

# 1989 TOYOTA CRESSIDA ELECTRICAL WIRING DIAGRAM

	Section No.	Page
INTRODUCTION .....	<b>A</b>	2
HOW TO USE THIS MANUAL .....	<b>B</b>	3
TROUBLESHOOTING .....	<b>C</b>	10
ABBREVIATIONS .....	<b>D</b>	13
GLOSSARY OF TERMS AND SYMBOLS .....	<b>E</b>	14
RELAY LOCATIONS .....	<b>F</b>	16
ELECTRICAL WIRING ROUTING .....	<b>G</b>	22
POWER SOURCE (Current Flow Chart) .....	<b>H</b>	34
SYSTEM CIRCUITS .....	<b>I</b>	43
GROUND POINTS .....	<b>J</b>	150
OVER ALL ELECTRICAL WIRING DIAGRAM .....	<b>K</b>	156

© 1988 TOYOTA MOTOR CORPORATION

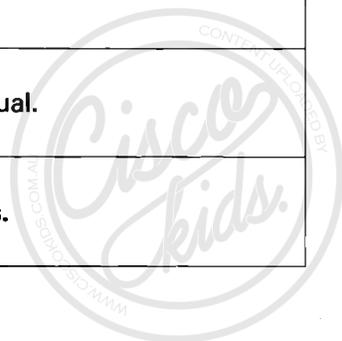
All rights reserved. This book may not be reproduced or copied, in whole or in part, without the written permission of Toyota Motor Corporation.



# A INTRODUCTION

This manual consists of the following 12 sections:

No.	Section	Description
1	INDEX	Index of the contents of this manual.
2	INTRODUCTION	Brief explanation of each section.
3	HOW TO USE THIS MANUAL	Instructions on how to use this manual.
4	TROUBLE-SHOOTING	Describes the basic inspection procedures for electrical circuits, and procedures for removal and installation of connectors and terminals.
5	ABBREVIATIONS	Defines the abbreviations used in this manual.
6	GLOSSARY OF TERMS AND SYMBOLS	Defines the symbols and functions of major parts.
7	RELAY LOCATIONS	Shows position of the Electronic Control Unit, Computer, Relays, Relay Block, etc. This section is closely related to the system circuit.
8	ELECTRICAL WIRE ROUTING	Describes position of the Parts Connectors, Splice points, Ground points, etc. This section is closely related to the system circuit.
9	POWER SOURCE (POWER – LOAD, Reference)	Describes power distribution from the power supply to various electrical loads.
10	INDEX	Index of the system circuits.
11	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.
	GROUND POINTS	Shows ground positions of all parts described in this manual.
12	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.

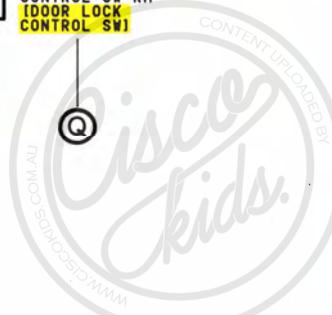
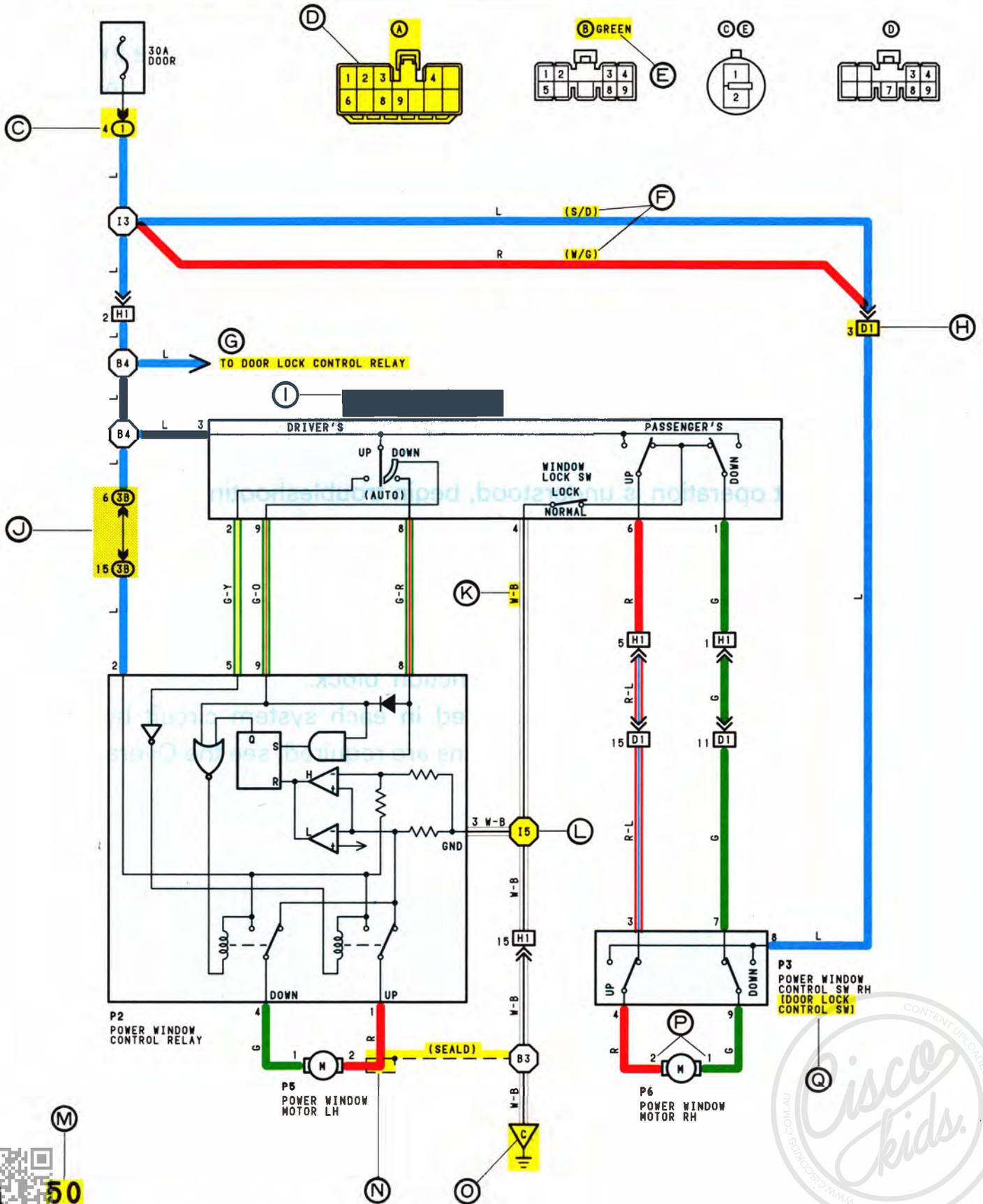
When the circuit operation is understood, begin troubleshooting of the problem circuit to isolate the cause. Use Relay Location and Electrical Wire Routing sections to find each part, junction block and wiring harness connectors, wiring harness and wiring harness connectors, splice points, and ground 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.



# B HOW TO USE THIS MANUAL

## 20 POWER WINDOW



**(A):** System No.  
(Subsystems are indicated with a number, such as \*\* -1, or \*\* -2.)

**(B):** System Title

**(C):** Indicates a Relay Block. No shading is used and only the Relay Block No. is shown to distinguish it from the J/B.

Example: **(1)** Indicates Relay Block No. 1.

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

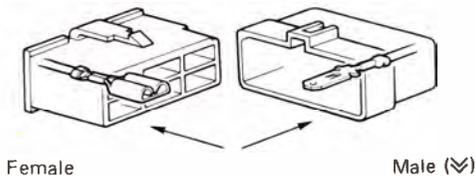
**(E):** Connector Color  
Connectors not indicated are milky white in color.

**(F):** ( ) are used to indicate different wiring and connector, etc. when the vehicle model, engine type, or specification is different.

**(G):** Indicates related system.

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

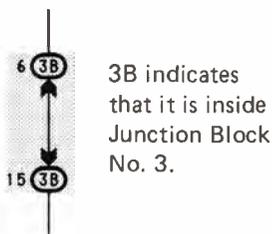
- All connectors are shown from the open end, and the lock is on top.



**(I):** Represents a part (all parts are shown in sky blue). The code is the same as the code used in parts location.

**(J):** 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:



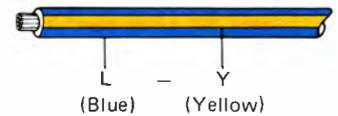
**(K):** Indicates the wiring color.

Wire colors are indicated by an alphabetical code.

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

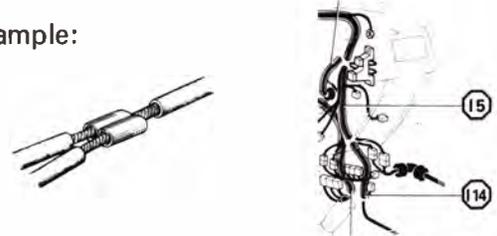
The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

Example: L-Y



**(L):** 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 15 is indicated by the shaded section.

**(M):** Page No.

**(N):** Indicates a sealed wiring harness.

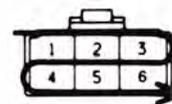


**(O):** Indicates a ground point.

**(P):** Indicates the pin number of the connector. The numbering system is different for female and male connectors.

Example: Numbered in order from upper left to lower right

Numbered in order from upper right to lower left



Female



Male

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

**(Q):** 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

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

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

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

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

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

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

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

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

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

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

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

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



## SERVICE HINTS

### P2 POWER WINDOW CONTROL RELAY

3-GROUND:ALWAYS CONTINUITY

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

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

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

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

### P4 POWER WINDOW MASTER SW

4-GROUND:ALWAYS CONTINUITY

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

### WINDOW LOCK SW

OPEN WITH WINDOW LOCK SW AT LOCK POSITION



## ○ : PARTS LOCATION

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



## ○ : RELAY BLOCKS

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



## ⊙ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

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



## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS
D1	26	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
H1	26	FRON DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)



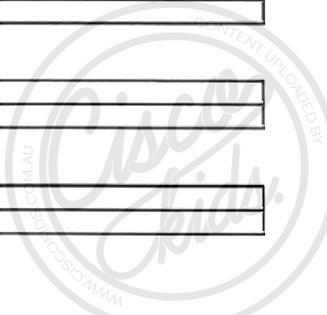
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINT LOCATION
C	24	COWL LEFT



## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESSES WITH SPLICE POINTS



Ⓡ: Explains the system outline.

Ⓢ: Indicates values or explains the function for reference during troubleshooting.

Ⓣ: Indicates the reference page showing the position on the vehicle of the parts in the system circuit.

Example: Part P4 (Power Window Master SW) is on page 21 of the manual.

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

Example: P 4  
 └───┬───┬───  
 └───┬───┬─── 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.

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

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

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

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

Example: Connector D1 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 C 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

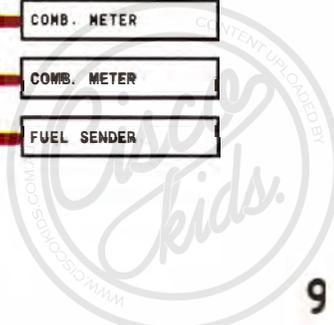
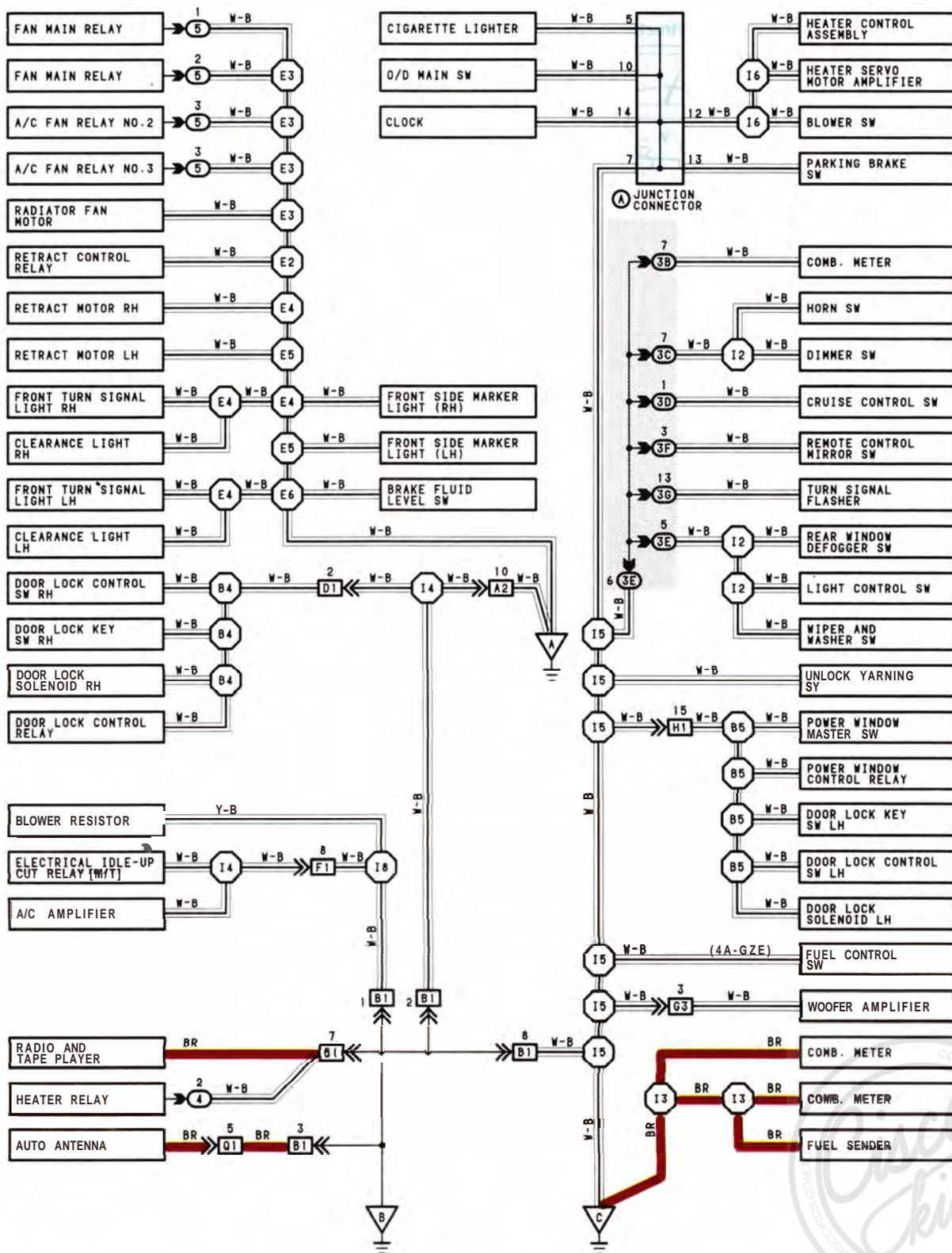
Example: Splice point I 5 is on the Cowl Wire Harness and is described on page 24 of this manual.





