# FOREWORD

This wiring diagram has been prepared to provide information on the electrical system of the 1993 TOYOTA MR2.

Applicable models: SW20, 21 Series

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

Manual Name	Pub. No.
<ul> <li>1993 MR2 Repair Manual Volume 1 Volume 2</li> </ul>	RM285U1 RM285U2
<ul> <li>1993 MR2 New Car Features Supplement</li> </ul>	NCF083U

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

Servicing vehicles with an SRS AIRBAG (referred to as the airbag in the remainder of this manual) installed.

When handling airbag components (removal, installation or inspection, etc.), always follow the directions given in the repair manuals listed above to prevent the occurrence of accidents and airbag malfunction.

# INTRODUCTION

This manual consists of the following 11 sections:

No.	Section	Description
А	INDEX	Index of the contents of this manual.
	INTRODUCTION	Brief explanation of each section.
В	HOW TO USE THIS MANUAL	Instructions on how to use this manual.
С	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.
н	POWER SOURCE (Current Flow Chart)	Describes power distribution from the power supply to various electrical loads.
	INDEX	Index of the system circuits.
1	SYSTEM CIRCUITS	Electrical circuits of each system are shown from the power supply through ground points. Wiring connections and their positions are shown and classified by code according to the connection method. (Refer to the section, "How to use this manual"). The "System Outline" and "Service Hints" useful for troubleshooting are also contained in this section.
J	GROUND POINTS	Shows ground positions of all parts described in this manual.
к	OVERALL WIRING DIAGRAM	Provides circuit diagrams showing the circuit connections.

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

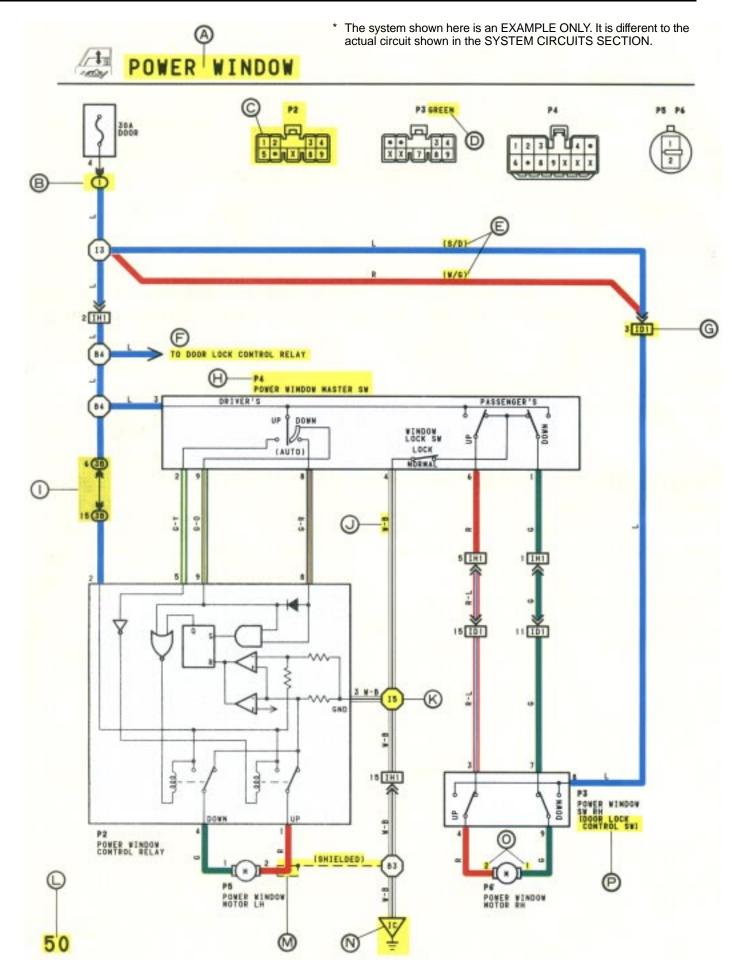
The actual wiring of each system circuit is shown from the point where the power source is received from the battery as far as each ground point. (All circuit diagrams are shown with the switches in the OFF position.)

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

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

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

# HOW TO USE THIS MANUAL



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

Example: D Indicates Relay Block No. 1.

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

Explanation of pin use.

کھر	le_	Pins used in the system circuit.
1	2	Occupied positions, but not
•		applicable to the system circuit.
X	×	Unoccupied positions.

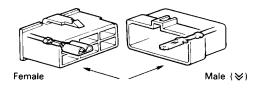
The pins shown are only for the highest grade, or only include those in the specification.

: Connector Color

Connectors not indicated are milky white in color.

- E : ( etc spe
- ( ) is used to indicate different wiring and connector, etc. when the vehicle model, engine type, or specification is different.
  - : Indicates related system.
  - : Indicates the wiring harness and wiring harness connector. The wiring harness with male terminal is shown with arrows (  $\gtrless$  ).

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.



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

Example:



3B indicates that it is inside Junction Block No. 3.  $\bigcirc$ 

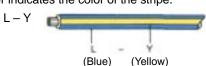
: Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

В	= Black	L	= Blue	R	= Red
BR	= Brown	LG	= Light Green	V	= Violet
G	= Green	0	= Orange	W	= White
GR	= Gray	Р	= Pink	Υ	= Yellow

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

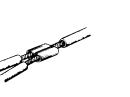
Example: L

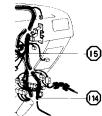


R

: 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.

- : Page No.
- : Indicates a shielded cable.



N: Indicates a ground point.

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

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 1 2 3 1 3 2 1





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

### SYSTEM OUTLINE

**Q** 

**(R**)

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

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

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

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

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

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

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

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

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

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

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

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

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

### **SERVICE HINTS**

### P 2 POWER WINDOW CONTROL RELAY

3-GROUND: ALWAYS CONTINUITY

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

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

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

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

### P 4 POWER WINDOW MASTER SW

4-GROUND: ALWAYS CONTINUITY

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

WINDOW LOCK SW

CODE

COD 3B

OPEN WITH THE WINDOW LOCK SW AT LOCK POSITION

### : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
P 2	21	P 4	21	P 6	21
P 3	21	P 5	21		21

### : RELAY BLOCKS

T

(U)

**(**S)

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

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

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

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

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

### : GROUND POINTS

SEE PAGE

CODE IC

24 COWL LEFT

GROUND POINT LOCATION

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESSES WITH SPLICE POINTS
15	24	COWL WIRE

(X)

- Q: Explains the system outline.
- R : Indicates values or explains the function for reference during troubleshooting.
- S: Indicates the reference page showing the position on the vehicle of the parts in the system circuit.
  - Example: Part "P4" (Power Window Master SW) is on page 21 of the manual.
    - \* The letter in the code is from the first letter of the part, and the number indicates its order in parts starting with that letter.

Example: P 4

Part is 4th in order
Power Window Master SW

• Indicates the reference page showing the position on the vehicle of Relay Block Connectors in the system circuit.

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

Example: Connector "3B" connects the Cowl Wire and J/B No. 3. It is described on page 14 of this manual, and is installed on the instrument panel left side.

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

Example: Connector "ID1" connects the front door RH wire (female) and cowl wire (male). It is described on page 26 of this manual, and is installed on the right side kick panel.

- Indicates the reference page showing the position of the ground points on the vehicle.
   Example: Ground point "IC" is described on page 24 of this manual and is installed on the cowl left side.
- Indicates the reference page showing the position of the splice points on the vehicle.
   Example: Splice point "I 5" is on the Cowl Wire Harness and is described on page 24 of this manual.

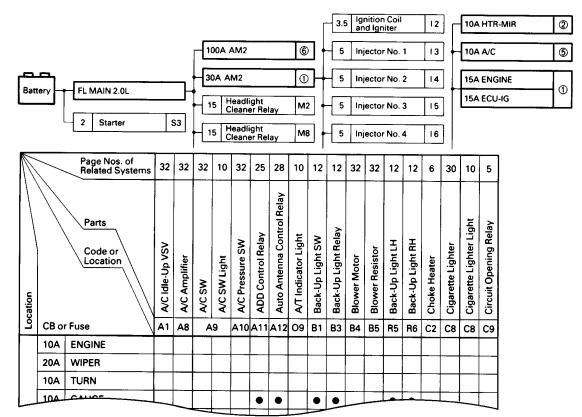
Example: Connector "1" is described on page 16 of this manual and is installed on the left side of the instrument panel.

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

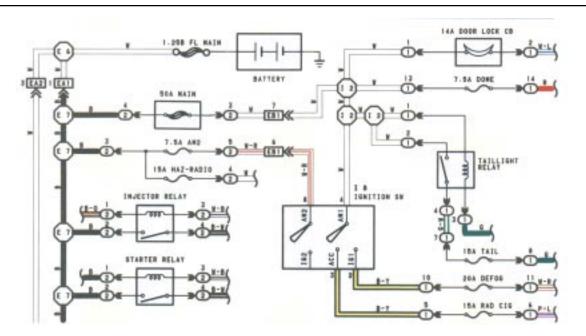
### **POWER SOURCE (Current Flow Chart)**

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

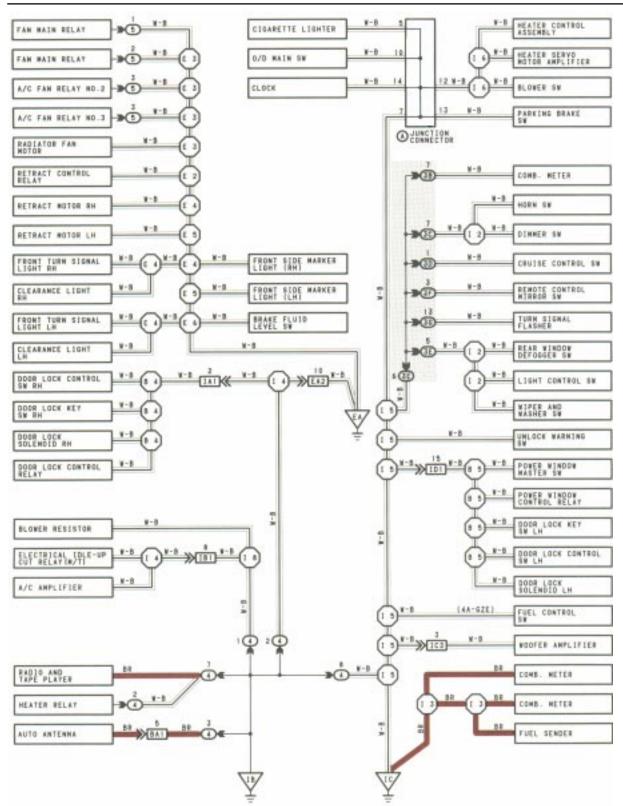
The next page and following pages shown the parts to which each electrical source outputs current.



### **POWER SOURCE**

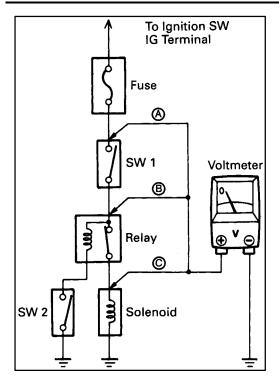


The ground points circuit diagram shows the connections from all major parts to the respective ground points. When troubleshooting a faulty ground point, checking the system circuits which use a common ground may help you identify the problem ground quickly. The relationship between ground points ( $\bigvee$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



### **GROUND POINT**

# TROUBLESHOOTING



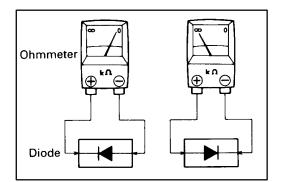
### **VOLTAGE CHECK**

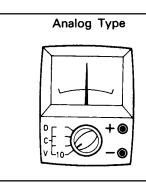
(a) Establish conditions in which voltage is present at the check point.

### Example:

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

# Ohmmeter





### CONTINUITY AND RESISTANCE CHECK

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

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

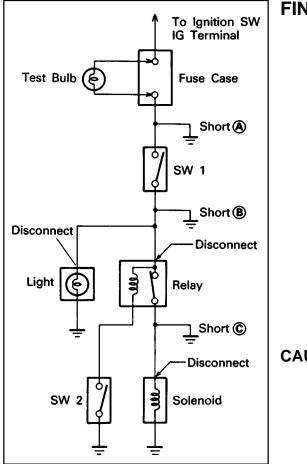
When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.

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

(c) Use the volt/ohmmeter with high impedance (10 k $\Omega$ /V minimum) for troubleshooting of the electrical circuit.

**Digital Type** 

ELECTRICAL TEST



# 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:
  - Ø − Ignition SW on
  - Ignition SW and SW 1 on
  - © Ignition SW, SW 1 and Relay on (Connect the Relay) and SW 2 off (or Disconnect SW 2)
- (d) Disconnect and reconnect the connectors while watching the test light.

The short lies between the connector where the test light stays lit and the connector where the light goes out.

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

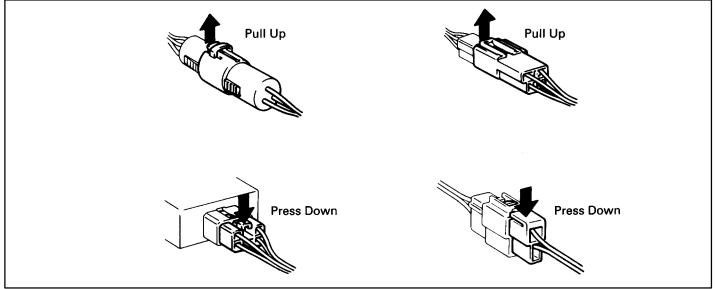
### CAUTION:

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.)

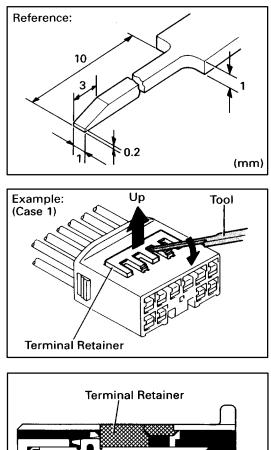
# DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

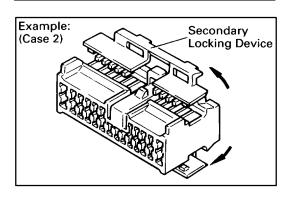
HINT: Check to see what kind of connector you are disconnecting before pulling apart.



# TROUBLESHOOTING



# Terminal Retainer (Retainer at Full Lock Position) Terminal Retainer (Retainer at Temporary Lock Position)



## HOW TO REPLACE TERMINAL

# (with terminal retainer or secondary locking device)

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

### NOTICE:

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

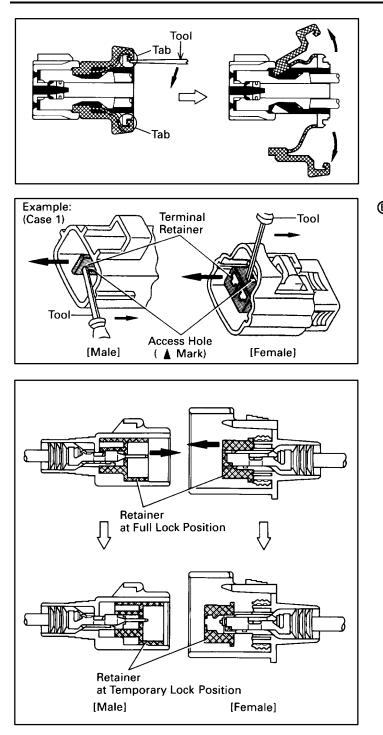
- For Non–Waterproof Type Connector
  - HINT: The needle insertion position varies according to the connector's shape (number of terminals etc.), so check the position before inserting it.

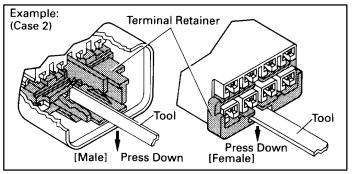
"Case 1"

Raise the terminal retainer up to the temporary lock position.

"Case 2"

Open the secondary locking device.





For Waterproof Type Connector

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

Example:

Terminal Retainer:Connector BodyBlack or White: GrayBlack or White: Dark GrayGray or White: Black

"Case 1"

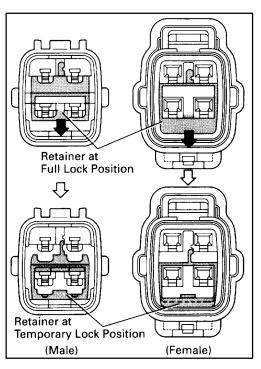
Type where terminal retainer is pulled up to the temporary lock position (Pull Type). Insert the special tool into the terminal retainer access hole ( Mark) and pull the terminal retainer up to the temporary lock position.

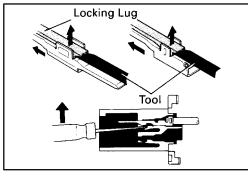
HINT: The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.

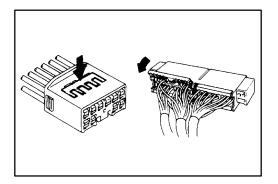
"Case 2"

Type which cannot be pulled as far as Power Lock.

# TROUBLESHOOTING







Insert the tool straight into the access hole of terminal retainer as shown.

Push the terminal retainer down to the temporary lock position.

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

INSTALL TERMINAL TO CONNECTOR

 (a) Insert the terminal.

HINT:

- 1. Make sure the terminal is positioned correctly.
- 2. Insert the terminal until the locking lug locks firmly.
- 3. Insert the terminal with terminal retainer in the temporary lock position.
- (b) Push the secondary locking device or terminal retainer in to the full lock position.
- 5. CONNECT CONNECTOR

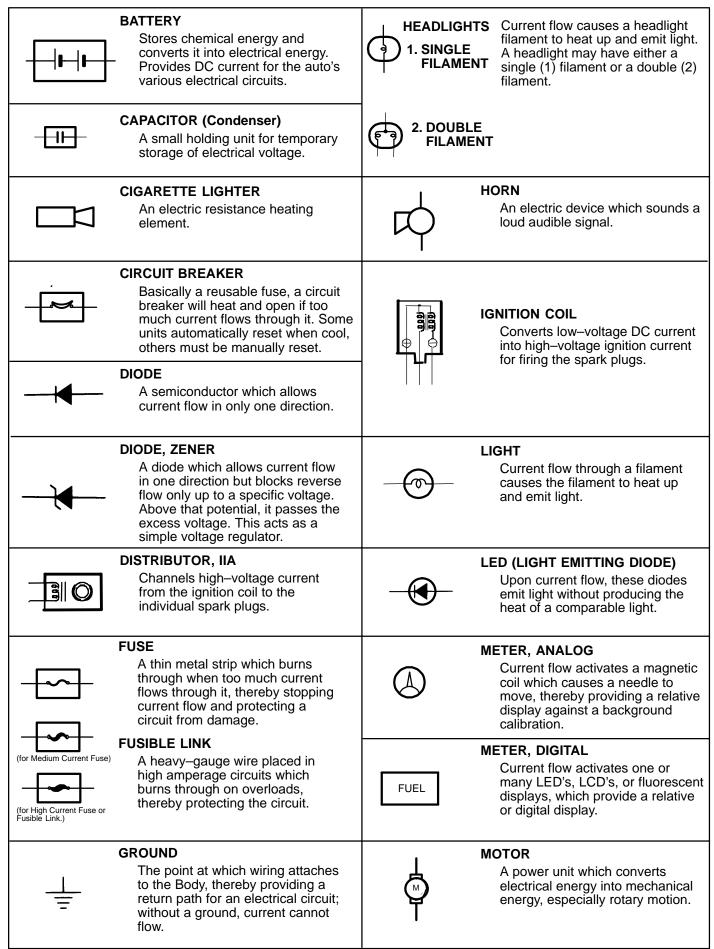
### ABBREVIATIONS

The following abbreviations are used in this manual.

A/C A/T	=	
ABS	_	
ACS	=	Air Conditioning Sensor
AFC	=	
COMB.	=	Combination
DLC	=	Data Link Connector
ECT	=	
ECTS	=	
ECU	=	Electronic Control Unit
EFI	=	Electronic Fuel Injection
EGR	=	
EGRS	=	EGR Function Sensor
Ex.	=	Except
FL	=	Fusible Link
HO2S	=	Heated Oxygen Sensor
IACV	=	Intake Air Control Valve
IATS	=	Intake Air Temperature Sensor
ISC	=	Idle Speed Control
J/B	=	Junction Block
LH	=	Left-Hand
M/T	=	Manual Transmission
MAP	=	Manifold Absolute Pressure Sensor
MPI	=	Multiport Electronic Fuel Injection
O/D	=	Overdrive
PCM	=	Powertrain Control Module
PNC	=	Park/Neutral Switch
PTCS	=	Powertrain Control Signals
PTIS	=	Powertrain Input Signals
R/B	=	Relay Block
RH	=	Right–Hand
SMPI	=	Sequential Multiport Electronic Fuel Injection
SRS	=	Supplemental Restraint System
SW	=	Switch
TEMP.	=	
VSPG	=	Vehicle Speed Pulse Generator
VSS	=	Vehicle Speed Sensor
VSV	=	Vacuum Switching Valve
w/	=	
w/o	=	Without

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

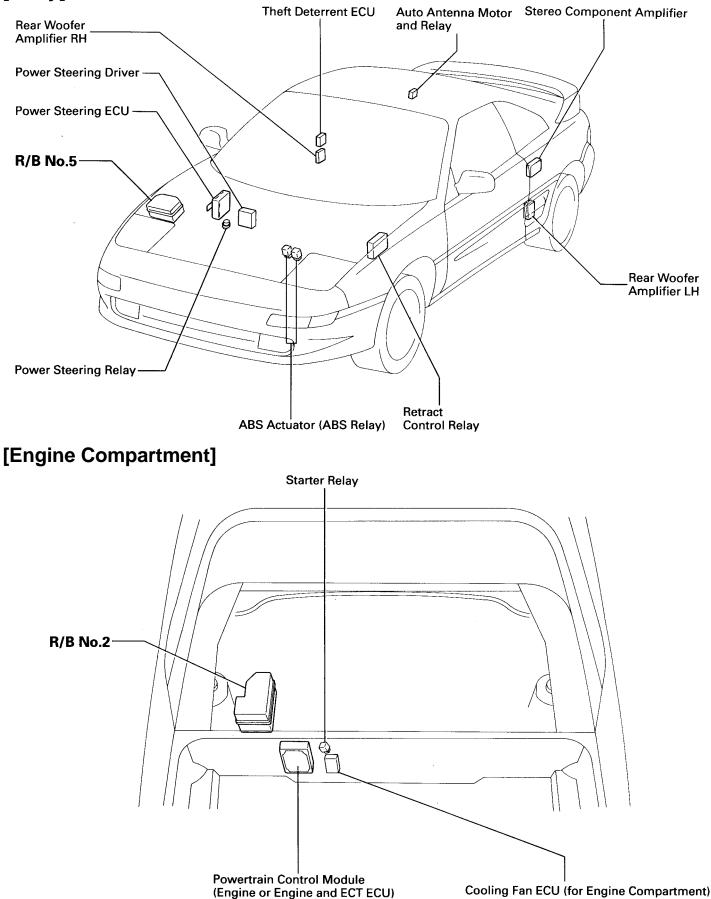
# **GLOSSARY OF TERMS AND SYMBOLS**



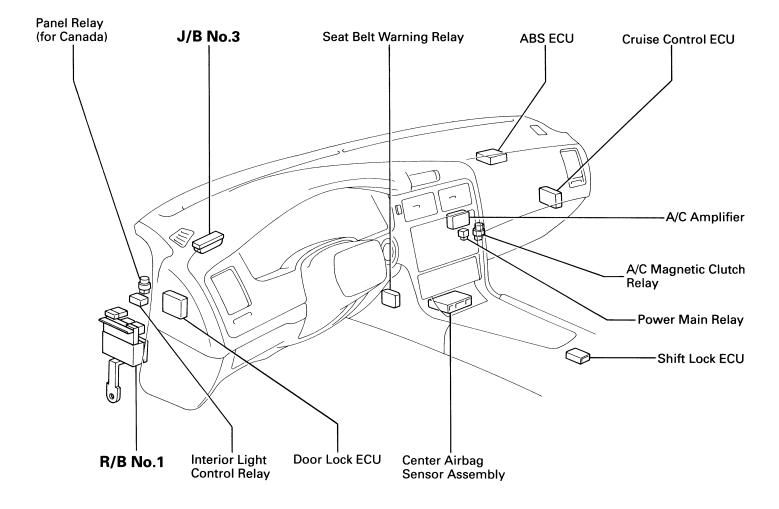
RELAY <b>RELAY</b> <b>1. NORMALLY</b> CLOSED Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either	SPEAKER An electromechanical device which creates sound waves from current flow.
<b>2. NORMALLY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

# **RELAY LOCATIONS**

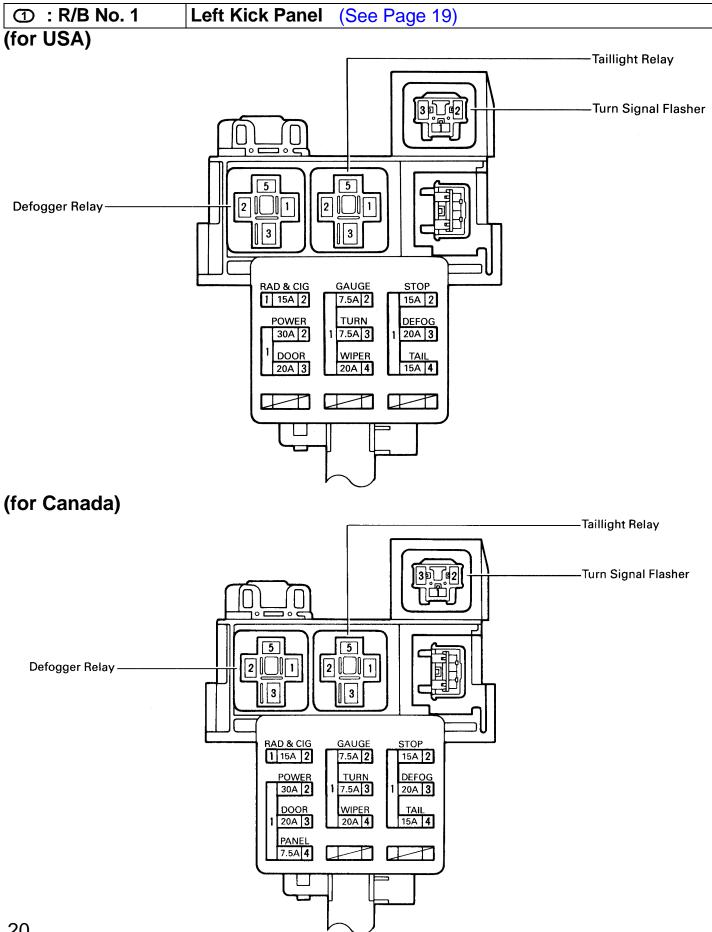
# [Body]

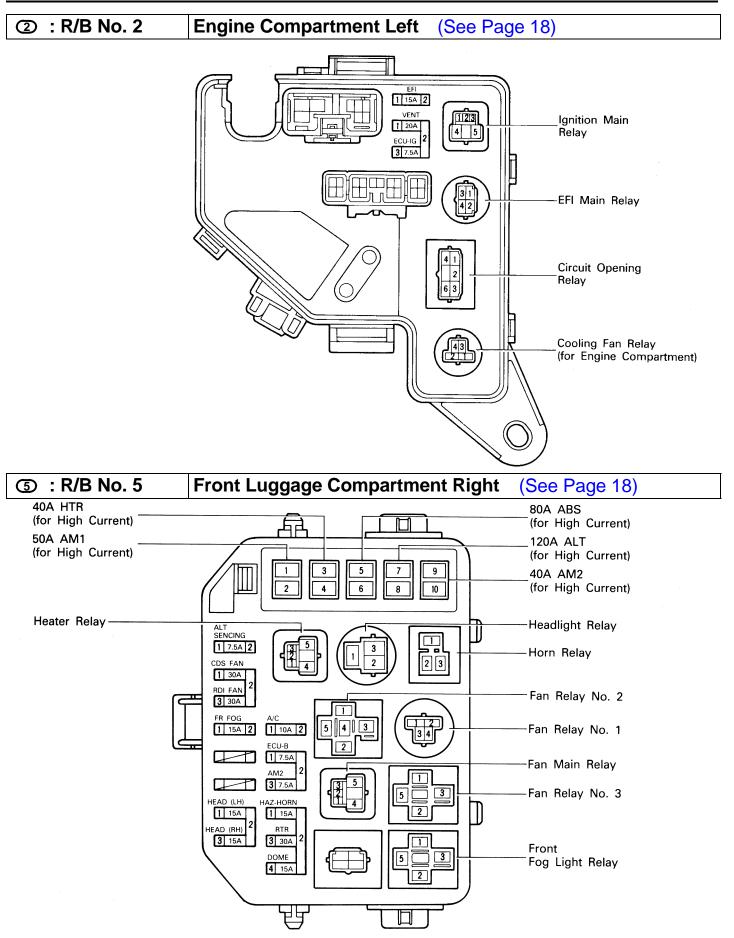


# [Instrument Panel]

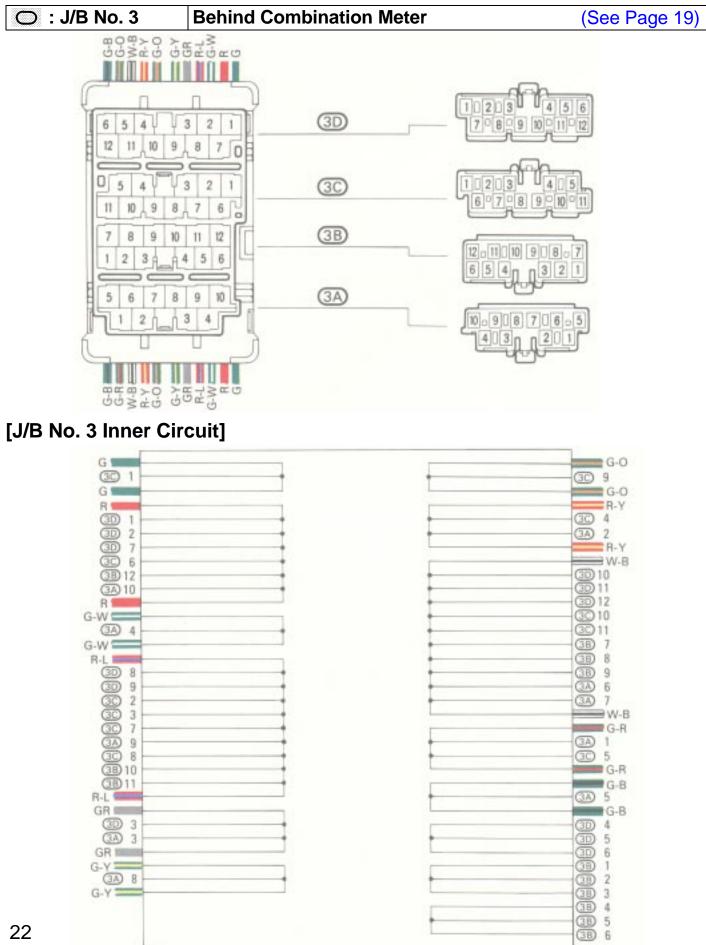


# **RELAY LOCATIONS**



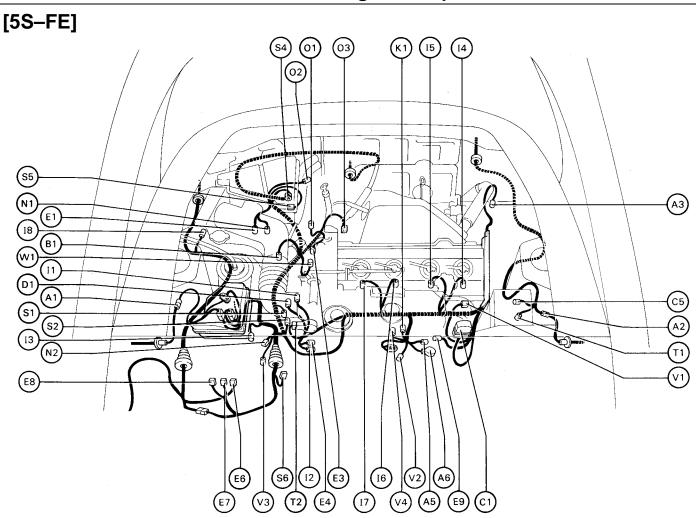


## **RELAY LOCATIONS**



### **ELECTRICAL WIRING ROUTING**

### Position of Parts in Engine Compartment



- A 1 ABS Speed Sensor Rear LH
- A 2 ABS Speed Sensor Rear RH
- A 3 A/C Magnetic Clutch
- A 4 Ain Flow Sensor (Air Flow Meter, 3S–GTE)
- A 5 Alternator
- A 6 Alternator
- B 1 Back–Up Light SW (M/T)
- C 1 Check Connector
- C 2 Cold Start Injector (3S–GTE)
- C 3 Cooling Fan ECU (for Engine Compartment of 3S-GTE)
- C 4 Cooling Fan Motor (for Engine Compartment of 3S-GTE)
- C 5 Cruise Control Actuator
- D 1 Distributor
- E 1 ECT Solenoid (5S-FE)
- E 2 EFI Resistor (3S–GTE)
- E 3 Engine Coolant Temperature Sensor (EFI Water Temp. Sensor)
- E 4 EGR Function Sensor (EGR Gas Temp. Sensor for California) or Short Pin (Ex. California)
- E 5 Engine Compartment Temp. Sensor
- E 6 Powertrain Control Module (Engine and ECT ECU)

- E 7 Powertrain Control Module (Engine and ECT ECU)
- E 8 Powertrain Control Module (Engine and ECT ECU)
- E 9 Engine Hood Courtesy SW
- E 10 Engine Oil Level Sensor (3S-GTE)
  - 1 Fuel Pump Resistor (3S–GTE)
- F 2 Fuel Pump Relay (3S–GTE)
  - 1 Idle Air Control Valve (ISC Valve)
  - 2 Ignition Coil

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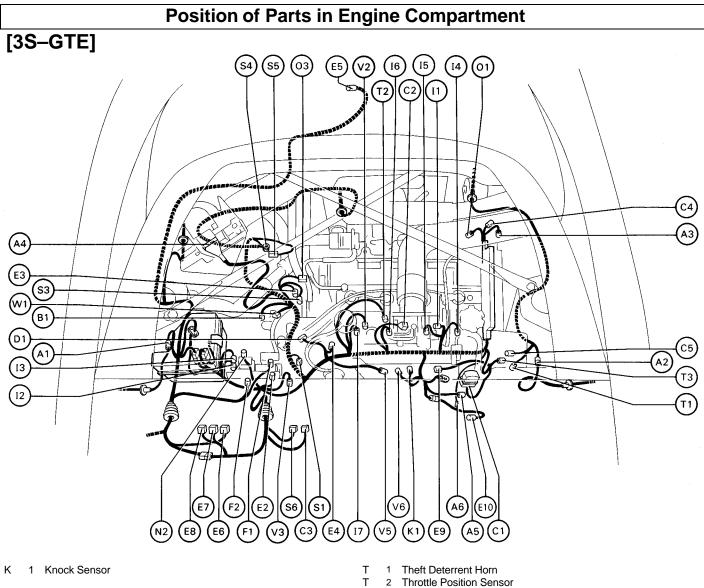
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- 3 Igniter
- 4 Injector No. 1
- 5 Injector No. 2
- 6 Injector No. 3
- 7 Injector No. 4
- 8 Intake Air Temperature Sensor (In Air Temp. Sensor, 5S–FE)



- 1 Park/Neutral Switch (Neutral Start SW) and Back-Up Light SW and A/T Indicator SW
- 2 Noise Filter (for Ignition System) Ν
- Oxygen Sensor (Main of 5S-FE), Heated Oxygen Sensor 0 1 (Oxygen Sensor, 3S-GTE)
- 0 2 Oxygen Sensor (Sub of 5S-FE)
- 3 Oil Pressure SW 0
- 1 Vehicle Speed Pulse Generator (Speed Sensor, for S Speed Meter)
- Vehicle Speed Sensor (Speed Sensor, for ECT System of 5S-FE) S 2
- S 3 Start Injector Time SW (3S-GTE)
- S Starter 4

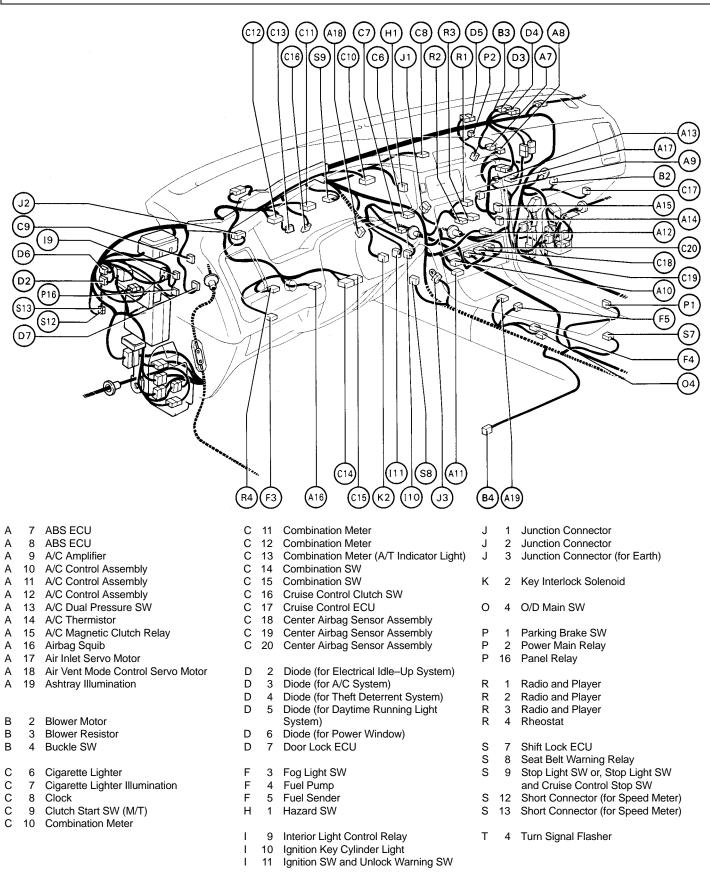
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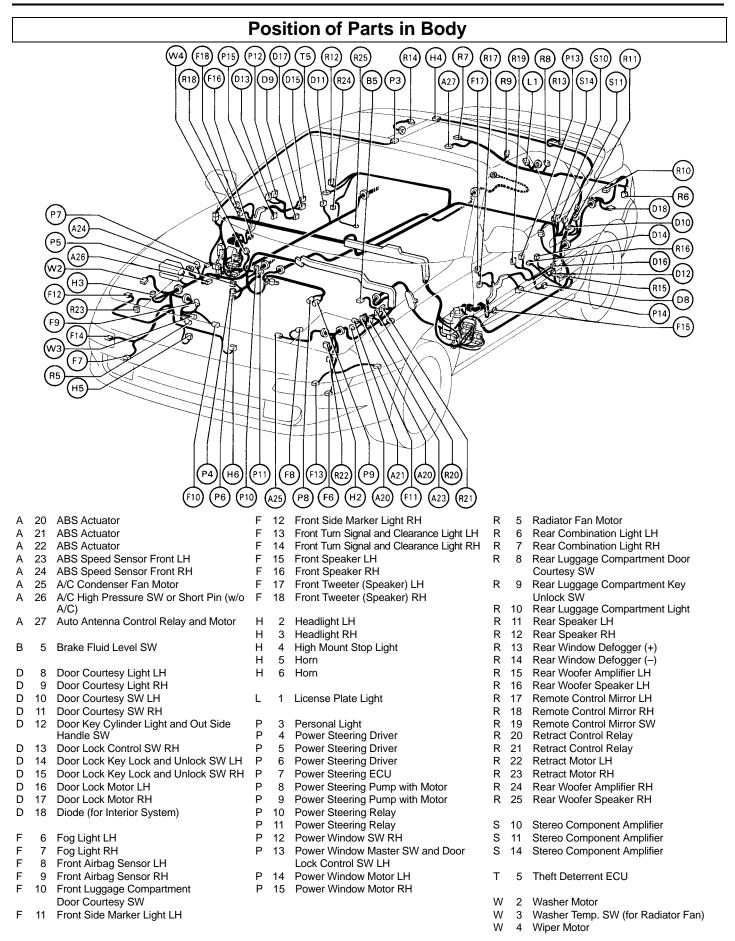
- S 5 Starter
- S 6 Starter Relay

- Turbo Pressure Sensor (3S-GTE) Т 3
- V Manifold Absolute Pressure Sensor (Vacuum Sensor) 1
- VSV (for EGR System) V 2
- V 3 VSV (for A/C Idle–Up System)
- V VSV (for Fuel Pressure Up Control System of 5S-FE) 4
- V 5 VSV (for Turbo Pressure Control System of 3S-GTE)
- VSV (for T–VIS) V 6
- W 1 Water Temp. Sender

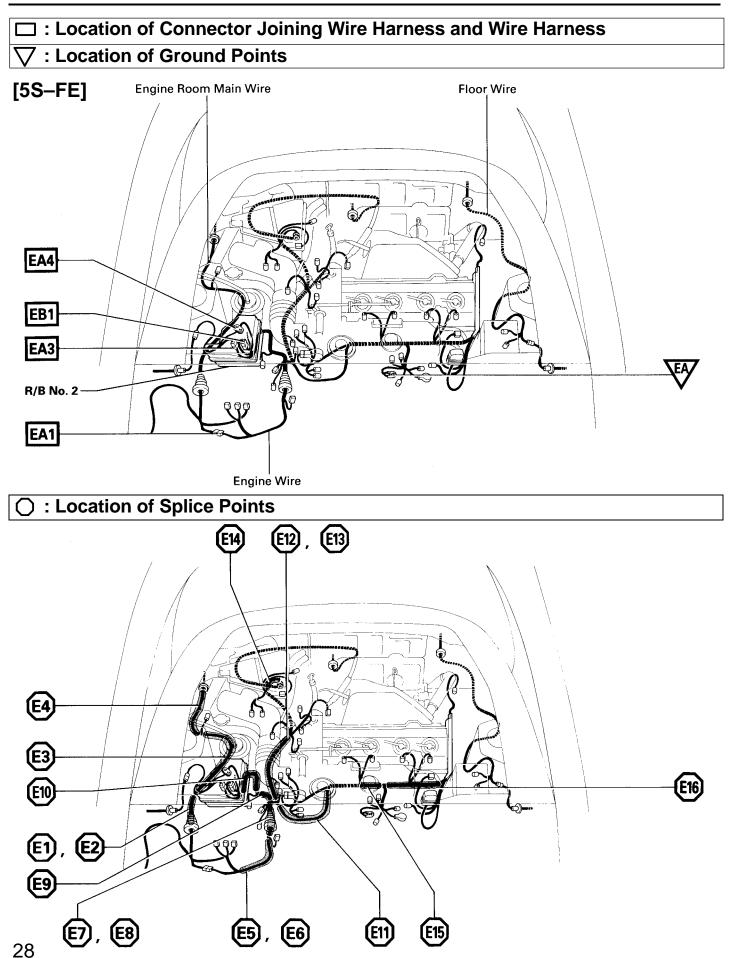
### **ELECTRICAL WIRING ROUTING**

### Position of Parts in Instrument Panel

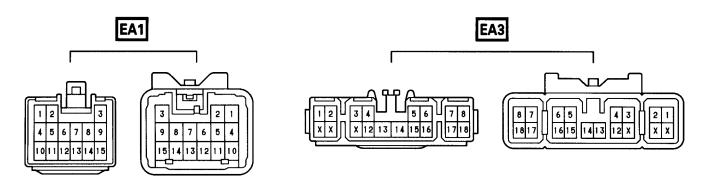


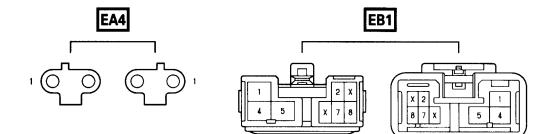


### **ELECTRICAL WIRING ROUTING**



# **Connector Joining Wire Harness and Wire Harness**

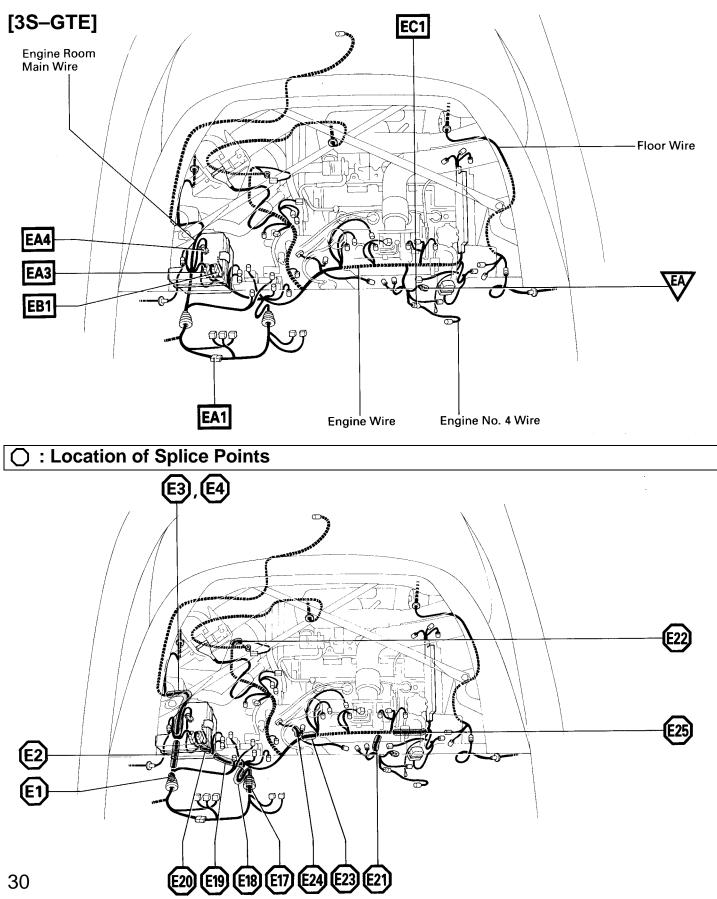




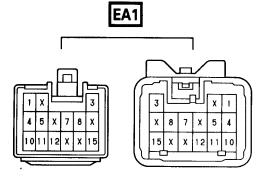
CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)
EA3	
EA4	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)
EB1	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)

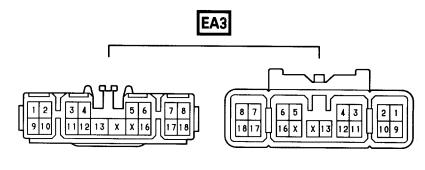
# : Location of Connector Joining Wire Harness and Wire Harness

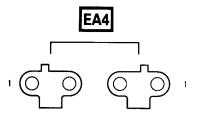


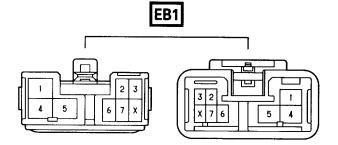


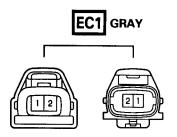
# **Connector Joining Wire Harness and Wire Harness**





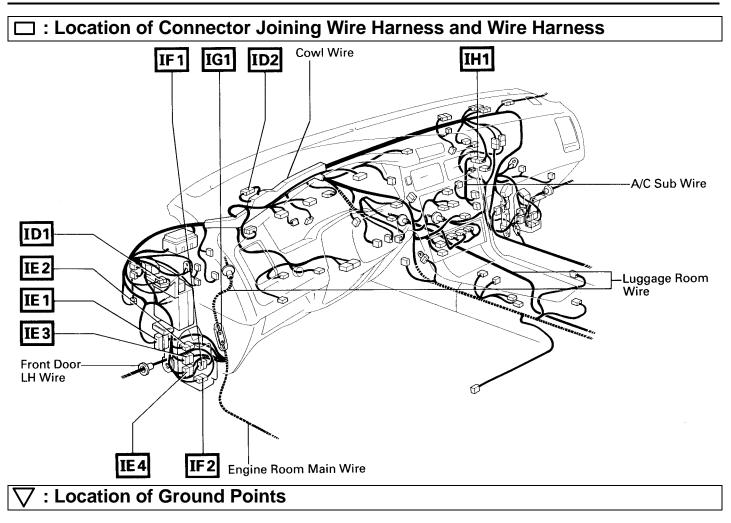


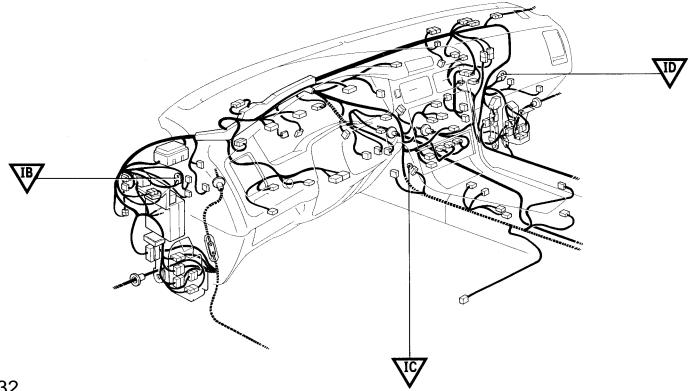


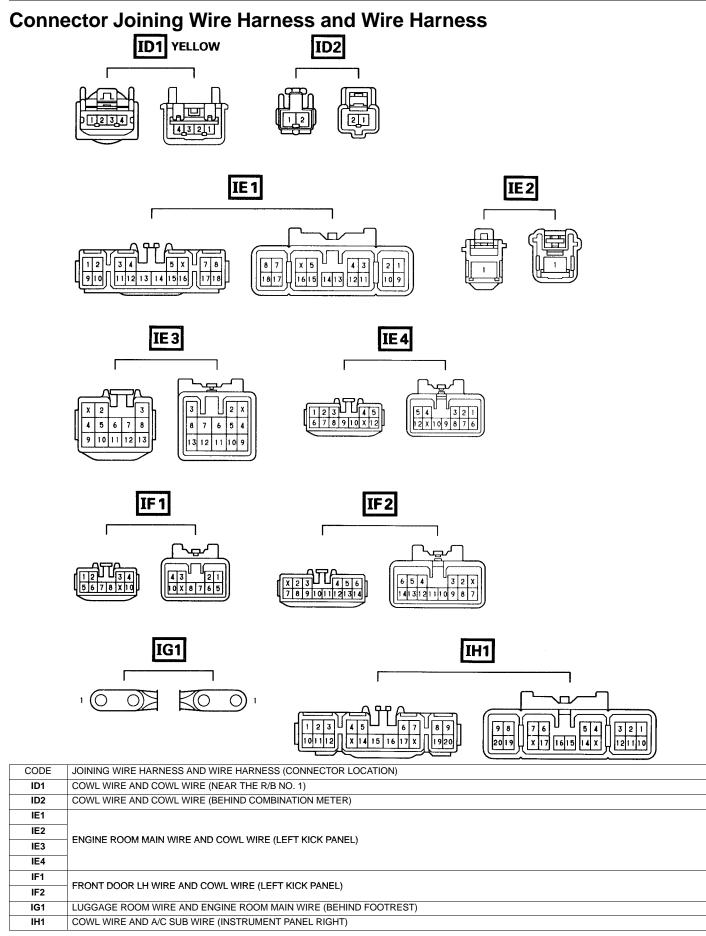


CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	EIGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)
EA3	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)
EA4	
EB1	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)
EC1	ENGINE WIRE AND ENGINE NO. 4 WIRE (NEAR THE INTAKE MANIFOLD)

