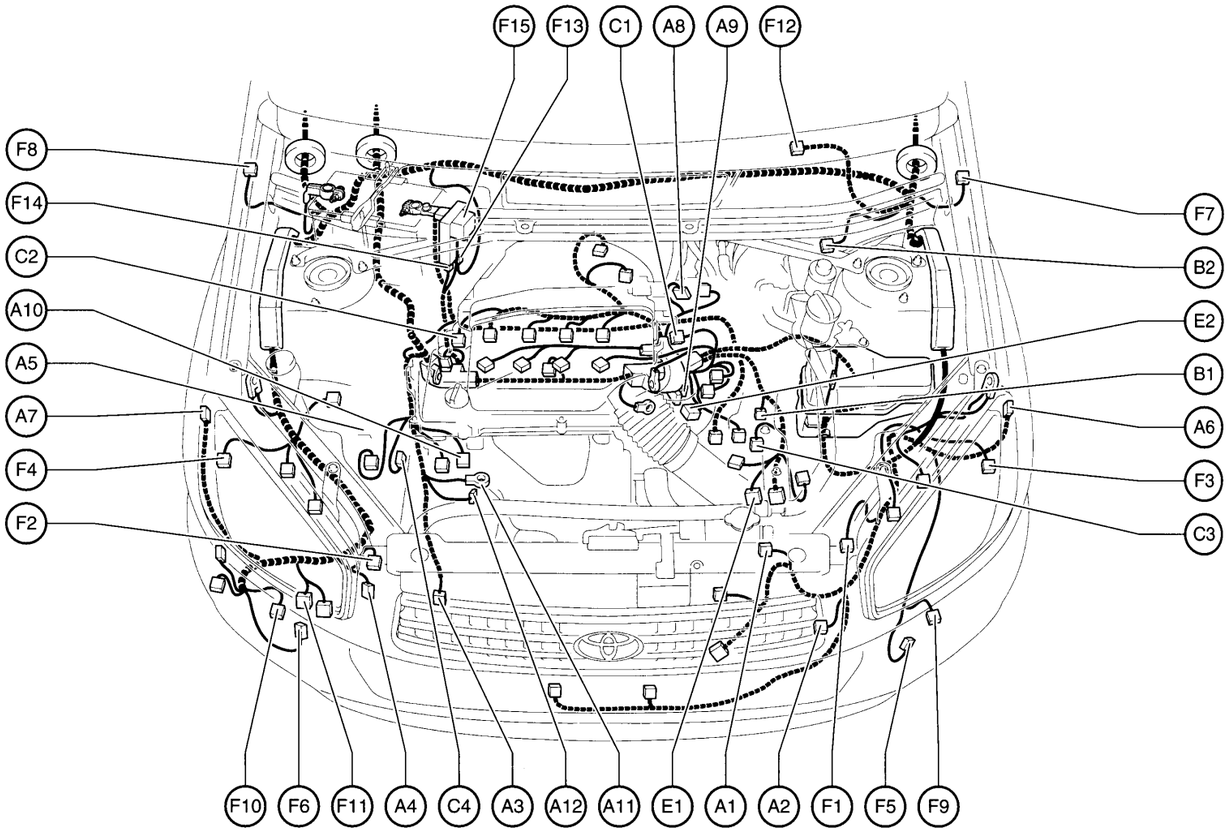


[Passenger Side J/B Inner Circuit]



Position of Parts in Engine Compartment

[LHD : 1AZ-FE]



A 1 A/C Condenser Fan Motor
A 2 A/C Evaporator Temp. Sensor
A 3 A/C Magnetic Clutch and Lock Sensor
A 4 A/C Triple Pressure SW
(A/C Dual and Single Pressure SW)
A 5 ABS Actuator and ECU
A 6 ABS Speed Sensor Front LH
A 7 ABS Speed Sensor Front RH
A 8 Air Flow Meter
A 9 Air Fuel Ratio Sensor (Bank 1 Sensor 1)
A10 Air Fuel Ratio Sensor (Bank 2 Sensor 1)
A11 Alternator
A12 Alternator

B 1 Back-Up Light SW
B 2 Brake Fluid Level Warning SW

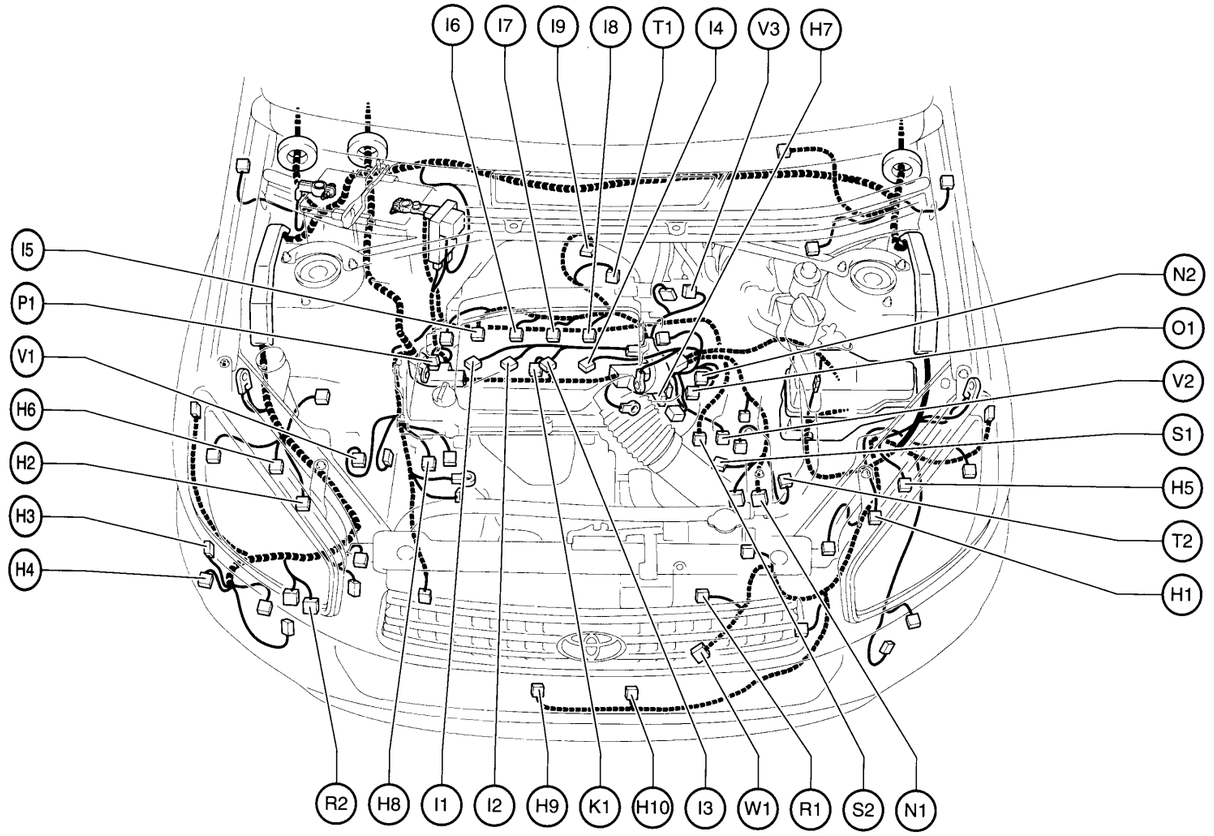
C 1 Camshaft Position Sensor
C 2 Camshaft Timing Oil Control Valve
C 3 Counter Gear Speed Sensor
C 4 Crankshaft Position Sensor

E 1 ECT Solenoid
E 2 EFI Water Temp. Sensor

F 1 Front Airbag Sensor LH
F 2 Front Airbag Sensor RH
F 3 Front Clearance Light LH
F 4 Front Clearance Light RH
F 5 Front Fog Light LH
F 6 Front Fog Light RH
F 7 Front Side Turn Signal Light LH
F 8 Front Side Turn Signal Light RH
F 9 Front Turn Signal Light LH
F10 Front Turn Signal Light RH
F11 Front Washer Motor
F12 Front Wiper Motor
F13 Fusible Link Block
F14 Fusible Link Block
F15 Fusible Link Block

Position of Parts in Engine Compartment

[LHD : 1AZ-FE]



H 1 Headlight Beam Level Control Actuator LH
H 2 Headlight Beam Level Control Actuator RH
H 3 Headlight Cleaner Control Relay
H 4 Headlight Cleaner Motor
H 5 Headlight LH
H 6 Headlight RH
H 7 Heated Oxygen Sensor (Bank 1 Sensor 2)
H 8 Heated Oxygen Sensor (Bank 2 Sensor 2)
H 9 Horn (High)
H10 Horn (Low)

I 1 Ignition Coil and Igniter No.1
I 2 Ignition Coil and Igniter No.2
I 3 Ignition Coil and Igniter No.3
I 4 Ignition Coil and Igniter No.4
I 5 Injector No.1
I 6 Injector No.2
I 7 Injector No.3
I 8 Injector No.4
I 9 ISC Valve

K 1 Knock Sensor

N 1 Neutral Start SW, A/T Indicator Light SW and Back-Up Light SW
N 2 Noise Filter (Ignition)

O 1 Oil Pressure SW

P 1 Power Steering Oil Pressure SW

R 1 Radiator Fan Motor
R 2 Rear Washer Motor

S 1 Starter
S 2 Starter

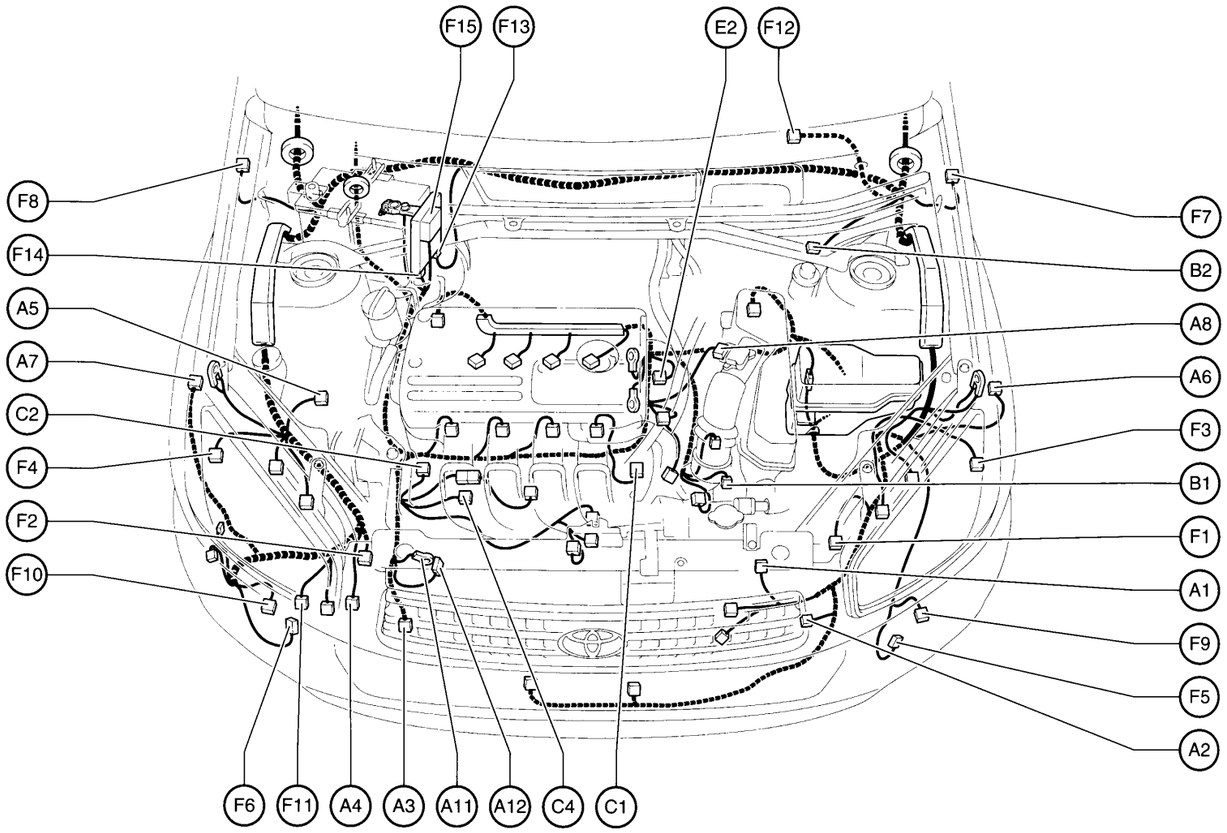
T 1 Throttle Position Sensor
T 2 Turbine Speed Sensor

V 1 Variable Resistor
V 2 Vehicle Speed Sensor (Combination Meter)
V 3 VSV (EVAP)

W 1 Water Temp. SW

Position of Parts in Engine Compartment

[LHD : 1ZZ-FE]



A 1 A/C Condenser Fan Motor
A 2 A/C Evaporator Temp. Sensor
A 3 A/C Magnetic Clutch and Lock Sensor
A 4 A/C Triple Pressure SW
(A/C Dual and Single Pressure SW)
A 5 ABS Actuator and ECU
A 6 ABS Speed Sensor Front LH
A 7 ABS Speed Sensor Front RH
A 8 Air Flow Meter
A11 Alternator
A12 Alternator

B 1 Back-Up Light SW
B 2 Brake Fluid Level Warning SW

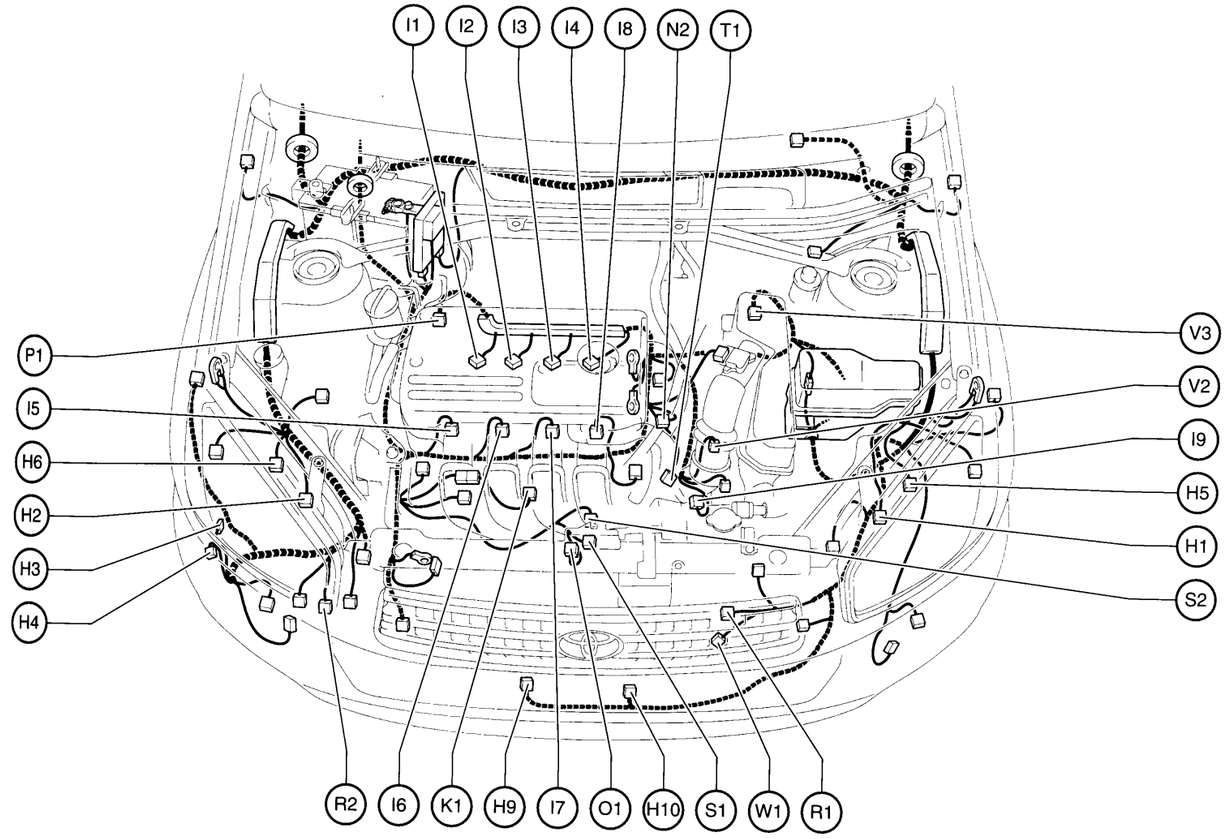
C 1 Camshaft Position Sensor
C 2 Camshaft Timing Oil Control Valve
C 4 Crankshaft Position Sensor

E 2 EFI Water Temp. Sensor

F 1 Front Airbag Sensor LH
F 2 Front Airbag Sensor RH
F 3 Front Clearance Light LH
F 4 Front Clearance Light RH
F 5 Front Fog Light LH
F 6 Front Fog Light RH
F 7 Front Side Turn Signal Light LH
F 8 Front Side Turn Signal Light RH
F 9 Front Turn Signal Light LH
F10 Front Turn Signal Light RH
F11 Front Washer Motor
F12 Front Wiper Motor
F13 Fusible Link Block
F14 Fusible Link Block
F15 Fusible Link Block

Position of Parts in Engine Compartment

[LHD : 1ZZ-FE]



H 1 Headlight Beam Level Control Actuator LH
H 2 Headlight Beam Level Control Actuator RH
H 3 Headlight Cleaner Control Relay
H 4 Headlight Cleaner Motor
H 5 Headlight LH
H 6 Headlight RH
H 9 Horn (High)
H10 Horn (Low)

I 1 Ignition Coil and Igniter No.1
I 2 Ignition Coil and Igniter No.2
I 3 Ignition Coil and Igniter No.3
I 4 Ignition Coil and Igniter No.4
I 5 Injector No.1
I 6 Injector No.2
I 7 Injector No.3
I 8 Injector No.4
I 9 ISC Valve

K 1 Knock Sensor

N 2 Noise Filter (Ignition)

O 1 Oil Pressure SW

P 1 Power Steering Oil Pressure SW

R 1 Radiator Fan Motor
R 2 Rear Washer Motor

S 1 Starter
S 2 Starter

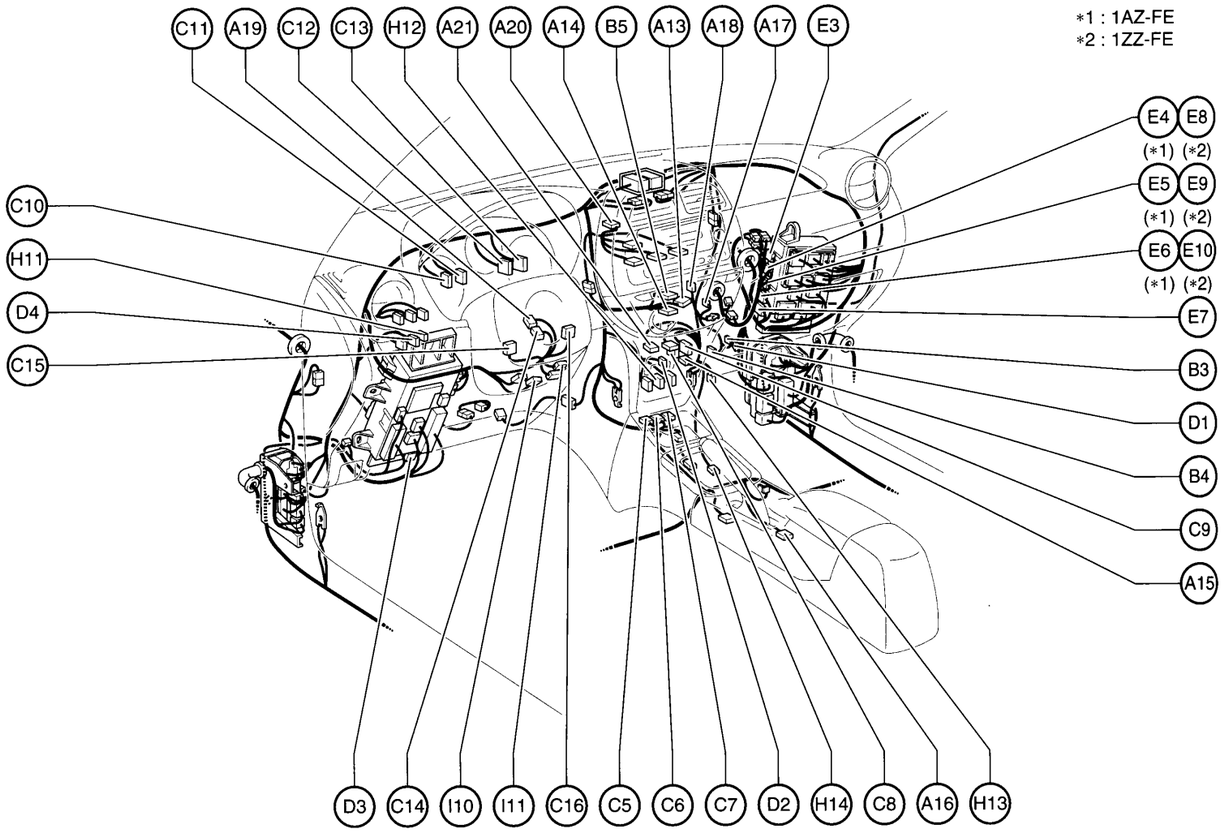
T 1 Throttle Position Sensor

V 2 Vehicle Speed Sensor (Combination Meter)
V 3 VSV (EVAP)

W 1 Water Temp. SW

Position of Parts in Instrument Panel

[LHD]



A13 A/C Amplifier
A14 A/C Control SW
A15 A/C Thermistor
A16 ABS Deceleration Sensor
A17 Air Inlet Control Servo Motor
A18 Airbag Squib (Front Passenger's Airbag Assembly)
A19 Airbag Squib (Steering Wheel Pad)
A20 Antenna Amplifier
A21 Ashtray Illumination

B 3 Blower Motor
B 4 Blower Resistor
B 5 Blower SW

C 5 Center Airbag Sensor Assembly
C 6 Center Airbag Sensor Assembly
C 7 Center Airbag Sensor Assembly
C 8 Cigarette Lighter
C 9 Cigarette Lighter Illumination
C10 Combination Meter
C11 Combination Meter
C12 Combination Meter
C13 Combination Meter
C14 Combination SW
C15 Combination SW
C16 Combination SW

D 1 Diode (Fan)
D 2 Diode (Seat Heater)
D 3 DLC3
D 4 Door Lock Control SW (Driver's Side)

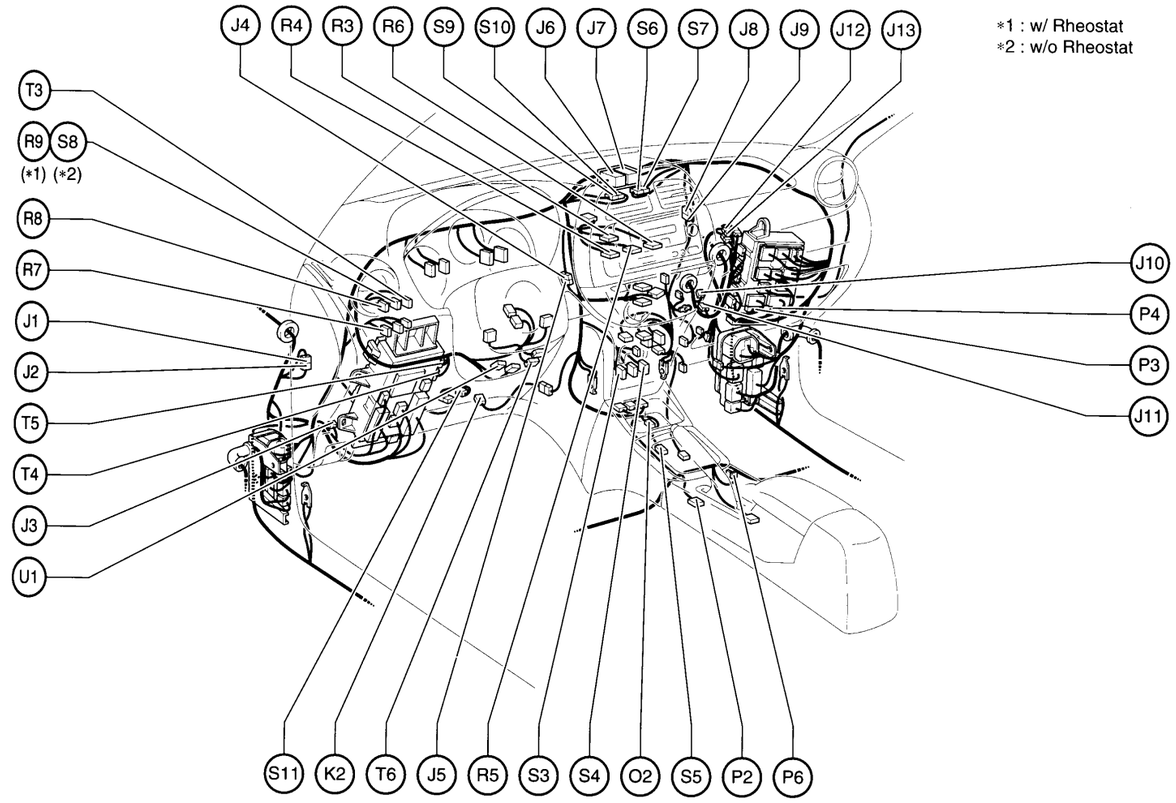
E 3 Engine and ECT ECU (A/T) or Engine ECU (M/T)
E 4 Engine and ECT ECU (A/T) or Engine ECU (M/T)
E 5 Engine and ECT ECU (A/T) or Engine ECU (M/T)
E 6 Engine and ECT ECU (A/T) or Engine ECU (M/T)
E 7 Engine and ECT ECU (A/T) or Engine ECU (M/T)
E 8 Engine ECU
E 9 Engine ECU
E10 Engine ECU

H11 Headlight Beam Level Control SW
H12 Headlight Cleaner SW
H13 Heated Oxygen Sensor (Bank 1 Sensor 1)
H14 Heated Oxygen Sensor (Bank 1 Sensor 2)

I 10 Ignition SW
I 11 Ignition Key Cylinder Light

Position of Parts in Instrument Panel

[LHD]



J 1 Junction Connector
J 2 Junction Connector
J 3 Junction Connector
J 4 Junction Connector
J 5 Junction Connector
J 6 Junction Connector
J 7 Junction Connector
J 8 Junction Connector
J 9 Junction Connector
J10 Junction Connector
J11 Junction Connector
J12 Junction Connector
J13 Junction Connector

K 2 Kick Down SW

O 2 O/D Main SW

P 2 Parking Brake SW
P 3 Passenger Side J/B ECU
P 4 Passenger Side J/B ECU
P 6 Power Outlet (Front)

R 3 Radio and Player
R 4 Radio and Player
R 5 Radio and Player
R 6 Radio and Player
R 7 Rear Fog Light SW
R 8 Remote Control Mirror SW
R 9 Rheostat

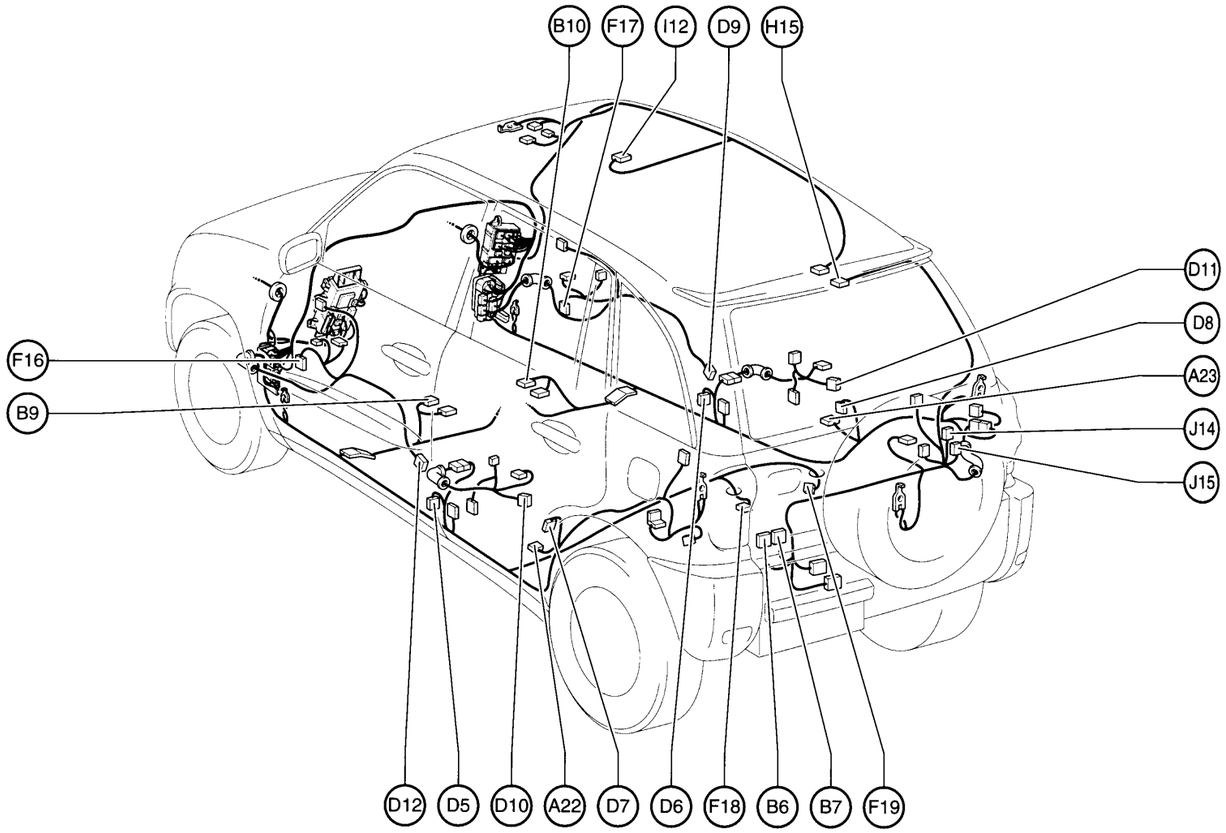
S 3 Seat Heater SW (Driver's Side)
S 4 Seat Heater SW (Front Passenger's Side)
S 5 Shift Lock ECU
S 6 Short Connector (Light)
S 7 Short Connector (Light)
S 8 Short Connector (Rheostat)
S 9 Short Connector (SRS)
S10 Short Connector (SRS)
S11 Stop Light SW