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

## J GROUND POINTS



## C TROUBLESHOOTING

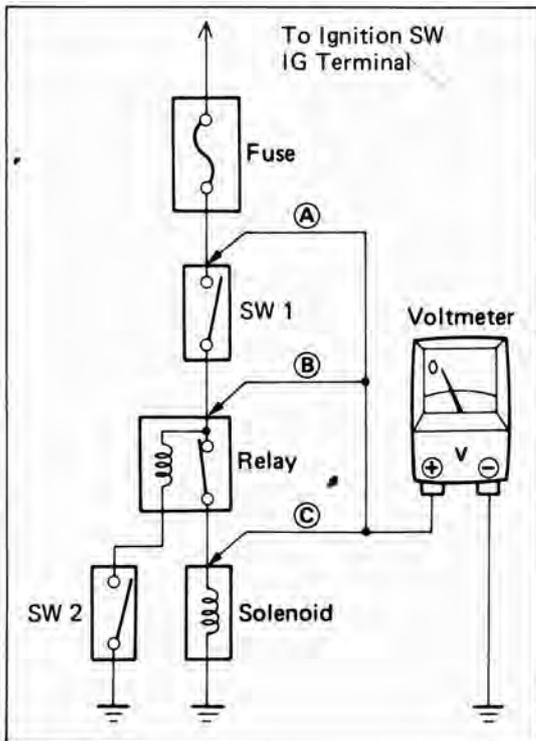
### VOLTAGE CHECK

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

Example:

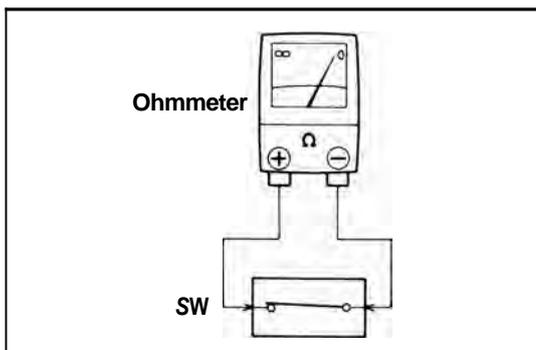
- Ⓐ – Ignition SW on
- Ⓑ – Ignition SW and SW 1 on
- Ⓒ – Ignition SW, SW 1 and Relay on (SW 2 off)

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



### CONTINUITY AND RESISTANCE CHECK

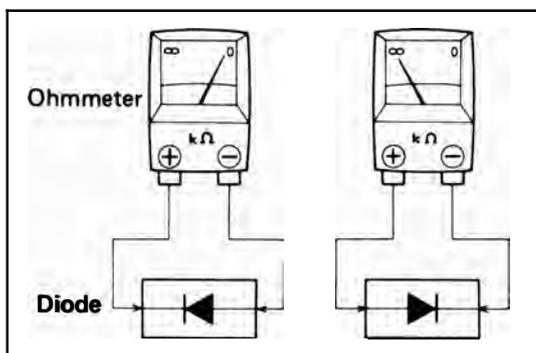
- Disconnect the battery terminal or wire so there is no voltage between the check points.
- Contact the two leads of an ohmmeter to each of the check points.



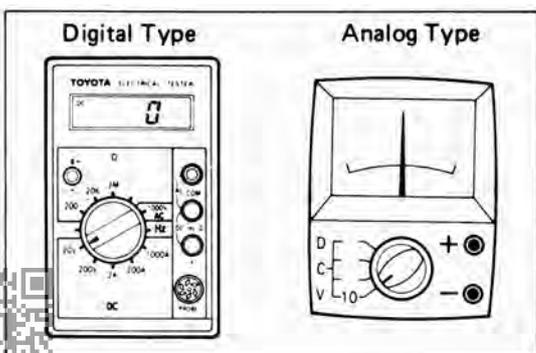
If the circuit has diodes, reverse the two leads and check again.

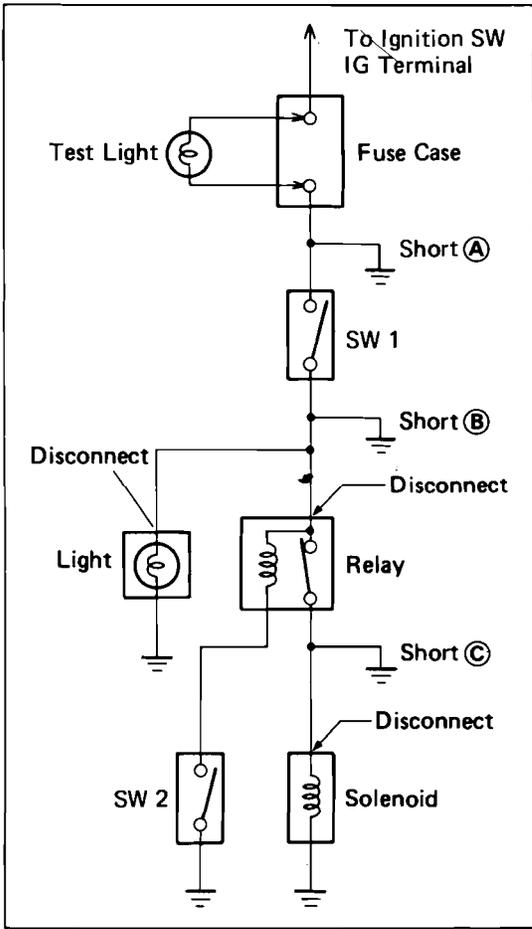
When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.

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



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





## FINDING A SHORT CIRCUIT

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

Example:

- (A) – Ignition SW on
  - (B) – Ignition SW and SW 1 on
  - (C) – Ignition SW, SW 1 and Relay on (Connect the Relay) and SW 2 off (or Disconnect SW 2)
- (d) Disconnect and reconnect the connectors while watching the test light.  
The short lies between the connector where the test light stays lit and the connector where the light goes out.
  - (e) Find the exact location of the short by lightly shaking the problem wire along the body.

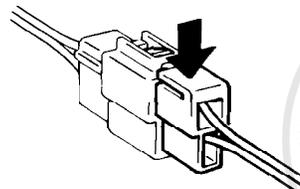
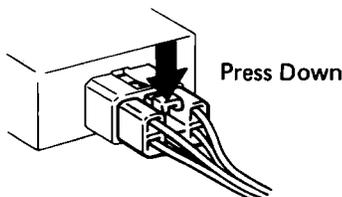
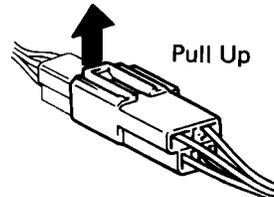
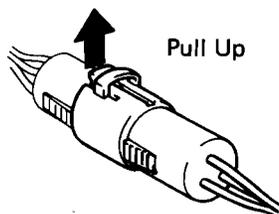
### CAUTION:

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

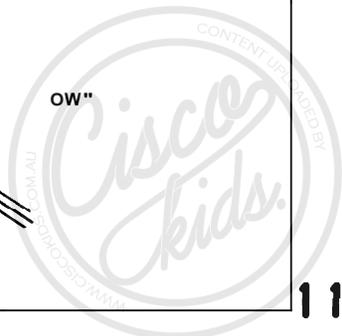
## DISCONNECTION OF MALE AND FEMALE CONNECTORS

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

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



OW"



## C TROUBLESHOOTING

### HOW TO REPLACEMENT FOR TERMINAL (with Terminal Retainer Type)

1. DISCONNECT CONNECTOR
2. DISCONNECT TERMINAL FROM CONNECTOR

(a) "for A type"

Raise the terminal retainer up to the temporarily 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.

"for B type"

Open the terminal retainer.

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

3. INSTALL TERMINAL TO CONNECTOR

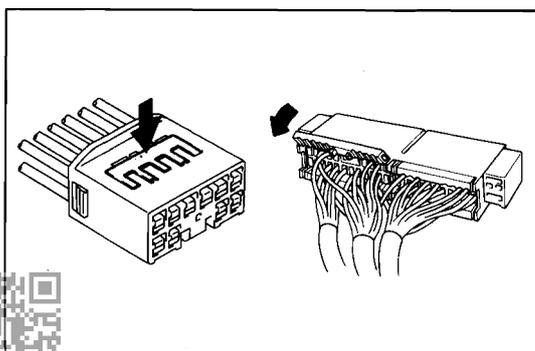
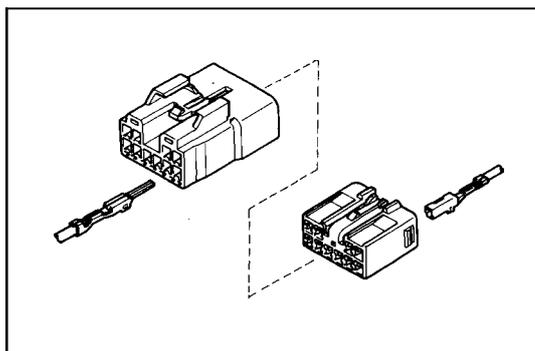
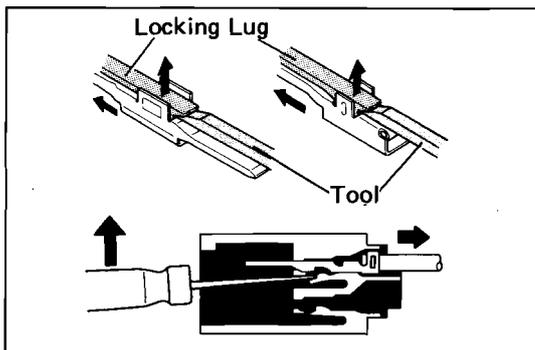
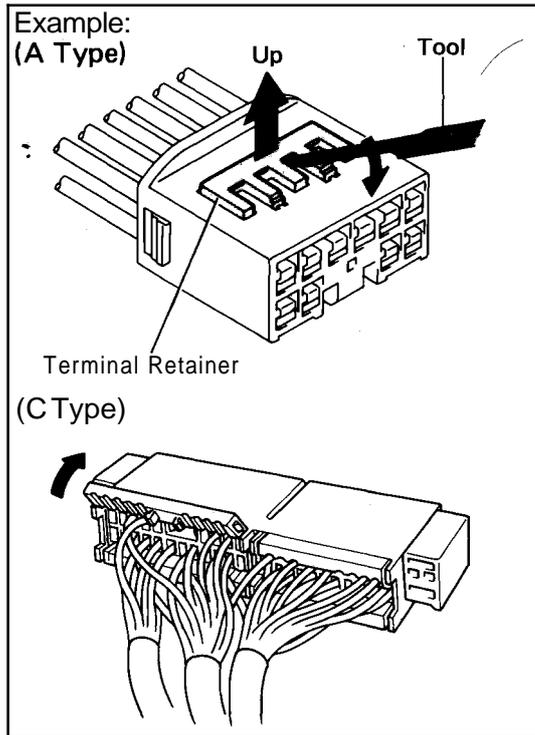
(a) Insert the terminal.

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 temporarily lock position.

- (b) Push the terminal retainer in as the full lock position.

4. CONNECT CONNECTOR

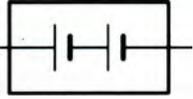
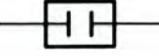
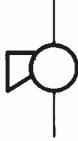
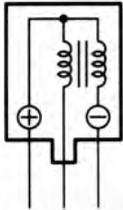
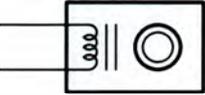
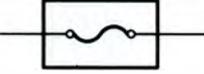


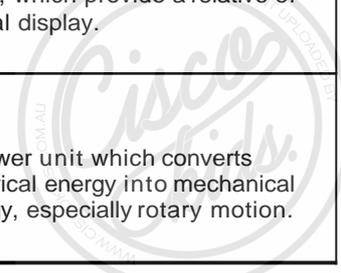
## ABBREVIATIONS

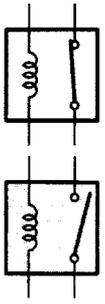
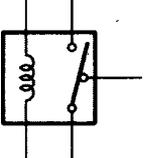
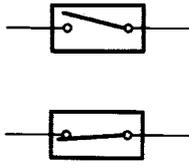
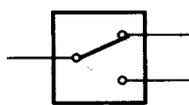
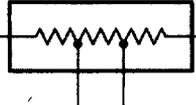
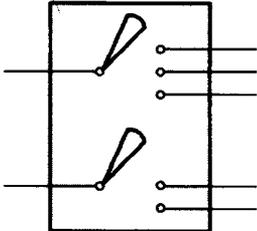
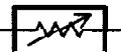
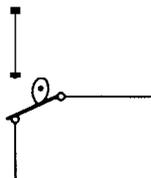
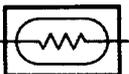
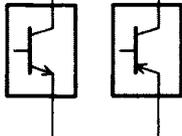
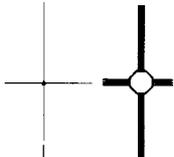
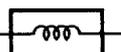
The following abbreviations are used in this manual.

A.B.S.	=	Anti-Lock Brake System
A/C	=	Air Conditioner
A/T	=	Automatic Transmission
CB	=	Circuit Breaker
COMB.	=	Combination
ECT	=	Electronic Controlled' Transmission
ECU	=	Electronic Control Unit
EFI	=	Electronic Fuel Injection
EGR	=	Exhaust Gas Recirculation
FL	=	Fusible Link
ISC	=	Idle Speed Control
J/B	=	Junction Block
LH	=	Left-Hand
O/D	=	Overdrive
OX	=	Oxygen
PWR	=	Power
RIB	=	Relay Block
RH	=	Right-Hand
SW	=	Switch
TCCS	=	Toyota Computer Controlled System
TEMP.	=	Temperature
VSV	=	Vacuum Switching Valve
W/	=	With
W/O	=	Without

# E GLOSSARY OF TERMS AND SYMBOLS

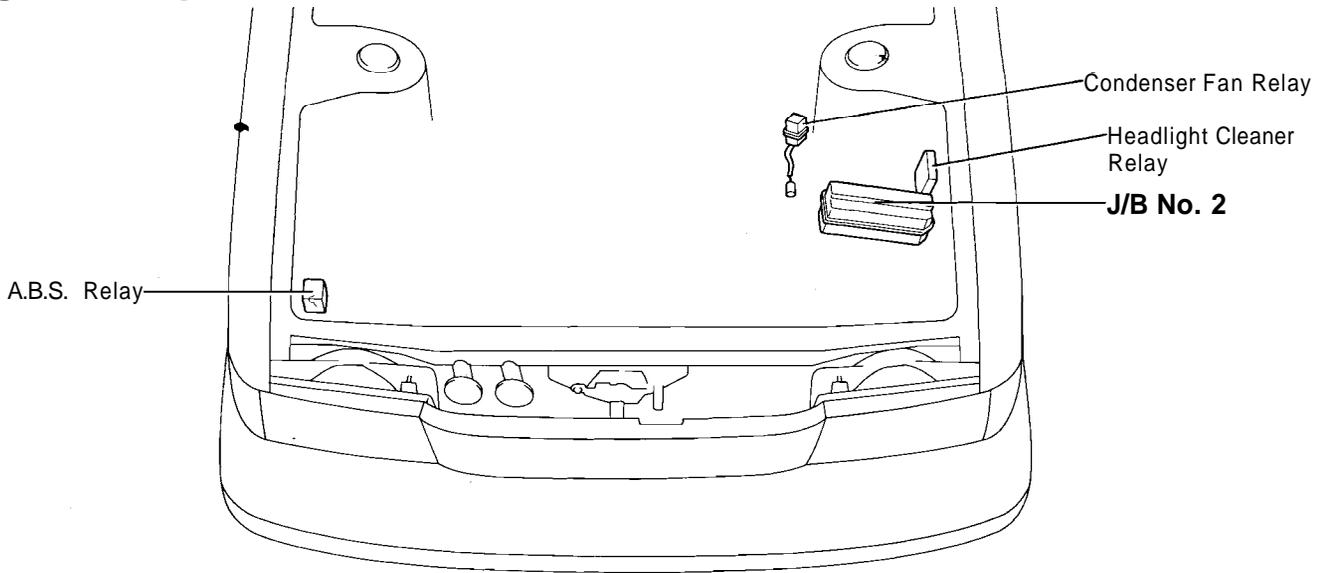
 <p><b>BATTERY</b> Stores chemical energy and converts it into electrical energy. Provides DC current for the auto's various electrical circuits.</p>	<p><b>HEADLIGHTS</b></p> <p>1. <b>SINGLE FILAMENT</b> Current flow causes a headlight filament to heat up and emit light. A headlight may have either a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