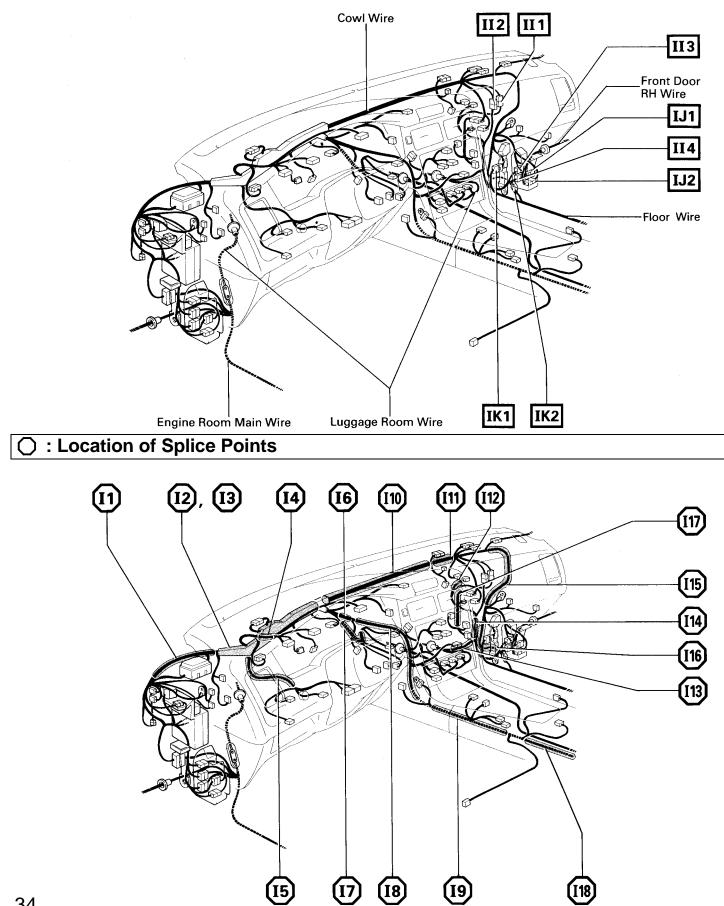
# **ELECTRICAL WIRING ROUTING**

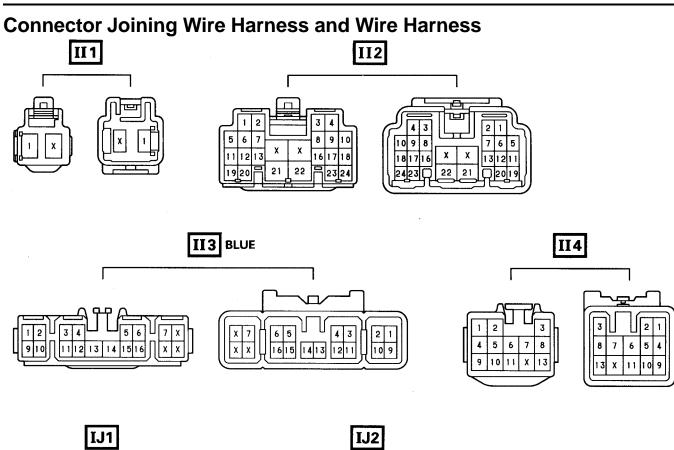


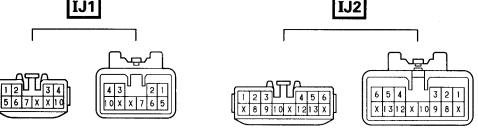


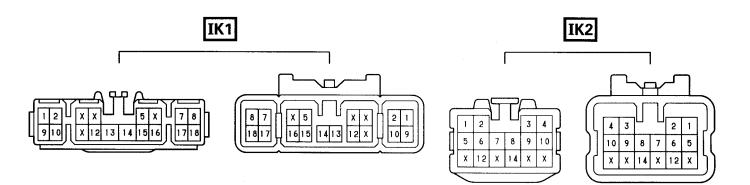


### : Location of Connector Joining Wire Harness and Wire Harness

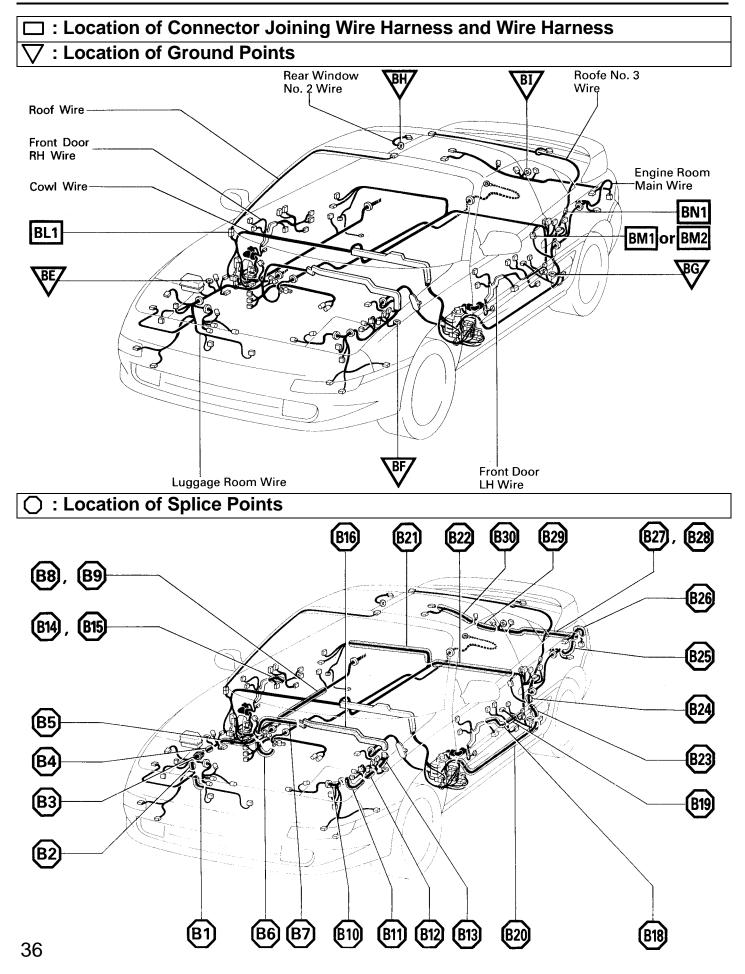




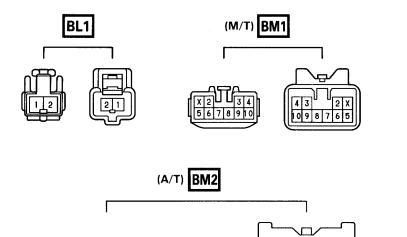




CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
<b>II</b> 1	- LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
112	
113	
114	
IJ1	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
IJ2	
IK1	- FLOOR WIRE AND COWL WIRE (RIGHT KICK PANEL)
IK2	



# **Connector Joining Wire Harness and Wire Harness**



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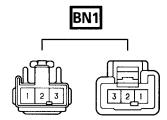
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CODE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
BL1	ROOF WIRE AND COWL WIRE (UNDER THE RIGHT FRONT PILLAR)
BM1	- ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)
BM2	
BN1	ROOF NO.3 WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT)

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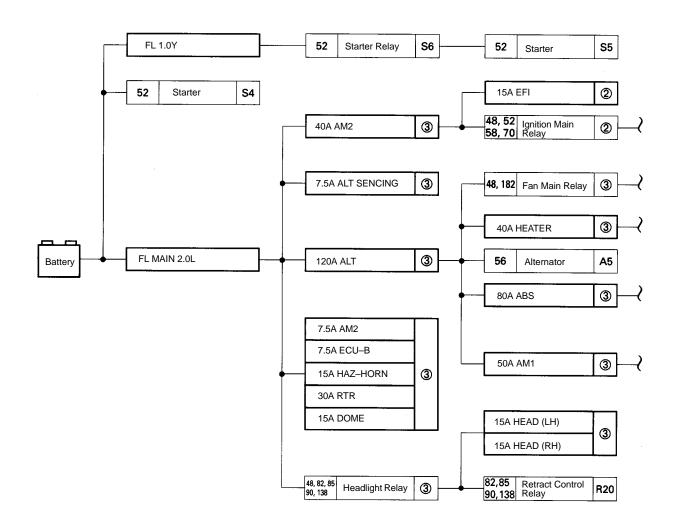
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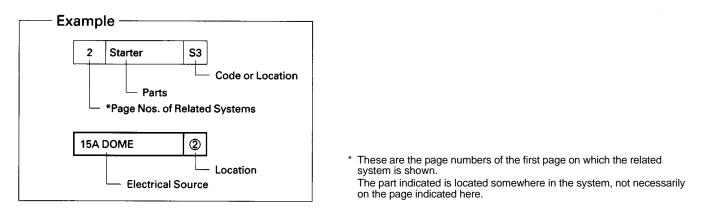
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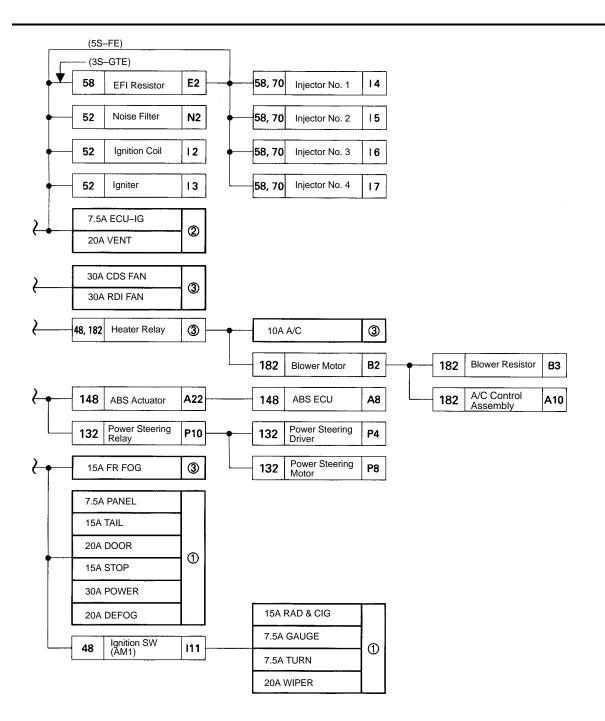
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The chart below shows the route by which current flows from the battery to each electrical source (Fusible Link, Circuit Breaker, Fuse, etc.) and other parts.

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







		*Page Nos. of Related Systems	182	56	148	182	9 10 14 18	)0 14		18	2		97 100	182	168	108	176	58 70 125	52	80	D	166	97 100	166
Location		Parts Code or Location	A/C Magnetic Clutch	Alternator	ABS ECU	A/C Amplifier	A/C Control Accombly		A/C Dual Pressure SW	A/C Magnetic Clutch Relay	Air Inlet Servo Motor	Air Vent Mode Control Servo Motor	Ashtray Illumination	A/C Condenser Fan Motor	Auto Antenna Control Relay and Motor	Back-Up Light SW (M/T)	Brake Fluid Level SW	DLC (Check Connector)	Cold Start Injector	Cooling Fan ECU (for Engine Compartment)	Cooling Fan Motor (for Engine Compartment)	Cigarette Lighter	Cigarette Lighter Illumination	Clock
		CB or Fuse	A3	A5	A7	A9	A10	A12	A13	A15	A17	A18	A19	A25	A27	B1	B5	C1	C2	C3	C4	C6	C7	C8
	15A	TAIL						•					•										•	•
	15A	RAD & CIG													•							$\bullet$		٠
	7.5A	GAUGE			•	●	●				٠	•				-	•							
	7.5A	TURN																						
	20A	WIPER																						
1	20A	DEFOG																						
	15A	STOP			•																			
	20A	DOOR																						
	30A	POWER																						
	7.5A	PANEL																					•	
	15A	EFI																•						
2	20A	VENT																			٠			
	7.5A	ECU–IG		٠											$\bullet$	•								
	7.5A	ALT SENCING																						
	30A	CDS FAN												$\bullet$										
	30A	RDI FAN																						
	15A	FR FOG																						
	15A	HEAD (LH)																						
3	15A	HEAD (RH)																						
9	10A	A/C				٠	·	٠	٠	٠														
	7.5A	ECU–B			•																			
	7.5A	AM2				٠													٠					
	15A	HAZ-HORN																						
	30A	RTR																						
	15A	DOME													•									•

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The part indicated is located somewhere in the system, not necessarily on the page indicated here.

52 58 70 138	125 176	80	104 176	148	58 70 176	176	97 100	160 176	154 176	132 176	119 176	106	56	85 90	154	132	85 122	86 88 90	131	88 97 100	94 106	160	125	58 70 144	182	11 11	0 4	104
Clutch Start SW (M/T)	Airbag Warning Light [Comb. Meter]	Cooling Fan Warning Light [Comb. Meter]	Open Door Warning Light [Comb. Meter]	ABS Warning Light [Comb. Meter]	Check Engine Warning Light [Comb. Meter]	Combination Meter	Combination Meter (Illumination)	Cruise Control Indicator Light [Comb. Meter]	O/D Off Indicator Light [Comb. Meter]	Power Steering Warning Light [Comb. Meter]	Seat Belt Warning Light [Comb. Meter]	Turn Signal Indicator Lights [Comb. Meter]	Charge Waming Light [Comb. Meter]	High Beam Indicator Light [Comb. Meter]	A/T Indicator Light [Comb. Meter]	Steering Position Sensor [Comb. SW]	Wiper and Washer SW [Comb. SW]	Dimmer SW [Comb. SW]	Horn SW [Comb. SW]	Light Control SW [Comb. SW]	Turn Signal SW [Comb. SW]	Cruise Control ECU	Center Airbag Sensor Assembly	Diode (for Electrical Idle-Up System	Diode (for A/C System)	Diode (for Power Window)	Door Lock ECU	Door Courtesy Light LH
C9		C10					С	11					С	12	C13	C1	14		C1	5		C17	C18	D2	D3	D6	D7	D8
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		*Page Nos. of Related Systems		1(	04		11	4	52 70 154	52 58 70	52 70	52 70 154	52 58 70	176	5	8	80 88 97 100	58 70	176	8 9			94	
Location		Parts Code or Location	Door Courtesy Light RH	Door Courtesy SW LH	Door Courtesy SW RH	Door Key Cylinder Light	Door Lock Motor LH	Door Lock Motor RH	PCME (Engine and ECT ECU)	PCME (Engine ECU)	PCME (Engine ECU)	PCME (Engine and ECT ECU)	PCME (Engine ECU)	Engine Oil Level Sensor	Fuel Pump Resistor	Fuel Pump Relay	Fog Light SW	Fuel Pump	Fuel Sender	Fog Light LH	Fog Light RH	Front Side Marker Light LH	Front Side Marker Light RH	Front Clearance Light LH
		CB or Fuse	D9	D10	D11	D12	D16	D17	E	6	E7	E	8	E10	F1	F2	F3	F4	F5	F6	F7	F11	F12	F13
1	15A 15A 7.5A 20A 20A 15A 20A 30A 7.5A 15A 20A 7.5A	TAIL RAD & CIG GAUGE TURN WIPER DEFOG STOP DOOR POWER POWER PANEL EFI VENT ECU-IG					•	•	•	•		•												
3	7.5A 30A 15A 15A 15A 10A 7.5A 7.5A 15A 30A 15A								•				•							•	•			

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	132 110	13	104	110	176	97 154	176	58	52 70 138	108	154	94	58 80 70	48 52 56 58 70 80 125 138 166 182	)4	1(	58 70	31	1:	109	5 0	8 9	97 100 106	106	94	106
F13       F14       H1       H2       H3       H4       H5       H6       I1       I9       I10       I11       J1       L1       N1       O1       O3       O4       P1       P2       P3       P6       P7         •       <	Power Steering Univer Power Steering ECU Dower Window SW RH	Power Steering Driver	Personal Light	Power Main Relay	Parking Brake SW	O/D Main SW	Oil Pressure SW	HOS2 (Oxygen Sensor)	PNS (Neutral Start SW)	Back-Up Light SW (A/T)	A/T Indicator SW	Licence Plate Light	Junction Connector	Ignition SW (AM2)	Ignition Key Cylinder Light	Interior Light Control Relay	IACV (ISC Valve)	ЦООН		High Mount Stop Light	Headlight RH	Headlight LH	Hazard SW	Front Turn Signal Light RH	Front Clearance Light RH	Front Turn Signal Light LH
		<u> </u>			P1			01		N1		L1	J1	I11	110	19	11	H6	H5	H4	НЗ	H2	H1	4	F1	F13
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		*Page Nos. of Related Systems	11	0	94	97 100	97 100 174	97 100	182	108	106	109	94	108	106	109	94	1	04	144	17	0	13	36
Location		Parts Code or Location	Power Window Motor LH	Power Window Motor RH	Panel Relay	Dodio ond Docor	Radio alla Flayel	Rheostat	Radiator Fan Motor	Back-Up Light LH [Rear Comb. Light LH]	Rear Turn Signal Light LH [Rear Comb. Light LH]	Stop Light LH [Rear Comb. Light LH]	Tail and Rear Side Marker Light LH [Rear Comb. Light LH]	Back-Up Light RH [Rear Comb. Light RH]	Rear Turn Signal Light RH [Rear Comb. Light RH]	Stop Light RH [Rear Comb. Light RH]	Tail and Rear Side Marker Light RH [Rear Comb. Light RH]	Rear Luggage Compartment Door Courtesy SW	Rear Luggage Compartment Light	Rear Window Defogger	Rear Woofer Amplifier LH	Rear Woofer Amplifier RH	Remote Control Mirror LH	Remote Control Mirror RH
		CB or Fuse	P14	P15	P16	R1	R2	R4	R5		R	6			R	7		R8	R10	R13	R15	R24	R17	R18
1	15A 15A 7.5A 20A 20A 15A 20A 30A 7.5A 15A 20A 7.5A	TAIL RAD & CIG GAUGE TURN WIPER DEFOG STOP DOOR POWER PANEL EFI VENT ECU-IG										•				•				•				
3	7.5A 30A 15A 15A 15A 7.5A 7.5A 15A 30A 15A	ECU–B AM2																						

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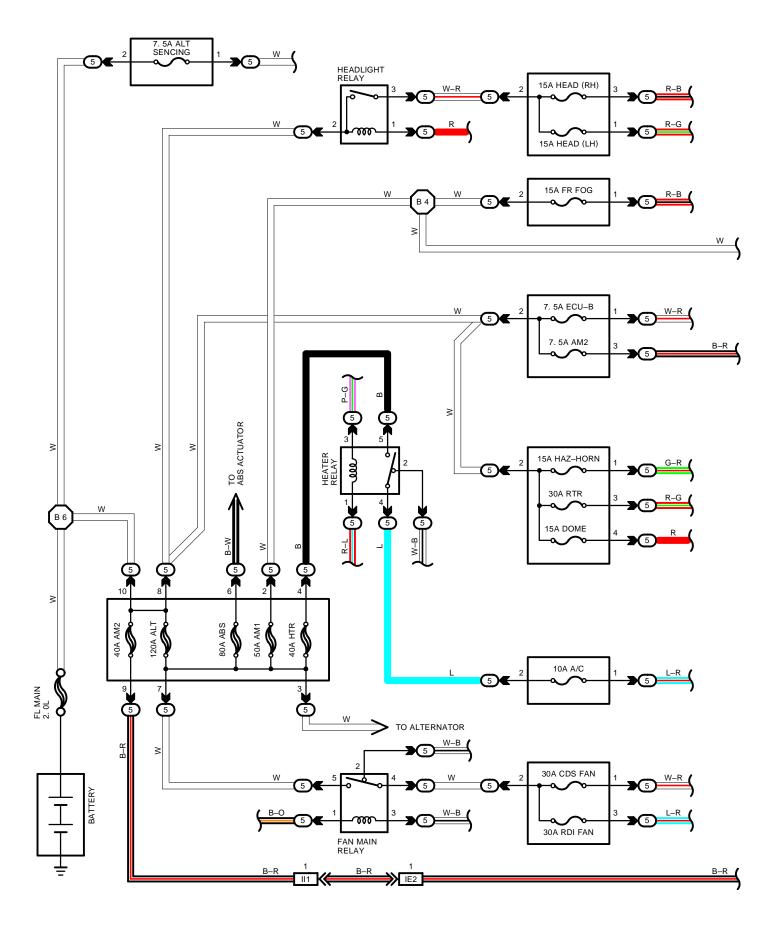
136	82 85 88 90 94 97 100 138	82 94 100	8! 9(	5 0	160	52	52 138	146	119	58 109 146 148 154 160	97 100 170	138	106	138	58 70	70 182	70	58		176	122	182	122	144	48 82 90 94 97 100 138 166
Remote Control Mirror SW	Retract Control Relay	Retract Control Relay (Canada)	Retract Motor LH	Retract Motor RH	VSPG (Speed Sensor)	Start Injector Time SW	Starter Relay	Shift Lock ECU	Seat Belt Warning Relay	Stop Light SW	Stereo Component Amplifier	Theft Deterrent Horn	Turn Signal Flasher	Theft Deterrent ECU	VSV (for EGR System)	VSV (for A/C Idle-Up System)	VSV (for Fuel Pressure Up Control System)	VSV (for Turbo Pressure Control System)	VSV (for T–VIS)	Water Temp. Sender	Washer Motor	Water Temp. Sender (for Radiator Fan)	Wiper Motor	Defogger Relay	Taillight Relay
R19	R20	R21	R22	R23	S1	S3	S6	S7	S8	S9	S10 S11	T1	T4	T5	V2	V3	V4	V5	V6	W1	W2	W3	W4	Ċ	D
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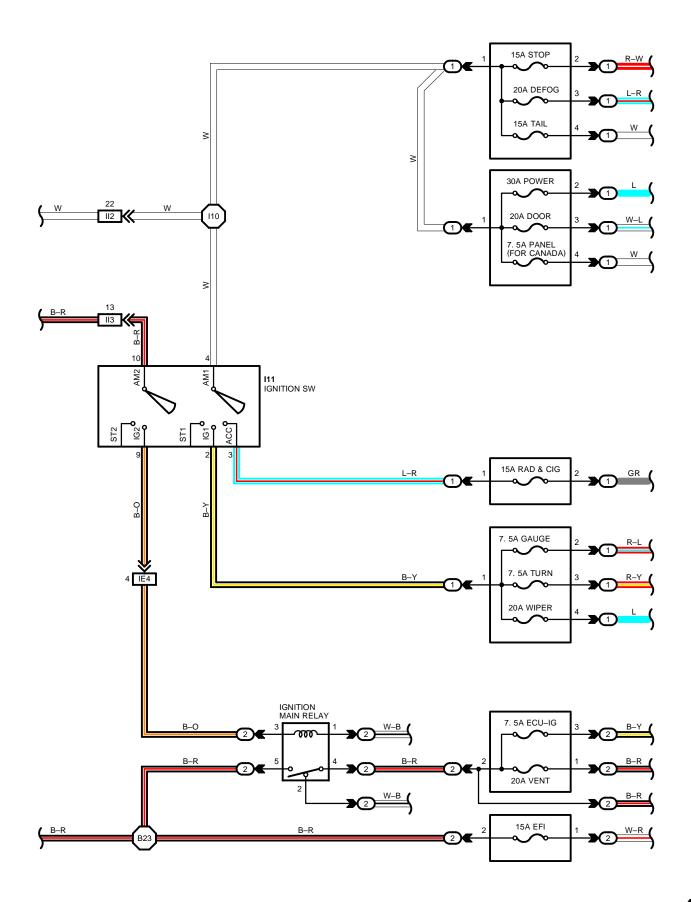
		*Page Nos. of Related Systems	58 70	80	58 70 154	48 58 70		18	32		82 88 90	182	131 138
Location		Parts Code or Location	Circuit Opening Relay	(for Engine Compartment)		Ignition Main Relay	Fan Main Relay	Fan Relay No. 1	Fan Relay No. 2	Fan Relay No. 3	Front Fog Light Relay	Heater Relay	Horn Relay
		CB or Fuse		C	9 			r –	1	3		1	
	15A	TAIL									<u> </u>	ļ	
	15A	RAD & CIG		-								•	
	7.5A	GAUGE											
	7.5A	TURN											
	20A	WIPER											
1	20A	DEFOG											
	15A	STOP					-						
	20A	DOOR											
	30A	POWER		+									
	7.5A	PANEL											
2	15A	EFI VENT	-										
	20A 7.5A	ECU–IG										· .	
	7.5A	ALT SENCING							<u>.                                    </u>				
	7.5A 30A	CDS FAN							•	•			
	30A	RDI FAN		+				•		-			
	15A	FR FOG						<b>–</b>			•		
	15A	HEAD (LH)									•	<u>†</u>	
	15A	HEAD (RH)									•		
3	10A	A/C									-		
	7.5A	ECU–B										<u> </u>	
	7.5A	AM2				•	•	•	•				
	15A	HAZ-HORN											
	30A	RTR						· ·			†		
	15A	DOME								<b> </b>	†		

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

The part indicated is located somewhere in the system, not necessarily on the page indicated here.

## **POWER SOURCE**





# **POWER SOURCE**

### - SERVICE HINTS -

#### HEADLIGHT RELAY

2-3: CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION OR DIMMER SW AT FLASH POSITION

**IGNITION MAIN RELAY** 

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

FAN MAIN RELAY

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

### O : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
l11	26				

#### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IE2	22	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
IE4	52	
ll1		
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
113		
~		

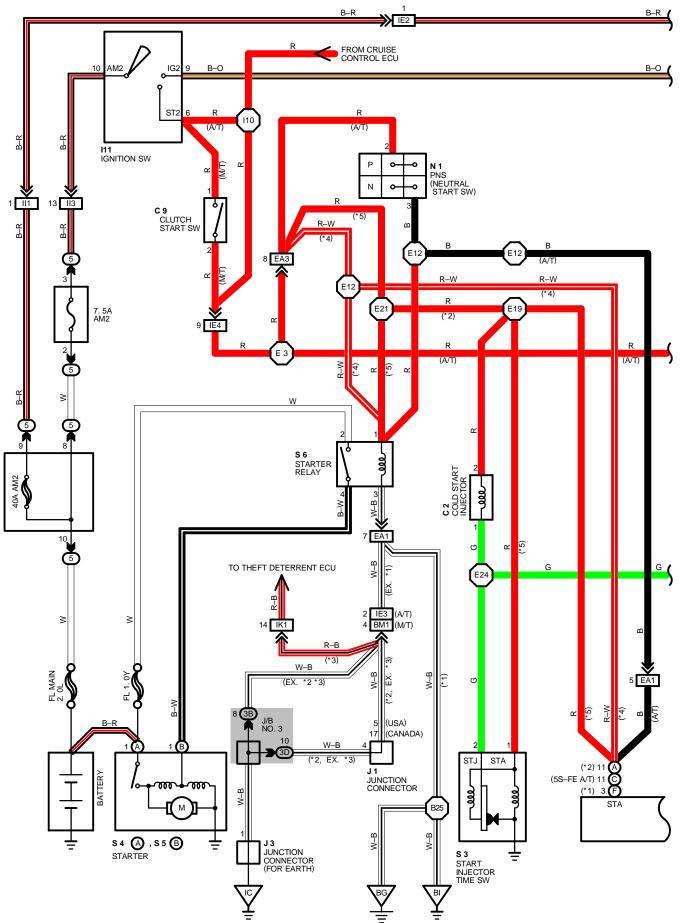
### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
l10	34	COWL WIRE	B 6	36	LUGGAGE ROOM WIRE
B 4	36	LUGGAGE ROOM WIRE	B23	36	ENGINE ROOM MAIN WIRE

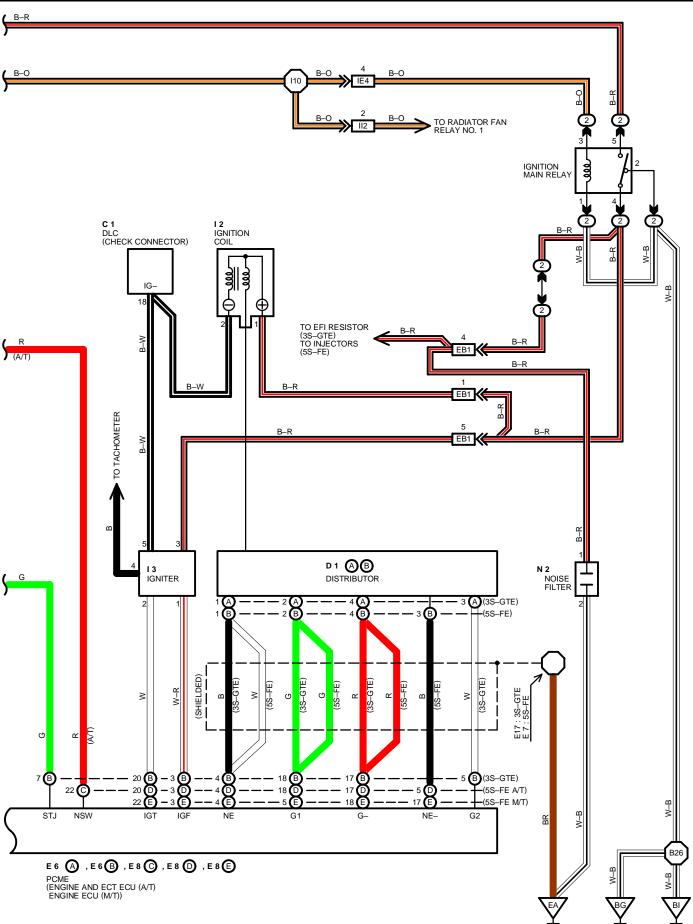
I11 BLACK

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İ	•	٠	X	X	9	10	11
ç			<u> </u>			<u> </u>	2

## **STARTING AND IGNITION**



\*1 : USA (55-FE MT) W/O ABS, AUTO ANTENNA, THEFT DETERRENT AND POWER WINDOW \*2 : (1) CANADA (2) USA (AT) (3) USA (MT) W/ CRUISE CONTROL, ABS, POWER WINDOW OR WOOFER SPEAKER



# **STARTING AND IGNITION**

#### SERVICE HINTS

#### **IGNITION MAIN RELAY**

(2) 1-(2) 2 : CLOSED WITH IGNITION SW AT ON POSITION

#### **III IGNITION SW**

10–9: CLOSED WITH IGNITION SW AT **ON** OR **ST** POSITION 10–6: CLOSED WITH IGNITION SW AT **ST** POSITION

### S 6 STARTER RELAY

2-4 : CLOSED WITH A/T SHIFT LEVER IN P OR N POSITION AND IGNITION SW AT ST POSITION (A/T)

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

#### N 1 NEUTRAL START SW (A/T)

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

#### C 9 CLUTCH START SW (M/T)

1-2 : CLOSED WITH CLUTCH PEDAL FULLY DEPRESSED

#### C 2 COLD START INJECTOR

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

#### O : PARTS LOCATION

CO	DE	SEE PAGE	CO	DE	SEE PAGE	CO	DE	SEE PAGE	
С	1	24 (5S-FE), 25 (3S-GTE)		В	25 (3S–GTE)	J 3		26	
С	2	25 (3S–GTE)	E 8	D	24 (5S–FE)	N	1	24 (5S–FE)	
С	9	26	E		24 (5S–FE)	N 2		24(5S-FE), 25 (3S-GTE)	
	Α	25 (3S–GTE)	12		24 (5S-FE), 21 (3S-GTE)	S	3	25 (3S–GTE)	
D 1	В	24 (5S–FE)	1	3	24 (5S-FE), 21 (3S-GTE)	S 4	A	24 (5S–FE), 25 (3S–GTE)	
E 6	Α	25 (3S–GTE)	11	1	26	S 5	В	24 (5S–FE), 25 (3S–GTE)	
	С	24 (5S–FE)	J	1	26	S	6	24 (5S-FE), 25 (3S-GTE)	

#### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

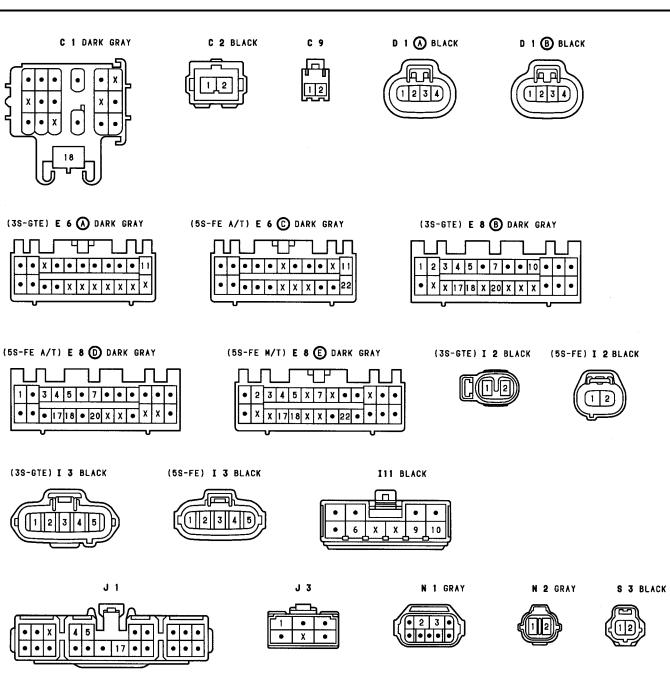
	CONNECTOR J	OINING WIRE HARNESS AND WIRE HARNESS				
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)				
E 4 4	28 (5S–FE)					
EA1	30 (3S–GTE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)				
<b>F</b> 4 0	28 (5S–FE)					
EA3	30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)				
EB1	28 (5S–FE)					
EB1	30 (3S–GTE)	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)				
IE2						
IE3	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)				
IE4						
ll1						
112	- 34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)				
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)				
IK1	34	FLOOR WIRE AND COWL WIRE (RIGHT KICK PANEL)				
BM1	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)				

#### : GROUND POINTS

•		
CODE	SEE PAGE	GROUND POINTS LOCATION
E A	28 (5S–FE)	
EA	30 (3S–GTE)	- INTAKE MANIFOLD
IC	32	INSTRUMENT PANEL BRACE LH
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
E3	28 (5S–FE)	ENGINE ROOM MAIN WIRE	E24	30 (3S–GTE)	ENGINE WIRE	
ES	30 (3S–GTE)		l10	34	COWL WIRE	
E 7	00 (FC FF)		B25	28 (5S–FE)		
E12	- 28 (5S–FE)	ENGINE WIRE		30 (3S–GTE)		
E17			Dee	28 (5S–FE)	ENGINE ROOM MAIN WIRE	
E19	30 (3S–GTE)		B26	30 (3S–GTE)		
E21						



s 4(A)

1

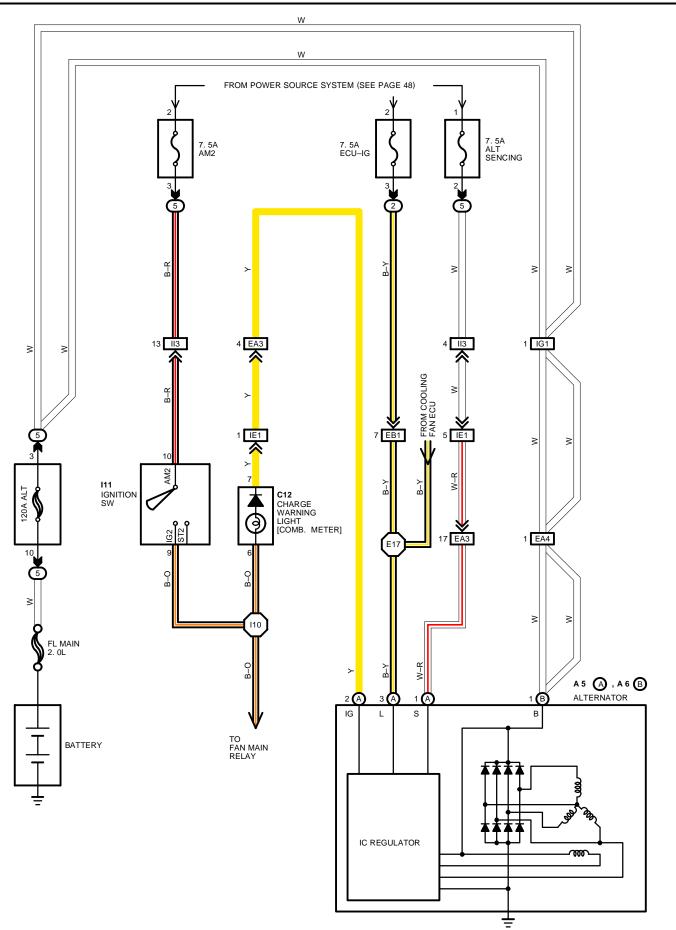
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S 6

55

CHARGING



#### - SERVICE HINTS

A 5(A) (ALTERNATOR)

(A) 1-GROUND: 13.9-15.1 VOLTS WITH ENGINE RUNNING AT 2000 RPM AND 25°C (77°F)

13.5–14.3 VOLTS WITH ENGINE RUNNING AT 2000 RPM AND 115°C (239°F)
 (A) 2–GROUND: 0–4 VOLTS WITH IGNITION SW AT ON POSITION AND ENGINE NOT RUNNING

### O : PARTS LOCATION

<u> </u>						
CODE SEE PAGE		CODE SEE PAGE		CODE	SEE PAGE	
A 5	A	20 (5S–FE), 21 (3S–GTE)	C12	22		
A 6	В	20 (5S–FE), 21 (3S–GTE)	l11	22		

#### : RELAY BLOCKS $\square$

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	17	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

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

A 6 (B)

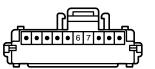
SEE PAGE	
OLLIAOL	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
(5S–FE)	
(3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)
(5S–FE)	
(3S–GTE)	
(5S–FE)	
(3S–GTE)	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)
	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
	LUGGAGE ROOM WIRE AND ENGINE ROOM MAIN WIRE (BEHIND FOOTREST)
	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)
(; (; (; (;	3S-GTE) 5S-FE) 3S-GTE) 5S-FE) 3S-GTE)

### : SPLICE POINTS

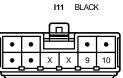
$\smile$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E17	26 (3S–GTE)	ENGINE WIRE	l10	30	COWL WIRE

#### A 5 \Lambda BLACK





C12 GRAY



#### SYSTEM OUTLINE

THE ENGINE CONTROL SYSTEM UTILIZES A MICROCOMPUTER AND MAINTAINS OVERALL CONTROL OF THE ENGINE. ETC. AN OUTLINE OF ENGINE CONTROL IS GIVEN HERE.

#### 1. PTIS (INPUT SIGNALS)

#### (1) WATER TEMP. SIGNAL SYSTEM

THE ECTS (WATER TEMP. SENSOR) DETECTS THE ENGINE COOLANT TEMP. AND HAS A BUILT-IN THERMISTOR WITH A RESISTANCE WHICH VARIES ACCORDING TO THE WATER TEMP. THUS THE WATER TEMP. IS INPUT IN THE FORM OF A CONTROL SIGNAL TO **TERMINAL THW** OF THE PCME (ECU).

(2) INTAKE AIR TEMP. SIGNAL SYSTEM

THE IATS (INTAKE AIR TEMP. SENSOR) IS INSTALLED INSIDE THE AFS (AIR FLOW METER) AND DETECTS THE INTAKE AIR TEMP., WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL THA** OF THE PCME (ECU).

(3) OXYGEN DENSITY SIGNAL SYSTEM

THE OXYGEN DENSITY IN THE EXHAUST EMISSIONS IS DETECTED AND INPUT AS A CONTROL SIGNAL TO **TERMINAL OX** OF THE PCME (ECU). TO MAINTAIN STABLE DETECTION PERFORMANCE BY THE HOZS (OXYGEN SENSOR), A HEATER IS USED FOR WARMING THE SENSOR. THE HEATER IS ALSO CONTROLLED BY THE PCME (ECU) (HT).

(4) CRANKSHAFT POSITION SIGNAL SYSTEM

CRANKSHAFT POSITION AND ENGINE SPEED IS DETECTED BY THE PICK-UP COIL INSTALLED INSIDE THE DISTRIBUTOR. CRANKSHAFT POSITION IS INPUT AS A CONTROL SIGNAL TO **TERMINAL G1** AND **G2** OF THE PCME (ECU), AND ENGINE SPEED SIGNAL IS INPUT TO **TERMINAL NE+**.

(5) THROTTLE POSITION SIGNAL SYSTEM

THE **THROTTLE** POSITION SENSOR DETECTS THE THROTTLE VALVE OPENING ANGLE, WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL VTA** OF THE PCME (ECU), OR WHEN THE VALVE IS FULLY CLOSED, TO **TERMINAL IDL**.

(6) VEHICLE SPEED SIGNAL SYSTEM

THE SPEED METER INSIDE THE COMBINATION METER SENDS A VEHICLE SPEED SIGNAL TO **TERMINAL SPD** OF THE PCME (ECU) AS A CONTROL SIGNAL.

(7) ACS (A/C SW) SIGNAL SYSTEM

THE OPERATING VOLTAGE OF THE A/C MAGNETIC CLUTCH IS DETECTED AND INPUT IN THE FORM OF A CONTROL SIGNAL TO **TERMINAL AC** OF THE PCME (ECU).

(8) BATTERY SIGNAL SYSTEM

VOLTAGE IS CONSTANTLY APPLIED TO **TERMINAL BATT** OF THE PCME (ECU). WHEN THE IGNITION SW IS TURNED TO ON, VOLTAGE FOR PCME (ECU) OPERATION IS APPLIED VIA THE EFI MAIN RELAY TO **TERMINALS +B** AND **+B1** OF THE ECU.

(9) INTAKE AIR VOLUME SIGNAL SYSTEM

INTAKE AIR VOLUME IS DETECTED BY THE POTENTIOMETER INSTALLED INSIDE THE AIR FLOW METER AND IS INPUT AS A CONTROL SIGNAL TO **TERMINAL VS** OF THE PCME (ECU).

(10) STOP LIGHT SW SIGNAL SYSTEM

THE STOP LIGHT SW IS USED TO DETECT WHETHER OR NOT THE VEHICLE IS BRAKING AND THE INFORMATION IS INPUT AS A CONTROL SIGNAL TO **TERMINAL STP** OF THE PCME (ECU).

(11) STA SIGNAL SYSTEM

TO CONFIRM THAT THE ENGINE IS CRANKING, THE VOLTAGE APPLIED TO THE STARTER MOTOR DURING CRANKING IS DETECTED AND IS INPUT AS A CONTROL SIGNAL TO **TERMINAL STA** OF THE PCME (ECU).

(12) ENGINE KNOCK SIGNAL SYSTEM

ENGINE KNOCKING IS DETECTED BY THE KNOCK SENSOR AND INPUT AS A CONTROL SIGNAL TO **TERMINAL KNK** OF THE PCME (ECU).

(13) ELECTRICAL LOAD SIGNAL SYSTEM

THE SIGNAL WHEN SYSTEMS SUCH AS THE REAR WINDOW DEFOGGER, HEADLIGHTS, ECT. WHICH CAUSE A HIGH ELECTRICAL BURDEN ARE ON IS INPUT TO **TERMINAL ELS** AS A CONTROL SIGNAL.

#### 2. CONTROL SYSTEM

\* SMPI (EFI, ELECTRONIC FUEL INJECTION) SYSTEM

THE SMPI (EFI) SYSTEM MONITORS THE ENGINE REVOLUTIONS THROUGH THE SIGNALS EACH SENSOR (INPUT SIGNALS (1) TO (12)) INPUTS TO THE PCME (ECU). BASED ON THIS DATA AND THE PROGRAM MEMORIZED IN THE PCME (ECU), THE MOST APPROPRIATE FUEL INJECTION TIMING IS DECIDED AND CURRENT IS OUTPUT TO **TERMINALS #1, #2, #3** AND **#4** OF THE PCME (ECU), CAUSING THE INJECTORS TO OPERATE IT (TO INJECT FUEL). IT IS THIS SYSTEM WHICH, THROUGH THE WORK OF THE PCME (ECU), FINELY CONTROLS FUEL INJECTION IN RESPONSE TO DRIVING CONDITIONS.

\* EI (ESA, ELECTRONIC SPARK ADVANCE) SYSTEM

THE EI (ESA) SYSTEM MONITORS THE ENGINE REVOLUTIONS USING THE SIGNALS (INPUT SIGNALS (1, 2, 4, 5, 6, 9, 11, 12)) INPUT TO THE PCME (ECU) FROM EACH SENSOR. BASED ON THIS DATA AND THE PROGRAM MEMORIZED IN THE PCME (ECU), THE MOST APPROPRIATE IGNITION TIMING IS DECIDED AND CURRENT IS OUTPUT TO **TERMINAL IGT** OF THE PCME (ECU). THIS OUTPUT CONTROLS THE IGNITER TO PRODUCE THE MOST APPROPRIATE IGNITION TIMING FOR THE DRIVING CONDITIONS.

\* FUEL PUMP CONTROL SYSTEM

THE PCME (ECU) OPERATION OUTPUTS TO **TERMINAL FPR** AND CONTROLS THE FUEL PUMP RELAY AND THUS CONTROLS THE FUEL PUMP DRIVE SPEED IN RESPONSE TO CONDITIONS.

\* HOZS (OXYGEN SENSOR) HEATER CONTROL SYSTEM

THE HOZS (OXYGEN SENSOR) HEATER CONTROL SYSTEM TURNS THE HEATER TO ON WHEN THE INTAKE AIR VOLUME IS LOW (TEMP. OF EXHAUST EMISSIONS LOW), AND WARMS UP THE HOZS (OXYGEN SENSOR) TO IMPROVE DETECTION PERFORMANCE OF THE SENSOR. THE PCME (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS (1, 4, 8, 9, 11)), CURRENT IS OUTPUT TO **TERMINAL HT** AND CONTROLS THE HEATER.

\* ISC (IDLE SPEED CONTROL) SYSTEM

THE ISC SYSTEM (ROTARY SOLENOID TYPE) INCREASES ENGINE SPEED 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 PCME (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS 1, 4 TO 9, 13)), OUTPUTS CURRENT TO **TERMINALS RSC** AND **RSO** AND CONTROLS THE IACV (ISC VALVE).

\* EGR CONTROL SYSTEM

WITH THE EGR CONTROL SYSTEM, THE PCME (ECU) EVALUATES THE (INPUT SIGNALS (1, 4, 5, 9)) FROM EACH SENSOR, CURRENT IS OUTPUT TO **TERMINAL EGR** AND OPERATION OF THE VSV (FOR EGR) IS CONTROLLED.

\* INTAKE AIR CONTROL SYSTEM

IN THE INTAKE AIR CONTROL SYSTEM, EACH CYLINDER IN THE INTAKE MANIFOLD IS DIVIDED INTO TWO PARTS, WITH AN INTAKE AIR CONTROL VALVE INSTALLED IN THE PASSAGE ON ONE SIDE. THE OPENING AND CLOSING OF THE VALVE PROVIDES THE MOST APPROPRIATE INTAKE AIR FLOW AND, AS WELL AS PREVENTING PERFORMANCE LOSS AT LOW SPEEDS, ALSO IMPROVES FUEL ECONOMY. THE PCME (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS (4, 5, 9, 12)), OUTPUTS CURRENT TO **TERMINAL TVIS** CONTROLS THE VSV (FOR T–VIS) AND, CARRIES OUT OPENING AND CLOSING OF THE VALVE.