T 3 Theft Deterrent Indicator Light
T 4 Taillight Relay
T 5 Turn Signal Flasher Relay
T 6 Transponder Key Amplifier

U 1 Unlock Warning SW

Position of Parts in Body

[LHD : 5-Door]



A22 ABS Speed Sensor Rear LH
A23 ABS Speed Sensor Rear RH

B 6 Back Door Courtesy SW
B 7 Back Door Key Lock and Unlock SW and Back Door Lock Motor
B 9 Buckle SW (Driver's Side)
B10 Buckle SW (Front Passenger's Side) and Seat Belt Warning Occupant Detection Sensor

D 5 Door Courtesy SW (Driver's Side)
D 6 Door Courtesy SW (Front Passenger's Side)
D 7 Door Courtesy SW Rear LH
D 8 Door Courtesy SW Rear RH
D 9 Door Lock Motor and Door Key Lock and Unlock SW (Front Passenger's Side)
D10 Door Lock Motor Rear LH
D11 Door Lock Motor Rear RH
D12 Door Lock Motor, Door Key Lock and Unlock SW and Door Unlock Detection SW (Driver's Side)

F16 Front Speaker LH
F17 Front Speaker RH
F18 Fuel Pump and Sender
F19 Fuel Sender (Sub)

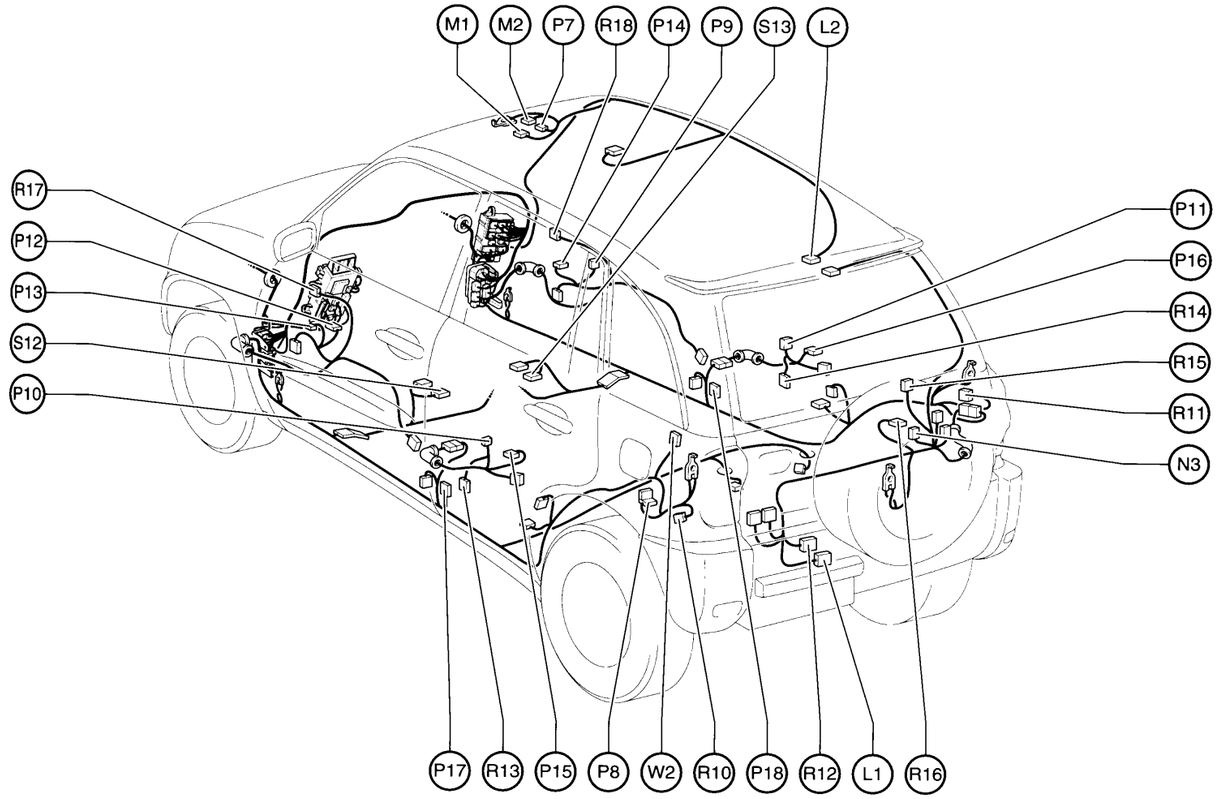
H15 High Mounted Stop Light

I 12 Interior Light

J 14 Junction Connector
J 15 Junction Connector

Position of Parts in Body

[LHD : 5-Door]



L 1 License Plate Light
L 2 Luggage Compartment Light

M 1 Moon Roof Control SW and Relay
M 2 Moon Roof Motor and Limit SW

N 3 Noise Filter (Defogger)

P 7 Personal Light
P 8 Power Outlet (Rear)
P 9 Power Window Control SW (Front Passenger's Side)
P10 Power Window Control SW Rear LH
P11 Power Window Control SW Rear RH
P12 Power Window Master SW
P13 Power Window Motor (Driver's Side)
P14 Power Window Motor (Front Passenger's Side)
P15 Power Window Motor Rear LH
P16 Power Window Motor Rear RH
P17 Pretensioner LH
P18 Pretensioner RH

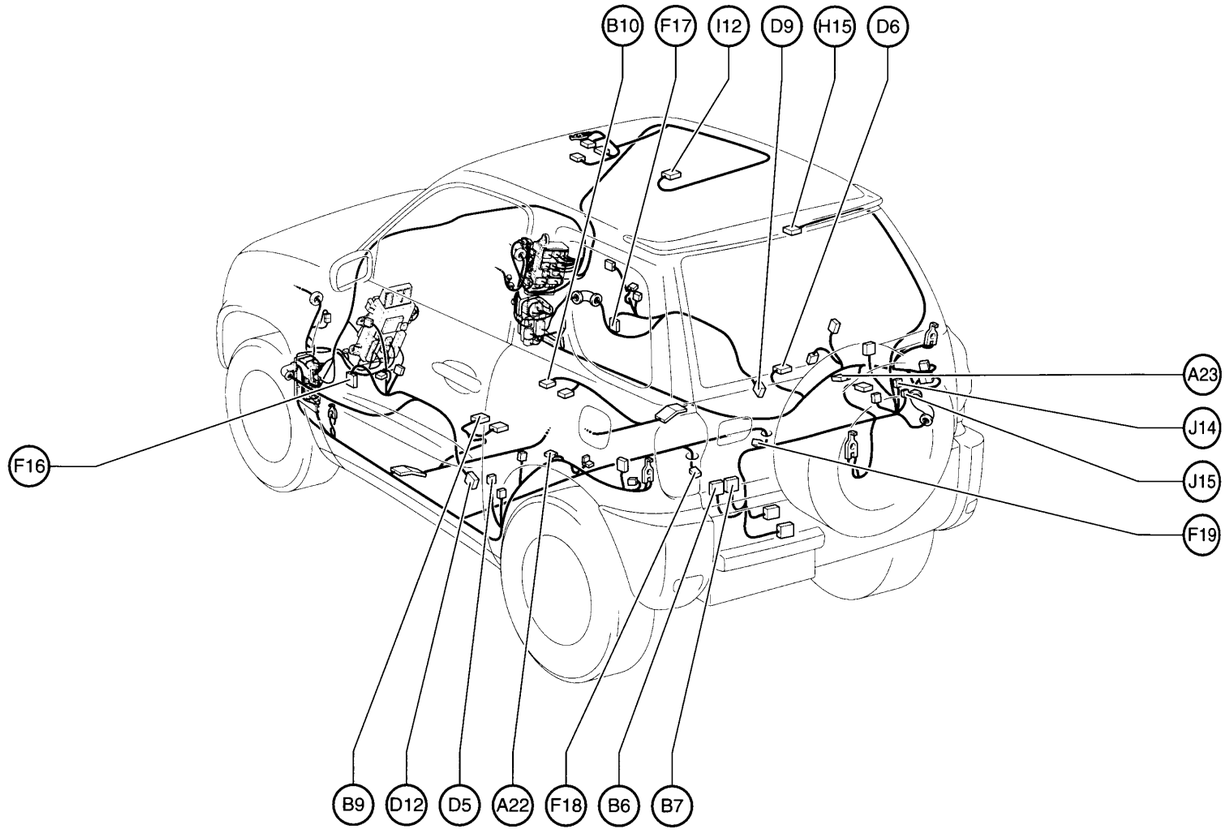
R10 Rear Combination Light LH
R11 Rear Combination Light RH
R12 Rear Fog Light
R13 Rear Speaker LH
R14 Rear Speaker RH
R15 Rear Window Defogger
R16 Rear Wiper Motor and Relay
R17 Remote Control Mirror LH
R18 Remote Control Mirror RH

S12 Seat Heater (Driver's Side)
S13 Seat Heater (Front Passenger's Side)

W 2 Wireless Door Control Receiver

Position of Parts in Body

[LHD : 3-Door]



A22 ABS Speed Sensor Rear LH
A23 ABS Speed Sensor Rear RH

B 6 Back Door Courtesy SW
B 7 Back Door Key Lock and Unlock SW and Back Door Lock Motor
B 9 Buckle SW (Driver's Side)
B10 Buckle SW (Front Passenger's Side) and Seat Belt Warning Occupant Detection Sensor

D 5 Door Courtesy SW (Driver's Side)
D 6 Door Courtesy SW (Front Passenger's Side)
D 9 Door Lock Motor and Door Key Lock and Unlock SW (Front Passenger's Side)
D12 Door Lock Motor, Door Key Lock and Unlock SW and Door Unlock Detection SW (Driver's Side)

F16 Front Speaker LH
F17 Front Speaker RH
F18 Fuel Pump and Sender
F19 Fuel Sender (Sub)

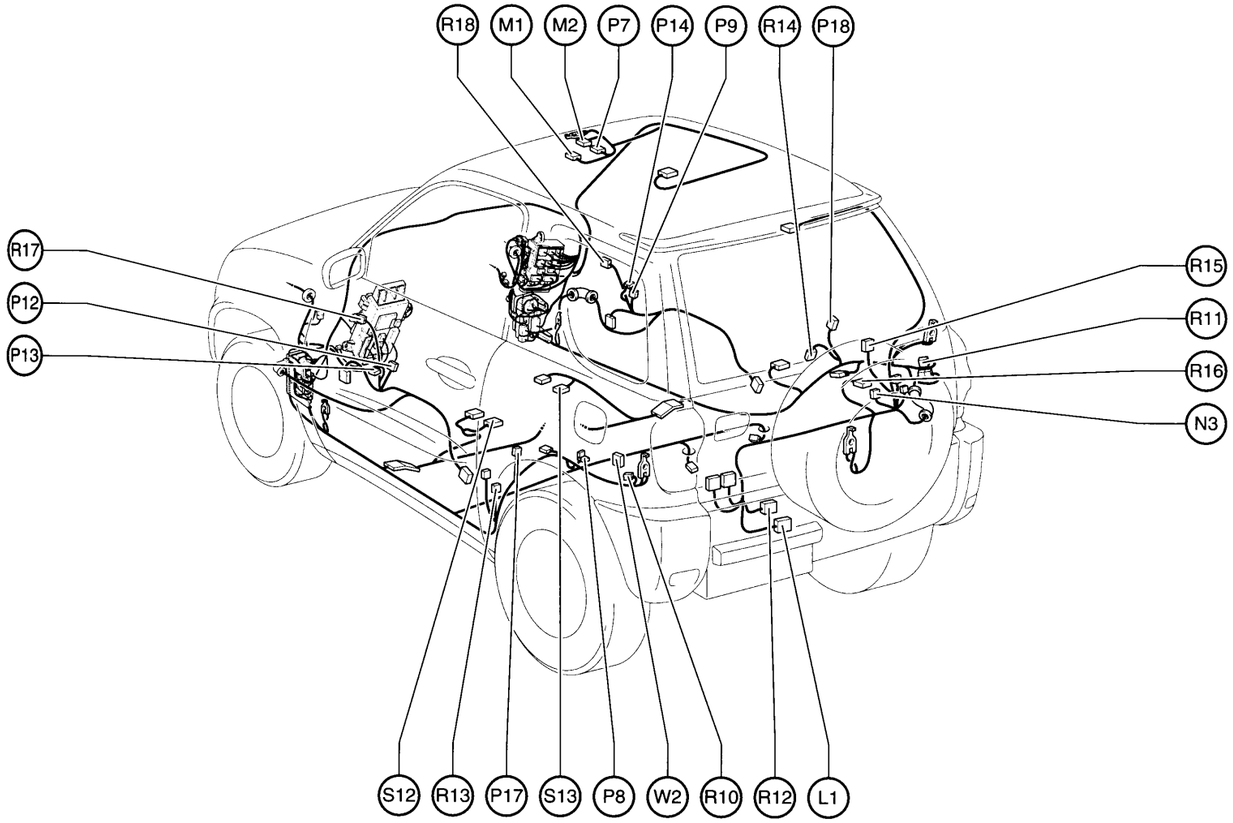
H15 High Mounted Stop Light

I 12 Interior Light

J 14 Junction Connector
J 15 Junction Connector

Position of Parts in Body

[LHD : 3-Door]



L 1 License Plate Light

M 1 Moon Roof Control SW and Relay
M 2 Moon Roof Motor and Limit SW

N 3 Noise Filter (Defogger)

P 7 Personal Light
P 8 Power Outlet (Rear)
P 9 Power Window Control SW (Front Passenger's Side)
P12 Power Window Master SW
P13 Power Window Motor (Driver's Side)
P14 Power Window Motor (Front Passenger's Side)
P17 Pretensioner LH
P18 Pretensioner RH

R10 Rear Combination Light LH
R11 Rear Combination Light RH
R12 Rear Fog Light
R13 Rear Speaker LH
R14 Rear Speaker RH
R15 Rear Window Defogger
R16 Rear Wiper Motor and Relay
R17 Remote Control Mirror LH
R18 Remote Control Mirror RH

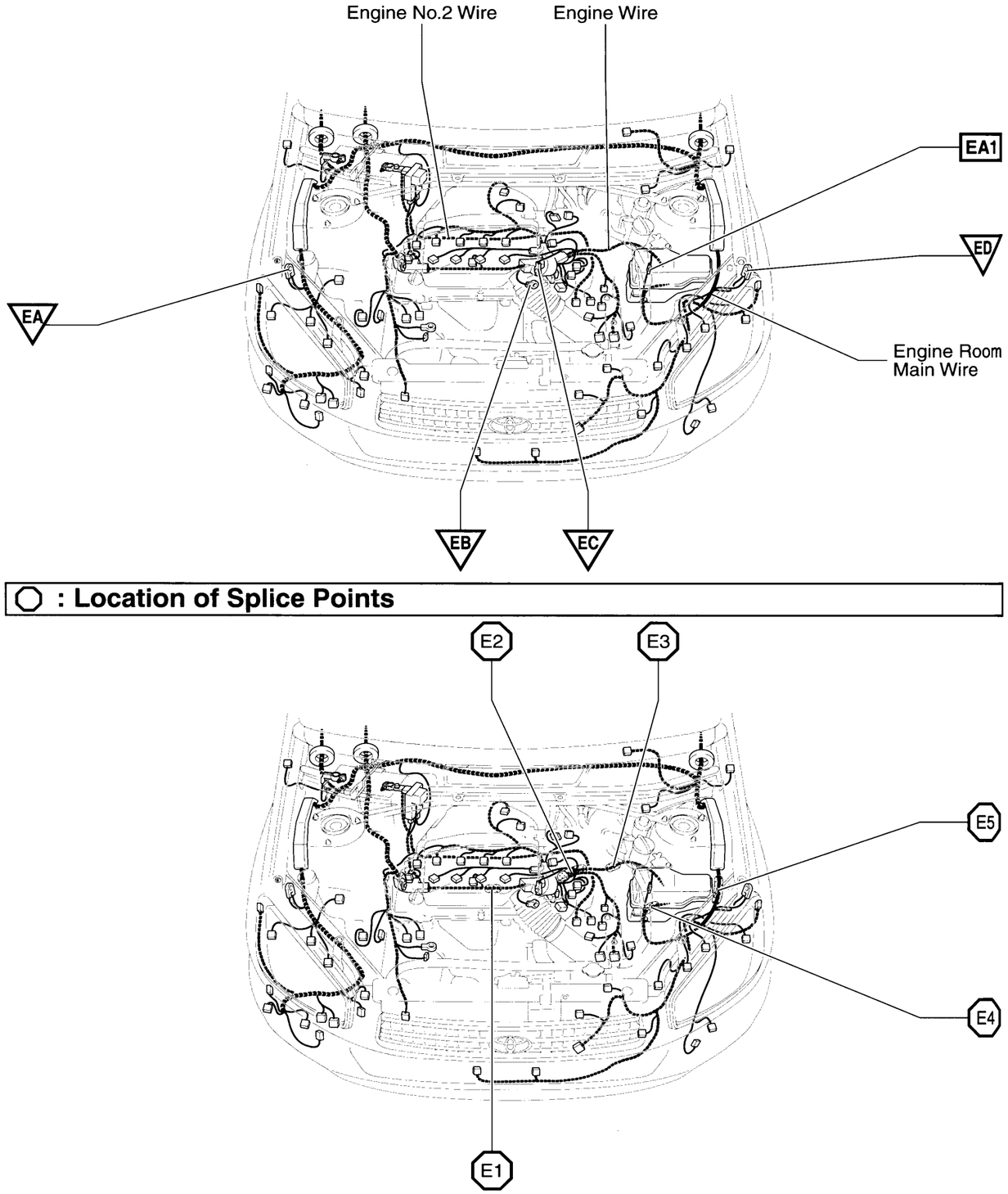
S12 Seat Heater (Driver's Side)
S13 Seat Heater (Front Passenger's Side)

W 2 Wireless Door Control Receiver

□ : Location of Connector Joining Wire Harness and Wire Harness

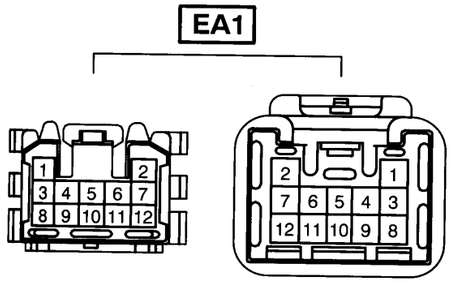
▽ : Location of Ground Points

[LHD : 1AZ-FE]



○ : Location of Splice Points

Connector Joining Wire Harness and Wire Harness



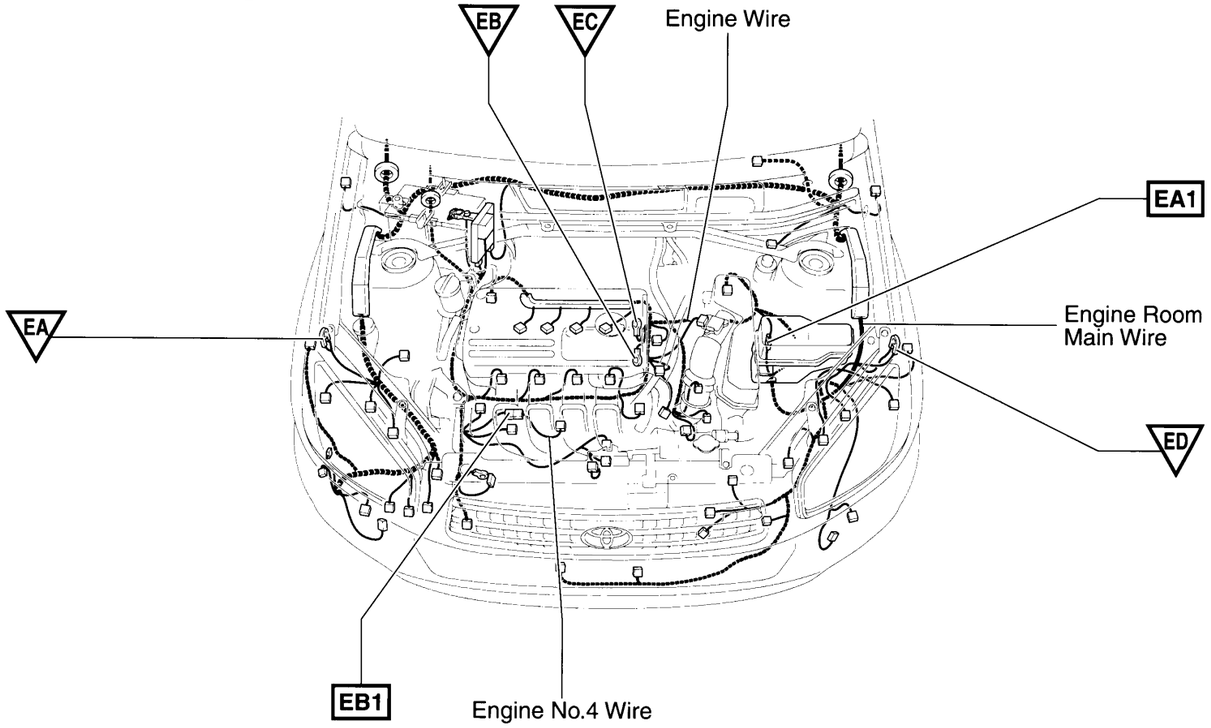
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)

G ELECTRICAL WIRING ROUTING

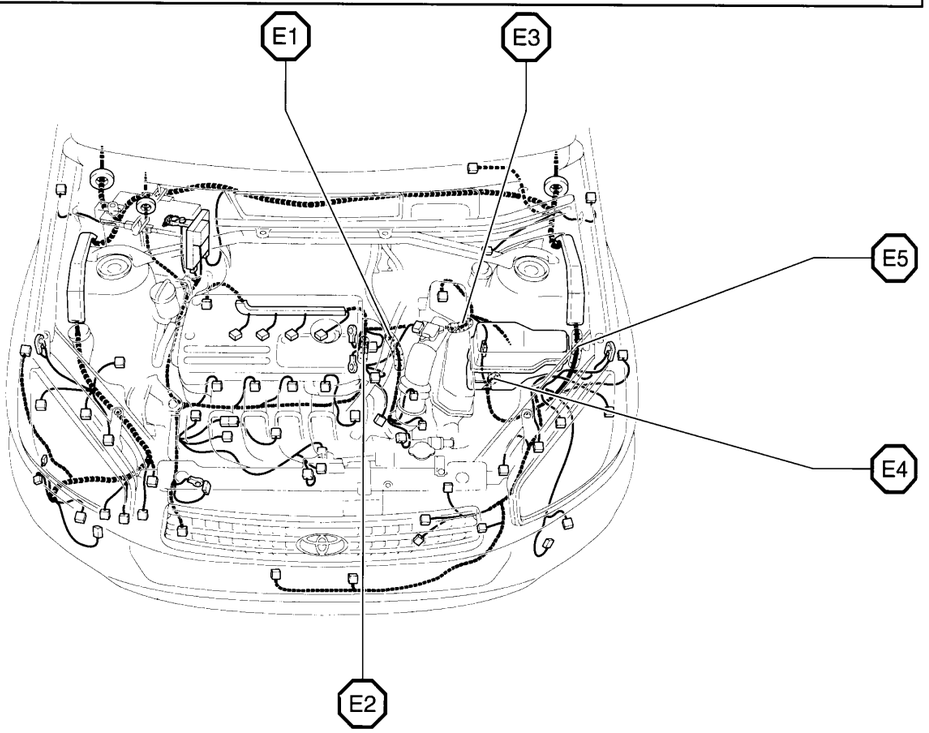
▭ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

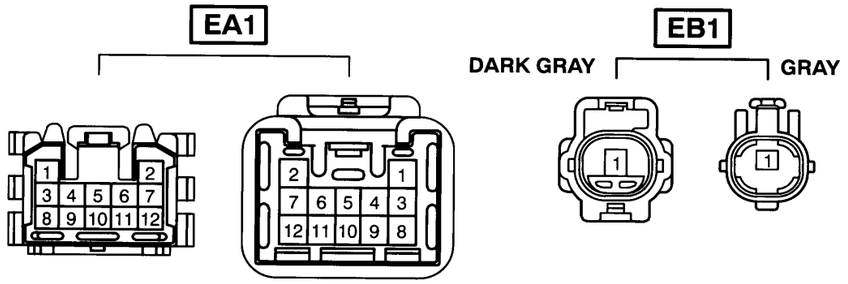
[LHD : 1ZZ-FE]



○ : Location of Splice Points



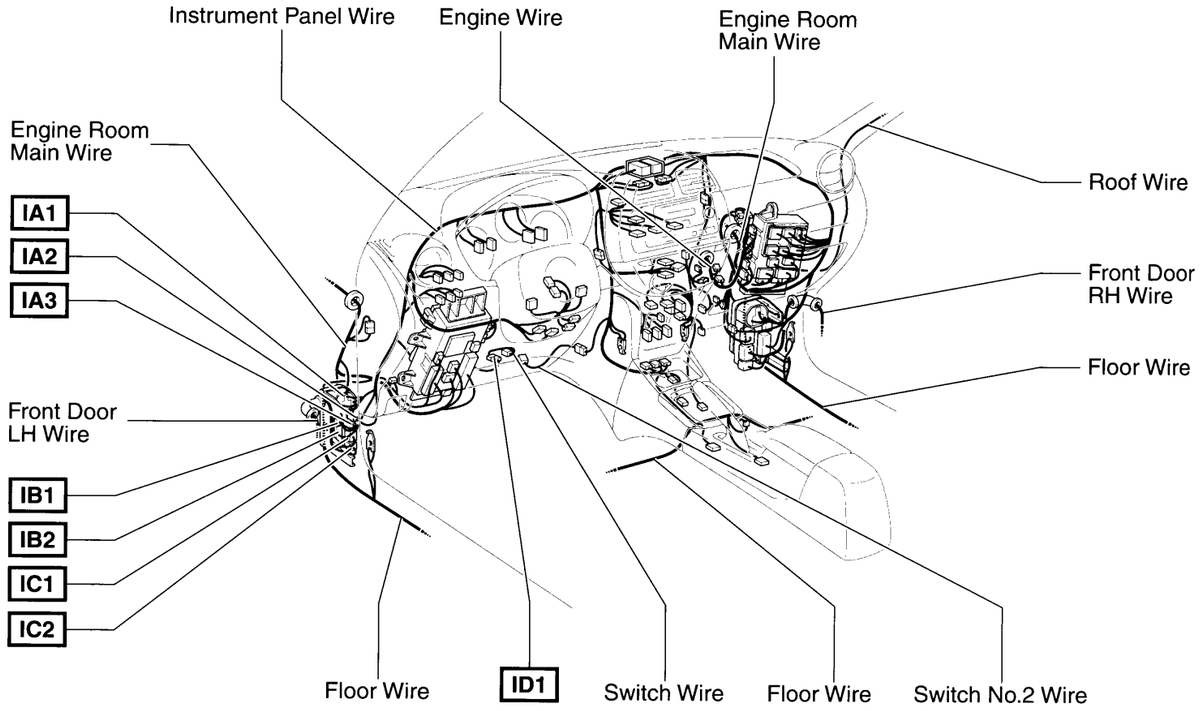
Connector Joining Wire Harness and Wire Harness



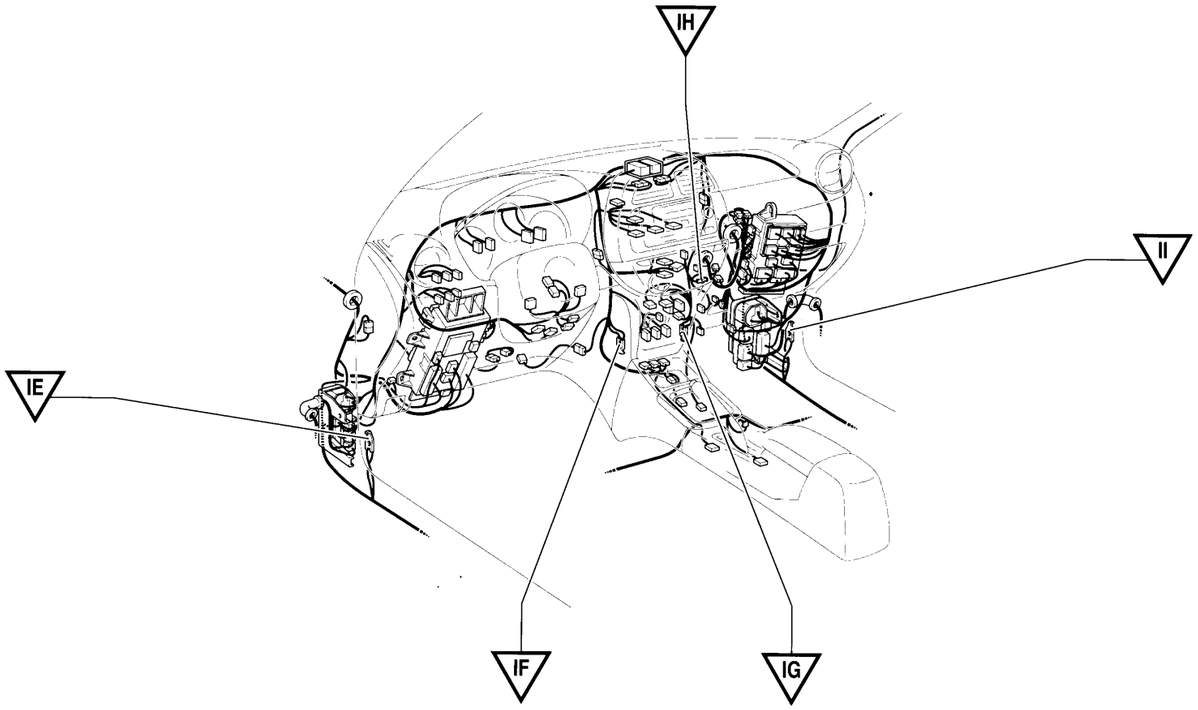
Code	Joining Wire Harness and Wire Harness (Connector Location)
EA1	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)
EB1	Engine No.4 Wire and Engine Wire (Behind the Intake Manifold)