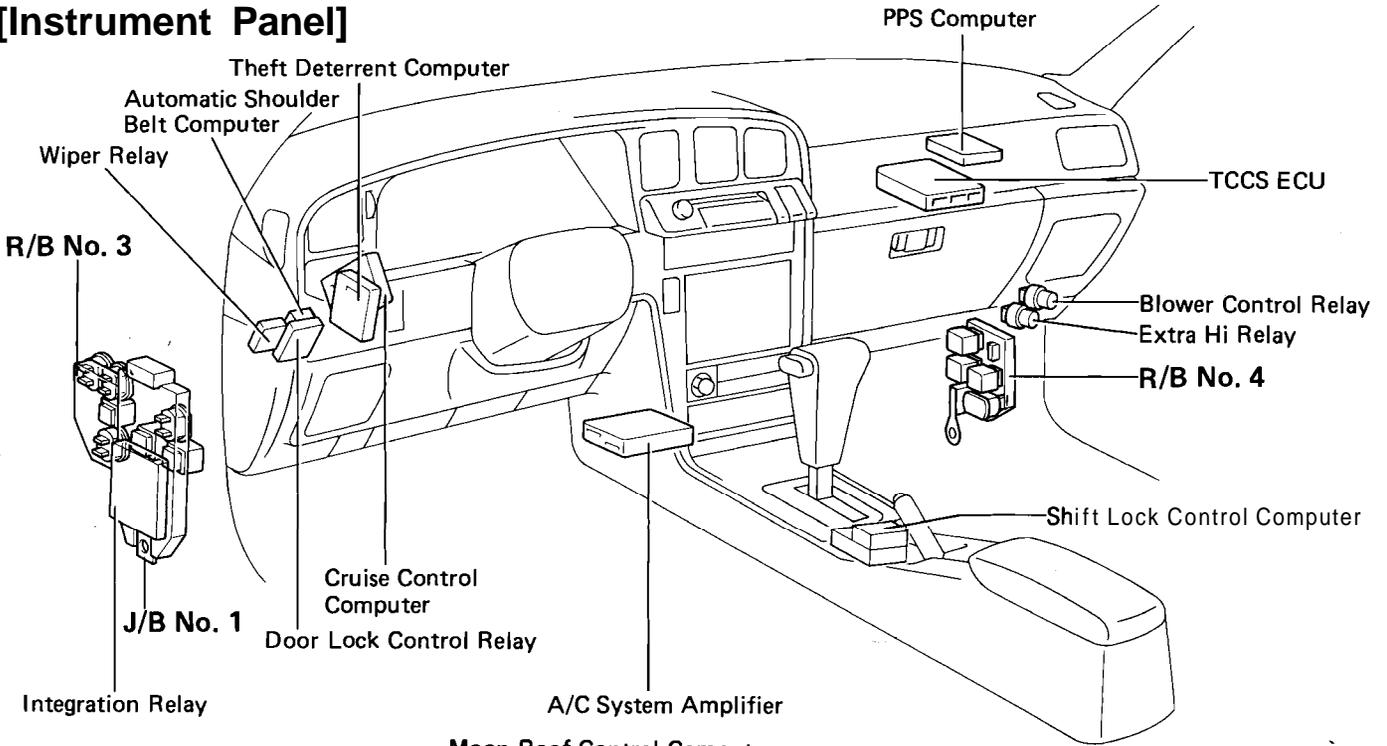
<p><b>RELAY</b></p>  <p>1. <b>NORMALLY CLOSED</b></p> <p>2. <b>NORMALLY OPEN</b></p> <p>Basically, an electrically operated switch which may be normally closed (1) or open (2). Current flow through a small coil creates a magnetic field which either opens or closes an attached switch.</p>	<p><b>SPEAKER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

# F RELAY LOCATIONS

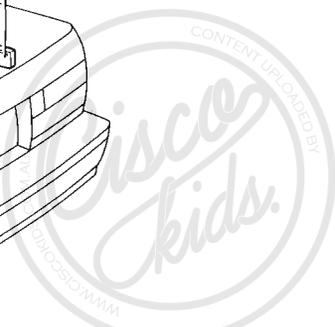
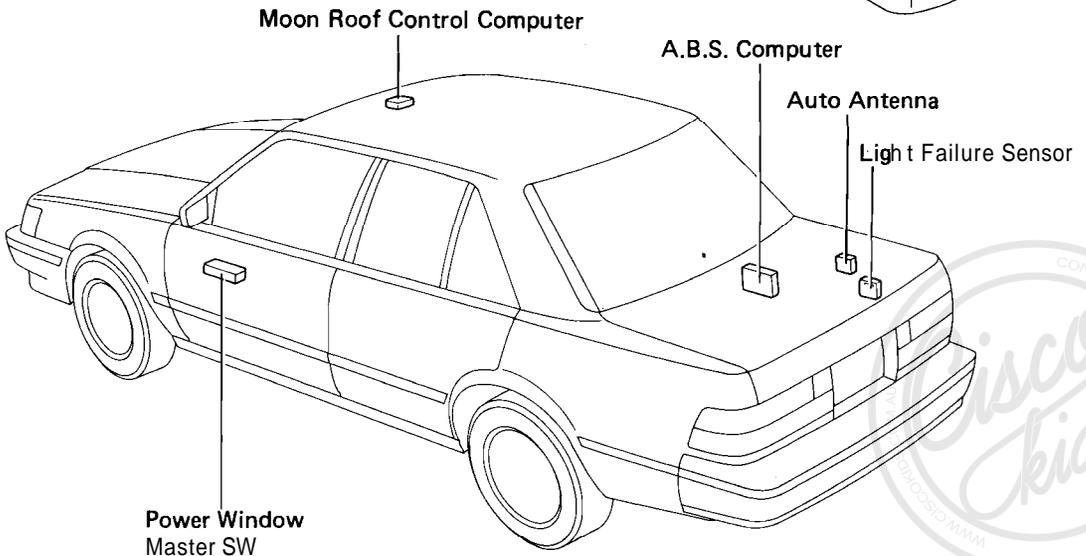
## [Engine Compartment]



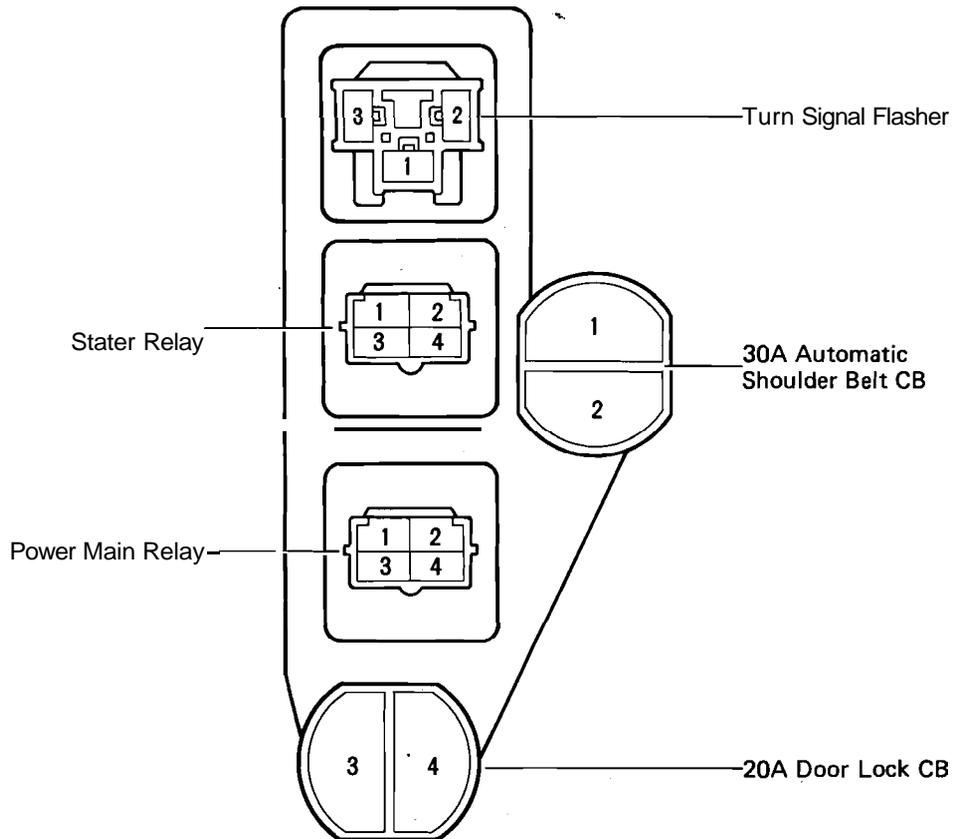
## [Instrument Panel]



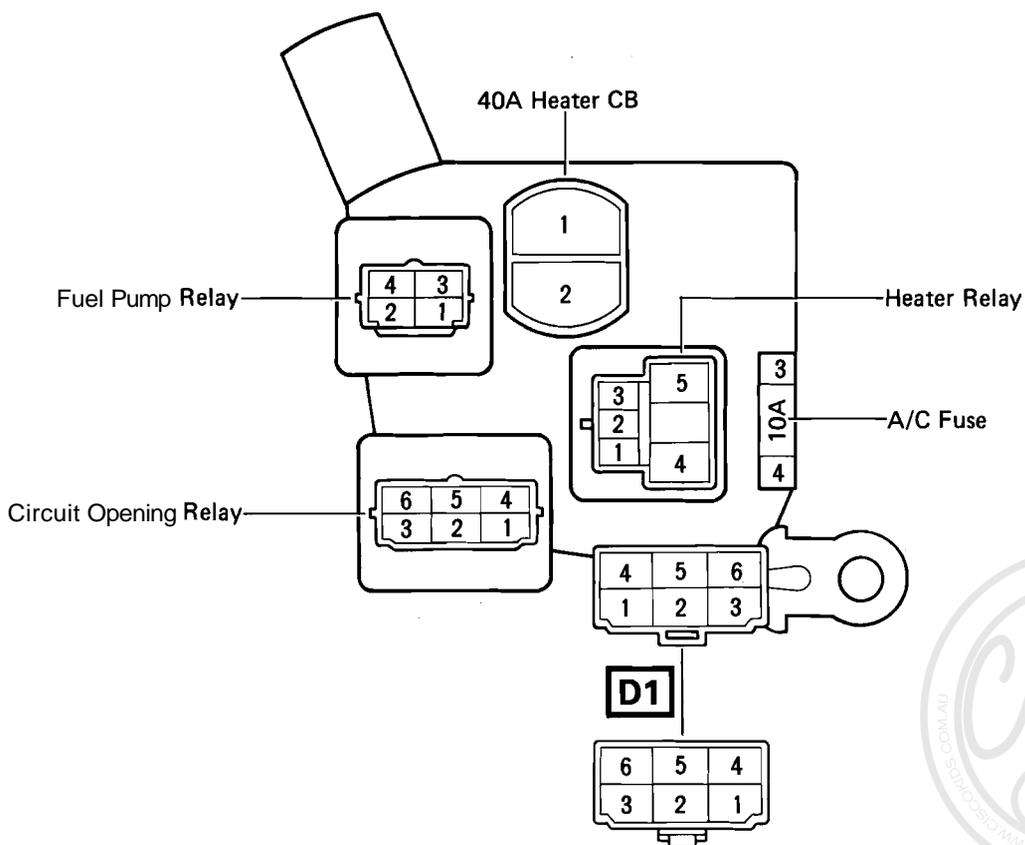
## [Body]



**③ : R/B No. 3 | Left Kick Panel (See Page 16)**

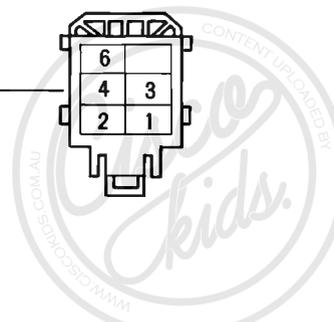
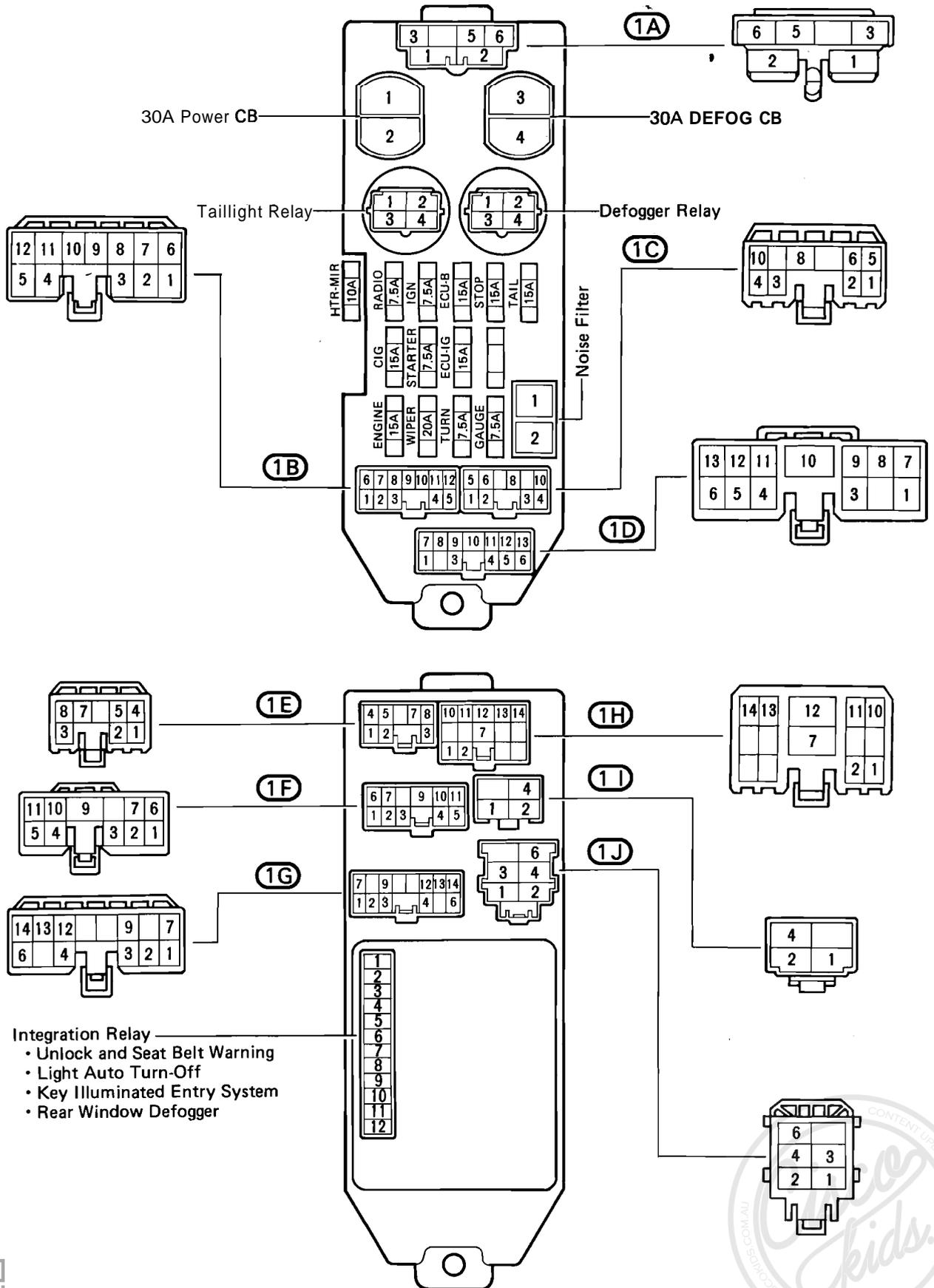