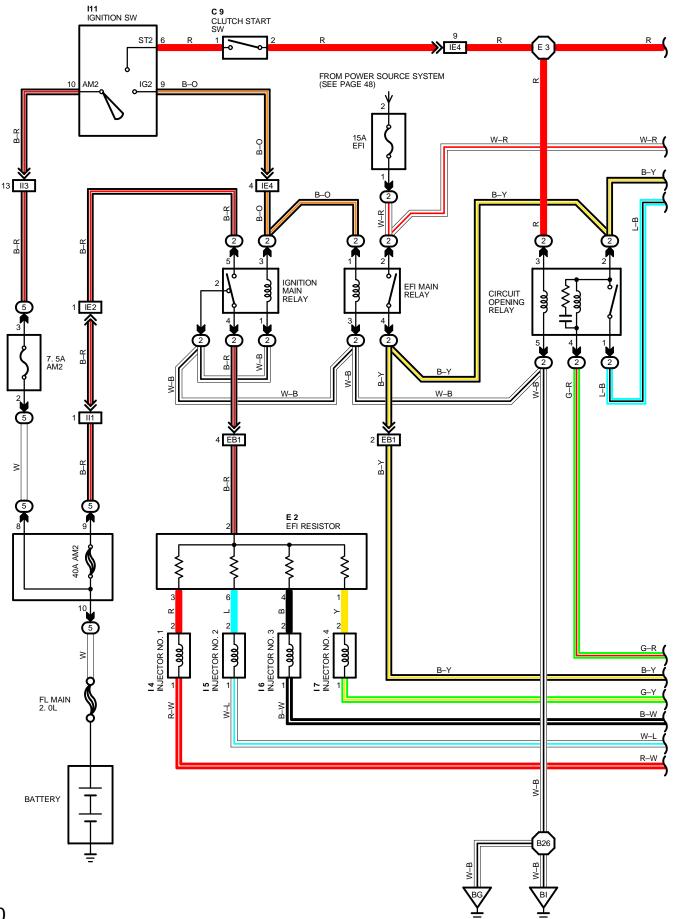
#### 3. DIAGNOSIS SYSTEM

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

#### 4. FAIL-SAFE SYSTEM

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

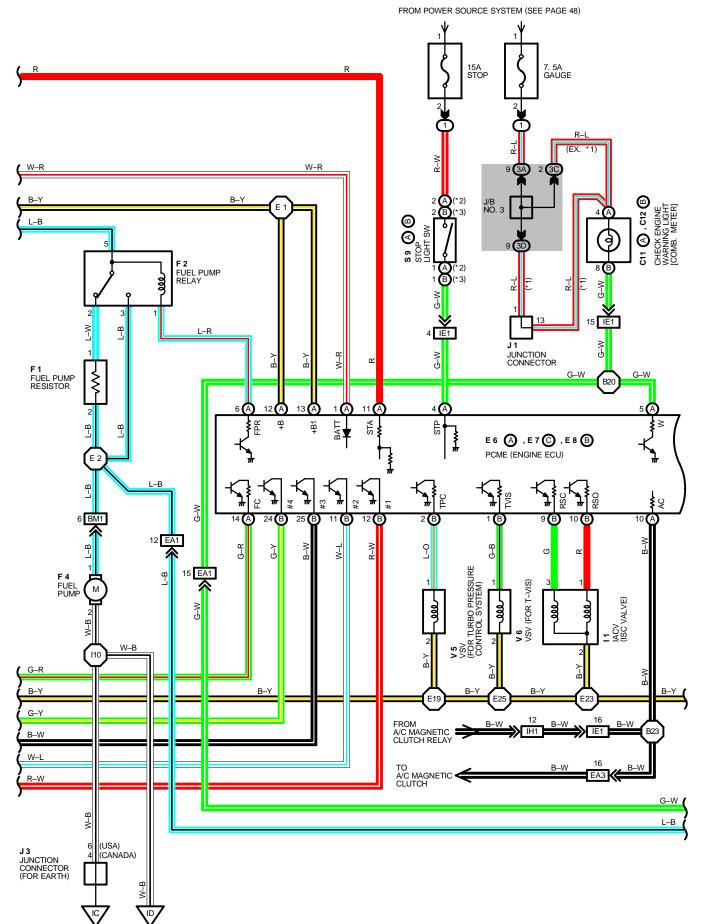
# **ENGINE CONTROL (3S-GTE)**



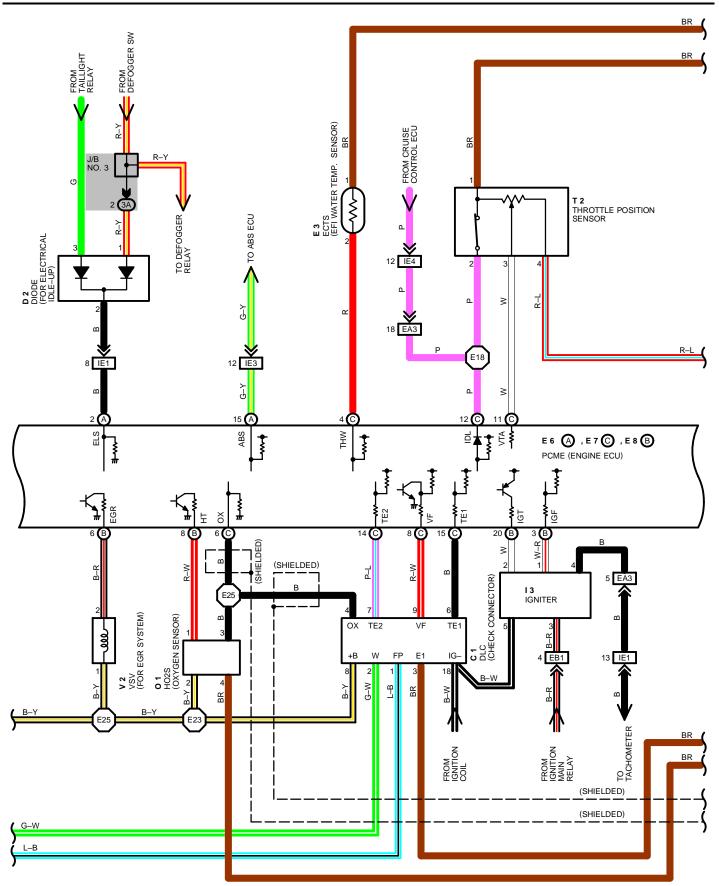
\*2 : (W/ CRUISE CONTROL) \*3 : (W/O CRUISE CONTROL)

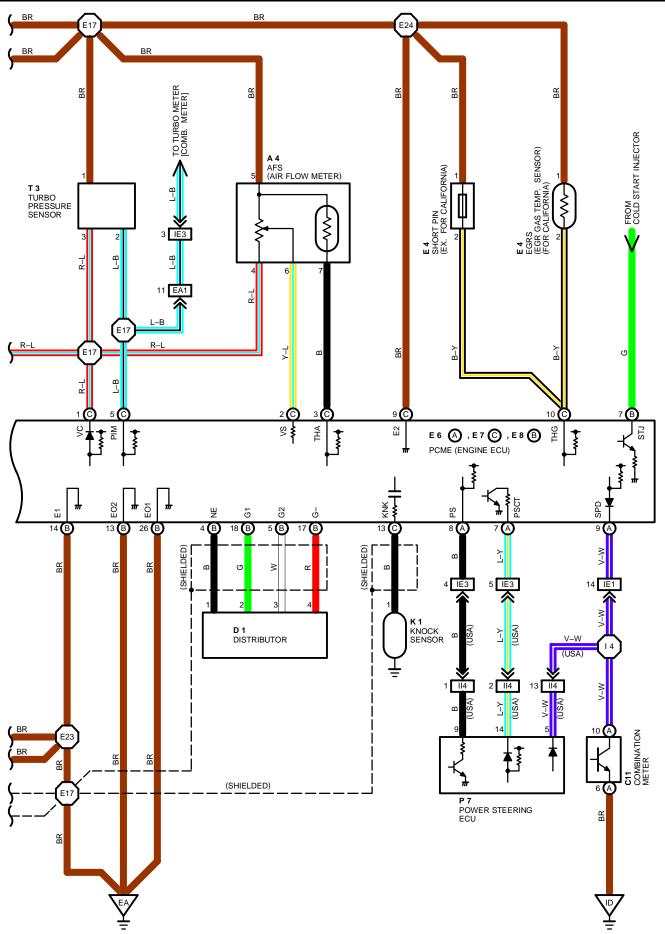
: (1) CANADA (2) USA WITH CRUISE CONTROL, ABS. POWER WINDOW OR WOOFER SPEAKER

\*1



# **ENGINE CONTROL (3S-GTE)**





#### SERVICE HINTS **EFI MAIN RELAY** 2-4: CLOSED WITH IGNITION SW AT ON OR ST POSITION E 2 EFI RESISTOR 2-1.3.4.6: **4–6** Ω 14,15,16,17 INJECTOR 1-2: **2-4** Ω F10 FUEL PUMP RESISTOR 1-2 APPROX 0.73 Q E 4 EGR GAS TEMP. SENSOR (FOR CALIFORNIA) 1-2: 69.4-88.5 KΩ (50°C, 122°F) 11.89–14.37 KΩ (100°C, 212°F) 2.79-3.59 KΩ (150°C, 302°F) A15 AIR FLOW METER 200–600 Ω (MEASURING PLATE CLOSED) 5-6: **20–1000** Ω (MEASURING PLATE OPEN) 5–4: **200–400** Ω 15 KΩ (-20°C, 4°F) 5-7: 4-7 KΩ (0°C, 32°F) 2-3 KΩ (20°C, 68°F) 0.9–1.3 KΩ (40°C, 104°F) 0.4-0.7 KΩ (60°C, 140°F) **E 2 EFI WATER TEMP. SENSOR** 1-2: **7.22** KΩ (**0**°C, **32**°F) 3.04 KΩ (20°C, 68°F) 1.41 KΩ (40°C, 104°F) 0.73 KΩ (60°C, 140°F) 0.397 KΩ (80°C, 176°F) **T 1 THROTTLE POSITION SENSOR** 3-4: 3.9-7.25 KΩ WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0 MM (0 IN.) 2-4: LESS THAN 5.5 KΩ WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0.50 MM (0.020 IN.) ↔ Ω WITH 0.7 MM (0.028 IN.) 0.96–1.79 KΩ WITH THROTTLE VALVE FULLY OPEN 3–4: 4.38-8.13 KΩ (25°C, 77°F) 1-4: E4, E5, E6 PCME (ENGINE ECU) **VOLTAGE AT PCME (ECU) CONNECTORS** BATT -E1 : 9-14 VOLTS +B. +B1-E1 : 9-14 VOLTS (IGNITION SW ON) IDL -E2 : 9-14 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN) -E2 : 0.3-0.8 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED) VTA 3.2-4.9 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN) VC -E2 : 4.5-5.5 VOLTS (IGNITION SW ON) : 3.7-4.3 VOLTS (IGNITION SW ON AND MEASURING PLATE FULLY CLOSED) vs -E2 0.2-0.5 VOLTS OR LESS (IGNITION SW ON AND MEASURING PLATE FULLY OPEN) 2.0-4.0 VOLTS (IDLING) 1.0-2.0 VOLTS (3000RPM) THA –E2 : 0.5-3.4 VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. 20°C, (68°F)) THW -E2 : 0.2-1.0 VOLTS (IGNITION SW ON AND COOLANT TEMP. 80°C, (176°F)) STA -E1 : 6-14 VOLTS (CRANKING) #1, #2, #3, #4 - E01, E02 : 10-14 VOLTS (IGNITION SW ON) -E1 : 0.8-1.2 VOLTS (CRANKING OR IDLING) IGT TVIS -E1 : APPROX 2.0 VOLTS OR LESS WITH IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED (REGULAR GASOLINE) 9-14 VOLTS WITH IGNITION SW ON AND THROTTLE VALVE OPEN (REGULAR GASOLINE) APPROX 2.0 VOLTS OR LESS IDLING (PREMIUM GASOLINE) 9-14 VOLTS WITH 4200 MIN-1 (PREMIUM GASOLINE) : 9-14 VOLTS WITH IGNITION SW ON AND DLC (CHECK CONNECTOR) TE1-E1 NO CONNECT TE1 -E1 APPROX 1.0 VOLTS OR LESS WITH IGNITION SW ON AND DLC (CHECK CONNECTOR) TE1-E1 CONNECT AC -E1 : 9-14 VOLTS WITH IGNITION SW ON A/C SWITCH ON RSO, RSC -E1 : 9-14 VOLTS (IGNITION SW ON) PIM -E2 : 2.5-4.5 VOLTS (IGNITION SW ON)

(DISC	ONNEC	CT WIRING CONNECTOR FROM ECU)	
IDL	–E1	: INFINITY (THROTTLE VALVE OPEN)	
		LESS THAN 2300 $\Omega$ (THROTTLE VALVE FULLY CLOSED)	
VTA	-E2	: 3500–10000 $\Omega$ (THROTTLE VALVE OPEN)	
		<b>200–800</b> $\Omega$ (THROTTLE VALVE FULLY CLOSED)	
VS	-E2	: 200–600 $\Omega$ (MEASURING PLATE FULLY CLOSED)	
		<b>20–1200</b> $\Omega$ (MEASURING PLATE FULLY OPEN)	
THA	-E2	: 2000–3000 Ω (INTAKE AIR TEMP. 20°C, 68°F)	
тнw	-E2	: 200–400 Ω (COOLANT TEMP. 80°C, 176°F)	
G1,G2	2 –G–	: <b>140–180</b> Ω	
NE+	-G-	: <b>180–220</b> Ω	
RSC. I	RSO – +	+B. +B1:17.7–23.9 Ω	

### O : PARTS LOCATION

CO	DE	SEE PAGE	CO	DE	SEE PAGE	CODE	SEE PAGE
Α	A 4 25 (3S–GTE) E 8 B 25		25 (3S–GTE)	J 3	26		
С	1	25 (3S–GTE)	F	1	25 (3S–GTE)	K 1	25 (3S–GTE)
С	9	26 (3S–GTE)	F	2	25 (3S–GTE)	01	25 (3S–GTE)
C11	Α	26	F	4	26	P 7	27
C12	В	26	I	1	25 (3S–GTE)	S 9	26
D	1	25 (3S–GTE)	1	3	25 (3S–GTE)	T 2	25 (3S–GTE)
D	2	26	1	4	25 (3S–GTE)	Т 3	25 (3S–GTE)
E	2	25 (3S–GTE)	I.	5	25 (3S–GTE)	V 2	25 (3S–GTE)
E	3	25 (3S–GTE)	1	6	25 (3S–GTE)	V 5	25 (3S–GTE)
E	4	25 (3S–GTE)	I.	7	25 (3S–GTE)	V 6	25 (3S–GTE)
E 6	Α	25 (3S–GTE)	l11		26		
Ε7	С	25 (3S–GTE)	J	1	26		

#### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

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

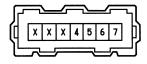
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
EA1	30 (3S–GTE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)			
EA3	30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)			
EB1	30 (3S–GTE)	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)			
IE1					
IE2					
IE3	32 	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)			
IE4					
IH1	32	COWL WIRE AND A/C SUB WIRE (INSTRUMENT PANEL RIGHT)			
ll1	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)			
113					
114	- 34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)			
BM1	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)			

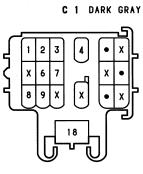
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CODE	SEE PAGE	GROUND POINTS LOCATION
EA	30 (3S–GTE)	INTAKE MANIFOLD
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
E1			E24	20 (20 OTE)		
E 2	30 (3S–GTE)	ENGINE ROOM MAIN WIRE	E25	- 30 (3S-GTE)	ENGINE WIRE	
E 3			14	- 34	COWL WIRE	
E17			l10	34		
E18	30 (3S–GTE)		B20	36	ENGINE ROOM MAIN WIRE	
E19			B23			
E23			B26			



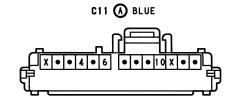


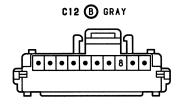
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рр

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C 9



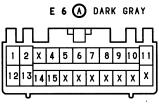


E 3 GREEN





E 4 DARK GRAY



F 1 DARK GRAY

D 2 ORANGE

F 2 BLACK

2





E 7 🔘 DARK GRAY

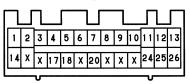
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123	4 5 6 X 8
9 10 1 1	12131415 X

F 4 DARK GRAY

#### I 1 GRAY



E 8 B DARK GRAY



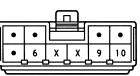
I 3 BLACK



I 4, I 6 BROWN I 5. I 7 GRAY

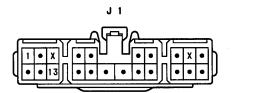






III BLACK

# **ENGINE CONTROL (3S-GTE)**

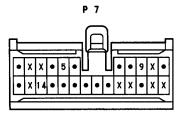


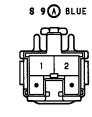






















V 2 BROWN

V 6 BROWN





V 5 BLUE



#### SYSTEM OUTLINE

THE ENGINE CONTROL SYSTEM UTILIZES A MICROCOMPUTER AND MAINTAINS OVERALL CONTROL OF THE ENGINE, TRANSMISSION, ETC. AN OUTLINE OF ENGINE CONTROL IS GIVEN HERE.

#### 1. PTIS (INPUT SIGNALS)

#### (1) WATER TEMP. SIGNAL SYSTEM

THE ECTS (WATER TEMP. SENSOR) DETECTS THE ENGINE COOLANT TEMP. AND HAS A BUILT-IN THERMISTOR WITH A RESISTANCE WHICH VARIES ACCORDING TO THE WATER TEMP. THUS THE WATER TEMP. IS INPUT IN THE FORM OF A CONTROL SIGNAL TO **TERMINAL THW** OF THE PCME (ECU).

(2) INTAKE AIR TEMP. SIGNAL SYSTEM

THE IATS (INTAKE AIR TEMP. SENSOR) IS DETECTS THE INTAKE AIR TEMP., WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL THA** OF THE PCME (ECU).

(3) OXYGEN DENSITY SIGNAL SYSTEM

THE OXYGEN DENSITY IN THE EXHAUST EMISSIONS IS DETECTED AND INPUT AS A CONTROL SIGNAL TO **TERMINAL OX1** AND **OX2** (CALIFORNIA) OF THE PCME (ECU).

(4) CRANKSHAFT POSITION SIGNAL SYSTEM

CRANKSHAFT POSITION AND ENGINE SPEED ARE DETECTED BY THE PICK-UP COIL INSTALLED INSIDE THE DISTRIBUTOR. CRANKSHAFT POSITION IS INPUT AS A CONTROL SIGNAL TO **TERMINAL G+**, OF THE PCME (ECU), AND ENGINE SPEED SIGNAL IS INPUT TO **TERMINAL NE+**.

(5) THROTTLE POSITION SIGNAL SYSTEM

THE THROTTLE POSITION SENSOR DETECTS THE THROTTLE VALVE OPENING ANGLE, WHICH IS INPUT AS A CONTROL SIGNAL TO **TERMINAL VTA** OF THE PCME (ECU), OR WHEN THE VALVE IS FULLY CLOSED, TO **TERMINAL IDL**.

(6) VEHICLE SPEED SIGNAL SYSTEM

THE SPEED METER INSIDE THE COMBINATION METER SENDS A VEHICLE SPEED SIGNAL TO **TERMINAL SPD** OF THE PCME (ECU) AS A CONTROL SIGNAL.

(7) NEUTRAL POSITION SIGNAL SYSTEM (A/T)

THE PNS (NEUTRAL START SW) DETECTS WHETHER THE SHIFT POSITION IS IN NEUTRAL AND PARKING OR NOT, AND INPUTS A CONTROL SIGNAL TO **TERMINAL NSW** OF THE PCME (ECU).

(8) A/C SW SIGNAL SYSTEM

THE A/C AMPLIFIER INPUTS THE A/C OPERATIONS TO TARMINAL ACA OF THE PCME (ECU) AS A CONTROL SIGNAL.

(9) BATTERY SIGNAL SYSTEM

VOLTAGE IS CONSTANTLY APPLIED TO **TERMINAL BATT** OF THE PCME (ECU). WHEN THE IGNITION SW IS TURNED TO ON, VOLTAGE FOR ECU OPERATION IS APPLIED VIA THE EFI MAIN RELAY TO **TERMINALS +B** AND **+B1** OF THE PCME (ECU).

(10) INTAKE AIR VOLUME SIGNAL SYSTEM

INTAKE AIR VOLUME IS DETECTED BY THE MAP (VACUUM SENSOR) AND IS INPUT AS A CONTROL SIGNAL TO **TERMINAL PIM** OF THE PCME (ECU).

(11) STA SIGNAL SYSTEM

TO CONFIRM THAT THE ENGINE IS CRANKING, THE VOLTAGE APPLIED TO THE STARTER MOTOR DURING CRANKING IS DETECTED AND IS INPUT AS A CONTROL SIGNAL TO **TERMINAL STA** OF THE PCME (ECU).

(12) ELECTRICAL LOAD SIGNAL SYSTEM

THE SIGNAL WHEN SYSTEMS SUCH AS THE REAR WINDOW DEFOGGER, HEADLIGHTS, ETC. WHICH CAUSE A HIGH ELECTRICAL BURDEN ARE ON IS INPUT TO **TERMINAL ELS** AS A CONTROL SIGNAL.

#### 2. CONTROL SYSTEM

\* MPI (EFI, ELECTRONIC FUEL INJECTION) SYSTEM

THE MPI (EFI) SYSTEM MONITORS THE ENGINE REVOLUTIONS THROUGH THE SIGNALS EACH SENSOR (INPUT SIGNALS (1) TO (12)) INPUTS TO THE PCME (ECU). BASED ON THIS DATA AND THE PROGRAM MEMORIZED IN THE PCME (ECU), THE MOST APPROPRIATE FUEL INJECTION TIMING IS DECIDED AND CURRENT IS OUTPUT TO **TERMINALS #10** AND **#20** OF THE PCME (ECU), CAUSING THE INJECTORS TO OPERATE IT (TO INJECT FUEL). IT IS THIS SYSTEM WHICH, THROUGH THE WORK OF THE PCME (ECU), FINELY CONTROLS FUEL INJECTION IN RESPONSE TO DRIVING CONDITIONS.

DURING ENGINE CRANKING (SIGNAL INPUT TO **TERMINAL STA**) OR FOR APPLOX. **2** SECONDS AFTER NE SIGNAL INPUT, PCME (ECU) OPERATION ENERGIZES (POINT CLOSED) THE FUEL PUMP CIRCUIT INSIDE THE CIRCUIT OPENING RELAY, CAUSING THE FUEL PUMP TO OPERATE.

#### \* EI (ESA, ELECTRONIC FUEL ADVANCE)

THE EI (ESA) SYSTEM MONITORS THE ENGINE REVOLUTIONS USING THE SIGNALS (INPUT SIGNALS (1, 4, 5, 10, 11)) INPUT TO THE PCME (ECU) FROM EACH SENSOR. BASED ON THIS DATA AND THE PROGRAM MEMORIZED IN THE PCME (ECU), THE MOST APPROPRIATE IGNITION TIMING IS DECIDED AND CURRENT IS OUTPUT TO **TERMINAL IGT** OF THE PCME ECU. THIS OUTPUT CONTROLS THE IGNITER TO PRODUCE THE MOST APPROPRIATE IGNITION TIMING FOR THE DRIVING CONDITIONS.

\* ISC (IDLE SPEED CONTROL) SYSTEM

THE ISC SYSTEM INCREASES ENGINE SPEED 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 PCME (ECU) EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS (1, 4 TO 8, 11, 12)), OUTPUTS CURRENT TO **TERMINALS ISCO** AND **ISCC**, AND CONTROLS THE ISC VALVE.

\* EGR CONTROL SYSTEM

THE EGR CUT CONTROL SYSTEM CONTROLS THE VSV (FOR EGR) BY EVALUATING THE SIGNALS FROM EACH SENSOR INPUT TO THE PCME (ECU) (INPUT SIGNALS (1, 4, 10)) AND BY SENDING OUTPUT TO **TERMINAL EGR** OF THE PCME (ECU).

\* A/C CUT CONTROL SYSTEM

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

THE PCME (ECU) RECEIVES INPUT SIGNALS (5, 6), AND OUTPUTS SIGNALS TO TERMINAL ACT.

\* FUEL PRESSURE CONTROL SYSTEM

THE FUEL PRESSURE UP SYSTEM CAUSES THE VSV (FOR FUEL PRESSURE UP) TO COME ON FOR HIGH TEMP. STARTS IN ORDER TO INCREASE THE FUEL PRESSURE, IMPROVE STARTABILITY AT HIGH TEMPERATURES AND PROVIDE STABLE IDLING. THE PCME (ECU) EVALUATES THE INPUT SIGNALS FROM EACH SENSOR (1, 2, 5, 11), OUTPUT CURRENT TO **TERMINAL FPU** AND CONTROLS THE VSV.

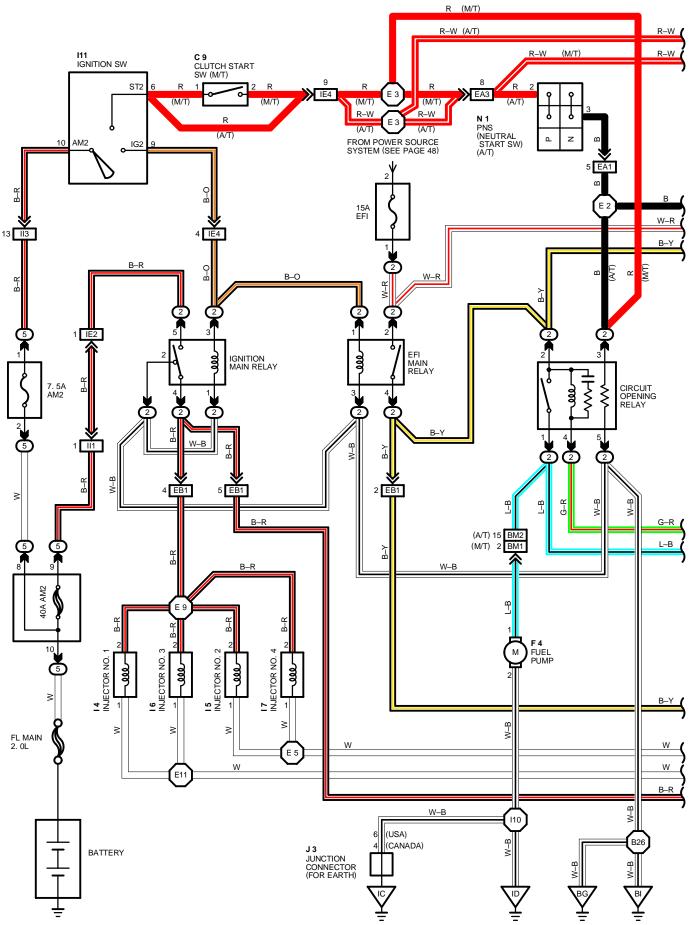
#### 3. DIAGNOSIS SYSTEM

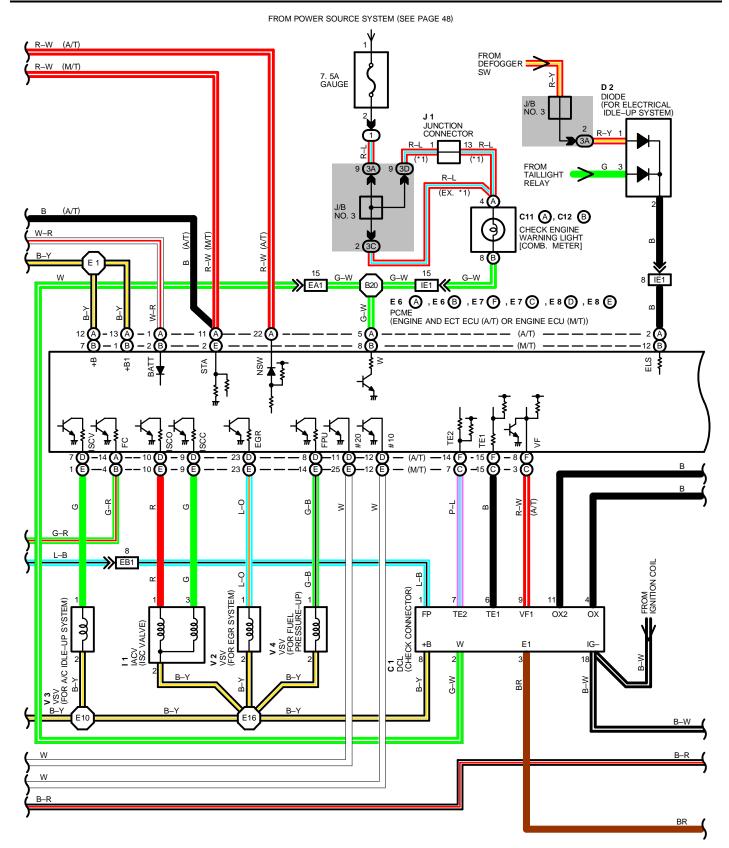
WITH THE DIAGNOSIS SYSTEM, WHEN THERE IS A MALFUNCTION IN THE PCME (ECU) SIGNAL SYSTEM, THE MALFUNCTION SYSTEM IS RECORDED IN THE MEMORY. THE MALFUNCTIONING SYSTEM CAN THEN BE FOUND BY READING THE DISPLAY (CODE) OF THE CHECK ENGINE WARNING LIGHT.

#### 4. FAIL-SAFE SYSTEM

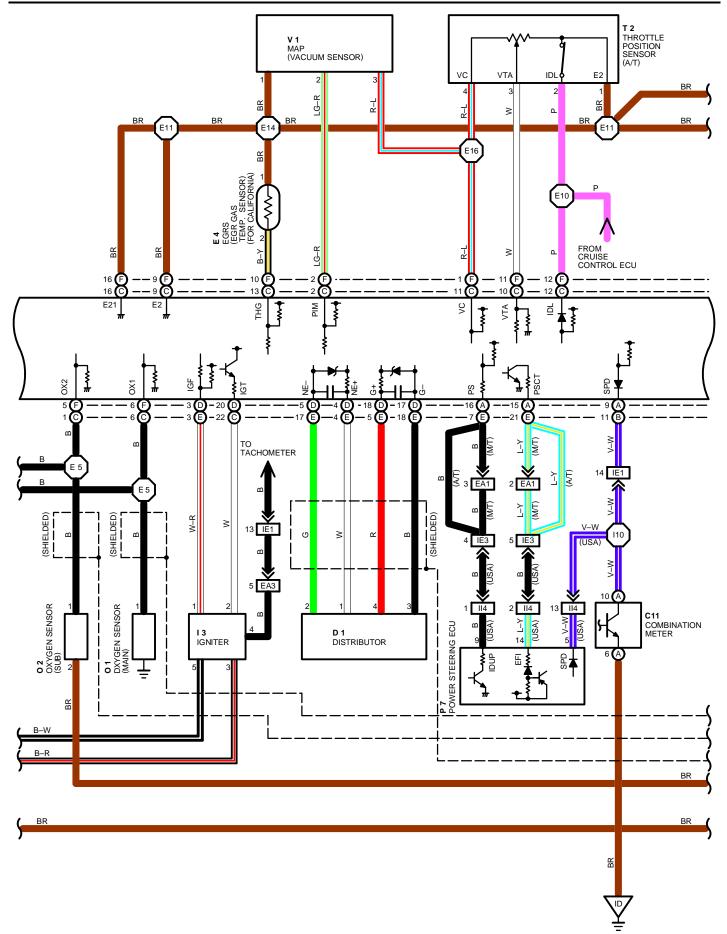
WHEN A MALFUNCTION OCCURS IN ANY SYSTEM, IF THERE IS A POSSIBILITY OF ENGINE TROUBLE BEING CAUSED BY CONTINUED CONTROL BASED ON THE SIGNALS FROM THAT SYSTEM, THE FAIL–SAFE SYSTEM EITHER CONTROLS THE SYSTEM BY USING DATA (STANDARD VALUES) RECORDED IN THE PCME (ECU) MEMORY OR ELSE STOPS THE ENGINE.

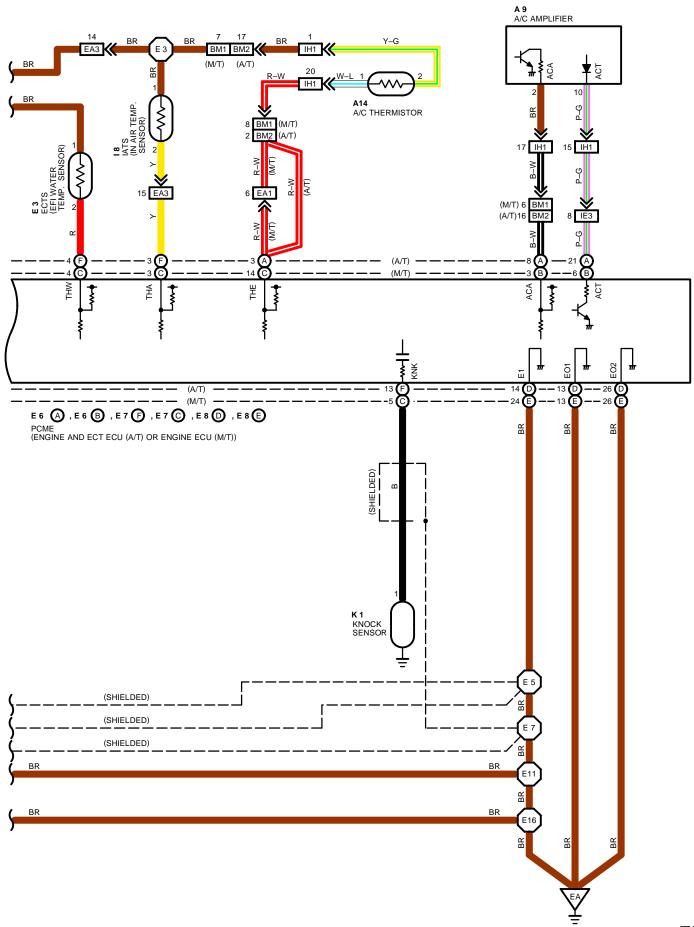
# **ENGINE CONTROL (5S-FE)**





# **ENGINE CONTROL (5S-FE)**





SERVICE HINTS				
E 6, E 7, E 8 PCME (ENGINE ECU (M/T) OR ENGINE AND ECT ECU (A/T))				
VOLTAGE AT PCME (ECU) WIRING CONNECTORS				
BATT -E1 : ALWAYS 9.0-14.0 VOLTS				
+B -E1 : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION)				
+B1 -E1 : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION)				
IDL -E2 : 9.0-14.0 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)				
VC -E2 : 4.5-5.5 VOLTS (IGNITION SW AT ON POSITION)				
VTA -E2 : 0.3-0.8 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED)				
: 3.2–4.9 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)				
PIM -E2 : 3.3-3.9 VOLTS (IGNITION SW AT ON POSITION)				
#10, #20 – E01, E02 : 9.0–14.0 VOLTS (IGNITION SW AT ON POSITION) THA –E2 : 0.5–3.4 VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. 20°C. 68°F)				
THX -E2 : 0.3-3.4 VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. 20 C, 68 F) THW -E2 : 0.2-1.0 VOLTS (IGNITION SW ON AND COOLANT TEMP. 80°C, 176°F)				
STA -E1 : 6.0-14.0 VOLTS (ENGINE CRANKING)				
IGT –E1 : 0.8–1.2 VOLTS (ENGINE CRANKING OR IDLING)				
W -E1 : 9.0-14.0 VOLTS (NO TROUBLE AND ENGINE RUNNING)				
ACT -E1 : 4.5-5.5 VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)				
ACA -E1 : 0-3.0 VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)				
ISCC, ISCO-E1 : 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION)				
TE1 –E1 : 9.0–14.0 VOLTS (IGNITION SW ON AND DLC (CHECK CONNECTOR) TE1–E1 NOT CONNECTED)				
0–3.0 VOLTS (IGNITION SW ON AND DLC (CHECK CONNECTOR) TE1–E1 CONNECTED)				
NSW -E1 : 0-3.0 VOLTS (IGNITION SW ON AND PNS (NEUTRAL START SW) POSITION P OR N RANGE)				
9.0–14.0 VOLTS (IGNITION SW ON AND PNS (NEUTRAL START SW) EX. POSITION <b>P</b> OR <b>N</b> RANGE)				
RESISTANCE AT PCME (ECU) WIRING CONNECTORS				
(DISCONNECT WIRING CONNECTOR)				
IDL -E2 : INFINITY (THROTTLE VALVE OPEN)				
2.3 KK OR LESS (THROTTLE VALVÉ FULLY CLOSED)				
VTA –E2 : 3.3–10.0 KK (THROTTLE VALVE FULLY OPEN)				
0.2–0.8 KK (THROTTLE VALVE FULLY CLOSED)				
VC –E2 : 3.0–7.0 KK				
THA –E2 : 2.0–3.0 KK (INTAKE AIR TEMP. 20°C, 68°F)				
THW         -E2         : 0.2-0.4 KK (COOLANT TEMP. 80°C, 176°F)				
G+ - G- : 0.17-0.21 KK				
ISCC, ISCO-+B, +B1: 19.3–22.3 K				

### O : PARTS LOCATION

CO	DE	SEE PAGE	CO	DE	SEE PAGE	CC	DE	SEE PAGE
Α	9	26		С	24 (5S–FE)	J	1	26
A	14	26	E 7	F	24 (5S–FE)	J	3	26
С	1	24 (5S–FE)		D	24 (5S–FE)	K	1	24 (5S–FE)
С	9	26	E 8	E	24 (5S–FE)	N	1	24 (5S–FE)
C10	С	26	F 4		26	0	1	24 (5S–FE)
C11	А	26	1	1	24 (5S–FE)	0	2	24 (5S–FE)
C12	В	26	1	3	24 (5S–FE)	Р	7	27
D	1	24 (5S–FE)	I	4	24 (5S–FE)	TO	А	24 (5S–FE)
D	2	26	1	5	24 (5S–FE)	Т 2	В	24 (5S–FE)
E	3	24 (5S–FE)	1	6	24 (5S–FE)	v	1	24 (5S–FE)
E	4	24 (5S–FE)	I	7	24 (5S–FE)	v	2	24 (5S–FE)
E 6	А	24 (5S–FE)	I	8	24 (5S–FE)	V	3	24 (5S–FE)
E 0	В	24 (5S–FE)	I1	1	26	v	4	24 (5S–FE)

### : RELAY BLOCKS

CODE	SEE PAGE	SEE PAGE RELAY BLOCKS (RELAY BLOCK LOCATION)	
1	20	R/B NO. 1 (LEFT KICK PANEL)	
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)	
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)	

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

ODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)					
EA1	28 (5S–FE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)					
EA3	28 (5S–FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)					
EB1	28 (5S–FE)	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)					
IE1							
IE2		ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)					
IE3	32						
IE4	_						
IH1	32	COWL WIRE AND A/C SUB WIRE (INSTRUMENT PANEL RIGHT)					
ll1	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)					
113							
114	- 34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)					
BM1	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)					
BM2	36	COWL WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT)					

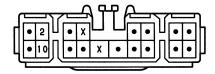
# : GROUND POINTS

V		
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	28 (5S–FE)	INTAKE MANIFOLD
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

# : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
E 1			E11			
E 2	28 (5S–FE)	ENGINE ROOM MAIN WIRE	E14	20 (50 55)		
E 3			E15	28 (5S–FE)	ENGINE WIRE	
E 5			E16			
Ε7	00 (50 55)		l10	34	COWL WIRE	
E 9	28 (5S–FE)	ENGINE WIRE	B20	20	ENGINE ROOM MAIN WIRE	
E10			B26	- 36		

A 9 BLACK







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3 4

7

X [11

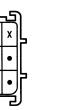
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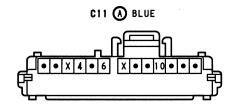
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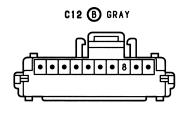
8 9

C 9









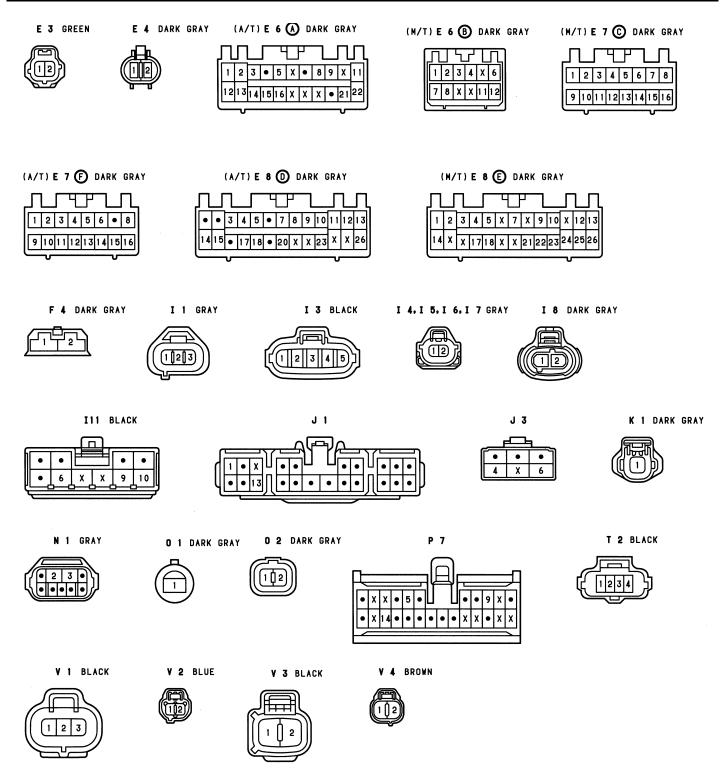
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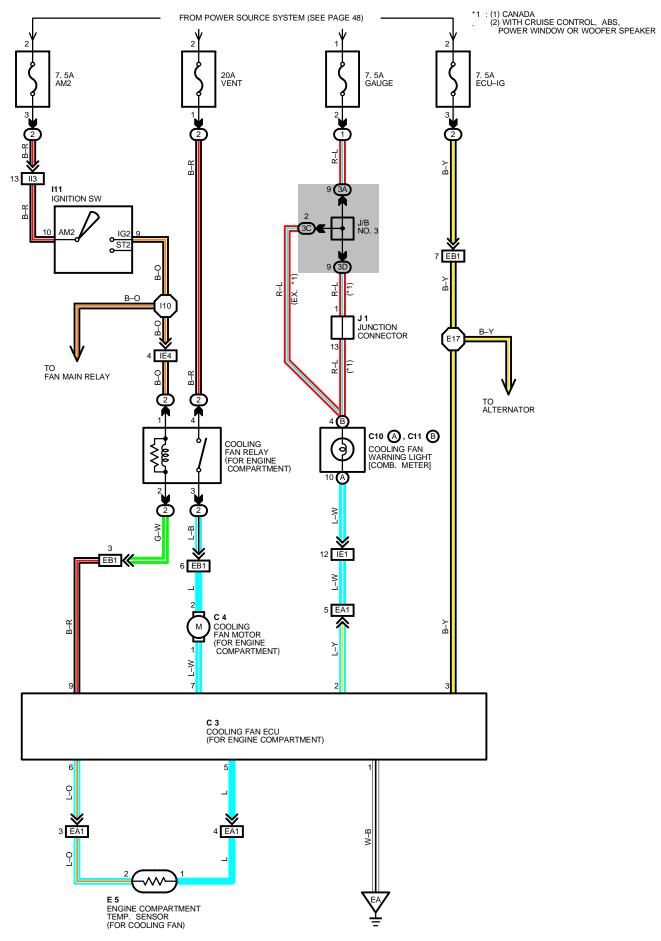
D 2 ORANGE



# **ENGINE CONTROL (5S-FE)**



# **ENGINE COMPARTMENT COOLING FAN (3S-GTE)**



#### SERVICE HINTS

#### **COOLING FAN RELAY**

- 1-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON OR ST POSITION
- 3-4 : OPEN WITH IGNITION SW AT ON OR ST POSITION AND ENGINE COMPARTMENT TEMP. BELOW 55°C (131°F)

#### C 3 COOLING FAN ECU

1-GROUND: ALWAYS CONTINUITY

3–1 : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION 9–1 : 0 VOLTS WITH IGNITION SW AT ON OR ST POSITION AND

: 0 VOLTS WITH IGNITION SW AT ON OR ST POSITION AND ENGINE COMPARTMENT TEMP. MORE THAN 70°C (158°F)

### O : PARTS LOCATION

	CODE		SEE PAGE	CC	DDE	SEE PAGE	CODE	SEE PAGE
C	C 3		25 (3S–GTE)	C11	В	26	J 1	26
C	C 4		25 (3S–GTE)	E	5	25 (3S–GTE)		
C10		А	26	ľ	11	26		

#### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)						
1	20	R/B NO. 1 (LEFT KICK PANEL)						
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)						

 $\bigcirc$ 

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

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

SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
30 (3S–GTE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)
30 (3S–GTE)	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)
- 32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
	30 (3S-GTE) 30 (3S-GTE) - 32

#### : GROUND POINTS

Γ	CODE	SEE PAGE	GROUND POINTS LOCATION
	EA	30 (3S–GTE)	INTAKE MANIFOLD

#### : SPLICE POINTS

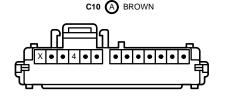
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E17	30 (3S–GTE)	ENGINE WIRE	l10	34	COWL WIRE



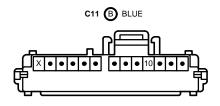
C4 GRAY







J 1

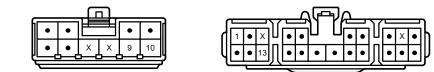






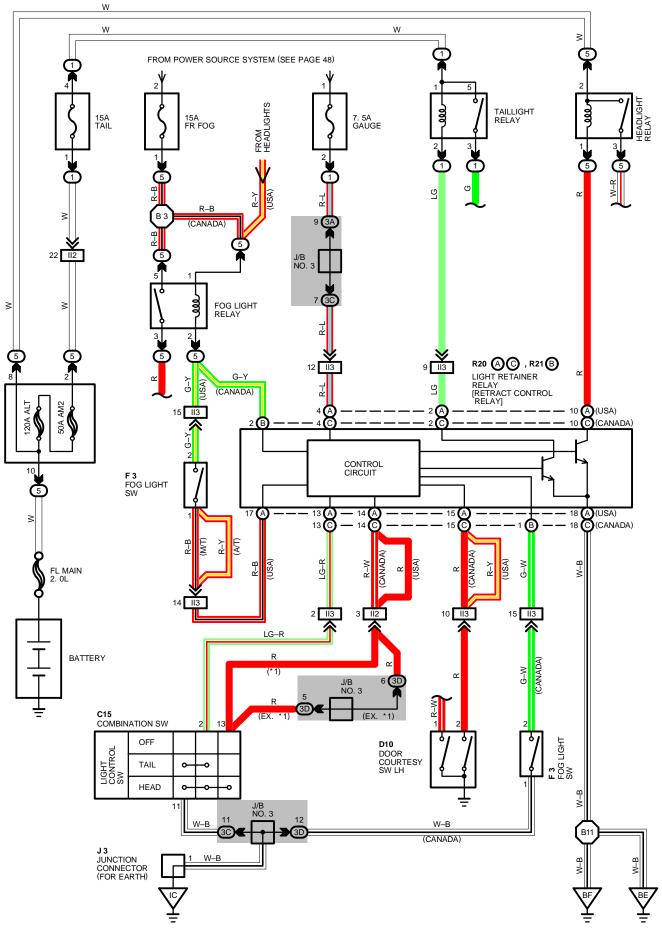
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# LIGHT AUTO TURN OFF

\*1 : CANADA USA (A/T) USA (M/T) WITH CRUISE CONTROL, ABS, POWER WINDOW OR WOOFER SPEAKER



#### SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO **TERMINAL (A) 4** (CANADA), (F) 4 (USA) OF THE RETRACT CONTROL REALY THROUGH **ECU–IG** FUSE.

VOLTAGE IS APPLIED AT ALL TIMES TO **TERMINAL (A) 2** (CANADA), **(F) 2** (USA) OF THE RETRACT CONTROL REALY. THROUGH THE TAILLIGHT RELAY COIL, AND TO **TERMINAL (A) 10** (CANADA), **(F) 10** (USA) THROUGH THE HEADLIGHT RELAY COIL.

#### 1. NORMAL LIGHTING OPERATION

<TURN TAILLIGHT ON>

WITH LIGHT CONTROL SW TURNED TO **TAILLIGHT** POSITION, A SIGNAL IS INPUT INTO **TERMINAL (A) 13** (CANADA), **(F) 13** (USA) OF THE RETRACT CONTROL RELAY. ACCORDING TO THIS SIGNAL, THE CURRENT FLOWING TO **TERMINAL (A) 2** (CANADA), **(F) 2** (USA) OF THE RELAY FLOWS FROM **TERMINAL (A) 18** (CANADA), **(F) 18** (USA)  $\rightarrow$  TO **GROUND** AND TAILLIGHT RELAY CAUSES TAILLIGHT TO TURN ON.

#### <TURN HEADLIGHT ON>

WITH LIGHT CONTROL SW TURNED TO **HEADLIGHT** POSITION, A SIGNAL IS INPUT INTO **TERMINALS (A) 13** (CANADA), **(F) 13** (USA) AND **(A) 14** (CANADA), **(F) 14** (USA) OF THE RETRACT CONTROL REALY. ACCORDING TO THIS SIGNAL, THE CURRENT FLOWING TO **TERMINAL (A) 10** (CANADA), **(F) 10** (USA) OF THE RELAY FLOWS TO **TERMINAL (A) 18** (CANADA), **(F) 18** (USA)  $\rightarrow$  TO **GROUND** IN THE HEADLIGHT CIRCUIT, AND CAUSES TAILLIGHT AND HEADLIGHT RELAY TO TURN THE LIGHT ON. THE TAILLIGHT CIRCUIT IS SAME AS ABOVE.

#### 2. LIGHT AUTO TURN OFF OPERATION

WITH LIGHTS ON AND IGNITION SW TURNED OFF (INPUT SIGNAL GOES TO **TERMINAL (A)** 4 (CANADA), **(F)** 4 (USA) OF THE RELAY), WHEN DOOR ON DRIVER'S SIDE IS OPENED (INPUT SIGNAL GOES TO **TERMINAL (A)** 15 (CANADA), **(F)** 15 (USA) OF THE RELAY), THE RELAY OPERATES AND THE CURRENT IS CUT OFF WHICH FLOWS FROM **TERMINAL (A)** 2 (CANADA), **(F)** 2 (USA) OF THE RELAY TO **TERMINAL (A)** 18 (CANADA), **(F)** 18 (USA) IN TAILLIGHT CIRCUIT AND FROM **TERMINAL (A)** 10 (CANADA), **(F)** 10 (USA) TO **TERMINAL (A)** 18 (CANADA), **(F)** 18 (USA) IN THE HEADLIGHT CIRCUIT.