: Location of Connector Joining Wire Harness and Wire Harness

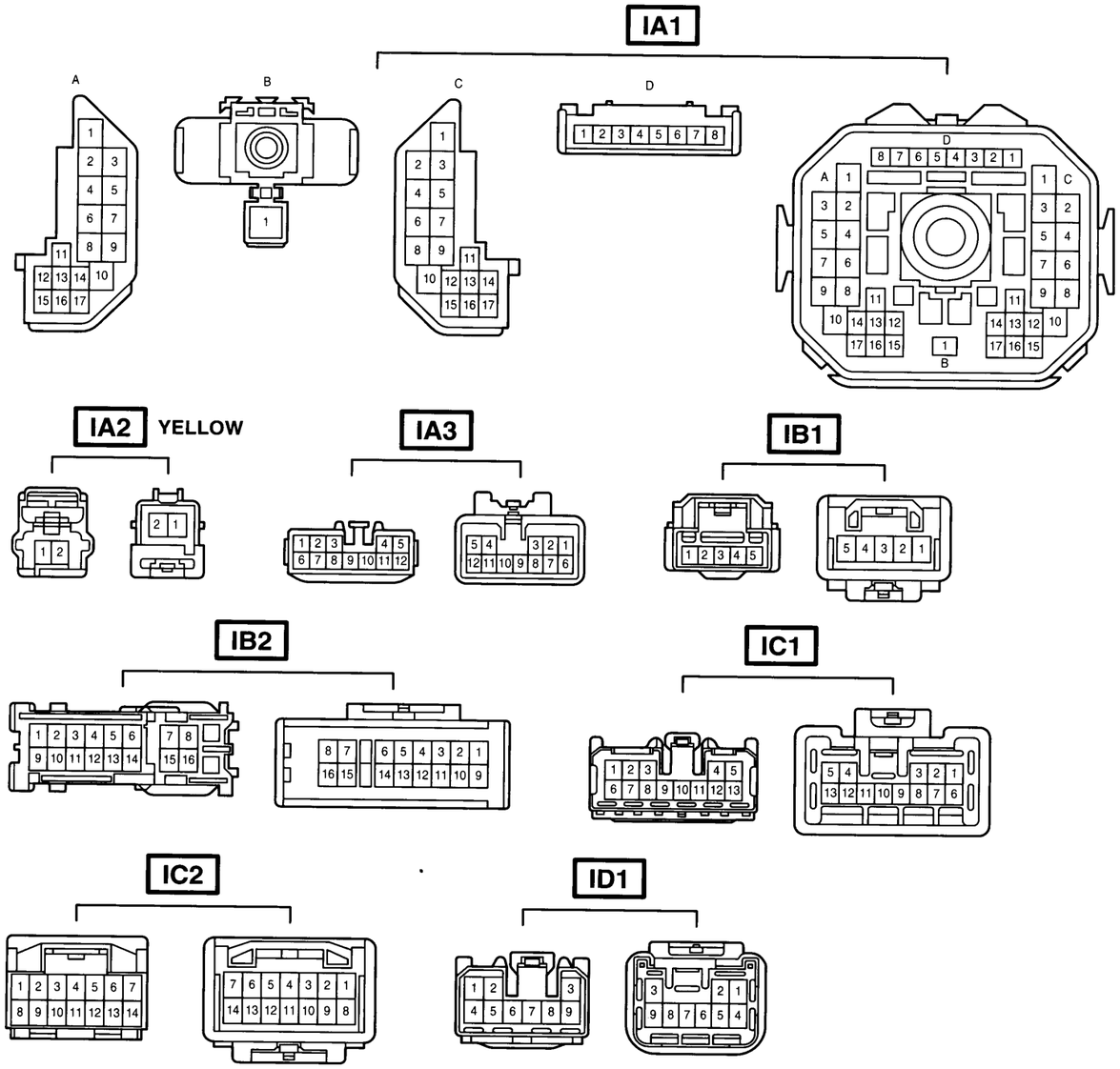
[LHD]



: Location of Ground Points



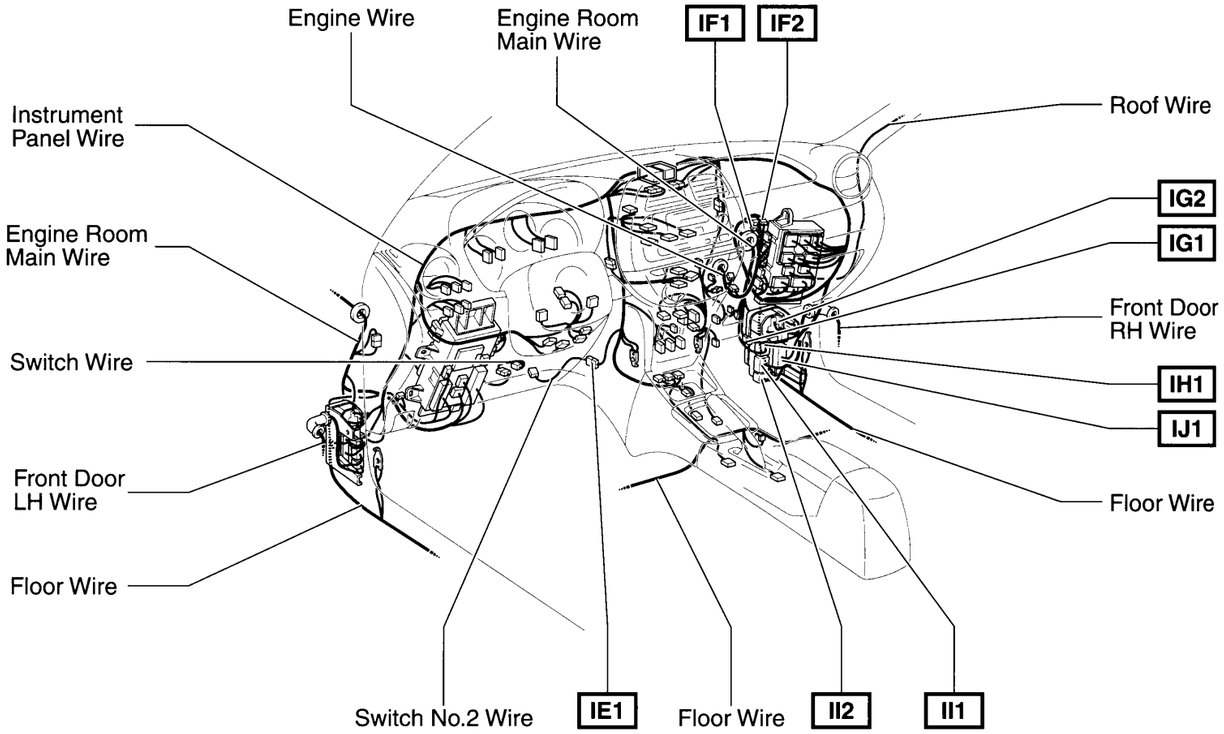
Connector Joining Wire Harness and Wire Harness



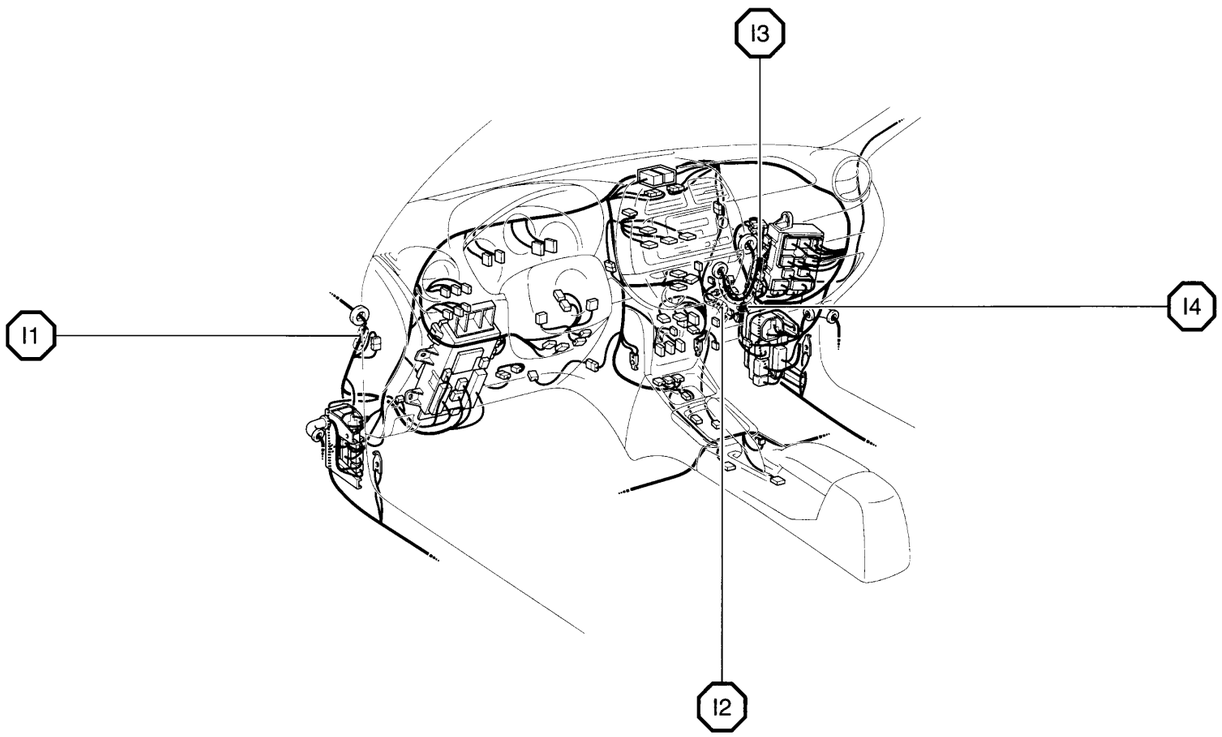
Code	Joining Wire Harness and Wire Harness (Connector Location)
IA1	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IA2	
IA3	
IB1	Instrument Panel Wire and Floor Wire (Left Kick Panel)
IB2	
IC1	Front Door LH Wire and Floor Wire (Left Kick Panel)
IC2	
ID1	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)

: Location of Connector Joining Wire Harness and Wire Harness

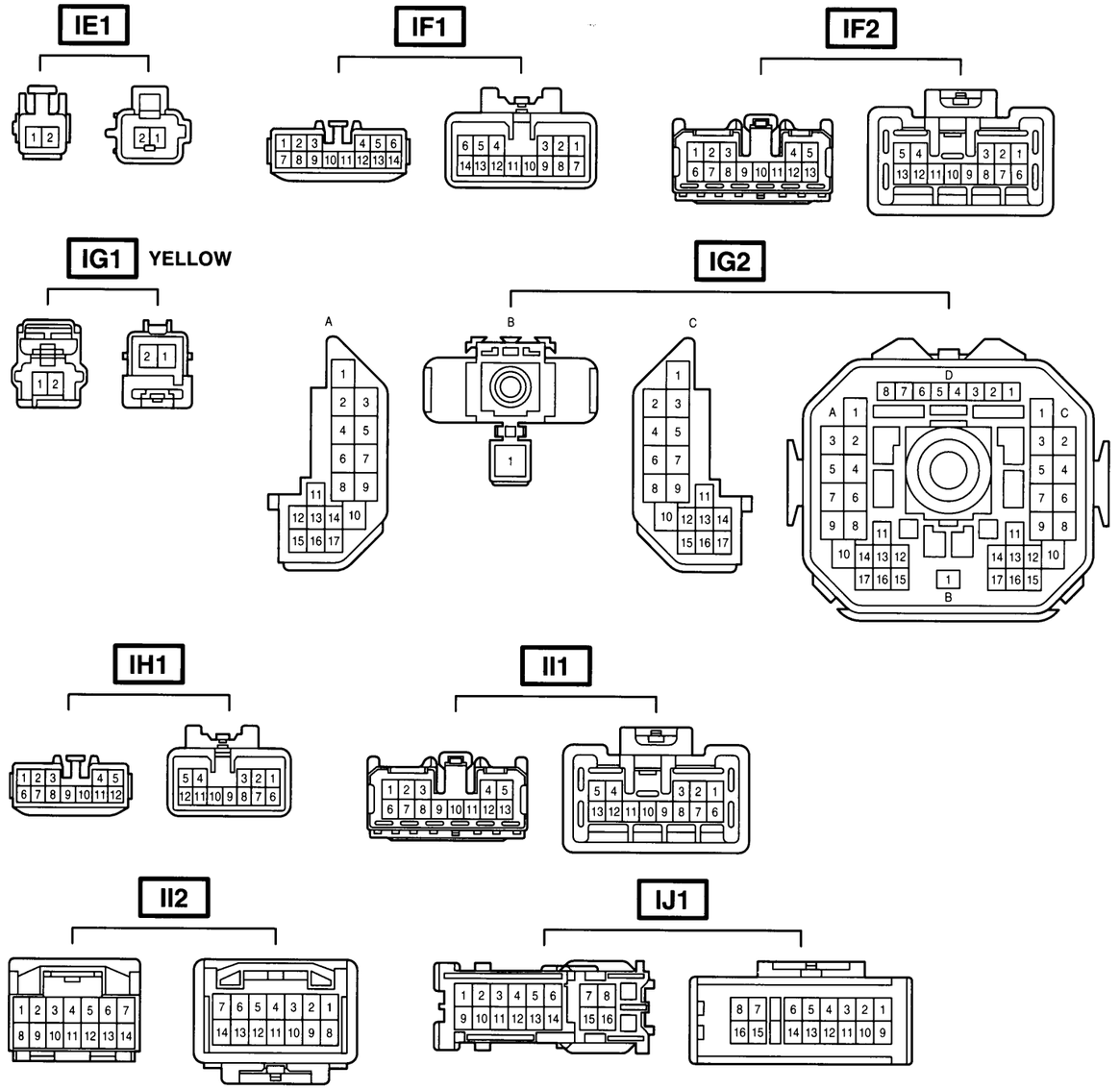
[LHD]



: Location of Splice Points



Connector Joining Wire Harness and Wire Harness



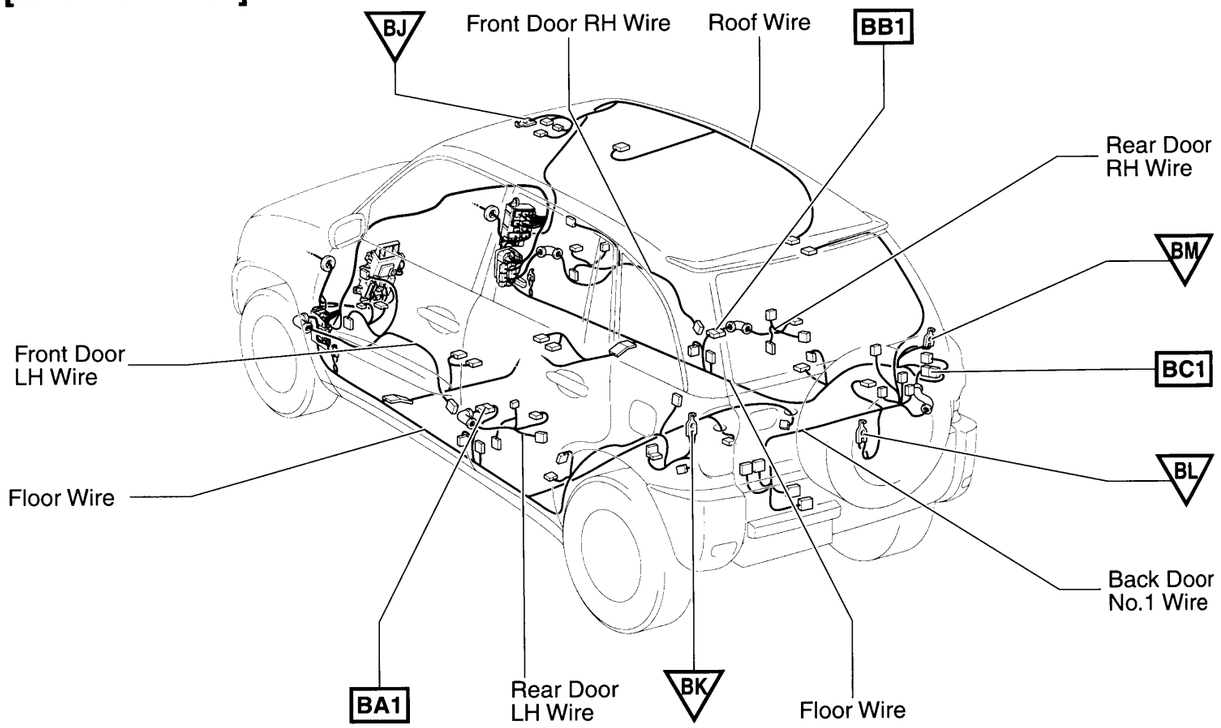
Code	Joining Wire Harness and Wire Harness (Connector Location)
IE1	Instrument Panel Wire and Switch No.2 Wire (Left Side of Instrument Panel Brace)
IF1	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IF2	
IG1	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)
IG2	
IH1	Engine Room Main Wire and Floor Wire (Right Kick Panel)
II1	Front Door RH Wire and Floor Wire (Right Kick Panel)
II2	
IJ1	Instrument Panel Wire and Floor Wire (Right Kick Panel)

G ELECTRICAL WIRING ROUTING

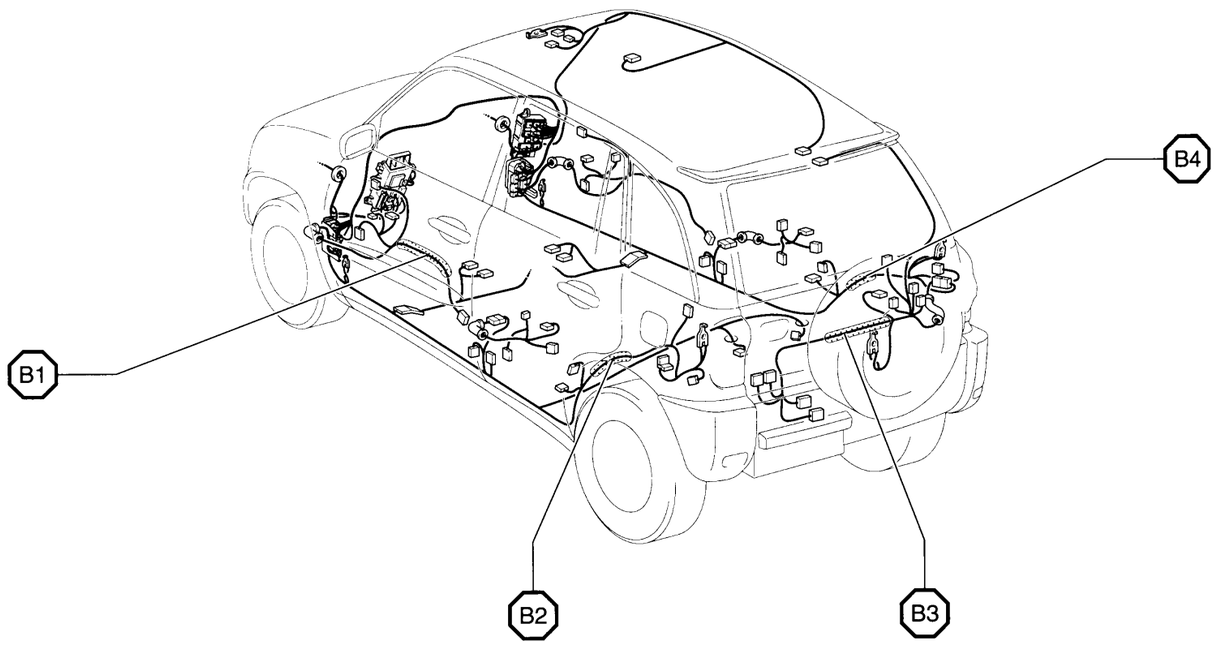
▭ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

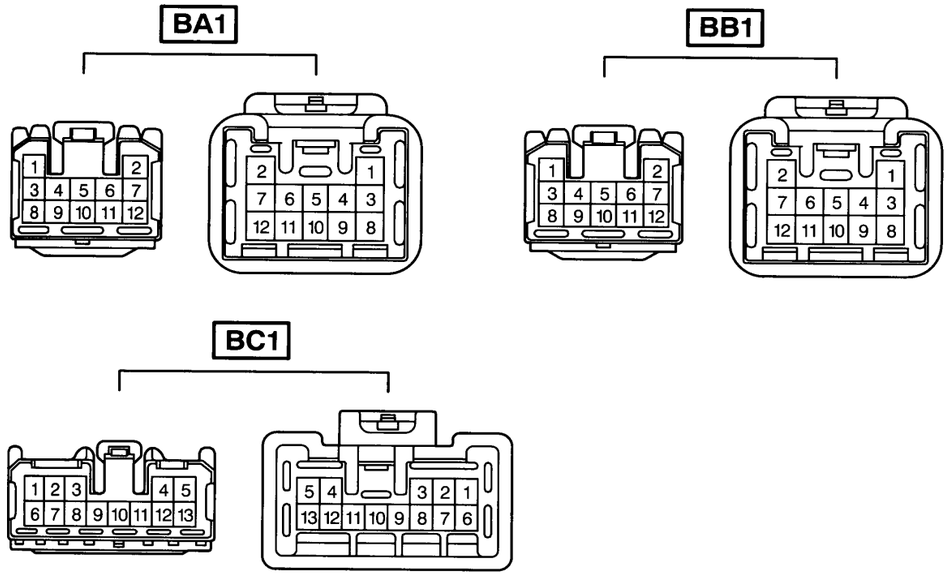
[LHD : 5-Door]



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness



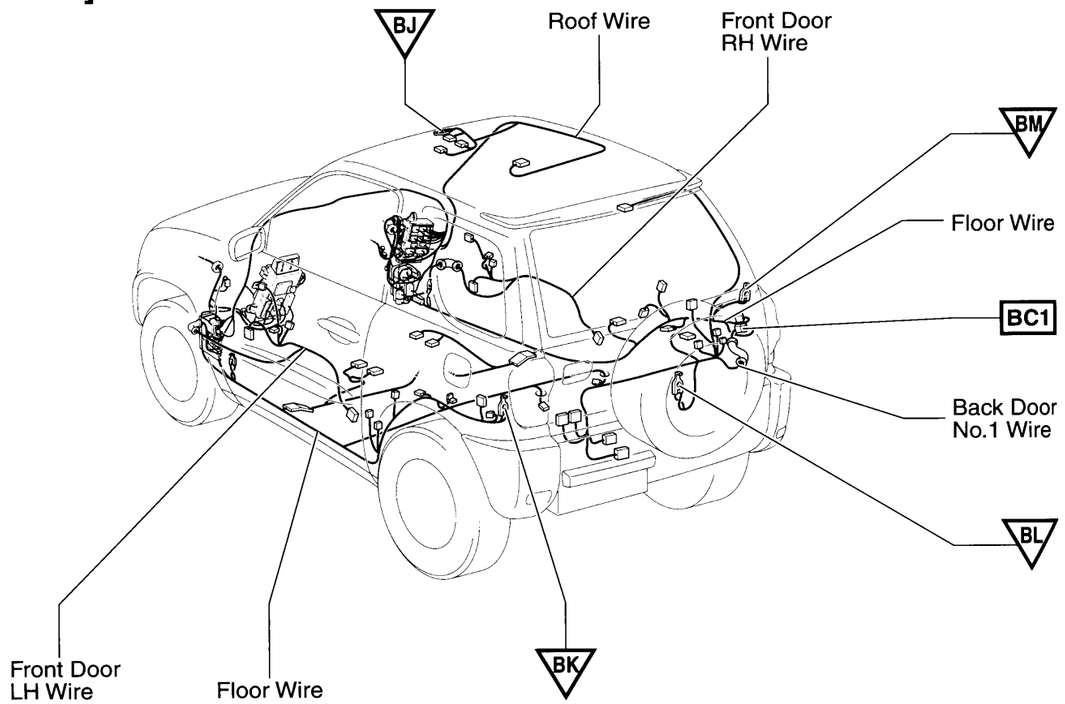
Code	Joining Wire Harness and Wire Harness (Connector Location)
BA1	Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)
BB1	Rear Door RH Wire and Floor Wire (Right Side of Center Pillar)
BC1	Back Door No.1 Wire and Floor Wire (Right Side of Back Door)

G ELECTRICAL WIRING ROUTING

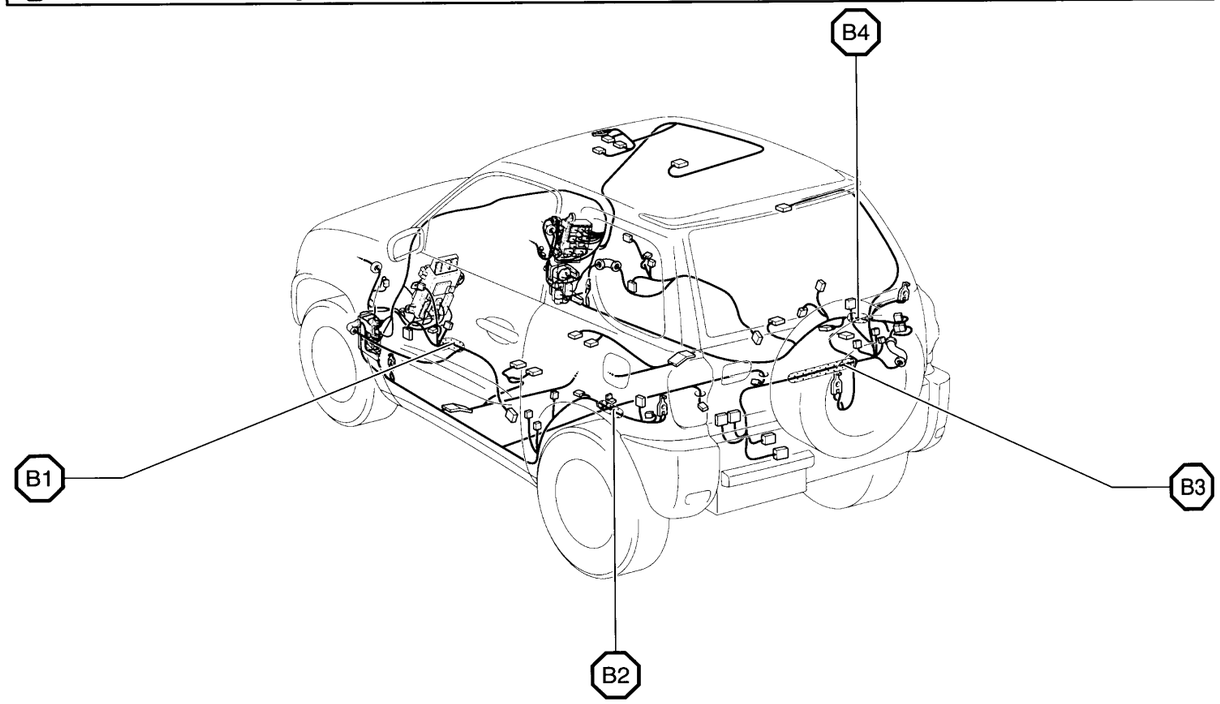
▭ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

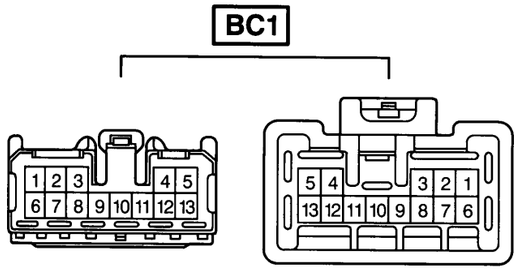
[LHD : 3-Door]



○ : Location of Splice Points



Connector Joining Wire Harness and Wire Harness



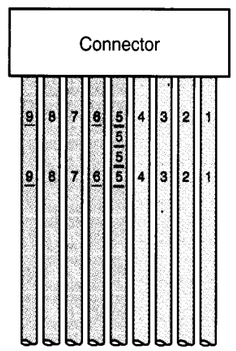
Code	Joining Wire Harness and Wire Harness (Connector Location)
BC1	Back Door No.1 Wire and Floor Wire (Right Side of Back Door)

English

RAV4
ELECTRICAL WIRING DIAGRAM
SYSTEM CIRCUITS

	Page
ABS	238
AIR CONDITIONER	314
BACK-UP LIGHT	210
CHARGING	148
CIGARETTE LIGHTER	224
CLOCK	222
COMBINATION METER	302
DOOR LOCK CONTROL (LHD)	258
DOOR LOCK CONTROL (RHD)	264
DOUBLE LOCKING	278
ECT AND A/T INDICATOR	230
ENGINE CONTROL (1AZ-FE)	150
ENGINE CONTROL (1ZZ-FE)	162
ENGINE IMMOBILISER SYSTEM	172
FRONT FOG LIGHT	184
FRONT WIPER AND WASHER	214
HEADLIGHT (LHD)	174
HEADLIGHT (RHD)	178
HEADLIGHT BEAM LEVEL CONTROL	180
HEADLIGHT CLEANER	212
HORN	228
ILLUMINATION	200
INTERIOR LIGHT	204
KEY REMINDER AND LIGHT REMINDER BUZZER	292
MOON ROOF	254
POWER OUTLET	226
POWER SOURCE	140
POWER WINDOW	250
RADIATOR FAN AND CONDENSER FAN	310
RADIO AND PLAYER	298
REAR FOG LIGHT	188
REAR WINDOW DEFOGGER AND MIRROR HEATER	286
REAR WIPER AND WASHER	218
REMOTE CONTROL MIRROR	284
SEAT BELT WARNING	296
SEAT HEATER	290
SHIFT LOCK	248
SRS	243
STARTING AND IGNITION	144
STOP LIGHT	208
TAILLIGHT	196
TURN SIGNAL AND HAZARD WARNING LIGHT	192
WIRELESS DOOR LOCK CONTROL (LHD)	270
WIRELESS DOOR LOCK CONTROL (RHD)	274

HINT



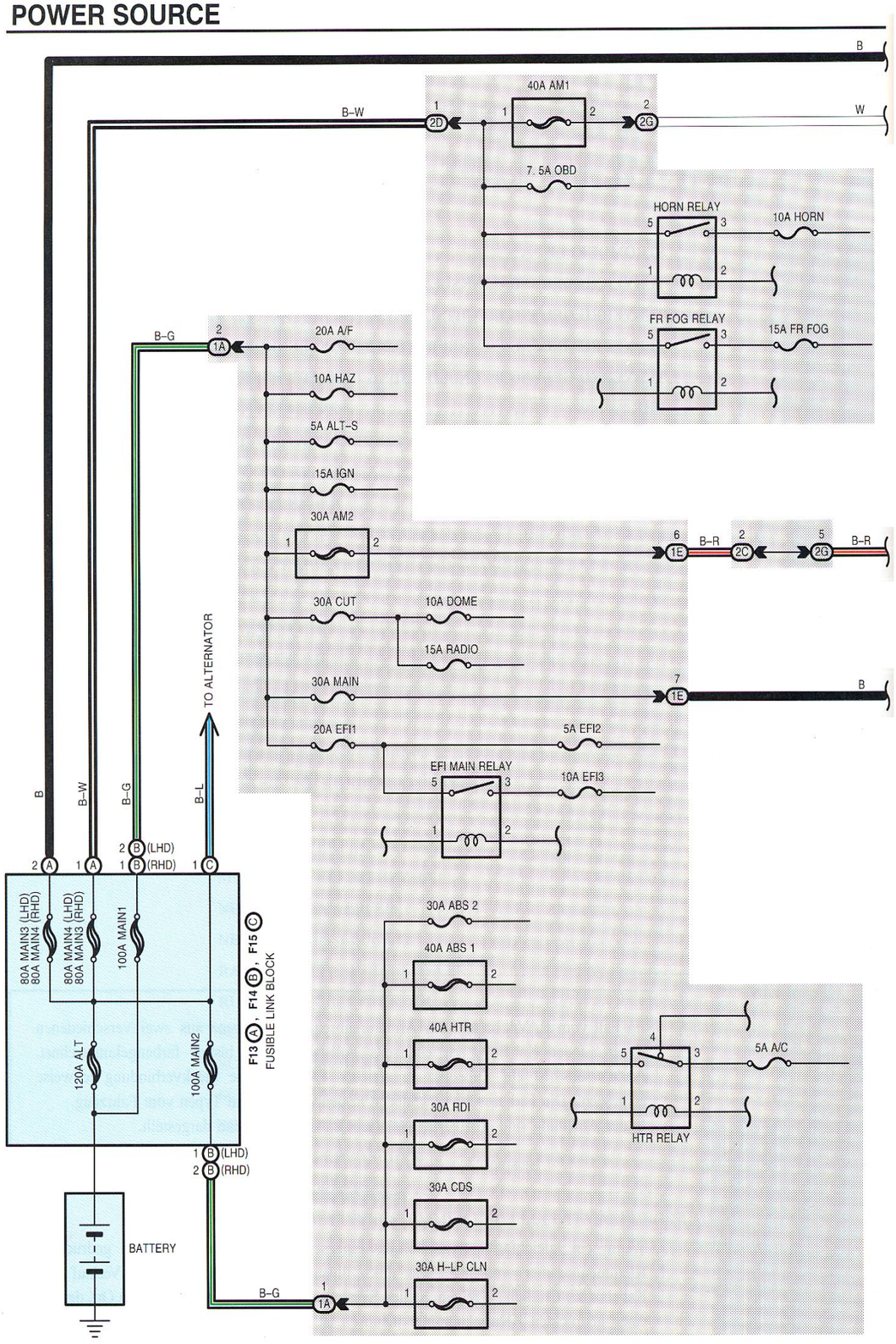
There are two types of wire harness for the instrument panel in RAV4. In one type, all wire harness is completely color-coded. In another type, there are some connectors that have wires in same colors. This means wire colors are different in each type of vehicles.
Therefore wire colors are also mentioned in this manual as follows.