**④ : R/B No. 4 | Right Kick Panel (See Page 16)**

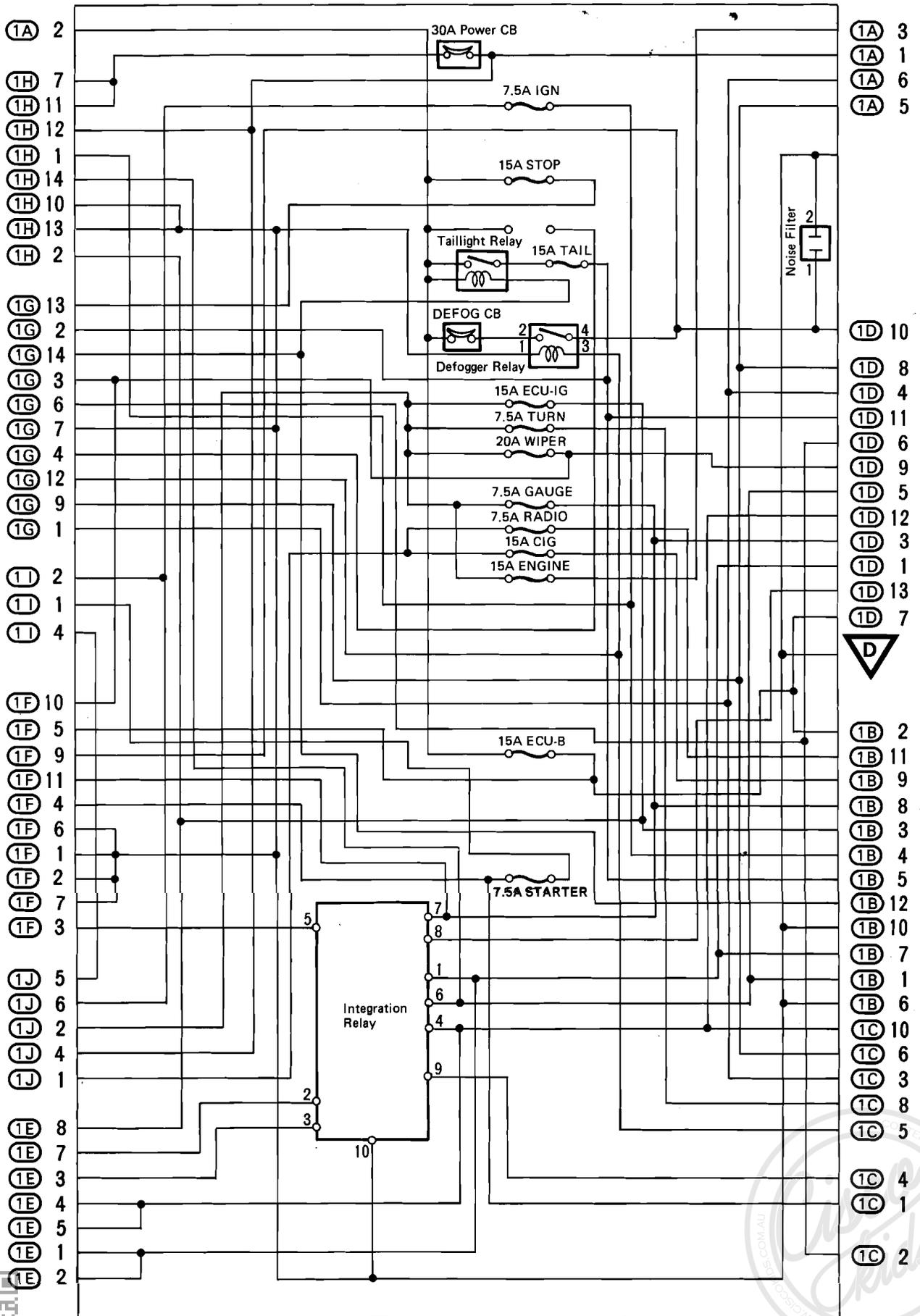


# F RELAY LOCATIONS

 : J/B No.1 Left Kick Panel (See Page 16)

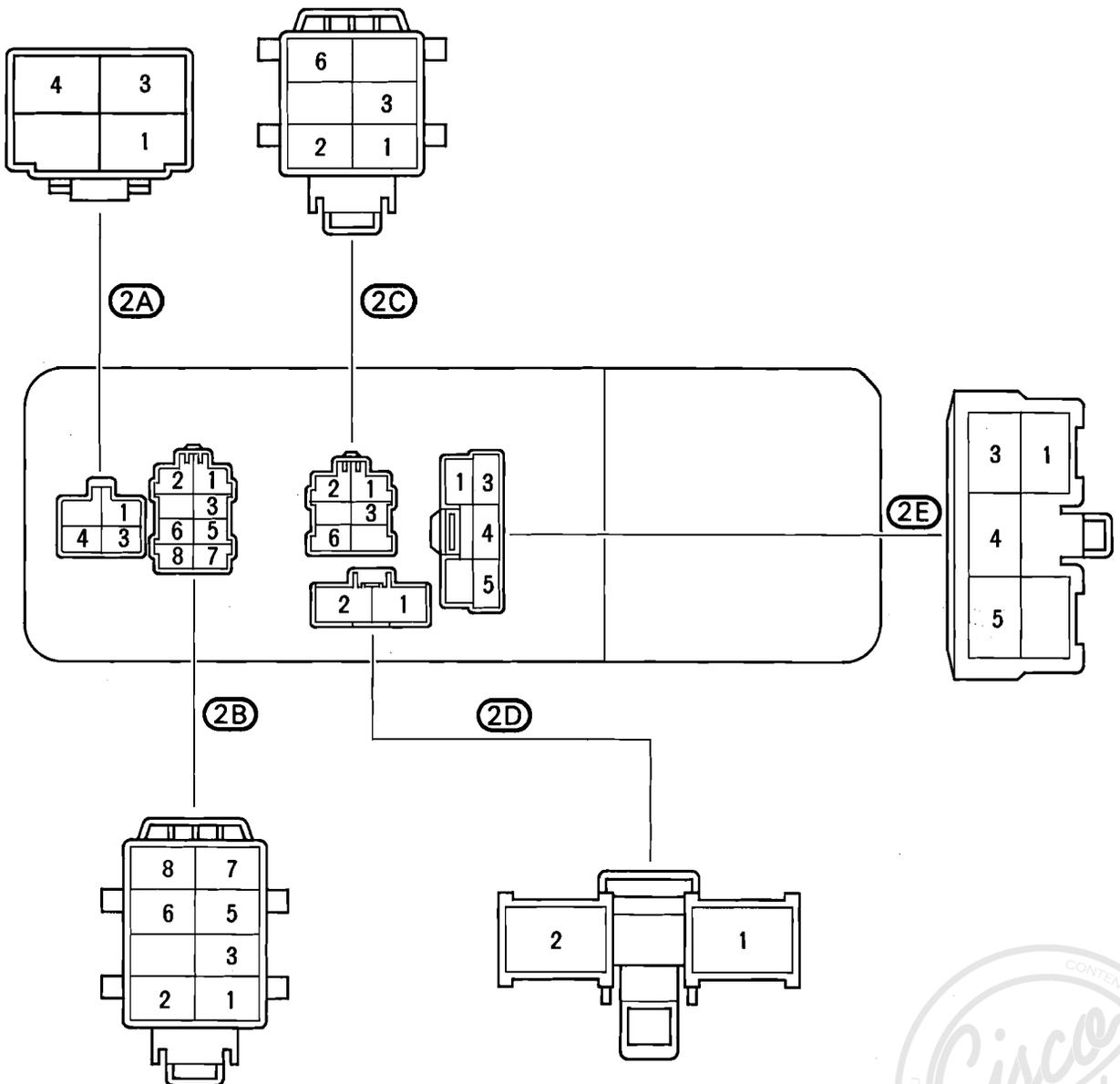
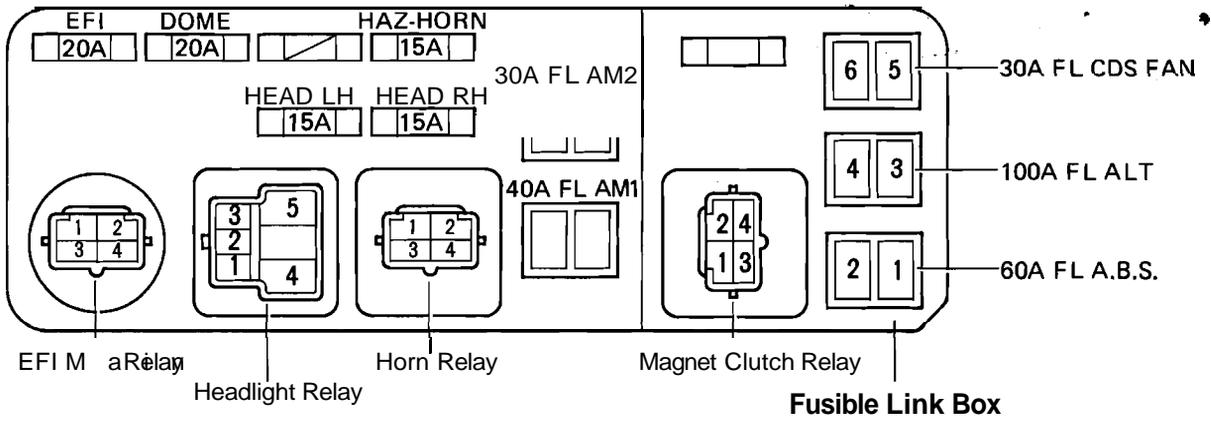


[J/B No. 1 Inner Circuit]

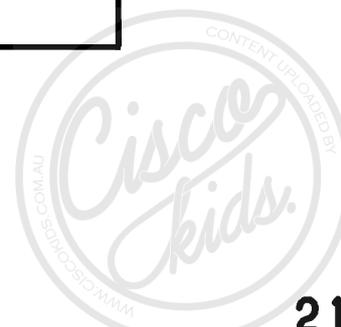
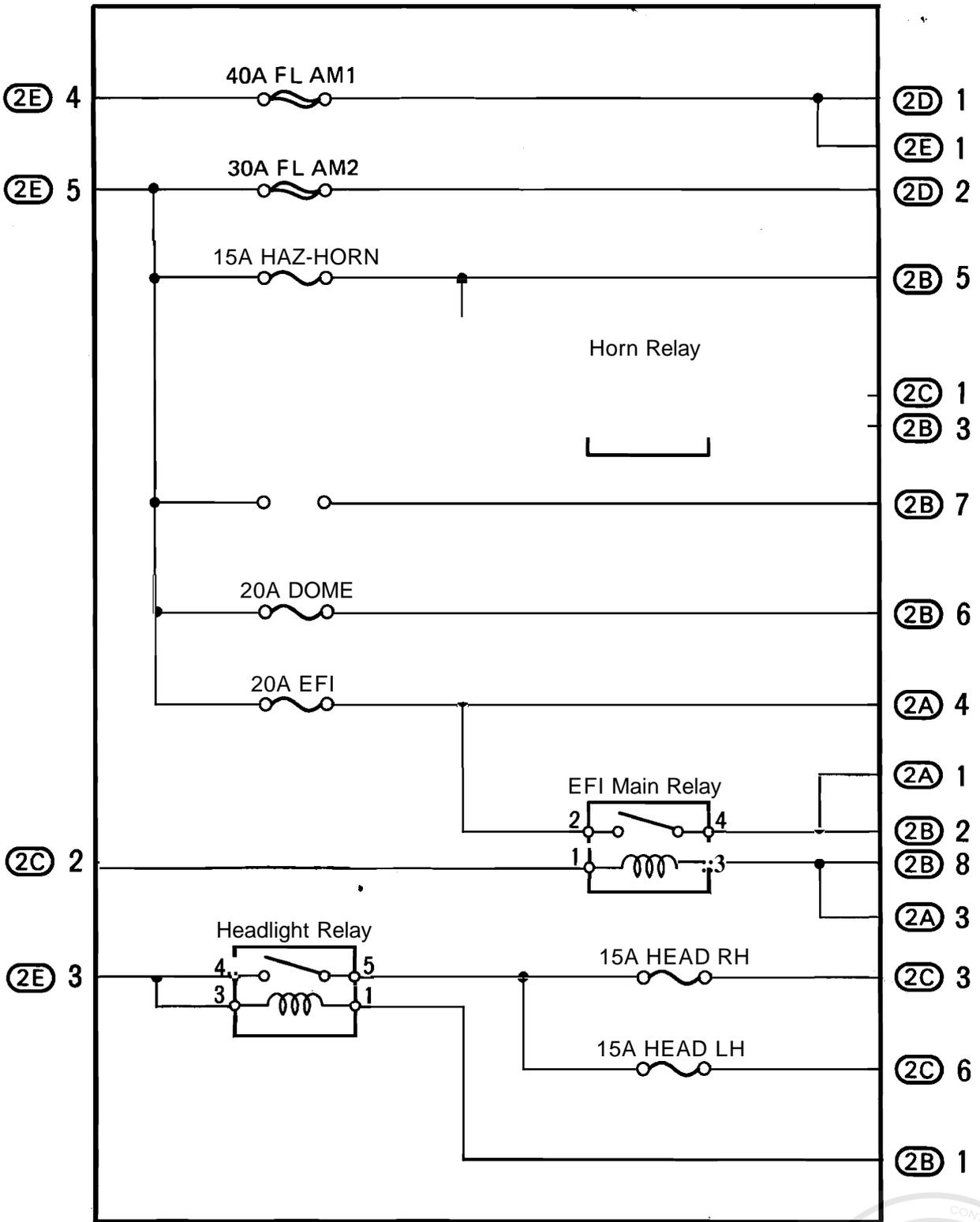


# F RELAY LOCATIONS

○ (J/B No. 2 | Engine Compartment Right (See Page 16)