AS A RESULT, ALL LIGHTS ARE TURNED OFF AUTOMATICSLLY.

SERVICE HINTS
R20 (A) LIGHT RETAINER RELAY [RETRACT CONTROL RELAY] (USA)
(A) 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION
(A) 2-GROUND : ALWAYS APPROX. 12 VOLTS
A10-GROUND : ALWAYS APPROX. 12 VOLTS
(A)15-GROUND : CONTINUITY WITH DRIVER'S DOOR OPEN
(A)18–GROUND : ALWAYS CONTINUITY
(A)13-GROUND : CONTINUITY WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION
(A)14-GROUND : CONTINUITY WITH LIGHT CONTROL SW AT HEAD POSITION
(A)17-GROUND : APPROX. 12 VOLTS WITH LIGHT CONTROL SW AT HEAD POSITION, DIMMER SW AT LOW POSITION AND FOG
LIGHT SW ON
R20 (C), R21(B) LIGHT RETAINER RELAY [RETRACT CONTROL RELAY] (CANADA)
(C) 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION
(C) 2-GROUND : ALWAYS APPROX. 12 VOLTS
C)10-GROUND : ALWAYS APPROX. 12 VOLTS
C)15-GROUND : CONTINUITY WITH DRIVER'S DOOR OPEN
C)18–GROUND : ALWAYS CONTINUITY
(C)13-GROUND : CONTINUITY WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION
(C)14–GROUND : CONTINUITY WITH LIGHT CONTROL SW AT HEAD POSITION
(B) 1-GROUND : CONTINUITY WITH FOG LIGHT SW ON
(B) 2-GROUND : ALWAYS APPROX. 12 VOLTS

# LIGHT AUTO TURN OFF

# O : PARTS LOCATION

CODE	SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
C15	26		3	26	R21	В	27
D10	27	R20	Α	27			
F 3	26	N20	С	27			

### : RELAY BLOCKS

$\mathbf{O}$		-					
CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)					
1	20	R/B NO. 1 (LEFT KICK PANEL)					
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)					
<b>O</b> :	JUNCTION BLOCK AND WIRE HARNESS CONNECTOR						
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)					
3A							
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)					
3D							
: [	CONNECTOR J	OINING WIRE HARNESS AND WIRE HARNESS					

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)

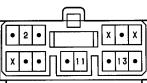
### : GROUND POINTS

-		
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH
BE	32	FRONT RIGHT FENDER
BF	34	FRONT LEFT FENDER
~		

# 

$\mathbf{\nabla}$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B 3	36	LUGGAGE ROOM WIRE	B11	36	LUGGAGE ROOM WIRE

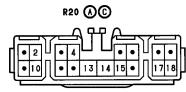






F	3







# SERVICE HINTS

HEADLIGHT RELAY

(5) 2- (5) 3: CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION OR DIMMER SW AT FLASH POSITION

### O : PARTS LOCATION

CODE		SEE PAGE	CODE	ODE SEE PAGE		SEE PAGE
C11	В	26	H 2	27	R22	27
C12	A	26	H 3	27	R23	27
C14	В	26	J 3	26		
C15	A	26	R20	27		

# : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

#### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)	
3C 3D	- 22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)	
:	CONNECTOR JO	DINING WIRE HARNESS AND WIRE HARNESS	
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)	

### : GROUND POINTS

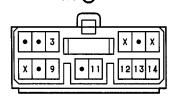
V		
CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH
BE	36	FRONT RIGHT FENDER
BF	36	FRONT LEFT FENDER
_		

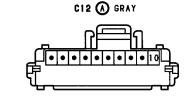
#### : SPLICE POINTS

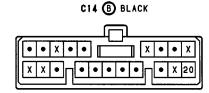
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
12			B 3		
15	34	COWL WIRE	B11	36	LUGGAGE ROOM WIRE
l10			B13	-	











H 2 BLACK









R22 BLACK

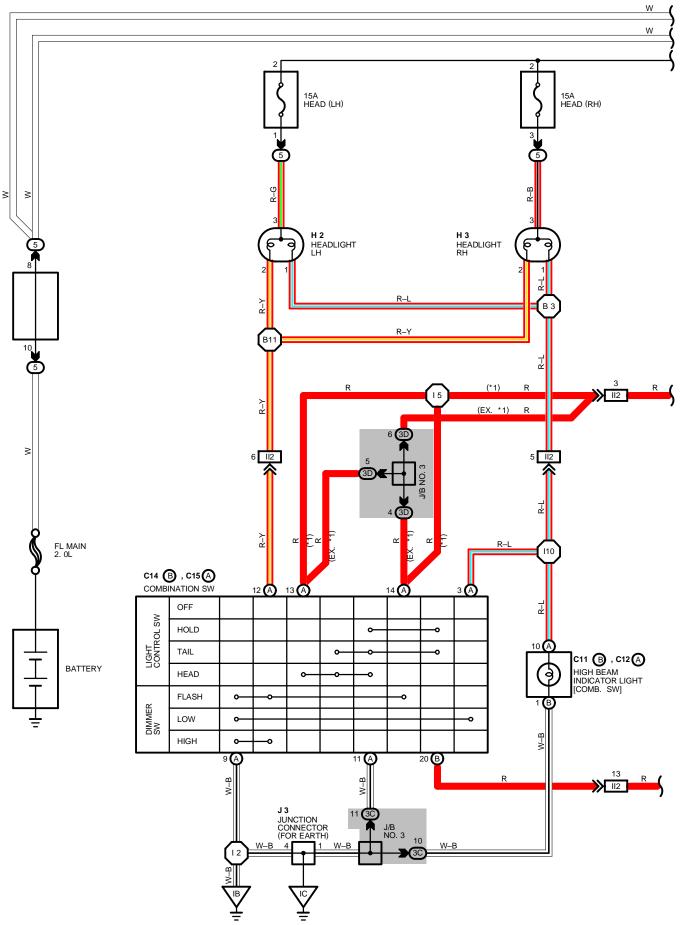


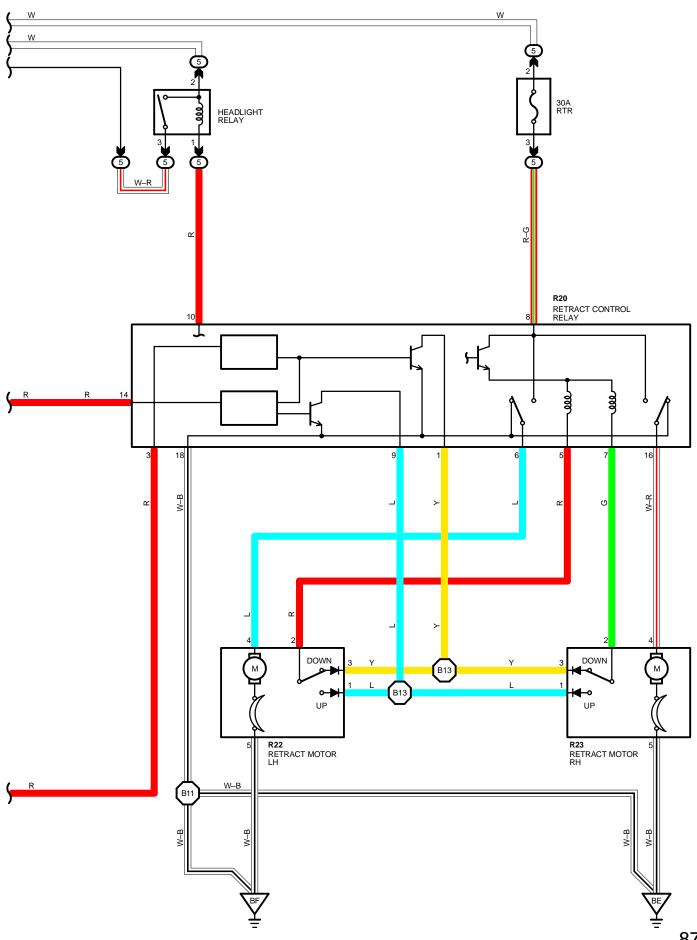
R23 BLACK



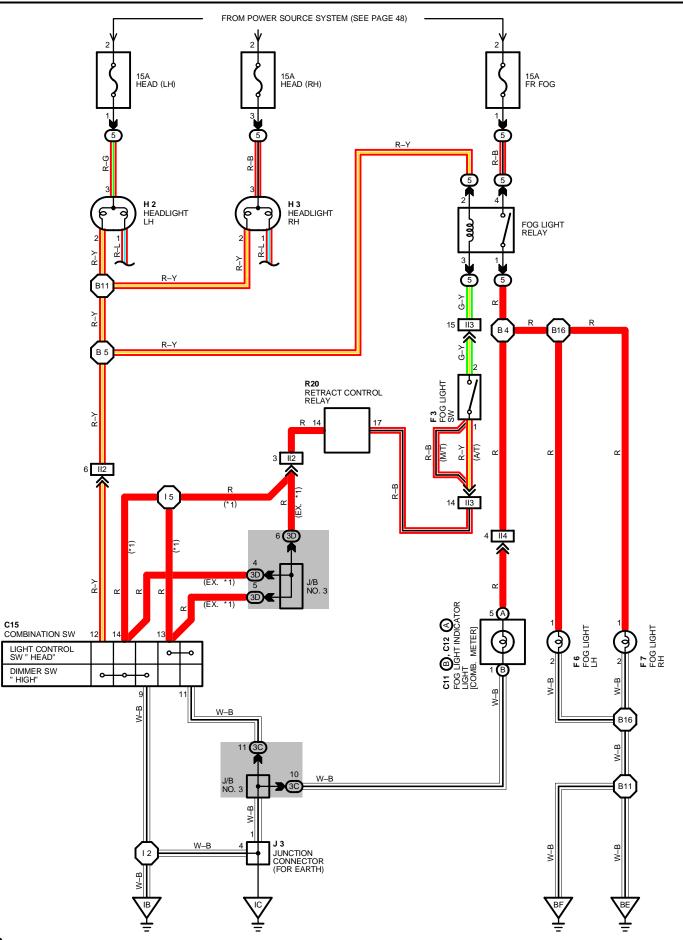
85

\*1 : (1) A/T (2) WITH CRUISE CONTROL, ABS, POWER WINDOW OR WOOFER SPEAKER





# FOG LIGHT (FOR USA)



### - SERVICE HINTS

C15 COMBINATION SW

9-12: CLOSED WITH DIMMER SW AT HIGH OR FLASH POSITION

FOG LIGHT RELAY (5) 4- (5) 3 : CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION, DIMMER SW AT LOW POSITION AND FOG LIGHT SW ON

#### $\cap$ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C15	26	F 7	27	J 3	26
F 3	26	H 2	27	R20	27
F 6	27	H 3	27		

#### : RELAY BLOCKS $\square$

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)		
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)		

$\bigcirc$	: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR
------------	---

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)			
3C	22				
3D	22 COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)				
: [	CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS				
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)			
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)			
114					

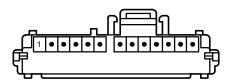
# : GROUND POINTS

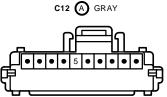
BF	36	FRONT LEFT FENDER
BE	36	FRONT RIGHT FENDER
IC	32	INSTRUMENT PANEL BRACE LH
IB	32	LEFT KICK PANEL
CODE	SEE PAGE	GROUND POINTS LOCATION
v		

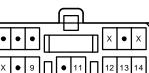
# () : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
12	24	COWL WIRE	B 5	36	LUGGAGE ROOM WIRE
15	- 34		B11		
B 4	36	LUGGAGE ROOM WIRE	B16		

C11 B BLUE







C15 BLACK

F 3



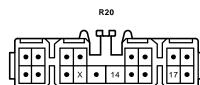




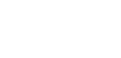


H 2, H 3 BLACK

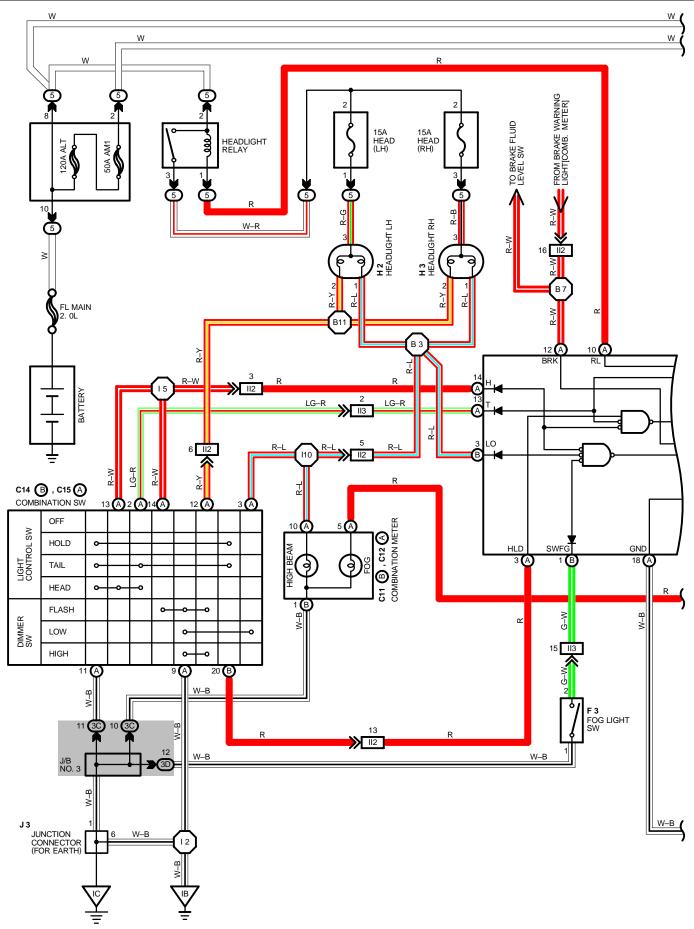


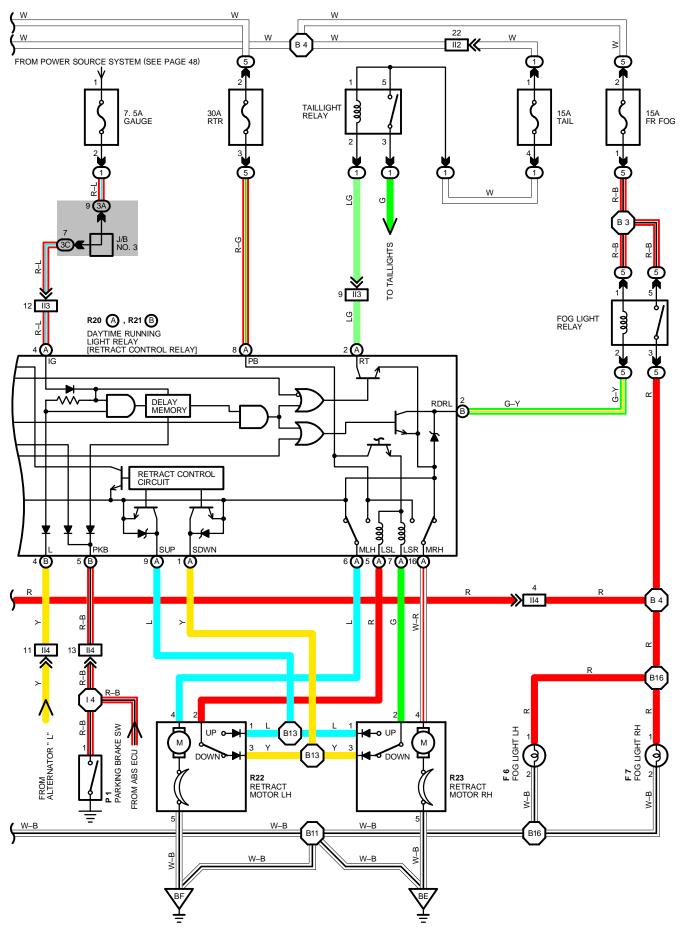






# **HEADLIGHT AND FOG LIGHT (FOR CANADA)**





### SYSTEM OUTLINE

CURRENT FROM THE BATTERY FLOWS CONTINOUSLY FROM FL 2.0L  $\rightarrow$  ALT FUSE  $\rightarrow$  AM1 FUSE  $\rightarrow$  TALLIGHT RELAY (COIL SIDE)  $\rightarrow$  TERMINAL RT OF THE RETRACT CONTROL RELAY, FL 2.0L  $\rightarrow$  ALT FUSE  $\rightarrow$  AM1 FUSE  $\rightarrow$  FOGLIGHT RELAY (COIL SIDE)  $\rightarrow$  TERMINAL RDRL OF RETRACT CONTROL RELAY.

WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FLOWING THROUGH THE GAUGE FUSE TO **TERMINAL IG** OF THE RETRACT CONTROL RELAY.

#### DAYTIME RUNNING LIGHT OPERATION

WHEN THE ENGINE IS STARTED, VOLTAGE IS GENERATED AT **TERMINAL "L"** OF THE ALTERNATOR AND VOLTAGE IS APPLIED TO **TERMINAL "L"** OF THE RETRACT CONTROL RELAY.

IF THE PARKING BRAKE LEVER IS PULLED UP (PARKING BRAKE SW ON) AT THIS TIME, THE RELAY IS NOT ENERGIZED, SO THE DAYTIME RUNNING LIGHTS SYSTEM DOSE NOT OPERATE.

IF THE PARKING BRAKE LEVER IS THEN RELEASED (PARKING BRAKE SW OFF), THE SIGNAL IS INPUT TO **TERMINAL** '**PKB**' OF THE RELAY.

THIS ACTIVATES THE RELAY AND CURRENT FROM ALT FUSE FLOWS TO TAILLIGHT RELAY (POINT SIDE)  $\rightarrow$  TAIL FUSE  $\rightarrow$  TAIL, LICENCE AND FRONT CLEARANCE LIGHTS, ETC.  $\rightarrow$  **GROUND.** 

ALSO, CURRENT FROM ALT FUSE FLOWS TO FOG FUSE  $\rightarrow$  FOG LIGHT RELAY (POINT SIDE)  $\rightarrow$  FOG LIGHTS  $\rightarrow$  **GROUND**, SO BOTH TAIL AND FOG LIGHTS LIGHT UP. THIS IS HOW THE DAYTIME RUNNING LIGHTS SYSTEM OPERATES AND TAIL, FOG LIGHT HAVE LIGHTED UP, THE TAIL AND FOG LIGHT REMAIN ON EVEN IF THE PARKING BRAKE LEVER IS PULLED UP (PARKING BRAKE SW ON).

EVEN IF THE ENGINE STALLS WITH THE IGNITION SW ON AND THERE IS NO VOLTAGE FROM **TERMINAL** 'L' OF ALTERNATOR, THE TAIL AND FOG LIGHTS REMAIN ON.

IF THE IGNITION SW IS THEN TURNED OFF, THE TAIL AND FOG LIGHTS ARE TURNED OFF.

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

#### SERVICE HINTS

#### R20, R21 RETRACT CONTROL RELAY

RT, PB, RL-GROUND: ALWAYS APPROX. 12VOLTS

IG-GROUND:0 VOLTS WITH IGNITION SW AT LOCK OR ACC POSITION 12VOLTS WITH IGNITION SW ON HLD-GROUND:NO CONTINUITY WITH LIGHT CONTOL SW AT OFF OR HEAD POSITION CONTINUITY WITH LIGHT CONTROL SW AT HOLD OR TAIL POSITION T-GROUND:NO CONTINUITY WITH LIGHT CONTOL SW AT OFF OR HOLD POSITION CONTINUITY WITH LIGHT CONTOL SW AT TAIL OR HEAD POSITION H-GROUND:NO CONTINUITY WITH LIGHT CONTOL SW AT OFF, HOLD OR TAIL POSITION CONTINUITY WITH LIGHT CONTOL SW AT TAIL OR HEAD POSITION H-GROUND:NO CONTINUITY WITH LIGHT CONTOL SW AT OFF, HOLD OR TAIL POSITION CONTINUITY WITH LIGHT CONTOL SW AT HEAD POSITION OR DIMMER SW AT FLASH POSITION

GND-GROUND:ALWAYS CONTINUITY

LSL-SDWN, LSR-SDWN:NO CONTINUITY WITH RETRACT MOTOR AT LOWERMOST POSITION

CONTINUITY WITH RETRACT MOTOR AT ANY POSITION EXCEPT LOWERMOST POSITION LSR-SUP, LSL-SUP:NO CONTINUITY WITH RETRACT MOTOR AT UPPERMOST POSITION

CONTINUITY WITH RETRACT MOTOR AT ANY POSITION EXCEPT UPPERRMOST POSITION

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

#### R22, R23 RETRACT MOTOR

2–3:OPEN WITH RETRACT MOTOR AT **LOWERMOST** POSITION 2–1:OPEN WITH RETRACT MOTOR AT **UPPERMOST** POSITION **LIGHT AUTO TURN OFF OPERATION** PLEASE REFER TO THE LIGHT AUTO TURN OFF SYSTEM (SEE PAGE 74) **C15 DIMMER SW [COMB. SW]** 

9-12:CLOSED WITH DIMMER SW AT HIGH OR FLASH POSITION

### • PARTS LOCATION

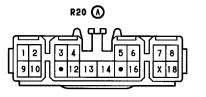
CO	DE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C11	В	26	F 6	27	P 1	26
C12	A	26	F 7	27	<b>R20</b> A	27
C14	В	26	H 2	27	<b>R21</b> B	27
C15	A	26	H 3	27	R22	27
F	3	26	J 3	26	R23	27

#### ) : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

$\bigcirc$	JUNCTION BLO	CK AND WIRE	HARNESS CONNECTO	OR				
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)						
3A								
3C	22	COWL WIRE AND	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)					
3D								
	CONNECTOR JO	DINING WIRE H	ARNESS AND WIRE H	IARNESS				
CODE	SEE PAGE	JOINING WIRE H	ARNESS AND WIRE HARNE	SS (CONNECTO	OR LOCATION)			
112	34	LUGGAGE ROOM	I WIRE AND COWL WIRE (R	IGHT KICK PAN	IEL)			
3   4	- 34	COWL WIRE AND	D LUGGAGE ROOM WIRE (R	IGHT KICK PAN	IEL)			
$\nabla$	GROUND POINT	S						
CODE	SEE PAGE	GROUND POINT	S LOCATION					
IB	32	LEFT KICK PANE	L					
IC	32	INSTRUMENT PA						
BE	36	FRONT RIGHT FI						
BF	36	FRONT LEFT FEI	NDER					
	SPLICE POINTS	-	WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS V	VITH SPLICE POINTS	
12				B 4	0111101			
14	1			B 7				
15	- 34	COWL WIRE		B11 36	36	LUGGAGE ROOM WIRE	WIRE	
l10				B13	-			
B 3	36	LUGGAGE ROOM	/ WIRE	B16				
	C11 🚯 BI	LUE	C12 (	GRAY		C14 🛞 B	LACK	
C15 🕢 BLACK F3 F6.F7 H2.H3 BLACK J3								
×		21314		مص				

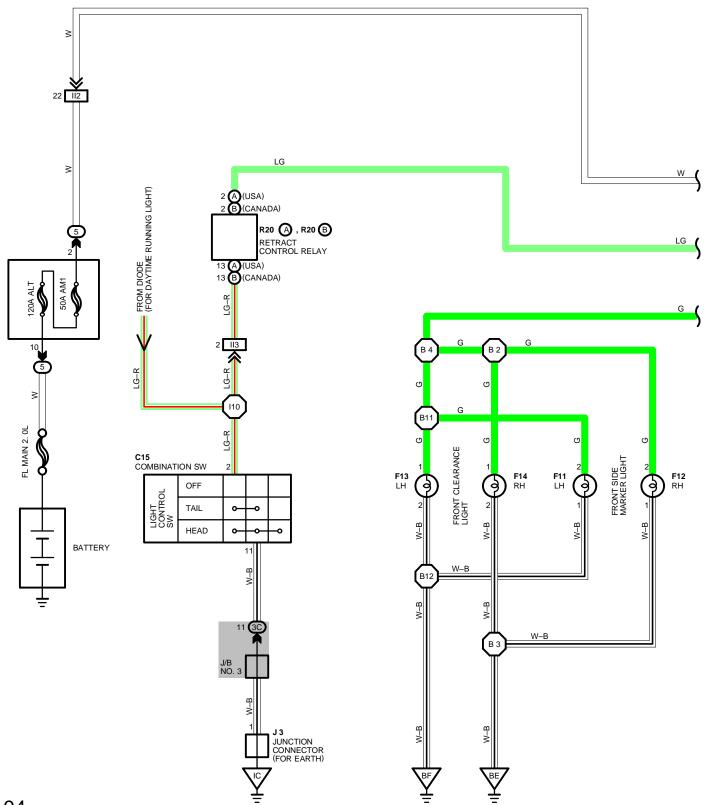
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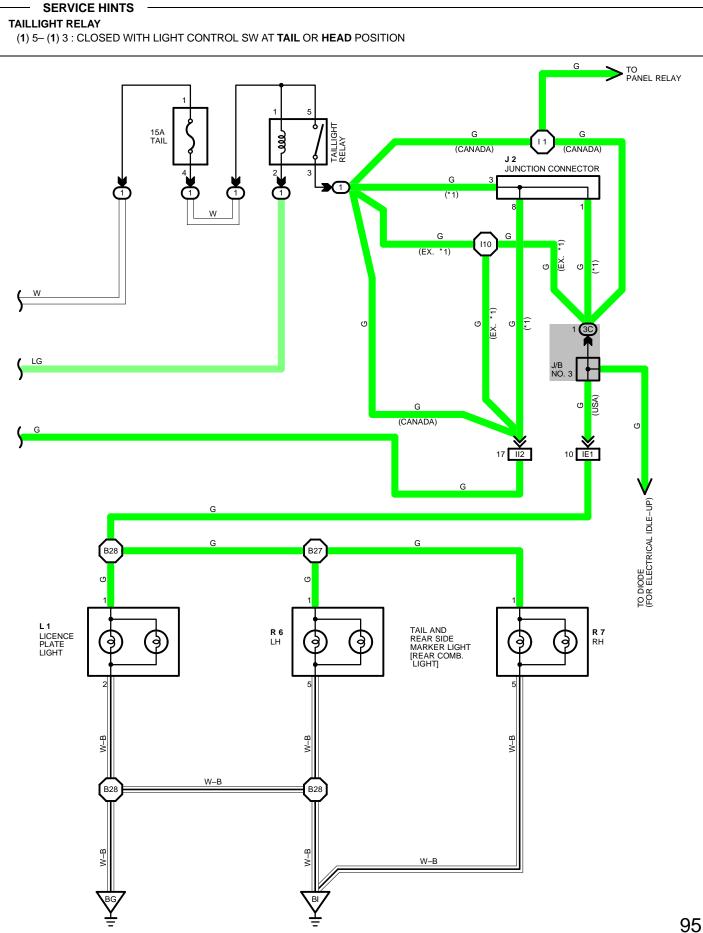




R22, R23 BLACK







# TAILLIGHT

# O : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE		SEE PAGE
C15	26	F14	27	R 6		27
F11	27	J 2	26	R 7		27
F12	27	J 3	26	R20	Α	27
F13	27	L1	27	1120	В	27

# : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
: []	CONNECTOR JO	INING WIRE HARNESS AND WIRE HARNESS
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IE1	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)

### : GROUND POINTS

•		
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH
BE	36	FRONT RIGHT FENDER
BF	36	FRONT LEFT FENDER
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

# : SPLICE POINTS

()

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
11		COWLWIRE	B11	20	LUGGAGE ROOM WIRE	
l10	34		B12	36		
B 2		LUGGAGE ROOM WIRE	B27	26		
B 3	36		B28	36	ENGINE ROOM MAIN WIRE	
B 4						

C15 BLACK

X

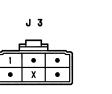


L 1





2

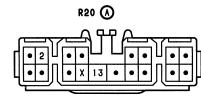


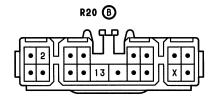






R 7





# O : PARTS LOCATION

CO	DE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A10	В	26	H 1	26	R3 C	26
A12	Α	26	J 1	26	R 4	26
A	19	26	J 2	26	R20	27
С	7	26	J 3	26	<b>S11</b> A	27
C	11	26	O 4	26	<b>S14</b> B	27
C	15	26	<b>R1</b> A	26		
F	3	26	R 2 B	26		

# : RELAY BLOCKS

$\sim$		
CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

# : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3B		
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		
: [	CONNECTOR JO	INING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)

# : GROUND POINTS

\ /

()

•		
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH

# : SPLICE POINTS

$\smile$									
CODE	SEE PAGE	WIRE HARNESS	WITH SPLICE POINT	S	CODE	SEE F	PAGE	WIRE HARNESS	WITH SPLICE POINTS
12					17				
13	- 34	COWL WIRE			18	34		COWL WIRE	
14	- 34	COWL WIRE			l10				
15									
	A10 B		A12 (A)	A1	9	C 7 GRAY		C11 E	LUE
				رل ا		4 <sup>67</sup> 14 11.21			
	C15 BLA	CK	F 3		H 1			J 1	
		x • x • • •							
	J 2	J 3	04		R 1 🕢		R 2	0	r 3 C

R 4

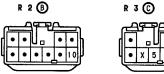
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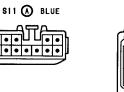


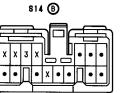
R20

P

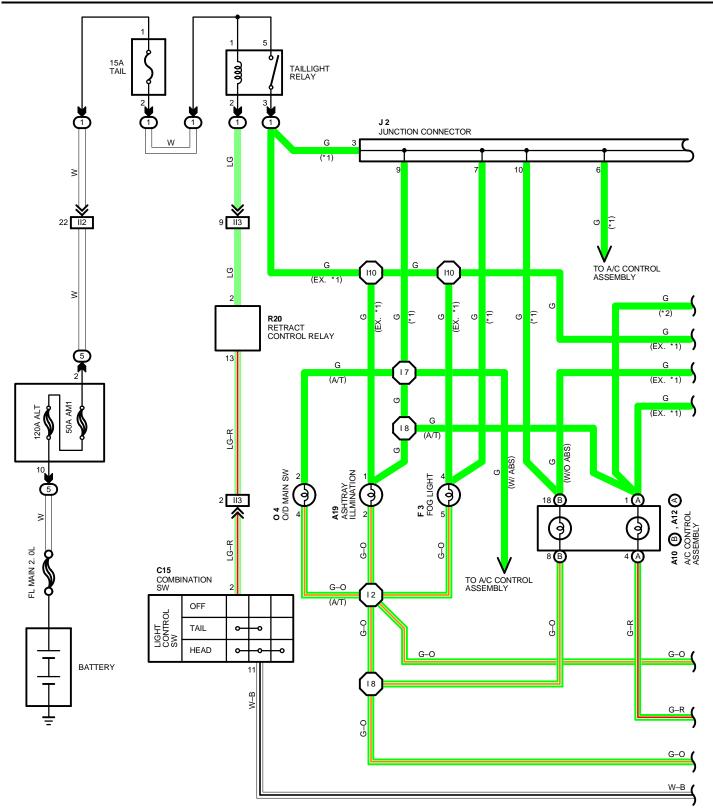








# **ILLUMINATION (FOR USA)**



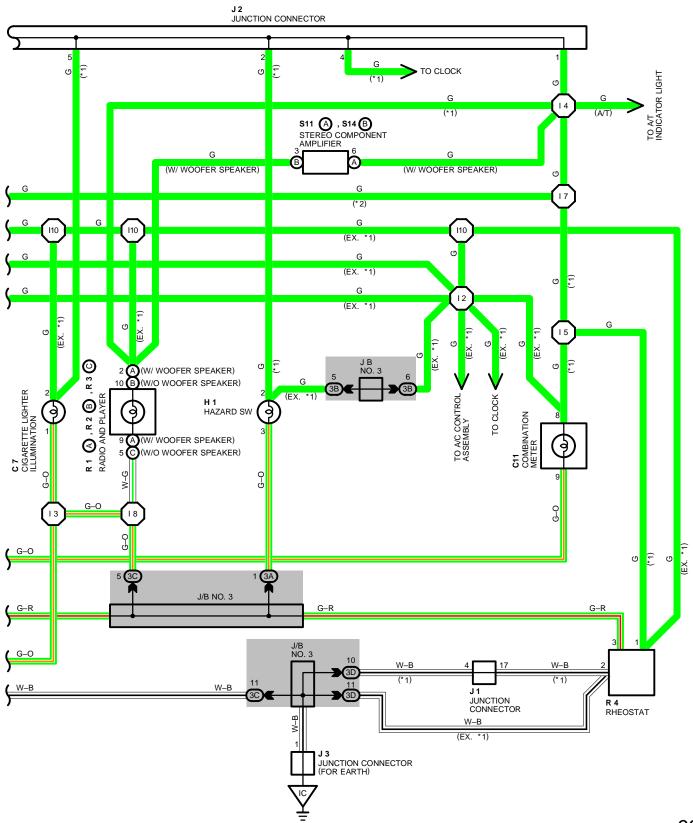
#### SERVICE HINTS

#### TAILLIGHT RELAY

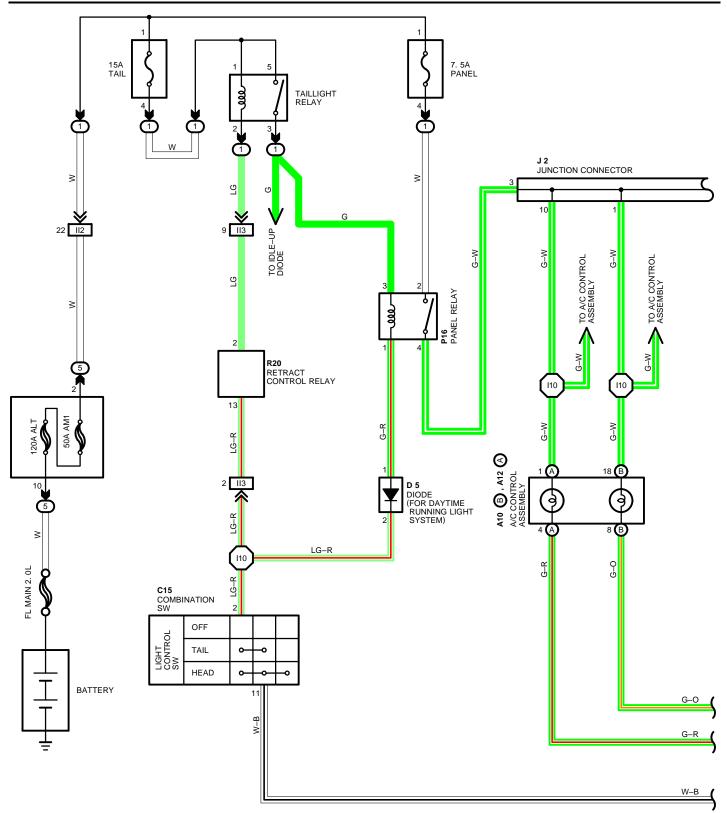
(1) 5- (1) 3 : CLOSED WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION (WHEN LIGHT AUTO TURN OFF SYSTEM IS OFF)

# R 4 RHEOSTAT

1-2 : APPROX. 12 VOLTS WITH RHEOSTAT FULLY TURNED COUNTERCLOCKWISE AND 0 VOLTS WITH FULLY TURNED CLOCKWISE



# **ILLUMINATION (FOR CANADA)**



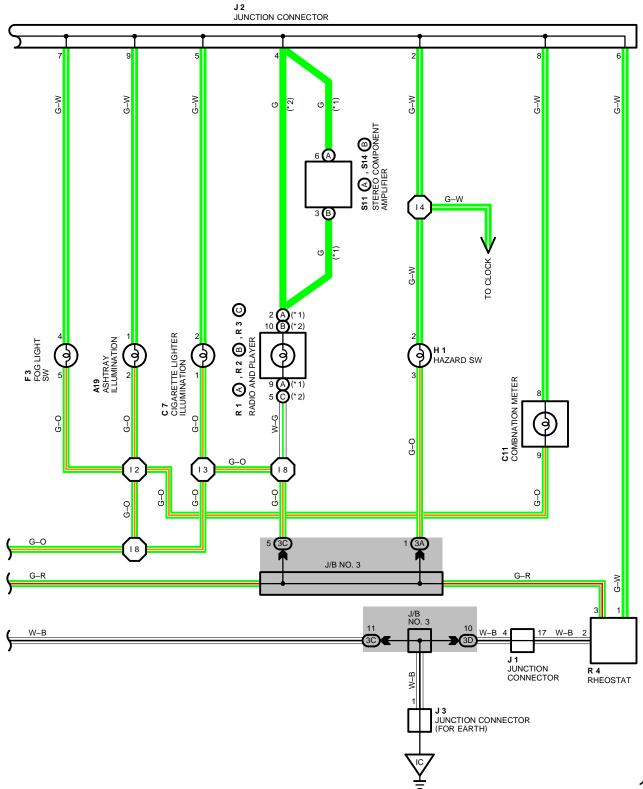
#### SERVICE HINTS

#### TAILLIGHT RELAY

(1) 5-(1) 3 : CLOSED WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION (WHEN LIGHT AUTO TURN OFF SYSTEM IS OFF)

R 4 RHEOSTAT

1-2 : APPROX. 12 VOLTS WITH RHEOSTAT FULLY TURNED COUNTERCLOCKWISE AND 0 VOLTS WITH FULLY TURNED CLOCKWISE



# O : PARTS LOCATION

CODE		SEE PAGE	CODE	CODE SEE PAGE		DE	SEE PAGE
A10	В	26	F 3	26	R 2	В	26
A12	А	26	H 1	26	R 3	С	26
A1	9	26	J 1	26	R	4	26
С	7	26	J 2	26	R	20	27
C1	1	26	J 3	26	S11	А	27
C1	5	26	P16	26	S14	В	27
D	5	26	<b>R1</b> A	26			

# : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

# : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		
: [	CONNECTOR JO	INING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)

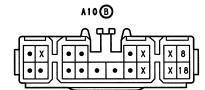
# : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH

# : SPLICE POINTS

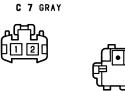
ſ

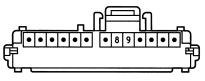
$\sim$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
12	24	COWLWIRE	18	24	COWLWIRE
13	- 34		l10	- 34	COWE WIRE
	•	·		•	·









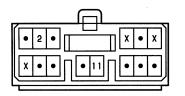


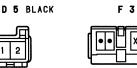
C11 BLUE

C15 BLACK

J 1

17





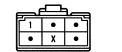


J 2

789

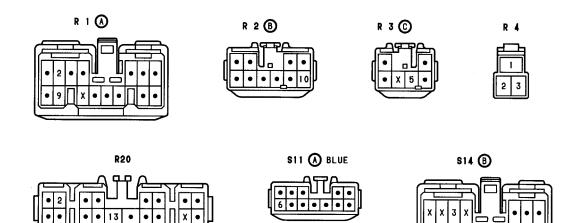




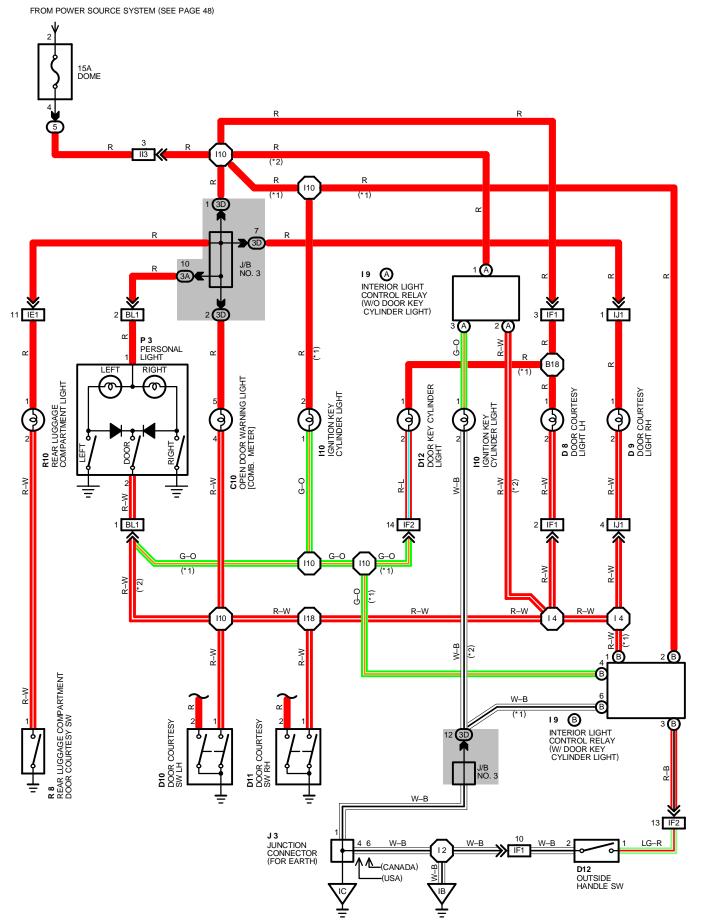








• X



#### - SERVICE HINTS

#### D10 DOOR COURTESY SW LH

1-GROUND : CLOSED WITH DRIVER'S DOOR OPEN

D11 DOOR COURTESY SW RH

1-GROUND : CLOSED WITH PASSENGER'S DOOR OPEN

R 8 REAR LUGGAGE COMPARTMENT DOOR COURTESY SW

1-GROUND : CLOSED WITH REAR LUGGAGE COMPARTMENT DOOR OPEN

#### : PARTS LOCATION $\cap$

<b>•</b>						
CODE	SEE PAGE	CC	DE	SEE PAGE	CODE	SEE PAGE
C10	26	D	12	27	P 3	27
D 8	27	10	Α	26	R 8	27
D 9	27	19	В	26	R10	27
D10	27	ľ	0	26		
D11	27	J	3	26		

#### : RELAY BLOCKS

 $\bigcirc$ 

IJ1

BL1

 $( \$ 

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

# JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)			
3A	22				
3D	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)			
: [	CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS				
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
IE1	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)			
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LEFT KICK PANEL)			
IF2	32	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)			
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)			

#### : GROUND POINTS \ /

34

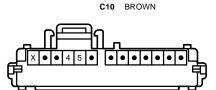
36

V		
CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH

$\bigcirc$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
12			l18	34	COWL WIRE
14	34	COWL WIRE	B18	36	FRONT DOOR LH WIRE
l10					

# : SPLICE POINTS

$\bigcirc$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
12			l18	34	COWL WIRE
14	34	COWL WIRE	B18	36	FRONT DOOR LH WIRE
l10					





D 8, D 9

COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL) ROOF WIRE AND COWL WIRE (UNDER THE RIGHT FRONT PILLAR)



Р3

D10, D11

D12

R 8

I 9 A GREEN









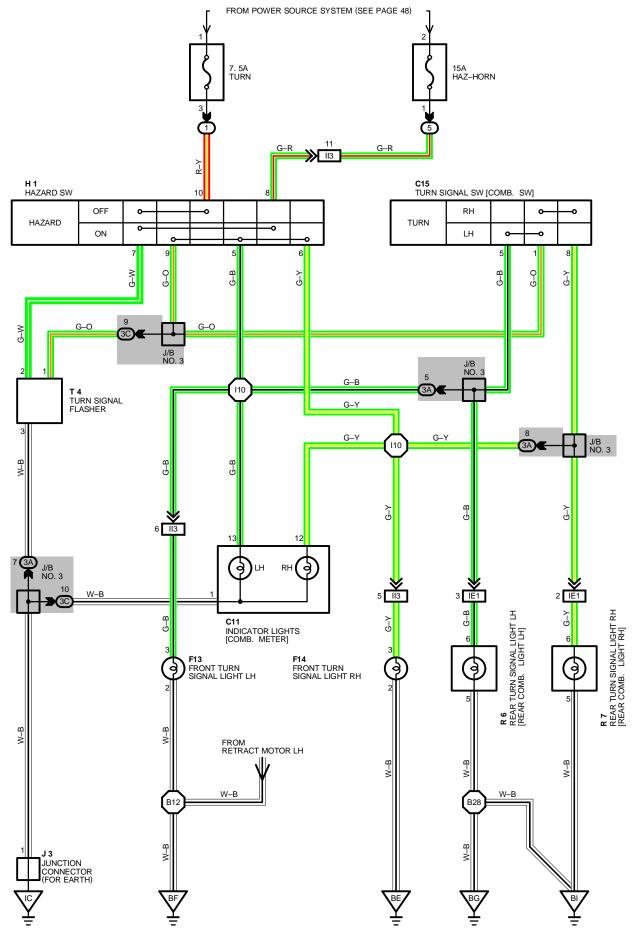




GRAY



# TURN SIGNAL AND HAZARD WARNING LIGHT



### – SERVICE HINTS

#### T 4 TURN SIGNAL FLASHER

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

# O : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C11	26	F14	27	R 6	27
C15	26	H 1	26	R 7	27
F13	27	J 3	26	Τ4	26

#### ) : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

		OINING WIRE HARNESS AND WIRE HARNESS
3C	- 22	
3A	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)

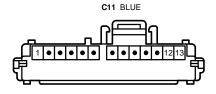
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IE1	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)

# : GROUND POINTS

v		
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH
BE	36	FRONT RIGHT FENDER
BF	36	FRONT LEFT FENDER
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

# : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
l10	34	COWL WIRE	B28	36	ENGINE ROOM MAIN WIRE
B12	36	LUGGAGE ROOM WIRE			



-

C15 BLACK





F14

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لك		
X ● ⊔ 5 6 7	8 9 10	



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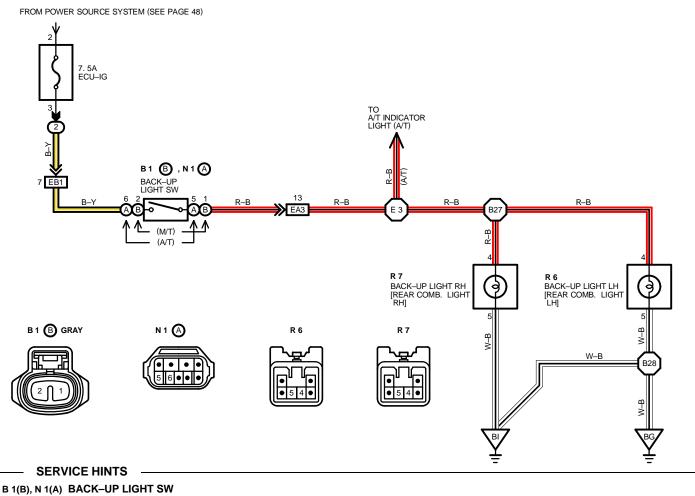


R 7





# **BACK–UP LIGHT**



(A) 6-5, (B) 2-1 : CLOSED WITH SHIFT LEVER IN R POSITION

# O : PARTS LOCATION

С	CODE SEE PAGE		CODE	SEE PAGE	CODE	SEE PAGE
B 1	В	24 (5S–FE) , 25 (3S–GTE)	R 6	27		
N 1	Α	24 (5S–FE)	R 7	27		

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)							
2	20	R/B NO. 2 (ENGINE COMPARTMENT LEFT)							
□ :	CONNECTOR J	OINING WIRE HARNESS AND WIRE HARNESS							
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)							
EA2	28 (5S–FE)								
EA3 30 (3S-GTE) ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO.2 INNER)		ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/D NO.2 INNER)							

EA3	30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO.2 INNER)				
EB1	28 (5S–FE)	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)				
LDI	30 (3S–GTE)					

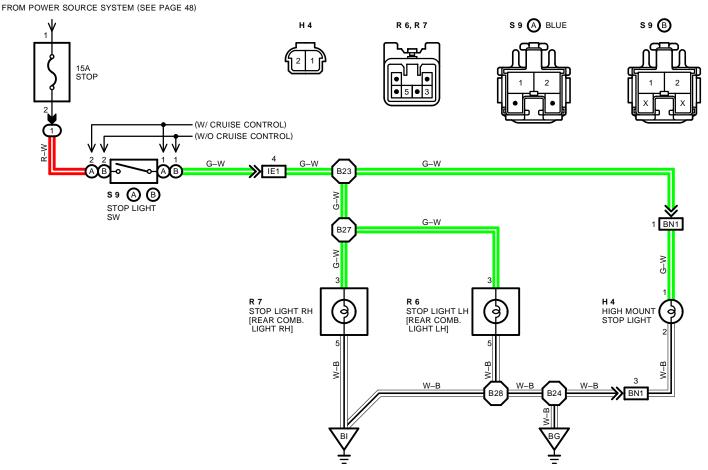
# : GROUND POINTS

•		
CODE	SEE PAGE	GROUND POINTS LOCATION
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

#### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
0002				01111101	
E 3	28 (5S–FE)	ENGINE ROOM MAIN WIRE	B27	32	ENGINE ROOM MAIN WIRE
E 3	30 (3S–GTE)		B28	- 32	

# **STOP LIGHT**



#### SERVICE HINTS

#### **S 9 STOP LIGHT SW**

(A) 1 - (A) 3 : CLOSED WITH BRAKE PEDAL DEPRESSED (W/ CRUISE CONTROL)

(B) 1 - (B) 2 : CLOSED WITH BRAKE PEDAL DEPRESSED (W/O CRUISE CONTROL)

### O : PARTS LOCATION

•						
CODE	SEE PAGE	CODE	SEE PAGE	CO	DE	SEE PAGE
H 4	27	R 7	27	S 9	В	26
R 6	27	S9 A	26			

#### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)			
1	20	R/B NO. 1 (LEFT KICK PANEL)			
: .	CONNECTOR JO	INING WIRE HARNESS AND WIRE HARNESS			
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
IE1	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)			
BN1	36	ROOF NO.3 WIRE AND ENGINE ROOM MAIN WIRE			

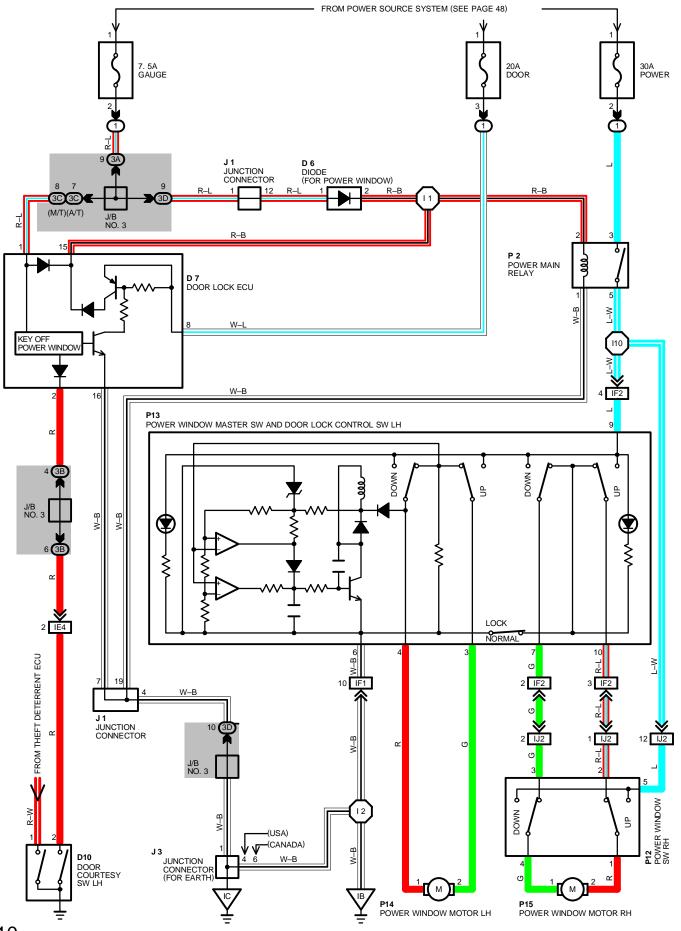
#### 7 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

### : SPLICE POINTS

$\sim$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B23	36	ENGINE ROOM MAIN WIRE	B27	26	ENGINE ROOM MAIN WIRE
B24	30		B28	- 30	

# **POWER WINDOW**



#### SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL 2** OF THE POWER MAIN RELAY THROUGH THE **POWER** FUSE. WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE **GAUGE** FUSE TO **TERMINAL 3** OF THE POWER MAIN RELAY  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **GROUND**. THIS ACTIVATES THE RELAY AND CURRENT FLOWING TO **TERMINAL 4** OF THE POWER MAIN RELAY  $\rightarrow$  **TERMINAL 9** OF THE POWER WINDOW MASTER SW AND **TERMINAL 5** OF THE POWER WINDOW SW RH (PASSENGER'S).