Example

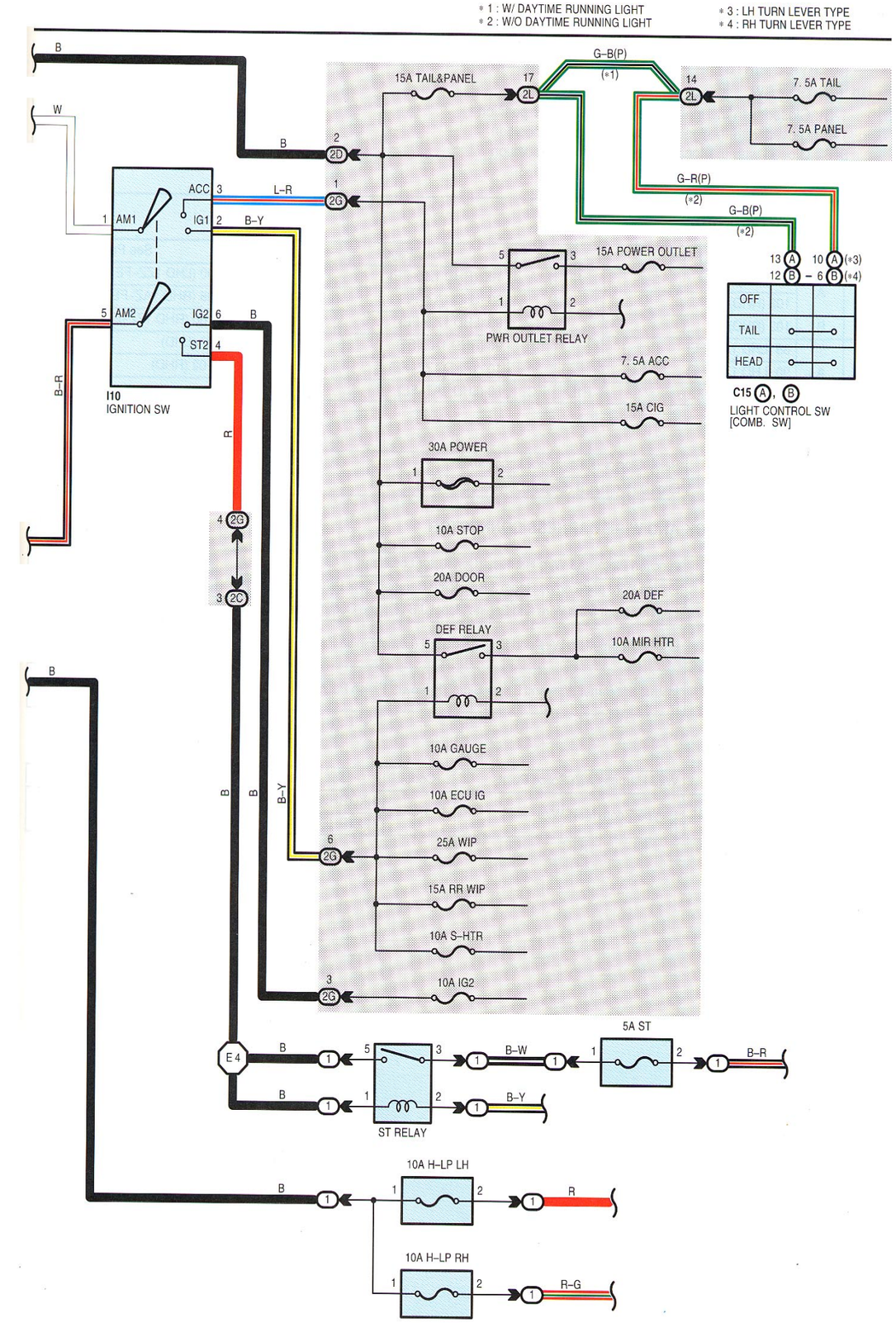
G(SB)

In case that the same colored wires are used, each terminal No. is printed on wires as shown in the left illustration in order to distinguish each wiring. Be sure to connect the wire to the same place as indicated by the terminal No. printed on the wire after disconnecting the connector from the terminal.

POWER SOURCE



* 1 : W/ DAYTIME RUNNING LIGHT
* 2 : W/O DAYTIME RUNNING LIGHT
* 3 : LH TURN LEVER TYPE
* 4 : RH TURN LEVER TYPE



POWER SOURCE

SERVICE HINTS

I10 IGNITION SW

1–3 : Closed with the ignition key at **ACC** or **ON** position
1–2 : Closed with the ignition key at **ON** or **ST** position
5–6 : Closed with the ignition key at **ON** or **ST** position
5–4 : Closed with the ignition key at **ST** position

○ : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C15	A	92 (LHD)	F13	A	100 (RHD 1ZZ–FE)	F15	C	90 (LHD 1ZZ–FE)
		102 (RHD)	F14	B	88 (LHD 1AZ–FE)			98 (RHD 1AZ–FE)
	B	102 (RHD)			90 (LHD 1ZZ–FE)			100 (RHD 1ZZ–FE)
F13	A	88 (LHD 1AZ–FE)			98 (RHD 1AZ–FE)	I10		92 (LHD)
		90 (LHD 1ZZ–FE)			100 (RHD 1ZZ–FE)			102 (RHD)
		98 (RHD 1AZ–FE)	F15	C	88 (LHD 1AZ–FE)			

▭ : RELAY BLOCKS

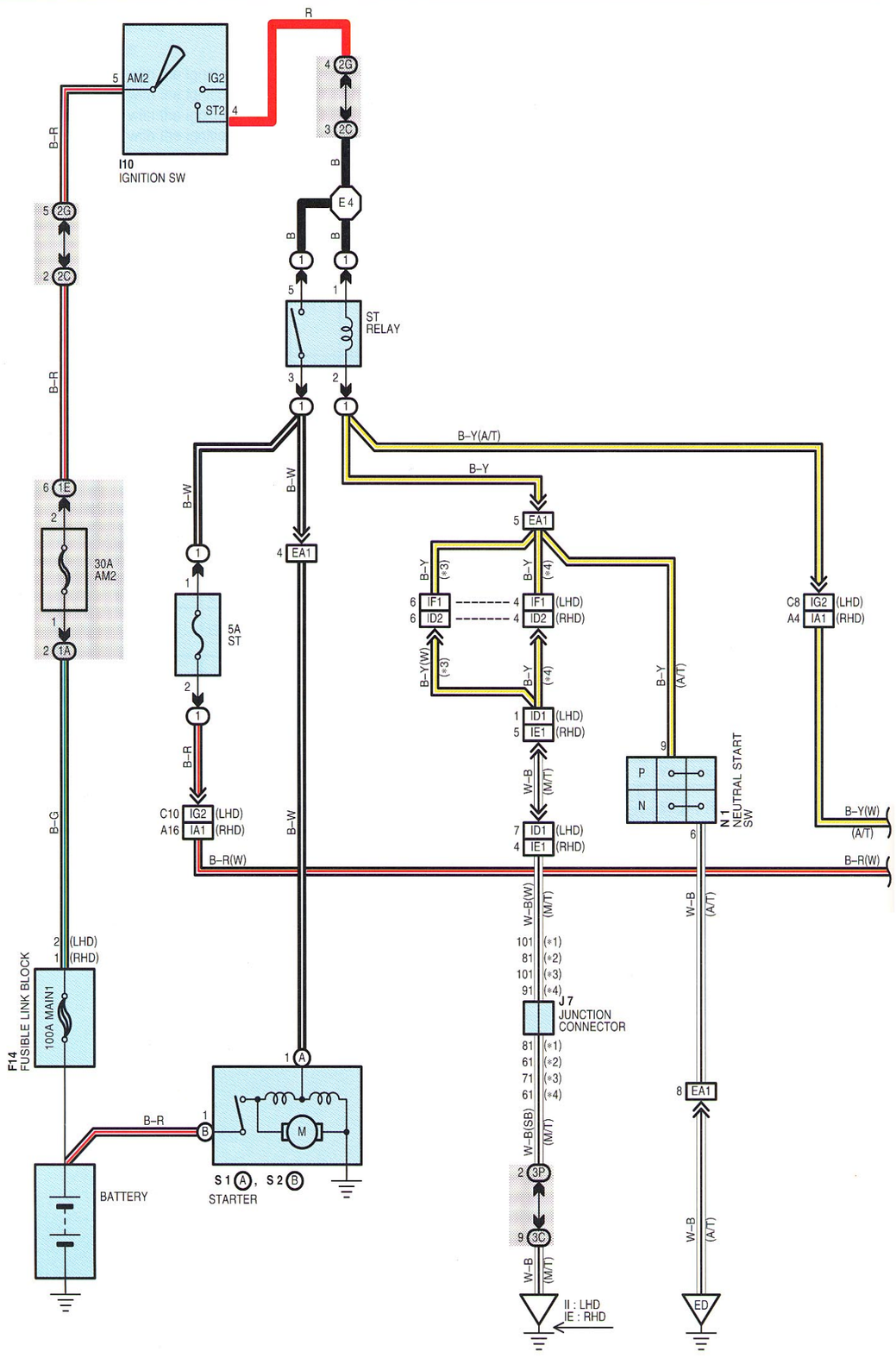
Code	See Page	Relay Blocks (Relay Block Location)
1	79	Engine Room R/B (Engine Compartment Left)

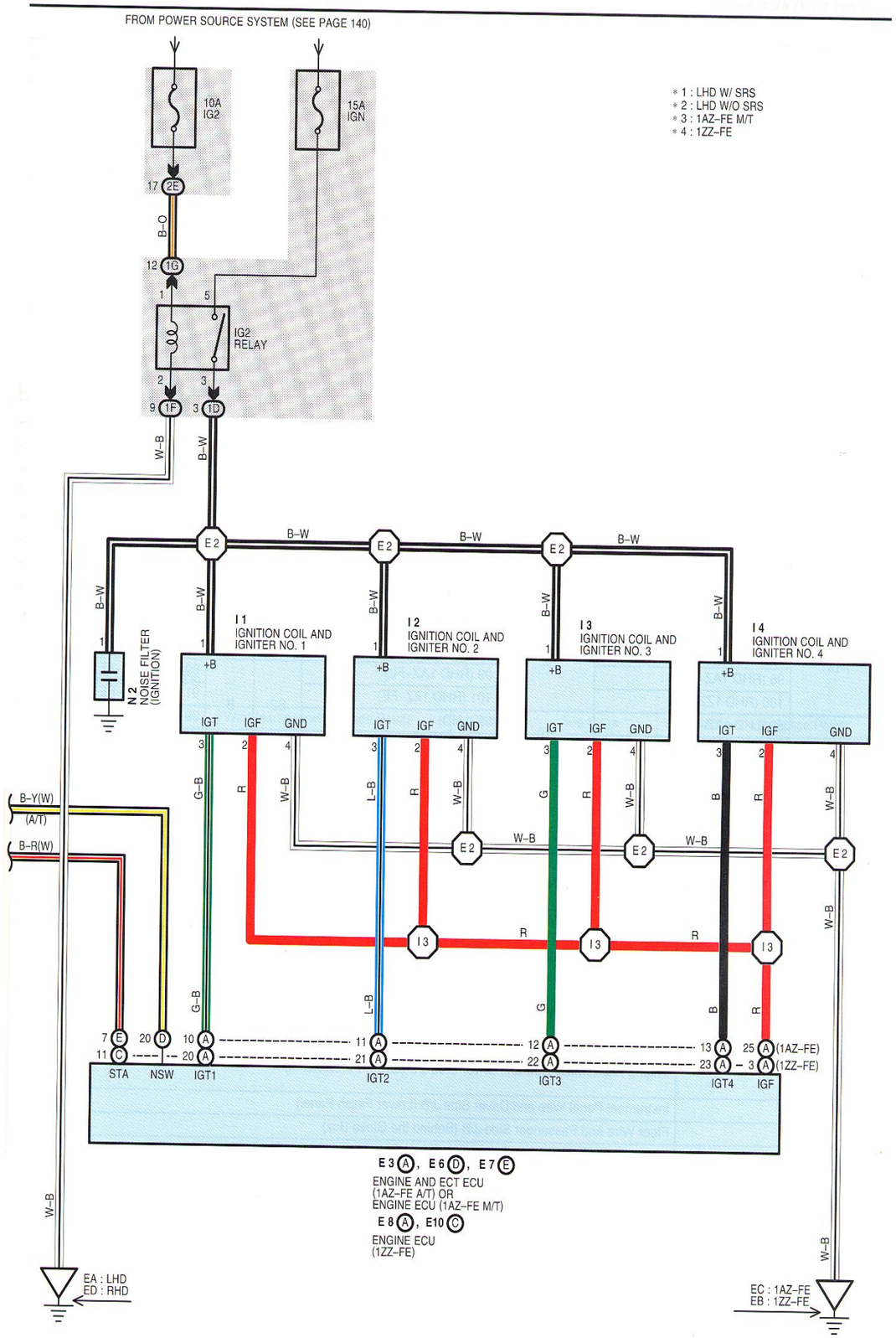
▭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	80	Engine Wire and Engine Room J/B (Engine Compartment Left)
1E	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2D		
2G	82	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L	83	

⬡ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	108 (LHD 1AZ–FE)	Engine Room Main Wire	E4	120 (RHD 1AZ–FE)	Engine Room Main Wire
	110 (LHD 1ZZ–FE)			122 (RHD 1ZZ–FE)	


R
5 AM2
IG2
ST2 4
I10
IGNITION SW
B–R
4 2G
3 2C
B
E 4
B
B
1
1
5
1
ST
RELAY
3
2
1
1
B–Y(A/T)
B–Y
B–W
B–W
5 EA1
4 EA1
B–Y (*3)
B–Y (*4)
6 IF1
6 ID2
4 IF1 (LHD)
4 ID2 (RHD)
C8 IG2 (LHD)
A4 IA1 (RHD)
B–Y(W) (*3)
B–Y (*4)
B–Y (A/T)
1 ID1 (LHD)
5 IE1 (RHD)
9
P
N
N1
NEUTRAL START SW
B–Y(W) (A/T)
W–B (M/T)
7 ID1 (LHD)
4 IE1 (RHD)
6
W–B (A/T)
B–R(W)
B–R(W)
C10 IG2 (LHD)
A16 IA1 (RHD)
B–R
5A
ST
B–G
B–W
2 (LHD)
1 (RHD)
F14
FUSIBLE LINK BLOCK
100A MAIN1
W–B(W) (M/T)
101 (*1)
81 (*2)
101 (*3)
91 (*4)
J7
JUNCTION CONNECTOR
81 (*1)
61 (*2)
71 (*3)
61 (*4)
W–B(SB) (M/T)
2 3P
9 3C
W–B (M/T)
II : LHD
IE : RHD
W–B (A/T)
ED
B–R
1 A
1 B
S1 A , S2 B
STARTER
BATTERY


FROM POWER SOURCE SYSTEM (SEE PAGE 140)
* 1 : LHD W/ SRS
* 2 : LHD W/O SRS
* 3 : 1AZ–FE M/T
* 4 : 1ZZ–FE
10A
IG2
15A
IGN
17 2E
B–O
12 1G
1
5
IG2
RELAY
2
3
9 1F
3 1D
W–B
B–W
E 2
B–W
N 2
NOISE FILTER (IGNITION)
I 1
IGNITION COIL AND IGNITER NO. 1
I 2
IGNITION COIL AND IGNITER NO. 2
I 3
IGNITION COIL AND IGNITER NO. 3
I 4
IGNITION COIL AND IGNITER NO. 4
+B
IGT
IGF
GND
G–B
R
W–B
L–B
G
B
I 3
B–Y(W) (A/T)
B–R(W)
7 E
11 C
20 D
20 A
10 A
11 A
21 A
12 A
22 A
13 A
23 A
25 A (1AZ–FE)
3 A (1ZZ–FE)
STA
NSW
IGT1
IGT2
IGT3
IGT4
IGF
E3 A , E6 D , E7 E
ENGINE AND ECT ECU
(1AZ–FE A/T) OR
ENGINE ECU (1AZ–FE M/T)
E8 A , E10 C
ENGINE ECU
(1ZZ–FE)
W–B
EA : LHD
ED : RHD
EC : 1AZ–FE
EB : 1ZZ–FE

STARTING AND IGNITION

SERVICE HINTS

I10 IGNITION SW

5–4 : Closed with the ignition SW at **ST** position

N1 NEUTRAL START SW

9–6 : Closed with the shift lever in **P** or **N** position

ST RELAY

1–2 : Closed with the neutral start SW at **P** or **N** position and the ignition SW at **ST** position (A/T)
: Closed with the ignition SW at **ST** position (M/T)

S1 (A), S2 (B) STARTER

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

○ : PARTS LOCATION

Code		See Page
E3	A	92 (LHD)
		102 (RHD)
E6	D	92 (LHD)
		102 (RHD)
E7	E	92 (LHD)
		102 (RHD)
E8	A	92 (LHD)
		102 (RHD)
E10	C	92 (LHD)
		102 (RHD)
F14		88 (LHD 1AZ-FE)
		90 (LHD 1ZZ-FE)
		98 (RHD 1AZ-FE)
		100 (RHD 1ZZ-FE)
I1		89 (LHD 1AZ-FE)
		91 (LHD 1ZZ-FE)

Code	See Page
I1	99 (RHD 1AZ-FE)
	101 (RHD 1ZZ-FE)
I2	89 (LHD 1AZ-FE)
	91 (LHD 1ZZ-FE)
	99 (RHD 1AZ-FE)
	101 (RHD 1ZZ-FE)
I3	89 (LHD 1AZ-FE)
	91 (LHD 1ZZ-FE)
	99 (RHD 1AZ-FE)
	101 (RHD 1ZZ-FE)
I4	89 (LHD 1AZ-FE)
	91 (LHD 1ZZ-FE)
	99 (RHD 1AZ-FE)
	101 (RHD 1ZZ-FE)
I10	92 (LHD)
	102 (RHD)

Code		See Page
J7		93 (LHD)
		103 (RHD)
N1		89 (LHD 1AZ-FE)
		99 (RHD 1AZ-FE)
N2		89 (LHD 1AZ-FE)
		91 (LHD 1ZZ-FE)
		99 (RHD 1AZ-FE)
		101 (RHD 1ZZ-FE)
S1	A	89 (LHD 1AZ-FE)
		91 (LHD 1ZZ-FE)
		99 (RHD 1AZ-FE)
		101 (RHD 1ZZ-FE)
S2	B	89 (LHD 1AZ-FE)
		91 (LHD 1ZZ-FE)
		99 (RHD 1AZ-FE)
		101 (RHD 1ZZ-FE)

⬭ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	79	Engine Room R/B (Engine Compartment Left)

⬭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	80	Engine Wire and Engine Room J/B (Engine Compartment Left)
1D		
1E	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F		
1G		
2C	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2E		
2G	82	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	108 (LHD 1AZ-FE)	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
IA1	124 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ID1	112 (LHD)	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)
ID2	124 (RHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IE1	126 (RHD)	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)
IF1	114 (LHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IG2	114 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)

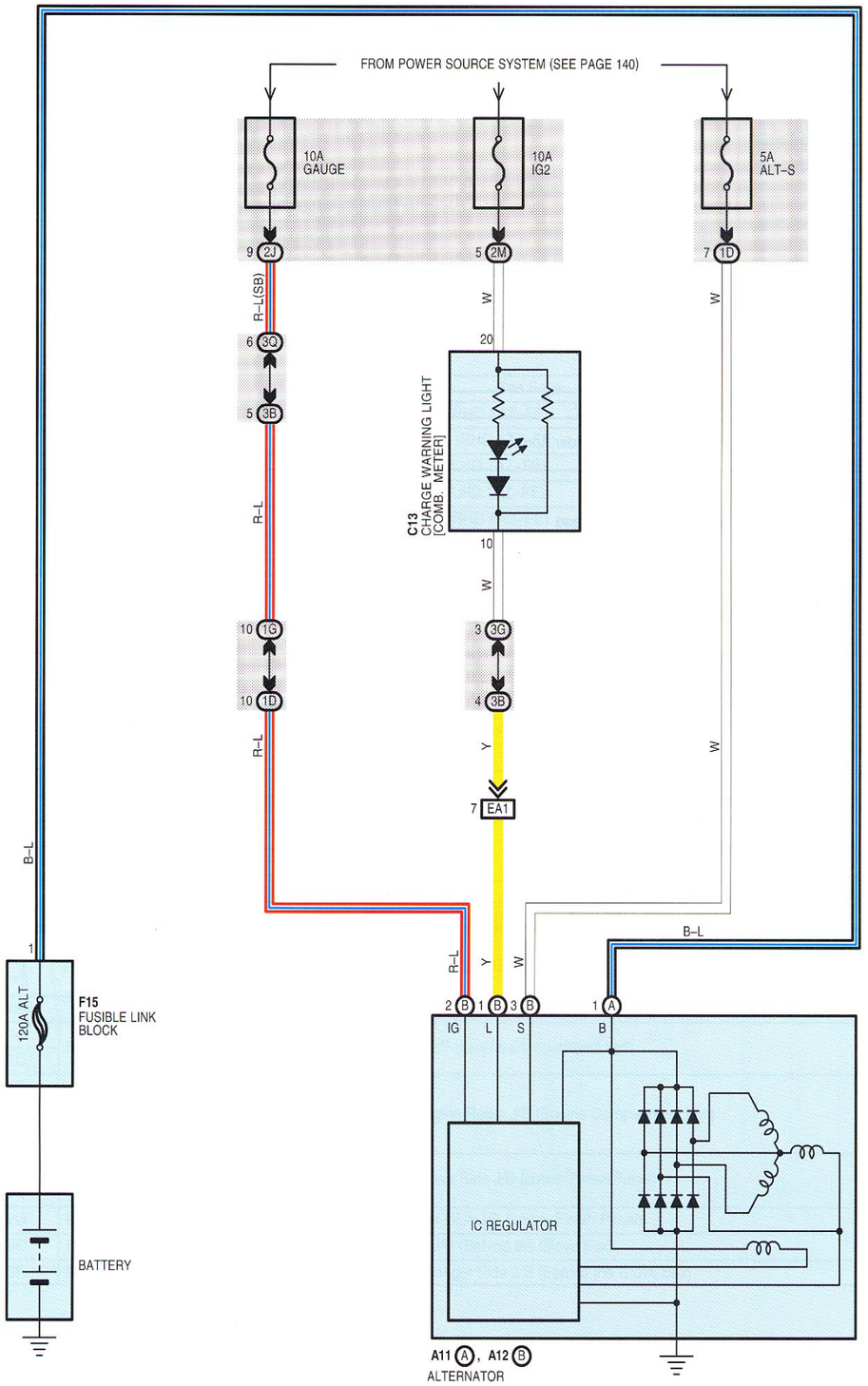
▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	108 (LHD 1AZ-FE)	Front Right Side of Fender Apron
	110 (LHD 1ZZ-FE)	
EB	110 (LHD 1ZZ-FE)	Left Side of Cylinder Head
	122 (RHD 1ZZ-FE)	
EC	108 (LHD 1AZ-FE)	
	120 (RHD 1AZ-FE)	
ED	108 (LHD 1AZ-FE)	Front Left Side of Fender Apron
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
IE	124 (RHD)	Left Kick Panel
II	112 (LHD)	Right Kick Panel

⬡ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points
E2	108 (LHD 1AZ-FE)	Engine Wire
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
E4	108 (LHD 1AZ-FE)	Engine Room Main Wire

Code	See Page	Wire Harness with Splice Points
E4	110 (LHD 1ZZ-FE)	Engine Room Main Wire
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
I3	114 (LHD)	Engine Wire
	126 (RHD)	



SERVICE HINTS

A12 (B) ALTERNATOR

(B) 3-GROUND :**13.2-14.0** volts with the engine running at **5000** rpm and **115**°C (**239**°F)
(B) 1-GROUND : **0-4** volts with the ignition SW at **ON** position and the engine not running

: PARTS LOCATION

Code		See Page	Code		See Page	Code	See Page
A11	A	88 (LHD 1AZ-FE)	A12	B	90 (LHD 1ZZ-FE)	F15	88 (LHD 1AZ-FE)
		90 (LHD 1ZZ-FE)			98 (RHD 1AZ-FE)		90 (LHD 1ZZ-FE)
		98 (RHD 1AZ-FE)			100 (RHD 1ZZ-FE)		98 (RHD 1AZ-FE)
		100 (RHD 1ZZ-FE)	C13		92 (LHD)		100 (RHD 1ZZ-FE)
A12	B	88 (LHD 1AZ-FE)			102 (RHD)		