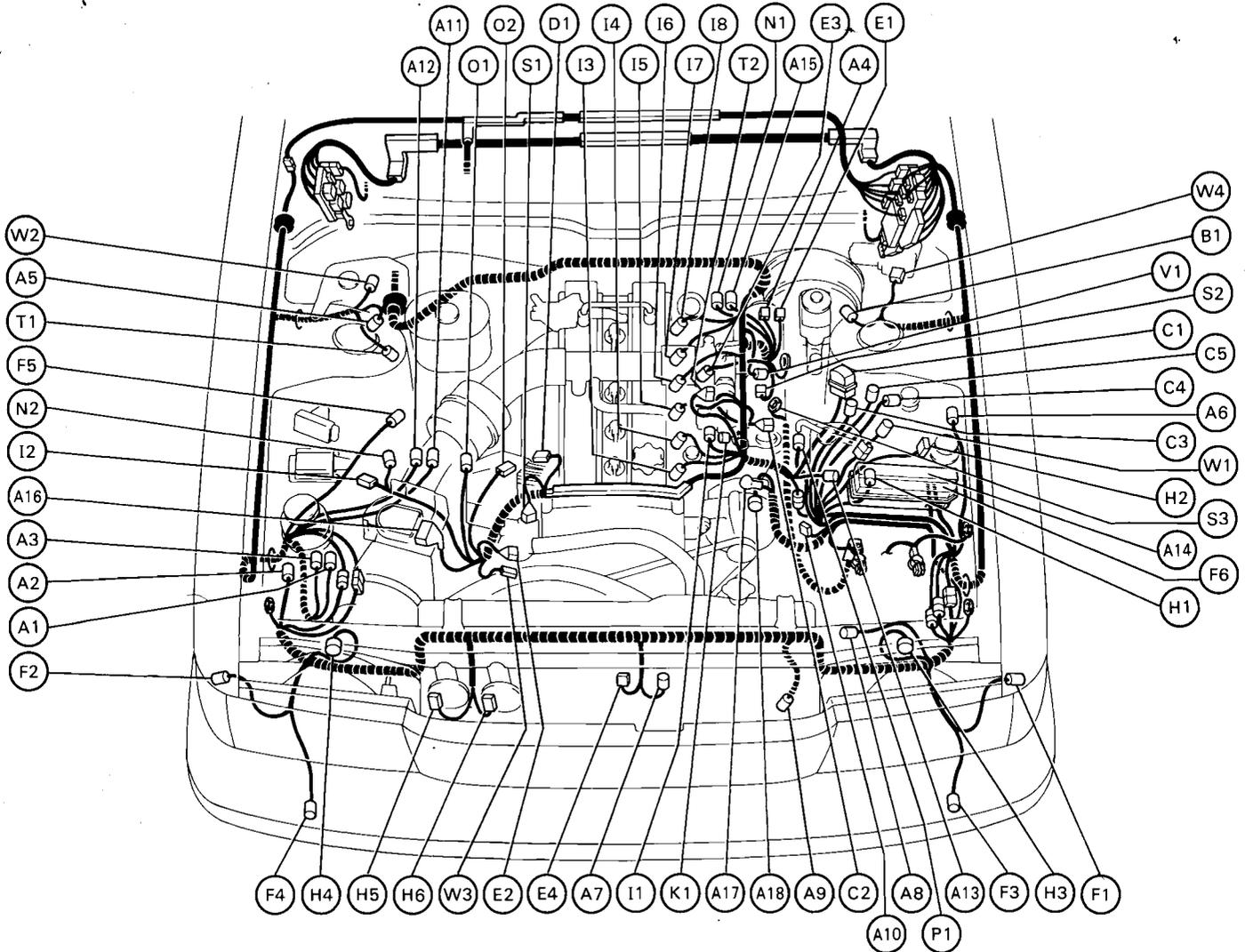


[J/B No. 2 Inner Circuit]



# G ELECTRICAL WIRING ROUTING

## Position of Parts in Engine 'Compartment



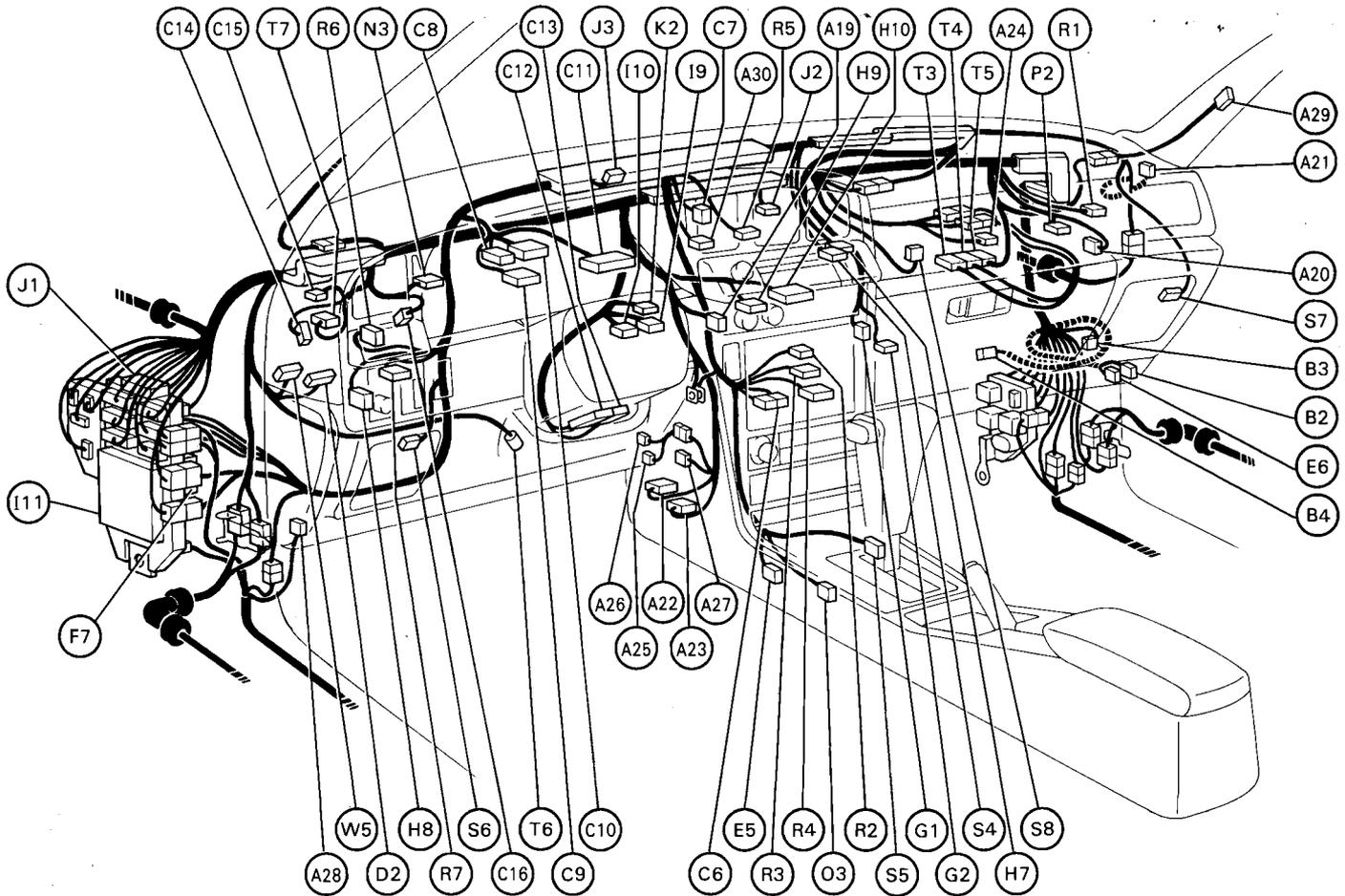
- A 1 A.B.S. Actuator
- A 2 } A.B.S. Control Relay
- A 3 }
- A 4 A.B.S. Rear Speed Sensor
- A 5 A.B.S. Speed Sensor Front LH
- A 6 A.B.S. Speed Sensor Front RH
- A 7 A/C Ambient Sensor
- A 8 A/C Condenser Fan Motor
- A 9 A/C Condenser Fan Motor No. 2
- A10 A/C Condenser Fan Relay
- A11 A/C Dual Pressure SW
- A12 A/C High Pressure SW  
(for Condenser Fan)
- A13 A/C Magnet Clutch
- A14 A/C Magnet Clutch Relay
- A15 A/T Indicator SW
- A16 Air Flow Meter
- A17 } Alternator
- A18 }
- B 1 Brake Fluid Level SW
- C 1 Check Connector
- C 2 Cold Start Injector
- C 3 Cruise Control Actuator
- C 4 Cruise Control Vacuum Pump

- C 5 Cruise Control Vacuum SW
- D 1 Distributor
- E 1 ECT Solenoid
- E 2 EFI Water Temp. Sensor
- E 3 EGR Gas Temp. Sensor  
(for California)
- E 4 Engine Hood Courtesy SW
- F 1 Front Clearance Light LH
- F 2 Front Clearance Light RH
- F 3 Front Turn Signal Light LH
- F 4 Front Turn Signal Light RH
- F 5 Fuel Pump Resistor
- F 6 Fusible Link Box
- H 1 Headlight Cleaner Motor  
(for CANADA)
- H 2 Headlight Cleaner Relay  
(for CANADA)
- H 3 Headlight LH
- H 4 Headlight RH
- H 5 } Horn
- H 6 }
- I 1 ISC Valve
- I 2 Ignition Coil and Igniter
- I 3 Injector No. 1

- I 4 Injector No. 2
- I 5 Injector No. 3
- I 6 Injector No. 4
- I 7 Injector No. 5
- I 8 Injector No. 6
- K 1 Knock Sensor
- N 1 Neutral Start SW and  
Back-up Light SW
- N 2 Noise Filter (Ignition)
- O 1 OX Sensor
- O 2 Oil Pressure SW
- P 1 PPS Solenoid
- S 1 Start Injector Time SW
- S 2 } Starter
- S 3 }
- T 1 Theft Deterrent Horn
- T 2 Throttle Position Sensor
- V 1 VSV (for EGR)
- W 1 Washer Motor (for CANADA)
- W 2 Washer Motor (for USA)
- W 3 Water Temp. Sender
- W 4 Wiper Motor



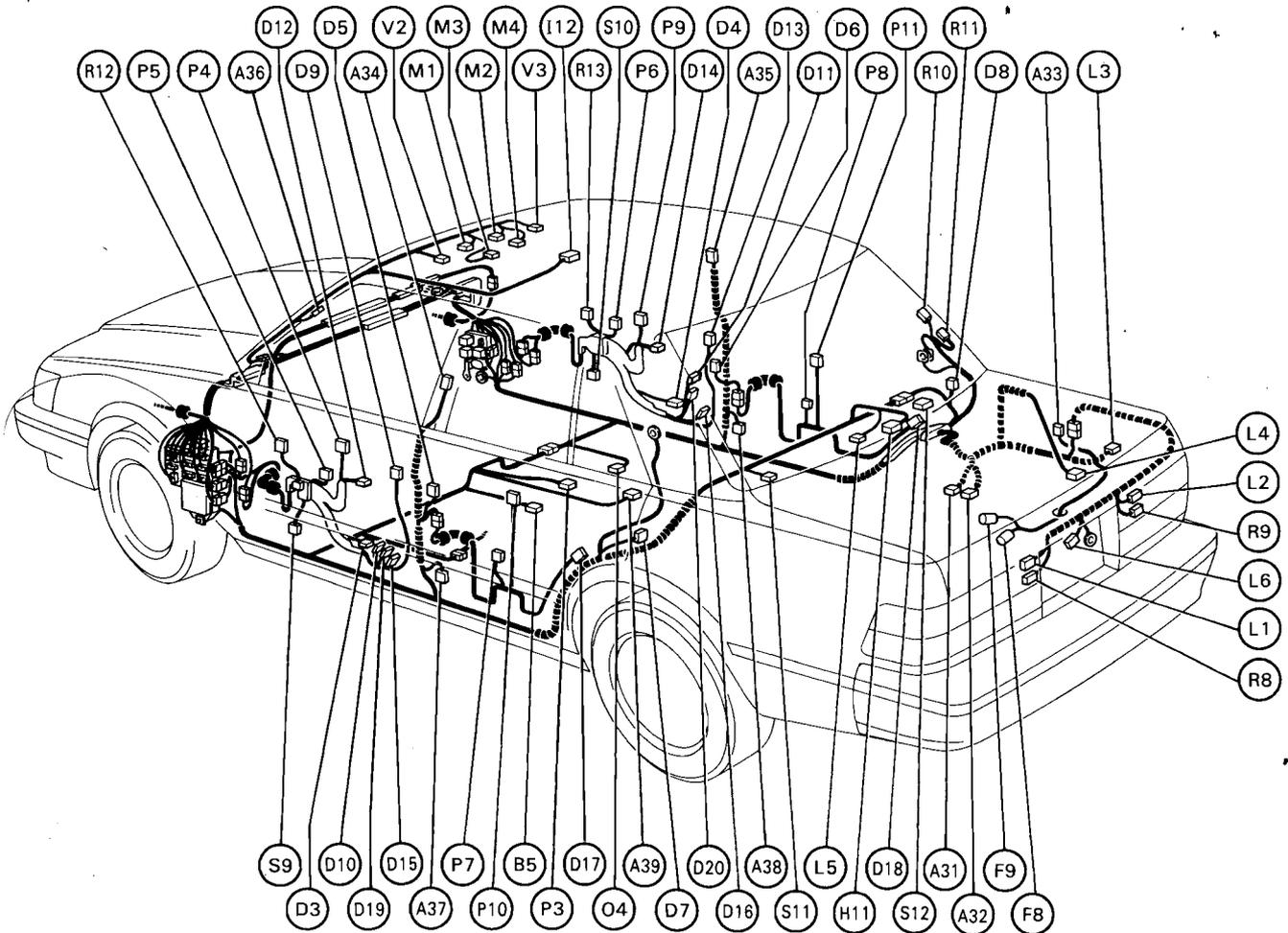
## Position of Parts in Instrument Panel



- |   |   |   |
|---|---|---|
| <p>A19 A/C In-Car Sensor<br/>           A20 A/C Power Transistor<br/>           A21 A/C Solar Sensor<br/>           A22 } A/C System Amplifier<br/>           A23<br/>           A24 } A/C Thermistor<br/>           A25<br/>           A26 Air Mix Control Servo Motor<br/>           A27 Air Vent Mode Control Servo Motor<br/>           A28 Automatic Shoulder Belt Computer<br/>           A29 Automatic Shoulder Belt Limit SW Front RH<br/>           A30 Automatic Shoulder Belt Release Valve Warning Light<br/>           B 2 Blower Control Relay<br/>           B 3 Blower Motor<br/>           B 4 Blower Resistor<br/>           C 6 Cigarette Lighter and Ash Tray Illumination<br/>           C 7 Clock<br/>           C 8<br/>           C 9 } Combination Meter<br/>           C10<br/>           C11</p> | <p>C12 } Combination SW<br/>           C13<br/>           C14 } Cruise Control Computer<br/>           C15<br/>           C16 Cruise Control Stop SW or Stop Light SW<br/>           D 2 Door Lock Control Relay<br/>           E 5 ECT Pattern Select SW<br/>           E 6 Extra Hi Speed Relay<br/>           F 7 Fuse Block (MIR HTR fuse)<br/>           G 1 Glove Box Light<br/>           G 2 Glove Box Light SW<br/>           H 7 Hazard SW<br/>           H 8 Headlight Cleaner SW<br/>           H 9 } Heater Control SW<br/>           H10<br/>           I 9 Ignition Key Cylinder Light<br/>           I 10 Ignition SW<br/>           I 11 Integration Relay<br/>           J 1<br/>           J 2 } Junction Connector<br/>           J 3<br/>           K 2 Key Interlock Solenoid<br/>           N 3 Noise Filter (for Stop Light)<br/>           O 3 O/D Main SW</p> | <p>P 2 PPS Computer<br/>           R 1 RECIRC/FRESH Control Servo Motor<br/>           R 2<br/>           R 3 } Radio and Tape Player<br/>           R 4<br/>           R 5 Rear Window Defogger SW<br/>           R 6 Remote Control Mirror SW<br/>           R 7 Rheostat<br/>           S 4 Satellite SW<br/>           S 5 Shift Lock Control Computer (Shift Lock Control SW, Shift Lock Solenoid)<br/>           S 6 Speaker Front LH<br/>           S 7 Speaker Front RH<br/>           S 8 Starter Cut Relay<br/>           T 4 } TCCS ECU<br/>           T 5<br/>           T 6 TDCL (TOYOTA DIAGNOSTIC COMMUNICATION LINK)<br/>           T 7 Theft Deterrent Computer<br/>           W 5 Wiper Control Relay</p> |
|---|---|---|