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

WITH THE IGNITION SW TURNED ON AND THE POWER WINDOW MASTER SW IN **UP** POSITION, THE CURRENT FLOWING TO **TERMINAL 9** OF THE POWER WINDOW MASTER SW FLOWS TO **TERMINAL 3** OF THE MASTER SW  $\rightarrow$  **TERMINAL 2** OF THE POWER WINDOW MOTOR LH (DRIVER'S)  $\rightarrow$  MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 4** OF THE MASTER SW  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**, AND CAUSES THE POWER WINDOW MOTOR TO ROTATE IN THE UP DIRECTION. THE WINDOW ASCENDS ONLY WHILE THE SW IS BEING PUSHED. IN DOWN OPERATION, THE FLOW OF CURRENT FROM **TERMINAL 9** OF THE POWER WINDOW MASTER SW TO **TERMINAL 4** OF THE MASTER SW CAUSES THE FLOW OF CURRENT FROM **TERMINAL 1** OF THE MOTOR  $\rightarrow$  MOTOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL 3** OF THE MASTER SW  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**, FLOWING IN THE OPPOSITE DIRECTION TO MANUAL UP OPERATION AND CAUSING THE MOTOR TO ROTATE IN REVERSE, LOWERING THE WINDOW.

#### 2. AUTO DOWN OPERATION

WITH THE IGNITION SW ON AND WITH THE DRIVER'S SW OF THE POWER WINDOW MASTER SW IN **DOWN** POSITION, CURRENT FLOWING TO **TERMINAL 9** OF THE MASTER SW FLOWS TO **TERMINAL 4** OF THE MASTER SW  $\rightarrow$  **TERMINAL 1** OF THE POWER WINDOW MOTOR  $\rightarrow$  MOTOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL 3** OF THE MASTER SW  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**, CAUSING THE MOTOR TO ROTATE TOWARDS THE DOWN SIDE. THEN THE SOLENOID IN THE MASTER SW IS ACTIVATED AND IT LOCKS THE DRIVER'S SW BEING PUSHED, CAUSING THE MOTOR TO CONTINUE TO ROTATE IN AUTO DOWN OPERATION.

WHEN THE WINDOW HAS COMPLETELY DESCENDED, THE CURRENT FLOW BETWEEN **TERMINAL 3** OF THE MASTER SW AND **TERMINAL 6** INCREASES. AS A RESULT, THE SOLENOID STOPS OPERATING, THE DRIVER'S SW TURNS OFF AND FLOW FROM **TERMINAL 9** OF THE MASTER SW TO **TERMINAL 4** IS CUT OFF, STOPPING THE MOTOR SO THAT AUTO STOP OCCURS.

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

WHEN THE DRIVER'S SW IS PULLED TO THE **UP** SIDE DURING AUTO DOWN OPERATION, A GROUND CIRCUIT OPENS IN THE MASTER SW AND CURRENT DOES NOT FLOW FROM **TERMINAL 3** OF THE MASTER SW  $\rightarrow$  TO **TERMINAL 6**, SO THE MOTOR STOPS, CAUSING AUTO DOWN OPERATION TO STOP. IF THE DRIVER'S SW IS PUSHED CONTINUOUSLY, THE MOTOR ROTATES IN THE UPWARD DIRECTION IN MANUAL UP OPERATION.

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

WITH POWER WINDOW SW (PASSENGER'S) PULLED TO THE **UP** SIDE, CURRENT FLOWING FROM **TERMINAL 5** OF THE POWER WINDOW SW FLOWS TO **TERMINAL 1** OF THE POWER WINDOW SW  $\rightarrow$  **TERMINAL 2** OF THE WINDOW MOTOR  $\rightarrow$  MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 4** OF THE POWER WINDOW SW  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL 7** OF THE MASTER SW  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**, AND CAUSES THE POWER WINDOW MOTOR (PASSENGER'S) TO ROTATE IN THE UP DIRECTION. UP OPERATION CONTINUES ONLY WHILE THE POWER WINDOW SW IS PULLED TO THE UP SIDE. WHEN THE WINDOW DESCENDS, THE CURRENT FLOWING TO THE MOTOR FLOWS IN THE OPPOSITE DIRECTION, FLOM **TERMINAL 1**  $\rightarrow$  MOTOR  $\rightarrow$  **TERMINAL 2**, AND THE MOTOR ROTATES IN REVERSE. WHEN THE WINDOW LOCK SW IS PUSHED TO THE LOCK SIDE, THE GROUND CIRCUIT TO THE PASSENGER'S WINDOW BECOMES OPEN.

AS A RESULT, EVEN IF OPEN/CLOSE OPERATION OF THE PASSENGER'S WINDOW IS TRIED, THE CURRENT FROM **TERMINAL 9** OF THE POWER WINDOW MASTER SW IS NOT GROUNDED AND THE MOTOR DOES NOT ROTATE, SO THE PASSENGER'S WINDOW CAN NOT BE OPERATED AND WINDOW LOCK OCCURS.

#### 5. KEY OFF POWER WINDOW OPERATION

WITH THE IGNITION SW TURNED FROM ON TO OFF, THE DOOR LOCK ECU OPERATES AND CURRENT FLOWS FROM **POWER** FUSE  $\rightarrow$  **TERMINAL 8** OF THE DOOR LOCK ECU  $\rightarrow$  **TERMINAL 15**  $\rightarrow$  **TERMINAL 3** OF THE POWER MAIN RELAY  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  TO **GROUND** FOR ABOUT **60** SECONDS. THE SAME AS NORMAL OPERATION, THE CURRENT FLOWS FROM **POWER** FUSE  $\rightarrow$  **TERMINAL 2** OF THE POWER MAIN RELAY  $\rightarrow$  **TERMINAL 4**  $\rightarrow$  **TERMINAL 9** OF THE POWER WINDOW MASTER SW AND **TERMINAL 5** OF POWER WINDOW SW RH (PASSENGER'S). AS A RESULT, FOR ABOUT **60** SECONDS AFTER THE IGNITION SW IS TURNED OFF. IT IS POSSIBLE TO RAISE AND LOWER THE POWER WINDOW BY FUNCTIONING OF THIS RELAY. ALSO, BY OPENING THE DOOR (DOOR COURTESY SW ON) WITHIN ABOUT **60** SECONDS AFTER TURNING THE IGNITION SW TO OFF, A SIGNAL IS INPUT TO **TERMINAL 2** OF THE DOOR LOCK ECU. AS A RESULT, THE ECU TURNS OFF AND UP AND DOWN MOVEMENT OF THE WINDOW STOPS.

### - SERVICE HINTS

#### D7 DOOR LOCK ECU

8-GROUND: ALWAYS APPROX. 12 VOLTS

16-GROUND: ALWAYS CONTINUITY

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

2-GROUND: CONTINUITY WITH DRIVER'S DOOR OPEN

15–GROUND: APPROX. **12** VOLTS WITH IGNITION SW ON AND STAYS AT **12** VOLTS FOR **60** SECONDS AFTER THE IGNITION SW IS TURNED OFF. BUT IF A DOOR IS OPENED IN THIS **60** SECOND PERIOD, VOLTAGE WILL DROP TO **0** VOLTS

#### D10 DOOR COURTESY SW LH

2-GROUND: CONTINUITY WITH DRIVER'S DOOR OPEN

#### P12 POWER WINDOW SW RH

5-GROUND: APPROX. 12 VOLTS WITH IGNITION SW ON AND STAYS AT 12 VOLTS FOR 60 SECONDS AFTER THE IGNITION SW IS TURNED OFF. BUT IF A DOOR IS OPENED IN THIS 60 SECOND PERIOD, VOLTAGE WILL DROP TO 0 VOLTS

#### P13 POWER WINDOW MASTER SW AND DOOR LOCK CONTROL SW LH

6-GROUND: ALWAYS CONTINUITY

9–GROUND: APPROX. **12** VOLTS WITH IGNITION SW ON AND STAYS AT **12** VOLTS FOR **60** SECONDS AFTER THE IGNITION SW IS TURNED OFF. BUT IF A DOOR IS OPENED IN THIS **60** SECOND PERIOD, VOLTAGE WILL DROP TO **0** VOLTS

- 3-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION AND DRIVER'S SW AT UP POSITION
- 4–GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION AND DRIVER'S SW AT DOWN OR AUTO DOWN POSITION

#### WINDOW LOCK SW

OPEN WITH WINDOW LOCK SW AT LOCK POSITION

#### • PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D 6	26	J 3	26	P14	27
D 7	26	P 2	26	P15	27
D10	27	P12	27		
J1	26	P13	27		

#### ) : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
0	JUNCTION BLOC	CK AND WIRE HARNESS CONNECTOR
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3B	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3C	_ 22	
3D		

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

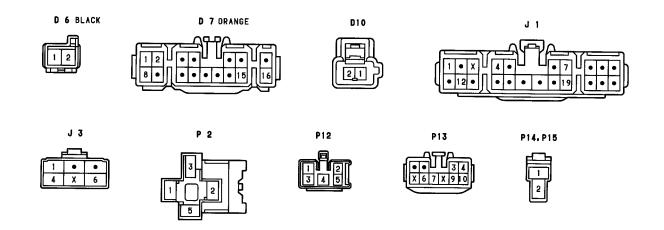
CODE	SEE PAGE	E PAGE JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)	
IE4	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)	
IF1	32	COWL AND WIRE FRONT DOOR LH WIRE (LEFT KICK PANEL)	
IF2	32	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)	
IJ2	34	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)	

#### GROUND POINTS

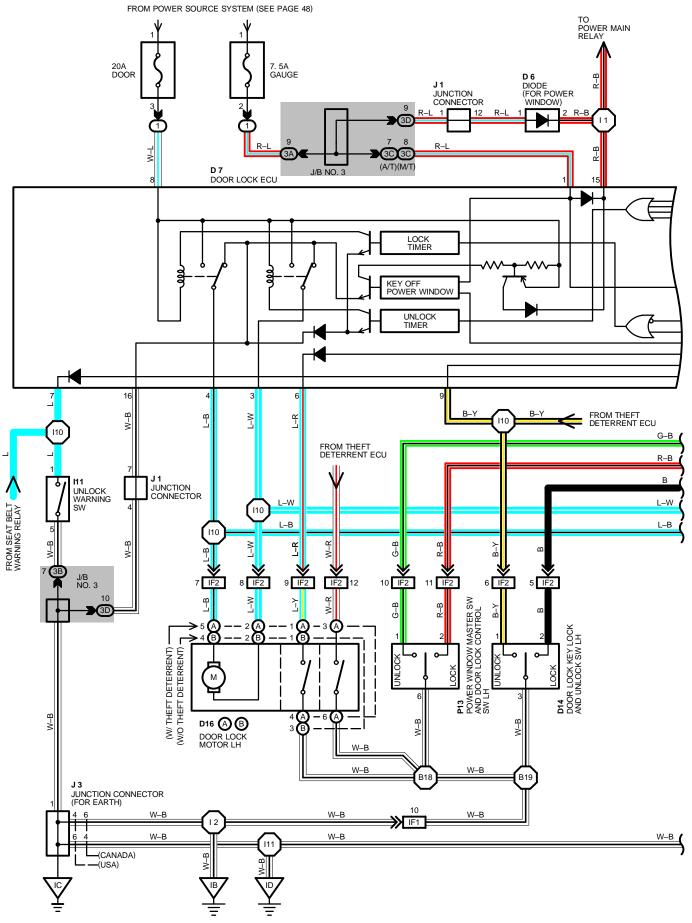
v		
CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH

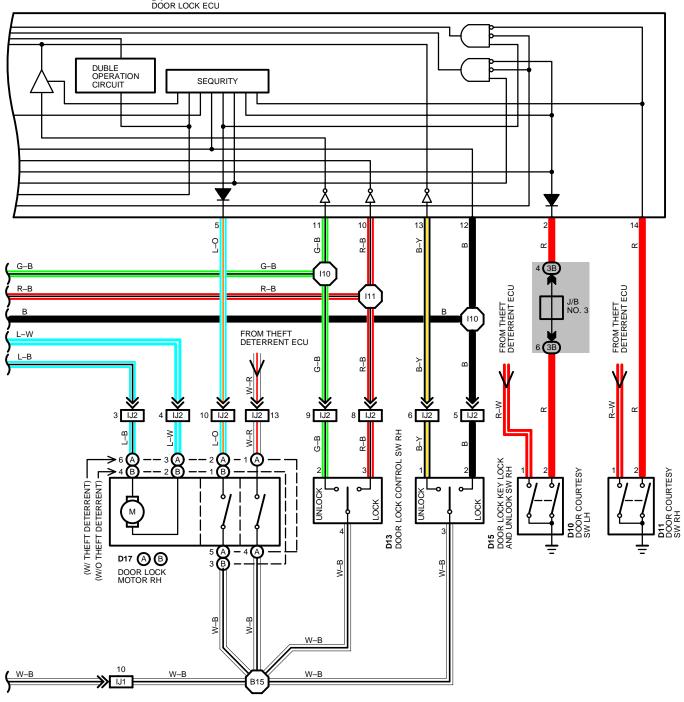
#### ) : SPLICE POINTS

-					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
11	34	COWL WIRE	l10	34	COWL WIRE
2					



## DOOR LOCK





D 7 DOOR LOCK ECU

### SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL 8** OF THE DOOR LOCK ECU THROUGH THE **DOOR** FUSE.

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE GAUGE FUSE TO **TERMINAL 1** OF THE DOOR LOCK ECU AND **TERMINAL 1** OF DIODE  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL 15** OF DOOR LOCK ECU.

### 1. MANUAL LOCK OPERATION

TO CHANGE DOOR LOCK SW AND KEY SW TO LOCK POSITION, A LOCK SIGNAL IS INPUT TO **TERMINALS 10, 12** OF THE DOOR LOCK ECU AND CAUSES THE ECU TO FUNCTION. CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU  $\rightarrow$  **TERMINAL 4**  $\rightarrow$  **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS  $\rightarrow$  **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT)  $\rightarrow$  **TERMINAL 3** OF THE ECU  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  TO **GROUND** AND DOOR LOCK MOTORS CAUSES THE DOOR LOCK.

### 2. MANUAL UNLOCK OPERATION

TO CAHNGE DOOR LOCK CONTROL SW AND KEY SW TO **UNLOCK** POSITION, AN UNLOCK SIGNAL IS INPUT TO **TERMINALS 11, 13** OF THE DOOR LOCK ECU, AND CAUSES THE ECU TO FUNCTION. CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS  $\rightarrow$  **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT)  $\rightarrow$  **TERMINAL 4** OF THE ECU  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  TO **GROUND** AND DOOR LOCK MOTORS CAUSES DOOR TO UNLOCK.

### 3. DUBLE OPERATION UNLOCK OPERATION

WHEN THE DOOR LOCK KEY SW (DRIVER'S) IS TURNED TO THE UNLOCK SIDE, ONLY THE DRIVER'S DOOR IS MECHANICALLY UNLOCKED. TURNING THE DOOR LOCK KEY SW (DRIVER'S) TO THE UNLOCK SIDE CAUSES A SIGNAL TO BE INPUT TO **TERMINAL 9** OF THE ECU, AND IF THE SIGNAL IS INPUT AGAIN WITHIN 3 SECONDS BY TURNING THE SWITCH TO THE UNLOCK SIDE AGAIN CURRENT FLOWS FROM **TERMINAL 3** OF THE ECU  $\rightarrow$  **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF DOOR LOCK MOTORS  $\rightarrow$  **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT)  $\rightarrow$  **TERMINAL 4** OF THE ECU  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  **GROUND**, CAUSING THE DOOR LOCK MOTOR TO OPERATE AND UNLOCK THE PASSENGER'S DOOR.

### 4. IGNITION KEY REMINDER OPERATION

\* OPERATING DOOR LOCK KNOB (IN DOOR LOCK MOTORS OPERATION)

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK KNOB (DOOR LOCK MOTOR), THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCKED SOON BY THE FUNCTION OF THE ECU. AS A RESULT, THE CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS  $\rightarrow$  **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT)  $\rightarrow$  **TERMINAL 4** OF THE ECU  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

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

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK CONTROL SW OR KEY SW, THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCK BY THE FUNCTION OF SW CONTAINED IN MOTORS, WHICH THE SIGNAL IS INPUT TO **TERMINAL 6** (DRIVER'S) OR **5** (PASSENGER'S) OF THE ECU. ACCORDING TO THIS INPUT SIGNAL, THE CURRENT IN THE ECU FLOWS FROM **TERMINAL 8** OF THE ECU  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS  $\rightarrow$  **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT)  $\rightarrow$  **TERMINAL 4** OF THE ECU  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

### \* IN CASE OF KEY LESS LOCK

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE UNLOCK FUNCTION IS DISTURBED MORE THAN 0.2 SECONDS, FOR EXAMPLE PUSHING THE DOOR LOCK KNOB ETC., THE DOOR HOLDS ON LOCK CONDITION. CLOSING THE DOOR AFTER, DOOR COURTESY SW INPUTS THE SIGNAL INTO **TERMINAL 2** OR 14 OF THE ECU. BY THIS INPUTS SIGNAL, THE ECU WORKS AND CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS  $\rightarrow$  **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT)  $\rightarrow$  **TERMINAL 4** OF THE ECU  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

## SERVICE HINTS

SERVI	
D6 DOOR LOO	CK ECU
16–GROUND:	ALWAYS CONTINUITY
2–GROUND:	CONTINUITY WITH DRIVER'S DOOR OPEN
8-GROUND:	ALWAYS APPROX. 12 VOLTS
3–GROUND:	APPROX. 12 VOLTS FOR 0.2 SECONDS WITH FOLLOWING OPERATIONS:
	* DOOR LOCK CONTROL SW UNLOCKED
	* DOOR LOCK CONTROL SW LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
	* DOOR LOCK KNOB LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
	* UNLOCKING THE DRIVER'S PASSENGER'S DOOR CYLINDER WITH A KEY
4–GROUND:	APPROX. 12 VOLTS 0.2 SECONDS WITH FOLLOWING OPERATION:
	* DOOR LOCK CONTROL SW IS LOCKED
	* LOCKING THE DRIVER'S PASSENGER'S DOOR CYLINDER WITH KEY
	CONTINUITY WITH DOOR LOCK CONTROL SW LOCKED
14–GROUND:	CONTINUITY WITH PASSENGER'S DOOR OPEN
6–GROUND:	CONTINUITY WITH DRIVER'S DOOR LOCK KNOB UNLOCKED
5–GROUND:	CONTINUITY WITH PASSENGER'S DOOR LOCK KNOB UNLOCKED
11–GROUND:	CONTINUITY WITH DOOR LOCK CONTROL SW UNLOCKED
13–GROUND:	CONTINUITY WITH PASSENGER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
7–GROUND:	CONTINUITY WITH IGNITION KEY IN THE KEY CYLINDER
1–GROUND:	APPROX. <b>12</b> VOLTS WITH IGNITION SW AT <b>ON</b> POSITION
9–GROUND:	CONTINUITY WITH DRIVER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
15–GROUND:	APPROX. <b>12</b> VOLTS WITH IGNITION SW AT <b>ON</b> POSITION AND STAYS AT <b>12</b> VOLTS FOR <b>60</b> SECONDS AFTER THE IGNITION SW IS TURNED OFF, BUT IF A DOOR IS OPENED IN THIS <b>60</b> SECOND PERIOD, VOLTAGE WILL DROP TO <b>0</b> VOLTS
12–GROUND:	CONTINUITY WITH DRIVER'S, PASSENGER'S DOOR LOCK CYLINDER LOCKED WITH KEY
111 UNLOCK V	VARNING SW
1–5: CLOS	ED WITH IGNITION KEY IN CYLINDER
D14, D15 KEY I	LOCK AND UNLOCK SW
1–3: CLOSE	ED WITH DOOR LOCK CYLINDER UNLOCKED WITH KEY
	ED WITH DOOR LOCK CYLINDER LOCKED WITH KEY
	COUDTESY SW

### D10, D11 DOOR COURTESY SW

2-GROUND: CLOSED WITH DOOR OPEN

### O : PARTS LOCATION

CODE	SEE PAGE	CC	DE	SEE PAGE	CO	DE	SEE PAGE
D 6	26	D	14	27	D17	В	27
D 7	26	D	15	27	I1 <sup>-</sup>	1	26
D10	27	D16	А	27	J	1	26
D11	27	010	В	27	J	3	26
D13	27	D17	А	27	P1	3	27

## : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)

	JUNCTION BLO	CK AND WIRE HARNESS CONNECTOR					
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)					
3A							
3B	- 22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)					
3C							
3D	-						
: 🔲	: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS						
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)					
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LIFT KICK PANEL)					

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LIFT KICK PANEL)
IF2	32	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
IJ1	34	COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL)
IJ2	34	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)

## 

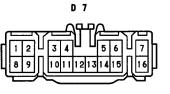
CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL

## **DOOR LOCK**

#### : SPLICE POINTS CODE SEE PAGE WIRE HARNESS WITH SPLICE POINTS CODE SEE PAGE WIRE HARNESS WITH SPLICE POINTS FRONT DOOR RH WIRE 11 B15 36 12 B18 34 COWL WIRE 36 FRONT DOOR LH WIRE 110 B19 **I**11

D 6 BLACK







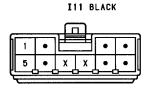


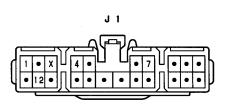












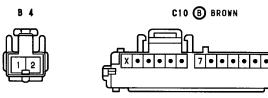


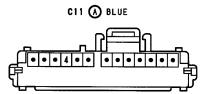
X 6



# UNLOCK AND SEAT BELT WARNING

CO	DE	SF	EE PAGE CO	DDE	SEE PAGE	C(	DDE	SEE PAGE
	<b>B 4</b> 26			010 27	02217/02		3 26	
C10	В	26		11 26		5		26
C11	A	26		J 1 26				
Ο	: R	ELAY BLOCK	S	I				
COD	E	SEE PAGE	RELAY BLOCKS (RELAY B	LOCK LOCATION	)			
1	2	0	R/B NO. 1 (LEFT KICK PAN	IEL)				
5	2	1	R/B NO. 5 (FRONT LUGGA	GE COMPARTME	ENT RIGHT)			
Ο			OCK AND WIRE HARNE					
COD	E	SEE PAGE	JUNCTION BLOCK AND W	IRE HARNESS (C	CONNECTOR LO	CATION)		
3A								
3B	2	2		COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)				
3C		2		o (BEI III D COM				
3D								
	: C	ONNECTOR J	OINING WIRE HARNES	S AND WIRE	HARNESS			
COD	E	SEE PAGE	JOINING WIRE HARNESS	AND WIRE HARN	IESS (CONNECT	FOR LOCATION)		
CODI	3	4	LUGGAGE ROOM WIRE A	ND COWL WIRE	(RIGHT KICK PA	NEL)		
II3			<b>T</b> 0					
	: G	ROUND POIN	15					
		SEE PAGE	GROUND POINTS LOCAT	ON				
		SEE PAGE		-				
	E 3	SEE PAGE	GROUND POINTS LOCAT	-				
	≡ 3 3 : SI	SEE PAGE 2 PLICE POINTS SEE PAGE	GROUND POINTS LOCAT	CE LH	CODE	SEE PAGE	WIRE HARN	ESS WITH SPLICE POINTS



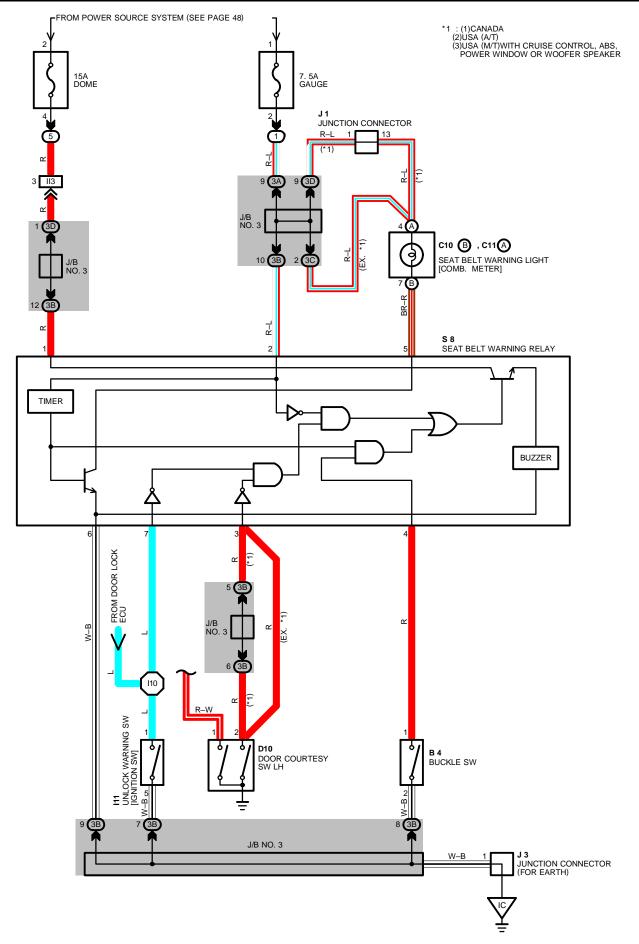


D10



I11 BLACK	JI	η 3	S 8

# UNLOCK AND SEAT BELT WARNING



### SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO TERMINAL 1 OF THE SEAT BELT WARNING RELAY THROUGH DOME FUSE.

### 1. SEAT BELT WARNING SYSTEM

WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS FROM THE **GAUGE** FUSE TO **TERMINAL 2** OF THE SEAT BELT WARNING RELAY. AT THE SAME TIME, CURRENT FLOWS TO **TERMINAL 5** OF THE RELAY FROM THE **GAUGE** FUSE THROUGH THE SEAT BELT WARNING LIGHT. THIS CURRENT ACTIVATES THE SEAT BELT WARNING RELAY AND, FOR APPROX. **4–8** SECONDS, CURRENT FLOWING THROUGH THE WARNING LIGHT FLOWS FROM **TERMINAL 5** OF THE RELAY  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**, CAUSING THE WARNING LIGHT TO LIGHT UP. AT THE SAME TIME AS THE WARNING LIGHT LIGHTS UP, A BUCKLE SW OFF SIGNAL IS INPUT TO TERMINAL 4 OF THE RELAY, THE CURRENT FLOWING TO **TERMINAL 1** OF THE RELAY FLOWS FROM **TERMINAL 6**  $\rightarrow$  **GROUND** AND THE SEAT BELT WARNING BUZZER SOUNDS FOR APPROX. **4–8** SECONDS. HOWEVER, IF THE SEAT BELT IS PUT ON (BUCKLE SW ON) DURING THIS PERIOD (WHILE THE BUZZER IS SOUNDING), SIGNAL INPUT TO **TERMINAL 4** OF RELAY STOPS AND THE CURRENT FLOW FROM **TERMINAL 1** OF THE RELAY **6**  $\rightarrow$  **GROUND** THE SUZZER TO STOP.

### 2. UNLOCK WARNING SYSTEM

WITH THE IGNITION KEY INSERTED IN THE KEY CYLINDER (UNLOCK SW ON). THE IGNITION SW STILL OFF AND DOOR OPEN (DOOR COURTESY SW ON), WHEN A SIGNAL IS INPUT TO **TERMINAL 3** OF THE RELAY, THE SEAT BELT WARNING RELAY OPERATES, CURRENT FLOWS FROM **TERMINAL 1** OF THE RELAY  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND,** AND THE UNLOCK WARNING BUZZER SOUNDS.

### SERVICE HINTS

### 111 UNLOCK WARNING SW [IGNITION SW]

1-5 : CLOSED WITH IGNITION KEY IN CYLINDER

### S 8 SEAT BELT WARNING RELAY

6-GROUND : ALWAYS CONTINUITY

3-GROUND : CONTINUITY WITH DRIVER'S DOOR OPEN

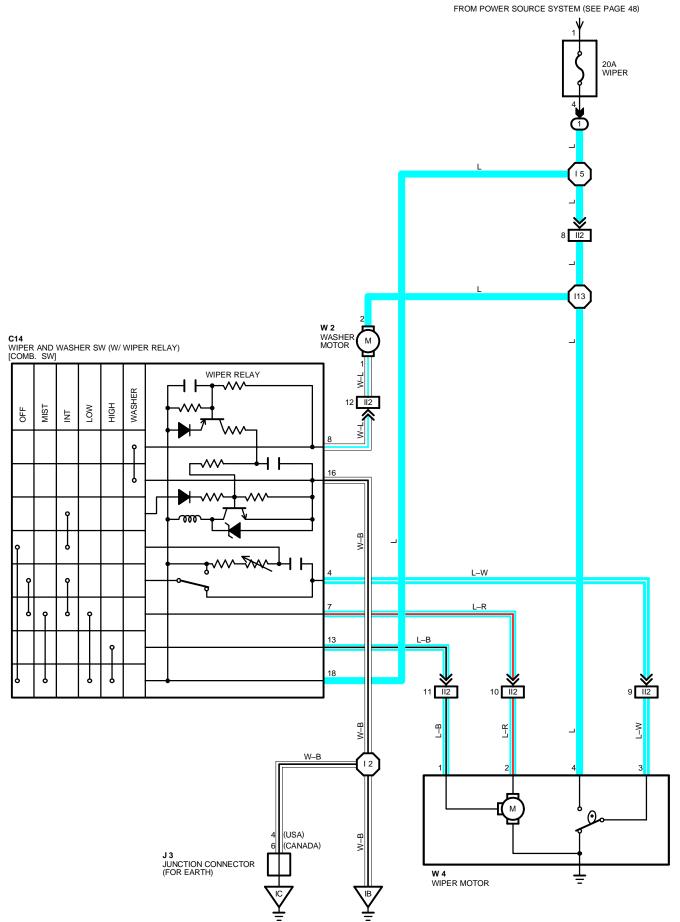
- 7-GROUND : CONTINUITY WITH IGNITION KEY IN CYLINDER
- 4-GROUND : CONTINUITY WITH DRIVER'S LAP BELT IN USE
- 5-GROUND : 0 VOLTS FOR 4-8 SECONDS WITH IGNITION SW ON AND APPROX. 12 VOLTS 4-8 SECONDS AFTER IGNITION SW ON
- 1-GROUND : ALWAYS APPROX. 12 VOLTS

#### **D10 DOOR COURTESY SW**

#### 2-GROUND : CLOSED WITH DRIVER'S DOOR OPEN

#### **B 4 BUCKLE SW**

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



### SYSTEM OUTLINE

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

### 1. LOW SPEED POSITION

WITH THE WIPER SW TURNED TO **LOW** POSITION, THE CURRENT FLOWS FROM **TERMINAL 18** OF THE WIPER AND WASHER SW  $\rightarrow$  **TERMINAL 2** OF THE WIPER MOTOR  $\rightarrow$  WIPER MOTOR  $\rightarrow$  TO **GROUND**, AND CAUSES TO THE WIPER MOTOR TO RUN AT LOW SPEED.

### 2. HIGH SPEED POSITION

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

### 3. INT POSITION

WITH WIPER SW TURNED TO INT POSITION, THE RELAY OPERATES AND THE CURRENT WHICH IS CONNECTED BY RELAY FUNCTION FLOWS FROM **TERMINAL 15** OF THE WIPER AND WASHER SW  $\rightarrow$  **TERMINAL 16**  $\rightarrow$  TO **GROUND**. THIS FLOW OF CURRENT OPERATES THE INTERMITTENT CIRCUIT AND THE CURRENT FLOWS FROM TERMINAL 18 OF THE WIPER AND WASHER SW  $\rightarrow$  **TERMINAL 2** OF THE WIPER MOTOR  $\rightarrow$  WIPER MOTOR  $\rightarrow$  TO **GROUND** AND FUNCTIONS.

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

### 4. MIST POSITION

WITH WIPER SW TURNED TO **MIST** POSITION, THE CURRENT FLOWS FROM **TERMINAL 18** OF THE WIPER AND WASHER SW  $\rightarrow$  **TERMINAL 7**  $\rightarrow$  **TERMINAL 2** OF THE WIPER MOTOR  $\rightarrow$  WIPER MOTOR  $\rightarrow$  TO **GROUND** AND CAUSES TO THE WIPER MOTOR TO RUN AT LOW SPEED.

### 5. WASHER CONTINUITY OPERATION

WITH WASHER SW TURNED ON, THE CURRENT FLOWS FROM **TERMINAL 2** OF THE WAHSER MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 8** OF THE WIPER AND WASHER SW  $\rightarrow$  **TERMINAL 15**  $\rightarrow$  TO **GROUND**, AND CASES TO THE WASHER MOTOR TO RUN , AND WINDOW WASHER IS JET. THIS CAUSES THE CURRENT TO FLOW WASHER CONTINUOUS OPERATION CIRCUIT IN **TERMINAL 18** OF THE WIPER AND WASHER SW  $\rightarrow$  **TERMINAL 7**  $\rightarrow$  **TERMINAL 2** OF THE WIPER MOTOR  $\rightarrow$  WIPER MOTOR  $\rightarrow$  TO **GROUND** AND FUNCTIONS.

### SERVICE HINTS

### C14 WIPER AND WASHER SW (W/ WIPER RELAY)

16-GROUND : ALWAYS CONTINUITY

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

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

- APPROX. 12 VOLTS EVERY APPROX. 1 TO 10 SECONDS INTERMITTENTLY, WITH WIPER SW AT INT POSITION
- 4–GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON, UNLESS WIPER MOTOR IS AT STOP POSITION
- 13-GROUND APPROX. 12 VOLTS WITH WIPER AND WASHER SW AT HIGH POSITION

### **W4 WIPER MOTOR**

3-4 : CLOSED UNLESS WIPER MOTOR IS AT **STOP** POSITION

### C : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C14	26	W 2	27		
J 3	26	W 4	27		

### ) : RELAY BLOCKS

ſ	CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
	1	20	R/B NO. 1 (LEFT KICK PANEL)

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)

### : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH

# WIPER AND WASHER

## 

CODE SEE PAGE		WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
2	34	COWLWIRE	l13	34	LUGGAGE ROOM WIRE
15					

J3

### C14 BLACK

• • X 4 • X 7 8	X)
X X • 13 • 16 • 18 X	•









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

Malfunction symptoms of the airbag system are difficult to confirm, so the diagnostic trouble codes become the most important source of information when troubleshooting.

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

▼ Work must be started after 30 seconds or longer from the time the Ignition SW is set to the "LOCK" position and the negative (–) terminal cable is disconnected from the battery.

(The airbag system is equipped with a back–up power source so that if work is started within 30 seconds of disconnecting the negative (–) terminal cable of the battery, the airbag may be deployed.)

When the negative (–) terminal cable is disconnected from the battery, memory of the clock and audio systems will be canceled. So before starting work, make a record of the contents memorized by each memory system. Then when work is finished, reset the clock and audio system as before.

When the vehicle has tilt and telescopic steering, power seat, outside rear view mirror and power shoulder belt anchorage, which are all equipped with memory function, it is not possible to make a record of the memory contents. So when the operation is finished, it will be necessary to explain this fact to the customer, and request the customer to adjust the features and reset the memory.

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

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

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

- ▼ Store the steering wheel pad where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- **V** Never use airbag parts from another vehicle. When replacing airbag parts, replace them with new parts.
- Vever disassemble or repair the steering wheel pad, center airbag sensor assembly or front airbag sensors.
- Before repairing the body, remove the airbag sensors if during repair shocks are likely to be applied to the sensors due to vibration of the body or direct tapping with tools or other parts.
- To not reuse a steering wheel pad or front airbag sensors.

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

- $\mathbf{\nabla}$  When troubleshooting the airbag system, use a high–impedance (Min. 10k $\Omega$ /V) tester.
- The vehicle wiring harness exclusively for the airbag system is distinguished by corrugated yellow tubing, as are the connectors.
- $\mathbf{\nabla}$  Do not measure the resistance of the airbag squib.

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

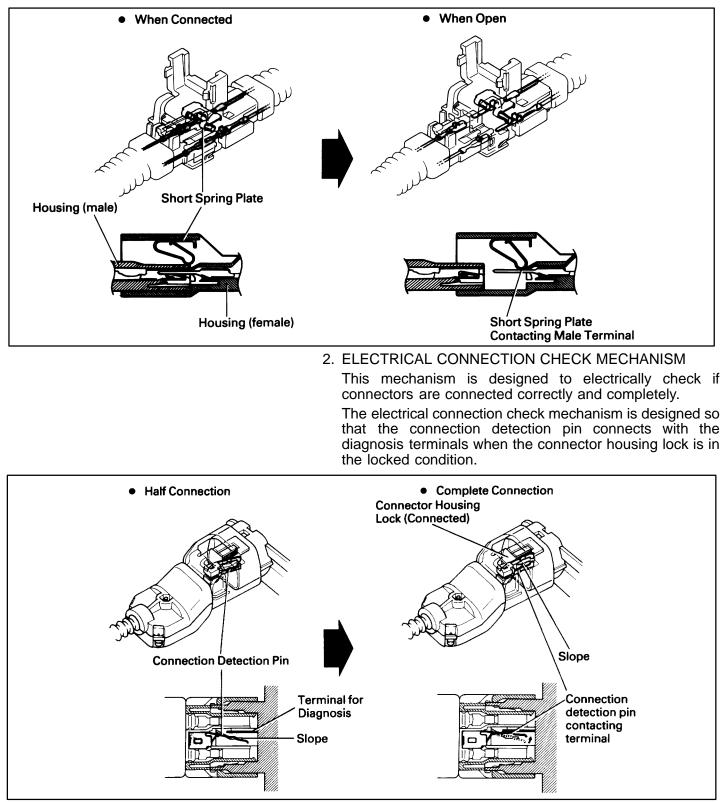
If the wire harness used in the airbag system is damaged, replace the whole wire harness assembly. When the connector to the airbag front sensors can be repaired alone (when there is no damage to the wire harness), use the repair wire specially designed for the purpose.

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

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

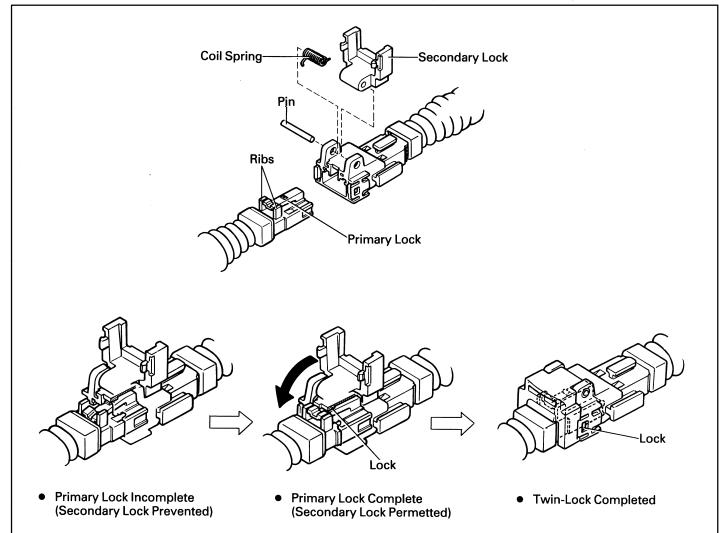
The airbag system has connectors which possess the functions described below:

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

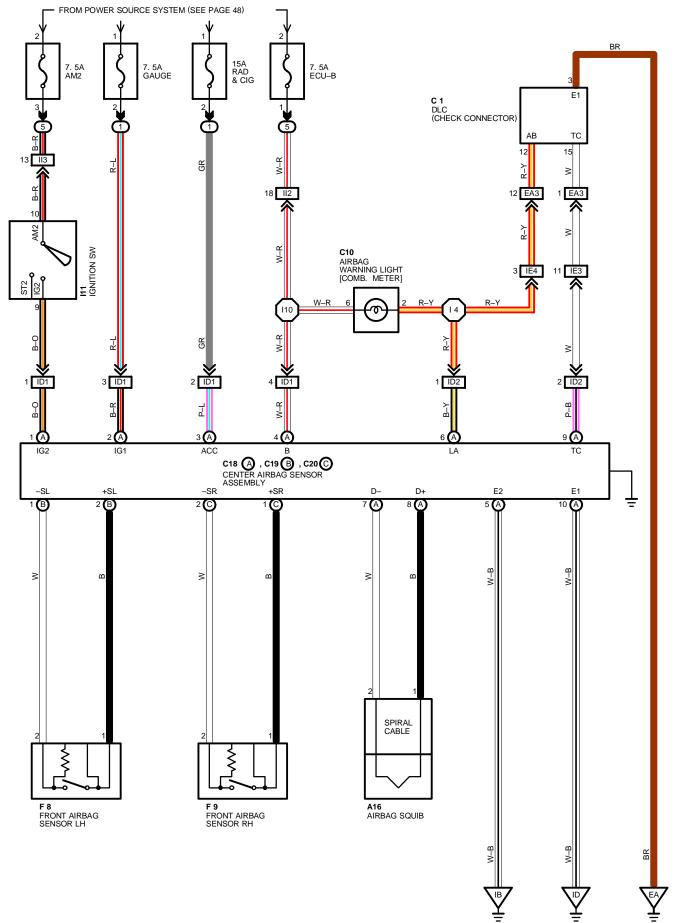


### 3. CONNECTOR TWIN-LOCK MECHANISM

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



## **SRS AIRBAG**



### SYSTEM OUTLINE

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

CURRENT FLOWS CONSTANTLY TO **TERMINAL (A) 4** OF THE CENTER AIRBAG SENSOR ASSEMBLY. WHEN THE IGNITION SW IS TURNED TO ACC OR ON, CURRENT FROM THE **RAD & CIG** FUSE FLOWS TO **TERMINAL (A) 3** OF THE CENTER AIRBAG SENSOR ASSEMBLY. ONLY WHEN THE IGNITION SW IS ON DOES THE CURRENT FROM THE **GAUGE** FUSE FLOW TO **TERMINAL (A) 1**. AND THE CURRENT FROM THE AM1 FUSE TO TERMINAL **(A) 2**.

IF AN ACCIDENT OCCURS WHILE DRIVING, DECELERATION CAUSED BY A FRONTAL IMPACT IS DETECTED BY EACH SENSOR, AND SWITCH, AND WHEN THE FRONTAL IMPACT EXCEEDS A SET LEVEL (WHEN THE MERCURY SW BUILT INTO THE CENTER AIRBAG SENSOR ASSEMBLY IS ON AND THE CENTER AIRBAG SENSOR IS ON, FRONT AIRBAG SENSORS ARE OFF), CURRENT FROM THE RAD & CIG, GAUGE OR AM1 FUSE FLOW TO TERMINAL (A) 8 OF THE CENTER AIRBAG SENSOR ASSEMBLY  $\rightarrow$  TERMINAL 1 OF THE AIRBAG SQUIB  $\rightarrow$  SQUIB  $\rightarrow$  TERMINAL 2  $\rightarrow$  TERMINALS (A) 7 OF CENTER AIRBAG SENSOR ASSEMBLY  $\rightarrow$  TERMINAL (A) 5, TERMINAL (A) 10 OR BODY GROUND  $\rightarrow$  GROUND.

WHEN THE MERCURY SW BUILT INTO THE CENTER AIRBAG SENSOR ASSEMBLY IS ON AND THE FRONT AIRBAG SENSOR LH OR RH IS ON, CENTER AIRBAG SENSOR IS OFF CURRENT FROM THE **RAD & CIG, GAUGE** OR **AM1** FUSE FLOWS TO **TERMINALS (A) 8** OF THE CENTER AIRBAG SENSOR ASSEMBLY  $\rightarrow$  **TERMINAL 1** OF THE AIRBAG SQUIB  $\rightarrow$  SQUIB  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINALS (A) 7** OF THE CENTER AIRBAG SENSOR ASSEMBLY  $\rightarrow$  **TERMINAL (C) 1** OR **(B) 2**  $\rightarrow$  **TERMINAL 1** OF FRONT AIRBAG SENSOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL (C) 2** OR **(B) 1** OF CENTER AIRBAG SENSOR ASSEMBLY  $\rightarrow$  **TERMINAL (A) 5**, **TERMINAL (A) 10** OR **BODY GROUND**  $\rightarrow$  **GROUND**.

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

THE REASON WHY THERE ARE MULTIPLE POWER SOURCES AND GROUND POINTS IS SO THAT IN THE EVENT THAT ONE OR TWO OF THE POWER SOURCES AND GROUND POINTS DO NOT WORK FOR SOME REASON, THE REMAINING POWER SOURCE AND GROUND POINT WILL BE AVAILABLE TO COMPENSATE.