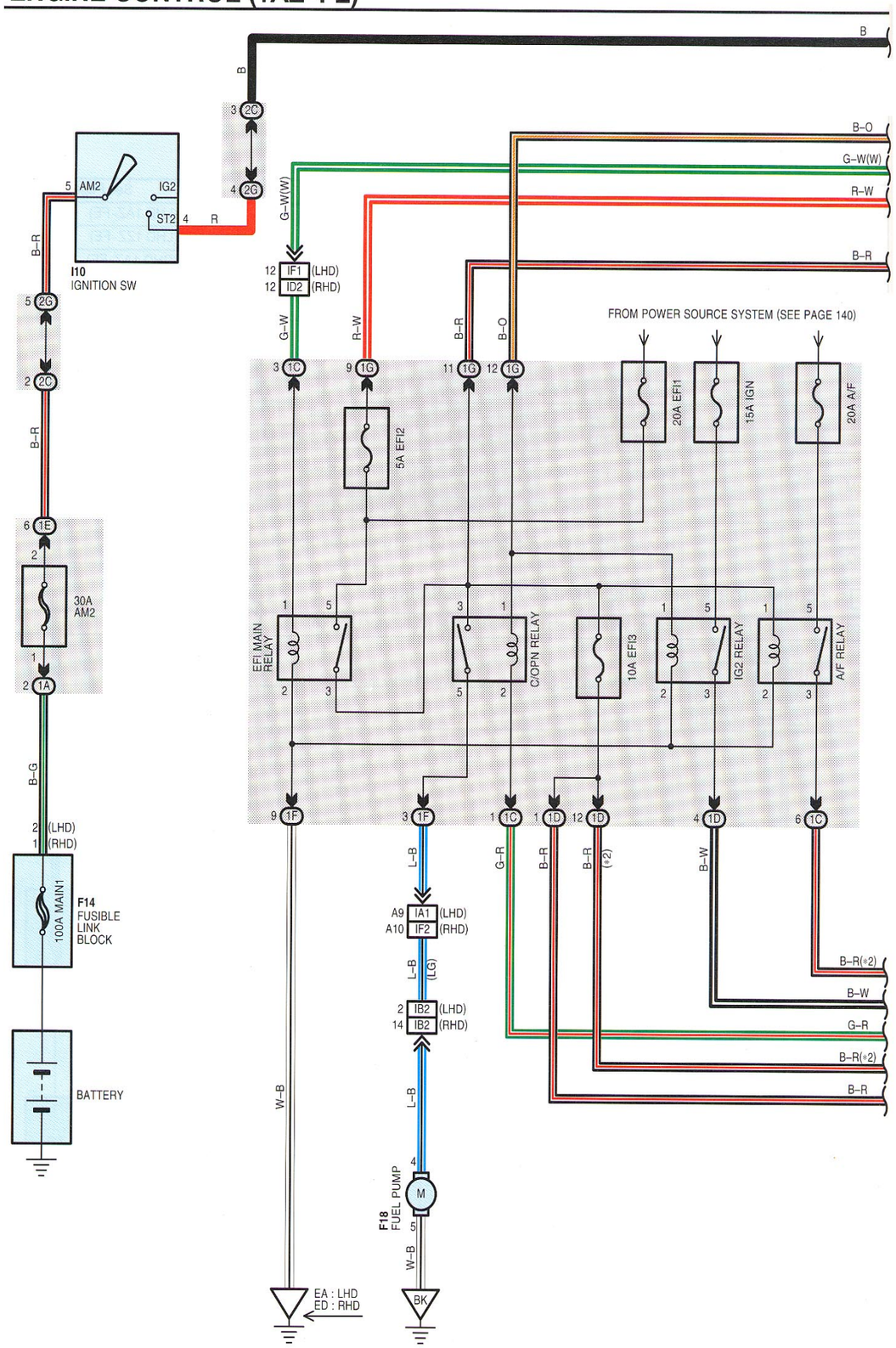
: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	80	Engine Wire and Engine Room J/B (Engine Compartment Left)
1G	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2M		
3B	86	Engine Room Main Wire and Passenger Side J/B (Behind the Glove Box)
3G	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)
3Q		

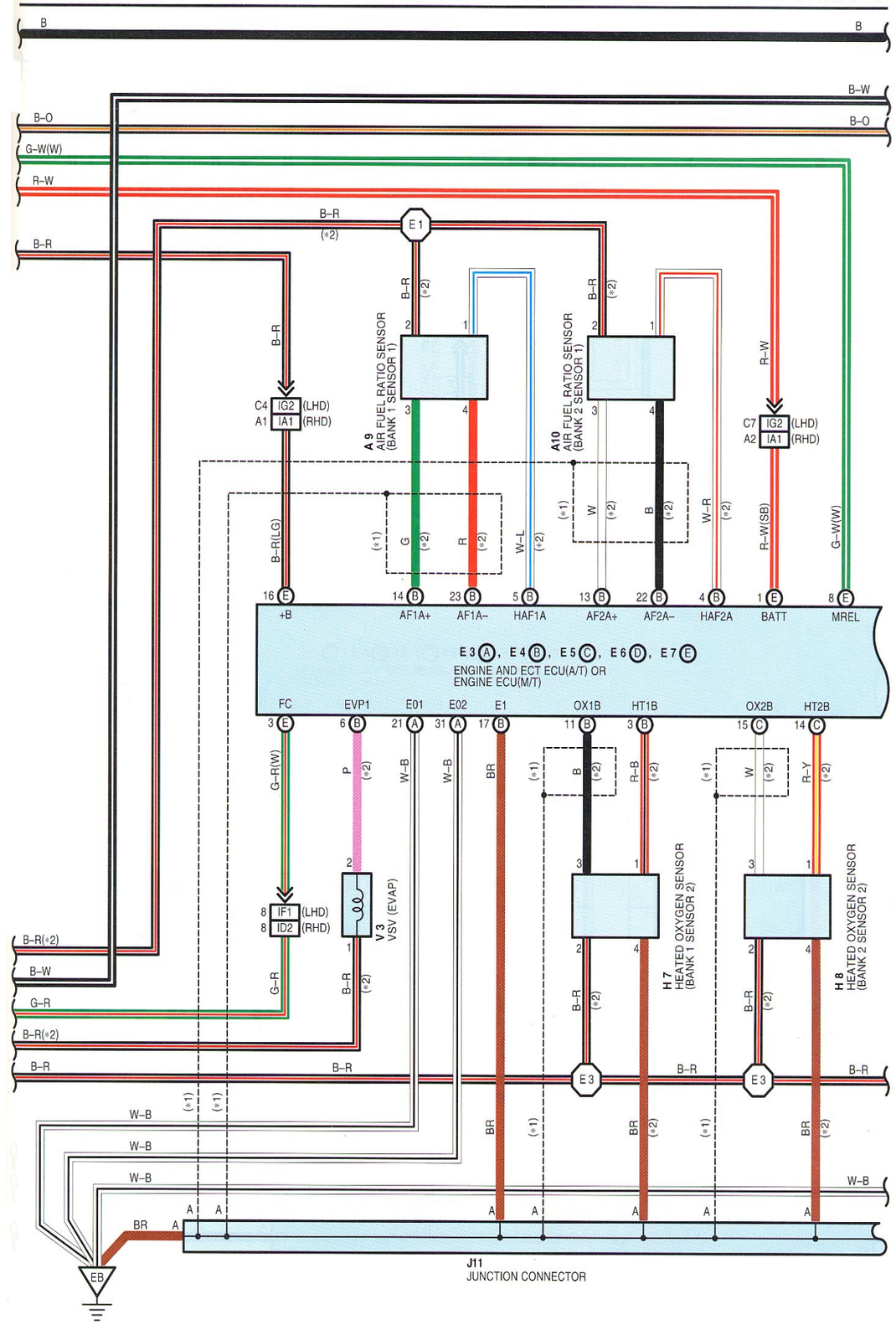
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	108 (LHD 1AZ-FE)	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	

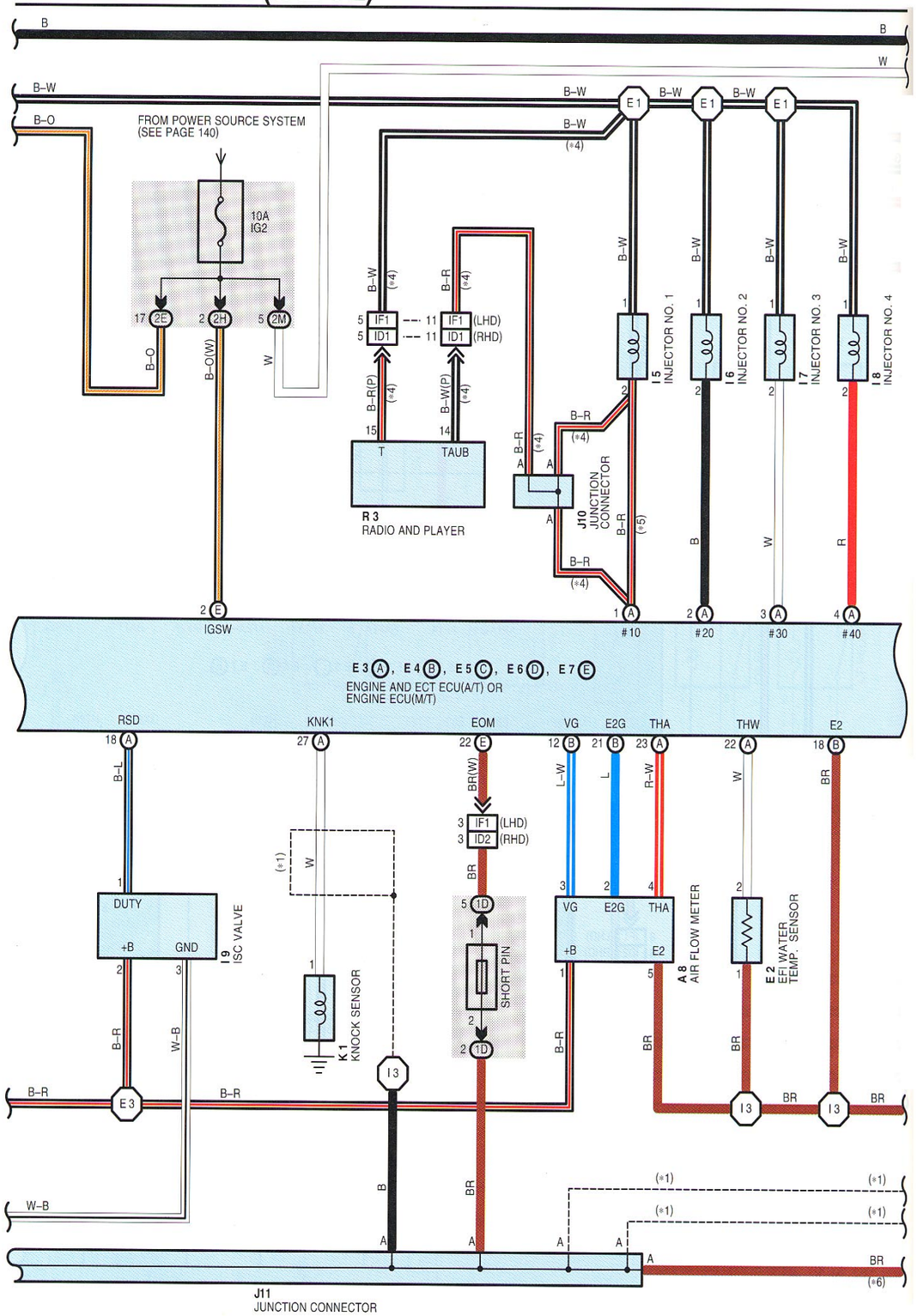
ENGINE CONTROL (1AZ-FE)



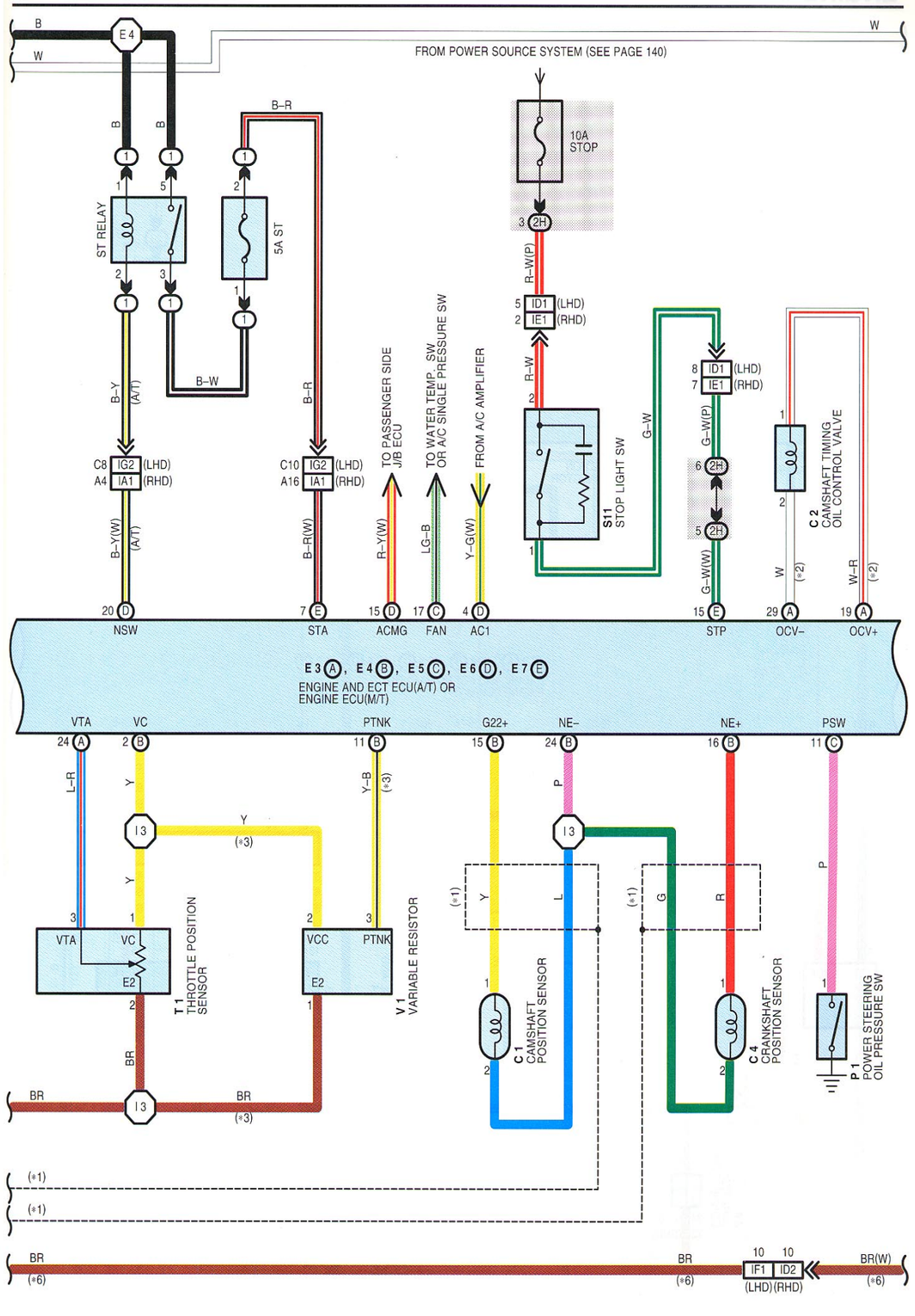
* 1 : SHIELDED
* 2 : UNLEADED GASOLINE



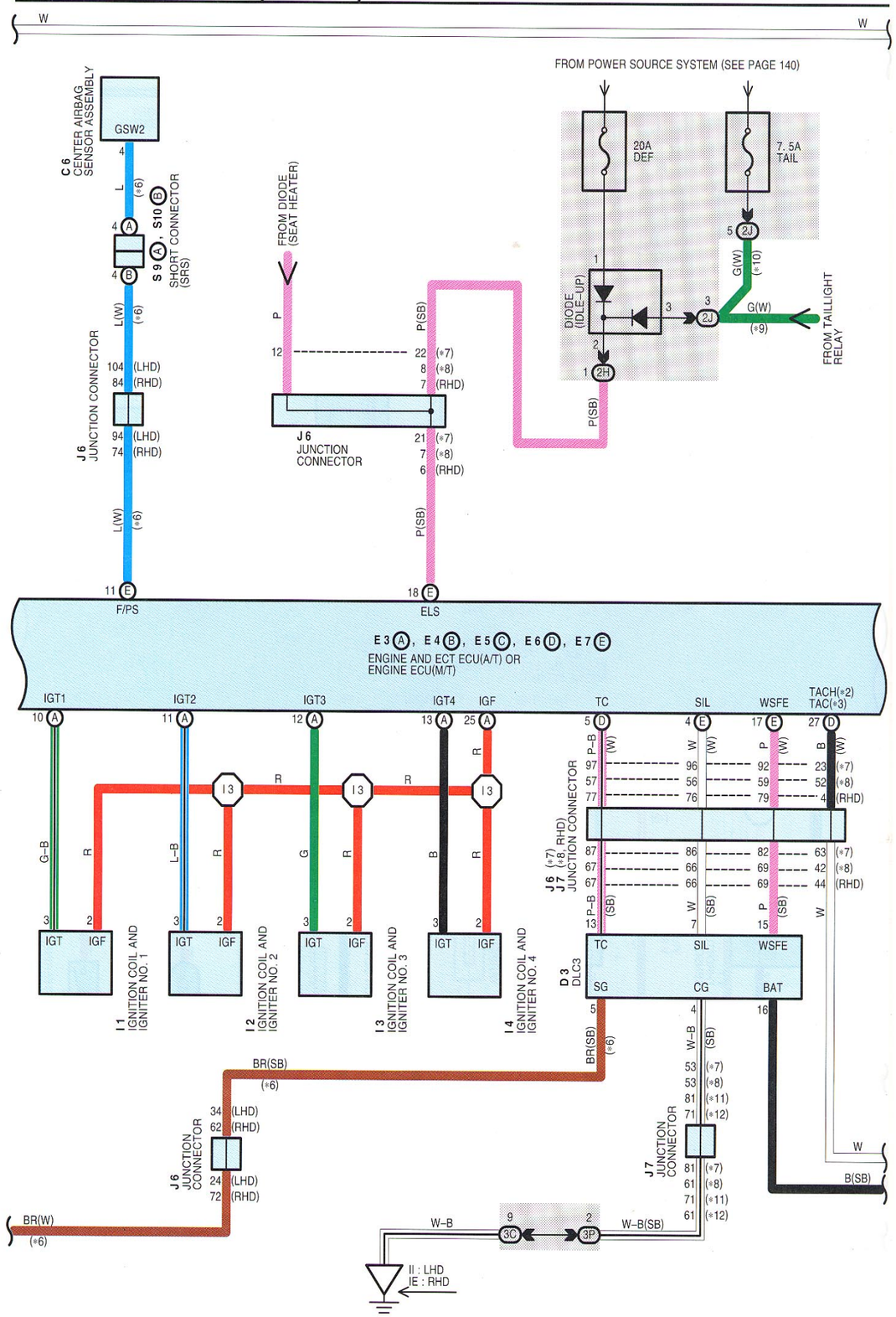
ENGINE CONTROL (1AZ-FE)

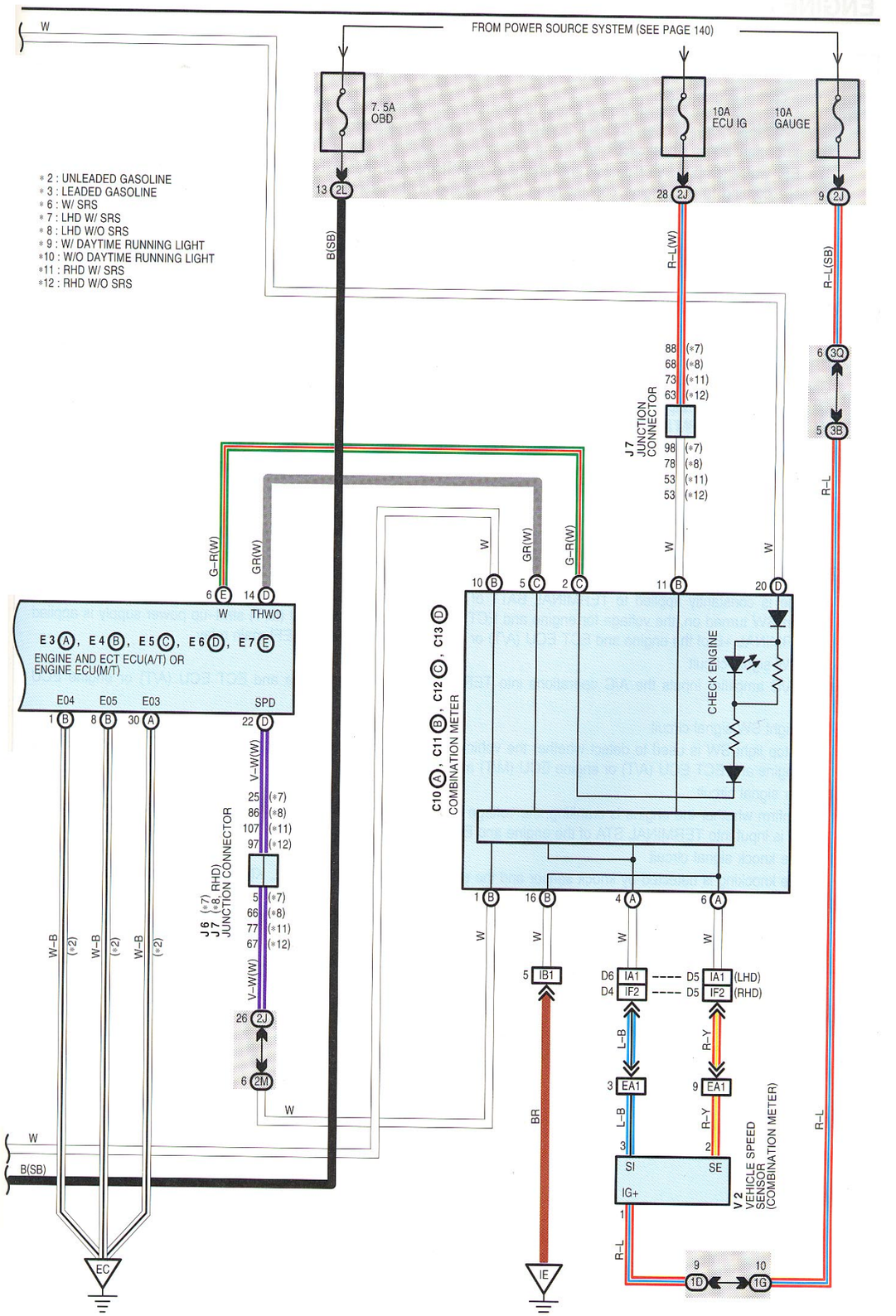


* 1 : SHIELDED
* 2 : UNLEADED GASOLINE
* 3 : LEADED GASOLINE
* 4 : W/ MULTI DISPLAY
* 5 : W/O MULTI DISPLAY
* 6 : W/ SRS



ENGINE CONTROL (1AZ-FE)





ENGINE CONTROL (1AZ-FE)

SYSTEM OUTLINE

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

1. INPUT SIGNALS

(1) Engine coolant temp. signal circuit

The EFI water temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance, which varies according to the engine coolant temp.. The engine coolant temp. which is input into TERMINAL THW of the engine and ECT ECU (A/T) or engine ECU (M/T) as a control signal.

(2) Intake air temp. signal circuit

The intake air temp. sensor is installed in the air flow meter and detects the intake air temp. which is input as a control signal to TERMINAL THA of the engine and ECT ECU (A/T) or engine ECU (M/T).

(3) Oxygen density signal circuit

The oxygen density in the exhaust emission is detected by the heated oxygen sensors and input as a control signal to TERMINALS OX1B and OX2B of the engine and ECT ECU (A/T) or engine ECU (M/T).

(4) RPM signal circuit

Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor. Camshaft position is input as a control signal to TERMINAL G22+ of the engine and ECT ECU (A/T) or engine ECU (M/T), and engine RPM is input into TERMINAL NE+.

(5) Throttle position signal circuit

The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA of the engine and ECT ECU (A/T) or engine ECU (M/T).

(6) Vehicle speed circuit

The speed sensor (Combination meter) detects the vehicle speed and inputs a control signal to TERMINAL SPD of the engine and ECT ECU (A/T) or engine ECU (M/T).

(7) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine and ECT ECU (A/T) or engine ECU (M/T). With the ignition SW turned on, the voltage for engine and ECT ECU (A/T) or engine ECU (M/T) start-up power supply is applied to TERMINAL +B of the engine and ECT ECU (A/T) or engine ECU (M/T) via the EFI main relay.

(8) A/C SW signal circuit

The A/C amplifier inputs the A/C operations into TERMINAL AC1 of the engine and ECT ECU (A/T) or engine ECU (M/T).

(9) Stop light SW signal circuit

The stop light SW is used to detect whether the vehicle is braking or not and the signal is input into TERMINAL STP of the engine and ECT ECU (A/T) or engine ECU (M/T) as a control signal.

(10) Starter signal circuit

To confirm whether the engine is cranking, the voltage is applied to the starter motor during cranking is detected and the signal is input into TERMINAL STA of the engine and ECT ECU (A/T) or engine ECU (M/T) as a control signal.

(11) Engine knock signal circuit

Engine knocking is detected by knock sensor and the signal is input into TERMINAL KNK1 as a control signal.

(12) Air fuel ratio signal system

The air fuel ratio is detected and input as a control signal into TERMINALS AF1A+, AF2A+ of the engine and ECT ECU (A/T) or engine ECU (M/T).

2. CONTROL SYSTEM

* EFI system

The EFI system monitors the engine condition through the signals input from each sensor to the engine and ECT ECU (A/T) or engine ECU (M/T). And the control signal is output to TERMINALS #10, #20, #30, #40 of the engine and ECT ECU (A/T) or engine ECU (M/T) to operate the injector (Inject the fuel). The EFI system controls the fuel injection operation by the engine and ECT ECU (A/T) or engine ECU (M/T) in response to the driving conditions.

* ESA system

The ESA system monitors the engine condition through the signals input to the engine and ECT ECU (A/T) or engine ECU (M/T) from each sensor. The best ignition timing is decided according to this data and the memorized data in the engine and ECT ECU (A/T) or engine ECU (M/T) and the control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.

* Heated oxygen sensor heater control system

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

* ISC system

The ISC system (Rotary solenoid type) increases the RPM and provides idling stability for fast idle-up when the engine is cold and when the idle speed has dropped due to electrical load, etc. The engine and ECT ECU (A/T) or engine ECU (M/T) evaluates the signals from each sensor, outputs current to TERMINAL RSD, and controls the ISC valve.

3. DIAGNOSIS SYSTEM

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

ENGINE CONTROL (1AZ-FE)

SERVICE HINTS

E3 (A), E4 (B), E5 (C), E6 (D), E7 (E) ENGINE AND ECT ECU (A/T) OR ENGINE ECU (M/T)

BATT-E1 : Always **9.0-14.0** volts
VC-E2 : **4.5-5.5** volts (Ignition SW at **ON** position)
VTA-E2 : **0.3-1.0** volts (Ignition SW on and throttle valve fully closed)
3.2-4.9 volts (Ignition SW on and throttle valve fully open)
VG-E2G : **1.1-1.5** volts (Engine idling and A/C SW off)
THA-E2 : **0.5-3.4** volts (Engine idling and intake air temp. **20**°C, **68**°F)
THW-E2 : **0.2-1.0** volts (Engine idling and coolant temp. **80**°C, **176**°F)
IGF-E1 : **4.5-5.5** volts (Ignition SW at **ON** position)
Pulse generation (Engine idling)
SIL-E1 : Pulse generation (During transmission)
TACH-E1 : Pulse generation (Engine idling)
TAC-E1 : Pulse generation (Engine idling)
STA-E1 : **6.0** volts or more (Engine cranking)
FC-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)
SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)
W-E01 : Below **3.0** volts (Ignition SW at **ON** position)
NSW-E1 : **9.0-14.0** volts (Ignition SW on and other shift position in **P** or **N** position)
0-3.0 volts (Ignition SW on and shift position in **P** or **N** position)
EVP1-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)
STP-E1 : **7.5-14.0** volts (Ignition SW on and brake pedal depressed)
Below **1.5** volts (Ignition SW on and brake pedal released)
KNK1-E1 : Pulse generation (Engine idling)
PSW-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)
IGSW-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)
MREL-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)
G22+, NE+ -NE- : Pulse generation (Engine idling)
HAF1A-E04 : Below **3.0** volts (Engine idling)
OCV+ -OCV- : Pulse generation (Ignition SW at **ON** position)
HT1B, HT2B-E1 : **9.0-14.0** volts (Engine idling)
Below **3.0** volts (Ignition SW at **ON** position)
AF1A+, AF2A+ -E1 : **3.3** volts (Ignition SW at **ON** position)
AF1A-, AF2A- -E1 : **3.0** volts (Ignition SW at **ON** position)
OX1B, OX2B-E1 : Pulse generation (Maintain engine speed at **2500** rpm for 90 sec. after warming up)
IGT1, IGT2, IGT3, IGT4-E1 : Pulse generation (Engine idling)
#10, #20, #30, #40-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)
Pulse generation (Engine idling)

O : PARTS LOCATION

Code	See Page
A8	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
A9	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
A10	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
C1	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
C2	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
C4	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
C6	92 (LHD)
	102 (RHD)
C10 A	92 (LHD)
	102 (RHD)
C11 B	92 (LHD)
	102 (RHD)
C12 C	92 (LHD)
	102 (RHD)
C13 D	92 (LHD)
	102 (RHD)
D3	92 (LHD)
	102 (RHD)
E2	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
E3 A	92 (LHD)
	102 (RHD)
E4 B	92 (LHD)
	102 (RHD)
E5 C	92 (LHD)
	102 (RHD)
E6 D	92 (LHD)
	102 (RHD)
E7 E	92 (LHD)
	102 (RHD)
F14	88 (LHD 1AZ-FE)
	98 (RHD 1AZ-FE)
F18	94 (LHD 5-Door)
	96 (LHD 3-Door)
	104 (RHD 5-Door)
	106 (RHD 3-Door)
H7	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
H8	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I1	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I2	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I3	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I4	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I5	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I6	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I7	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I8	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I9	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
I10	92 (LHD)
	102 (RHD)
J6	93 (LHD)
	103 (RHD)
J7	93 (LHD)
	103 (RHD)
J10	93 (LHD)
	103 (RHD)
J11	93 (LHD)
	103 (RHD)
K1	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
P1	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
R3	93 (LHD)
	103 (RHD)
S9 A	93 (LHD)
	103 (RHD)
S10 B	93 (LHD)
	103 (RHD)
S11	93 (LHD)
	103 (RHD)
T1	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
V1	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
V2	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)
V3	89 (LHD 1AZ-FE)
	99 (RHD 1AZ-FE)

▭ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	79	Engine Room R/B (Engine Compartment Left)

ENGINE CONTROL (1AZ-FE)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	80	Engine Wire and Engine Room J/B (Engine Compartment Left)
1C		
1D		
1E	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1F		
1G		
2C	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2E		
2G	82	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2H	83	
2J		
2L		
2M		
3B	86	Engine Room Main Wire and Passenger Side J/B (Behind the Glove Box)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)
3Q		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	108 (LHD 1AZ-FE)	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)
	120 (RHD 1AZ-FE)	
IA1	112 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
	124 (RHD)	
IB1	112 (LHD)	Instrument Panel Wire and Floor Wire (Left Kick Panel)
	124 (RHD)	
IB2	124 (RHD)	
ID1	112 (LHD)	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)
	124 (RHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
ID2	124 (RHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IE1	126 (RHD)	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)
IF1	114 (LHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IF2	126 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)
IG2	114 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)