# G ELECTRICAL WIRING ROUTING

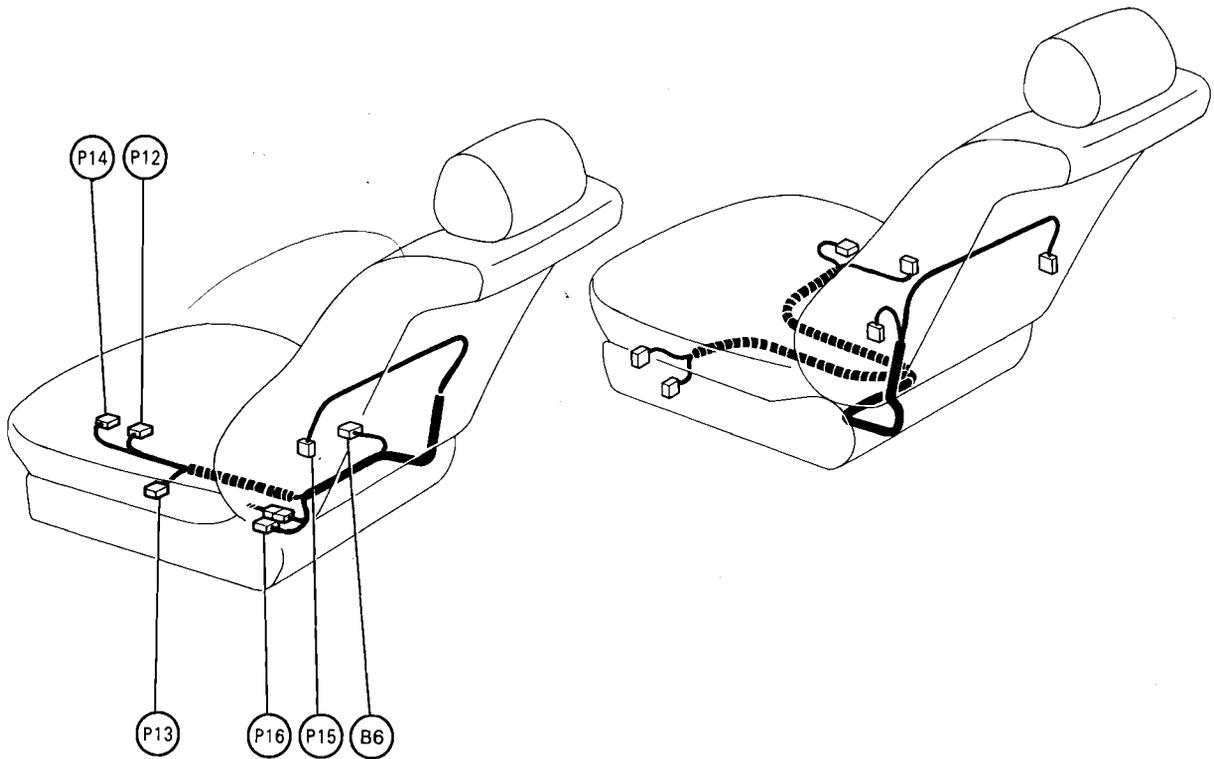
## Position of Parts in Body



A31 } A.B.S. Computer	D11 Door Key Lock and Unlock SW RH (for Door Lock Control System)	M 2 Moon Roof Control SW and/or Personal Light
A32 } A.B.S. Computer	D12 Door Key Lock and Unlock SW LH (for Theft Deterrent System)	M 3 Moon Roof Limit SW
A33 Auto Antenna Motor and Relay	D13 Door Key Lock and Unlock SW RH (for Theft Deterrent System)	M 4 Moon Roof Motor
A34 Automatic Shoulder Belt Limit SW Rear LH	D14 Door Lock Control SW RH	O 4 OX Sensor
A35 Automatic Shoulder Belt Limit SW Rear RH	D15 Door Lock Motor Front LH	P 3 Parking Brake SW
A36 Automatic Shoulder Belt Limit SW Front LH	D16 Door Lock Motor Front RH	P 4 Power Window Master SW and Door Lock Control SW
A37 Automatic Shoulder Belt Motor LH	D17 Door Lock Motor Rear LH	P 5 Power Window Motor Front LH
A38 Automatic Shoulder Belt Motor RH	D18 Door Lock Motor Rear RH	P 6 Power Window Motor Front RH
A39 Automatic Shoulder Belt Spool Release SW	D19 Door Lock and Unlock SW LH (for Automatic Shoulder Belt System)	P 7 Power Window Motor Rear LH
B 5 Buckle SW (w/oPower Seat)	D20 Door Lock and Unlock SW RH (for Automatic Shoulder Belt System)	P 8 Power Window Motor Rear RH
D 3 Door Courtesy Light LH	F 8 Fuel Pump	P 9 Power Window SW Front RH
D 4 Door Courtesy Light RH	F 9 Fuel Sender	P 10 Power Window SW Rear LH
D 5 Door Courtesy SW Front LH	H 1 High Mount Stop Light	P 11 Power Window SW Rear RH
D 6 Door Courtesy SW Front RH	I 12 Interior Light	R 8 Rear Combination Light LH
D 7 Door Courtesy SW Rear LH	L 1 Licence Plate Light LH	R 9 Rear Combination Light RH
D 8 Door Courtesy SW Rear RH	L 2 Licence Plate Light RH	R10 Rear Window Defogger ⊕
D 9 Door Key Cylinder Light and Outside Handle SW	L 3 Light Failure Sensor	R11 Rear Window Defogger ⊖
D10 Door Key Lock and Unlock SW LH (for Door Lock Control System)	L 4 Luggage Compartment Key Unlock SW	R12 Remote Control Mirror and Mirror Heater LH
	L 5 Luggage Compartment Light	R13 Remote Control Mirror and Mirror Heater RH
	L 6 Luggage Compartment Light SW	S 9 Speaker Front Door LH
	M 1 Moon Roof Control Computer	S10 Speaker Front Door RH
		S11 Speaker Rear LH
		S12 Speaker Rear RH
		V 2 Vanity Mirror Light RH
		V 3 Vanity Mirror Light LH



## Position of Parts in Seat



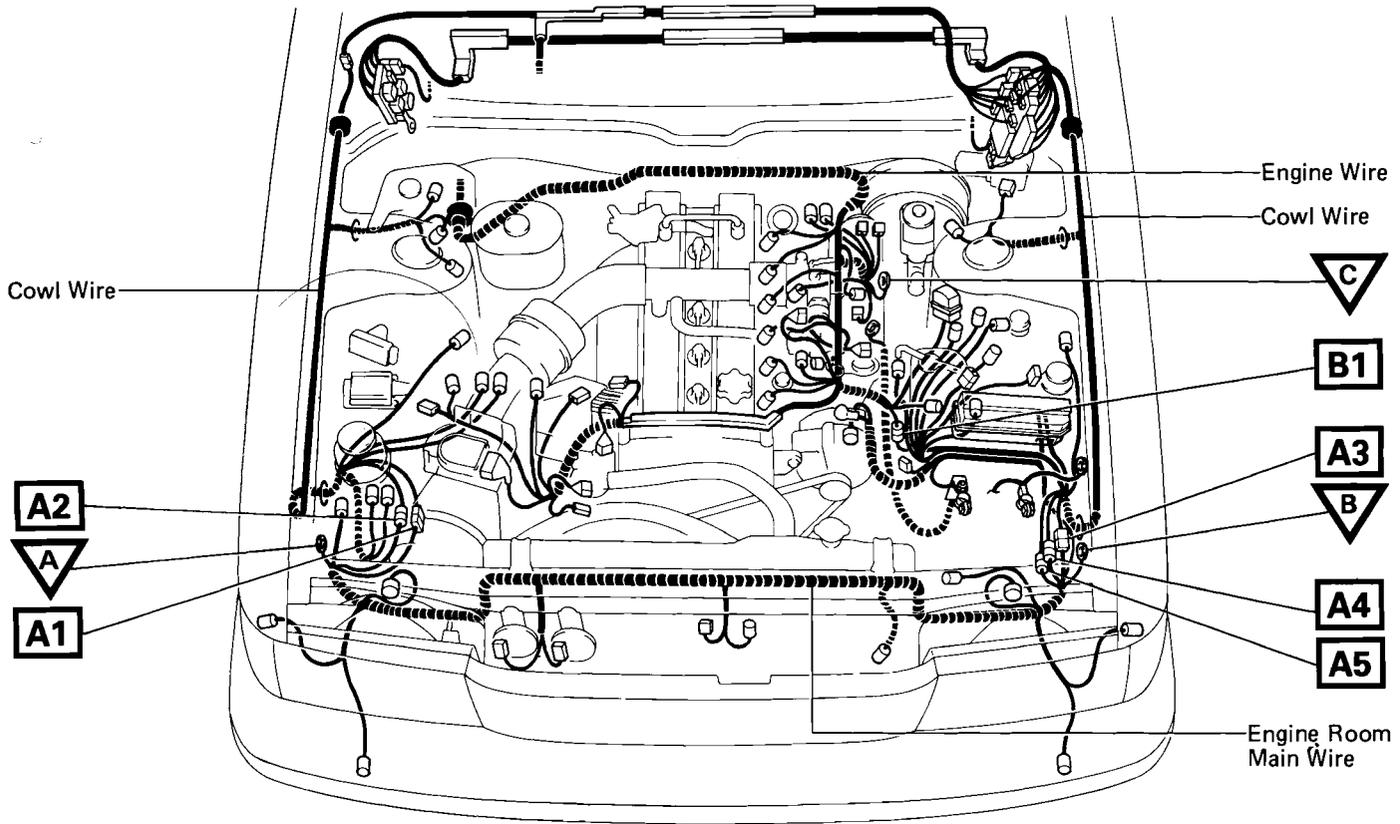
- B 6 Buckle SW (w/ Power Seat)**
- P 12 Power Seat Motor (for Front Vertical)**
- P 13 Power Seat Motor (for Rear Vertical)**
- P 14 Power Seat Motor (for Seat Slide)**
- P 15 Power Seat Motor (for Reclining)**
- P 16 Power Seat Control SW**



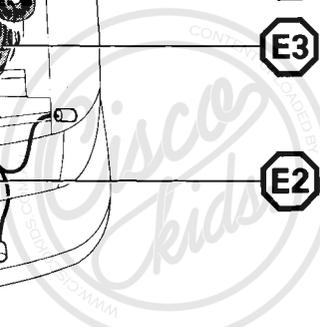
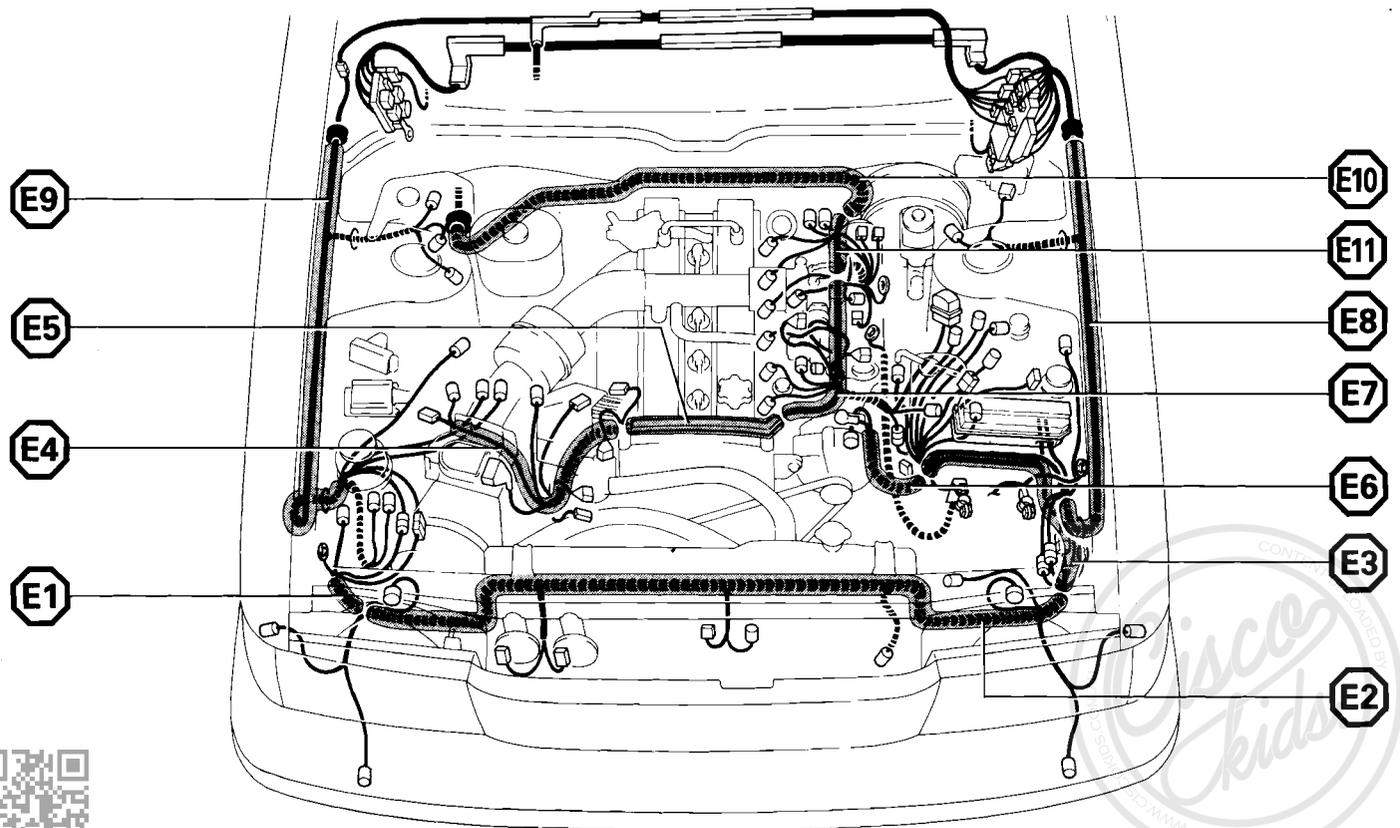
# G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