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE		SEE PAGE	CODE	SEE PAGE
A16	26	C18	Α	26	F 8	27
C 1	24(5S–FE) , 25 (3S–GTE)	C19	В	26	F 9	27
C10	26	C20	С	26	l11	26

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

: 🔲	INING WIRE HARNESS AND WIRE HARNESS					
CODE	CODE SEE PAGE JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)					
<b>F</b> 40	28 (5S–FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (INSIDE R/B NO. 2)				
EA3	30 (3S–GTE)					
ID1	32	COWL WIRE AND COWL WIRE (NEAR R/B NO. 1)				
ID2	2 32 COWL WIRE AND COWL WIRE (BEHIND COMBINATION METER)					
IE3	22	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)				
IE4	- 32					
112	34					
113	- 04	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)				

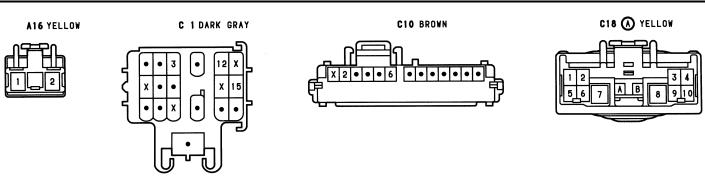
### 7 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>F</b> A	28 (5S–FE)	
EA	30 (3S–GTE)	
IB	32	LEFT KICK PANEL
ID	32	RIGHT KICK PANEL

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
14	34	COWL WIRE	l10	34	COWL WIRE

# **SRS AIRBAG**

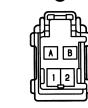




A B

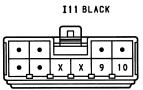
2

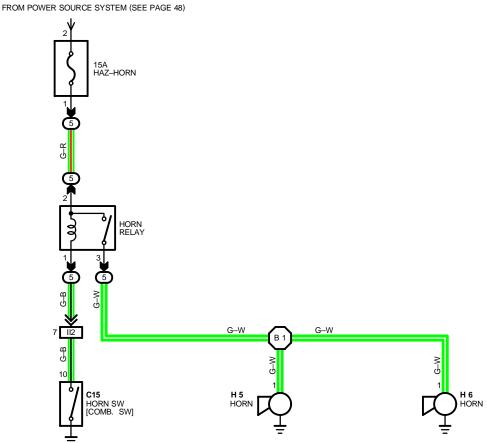
C20 C YELLOW



F 8 YELLOW







### SERVICE HINTS

HORN RELAY

(5) 2– (5)3 : CLOSED WITH HORN SW ON

### O : PARTS LOCATION

•					
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C15	26	H 5	27	H 6	27

### : RELAY BLOCKS

5       21       R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)         Image: Constant of the second state of the	CODE SEE PAGE RELAY BLOCKS (RELAY BLOCK LOCATION)							
CODE         SEE PAGE         JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)	5	5         21         R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)						
	: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS							
II2 34 LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)								

## : SPLICE POINTS

CODE	CODE SEE PAGE WIRE HARNESS WITH SPLICE POINTS			SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	
B 1	B 1 36 LUGGAGE ROOM WIRE					

### C15 BLACK





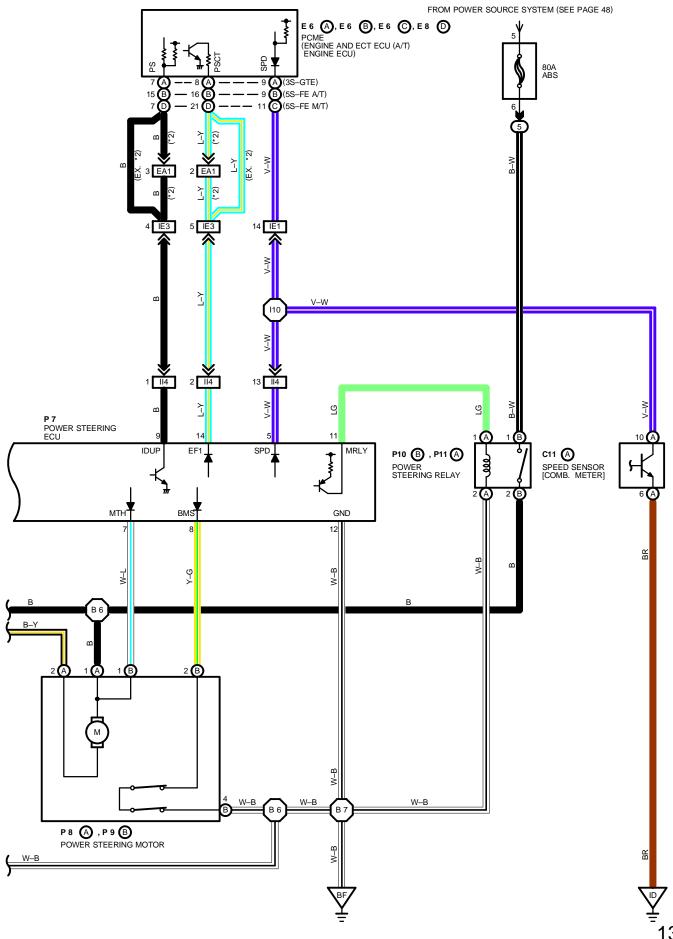
H 6 BLACK

1

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X	•	•	•	•	٠	
Ľ					_	2

# EHPS (ELECTRO HYDRAULIC POWER STEERING)

FROM POWER SOURCE SYSTEM (SEE PAGE 48) 1 7. 5A GAUGE J/B NO. 3 9 2 R–L R–L 15 3C 3A 🗲 (EX. \*1) 9 3D 3C 3C (TV) (L/W) F Ţ 12 ||3 ЧĽ R-L R–L ЩХ. (\*1) (\* 1) J1 (\*1 JUNCTION CONNECTOR 2 R-L (A C11 \land , C12 🚯 7 POWER STEERING WARNING LIGHT [COMB. METER] þ R–l R–l В4 4 B VS Y–W Y–R ŋ C14 STEERING POSITION SENSOR [COMB. SW] SS2 **)** 114 8 114 6 2 Y–W Y–R ≫ 114 SS1 Ϋ́-R N-≻ GND ŋ 7 Ρ7 POWER STEERING 12 4 15 23 SS2 SS1 IGB WL W-B IFB IOVR ICTR ISTP SGND CHK 19 16 6 17 18 20 ≥ Ţ LG-B LG-R LG-G ۲ ≥ 9 II4 1 (A 2 **(**A 5 (A) 6 **A** 12 (3D 4 **A** 3 **(**A) IGB ISTP SGND IFB IOVR ICTR M+ в J/B NO. 3 ≥ B–Y M-2 **B** P4 (C), P5 (B), P6 (A) 11 IE3 POWER STEERING DRIVER ≥ EA3 ≥ M−B M−B 15 тс C 1 DLC (CHECK CONNECTOR) E1 3 Ж JЗ JUNCTION CONNECTOR (FOR EARTH) W–B W–B BE



133

### SYSTEM OUTLINE

THE EHPS (ELECTRO HYDRAULIC POWER STEERING) SYSTEM FUNCTIONS TO CHANGE THE FORCE REQUIRED FOR STEERING MANEUVERS, AND THEREBY PROVIDE THE IDEAL STEERING FEELING FOR AT VEHICLE SPEEDS AND STEERING CONDITIONS. THIS IS DONE BY THE POWER STEERING ECU CONTROLLING THE HYDRAULIC PRESSURE ACTING UPON THE HYDRAULIC REACTION CHAMBER (LOCATED IN THE GEAR BOX CONTROL UNIT) BY REGULATING THE POWER STEERING MOTOR'S SPEED (AND HENCE THE AMOUNT OF FLUID FLOW).

### EHPS OPERATION

WHEN THE IGNITION SWITCHED ON, STARTING CURRENT FLOWS FROM THE **GAUGE** FUSE TO **TERMINAL IGB** OF THE POWER STEERING ELECTRONIC CONTROL UNIT, **TERMINAL VS** OF THE STEERING POSITION SENSOR, AND **TERMINAL (A) 4** OF THE POWER STEERING DRIVER.

THE VEHICLE SPEED IS DETECTED AT THE SPEED SENSOR, AND SIGNALS ARE INPUT AS CONTROL SIGNALS TO **TERMINAL SPD** OF THE POWER STEERING ELECTRONIC CONTROL UNIT AND TO **TERMINALS SS1** AND **SS2** OF THE POWER STEERING ELECTRONIC CONTROL UNIT.

WHEN THE ENGINE IS STARTED, SIGNALS ARE INPUT TO **TERMINAL EFI** OF THE POWER STEERING ELECTRONIC CONTROL UNIT FROM THE ENGINE OF **TERMINAL PSCT** OF THE ENGINE AND ECT ECU. AS A RESULT, THE CURRENT APPLIED TO **TERMINAL IGB** OF THE POWER STEERING ECU FROM THE **GAUGE** FUSE FLOWS FROM **TERMINAL MRLY** OF THE POWER STEERING ECU  $\rightarrow$ **TERMINAL (B) 1** OF THE POWER STEERING RELAY  $\rightarrow$  **TERMINAL (B) 2**  $\rightarrow$  **GROUND**, AND THE POWER STEERING RELAY IS SWITCHED ON. AS A RESULT, THE CURRENT APPLIED TO **TERMINAL (A) 1** OF THE POWER STEERING RELAY FROM THE **ABS** FUSE FLOWS FROM **TERMINAL (A) 2** OF THE POWER STEERING RELAY  $\rightarrow$  **TERMINAL (B) 1** OF THE POWER STEERING DRIVER AND TO **TERMINAL (A) 1** OF THE POWER STEERING MOTOR.

IF THE VEHICLE SPEED IS LOW, THE SPEED OF THE POWER STEERING MOTOR IS INCREASED BY INCREASING THE VOLTAGE OF THE CURRENT THAT FLOWS FROM **TERMINAL (A) 1** OF THE POWER STEERING MOTOR TO **TERMINAL (A) 2** OF THE POWER STEERING MOTOR  $\rightarrow$  **TERMINAL (B) 2** OF THE POWER STEERING DRIVER  $\rightarrow$  **TERMINAL (C) 2**  $\rightarrow$  **GROUND**, WITH THE RESULT THAT THE VOLUME OF FLOW OF THE POWER STEERING FLUID BECOMES GREATER, THUS PROVIDING A LIGHT STEERING FEELING.

WHEN THE VEHICLE SPEED IS HIGH, THE SPEED OF THE POWER STEERING MOTOR DECREASES AS A RESULT OF THE REDUCED VOLTAGE APPLIED TO THE POWER STEERING MOTOR, AND THUS THE VOLUME OF FLOW OF THE POWER STEERING FLUID IS REDUCED, SO THE STEERING FEELING IS MORE RESISTANT.

### SERVICE HINTS

### P 2 POWER STEERING ECU

1–GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON 12–GROUND : ALWAYS CONTINUITY

5-GROUND: 1 PULSE EACH 40 CM (DRIVER VEHICLE SLOWLY)

C14 STEERING POSITION SENSOR [COMB. SW] 14-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON

14–GROUND : APPROX. 12 VOLTS WITH IGNIT 12–GROUND : ALWAYS CONTINUITY

### P 1 POWER STEERING DRIVER

(A)4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON

(B)2-GROUND : ALWAYS CONTINUITY

### • : PARTS LOCATION

$\mathbf{\nabla}$								
CODE		SEE PAGE	CC	DE	SEE PAGE	CODE		SEE PAGE
C 1		24 (5S–FE), 25 (3S–GTE)	E 6	С	24 (5S–FE)	P 7		27
C11	А	26	E 8	D	24	P 8	А	27
<b>C12</b> B		26	J	3	26	P 9	В	27
C14		26	P 4	С	27	P10	В	27
E 6	А	25 (3S–GTE)	P 5	В	27	P11	А	27
E 6	В	24 (5S–FE)	P 6	A	27			

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3C	21	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	30 (3S–GTE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)
<b>F</b> 4.2	28 (5S–FE)	
EA3	30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)
IE1	20	
IE3	- 32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
113	24	
114	- 34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)

## 

SEE PAGE	GROUND POINTS LOCATION
28 (5S–FE)	
30 (3S–GTE)	
32	INSTRUMENT PANEL BRACE LH
32	RIGHT KICK PANEL
36	FRONT RIGHT FENDER
36	FRONT LEFT FENDER
20 00 00 00	28 (5S–FE) 30 (3S–GTE) 32 32 36

## : SPLICE POINTS

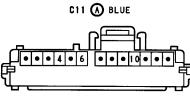
$\sim$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
15	24	COWLWIRE	B 6	20	LUGGAGE ROOM WIRE
l10	- 34		B 7	- 36	
B 4	36	LUGGAGE ROOM WIRE			

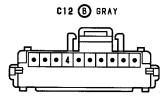
### C 1 DARK GRAY

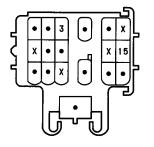
C14 BLACK

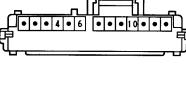
• 14 • •

X • • X





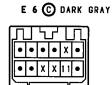






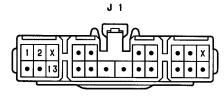
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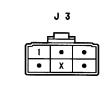
• 1516 X X X •



2 X • •

X 12



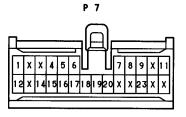


P 40. P10 B GRAY FFFT











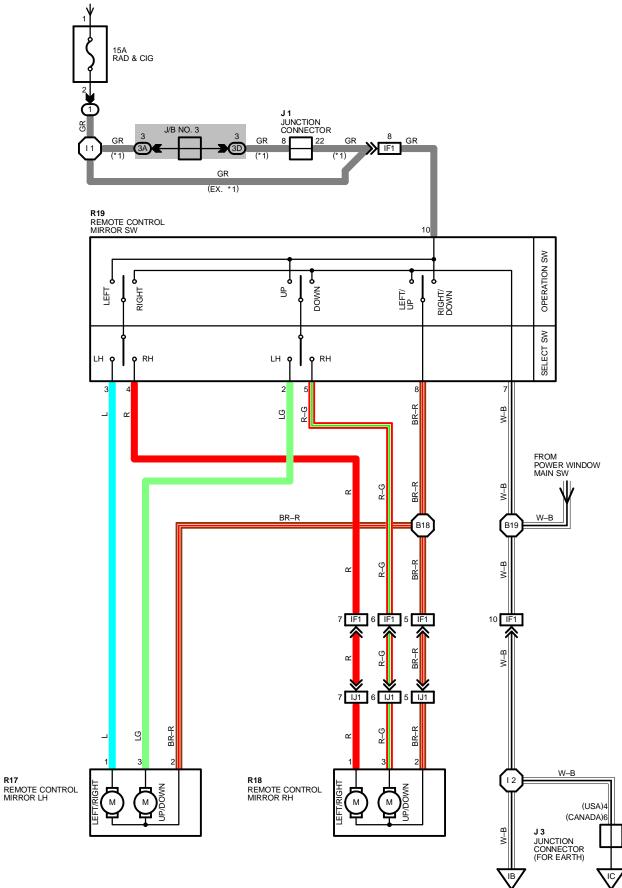






## **REMOTE CONTROL MIRROR**

FROM POWER SOURCE SYSTEM (SEE PAGE 48)



### - SERVICE HINTS -

10–GR 8–7	: CONTINUITY WI	K. <b>12</b> VOLTS WITH IC	V AT <b>UP</b> OR <b>L</b>	AT <b>ACC</b> OR <b>ON</b> POSITION LEFT POSITION DR RIGHT POSITION			
O :	PARTS LOCATIO	ON					
CODE	SE	E PAGE	CODE	SEE PAGE	CODE	SEE PAGE	
J 1	26		R17	27	R19	27	
J 3	26		R18	27			
0:	C : RELAY BLOCKS						
CODE	SEE PAGE	RELAY BLOCKS (R		OCATION)			
1	20	R/B NO. 1 (LEFT KI	CK PANEL)				
<b>·</b>	JUNCTION BLO	CK AND WIRE H	ARNESS C	ONNECTOR			
CODE	SEE PAGE	JUNCTION BLOCK	AND WIRE HA	RNESS (CONNECTOR LOCATION)			
3A 3D	22	COWL WIRE AND	J/B NO. 3 (BEH	IND COMBINATION METER)			
: [	CONNECTOR J	OINING WIRE HA	RNESS AN	D WIRE HARNESS			
CODE	SEE PAGE	JOINING WIRE HAI	RNESS AND W	IRE HARNESS (CONNECTOR LOCA	ATION)		
IF1	32	COWL WIRE AND F	RONT DOOR	LH WIRE (LEFT KICK PANEL)			
IJ1	IJ1 34 COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL)						
$\nabla$ :	GROUND POINT	TS					
CODE	SEE PAGE	GROUND POINTS	LOCATION				
IB	32	LEFT KICK PANEL					
IC	32	INSTRUMENT PAN	EL BRACE LH				
:	SPLICE POINTS	5					

-					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
12	34	COWL WIRE	B19	36	FRONT DOOR LH WIRE
B18	36	FRONT DOOR RH WIRE			

J 1

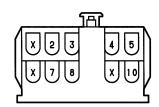




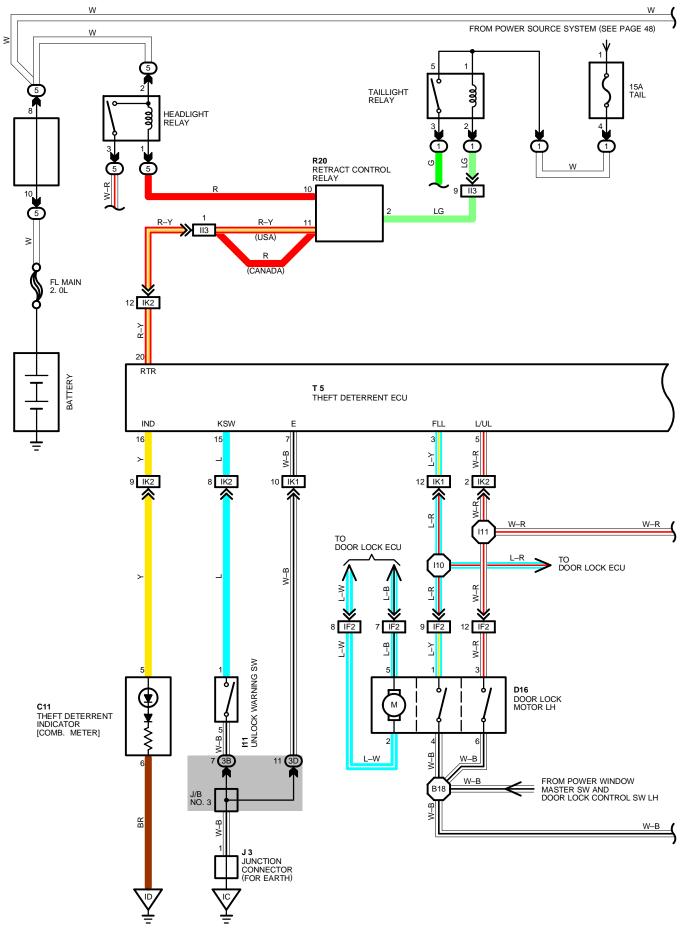
R17, R18

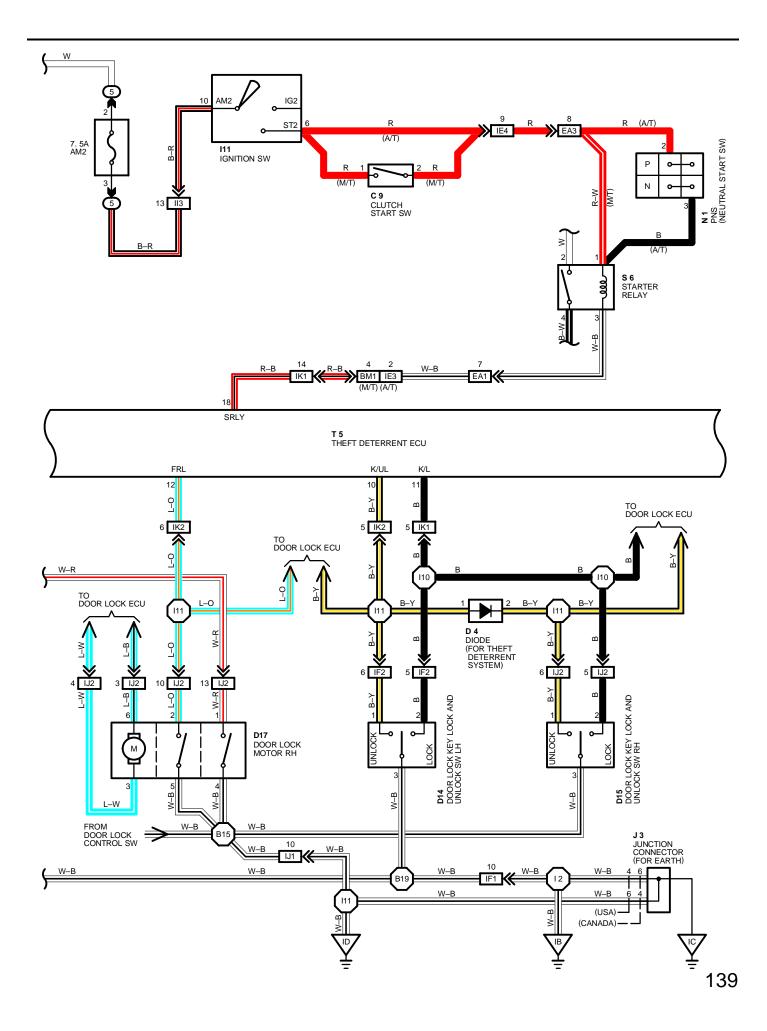
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R19

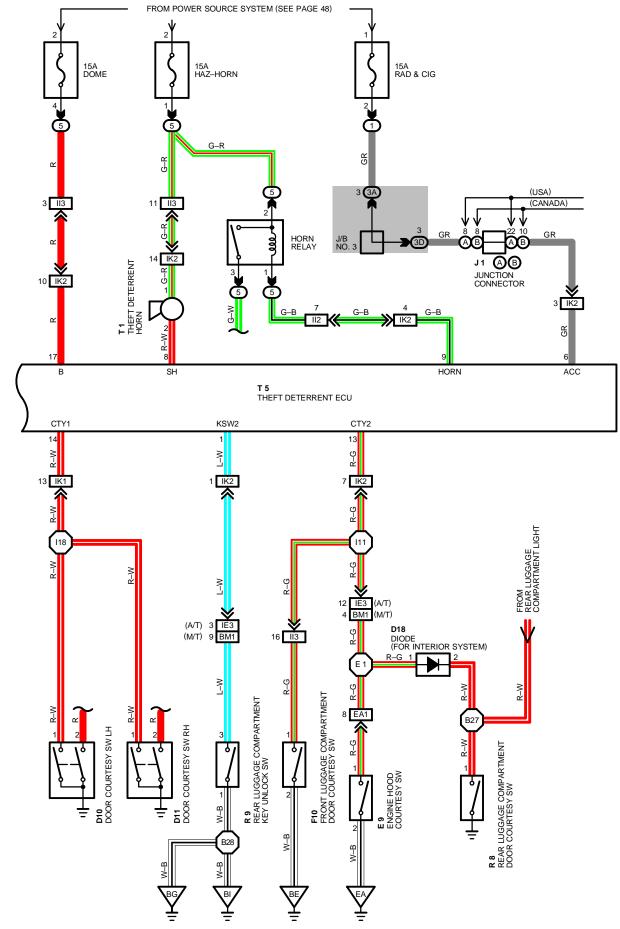


## THEFT DETERRENT





## THEFT DETERRENT



### - SERVICE HINTS -

T5 THEFT DETERRENT ECU
13-GROUND: 0 VOLTS WITH ENGINE HOOD OR FRONT OR REAR LUGGAGE COMPARTMENT DOOR OPEN
: APPROX. 12 VOLTS WITH ENGINE HOOD OR FRONT OR REAR LUGGAGE COMPARTMENT DOOR OPEN
16-GROUND: APPROX. 12 VOLTS WITHIN 30 SECONDS WITH SYSTEM ON
10-GROUND: 0 VOLTS WITH LH OR RH DOOR UNLOCKED WITH KEY
APPROX. 12 VOLTS WITH LH OR RH DOOR EXCEPT UNLOCKED WITH KEY
6–GROUND : 12 VOLTS WITH IGNITION SW AT ACC OR ON POSITION 0 VOLTS WITH IGNITION SW OFF
7-GROUND : ALWAYS CONTINUITY
14–GROUND: 0 VOLTS WITH LH OR RH DOOR OPEN
APPROX. 12 VOLTS WITH LH OR RH DOOR CLOSED
5-GROUND : 0 VOLTS WITH LH OR RH DOOR LOCK LEVER PULLED
APPROX. 12 VOLTS WITH LH OR RH DOOR LOCK LEVER PULLED
1-GROUND : 0 VOLTS WITH REAR LUGGAGE COMPARTMENT DOOR UNLOCKED WITH THE KEY
12 VOLTS WITH REAR LUGGAGE COMPARTMENT DOOR LOCKED WITH THE KEY
11-GROUND: 0 VOLTS WITH LH OR RH DOOR LOCKED WITH THE KEY
APPROX. 12 VOLTS WITH LH OR RH DOOR EXCEPT LOCKED WITH THE KEY
18-GROUND: APPROX. 12 VOLTS WITH SYSTEM ON AND IGNITION SW ST POSITION
0 VOLTS WITH SYSTEM OPERATED
17–GROUND: ALWAYS APPROX. 12 VOLTS
D10, D11 DOOR COURTESY SW
1–GROUND : CLOSED WITH LH OR RH DOOR OPEN
D14, D15 DOOR LOCK KEY LOCK AND UNLOCK SW
1–3 : CLOSED WITH KEY CYLINDER UNLOCKED WITH KEY
2–3 : CLOSED WITH KEY CYLINDER LOCKED WITH KEY
D16, D17 DOOR LOCK MOTOR
3–6 : CLOSED WITH DOOR LOCK LEVER PULLED
E 9 ENGINE HOOD COURTESY SW
1–2 : CLOSED WITH ENGINE HOOD OPEN
R 8 REAR LUGGAGE COMPARTMENT DOOR COURTESY SW
1-GROUND : CLOSED WITH REAR LUGGAGE COMPARTMENT DOOR OPEN
R 9 REAR LUGGAGE COMPARTMENT KEY UNLOCK SW
1–2 : CLOSED WITH REAR LUGGAGE COMPARTMENT DOOR UNLOCKED WITH THE KEY

### • PARTS LOCATION

SEE PAGE	00				
		DDE	SEE PAGE	CODE	SEE PAGE
26	D	17	27	N 1	24
26	D	18	27	R 8	27
26	E	9	24 (5S–FE), 25 (3S–GTE)	R 9	27
27	F	10	27	R20	27
27	ľ	11	26	S 6	24 (5S-FE), 25 (3S-GTE)
27		Α	26	T 1	24 (5S-FE), 25 (3S-GTE)
27	J1	В	26	Т 5	27
27	J	3	26		
	26 26 27 27 27 27 27 27	26         D           26         E           27         F           27         I           27         J1	26         D18           26         E 9           27         F10           27         I11           27         J1           27         B	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)					
1	20	R/B NO. 1 (LEFT KICK PANEL)					
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)					
	JUNCTION BLOCK AND WIRE HARNESS CONNECTOR						

$\cup$		
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3B	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

# THEFT DETERRENT

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

BM1	36	ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)	
IK2	- 34	FLOOR WIRE AND COWL WIRE (RIGHT KICK PANEL)	
IK1	24		
IJ2	34	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)	
IJ1	34	COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL)	
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)	
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)	
IF2	32	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)	
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LEFT KICK PANEL)	
IE4	- 32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)	
IE3	22		
LAJ	30 (3S–GTE)		
EA3	28 (5S–FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)	
CAI	30 (3S–GTE)		
EA1	28 (5S–FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (REAR LUGGAGE COMPARTMENT LEFT)	
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)	

### : GROUND POINTS

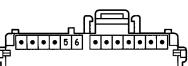
v		
CODE	SEE PAGE	GROUND POINTS LOCATION
EA	28 (5S–FE)	INTAKE MANIFOLD
EA	30 (3S–GTE)	
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL
BE	36	FRONT RIGHT FENDER
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

### : SPLICE POINTS

$\smile$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 1	28	ENGINE ROOM MAIN WIRE	B15	36	FRONT DOOR RH WIRE
12			B18		
l10		COWL WIRE	B19	- 36	FRONT DOOR LH WIRE
l11	34		B27		
l16			B28	- 36	ENGINE ROOM MAIN WIRE
l18					
C 9		C11 BLUE	D 4, D18	BLACK D10, D11	D14.D15 GRAY



(



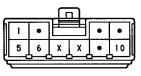




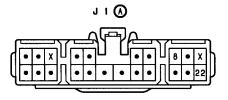


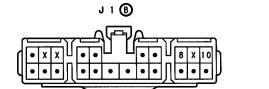






I11 BLACK



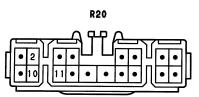








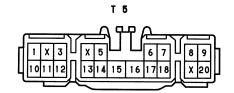




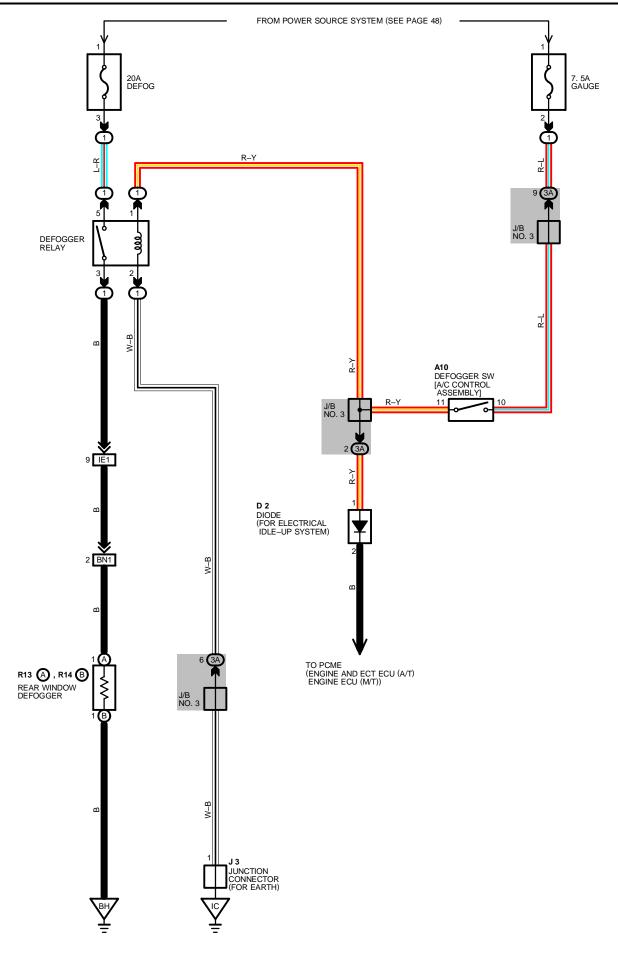




T 1 BLACK



## **REAR WINDOW DEFOGGER**



### SERVICE HINTS

### **DEFOGGER RELAY**

4 – 1 : CLOSED WITH IGNITION SW ON AND DEFOGGER SW ON

### A10 DEFOGGER SW [A/C CONTROL ASSEMBLY]

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

: CLOSED WITH DEFOGGER SW ON 10–11

### O : PARTS LOCATION

<b>U</b>						
CODE	SEE PAGE	CODE	SEE PAGE	COI	DE	SEE PAGE
A10	26	J 3	26	R14	В	27
D 2	26	R13 A	27			

#### : RELAY BLOCKS $\bigcirc$

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)

#### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR $\bigcirc$

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)

CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS				
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)		
IE1	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)		
BN1	36	ROOF NO.3 WIRE AND ENGINE ROOM MAIN WIRE		

### : GROUND POINTS

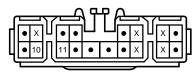
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH
BH	36	UNDER THE RIGHT REAR PILLAR







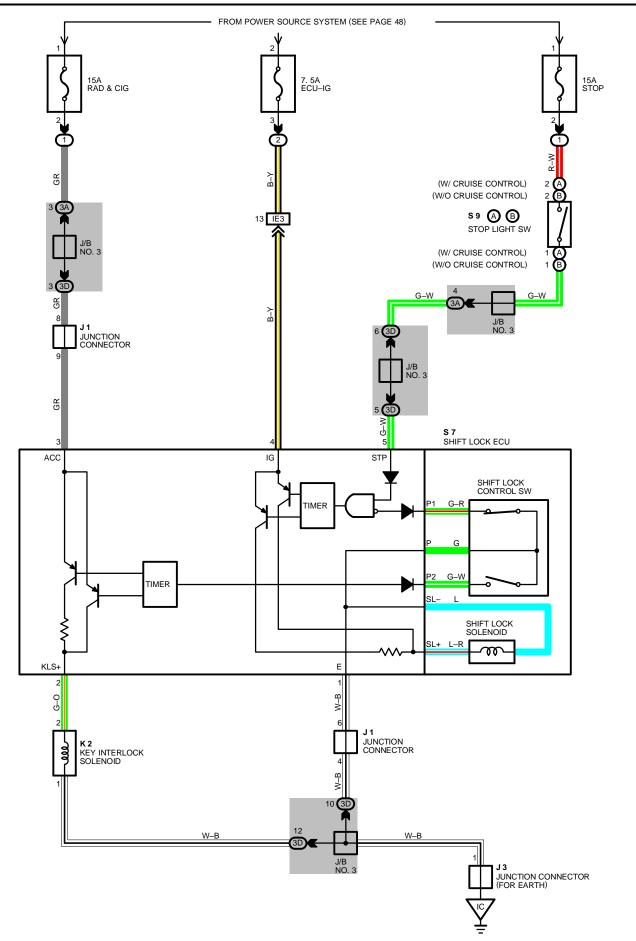








SHIFT LOCK



### SYSTEM OUTLINE

WHEN THE IGNITION SW IS TURNED TO ACC POSITION THE CURRENT FROM THE CIG RADIO AND CIG FUSE FLOWS TO TERMINAL 3 OF THE SHIFT LOCK ECU. IN THE ON POSITION, THE CURRENT FROM THE ECU–IG FUSE FLOWS TO TERMINAL 4 OF THE ECU.

### 1. SHIFT LOCK MECHANISM

WITH THE IGNITION SW ON, WHEN A SIGNAL THAT THE BRAKE PEDAL IS DEPRESSED (STOP LIGHT SW ON) AND A SIGNAL THAT THE SHIFT LEVER IS PUT IN "P" RANGE (CONTINUITY BETWEEN P1 AND P OF THE SHIFT POSITION SW) IS INPUT TO THE ECU. THE ECU OPERATES AND CURRENT FLOWS FROM **TERMINAL 4** OF THE ECU  $\rightarrow$  **TERMINAL SL+** OF THE SHIFT LOCK SOLENOID  $\rightarrow$  SOLENOID  $\rightarrow$  **TERMINAL SL-**  $\rightarrow$  **TERMINAL 1** OF THE ECU  $\rightarrow$  **GROUND.** THIS CAUSES THE SHIFT LOCK SOLENOID TO TURN ON (PLATE STOPPER DISENGAGES) AND THE SHIFT LEVER CAN SHIFT INTO OTHER RANGE THAN THE "P" RANGE.

### 2. KEY INTERLOCK MECHANISM

WITH THE IGNITION SW IN **ON** OR **ACC** POSITION, WHEN THE SHIFT LEVER IS PUT IN "P" RANGE (NO CONTINUITY BETWEEN P2 AND P OF LOCK CONTROL SW), THE CURRENT FLOWING FROM **TERMINAL 2** OF THE ECU  $\rightarrow$  KEY INTERLOCK SOLENOID IS CUT OFF. THIS CAUSES THE KEY INTERLOCK SOLENOID TO TURN OFF (LOCK LEVER DISENGAGES FROM LOCK POSITION) AND THE IGNITION KEY CAN BE TURNED FROM **ACC** TO **LOCK** POSITION. IF THE IGNITION IS LEFT IN **ACC** OR **ON** POSITION WITH THE SHIFT LEVER IN OTHER THAN "P" RANGE, THEN AFTER APPROX. ONE HOUR THE ECU OPERATES TO RELEASE THE LOCK.

### SERVICE HINTS

### S 7 SHIFT LOCK ECU

3–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ACC** OR **ON** POSITION 4–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION 1–GROUND : ALWAYS CONTINUITY 5–GROUND : APPROX. **12** VOLTS WITH BRAKE PEDAL DEPRESSED

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CO	DE	SEE PAGE
J 1	26	K 2	26	99	А	26
J 3	26	S 7	26	39	В	26

### : RELAY BLOCKS

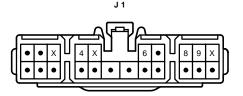
CODE	SEE PAGE RELAY BLOCKS (RELAY BLOCK LOCATION)	
1	20	R/B NO. 1 (LEFT KICK PANEL)
2	2 21 R/B NO. 2 (ENGINE COMPARTMENT LEFT)	

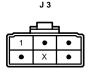
### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

-					
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)			
3A	22				
3D	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)			
: 🔲	: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS				
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			

### : GROUND POINTS

v		
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH





K2 BLUE





S 7

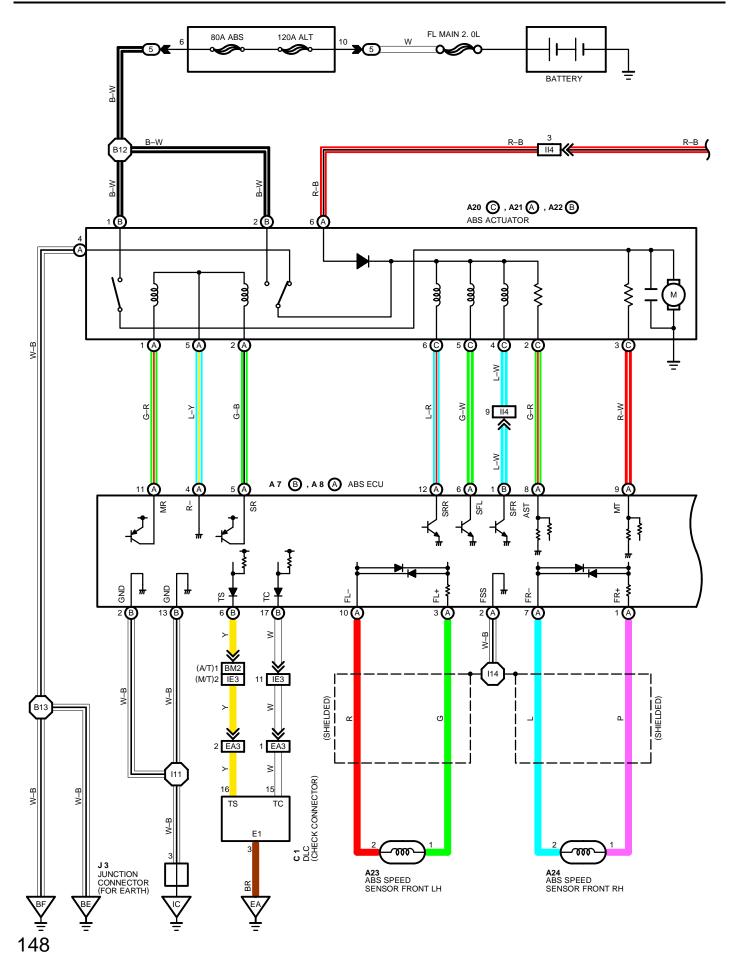
(W/ CRUISE CONTROL) S 9 A BLUE

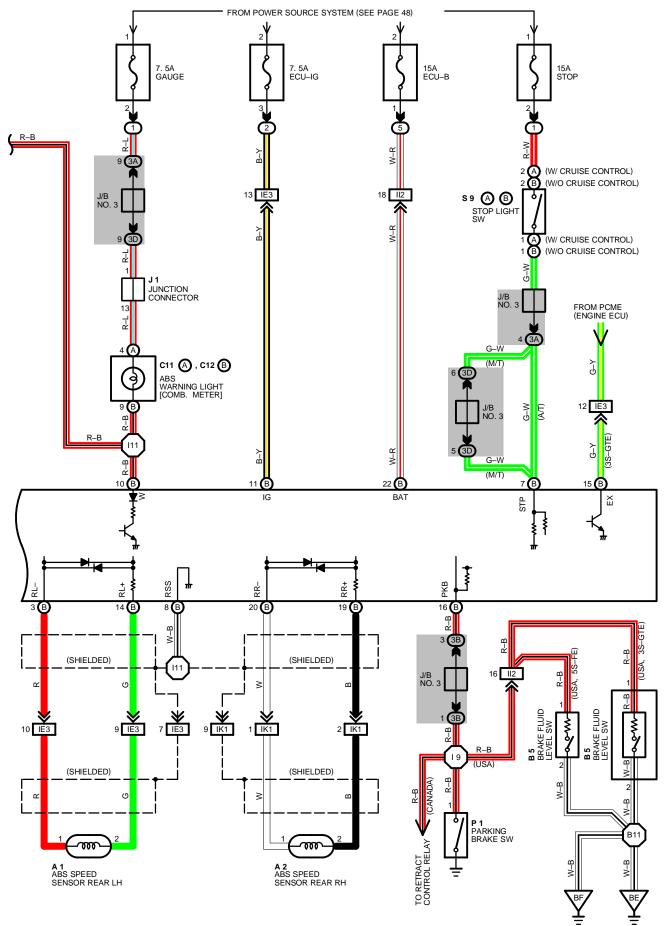






# ABS (ANTI-LOCK BRAKE SYSTEM)





### SYSTEM OUTLINE

THIS SYSTEM CONTROLS THE RESPECTIVE BRAKE FLUID PRESSURES ACTING ON THE DISC BRAKE CYLINDERS OF THE RIGHT FRONT WHEEL, LEFT FRONT WHEEL AND REAR WHEELS, WHEN THE BRAKES ARE APPLIED IN A PANIC STOP, SO THAT THE WHEELS DO NOT LOCK. THIS RESULTS IN IMPROVED DIRECTIONAL STABILITY AND STEERABILITY DURING PANIC BRAKING.

### 1. INPUT SIGNALS

(1) SPEED SENSOR SIGNAL

THE SPEED OF THE WHEELS IS DETECTED AND INPUT TO TERMINALS FL+, FR+, RL+ AND RR+ OF THE ABS ECU.

(2) STOP LIGHT SW SIGNAL

A SIGNAL IS INPUT TO TERMINAL STP OF THE ABS ECU WHEN THE BRAKE PEDAL IS OPERATED.

(3) PARKING BRAKE SW SIGNAL

A SIGNAL IS INPUT TO TERMINAL PKB OF THE ABS ECU WHEN THE PARKING BRAKE IS OPERATED.

### 2. SYSTEM OPERATION

DURING SUDDEN BRAKING THE ABS ECU, WHICH HAS SIGNALS INPUT FROM EACH SENSOR, CONTROLS THE CURRENT FLOWING TO THE SOLENOID INSIDE THE ACTUATOR AND LETS THE HYDRAULIC PRESSURE ACTING ON EACH WHEEL CYLINDER ESCAPE TO THE RESERVOIR.

THE PUMP INSIDE THE ACTUATOR IS ALSO OPERATING AT THIS TIME AND IT RETURNS THE BRAKE FLUID FROM THE RESERVOIR TO THE MASTER CYLINDER, THUS PREVENTING LOCKING OF THE VEHICLE WHEELS.

IF THE ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON THE SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS INCREASED. HOLDING OF THE HYDRAULIC PRESSURE IS ALSO CONTROLLED BY THE ECU IN THE SAME METHOD AS ABOVE. BY REPEATED PRESSURE REDUCTION, HOLDING AND INCREASE ARE REPEATED TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERABILITY DURING SUDDEN BRAKING.

### SERVICE HINTS

A7(B), A 8(A) ABS ECU

(B) 6-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION AND CHECK CONNECTOR <b>TS</b> -E1 NOT CONNECTED (B) 10-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION AND CHECK CONNECTOR <b>TS</b> -E1 NOT CONNECTED (B) 1-GROUND, (A) 6-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION, ABS WARNING LIGHT GOES OFF (A) 8-GROUND: (A) 12-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION, ABS WARNING LIGHT GOES OFF (B) 2-GROUND: ALWAYS CONTINUITY (B) 13-GROUND: ALWAYS CONTINUITY (B) 13-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION (B) 7-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION (B) 7-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION (B) 7-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT <b>ON</b> POSITION (B) 7-GROUND: APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED (B) 22-GROUND: ALWAYS APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED (B) 22-GROUND: APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED (D) ISCONNECT THE ECU CONNECTOR) (B) 1 - (A) 8: APPROX. 6 K (A) 6 - (A) 8: APPROX. 6 K (A) 7 - (A) 1: APPROX. 0.8 - 1.3 K (A) 4 - (A) 1: APPROX. 0.8 - 1.3 K (A) 4 - (A) 1: APPROX. 0.8 - 1.3 K (A) 4 - (A) 5: APPROX. 60 - 100 K (A) 4 - (A) 1: APPROX. 50 - 80 K (B) 3 - (B) 14: APPROX. 1.1 - 1.5 KK (B) 19 - (B) 20: APPROX. 1.1 - 1.5 KK	(CONNECT THE E	ECU CONNECTOR)
(B)1-GROUND,(A)6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION, ABS WARNING LIGHT GOES OFF(A)8-GROUND,(A)12-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION, ABS WARNING LIGHT GOES OFF(B)15-GROUND:APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION, ABS WARNING LIGHT GOES OFF(B)2-GROUND:ALWAYS CONTINUITY(B)13-GROUND:APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION(B)1-GROUND:APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION(B)1-GROUND:APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED(B)2-GROUND:ALWAYS APPROX. 12 VOLTS(B)16-GROUND:APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED(DISCONNECT THE ECU CONNECTOR)(B)(B)1 - (A) 8:APPROX. 6 K(A)6 - (A) 1:APPROX. 6 K(A)7 - (A) 1:APPROX. 08 - 1.3 K(A)4 - (A) 15:APPROX. 08 - 1.3 K(A)4 - (A) 11:APPROX. 05 - 80 K(B)3 - (B)14:APPROX. 50 - 80 K	(B) 6-GROUND:	APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION AND CHECK CONNECTOR TS-E1 NOT CONNECTED
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(B)11-GROUND:APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION(B) 7-GROUND:APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED(B)22-GROUND:ALWAYS APPROX. 12 VOLTS(B)16-GROUND:APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED(DISCONNECT THE ECU CONNECTOR)(B) 1 - (A) 8: APPROX. 6 K(A) 6 - (A) 8: APPROX. 6 K(A) 8 - (A)12: APPROX. 6 K(A) 7 - (A) 1: APPROX. 0.8 - 1.3 K(A) 3 - (A)10: APPROX. 0.8 - 1.3 K(A) 4 - (A) 5: APPROX. 60 - 100 K(A) 4 - (A)11: APPROX. 50 - 80 K(B) 3 - (B)14: APPROX. 1.1 - 1.5 KK	(B) 2–GROUND:	ALWAYS CONTINUITY
(B) 7–GROUND: APPROX. 12 VOLTS WITH BRAKE PEDAL DEPRESSED (B)22–GROUND: ALWAYS APPROX. 12 VOLTS (B)16–GROUND: APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED (DISCONNECT THE ECU CONNECTOR) (B) 1 – (A) 8: APPROX. 6 K (A) 6 – (A) 8: APPROX. 6 K (A) 8 – (A)12: APPROX. 6 K (A) 8 – (A)12: APPROX. 6 K (A) 7 – (A) 1: APPROX. 0.8 – 1.3 K (A) 3 – (A)10: APPROX. 0.8 – 1.3 K (A) 4 – (A)5: APPROX. 60 – 100 K (A) 4 – (A)11: APPROX. 50 – 80 K (B) 3 – (B)14: APPROX. 1.1 – 1.5 KK	(B)13–GROUND:	ALWAYS CONTINUITY
(B) $22$ -GROUND: ALWAYS APPROX. 12 VOLTS(B)16-GROUND: APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED(DISCONNECT THE ECU CONNECTOR)(B)1 - (A) 8: APPROX. 6 K(A)6 - (A) 8: APPROX. 6 K(A)8 - (A)12: APPROX. 6 K(A)7 - (A) 1: APPROX. 0.8 - 1.3 K(A)3 - (A)10: APPROX. 0.8 - 1.3 K(A)4 - (A) 5: APPROX. 60 - 100 K(A)4 - (A)11: APPROX. 50 - 80 K(B)3 - (B)14: APPROX. 1.1 - 1.5 KK	<b>`</b>	
(B)16-GROUND: APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED         (DISCONNECT THE ECU CONNECTOR)         (B) 1 - (A) 8 : APPROX. 6 K         (A) 6 - (A) 8 : APPROX. 6 K         (A) 7 - (A) 1: APPROX. 0.8 - 1.3 K         (A) 3 - (A)10 : APPROX. 0.8 - 1.3 K         (A) 4 - (A)5 : APPROX. 60 - 100 K         (A) 4 - (A)11 : APPROX. 50 - 80 K         (B) 3 - (B)14 : APPROX. 1.1 - 1.5 KK	• •	
IDISCONNECT THE ECU CONNECTOR)         (B) 1 - (A) 8 : APPROX. 6 K         (A) 6 - (A) 8 : APPROX. 6 K         (A) 7 - (A) 1 : APPROX. 0.8 - 1.3 K         (A) 3 - (A)10 : APPROX. 0.8 - 1.3 K         (A) 4 - (A) 5 : APPROX. 60 - 100 K         (A) 4 - (A)11 : APPROX. 50 - 80 K         (B) 3 - (B)14 : APPROX. 1.1 - 1.5 KK	(B)22–GROUND:	ALWAYS APPROX. 12 VOLTS
(B) $1 - (A) 8$ :       APPROX. 6 K         (A) $6 - (A) 8$ :       APPROX. 6 K         (A) $8 - (A)12$ :       APPROX. 6 K         (A) $7 - (A) 1$ :       APPROX. 0.8 - 1.3 K         (A) $3 - (A)10$ :       APPROX. 0.8 - 1.3 K         (A) $4 - (A) 5$ :       APPROX. 60 - 100 K         (A) $4 - (A)11$ :       APPROX. 50 - 80 K         (B) $3 - (B)14$ :       APPROX. 1.1 - 1.5 KK	(B)16–GROUND:	APPROX. 12 VOLTS WITH ENGINE RUNNING AND PARKING BRAKE LEVER RELEASED
(A) 6 - (A) 8:       APPROX. 6 K $(A) 8 - (A) 12$ :       APPROX. 6 K $(A) 7 - (A) 1$ :       APPROX. 0.8 - 1.3 K $(A) 3 - (A) 10$ :       APPROX. 0.8 - 1.3 K $(A) 4 - (A) 5$ :       APPROX. 60 - 100 K $(A) 4 - (A) 11$ :       APPROX. 50 - 80 K $(B) 3 - (B) 14$ :       APPROX. 1.1 - 1.5 KK	(DISCONNECT TH	HE ECU CONNECTOR)
(A) $8 - (A) 12$ :       APPROX. 6 K         (A) $7 - (A) 1$ :       APPROX. 0.8 - 1.3 K         (A) $3 - (A) 10$ :       APPROX. 0.8 - 1.3 K         (A) $4 - (A) 5$ :       APPROX. 60 - 100 K         (A) $4 - (A) 11$ :       APPROX. 50 - 80 K         (B) $3 - (B) 14$ :       APPROX. 1.1 - 1.5 KK	<b>(B)</b> 1 – <b>(A)</b> 8 :	APPROX. 6 K
(A) 7 - $(A)$ 1 :       APPROX. 0.8 - 1.3 K $(A)$ 3 - $(A)$ 10 :       APPROX. 0.8 - 1.3 K $(A)$ 4 - $(A)$ 5 :       APPROX. 60 - 100 K $(A)$ 4 - $(A)$ 11 :       APPROX. 50 - 80 K $(B)$ 3 - $(B)$ 14 :       APPROX. 1.1 - 1.5 KK	<b>(A)</b> 6 – <b>(A)</b> 8 :	APPROX. 6 K
<ul> <li>(A) 3 - (A)10: APPROX. 0.8 - 1.3 K</li> <li>(A) 4 - (A) 5: APPROX. 60 - 100 K</li> <li>(A) 4 - (A)11: APPROX. 50 - 80 K</li> <li>(B) 3 - (B)14: APPROX. 1.1 - 1.5 KK</li> </ul>	(A) 8 – (A)12:	APPROX. 6 K
<ul> <li>(A) 4 - (A) 5 : APPROX. 60 - 100 K</li> <li>(A) 4 - (A)11 : APPROX. 50 - 80 K</li> <li>(B) 3 - (B)14 : APPROX. 1.1 - 1.5 KK</li> </ul>	<b>(A)</b> 7 – <b>(A)</b> 1 :	APPROX. <b>0.8 – 1.3</b> K
(A) 4 – (A)11 : APPROX. 50 – 80 K (B) 3 – (B)14 : APPROX. 1.1 – 1.5 KK	<b>(A)</b> 3 – <b>(A)</b> 10 :	APPROX. <b>0.8 – 1.3</b> K
(B) 3 – (B) 14 : APPROX. 1.1 – 1.5 KK	<b>(A)</b> 4 – <b>(A)</b> 5 :	APPROX. <b>60 – 100</b> K
	<b>(A)</b> 4 – <b>(A)</b> 11 :	APPROX. <b>50 – 80</b> K
(B)19–(B)20: APPROX. 1.1–1.5 KK	<b>(B)</b> 3 – <b>(B)</b> 14 :	APPROX. <b>1.1 – 1.5</b> KK
	<b>(B)</b> 19 – <b>(B)</b> 20 :	APPROX. <b>1.1 – 1.5</b> KK