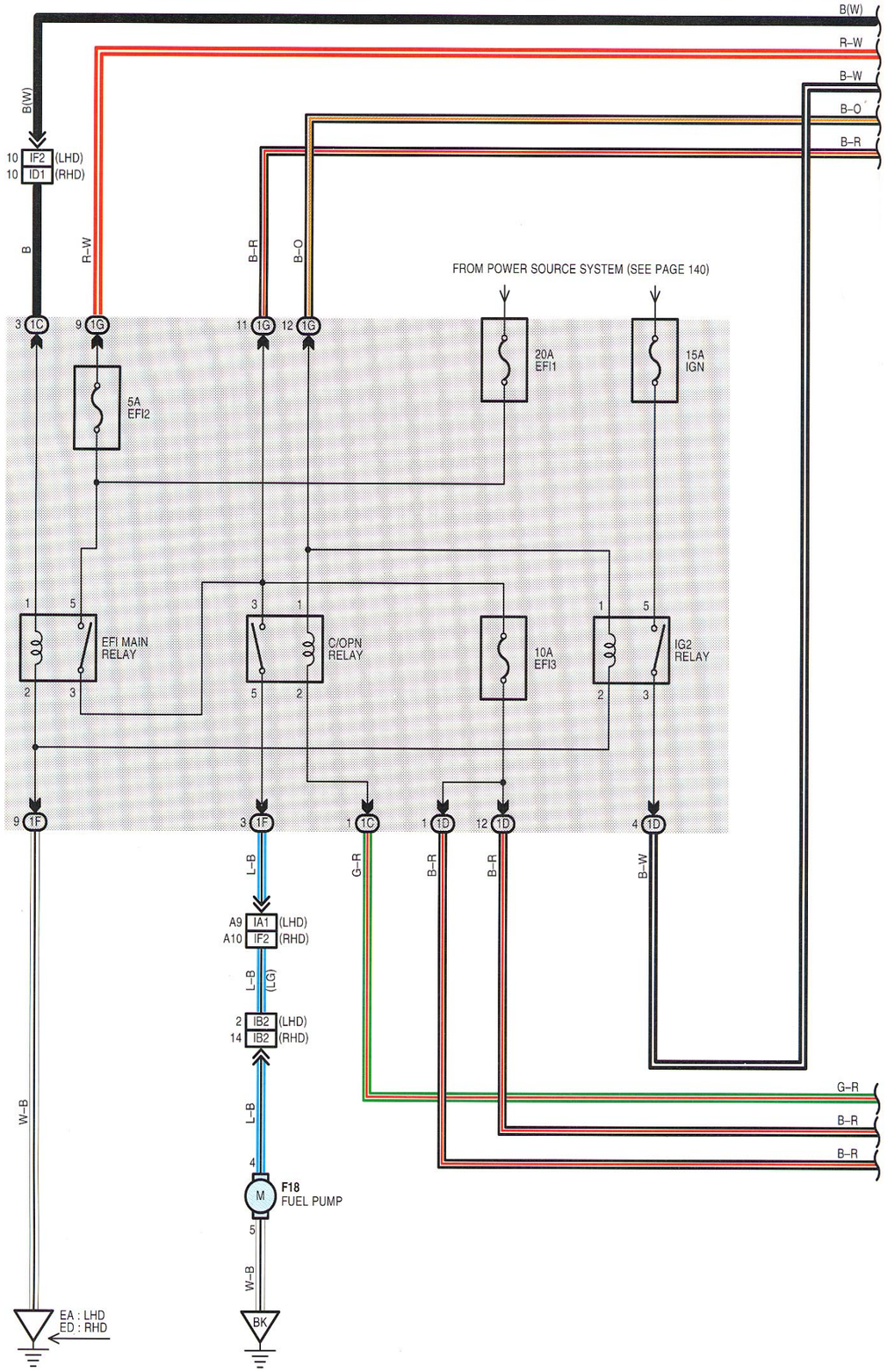
: GROUND POINTS

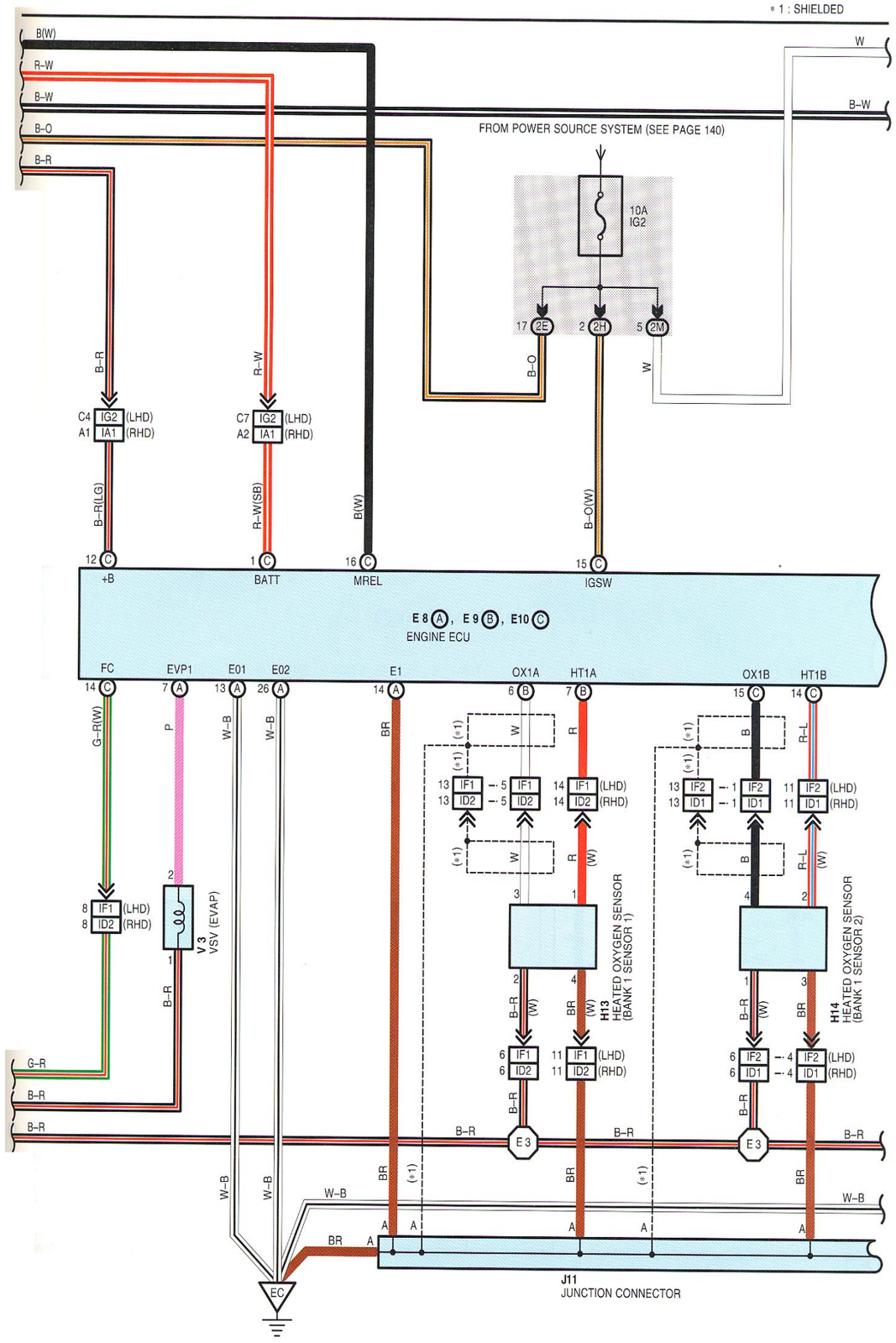
Code	See Page	Ground Points Location
EA	108 (LHD 1AZ-FE)	Front Right Side of Fender Apron
EB	108 (LHD 1AZ-FE)	Intake Side of Cylinder Block
	120 (RHD 1AZ-FE)	
EC	108 (LHD 1AZ-FE)	Left Side of Cylinder Head
	120 (RHD 1AZ-FE)	
ED	120 (RHD 1AZ-FE)	Front Left Side of Fender Apron
IE	112 (LHD)	Left Kick Panel
	124 (RHD)	
II	112 (LHD)	Right Kick Panel
	124 (RHD)	
BK	116 (LHD 5-Door)	Left Side of Quarter Panel
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	

: SPLICE POINTS

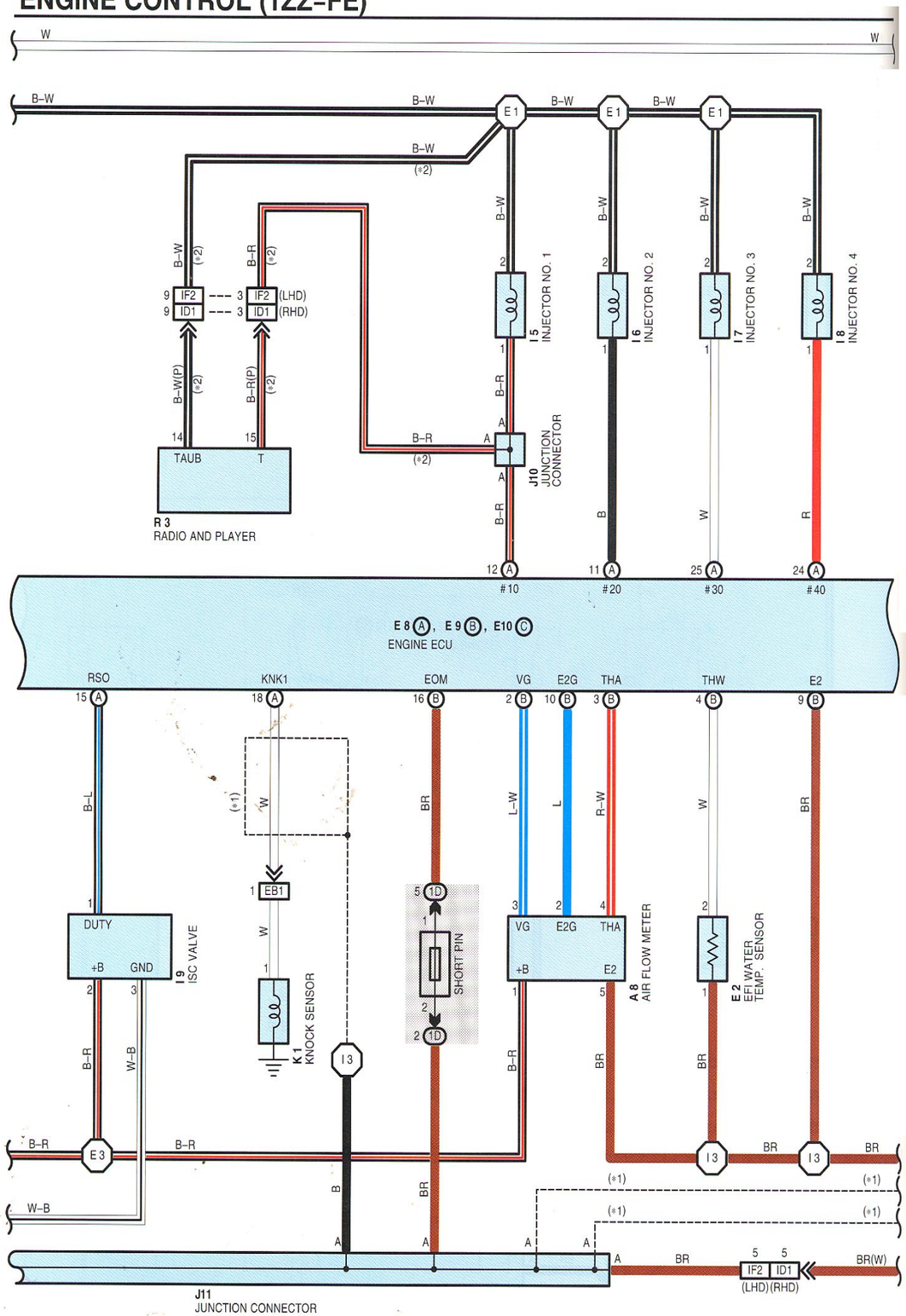
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	108 (LHD 1AZ-FE)	Engine Wire	E4	108 (LHD 1AZ-FE)	Engine Room Main Wire
	120 (RHD 1AZ-FE)			120 (RHD 1AZ-FE)	
E3	108 (LHD 1AZ-FE)		I3	114 (LHD)	Engine Wire
	120 (RHD 1AZ-FE)			126 (RHD)	

ENGINE CONTROL (1ZZ-FE)

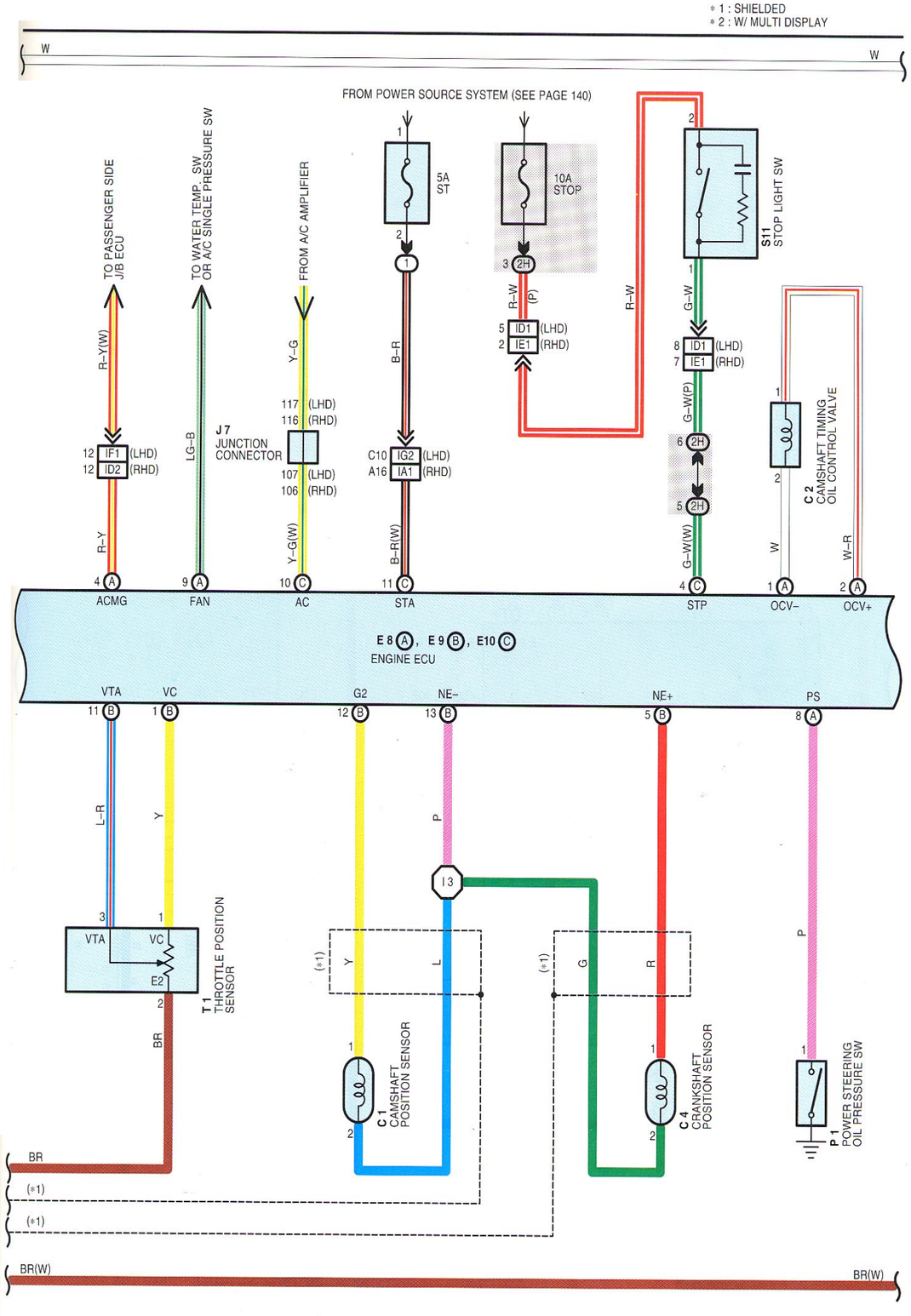




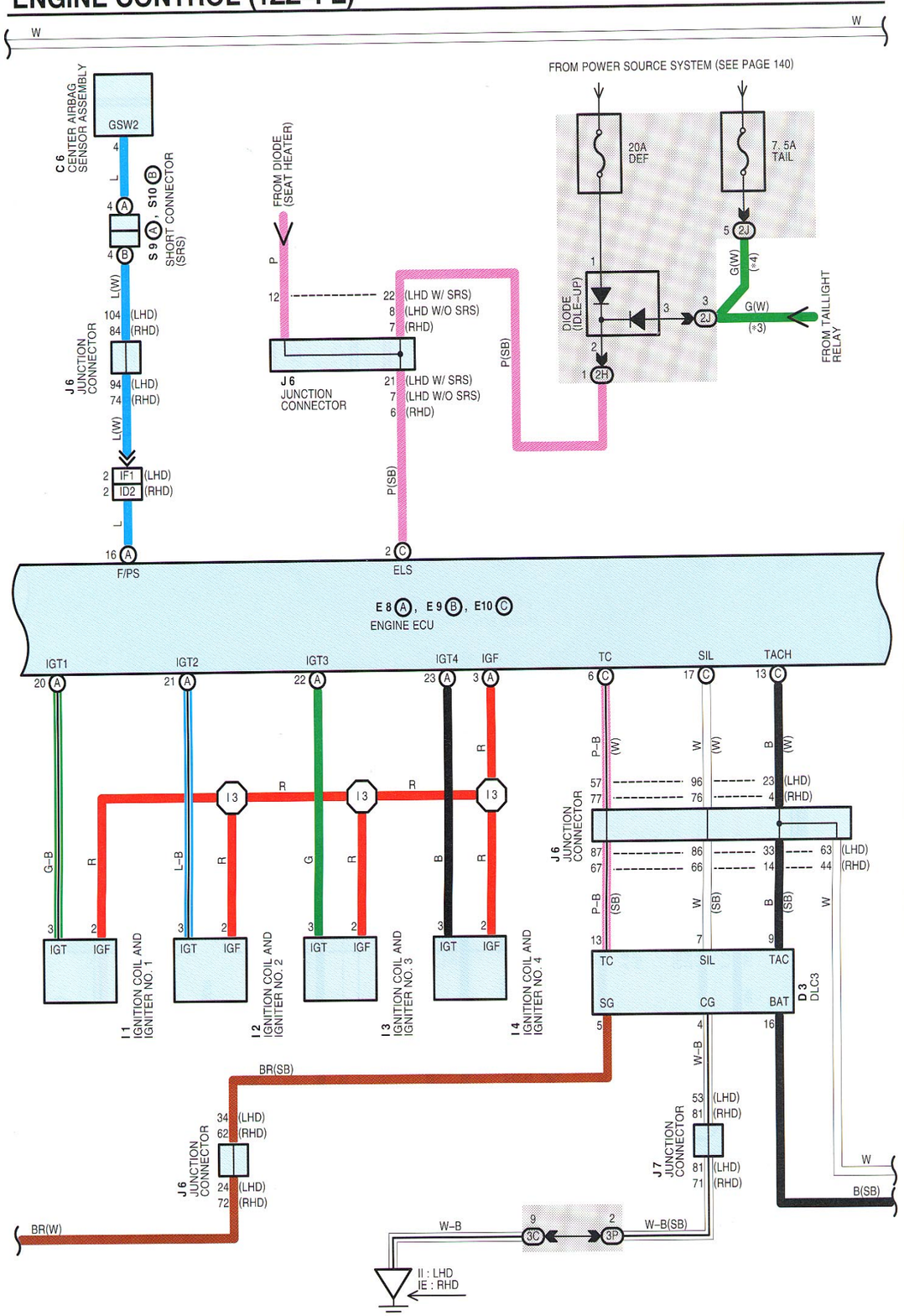
ENGINE CONTROL (1ZZ-FE)



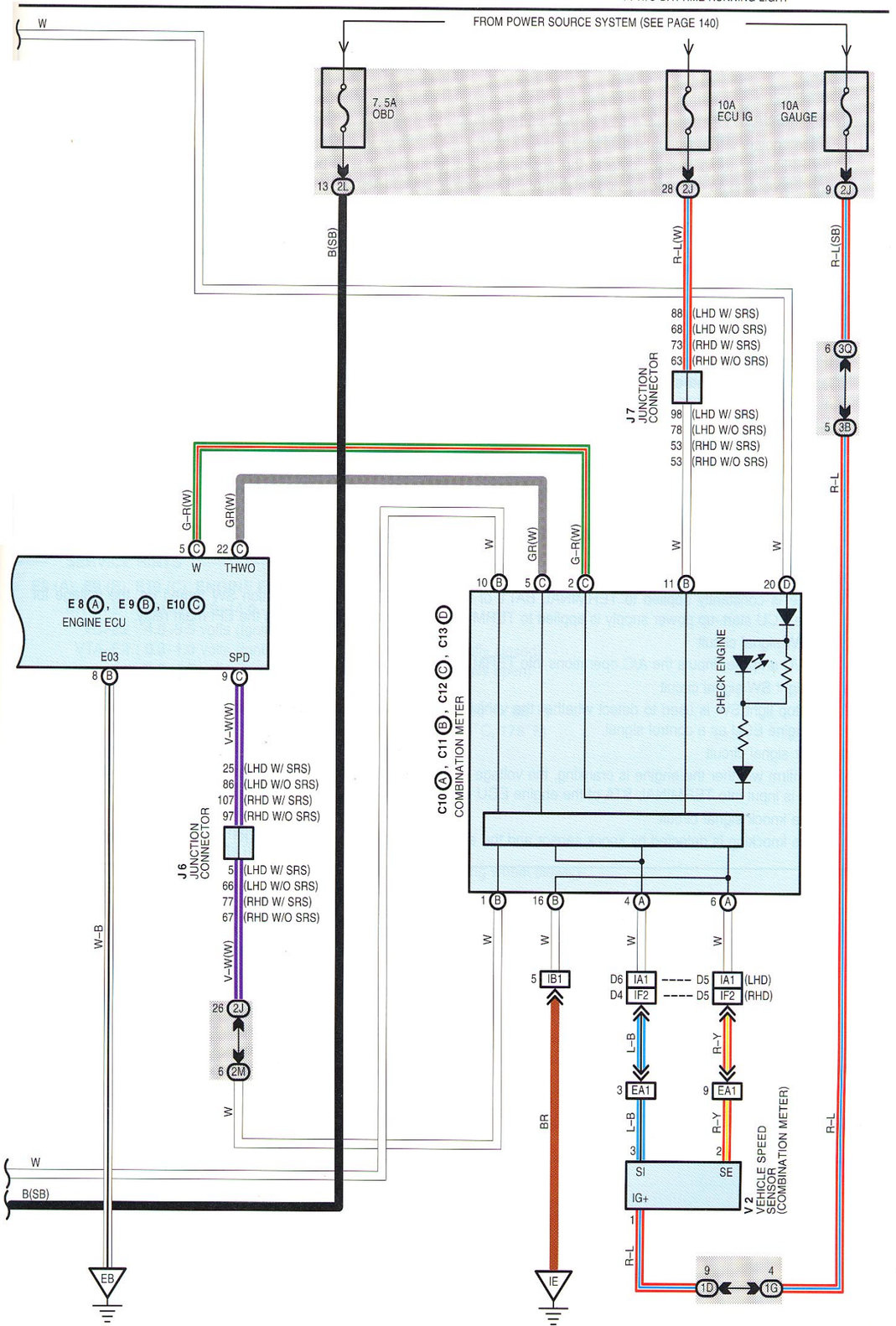
* 1 : SHIELDED
* 2 : W/ MULTI DISPLAY



ENGINE CONTROL (1ZZ-FE)



* 3 : W/ DAYTIME RUNNING LIGHT
* 4 : W/O DAYTIME RUNNING LIGHT



ENGINE CONTROL (1ZZ-FE)

SYSTEM OUTLINE

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

1. INPUT SIGNALS

(1) Engine coolant temp. signal circuit
The EFI water temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance, which varies according to the engine coolant temp.. The engine coolant temp. which is input into TERMINAL THW of the engine ECU as a control signal.

(2) Intake air temp. signal circuit
The intake air temp. sensor is installed in the air flow meter and detects the intake air temp. which is input as a control signal to TERMINAL THA of the engine ECU.

(3) Oxygen density signal circuit
The oxygen density in the exhaust emission is detected by the heated oxygen sensors and input as a control signal to TERMINALS OX1A and OX1B of the engine ECU.

(4) RPM signal circuit
Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor. Camshaft position is input as a control signal to TERMINAL G2 of the engine ECU, and engine RPM is input into TERMINAL NE+.

(5) Throttle position signal circuit
The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINAL VTA of the engine ECU.

(6) Vehicle speed circuit
The speed sensor (Combination meter) detects the vehicle speed and inputs a control signal to TERMINAL SPD of the engine ECU.

(7) Battery signal circuit
Voltage is constantly applied to TERMINAL BATT of the engine ECU. With the ignition SW turned on, the voltage for engine ECU start-up power supply is applied to TERMINAL +B of the engine ECU via the EFI main relay.

(8) A/C SW signal circuit
The A/C amplifier inputs the A/C operations into TERMINAL AC of the engine ECU.

(9) Stop light SW signal circuit
The stop light SW is used to detect whether the vehicle is braking or not and the signal is input into TERMINAL STP of the engine ECU as a control signal.

(10) Starter signal circuit
To confirm whether the engine is cranking, the voltage is applied to the starter motor during cranking is detected and the signal is input into TERMINAL STA of the engine ECU as a control signal.

(11) Engine knock signal circuit
Engine knocking is detected by knock sensor and the signal is input into TERMINAL KNK1 as a control signal.

2. CONTROL SYSTEM

* EFI system
The EFI system monitors the engine condition through the signals input from each sensor to the engine ECU. And the control signal is output to TERMINALS #10, #20, #30, #40 of the engine ECU to operate the injector (Inject the fuel). The EFI system controls the fuel injection operation by the engine ECU in response to the driving conditions.
* ESA system
The ESA system monitors the engine condition through the signals input to the engine ECU from each sensor. The best ignition timing is decided according to this data and the memorized data in the engine ECU and the control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.
* Heated oxygen sensor heater control system
The heated oxygen sensor heater control system turns the heater on when the intake air volume is low (Temp. of exhaust emissions is low), and warms up the heated oxygen sensors to improve detection performance of the sensors. The engine ECU evaluates the signals from each sensor, and outputs current to TERMINALS HT1A and HT1B to control the heater.
* ISC system
The ISC system (Rotary solenoid type) increases the RPM and provides idling stability for fast idle-up when the engine is cold and when the idle speed has dropped due to electrical load, etc. The engine ECU evaluates the signals from each sensor, outputs current to TERMINAL RSO, and controls the ISC valve.

3. DIAGNOSIS SYSTEM

With the diagnosis system, when there is a malfunction in the engine 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.