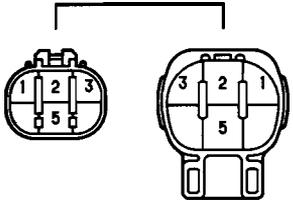


○ : Location of Splice Points

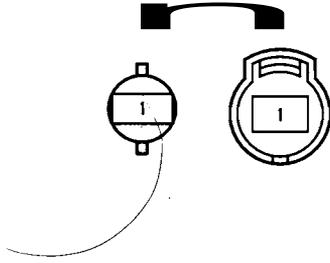


# Connector Joining Wire Harness and Wire Harness

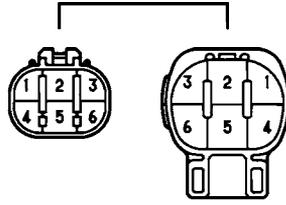
**A1** DARK GRAY



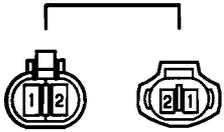
**A2** BLACK



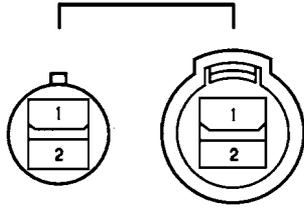
**A3** DARK GRAY



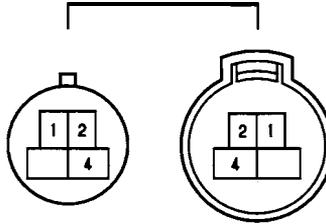
**A4** GRAY



**A5** GRAY



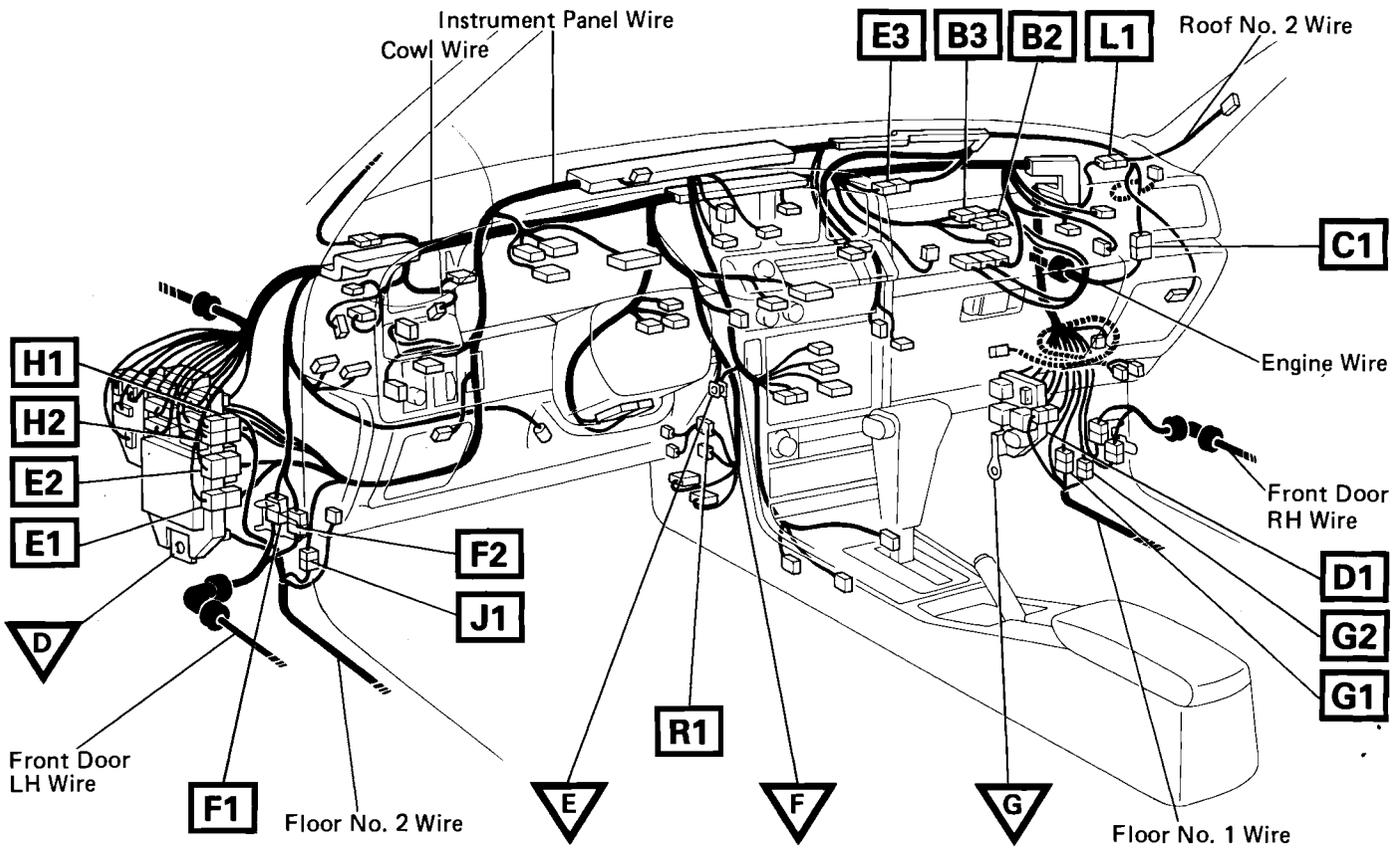
**B1** DARK GRAY



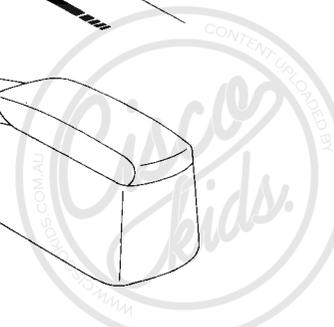
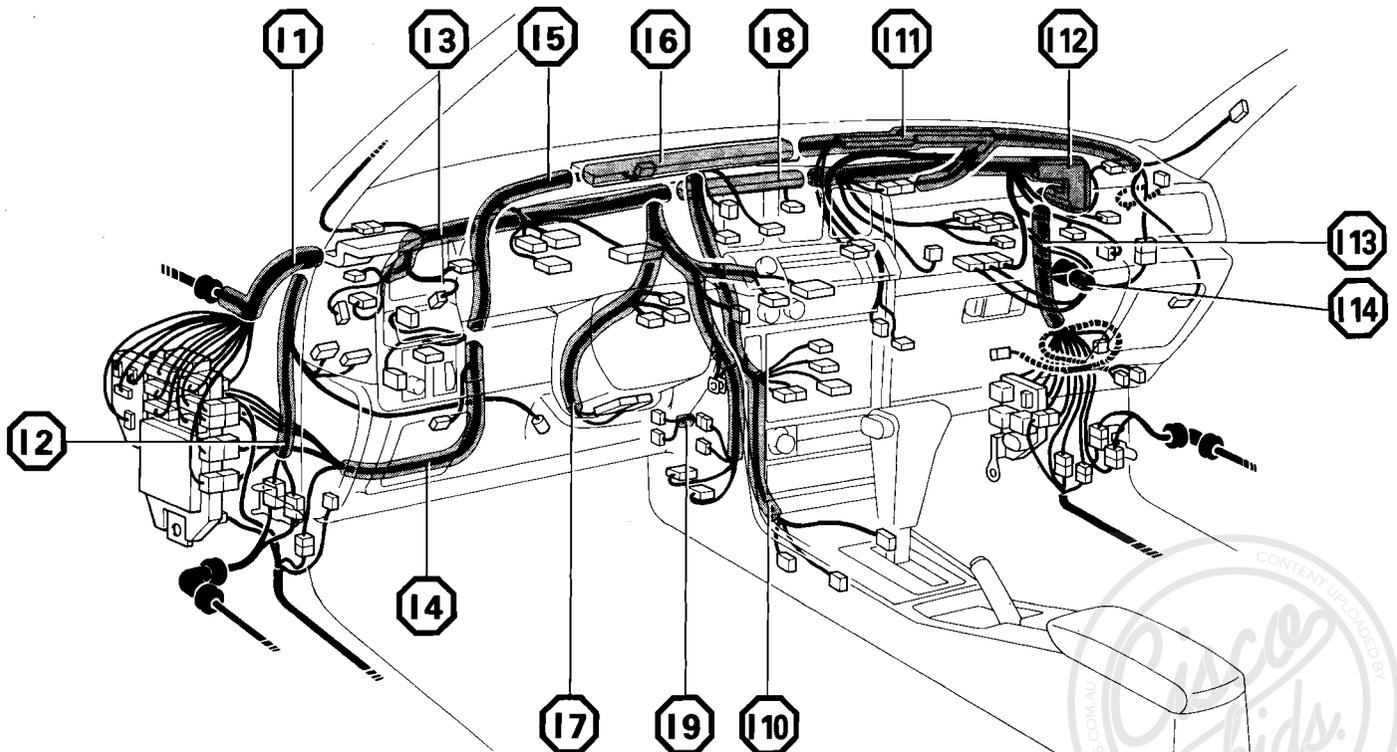
# G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