### O : PARTS LOCATION

CODE		SEE PAGE		CODE		SEE PAGE		CODE		SEE PAGE
A 1		24 (5S–FE), 25 (3S–GTE)		A22	В	27	C1	2	В	26
A 2		24 (5S–FE), 25 (3S–GTE)		A23		27		J 1		26
Α7	В	26		A24		27		J 3		26
A 8	A	26		В	5	27		Р	1	26
A20	С	27				24 (5S–FE), 25 (3S–GTE)	s		А	26
A21	Α	27	(			26	3:	,	В	26

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

-		
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3B	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA3	28 (5S–FE)	
EAJ	30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)
IE3	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
114	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)
IK1	34	FLOOR WIRE AND COWL WIRE (RIGHT KICK PANEL)
BM2	36	COWL WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT)

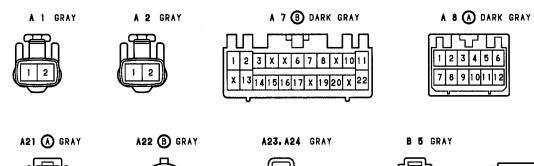
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CODE	SEE PAGE	GROUND POINTS LOCATION
EA	28 (5S–FE)	
EA	30 (3VZ–FE)	- INTAKE MANIFOLD
IC	32	INSTRUMENT PANEL BRACE LH
BE	36	FRONT RIGHT FENDER
BF	36	FRONT LEFT FENDER

### : SPLICE POINTS

$\sim$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
19			B11		
l11	34	COWL WIRE	B12	36	LUGGAGE ROOM WIRE
l14			B13	-	

# ABS (ANTI-LOCK BRAKE SYSTEM)



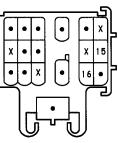


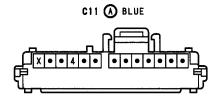


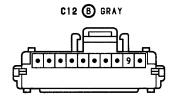


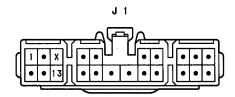


A20 🛈 GRAY



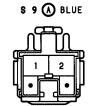






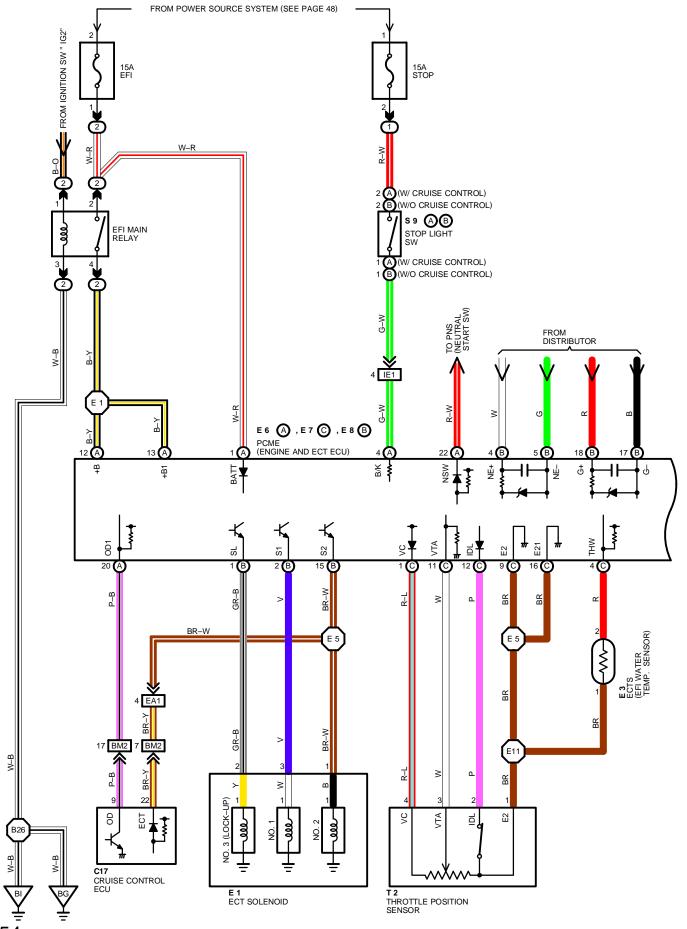




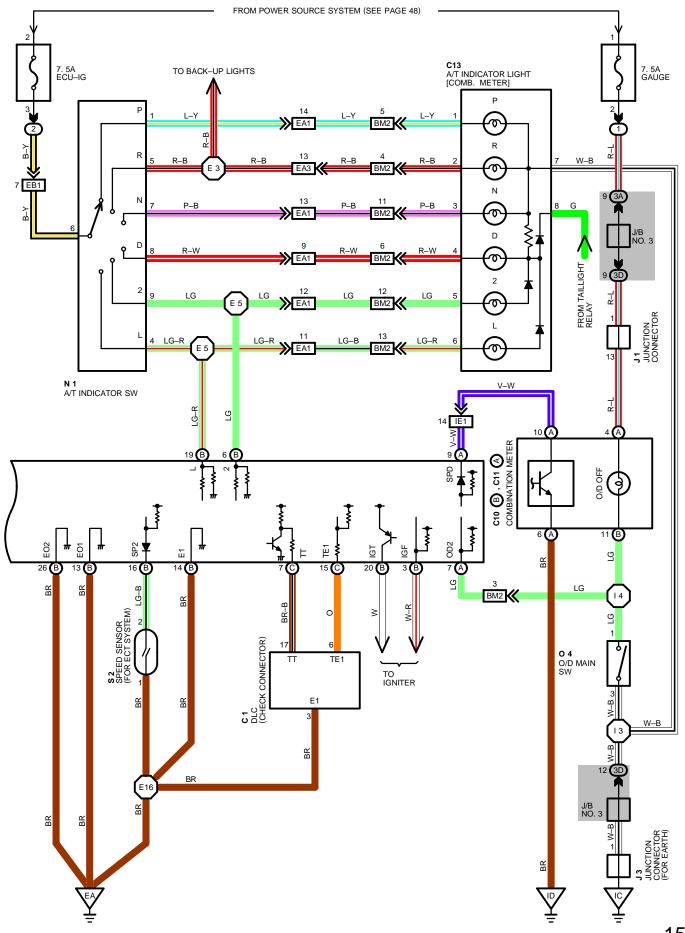


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### ECT AND A/T INDICATOR



± 154



### SYSTEM OUTLINE

THIS SYSTEM ELECTRONICALLY CONTROLS THE GEAR SHIFT TIMING, LOCK-UP TIMING, THE CLUTCH AND BRAKE HYDRAULIC PRESSURE, AND THE ENGINE TORQUE DURING SHIFTING, TO ACHIVE OPTIMUM SHIFT FEELING.

IN ACCORDANCE TO THE VEHICLE DRIVING CONDITIONS AND ENGINE OPERATING CONDITIONS AS DETECTED BY VARIOUS SENSORS.

### 1. GEAR SHIFT OPERATION

DURING DRIVING, THE PCME (ENGINE AND ECT ECU) SELECTS THE SHIFT FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS, BASED ON INPUT SIGNALS FROM THE ECTS (EFI WATER TEMP. SENSOR) TO **TERMINAL THW** OF THE PCME (ENGINE AND ECT ECU), AND ALSO THE INPUT SIGNALS TO **TERMINAL SP2** OF THE PCME (ENGINE AND ECT ECU) FROM THE SPEED SENSOR DEVOTED TO THE ECT. CURRENT IS THEN OUTPUT TO THE ECT SOLENOIDS. WHEN SHIFTING TO 1ST SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE PCME (ENGINE AND ECT ECU)  $\rightarrow$  **TERMINAL 3** OF THE ECT SOLENOIDS  $\rightarrow$  **GROUND**, AND CONTINUITY FLOW TO NO.1 SOLENOID CAUSES THE SHIFT.

FOR 2ND SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE PCME (ENGINE AND ECT ECU)  $\rightarrow$  **TERMINAL 3** OF THE ECT SOLENOIDS  $\rightarrow$  **GROUND**, AND FROM **TERMINAL S2** OF THE PCME (ENGINE AND ECT ECU)  $\rightarrow$  **TERMINAL 1** OF THE ECT SOLENOIDS  $\rightarrow$  **GROUND**, AND CONTINUITY TO SOLENOIDS NO. 1 AND NO. 2 CAUSE THE SHIFT.

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

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

### 2. LOCK-UP OPERATION

WHEN THE PCME (ENGINE AND ECT ECU) JUDGES FROM EACH SIGNAL THAT LOCK–UP OPERATION CONDITIONS HAVE BEEN MET, CURRENT FLOWS FROM **TERMINAL SL** OF THE PCME (ENGINE AND ECT ECU)  $\rightarrow$  **TERMINAL 2** OF THE ETC SOLENOIDS  $\rightarrow$  **GROUND**, CAUSING A CONTINUITY TO THE TCC (LOCK–UP SOLENOID) AND CAUSING LOCK–UP OPERATION.

#### 3. STOP LIGHT SW CIRCUIT

IF THE BRAKE PEDAL IS DEPRESSED (STOP LIGHT SW ON) WHEN DRIVING IN LOCK-UP CONDITION, A SIGNAL IS INPUT TO **TERMINAL B/K** OF THE PCME (ENGINE AND ECT ECU), THE PCME (ENGINE AND ECT ECU) OPERATES AND CONTINUITY TO THE TCC (LOCK-UP SOLENOID) IS CUT.

#### 4. OVERDRIVE CIRCUIT

\* O/D MAIN SW ON

WHEN THE O/D MAIN SW IS TURNED ON (O/D OFF INDICATOR LIGHT TURNS OFF), A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE PCME (ENGINE AND ECT ECU) AND PCME (ENGINE AND ECT ECU) OPERATION CAUSES GEAR SHIFT WHEN THE CONDITIONS FOR OVERDRIVE ARE MET.

\* O/D MAIN SW OFF

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

#### SERVICE HINTS

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	(B) PCME (ENGINE AND ECT ECU)
<b>(A) 4– (B)14</b> :	10–14 VOLTS (BRAKE PEDAL IS DEPRESSED)
	1 VOLTS OR LESS (BRAKE PEDAL IS RELEASED)
(C) 4– (C) 9 🗄	0.3–0.8 VOLTS (IGNITION SW ON AND COOLANT TEMP. 80°C (176°F))
(C)12– (C) 9 :	8–14 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY OPEN)
(C)11– (C) 9 💠	0.8–1.2 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED)
	3.2–4.2 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY OPEN)
(C) 1– (C) 9 💠	4.5–5.5 VOLTS (IGNITION SW ON)
(A)20– (B)14 :	10–14 VOLTS (IGNITION SW ON)
(A) 7– (B)14 :	10–14 VOLTS (IGNITION SW ON AND O/D MAIN SW TURNED ON)
	1 VOLTS OR LESS (IGNITION SW ON AND O/D MAIN SW TURNED OFF)
(A) 9– (B)14 🗄	1 VOLTS OR LESS (IGNITION SW ON, CRUISE CONTROL SW OFF AND STARTING STILL)
	<b>0</b> $\leftrightarrow$ <b>10–14</b> VOLTS REPEAT (IGNITION SW ON, CRUISE CONTROL SW OFF AND VEHICLE MOVING)
(B)16– (B)14 :	1 VOLTS OR LESS (IGNITION SW ON AND STARTING STILL)
	<b>0</b> $\leftrightarrow$ <b>4.5–5.5</b> VOLTS REPEAT (IGNITION SW ON AND VEHICLE MOVING)
(A)22– (B)14 :	6.0–14 VOLTS (IGNITION SW ON AND PNS (NEUTRAL START SW) P OR N POSITION)
	<b>0–2.0</b> VOLTS (IGNITION SW ON AND EX. PNS (NEUTRAL START SW) <b>P</b> OR <b>N</b> POSITION)
(B) 6– (B)14 🗄	10–14 VOLTS (IGNITION SW ON AND PNS (NEUTRAL START SW) 2 POSITION)
	1 VOLTS OR LESS (IGNITION SW ON AND EX. PNS (NEUTRAL START SW) 2 POSITION)
(B)19– (B)14 :	10–14 VOLTS (IGNITION SW ON AND PNS (NEUTRAL START SW) L POSITION)
	1 VOLTS OR LESS (IGNITION SW ON AND EX. PNS (NEUTRAL START SW) L POSITION)
(A)12– (A)13– (B	s)14 :10–14 VOLTS (IGNITION SW ON)
(A) 1– (B)14 💠	10–14 VOLTS (ALL CONDITIONS)

### O : PARTS LOCATION

<b>•</b>									
CODE		SEE PAGE	CC	DE	SEE PAGE	CODE		SEE PAGE	
C 1		24 (5S–FE)	E	3	24 (5S–FE)	N 1		24 (5S–FE)	
<b>C10</b> B		26	E 6	A	24 (5S–FE)	O 4		26 (5S–FE)	
<b>C11</b> A		26	E 7	С	24 (5S–FE)	S 2		24 (5S–FE)	
C	13	26 (5S-FE)	E 8	В	24 (5S–FE)	S 9	Α	26	
C17		26	J	1	26	39	В	26	
E 1		24 (5S-FE)	J	3	26	Т	2	24 (5S–FE)	

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A	- 22	
3D	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
: [	CONNECTOR JO	DINING WIRE HARNESS AND WIRE HARNESS
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	28 (5S–FE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)
EA3	28 (5S–FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)

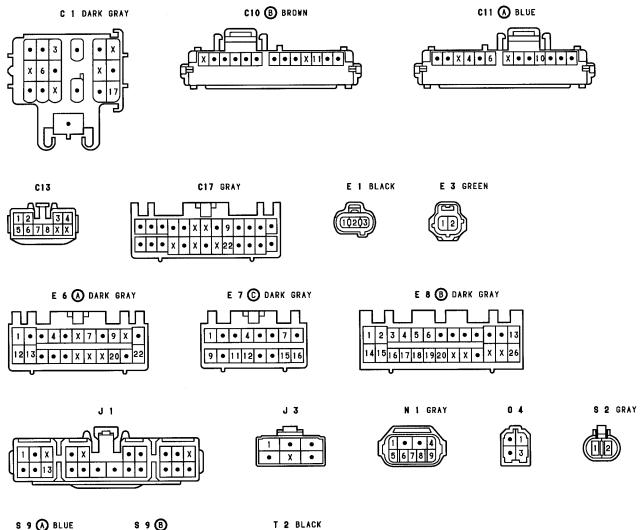
# EA3 28 (5S-FE) ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER) EB1 28 (5S-FE) ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER) IE1 32 ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL) BM2 36 COWL WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT) V : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION			
EA	28 (5S–FE)	INTAKE MANIFOLD			
IC	32	INSTRUMENT PANEL BRACE LH			
ID	32	RIGHT KICK PANEL			
BG	36	UNDER THE LEFT CENTER PILLAR			
BI	36	BACK PANEL CENTER			

### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 1			E16	28 (5S–FE)	ENGINE WIRE
E 3	28 (5S–FE)	ENGINE ROOM MAIN WIRE	13		COWL WIRE
E 5			14	- 34	
E11	28 (5S–FE)	ENGINE WIRE	B26	36	ENGINE ROOM MAIN WIRE

### ECT AND A/T INDICATOR

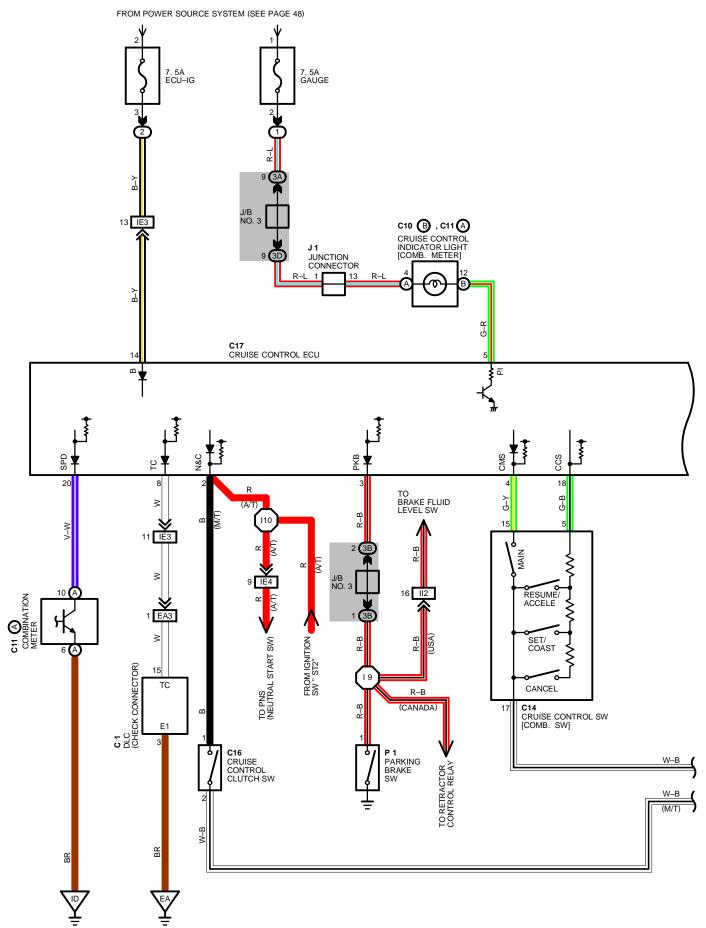


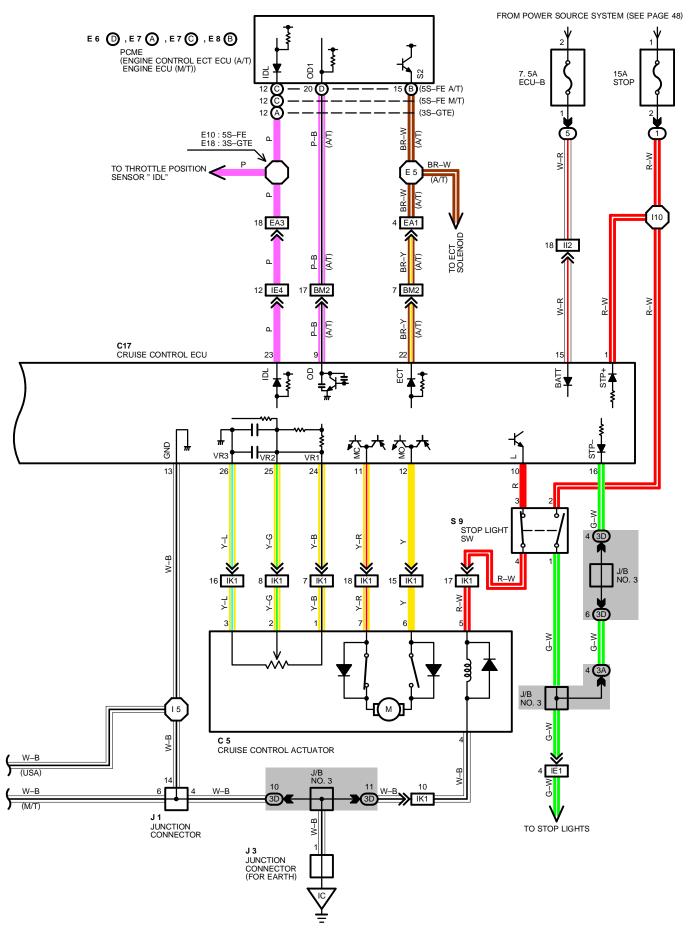






### **CRUISE CONTROL**





### SYSTEM OUTLINE

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

WITH THE IGNITION SWITCH TURNED ON, THE CURRENT FLOWS THROUGH THE GAUGE FUSE TO TERMINAL (A)4 OF THE CRUISE CONTROL INDICATOR LIGHT. THE CURRENT THROUGH ECU–IG FUSE FLOWS TO TERMINAL 14 OF THE CRUISE CONTROL ECU.

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

AT THE SAME TIME, THE CURRENT THROUGH THE **GAUGE** FUSE FLOWS FROM **TERMINAL (A)4** OF THE CRUISE CONTROL INDICATOR LIGHT  $\rightarrow$  **TERMINAL (B)11**  $\rightarrow$  **TERMINAL 5** OF THE CRUISE CONTROL ECU  $\rightarrow$  **TERMINAL 13**  $\rightarrow$  **GROUND**, CAUSING THE CRUISE CONTROL INDICATOR LIGHT TO LIGHT UP, INDICATING THAT CRUISE CONTROL IS READY FOR OPERATION.

### 1. SET OPERATION

WHEN THE CRUISE CONTROL MAIN SWITCH IS TURNED ON AND THE SET SWITCH IS PUSHED, WITH THE VEHICLE SPEED WITHIN THE SET LIMIT (APPROX. 40 KM/H, 25 MPH TO 200 KM/H, 124 MPH), A SIGNAL IS INPUT TO **TERMINAL 4** OF THE CRUISE CONTROL ECU AND THE VEHICLE SPEED AT THE TIME THE SET SWITCH IS RELEASED IS MEMORIZED IN THE ECU AS THE SET SPEED.

### 2. SET SPEED CONTROL

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

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

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

### 3. COAST CONTROL

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

### 4. ACCEL CONTROL

DURING CRUISE CONTROL DRIVING, WHILE THE ACCEL SWITCH IS TURNED ON, THE CRUISE CONTROL ACTUATOR PULLS THE THROTTLE CABLE TO OPEN THE THROTTLE VALVE AND INCREASE THE DRIVING SPEED. THE VEHICLE SPEED WHEN THE ACCEL SWITCH IS TURNED OFF IS MEMORIZED AND THE VEHICLE CONTINUES AT THE NEW SET SPEED.

### 5. RESUME CONTROL

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

### 6. MANUAL CANCEL MECHANISM

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

- \* DEPRESSING THE CLUTCH PEDAL (CRUISE CONTROL CLUTCH SWITCH ON). "THE SIGNAL IS INPUT TO **TERMINAL 2** OF THE ECU" (M/T) SHIFT LEVER AT "N" RANGE (NEUTRAL START SWITCH ON). "SIGNAL INPUT TO **TERMINAL 2** OF THE ECU" (A/T)
- \* DEPRESSING THE BRAKE PEDAL (STOP LIGHT SWITCH ON). "SIGNAL INPUT TO TERMINAL 1 OF ECU"
- \* PULLED UP THE PARKING BRAKE LEVER (PARKING BRAKE SWITCH ON). "SIGNAL INPUT TO TERMINAL 3 OF THE ECU"
- \* PUSH THE CANCEL SWITCH (CANCEL SWITCH ON). "SIGNAL INPUT TO TERMINAL 18.

### 7. AUTO CANCEL FUNCTION

A) IF ANY OF THE FOLLOWING OPERATE CONDITIONS OCCURS DURING CRUISE CONTROL OPERATION, THE SET SPEED IS ERASED, CURRENT FLOW TO THE MAGNETIC CLUTCH IS STOPPED AND THE CRUISE CONTROL IS RELEASED. (MAIN SWITCH TURNS OFF).

WHEN THIS OCCURS, THE IGNITION SWITCH MUST BE TURNED OFF ONCE BEFORE THE MAIN SWITCH WILL TURN ON.

\* OVER CURRENT TO TRANSISTOR DRIVING MOTOR AND/OR MAGNETIC CLUTCH.

 $\ast$  when the current continues to flow to the motor in side the actuator, in the throttle valve "open" direction

- \* OPEN CIRCUIT IN MAGNETIC CLUTCH.
- \* MOMENTARY INTERRUPTION OF VEHICLE SPEED SIGNAL.
- \* THE RESUME SWITCH IS ALREADY ON WHEN THE MAIN SWITCH IS TURNED ON.
- \* SHORT CIRCUIT IN CRUISE CONTROL SWITCH.
- \* MOTOR DOES NOT OPERATE DESPITE THE MOTOR DRIVE SIGNAL BEING OUTPUT.

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

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

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

\* OPEN CIRCUIT FOR TERMINAL 16 OF CRUISE CONTROL ECU.

### SERVICE HINTS -

### C 5 CRUISE CONTROL ACTUATOR 1–3 : APPROX. 2 KK

5-4 : APPROX. 38.5 K

### C14 CRUISE CONTROL SW [COMB. SW]

15–19 : CONTINUITY WITH MAIN SW ON

5–19 : APPROX. **418** K WITH CANCEL SW ON APPROX. **68** K WITH RESUME/ACCEL SW ON APPROX. **198** K WITH SET/COAST SW ON

#### C17 CRUISE CONTROL ECU

14-GROUND: APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION
1-GROUND: ALWAYS APPROX. 12 VOLTS
3-GROUND: CONTINUITY WITH PARKING BRAKE LEVER PULLED UP (ONE OF THE CANCEL SW) OR BRAKE FLUID LEVEL SW ON
20-GROUND: PULSE EACH 40 CM (DRIVER VEHICLE SLOWLY)
18-GROUND: APPROX. 418 K WITH CANCEL SW ON IN CONTROL SW APPROX. 68 K WITH RES/ACC SW ON IN CONTROL SW
13-GROUND: ALWAYS CONTINUITY
2-GROUND: ALWAYS CONTINUITY
2-GROUND: CONTINUITY WITH CLUTCH PEDAL DEPRESSED (M/T) CONTINUITY WITH SHIFT LEVER AT "P" OR "N" RANGE (A/T)
4-GROUND : CONTINUITY WITH CRUISE CONTROL MAIN SW ON

### O : PARTS LOCATION

CODE C 1		SEE PAGE	CC	DE	SEE PAGE	CODE	SEE PAGE
		24 (5S–FE), 25 (3S–GTE)	С	17	26	J 3	26
С	5	24 (5S–FE), 25 (3S–GTE)	E 6	D	24 (5S–FE)	P 1	26
C10	В	26		А	25 (3S–GTE)	S 1	24
C11	А	26	E 7	С	24 (5S–FE)	S 9	26
C14 C16		26	E 8	В	24 (5S–FE)		
		26 (3S–GTE M/T)	J	1	26		

### : RELAY BLOCKS

CODE         SEE PAGE         RELAY BLOCKS (RELAY BLOCK LOCATION)		
1	20	R/B NO. 1 (LEFT KICK PANEL)
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)
		1

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3B	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

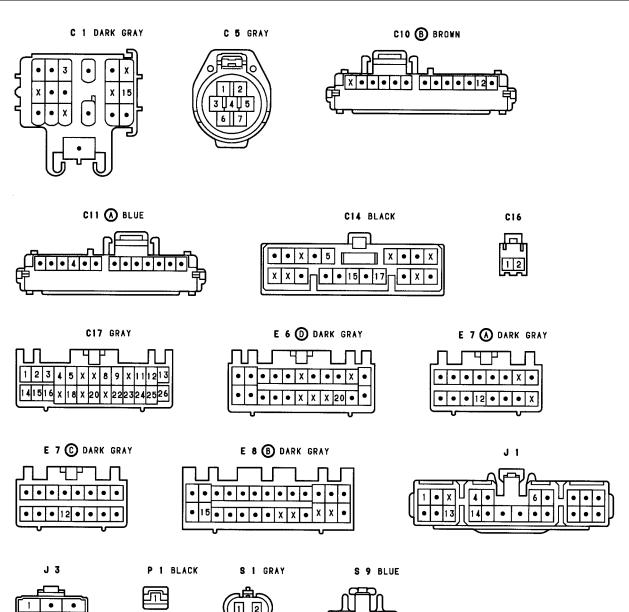
SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
28 (5S–FE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)			
28 (5S–FE)				
30 (3S–GTE)	- ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)			
32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)			
34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)			
34	FLOOR WIRE AND COWL WIRE (RIGHT KICK PANEL)			
36	COWL WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT)			
	28 (5S-FE) 28 (5S-FE) 30 (3S-GTE) 32 34 34			

### 

CODE	SEE PAGE	GROUND POINTS LOCATION
EA	28 (5S–FE)	INTAKE MANIFOLD
EA	30 (3S–GTE)	
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL

### 

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 5	28 (5S–FE)		15		
E10	30 (3S–GTE)	ENGINE WIRE	19	34	COWLWIRE
E18	28 (5S–FE)	-	l10	-	

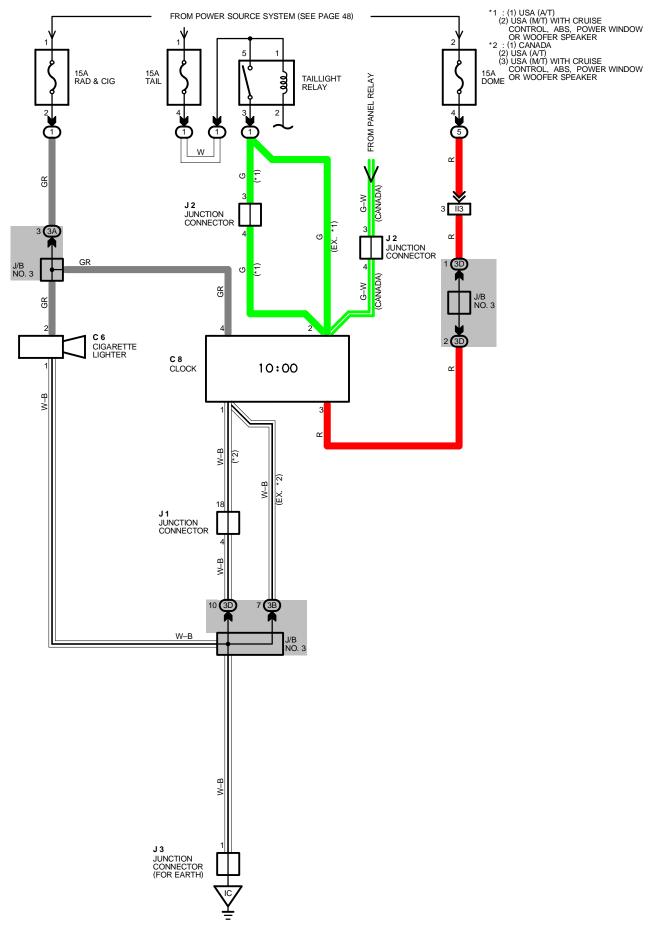








# **CIGARETTE LIGHTER AND CLOCK**



### – SERVICE HINTS

### C 6 CIGARETTE LIGHTER

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

1-GROUND : ALWAYS CONTINUITY

C 8 CLOCK

3-GROUND : ALWAYS APPROX. 12 VOLTS (POWER FOR CLOCK)

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

2-GROUND : APPROX. 12 VOLTS WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION

APPROX. 12 VOLTS WITH ENGINE RUNNING (CANADA)

1-GROUND : ALWAYS CONTINUITY

### • PARTS LOCATION

•					
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 6	26	J 1	26	J 3	26
C 8	26	J 2	26		

### : RELAY BLOCKS

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR					
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)			
1	20	R/B NO. 1 (LEFT KICK PANEL)			
CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)			
. —					

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)				
3A						
3B	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)				
3D						
CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS						
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)				

$\nabla 7$ ·	GROUND POINT	S
113	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)

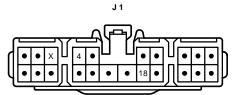
V .							
CODE	SEE PAGE	GROUND POINTS LOCATION					
IC	32	INSTRUMENT PANEL BRACE LH					

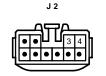




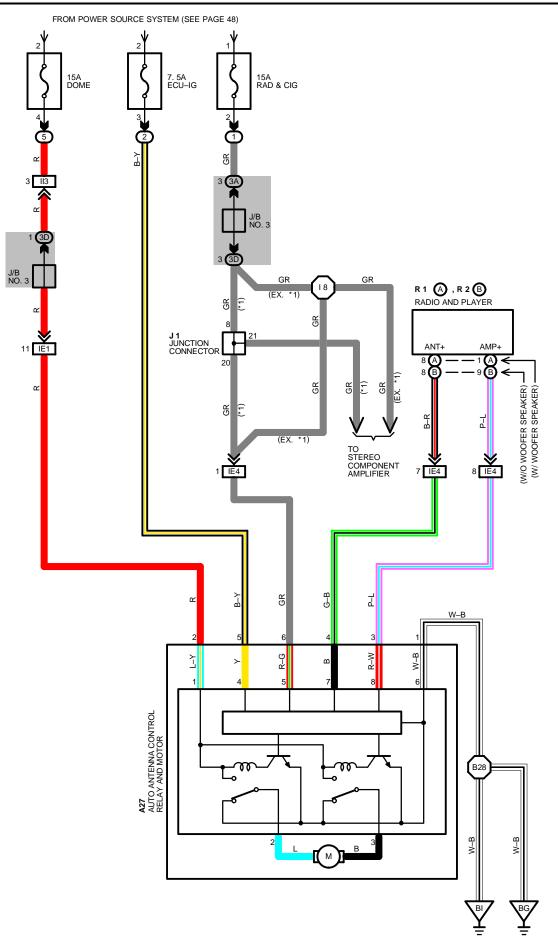












### SERVICE HINTS

### A27(B) AUTO ANTENNA CONTROL RELAY

- 9-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION
- 5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ACC OR ON POSITION
- 7-GROUND : ALWAYS APPROX. 12 VOLTS
- 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ACC OR ON POSITION AND RADIO SW ON
- 3-GROUND : CONTINUITY (UPPER LIMIT SW ON) UNLESS ANTENNA AT UP STOP
- 2-GROUND : CONTINUITY (DOWN LIMIT SW ON) UNLESS ANTENNA AT DOWN STOP

4-3 : CLOSED WITH IGNITION SW AT ACC OR ON POSITION AND RADIO SW ON AND PLAYER SW OFF UNTIL ANTENNA AT **UPPERMOST POSITION** 

1-2 : CLOSED WITH IGNITION SW AT ACC OR ON POSITION AND RADIO SW OFF AND PLAYER SW OFF UNTIL ANTENNA AT LOWERMOST POSITION

1-2 : CLOSED WITH IGNITION SW OFF UNTIL ANTENNA AT LOWERMOST POSITION

### • PARTS LOCATION

	•						
[	CODE	SEE PAGE	CO	DE	SEE PAGE	CODE	SEE PAGE
ľ	A27	27	R 1	A	26		
ĺ	J 1	26	R 2	В	26		

#### : RELAY BLOCKS ( 7

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)				
1	20	R/B NO. 1 (LEFT KICK PANEL)				
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)				
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)				
	C . UNICTION BLOCK AND WIDE HADNESS CONNECTOR					

$\mathbf{O}$	JUNCTION BLOCK AND WIRE HARNESS CONNECTOR							
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)						
3A	22							
3D	22 COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)							
: 🔲	CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS							
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)						
IE1								
IE4	32 ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)							
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)						

### : GROUND POINTS

V		
CODE	SEE PAGE	GROUND POINTS LOCATION
BI	36	BACK PANEL CENTER
BG	36	UNDER THE LEFT CENTER PILLAR

### : SPLICE POINTS

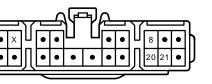
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
18	34	COWL WIRE	B28	36	ENGINE ROOM MAIN WIRE

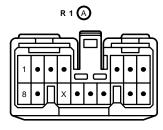


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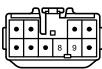






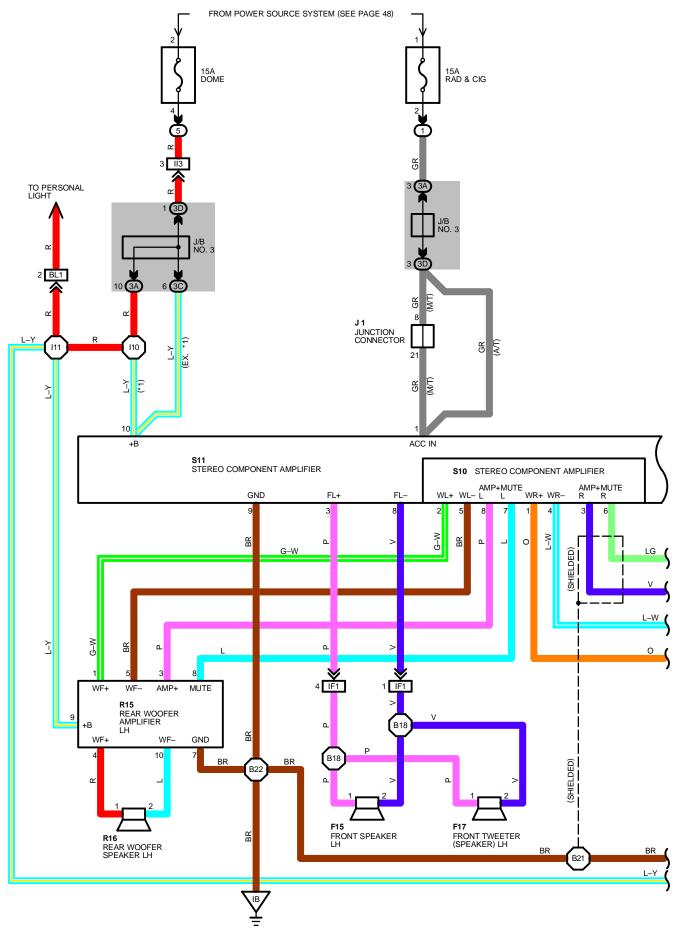


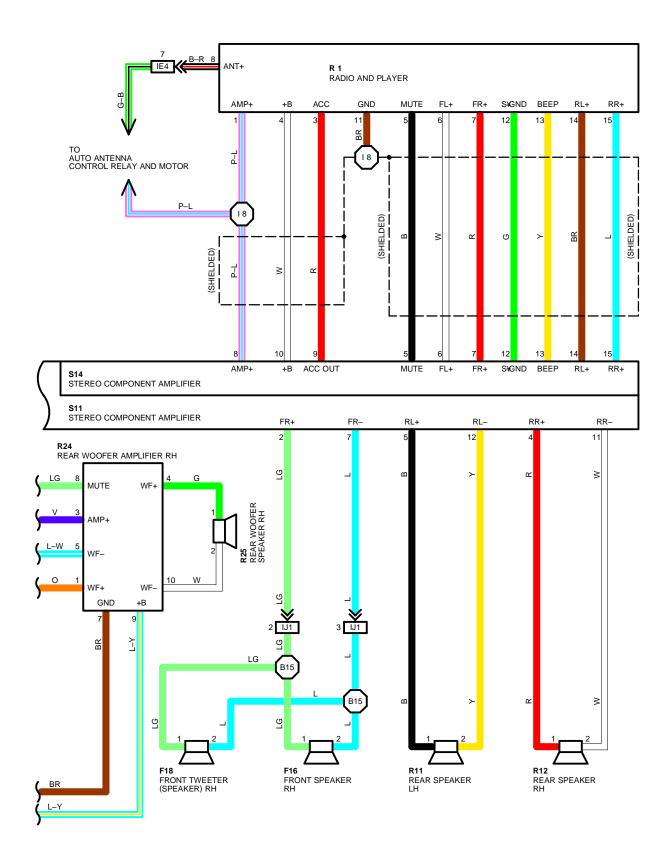




R 2 (B)

# RADIO AND PLAYER (w/ WOOFER SPEAKER)





### SERVICE HINTS

### S11 STEREO COMPONENT AMPLIFIER

10-GROUND : ALWAYS APPROX. 12 VOLTS

9–GROUND : ALWAYS CONTINUITY 1–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** OR **ACC** POSITION

#### : PARTS LOCATION Ο

_			T	r	1
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F15	27	R 1	26	R24	27
F16	27	R11	27	R25	27
F18	27	R12	27	S10	27
F18	27	R15	27	S11	27
J 1	26	R16	27	S14	27

#### : RELAY BLOCKS $\bigcirc$

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D	1	

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
IE4	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)			
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LEFT KICK PANEL)			
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)			
IJ1	34	COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL)			

### : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL

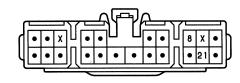
### : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS		SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
18			B18	36	FRONT DOOR RH WIRE
l10	34	COWL WIRE	B21	26	
l11			B22	- 36	
B15	36	FRONT DOOR LH WIRE			

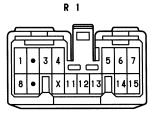
F15, F16 GRAY

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F17, F18



J 1



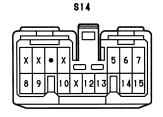
R11, R12, R16, R25



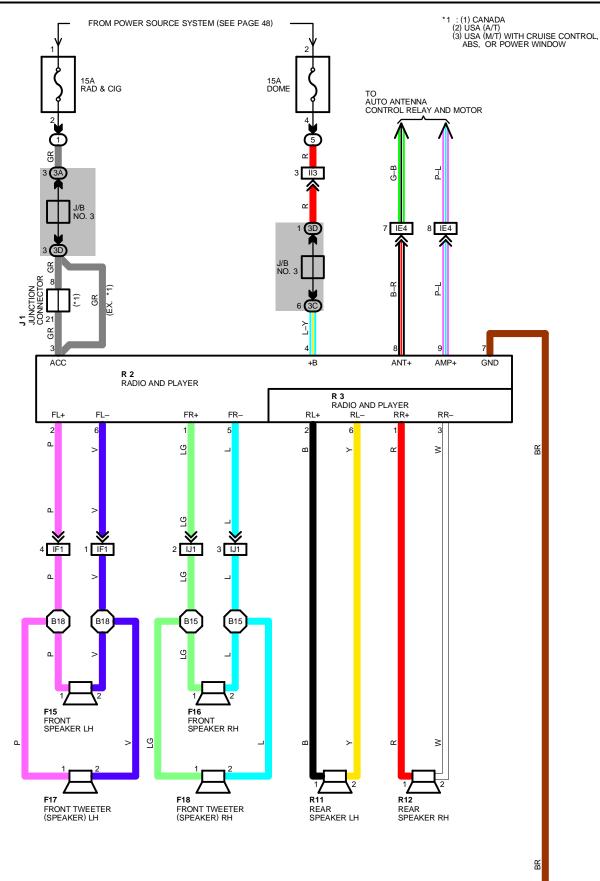








# **RADIO AND PLAYER (w/o WOOFER SPEAKER)**



### - SERVICE HINTS

### **R 2 RADIO AND PLAYER**

4-GROUND : ALWAYS APPROX. 12 VOLTS

: APPROX. **12** VOLTS WITH IGNITION SW AT **ON** OR **ACC** POSITION : ALWAYS CONTINUITY 3–GROUND

7–GROUND

### O : PARTS LOCATION

•					
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F15	27	F18	27	R 3	26
F16	27	J 1	26	R11	27
F17	27	R 2	26	R12	27

#### : RELAY BLOCKS $\bigcirc$

CODE	SEE PAGE	E PAGE RELAY BLOCKS (RELAY BLOCK LOCATION)	
1	20	R/B NO. 1 (LEFT KICK PANEL)	
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT RIGHT)	

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)			
3A					
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)			
3D					
CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS					

CODE	SEE PAGE JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)					
IE4	32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)				
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LEFT KICK PANEL)				
113	34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)				
IJ1	34	COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL)				

### : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL

### : SPLICE POINTS

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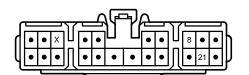
_					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B15	36	FRONT DOOR RH WIRE	B18	36	FRONT DOOR RH WIRE

F15, F16 GRAY

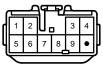
F17, F18







J 1



R 2



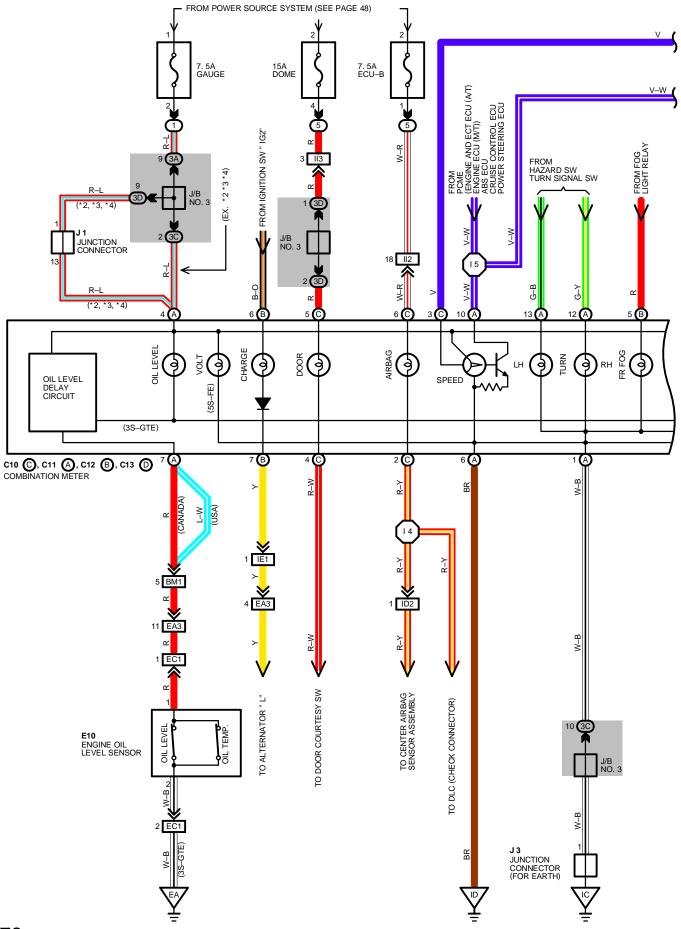
R11, R12

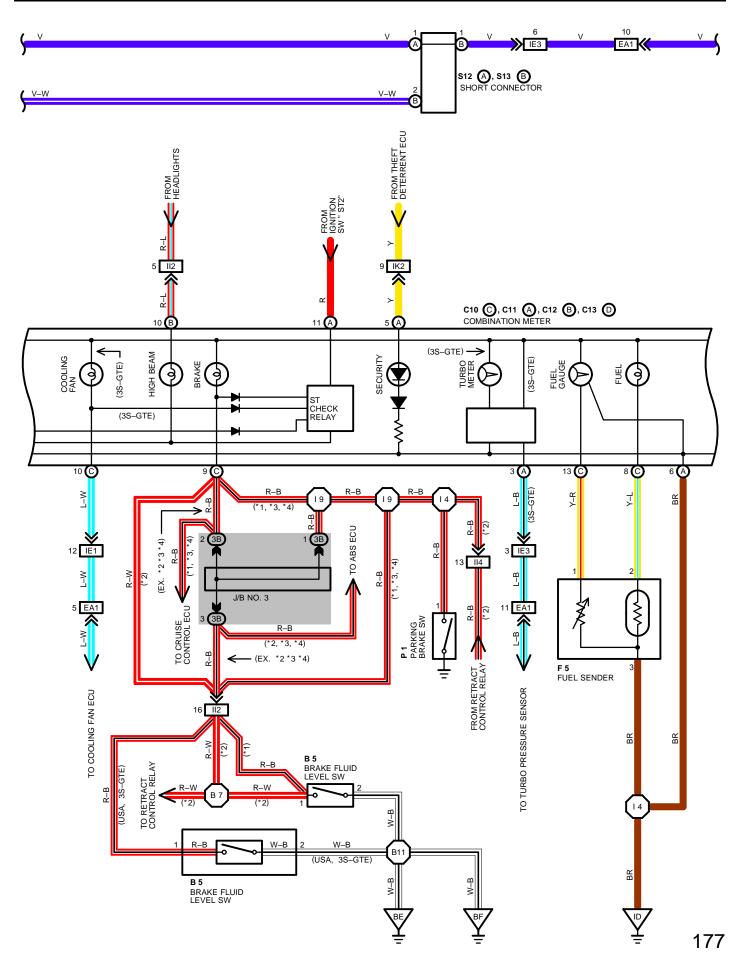




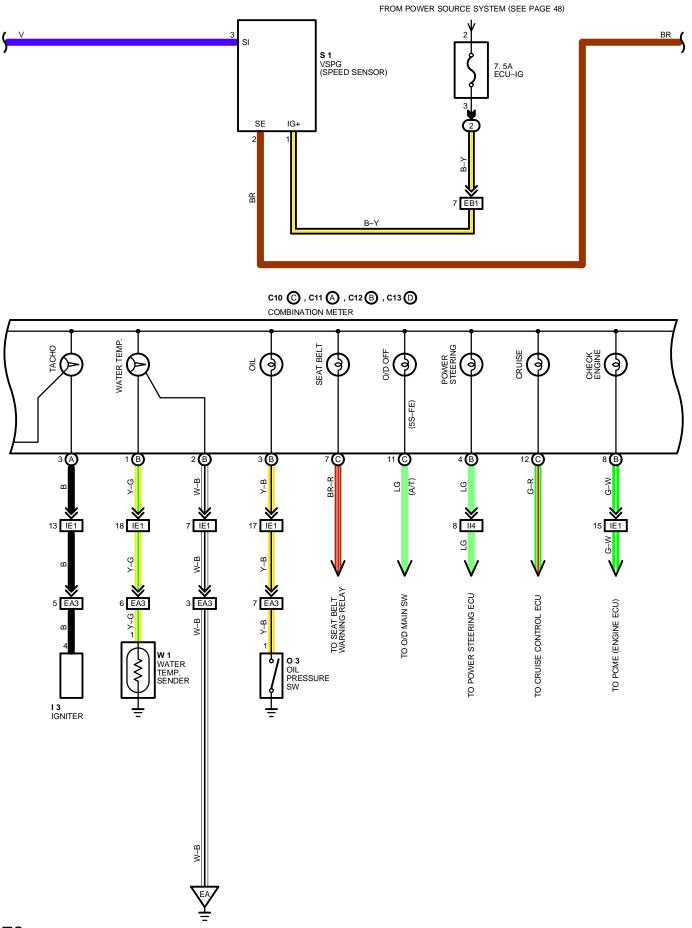


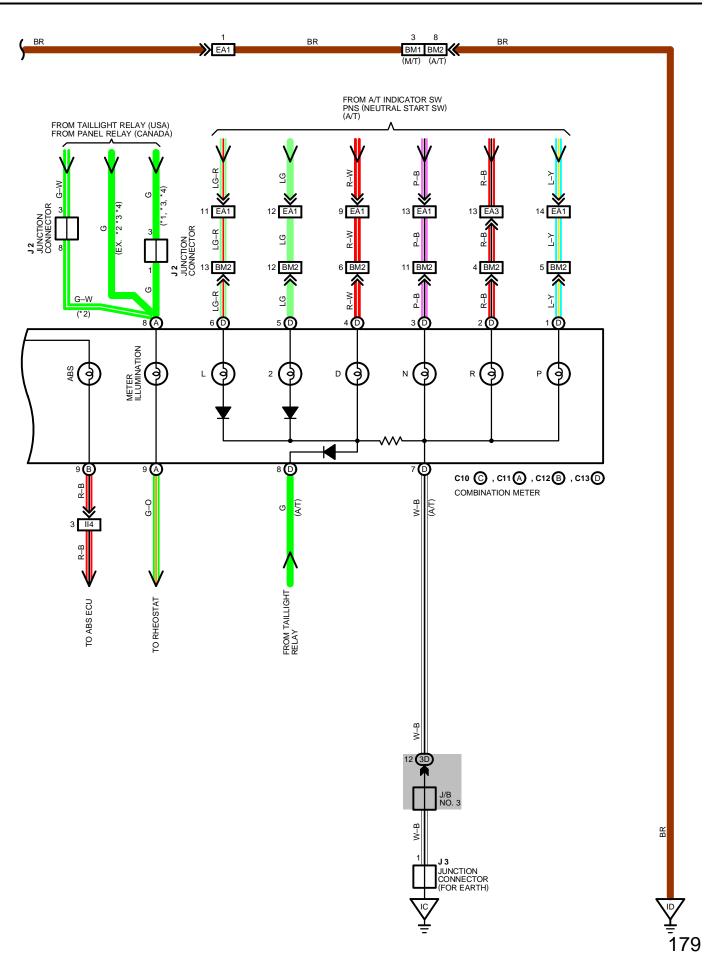
### **COMBINATION METER**





### **COMBINATION METER**





### — SERVICE HINTS

### B 5 BRAKE FLUID LEVEL SW

### 1–2 : CLOSED WITH FLOAT DOWN

- C10(C), C11(A), C12(B) COMBINATION METER (C)6, (C) 5–GROUND : ALWAYS APPROX. 12 VOLTS
- (A) 4–GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT ON POSITION
- (A)1, (B)2, (A) 6–GROUND : ALWAYS CONTINUITY
- C13 (D) COMBINATION METER (5S–FE A/T)