SERVICE HINTS

E8 (A), E9 (B), E10 (C) ENGINE ECU

BATT-E1 : Always **9.0-14.0** volts
VC-E2 : **4.5-5.5** volts (Ignition SW at **ON** position)
VTA-E2 : **0.3-1.0** volts (Ignition SW on and throttle valve fully closed)
3.2-4.9 volts (Ignition SW on and throttle valve fully open)
VG-E2G : **1.1-1.5** volts (Engine idling and A/C SW off)
THA-E2 : **0.5-3.4** volts (Engine idling and intake air temp. **20**°C, **68**°F)
THW-E2 : **0.2-1.0** volts (Engine idling and coolant temp. **80**°C, **176**°F)
IGF-E1 : **4.5-5.5** volts (Ignition SW at **ON** position)
Pulse generation (Engine idling)
SIL-E1 : Pulse generation (During transmission)
TACH-E1 : Pulse generation (Engine idling)
STA-E1 : **6.0** volts or more (Engine cranking)
FC-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)
SPD-E1 : Pulse generation (Ignition SW on and rotate driving wheel slowly)
W-E01 : Below **3.0** volts (Ignition SW at **ON** position)
EVP1-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)
STP-E1 : **7.5-14.0** volts (Ignition SW on and brake pedal depressed)
Below **1.5** volts (Ignition SW on and brake pedal released)
KNK1-E1 : Pulse generation (Engine idling)
PS-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)
IGSW-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)
MREL-E1 : **9.0-14.0** volts (Ignition SW at **ON** position)
G2, NE+ -NE- : Pulse generation (Engine idling)
OCV+ -OCV- : Pulse generation (Ignition SW at **ON** position)
IGT1, IGT2, IGT3, IGT4-E1 : Pulse generation (Engine idling)
#10, #20, #30, #40-E01 : **9.0-14.0** volts (Ignition SW at **ON** position)
Pulse generation (Engine idling)

ENGINE CONTROL (1ZZ-FE)

○ : PARTS LOCATION

Code	See Page
A8	90 (LHD 1ZZ-FE)
	100 (RHD 1ZZ-FE)
C1	90 (LHD 1ZZ-FE)
	100 (RHD 1ZZ-FE)
C2	90 (LHD 1ZZ-FE)
	100 (RHD 1ZZ-FE)
C4	90 (LHD 1ZZ-FE)
	100 (RHD 1ZZ-FE)
C6	92 (LHD)
	102 (RHD)
C10 A	92 (LHD)
	102 (RHD)
C11 B	92 (LHD)
	102 (RHD)
C12 C	92 (LHD)
	102 (RHD)
C13 D	92 (LHD)
	102 (RHD)
D3	92 (LHD)
	102 (RHD)
E2	90 (LHD 1ZZ-FE)
	100 (RHD 1ZZ-FE)
E8 A	92 (LHD)
	102 (RHD)
E9 B	92 (LHD)
	102 (RHD)
E10 C	92 (LHD)

Code	See Page
E10 C	102 (RHD)
F18	94 (LHD 5-Door)
	96 (LHD 3-Door)
	104 (RHD 5-Door)
	106 (RHD 3-Door)
H13	92 (LHD)
	102 (RHD)
H14	92 (LHD)
	102 (RHD)
I1	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I2	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I3	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I4	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I5	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I6	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I7	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I8	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
I9	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)

Code	See Page
J6	93 (LHD)
	103 (RHD)
J7	93 (LHD)
	103 (RHD)
J10	93 (LHD)
	103 (RHD)
J11	93 (LHD)
	103 (RHD)
K1	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
P1	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
R3	93 (LHD)
	103 (RHD)
S9 A	93 (LHD)
	103 (RHD)
S10 B	93 (LHD)
	103 (RHD)
S11	93 (LHD)
	103 (RHD)
T1	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
V2	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)
V3	91 (LHD 1ZZ-FE)
	101 (RHD 1ZZ-FE)

⬭ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	79	Engine Room R/B (Engine Compartment Left)

⬭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1C	80	Engine Wire and Engine Room J/B (Engine Compartment Left)
1D		
1F	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
1G		
2E	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2H	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2J		
2L		
2M		
3B	86	Engine Room Main Wire and Passenger Side J/B (Behind the Glove Box)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)
3Q		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	110 (LHD 1ZZ-FE)	Engine Wire and Engine Room Main Wire (Under the Engine Room J/B)
	122 (RHD 1ZZ-FE)	
EB1	110 (LHD 1ZZ-FE)	Engine No.4 Wire and Engine Wire (Behind the Intake Manifold)
	122 (RHD 1ZZ-FE)	
IA1	112 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
	124 (RHD)	
IB1	112 (LHD)	Instrument Panel Wire and Floor Wire (Left Kick Panel)
	124 (RHD)	
IB2	112 (LHD)	
	124 (RHD)	
ID1	112 (LHD)	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)
	124 (RHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
ID2	124 (RHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IE1	126 (RHD)	Instrument Panel Wire and Switch Wire (Near the Driver Side J/B)
IF1	114 (LHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IF2	114 (LHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
	126 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)
IG2	114 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	110 (LHD 1ZZ-FE)	Front Right Side of Fender Apron
EB	110 (LHD 1ZZ-FE)	Left Side of Cylinder Head
	122 (RHD 1ZZ-FE)	
EC	110 (LHD 1ZZ-FE)	
	122 (RHD 1ZZ-FE)	
ED	122 (RHD 1ZZ-FE)	Front Left Side of Fender Apron
IE	112 (LHD)	Left Kick Panel
	124 (RHD)	
II	112 (LHD)	Right Kick Panel
BK	116 (LHD 5-Door)	Left Side of Quarter Panel
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	

⬡ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E1	110 (LHD 1ZZ-FE)	Engine Wire	E3	122 (RHD 1ZZ-FE)	Engine Wire
	122 (RHD 1ZZ-FE)		I3	114 (LHD)	
E3	110 (LHD 1ZZ-FE)			126 (RHD)	

SERVICE HINTS

U1 UNLOCK WARNING SW

2–1 : Closed with the ignition key in cylinder

T6 TRANSPONDER KEY AMPLIFIER

3–GROUND : Always continuity

: PARTS LOCATION

Code		See Page
E6	D	92 (LHD)
		102 (RHD)
E7	E	92 (LHD)
		102 (RHD)
E9	B	92 (LHD)
		102 (RHD)
E10	C	92 (LHD)

Code		See Page
E10	C	102 (RHD)
J6		93 (LHD)
J7		93 (LHD)
		103 (RHD)
J11		93 (LHD)
		103 (RHD)
T3		93 (LHD)

Code	See Page
T3	103 (RHD)
T6	93 (LHD)
	103 (RHD)
U1	93 (LHD)
	103 (RHD)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	80	Engine Wire and Engine Room J/B (Engine Compartment Left)
1G	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)

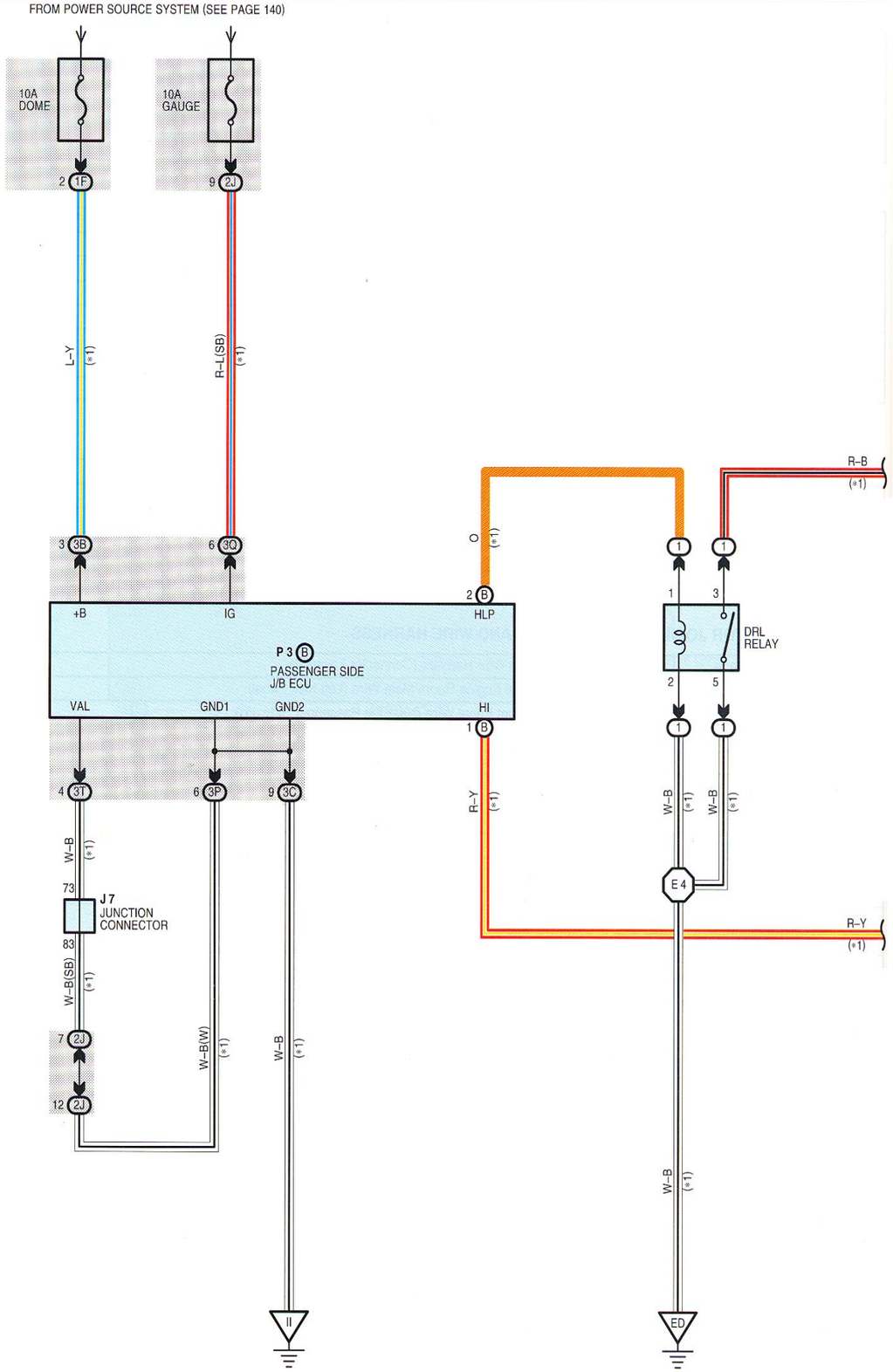
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	124 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
ID2	124 (RHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IF1	114 (LHD)	Engine Wire and Instrument Panel Wire (Near the Passenger Side J/B)
IG2	114 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)

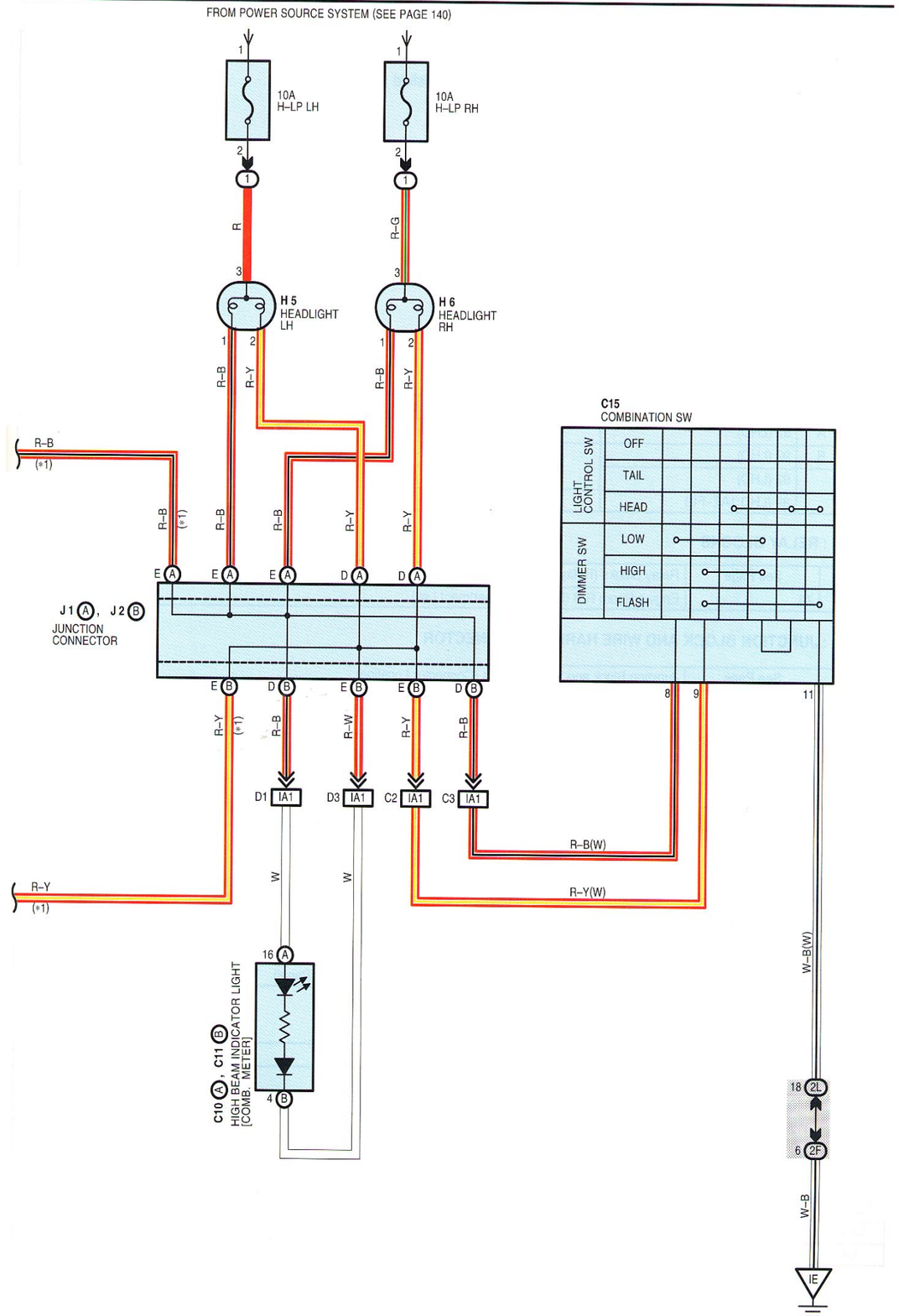
: GROUND POINTS

Code	See Page	Ground Points Location
EB	108 (LHD 1AZ–FE)	Intake Side of Cylinder Block
	120 (RHD 1AZ–FE)	
EC	108 (LHD 1AZ–FE)	Left Side of Cylinder Head
	120 (RHD 1AZ–FE)	
IE	124 (RHD)	Left Kick Panel
II	112 (LHD)	Right Kick Panel

HEADLIGHT (LHD)



* 1 : W/ DAYTIME RUNNING LIGHT



HEADLIGHT (LHD)

SYSTEM OUTLINE

DAYTIME RUNNING LIGHT OPERATION

The headlight is turned on when all the following conditions are satisfied

* When the ignition switch is ON position
* When the generator is generating electricity
* When the light control SW is OFF position

SERVICE HINTS

P3 (B) PASSENGER SIDE J/B ECU

+B-GROUND : Always approx. **12** volts
IG-GROUND : Approx. **12** volts with the ignition SW at **ON** position
GND1-GROUND : Always continuity
GND2-GROUND : Always continuity
VAL-GROUND : Always continuity

: PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C10	A	92 (LHD)	H5		91 (LHD 1ZZ-FE)	J2	B	93 (LHD)
C11	B	92 (LHD)	H6		89 (LHD 1AZ-FE)	J7		93 (LHD)
C15		92 (LHD)			91 (LHD 1ZZ-FE)	P3	B	93 (LHD)
H5		89 (LHD 1AZ-FE)	J1	A	93 (LHD)			

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	79	Engine Room R/B (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F	82	Floor Wire and Driver Side J/B (Lower Finish Panel)
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L		
3B	86	Engine Room Main Wire and Passenger Side J/B (Behind the Glove Box)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)
3Q		
3T		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	112 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)

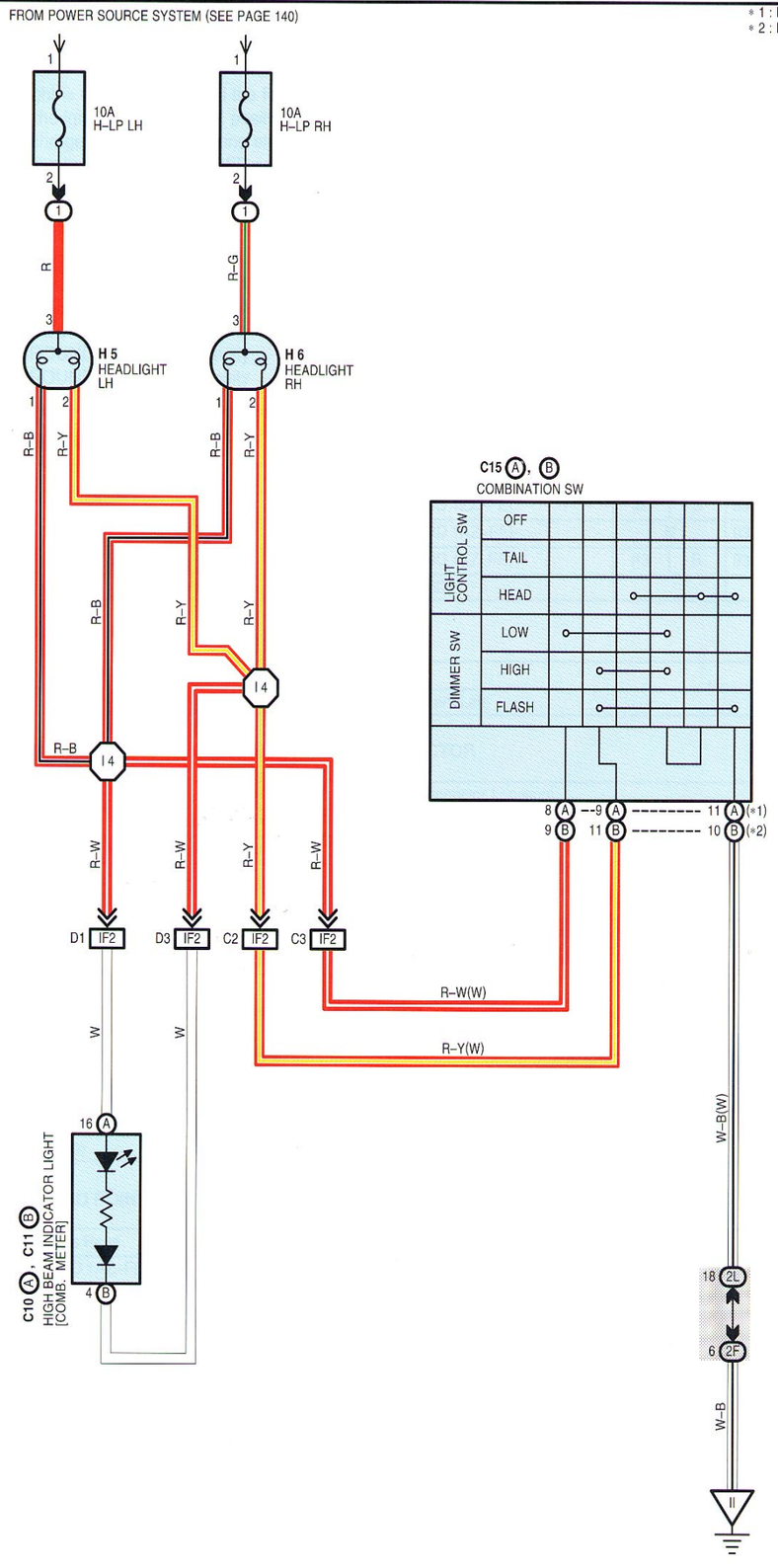
: GROUND POINTS

Code	See Page	Ground Points Location
ED	108 (LHD 1AZ-FE)	Front Left Side of Fender Apron
	110 (LHD 1ZZ-FE)	
IE	112 (LHD)	Left Kick Panel
II	112 (LHD)	Right Kick Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	108 (LHD 1AZ-FE)	Engine Room Main Wire	E4	110 (LHD 1ZZ-FE)	Engine Room Main Wire

HEADLIGHT (RHD)



SERVICE HINTS

C15 (A) COMBINATION SW (LH TURN LEVER TYPE)

(A) 8–(A) 11 : Closed with the light control SW at **HEAD** position and the dimmer SW at **LOW** position
(A) 9–(A) 11 : Closed with the dimmer SW at **FLASH** position
: Closed with the light control SW at **HEAD** position and the dimmer SW at **HIGH** position

C15 (B) COMBINATION SW (RH TURN LEVER TYPE)

(B) 9–(B) 10 : Closed with the light control SW at **HEAD** position and the dimmer SW at **LOW** position
(B) 11–(B) 10 : Closed with the dimmer SW at **FLASH** position
: Closed with the light control SW at **HEAD** position and the dimmer SW at **HIGH** position

: PARTS LOCATION

Code		See Page	Code		See Page	Code	See Page
C10	A	102 (RHD)	C15	B	102 (RHD)	H6	99 (RHD 1AZ-FE)
C11	B	102 (RHD)	H5		99 (RHD 1AZ-FE)		101 (RHD 1ZZ-FE)
C15	A	102 (RHD)			101 (RHD 1ZZ-FE)		

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	79	Engine Room R/B (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2F	82	Floor Wire and Driver Side J/B (Lower Finish Panel)
2L	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF2	126 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)

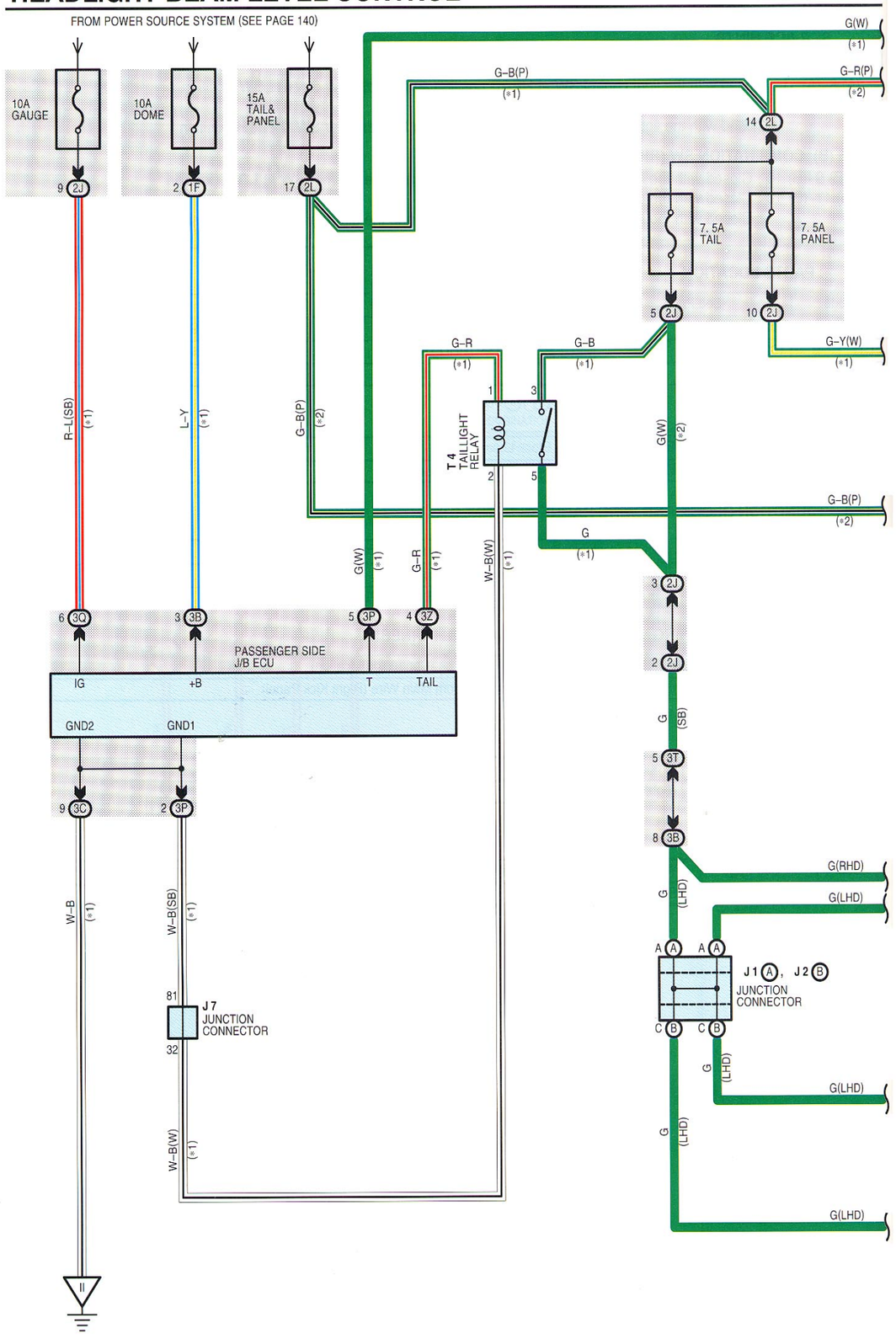
: GROUND POINTS

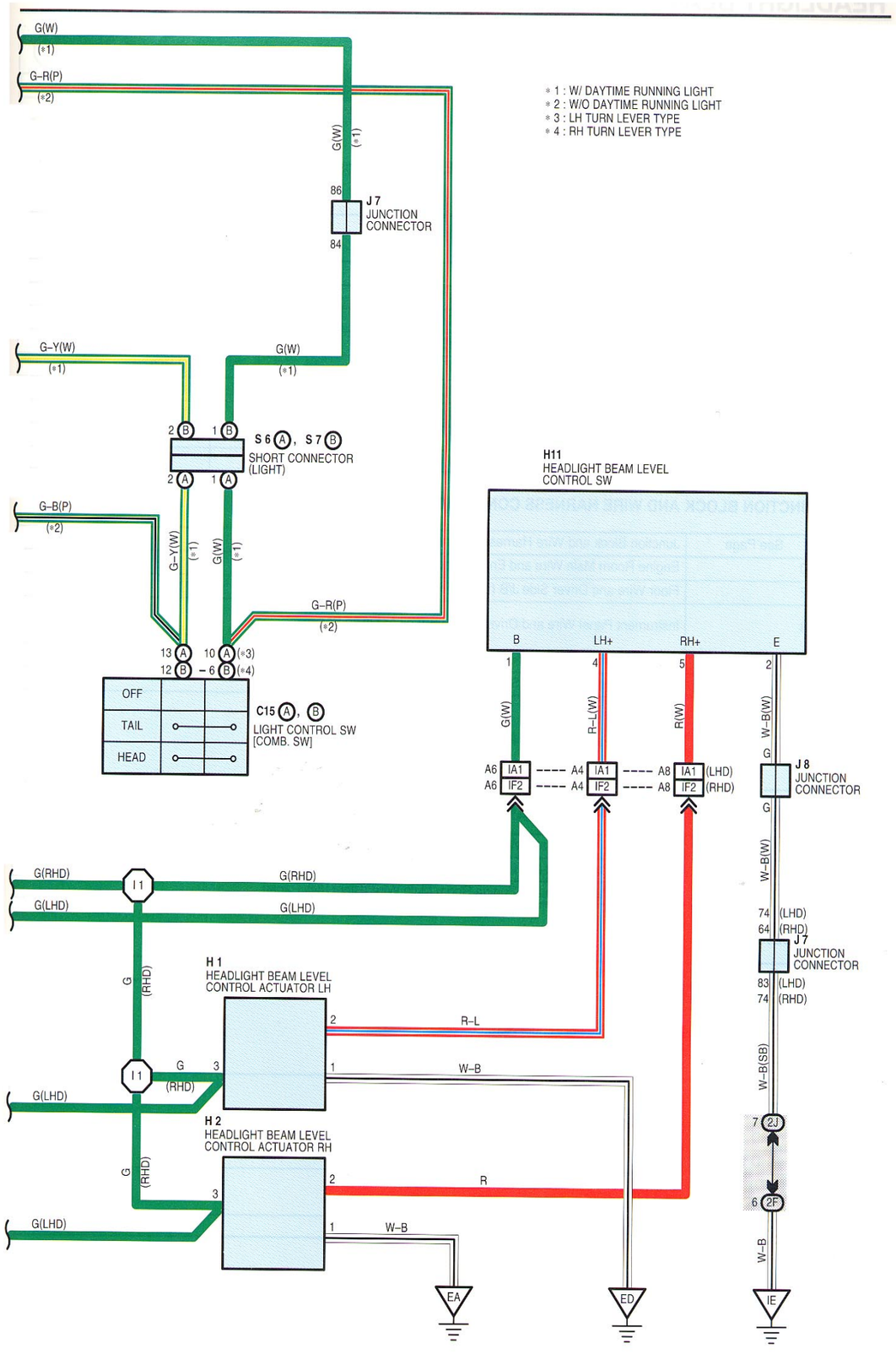
Code	See Page	Ground Points Location
Il	124 (RHD)	Right Kick Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I4	126 (RHD)	Engine Room Main Wire			

HEADLIGHT BEAM LEVEL CONTROL





HEADLIGHT BEAM LEVEL CONTROL

SERVICE HINTS

H1, H2 HEADLIGHT BEAM LEVEL CONTROL ACTUATOR LH, RH

3-GROUND : Approx. **12** volts with the light control SW at **HEAD** or **TAIL** position
1-GROUND : Always continuity

H11 HEADLIGHT BEAM LEVEL CONTROL SW

1-GROUND : Approx. **12** volts with the light control SW at **HEAD** or **TAIL** position
2-GROUND : Always continuity

O : PARTS LOCATION

Code		See Page	Code		See Page	Code		See Page
C15	A	92 (LHD)	H2		91 (LHD 1ZZ-FE)	J7		103 (RHD)
		102 (RHD)			99 (RHD 1AZ-FE)	J8		93 (LHD)
	B	102 (RHD)			101 (RHD 1ZZ-FE)			103 (RHD)
H1		89 (LHD 1AZ-FE)	H11		92 (LHD)	S6	A	93 (LHD)
		91 (LHD 1ZZ-FE)			102 (RHD)	S7	B	93 (LHD)
		99 (RHD 1AZ-FE)	J1	A	93 (LHD)	T4		93 (LHD)
		101 (RHD 1ZZ-FE)	J2	B	93 (LHD)			
H2		89 (LHD 1AZ-FE)	J7		93 (LHD)			

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F	82	Floor Wire and Driver Side J/B (Lower Finish Panel)
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L		
3B	86	Engine Room Main Wire and Passenger Side J/B (Behind the Glove Box)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)
3Q		
3T		
3Z		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	112 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IF2	126 (RHD)	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)