### (D) 1-GROUND : ALWAYS CONTINUITY

### **03 OIL PRESSURE SW**

1–GROUND : CLOSED WITH OIL PRESSURE BELOW 0.2 KG/CM<sup>2</sup> (2.84 PSI, 19.61 KPA)

### P 1 PARKING BRAKE SW

1–GROUND : CLOSED WITH PARKING BRAKE LEVER PULLED UP

### W 1 WATER TEMP. SENDER

- 1–GROUND : APPROX. **198.5** K AT **50**°C (**122**°F)
  - : APPROX. 29.7 K AT 105°C (221°F)

### • PARTS LOCATION

CO	DE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
В	5	27	3	24 (5S–FE)	P 1	26
C10	С	26	13	25 (3S–GTE)	S 1	24 (5S–FE), 25 (3S–GTE)
C11	Α	26	J1	26	<b>S12</b> A	26
C12	В	26	J 2	26	<b>S13</b> B	26
C13	D	26 (5S–FE)	J 3	26	W 1	24 (5S–FE), 25 (3S–GTE)
E1	0	25 (3S–GTE)	03	24 (5S–FE)		
F	5	26	03	25 (3S–GTE)		

### : RELAY BLOCKS

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CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)	
1	20	R/B NO. 1 (LEFT KICK PANEL)	
2	21	R/B NO. 2 (ENGINE COMPARTMENT LEFT)	
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT LEFT)	

### : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A		
3B	- 22	
3C		COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3D		

### : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)			
28 (5S–FE)				
30 (3S–GTE)	ENGINE ROOM MAIN WIRE AND ENGINE WIRE (REAR LUGGAGE COMPARTMENT LEFT)			
28 (5S–FE)				
30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)			
28	ENGINE WIRE AND R/B NO. 2 (R/B NO. 2 INNER)			
30 (3S–GTE)	ENGINE WIRE AND R/D NO. 2 (R/D NO. 2 INNER)			
32	COWL WIRE AND COWL WIRE (BEHIND COMBINATION METER)			
32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)			
34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)			
24				
34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)			
34	FLOOR WIRE AND COWL WIRE (RIGHT KICK PANEL)			
36	COWL WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT)			
- 50				
	28 (5S-FE) 30 (3S-GTE) 28 (5S-FE) 30 (3S-GTE) 28 30 (3S-GTE) 32 32 34 34			

### : GROUND POINTS

v		
CODE	SEE PAGE	GROUND POINTS LOCATION
Γ.	28 (5S–FE)	
EA	30 (3S–GTE)	INTAKE MANIFOLD
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL
BE	36	FRONT RIGHT FENDER
BF	36	FRONT LEFT FENDER

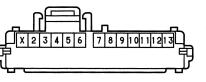
### : SPLICE POINTS

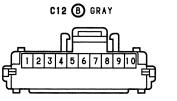
$\sim$					
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
14			B 7		
15	34	COWL WIRE	B11	- 36	LUGGAGE ROOM WIRE
19					

B 5 GRAY

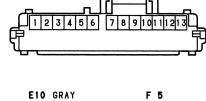
C10 C BROWN









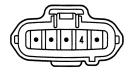


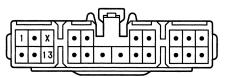
C11 🕢 BLUE

(5S-FE) I 3 BLACK



(3S-GTE) I 3 BLACK





J 1



2 3

J 3				
_				
1	•	•		
•	X	•		

0 3 BLACK



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10203

£







W 1 BLUE ٦٦

### SYSTEM OUTLINE

### 1. COOLING FAN OPERATION

WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FROM AM2 FUSE FLOWS TO **TERMINAL 1** OF FAN MAIN RELAY  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **GROUND**, CAUSING THE FAN MAIN RELAY OF EACH FAN TO TURN ON.

AT THAT TIME, THE CURRENT FROM AM2 FUSE FLOWS TO FAN RELAY NO. 1 AND NO. 2, AND FLOWS FROM **TERMINAL 2** OF FAN RELAY NO. 1 AND NO. 2  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 2** OF A/C HIGH SINGLE PRESSURE SW  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 8** OF A/C AMPLIFIER. AT THE SAME TIME, THE CURRENT FROM GAUGE FUSE FLOWS TO **TERMINAL 7** OF A/C AMPLIFIER  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **GROUND**, CAUSING THE FAN RELAY NO. 3 TO TURN ON.

#### \* OPERATION AT LOW SPEED

WHEN THE IGNITION SW IS TURNED ON, THE FAN MAIN RELAY AND FAN RELAY NO. 1, NO. 2 AND NO. 3 TURN ON, THE CURRENT FLOWS FROM **ALT** FUSE FLOWS TO **TERMINAL 5** OF FAN MAIN RELAY  $\rightarrow$  **TERMINAL 4**  $\rightarrow$  **CDS FAN** FUSE  $\rightarrow$  **TERMINAL 2** OF A/C CONDENSER FAN MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 3** OF FAN RELAY NO. 2  $\rightarrow$  **TERMINAL 5**  $\rightarrow$  **TERMINAL 5** OF FAN RELAY NO. 3  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL 2** OF RADIATOR FAN MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **GROUND**, FLOWING TO EACH FAN MOTOR IN SERIES, CAUSING THE FAN TO ROTATE AT LOW SPEED.

#### \* OPERATION AT HIGH SPEED

DURING A/C OPERATION, WHEN THE PRESSURE OF A/C COMPRESSOR BECOMES HIGHER THAN NORMAL PRESSURE (MORE THAN 1402 KPA 14.3 KG/CM<sup>2</sup> 203 PSI), THE A/C SINGLE PRESSURE SW TURNS OFF.

AS A RESULT, FAN RELAY NO. 1 AND NO. 2 TURNS OFF AND THE CURRENT FLOWS FROM **ALT** FUSE TO **TERMINAL 5** OF FAN MAIN RELAY  $\rightarrow$  **TERMINAL 4**  $\rightarrow$  **CDS FAN** FUSE  $\rightarrow$  **TERMINAL 2** OF A/C CONDENSER FAN MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL 3** OF FAN RELAY NO. 2  $\rightarrow$  **TERMINAL 4**  $\rightarrow$  **GROUND**, AT THE SAME TIME FROM **TERMINAL 4** OF FAN MAIN RELAY TO **RDI FAN** FUSE  $\rightarrow$ **TERMINAL 4** OF FAN RELAY NO. 1  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL 2** OF RADIATOR FAN MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **GROUND**, FLOWING TO EACH FAN MOTOR IN PARALLEL CAUSING THE FAN TO ROTATE AT HIGH SPEED.

NOTE THAT, EVEN IF THE ENGINE COOLANT TEMPERATURE RISES ABOVE **90**°C (**194**°F), THE WATER TEMP. SW (FOR RADIATOR FAN) TURNS OFF A SIGNAL IS SENT TO **TERMINAL 9** OF A/C AMPLIFIER. BECAUSE CURRENT FLOW FROM **TERMINAL 8** OF A/C AMPLIFIER TO **TERMINAL 6** IS SHUT OFF, THE CIRCUIT BETWEEN THE A/C SINGLE PRESSURE SW AND GROUND IS DEACTIVATED, SO THE SAME OPERATION CONTINUES.

### 2. HEATER BLOWER MOTOR OPERATION

CURRENT IS APPLIED AT ALL TIMES THROUGH THE HTR FUSE TO TERMINAL 5 OF HEATER RELAY.

WHEN THE IGNITION SW IS TURNED TO ON, CURRENT FLOWS THROUGH GAUGE FUSE TO **TERMINAL 1** OF HEATER RELAY  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL 10** OF AIR VENT MODE CONTROL SERVO MOTOR  $\rightarrow$  **TERMINAL 11**  $\rightarrow$  **TERMINAL (A) 4** AND **(A) 5** OF A/C CONTROL ASSEMBLY.

#### \* LOW SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO **LOW** POSITION, THE CURRENT FLOWS TO **TERMINAL (A) 4** AND **(A) 5** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (A) 6** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **GROUND** AND TURNES THE HEATER RELAY ON.

THIS CAUSES THE CURRENT FLOWING FROM THE **HTR** FUSE TO **TERMINAL 5** OF THE HEATER RELAY TO FLOW TO **TERMINAL 4** OF HEATER RELAY  $\rightarrow$  **TERMINAL 1** OF BLOWER MOTOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL 1** OF BLOWER RESISTOR  $\rightarrow$  **TERMINAL 4**  $\rightarrow$  **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT LOW SPEED.

#### \* HIGH SPEED OPERATION

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO HI POSITION, THE CURRENT FLOWS TO **TERMINAL (A) 4** AND **(A)** 5 OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (A) 6** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **GROUND** AND TURNS THE HEATER RELAY ON.

THIS CAUSES THE CURRENT FLOWING FROM THE **HTR** FUSE TO **TERMINAL 5** OF THE HEATER RELAY TO FLOW TO **TERMINAL 4** OF HEATER RELAY  $\rightarrow$  **TERMINAL 1** OF BLOWER MOTOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL (A) 3** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (A) 6**  $\rightarrow$  **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT HIGH SPEED.

### \* MIDIUM SPEED OPERATION (OPERATION AT M1, M2)

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO M1 POSITION, THE CURRENT FLOWS TO **TERMINAL (A) 4** AND (A) 5 OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (A) 6** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **GROUND** AND TURNS THE HEATER RELAY ON.

THIS CAUSES THE CURRENT FLOWING FROM THE **HTR** FUSE TO **TERMINAL 5** OF THE HEATER RELAY TO FLOW TO **TERMINAL 4** OF HEATER RELAY  $\rightarrow$  **TERMINAL 1** OF BLOWER MOTOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL 1** OF BLOWER RESISTOR  $\rightarrow$  **TERMINAL 2**  $\rightarrow$  **TERMINAL (A) 1** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (A) 6**  $\rightarrow$  **GROUND**, CAUSING THE BLOWER MOTOR TO ROTATE AT MEDIUM LOW SPEED.

WHEN THE BLOWER SW (A/C CONTROL ASSEMBLY) IS MOVED TO M2 POSITION, CURRENT FLOWS FROM **TERMINAL 5** OF HEATER RELAY  $\rightarrow$  **TERMINAL 1** OF BLOWER RESISTOR  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL (A) 2** OF BLOWER SW (A/C CONTROL ASSEMBLY)  $\rightarrow$  **TERMINAL (A) 6**  $\rightarrow$  **GROUND.** 

THIS CURRENT FLOW FROM BLOWER MOTOR TO **GROUND** IS GREATER THAN AT **M1** POSITION, SO THE BLOWER MOTOR ROTATES AT MEDIUM HIGH SPEED.

### 3. OPERATION OF AIR INLET SERVO MOTOR

\* SWITCHING FROM FRESH TO RECIRC

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS FROM GAUGE FUSE TO TERMINAL 1 OF AIR INLET SERVO MOTOR.

WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE RECIRC SIDE, THE CURRENT FLOWS FROM **TERMINAL 4** OF AIR INLET SERVO MOTOR  $\rightarrow$  **TERMINAL 3**  $\rightarrow$  **TERMINAL (C) 1** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (C) 15**  $\rightarrow$  **GROUND**, THE MOTOR ROTATES AND THE DAMPER MOVES TO THE RECIRC SIDE.

WHEN IT IS IN THE **RECIRC** POSITION, THE CURRENT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS AT THAT POSITION.

\* SWITCHING FROM RECIRC TO FRESH

WITH IGNITION SW ON, WHEN THE RECIRC/FRESH SW IS SWITCHED TO THE FRESH SIDE, THE CURRENT FLOWS FROM **TERMINAL** 4 OF AIR INLET SERVO MOTOR  $\rightarrow$  **TERMINAL 1**  $\rightarrow$  **TERMINAL (C) 9** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (C) 15**  $\rightarrow$  **GROUND**, THE MOTOR ROTATES AND THE DAMPER MOVES TO THE FRESH SIDE.

WHEN IT IS IN THE **FRESH** POSITION, THE CURRENT IS CUT INSIDE THE SERVO MOTOR AND THE DAMPER STOPS AT THAT POSITION.

### 4. OPERATION OF AIR VENT MODE CONTROL SERVO MOTOR

WITH IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **GAUGE** FUSE TO **TERMINAL 6** OF AIR VENT MODE CONTROL SERVO MOTOR  $\rightarrow$  **TERMINAL 7**  $\rightarrow$  **GROUND**, AND THE DAMPER MOVES TO THE POSITION OF THE MODE SELECTION SW OF THE CONTROL ASSEMBLY SW.

WHEN THE MODE SELECTION SW OF A/C CONTROL ASSEMBLY IS MOVED TO **DEF** POSITION WITH THE DAMPER IN THE **FACE** POSITION, THE CURRENT FLOWS FROM **TERMINAL 5** OF AIR VENT MODE CONTROL SERVO MOTOR TO **TERMINAL (C) 14** OF A/C CONTROL ASSEMBLY  $\rightarrow$  **TERMINAL (C) 15**  $\rightarrow$  **GROUND**.

AS A RESULT, THE SERVO MOTOR OPERATES UNIT THE DAMPER REACHES **DEF** POSITION.

FOOT/DEF POSITION: THE CURRENT FLOWS FROM TERMINAL 4 OF SERVO MOTOR TO TERMINAL (C) 5 OF A/C CONTROL ASSEMBLY.

FOOT POSITION: THE CURRENT FLOWS FROM TERMINAL 3 OF SERVO MOTOR TO TERMINAL (C) 4 OF A/C CONTROL ASSEMBLY. BI-LEVEL POSITION: THE CURRENT FLOWS FROM TERMINAL 2 OF SERVO MOTOR TO TERMINAL (C) 13 OF CONTROL ASSEMBLY.

### 5. AIR CONDITIONER OPERATION

THE A/C AMPLIFIER RECEIVES VARIOUS SIGNALS, THE ENGINE SPEED SIGNAL FROM THE IGNITER, OUTLET TEMPERATURE SIGNAL FROM THE A/C THERMISTOR AND CURRENT TEMPARATURE FROM THE WATER TEMP. SW, ETC.

WHEN THE ENGINE IS STARTED AND THE A/C SW (A/C CONTROL ASSEMBLY) IS TURNED ON, THE CURRENT FLOWS FROM A/C FUSE TO TERMINAL (B) 5 OF A/C CONTROL ASSEMBLY  $\rightarrow$  TERMINAL (B) 6  $\rightarrow$  TERMINAL 11 OF A/C AMPLIFIER.

AT THIS TIME, THE A/C AMPLIFIER IS ACTIVATED AND CURRENT APPLIED FROM A/C FUSE TO **TERMINAL 1** OF A/C MAGNETIC CLUTCH RELAY FLOWS FROM **TERMINAL 3** OF A/C MAGNETIC CLUTCH RELAY  $\rightarrow$  **TERMINAL 15** OF A/C AMPLIFIER  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**. THIS CAUSES THE A/C MAGNETIC CLUTCH RELAY TO TURN ON, SO CURRENT APPLIED TO **TERMINAL 2** OF A/C MAGNETIC CLUTCH RELAY FLOWS FROM **TERMINAL 4** OF A/C MAGNETIC CLUTCH RELAY  $\rightarrow$  **TERMINAL 1** OF A/C MAGNETIC CLUTCH  $\rightarrow$  **GROUND**, CAUSING THE A/C COMPRESSOR TO OPERATE.

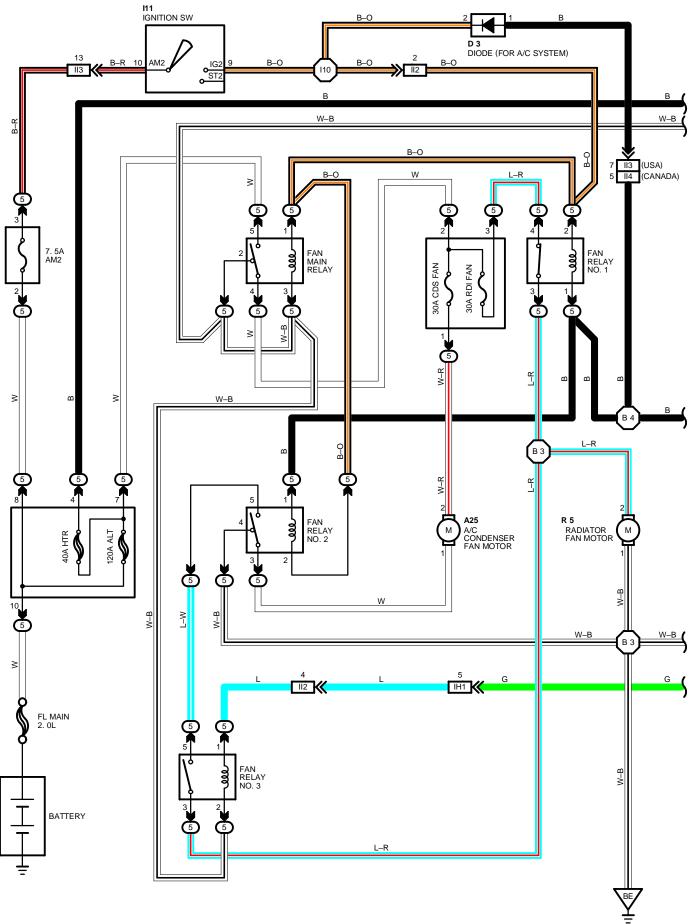
WITH THE ACTIVATION OF A/C AMPLIFIER, CURRENT APPLIED FROM A/C FUSE TO **TERMINAL 2** OF VSV (FOR A/C IDLE–UP) FLOWS FROM **TERMINAL 1** OF VSV (FOR A/C IDLE–UP)  $\rightarrow$  **TERMINAL 14** OF A/C AMPLIFIER  $\rightarrow$  **TERMINAL 6**  $\rightarrow$  **GROUND**, AND TURNS ON THE VSV TO AVOID LOWERING THE ENGINE SPEED DURING AIR CONDITIONER OPERATION.

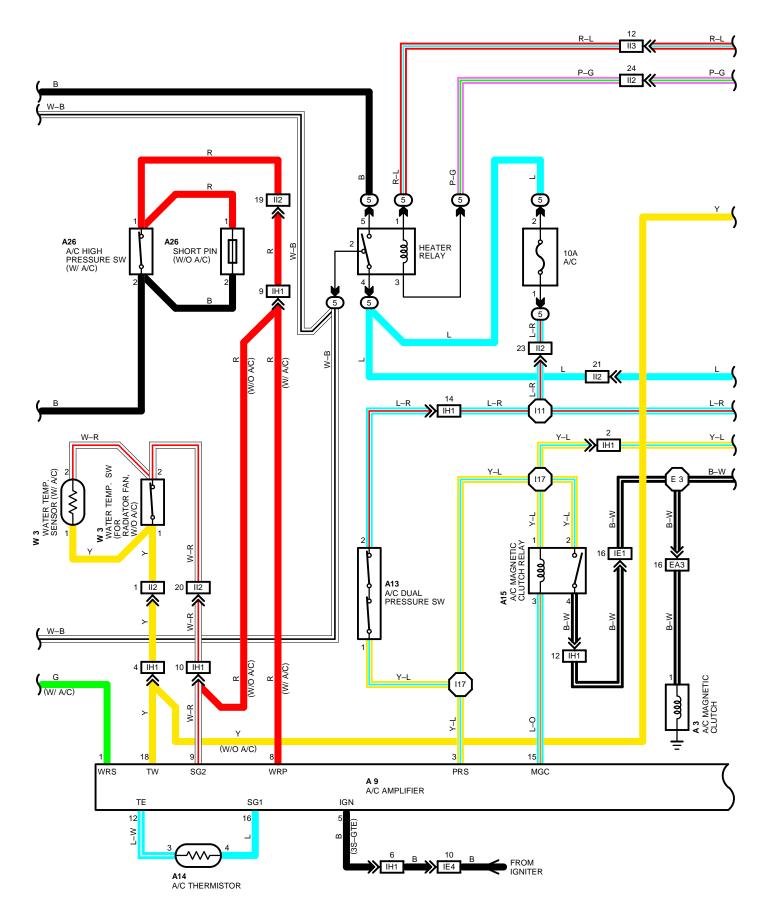
WHEN ANY OF THE FOLLOWING SIGNALS ARE INPUT TO THE A/C AMPLIFIER, THE AMPLIFIER OPERATES TO TURN OFF THE AIR CONDITIONER.

\* THE ENGINE SPEED DECREASES. (3S-GTE)

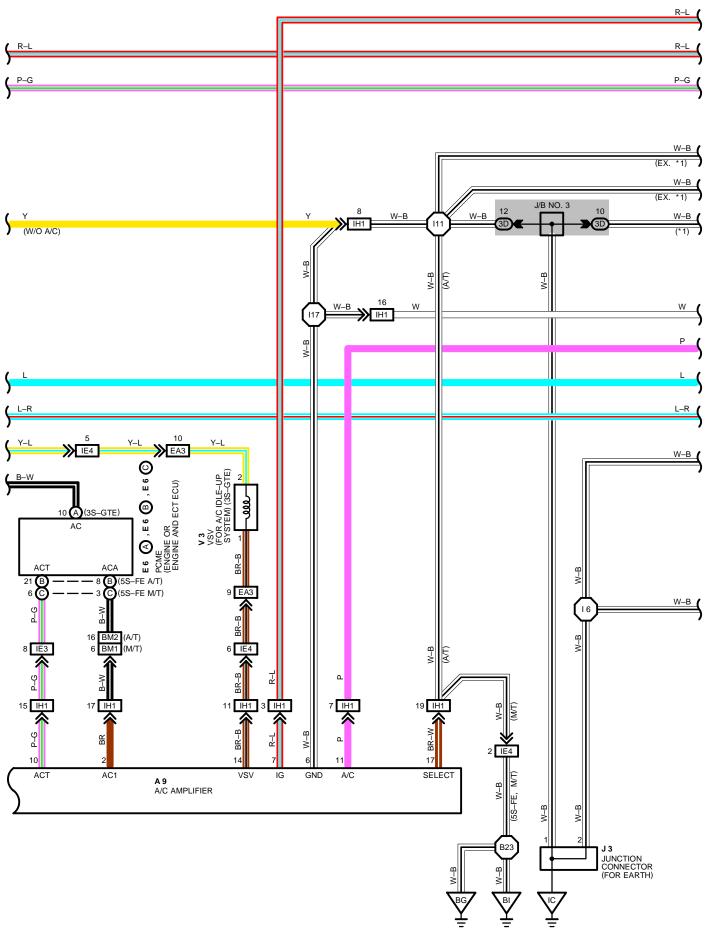
- \* COOLANT TEMP. SIGNAL IS HIGH.
- \* A SIGNAL THAT THE TEMPERATURE AT THE AIR OUTLET IS LOW.
- \* A SIGNAL THAT THE REFRIGERANT PRESSURE IS ABNORMALLY HIGH OR LOW.

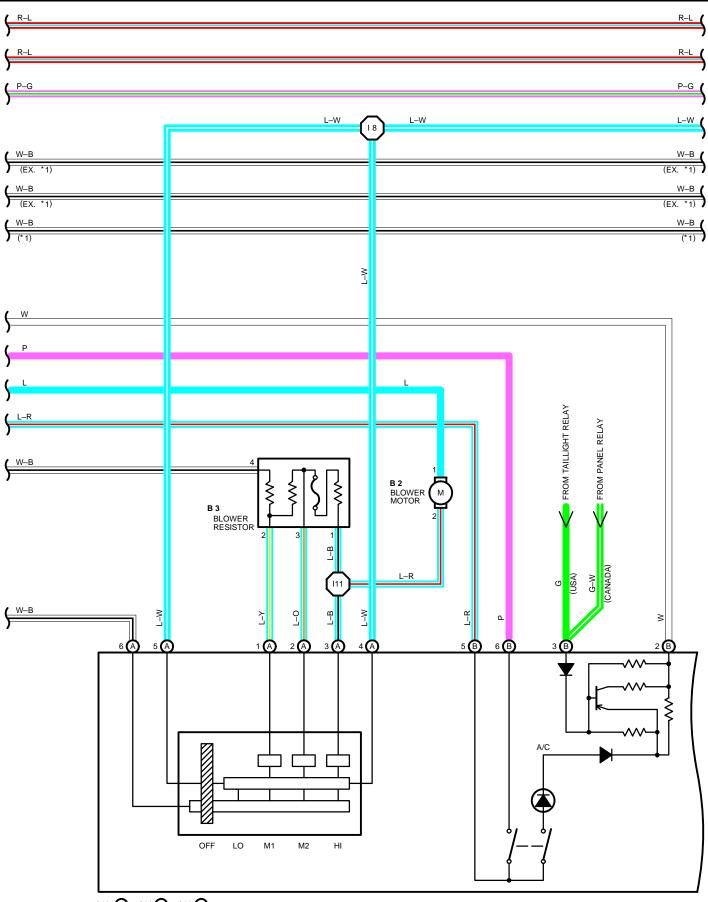
# **RADIATOR FAN AND AIR CONDITIONER**





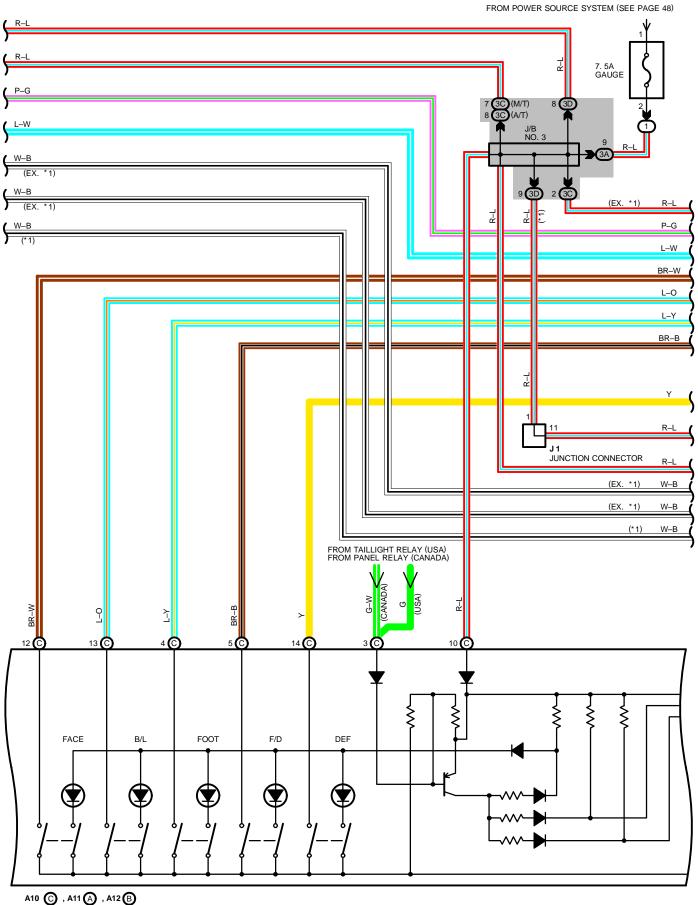
### **RADIATOR FAN AND AIR CONDITIONER**



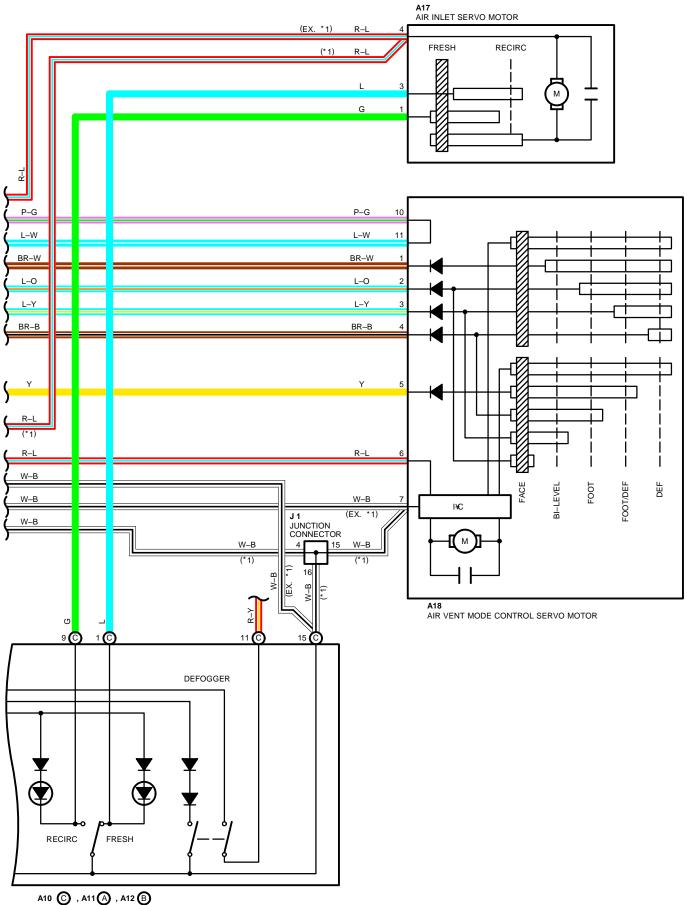


A10 (C), A11 (A), A12 (B) A/C CONTROL ASSEMBLY

### **RADIATOR FAN AND AIR CONDITIONER**



A/C CONTROL ASSEMBLY



A/C CONTROL ASSEMBLY

### - SERVICE HINTS

### A14 A/C THERMISTOR

3-4 : APPROX. 4852 K AT 0°C (32°F) APPROX. 2341 K AT 15°C (59°F) APPROX. 1500 K AT 25°C (77°F)

#### A13 A/C DUAL PRESSURE SW

1-2 : OPEN WITH PRESSURE LESS THAN 206 KPA (30 PSI, 2.1 KG/CM<sup>2</sup>) OR ABOVE 2648 KPA (384 PSI, 27 KG/CM<sup>2</sup>)

#### W 3 WATER TEMP. SW (FOR RADIATOR FAN)

1–2 : OPEN ABOVE APPROX. 90°C (194°F)

CLOSED BELOW APPROX. 83°C (184.4°F)

### **B 3 BLOWER RESISTOR**

1–3 : APPROX. 0.45 K

- 3–2 : APPROX. 0.78 K
- 2–4 : APPROX. 0.91 K

#### A 9 A/C AMPLIFIER

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

6-GROUND : ALWAYS CONTINUITY

18–9 : CONTINUITY WITH WATER TEMP. SW CLOSED [BELOW APPROX. 83°C (181.4°F)]

5-GROUND : APPROX. 12 VOLTS WITH ENGINE RUNNING

11-GROUND: APPROX. 12 VOLTS WITH IGNITION SW ON AND A/C SW (A/C CONTROL ASSEMBLY) ON

### A17 AIR INLET SERVO MOTOR

4-3 : CLOSED WITH AIR INLET DAMPER AT RECIRC POSITION

4-1 : CLOSED WITH AIR INLET DAMPER AT FRESH POSITION

### O : PARTS LOCATION

CODE		SEE PAGE	CODE SEE PAGE		CODE		SEE PAGE	
A 3		24 (5S–FE), 25 (3S–GTE)	A17	26	B B		24 (5S–FE)	
Α	9	26	A18	26	E 6		24 (5S–FE)	
A10	С	26	A25	27	11	1	26	
A11	А	26	A26	27	J	1	26	
A12	В	26	B 2	26	J	3	26	
A	13	26	B 3	26	R	5	27	
A14		26	D 3	26	v	3	24 (5S-FE), 25 (3S-GTE)	
A15		26	E6 A	25 (3S–GTE)	W	3	27	

### : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)				
1	20	R/B NO. 1 (LEFT KICK PANEL)				
5	21	R/B NO. 5 (FRONT LUGGAGE COMPARTMENT LEFT)				
	: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR					

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)			
3A					
3C	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)			
3D					
CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS					

	CONNECTOR SOUNDS WIRE HARNESS AND WIRE HARNESS					
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)				
EA3	28 (5S–FE)					
EAJ	30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)				
IE1	22					
IE4	- 32	ENGINE ROOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)				
IH1	32	COWL WIRE AND A/C SUB WIRE (INSTRUMENT PANEL RIGHT)				
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)				
113	- 34					
114	- 34	COWL WIRE AND LUGGAGE ROOM WIRE (RIGHT KICK PANEL)				
BM1	- 36	ENGINE ROOM MAIN WIRE AND COWL WIRE (ROOM PARTITION BOARD LEFT)				
BM2	- 50					

### : GROUND POINTS

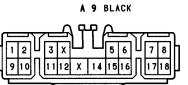
•		
CODE	SEE PAGE	GROUND POINTS LOCATION
IC	32	INSTRUMENT PANEL BRACE LH
BE	36	FRONT RIGHT FENDER
BG	36	UNDER THE LEFT CENTER PILLAR
BI	36	BACK PANEL CENTER

#### : SPLICE POINTS SEE PAGE CODE WIRE HARNESS WITH SPLICE POINTS CODE SEE PAGE WIRE HARNESS WITH SPLICE POINTS 28 (5S-FE) 111 34 COWL WIRE Ε3 ENGINE ROOM MAIN WIRE A/C SUB WIRE 30 (3S-GTE) 117 34 16 В3 36 LUGGAGE ROOM WIRE COWL WIRE 34 Β4 ENGINE ROOM MAIN WIRE l10 B23 36



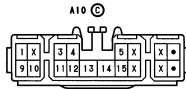


18



A14

•• 34





E 6 \Lambda DARK GRAY







A26

A13 BLUE



B 2 BLACK

J 3

2 . Χ •



8 3 BLACK

2

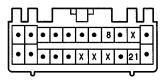


Х . . x X | x | x

A25 GRAY Л 2 1

E 6 B DARK GRAY

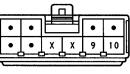
J 1



5 16



I11 BLACK

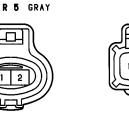


2

D 3 BLACK

2



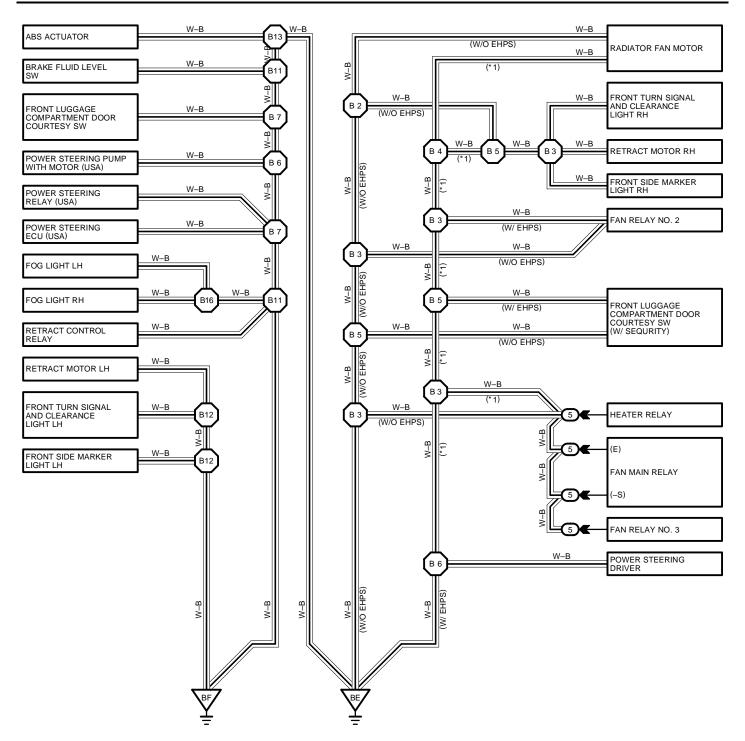


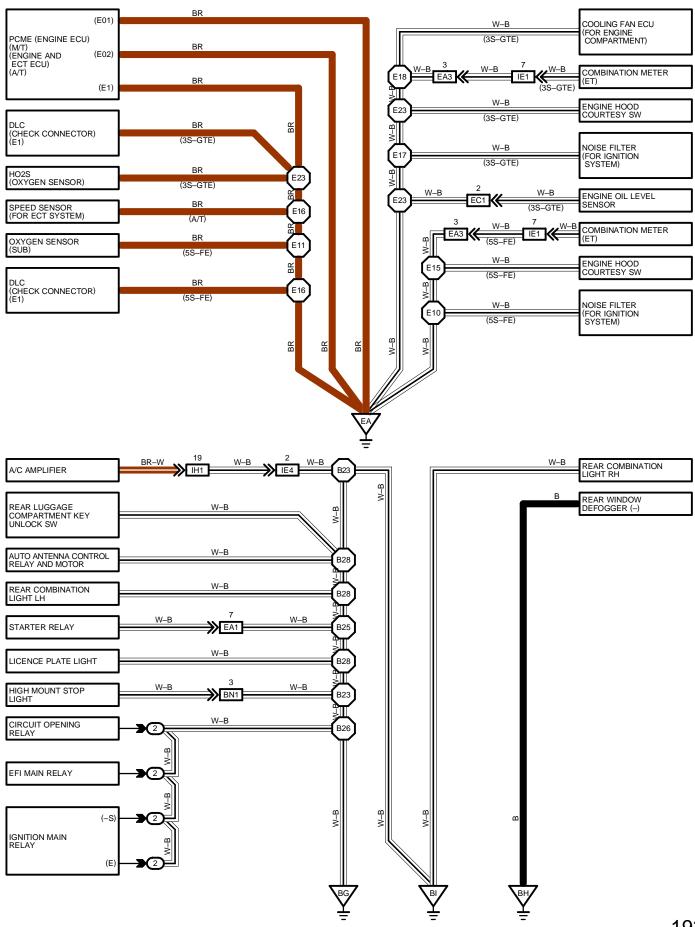




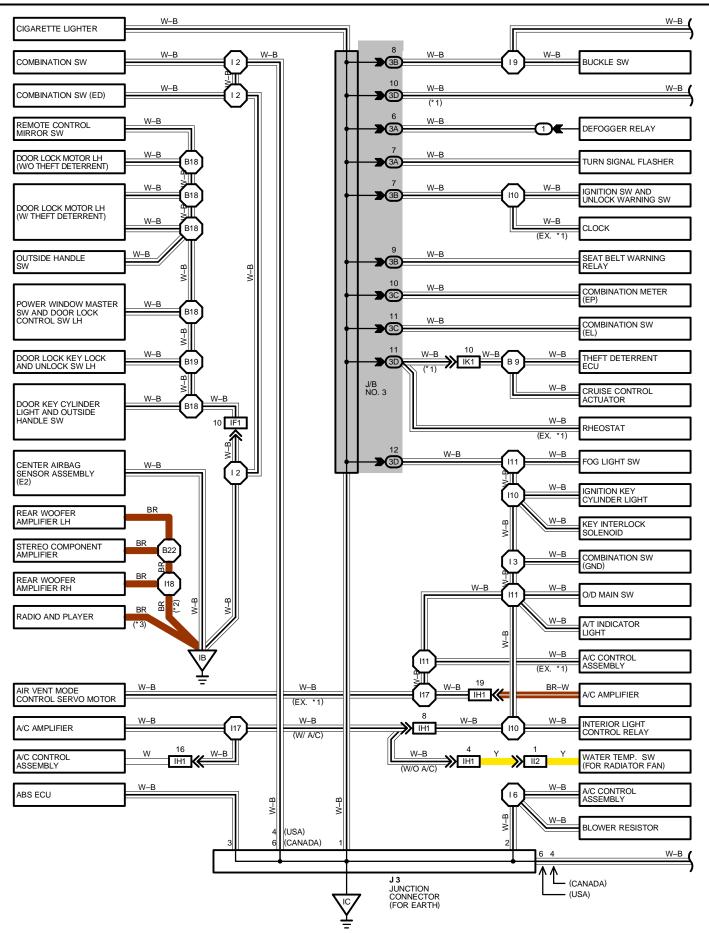
191

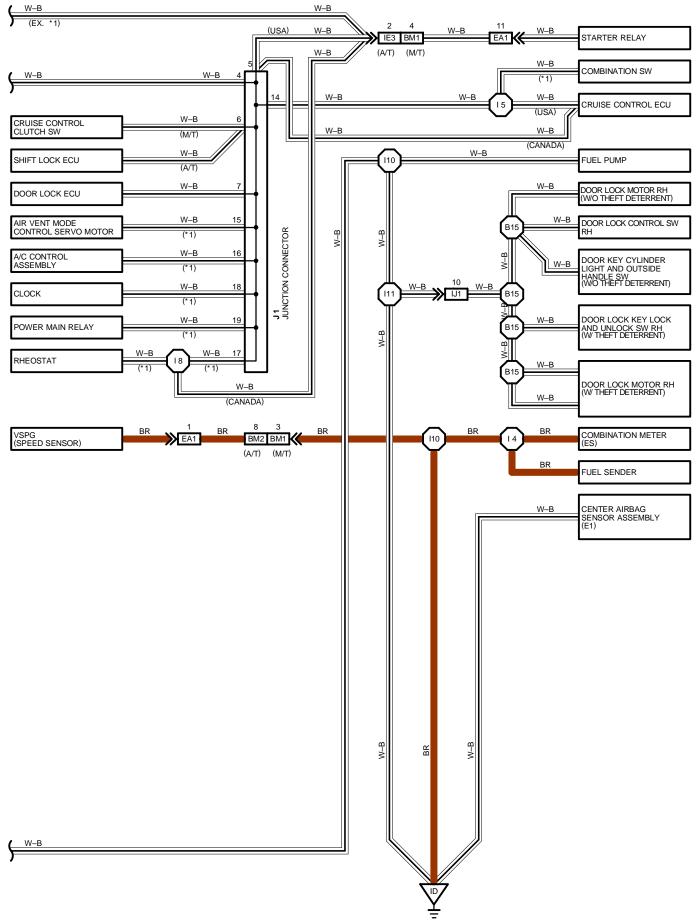
### **GROUND POINT**





### **GROUND POINT**





### **GROUND POINT**

### \_

0	PARTS LOCAT							
CODE	SE	EE PAGE	CODE	SEE PAGE	CODE	SEE PAGE		
J 1 26			J 3	26				
	RELAY BLOCK	S						
CODE	SEE PAGE	RELAY BLOCKS	RELAY BLOCK L	OCATION)				
1	20	R/B NO. 1 (LEFT	KICK PANEL)					
2	21	R/B NO. 2 (ENGIN	NE COMPARTMEI	NT LEFT)				
5	21	R/B NO. 5 (FRON	T LUGGAGE CO	MPARTMENT RIGHT)				
	SEE PAGE			DNNECTOR RNESS (CONNECTOR LOCATION)				
CODE	SEE PAGE	JUNCTION BLOC	K AND WIRE HAI	RNESS (CONNECTOR LOCATION)				
3A	_							
3B	_ 22	COWL WIRE AND	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)					
3C 3D	_							
30								
	CONNECTOR J	IOINING WIRE H	ARNESS ANI	O WIRE HARNESS				
CODE	SEE PAGE	JOINING WIRE H	ARNESS AND WI	RE HARNESS (CONNECTOR LOCA	TION)			
EA1	28 (5S–FE) 30 (3S–GTE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (REAR LUGGAGE COMPARTMENT LEFT)						
EA3	28 (5S–FE) 30 (3S–GTE)		ENGINE WIRE AND ENGINE ROOM MAIN WIRE (R/B NO. 2 INNER)					
EC1	28 (3S–GTE)	ENGINE NO. 4 W	IRE AND ENGINE	WIRE (NEAR THE INTAKE MANIFO	DLD)			
IE1								
IE3	- 32	ENGINE ROOM N	DOM MAIN WIRE AND COWL WIRE (LEFT KICK PANEL)					
IF1	32	COWL WIRE AND	FRONT DOOR L	H WIRE (LEFT KICK PANEL)				
IH1	32	COWL WIRE AND	A/C SUB WIRE	INSTRUMENT PANEL RIGHT)				
112	34	LUGGAGE ROOM WIRE AND COWL WIRE (RIGHT KICK PANEL)						
IJ1	34	COWL WIRE AND	FRONT DOOR F	RH WIRE (RIGHT KICK PANEL)				
IK1	34	FLOOR WIRE AN	D COWL WIRE (F	RIGHT KICK PANEL)				
BM1								
BM2	- 36	ENGINE ROOM N	IAIN WIRE AND (	COWL WIRE (ROOM PARTITION BO	ARD LEFT)			
BN1	36	ROOF NO.3 WIRE AND ENGINE ROOM MAIN WIRE (ROOM PARTITION BOARD LEFT)						
		TS						
$\mathbf{V}$								
CODE	SEE PAGE	GROUND POINT	S LOCATION					

EA	28 (5S–FE)	INTAKE MANIFOLD					
EA	30 (3S–GTE)						
IB	32	LEFT KICK PANEL					
IC	32	INSTRUMENT PANEL BRACE LH					
ID	32	RIGHT KICK PANEL					
BE	36	FRONT RIGHT FENDER					
BF	36	FRONT LEFT FENDER					
BG	36	UNDER THE LEFT CENTER PILLAR					
BH	36	UNDER THE RIGHT REAR PILLAR					
BI	36	BACK PANEL CENTER					

$\bigcirc$	SPLICE POINT	S			
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
Ε7			B 2	- 36	
E10			B 3		
E11	28 (5S–FE)		B 4		
E15			B 5		LUGGAGE ROOM WIRE
E16		ENGINE WIRE	B 6		
E17			B 7		
E18			B 9	36	FLOOR WIRE
E21	- 30 (3S-GTE)		B11	36	LUGGAGE ROOM WIRE
E23			B12		
12		COWL WIRE	B13		
13			B15	36	FRONT DOOR RH WIRE
14			B16	36	LUGGAGE ROOM WIRE
15			B18	20	
16	34		B19	- 36	FRONT DOOR LH WIRE
18			B22	36	COWL WIRE
19			B23	36	
l10	1		B25		
l11			B26		ENGINE ROOM MAIN WIRE
l17	34	A/C SUB WIRE	B27	1	
l18	34	COWL WIRE	B28	1	