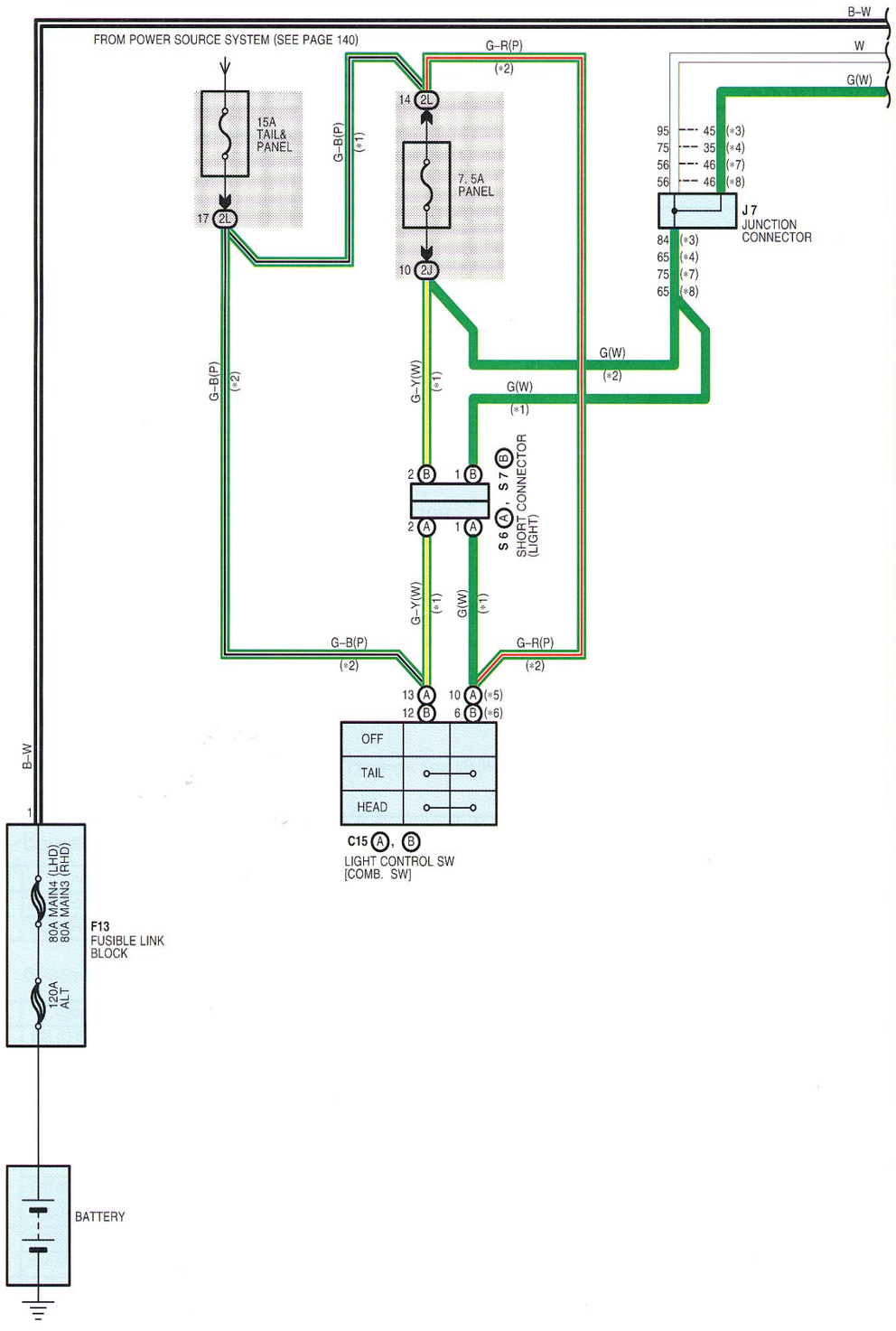
: GROUND POINTS

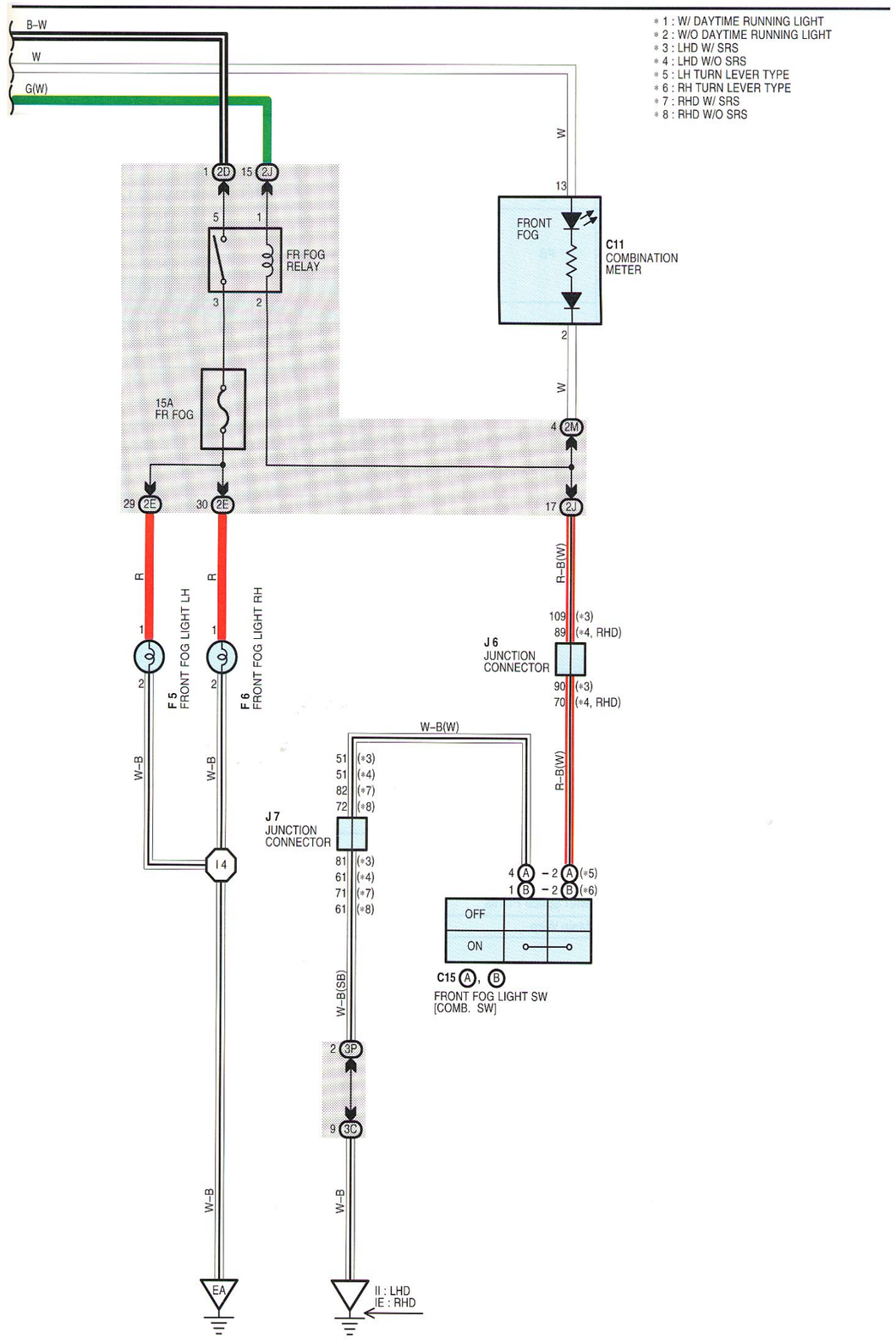
Code	See Page	Ground Points Location
EA	108 (LHD 1AZ-FE)	Front Right Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
ED	108 (LHD 1AZ-FE)	Front Left Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
IE	112 (LHD)	Left Kick Panel
	124 (RHD)	
II	112 (LHD)	Right Kick Panel

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
I1	114 (LHD)	Engine Room Main Wire	I1	126 (RHD)	Engine Room Main Wire

FRONT FOG LIGHT





FRONT FOG LIGHT

SERVICE HINTS

FR FOG RELAY

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

O : PARTS LOCATION

Code		See Page
C11		92 (LHD)
		102 (RHD)
C15	A	92 (LHD)
		102 (RHD)
	B	102 (RHD)
F5		88 (LHD 1AZ-FE)
		90 (LHD 1ZZ-FE)
		98 (RHD 1AZ-FE)

Code	See Page
F5	100 (RHD 1ZZ-FE)
F6	88 (LHD 1AZ-FE)
	90 (LHD 1ZZ-FE)
	98 (RHD 1AZ-FE)
	100 (RHD 1ZZ-FE)
F13	88 (LHD 1AZ-FE)
	90 (LHD 1ZZ-FE)
	98 (RHD 1AZ-FE)

Code		See Page
F13		100 (RHD 1ZZ-FE)
J6		93 (LHD)
		103 (RHD)
J7		93 (LHD)
		103 (RHD)
S6	A	93 (LHD)
S7	B	93 (LHD)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
2D	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2E		
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L		
2M		
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)

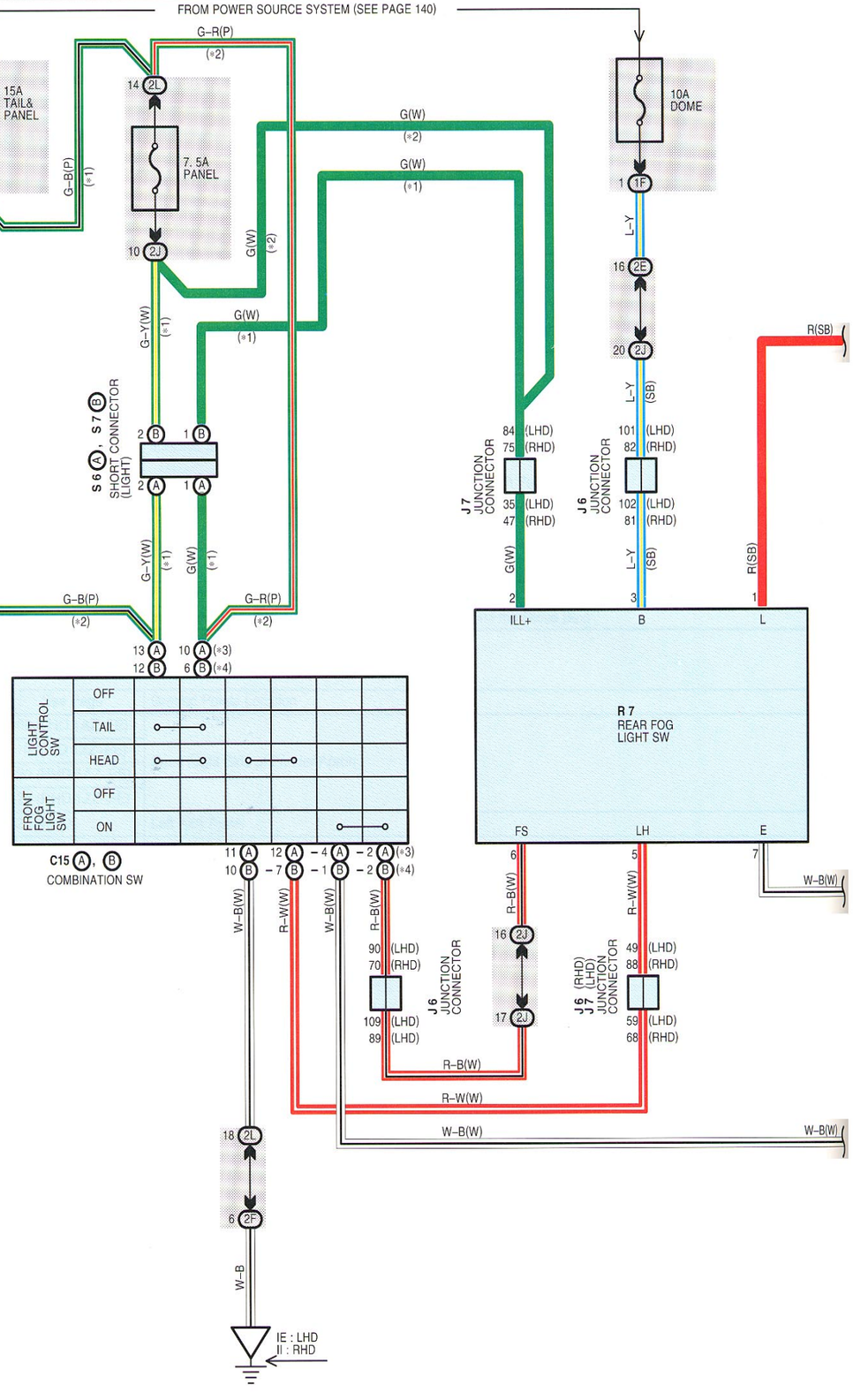
: GROUND POINTS

Code	See Page	Ground Points Location
EA	108 (LHD 1AZ-FE)	Front Right Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
IE	124 (RHD)	Left Kick Panel
II	112 (LHD)	Right Kick Panel

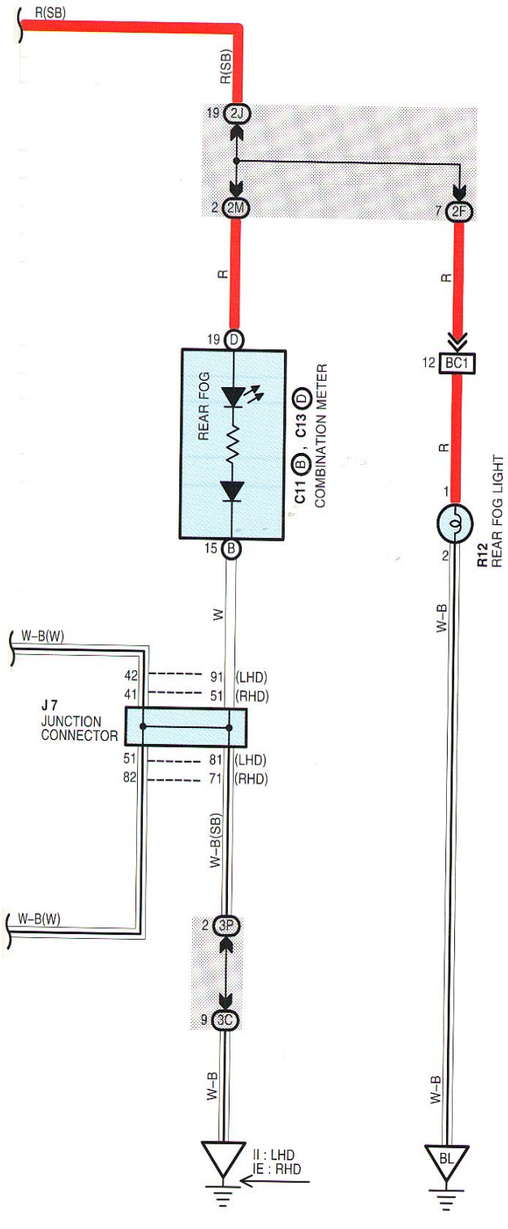
: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points
I4	114 (LHD)	Engine Room Main Wire
I4	126 (RHD)	Engine Room Main Wire

REAR FOG LIGHT



* 1 : W/ DAYTIME RUNNING LIGHT
* 2 : W/O DAYTIME RUNNING LIGHT
* 3 : LH TURN LEVER TYPE
* 4 : RH TURN LEVER TYPE



REAR FOG LIGHT

SERVICE HINTS

R7 REAR FOG LIGHT SW

2-GROUND : Approx. **12** volts with the light control SW at **HEAD** or **TAIL** position
3-GROUND : Always approx. **12** volts
7-GROUND : Always continuity

: PARTS LOCATION

Code		See Page	Code	See Page	Code		See Page
C11	B	92 (LHD)	J6	93 (LHD)	R12		97 (LHD 3-Door)
		102 (RHD)		103 (RHD)			105 (RHD 5-Door)
C13	D	92 (LHD)	J7	93 (LHD)			107 (RHD 3-Door)
		102 (RHD)		103 (RHD)	S6	A	93 (LHD)
C15	A	92 (LHD)	R7	93 (LHD)	S7	B	93 (LHD)
		102 (RHD)		103 (RHD)			
	B	102 (RHD)	R12	95 (LHD 5-Door)			

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2E	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2F	82	Floor Wire and Driver Side J/B (Lower Finish Panel)
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L		
2M		
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)

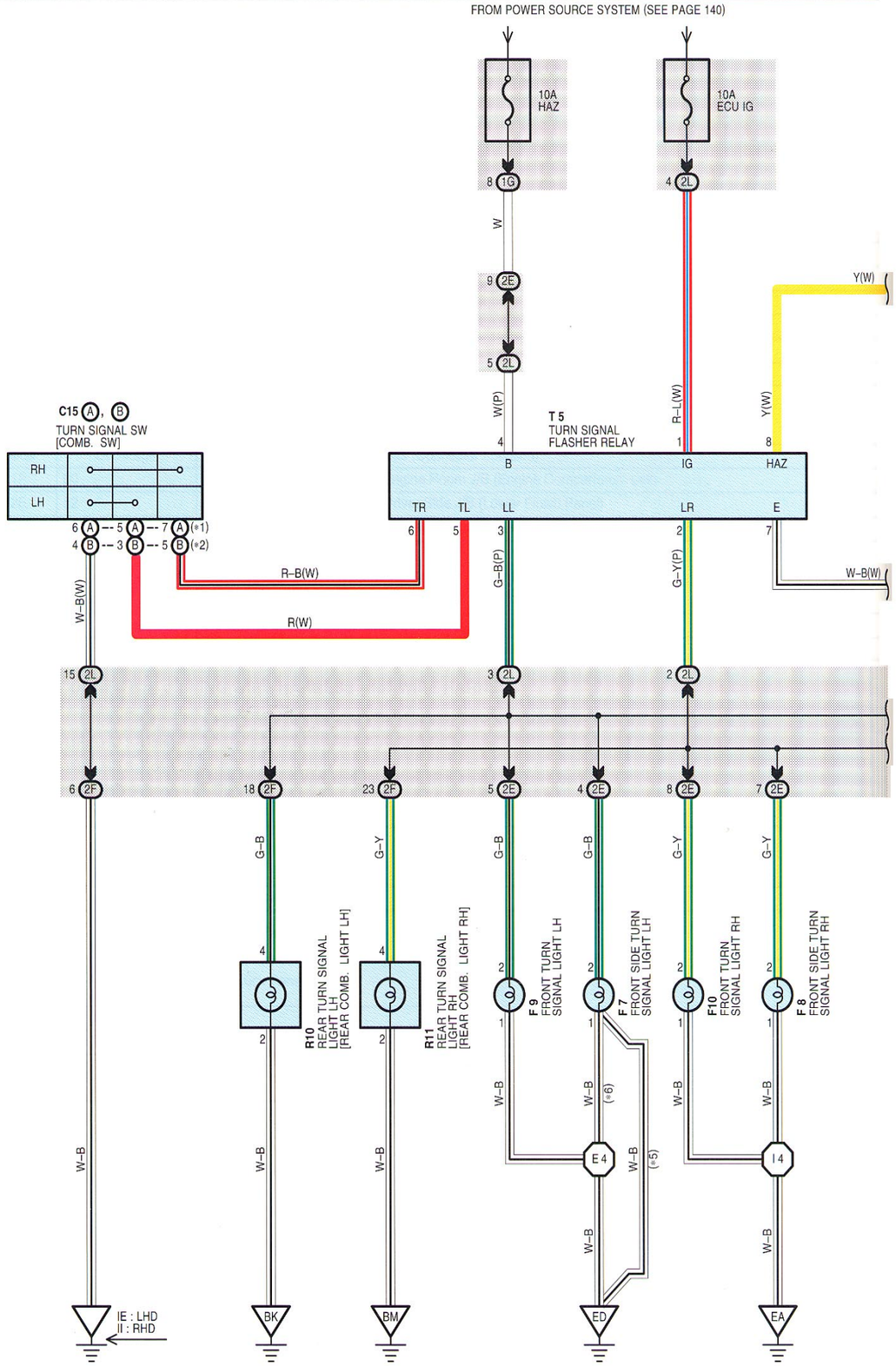
: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BC1	116 (LHD 5-Door)	Back Door No.1Wire and Floor Wire (Right Side of Back Door)
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	

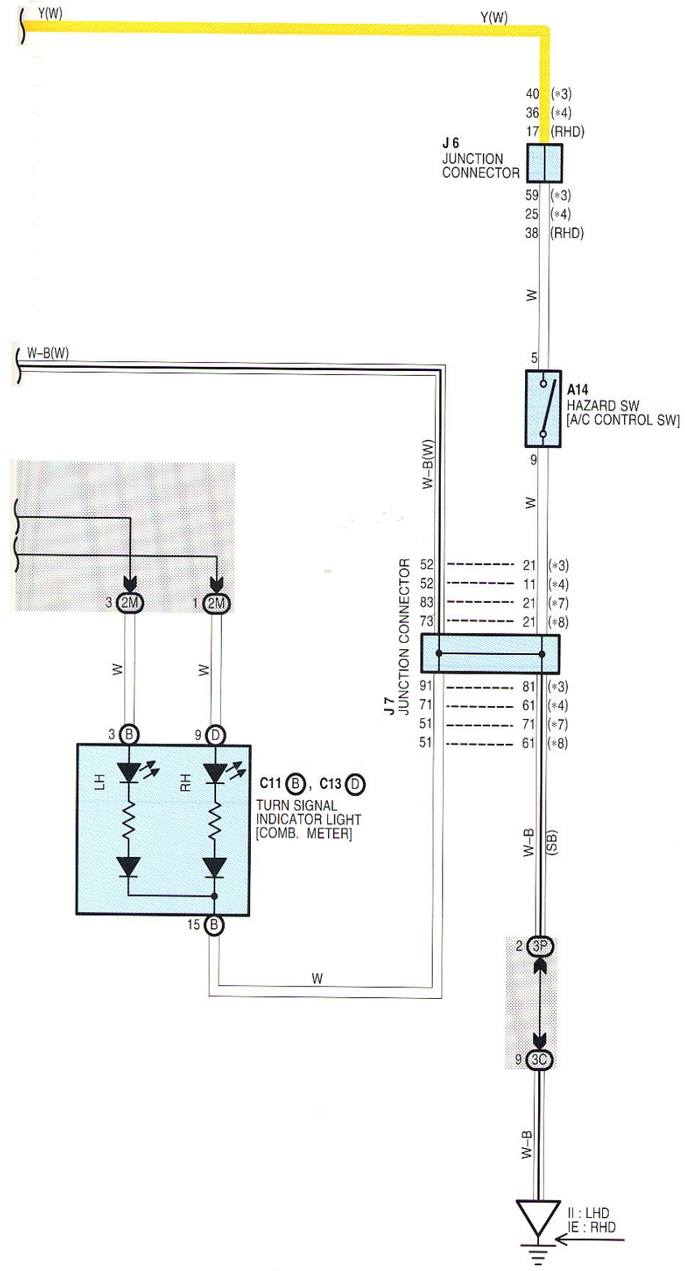
: GROUND POINTS

Code	See Page	Ground Points Location
IE	112 (LHD)	Left Kick Panel
	124 (RHD)	
II	112 (LHD)	Right Kick Panel
	124 (RHD)	
BL	116 (LHD 5-Door)	Center Side of Back Door
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	

TURN SIGNAL AND HAZARD WARNING LIGHT



* 1 : LH TURN LEVER TYPE
* 2 : RH TURN LEVER TYPE
* 3 : LHD W/ SRS
* 4 : LHD W/O SRS
* 5 : LHD GENERAL W/O ABS
* 6 : EXCEPT *5
* 7 : RHD W/ SRS
* 8 : RHD W/O SRS



TURN SIGNAL AND HAZARD WARNING LIGHT

SERVICE HINTS

T5 TURN SIGNAL FLASHER RELAY

4-GROUND : Always approx. **12** volts
1-GROUND : Approx. **12** volts with the ignition SW at **ON** position
7-GROUND : Always continuity

: PARTS LOCATION

Code		See Page	Code	See Page	Code	See Page
A14		92 (LHD)	F8	88 (LHD 1AZ-FE)	J6	103 (RHD)
		102 (RHD)		90 (LHD 1ZZ-FE)	J7	93 (LHD)
C11	B	92 (LHD)		98 (RHD 1AZ-FE)		103 (RHD)
		102 (RHD)		100 (RHD 1ZZ-FE)	R10	95 (LHD 5-Door)
C13	D	92 (LHD)	F9	88 (LHD 1AZ-FE)		97 (LHD 3-Door)
		102 (RHD)		90 (LHD 1ZZ-FE)		105 (RHD 5-Door)
C15	A	92 (LHD)		98 (RHD 1AZ-FE)		107 (RHD 3-Door)
		102 (RHD)		100 (RHD 1ZZ-FE)	R11	95 (LHD 5-Door)
	B	102 (RHD)	F10	88 (LHD 1AZ-FE)		97 (LHD 3-Door)
F7		88 (LHD 1AZ-FE)		90 (LHD 1ZZ-FE)		105 (RHD 5-Door)
		90 (LHD 1ZZ-FE)		98 (RHD 1AZ-FE)		107 (RHD 3-Door)
		98 (RHD 1AZ-FE)		100 (RHD 1ZZ-FE)	T5	93 (LHD)
		100 (RHD 1ZZ-FE)	J6	93 (LHD)		103 (RHD)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2E	82	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
2F	82	Floor Wire and Driver Side J/B (Lower Finish Panel)
2L	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2M		
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)

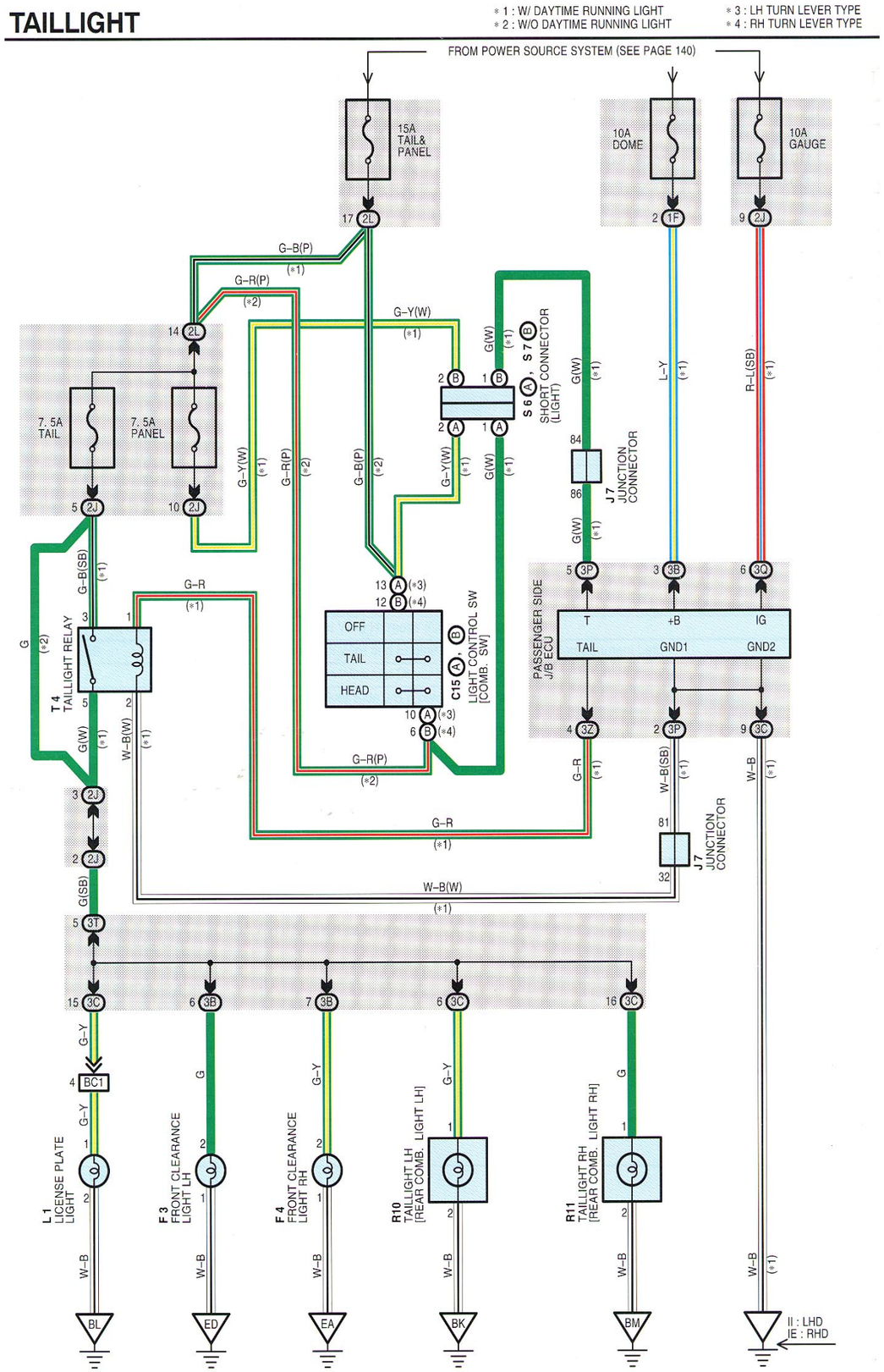
: GROUND POINTS

Code	See Page	Ground Points Location
EA	108 (LHD 1AZ-FE)	Front Right Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
ED	108 (LHD 1AZ-FE)	Front Left Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
IE	112 (LHD)	Left Kick Panel
	124 (RHD)	
II	112 (LHD)	Right Kick Panel
	124 (RHD)	
BK	116 (LHD 5-Door)	Left Side of Quarter Panel
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	
BM	116 (LHD 5-Door)	Right Side of Quarter Panel
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E4	108 (LHD 1AZ-FE)	Engine Room Main Wire	E4	122 (RHD 1ZZ-FE)	Engine Room Main Wire
	110 (LHD 1ZZ-FE)		I4	114 (LHD)	
	120 (RHD 1AZ-FE)			126 (RHD)	

TAILLIGHT



SERVICE HINTS

C15 (A) LIGHT CONTROL SW [COMB. SW] (LH TURN LEVER TYPE)
(A) 13–(A) 10 : Closed with the light control SW at **TAIL** or **HEAD** position

C15 (B) LIGHT CONTROL SW [COMB. SW] (RH TURN LEVER TYPE)
(B) 12–(B) 6 : Closed with the light control SW at **TAIL** or **HEAD** position

: PARTS LOCATION

Code		See Page	Code	See Page	Code		See Page
C15	A	92 (LHD)	F4	98 (RHD 1AZ-FE)	R10		105 (RHD 5-Door)
		102 (RHD)		100 (RHD 1ZZ-FE)			107 (RHD 3-Door)
	B	102 (RHD)	J7	93 (LHD)	R11		95 (LHD 5-Door)
F3		88 (LHD 1AZ-FE)	L1	95 (LHD 5-Door)			97 (LHD 3-Door)
		90 (LHD 1ZZ-FE)		97 (LHD 3-Door)			105 (RHD 5-Door)
		98 (RHD 1AZ-FE)		105 (RHD 5-Door)			107 (RHD 3-Door)
		100 (RHD 1ZZ-FE)		107 (RHD 3-Door)	S6	A	93 (LHD)
F4		88 (LHD 1AZ-FE)	R10	95 (LHD 5-Door)	S7	B	93 (LHD)
		90 (LHD 1ZZ-FE)		97 (LHD 3-Door)	T4		93 (LHD)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	80	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2J	83	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
2L		
3B	86	Engine Room Main Wire and Passenger Side J/B (Behind the Glove Box)
3C	86	Floor Wire and Passenger Side J/B (Behind the Glove Box)
3P	86	Instrument Panel Wire and Passenger Side J/B (Behind the Glove Box)
3Q		
3T		
3Z		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BC1	116 (LHD 5-Door)	Back Door No.1Wire and Floor Wire (Right Side of Back Door)
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	

TAILLIGHT

▽ : GROUND POINTS

Code	See Page	Ground Points Location
EA	108 (LHD 1AZ-FE)	Front Right Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
ED	108 (LHD 1AZ-FE)	Front Left Side of Fender Apron
	110 (LHD 1ZZ-FE)	
	120 (RHD 1AZ-FE)	
	122 (RHD 1ZZ-FE)	
IE	124 (RHD)	Left Kick Panel
II	112 (LHD)	Right Kick Panel
BK	116 (LHD 5-Door)	Left Side of Quarter Panel
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	
BL	116 (LHD 5-Door)	Center Side of Back Door
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	
BM	116 (LHD 5-Door)	Right Side of Quarter Panel
	118 (LHD 3-Door)	
	128 (RHD 5-Door)	
	130 (RHD 3-Door)	