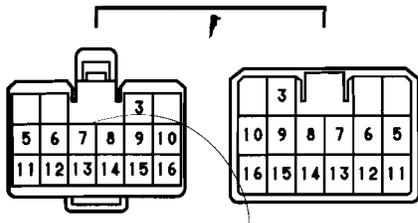


○ : Location of Splice Points

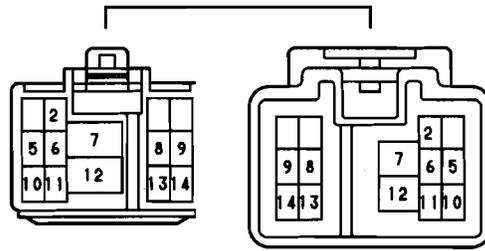


# Connector Joining Wire Harness and Wire harness

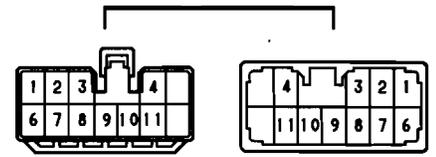
**B2** DARK GRAY



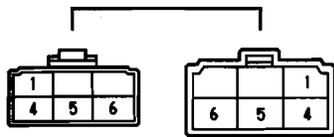
**B3** DARK GRAY



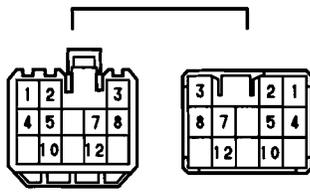
**C1**



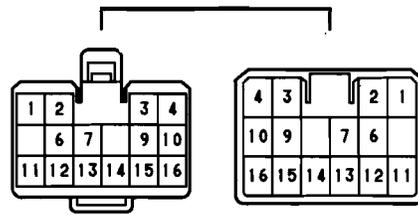
**D1**



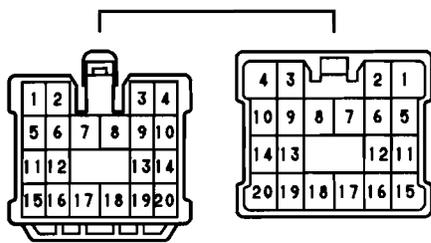
**E1**



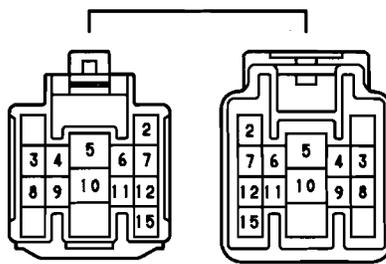
**E2**



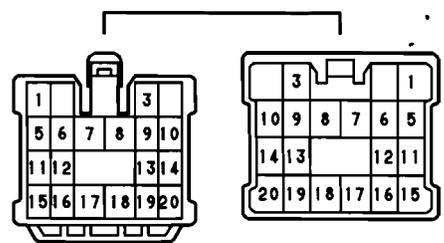
**E3**



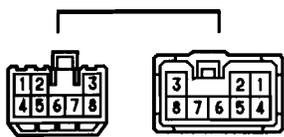
**F1** BLUE



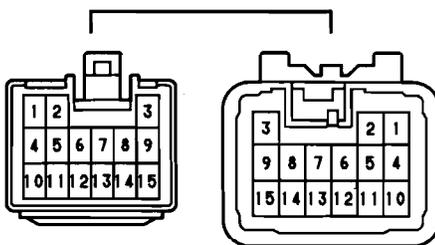
**F2** BLUE



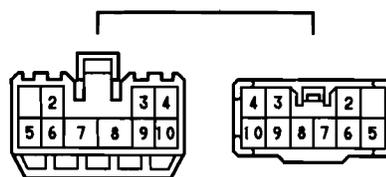
**G1** BLUE



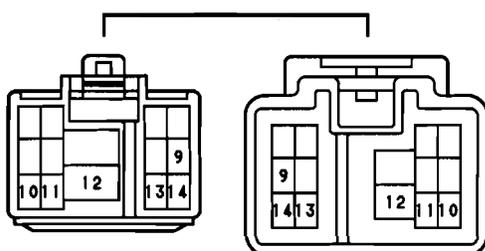
**G2** BLUE



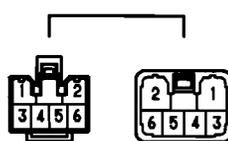
**H1** GRAY



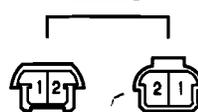
**H2**



**J1** ORANGE



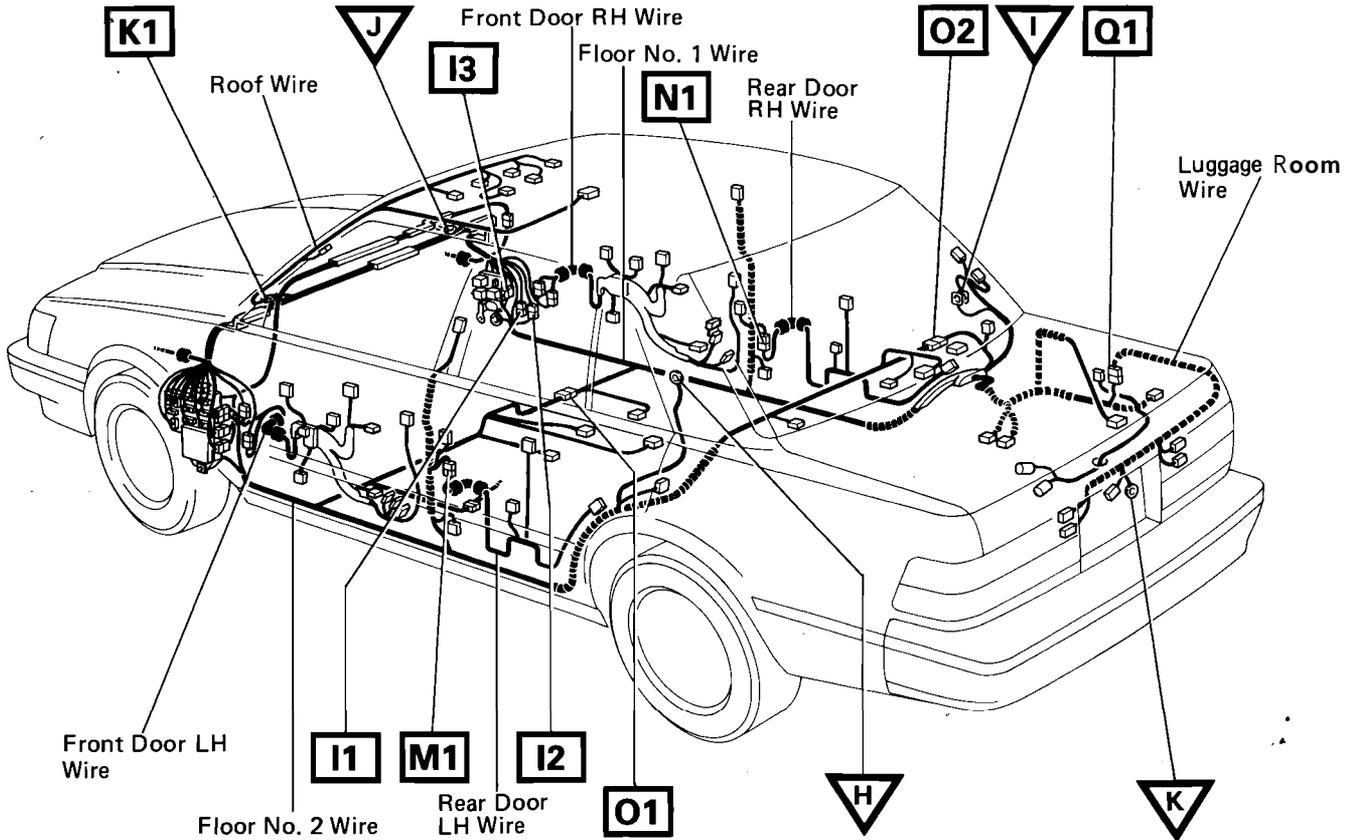
**L1** BLUE



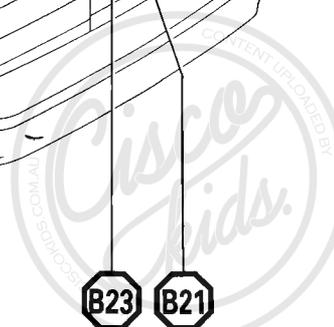
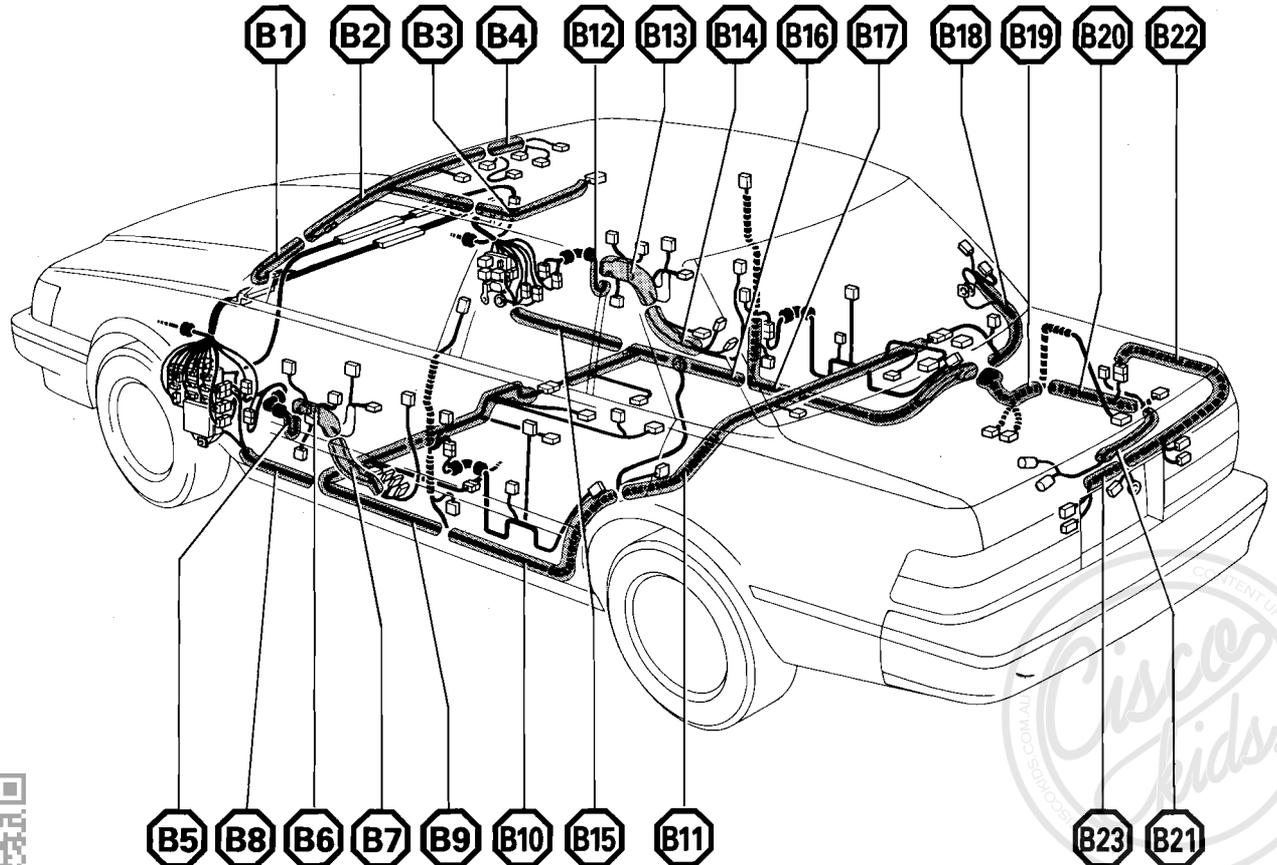
# G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

▽ : Location of Ground Points

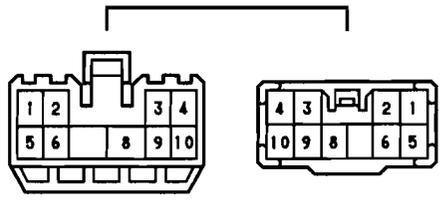


○ : Location of Splice Points

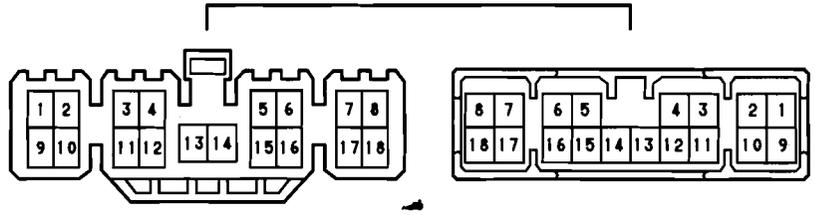


# Connector Joining Wire Harness and Wire Harness

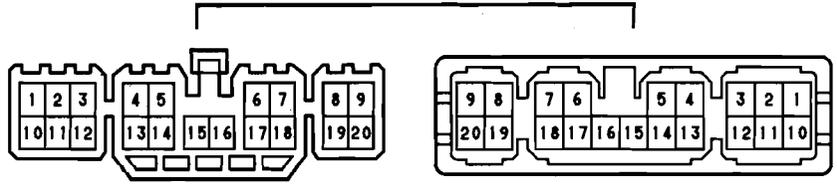
**I1** DARK GRAY



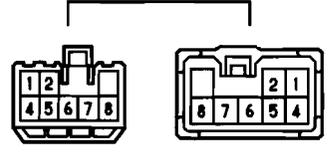
**I2** DARK GRAY



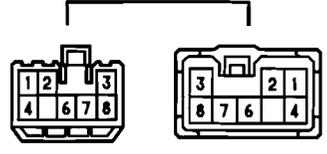
**I3**



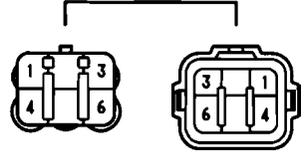
**K1** ORANGE



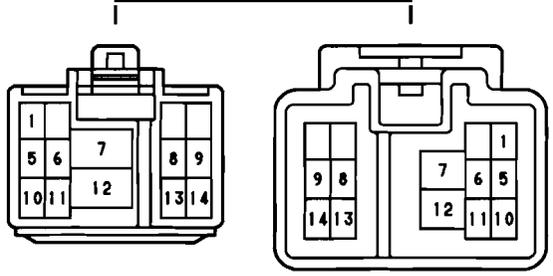
**M1** **N1** BLUE



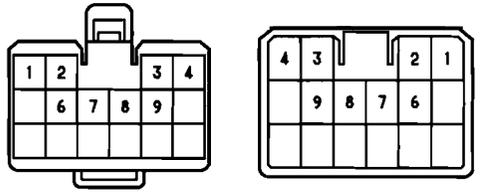
**O1**



**O2**



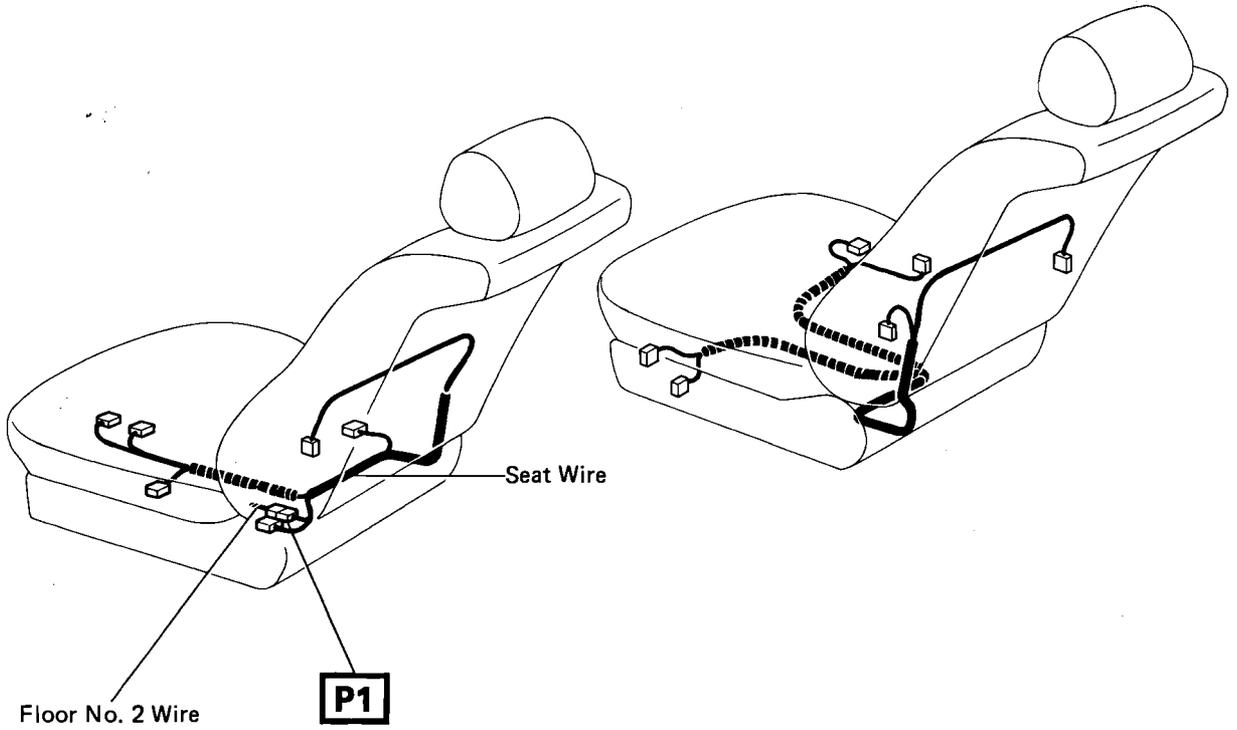
**Q1** BLACK



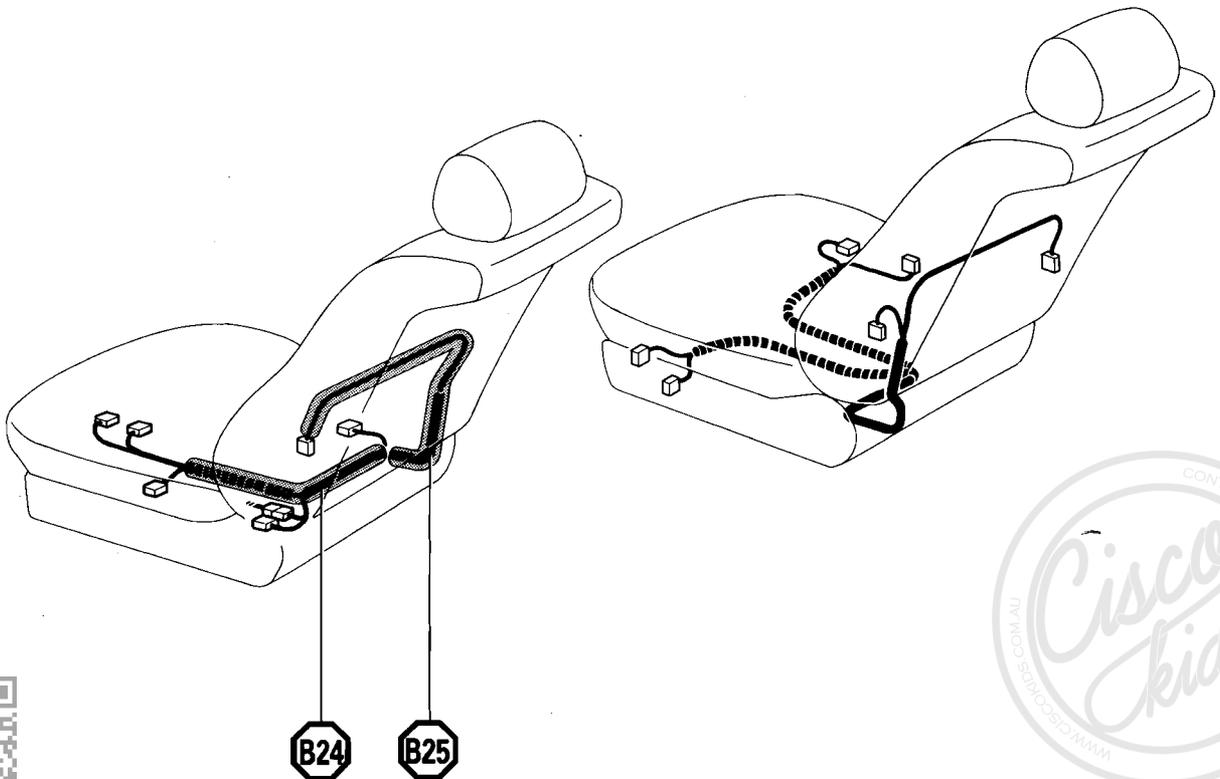
# G ELECTRICAL WIRING ROUTING

□ : Location of Connector Joining Wire Harness and Wire Harness

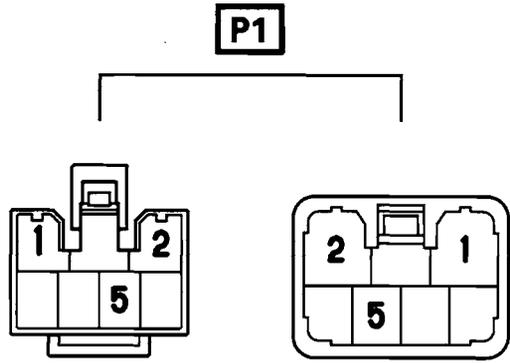
▽ : Location of Ground Points



○ : Location of Splice Points



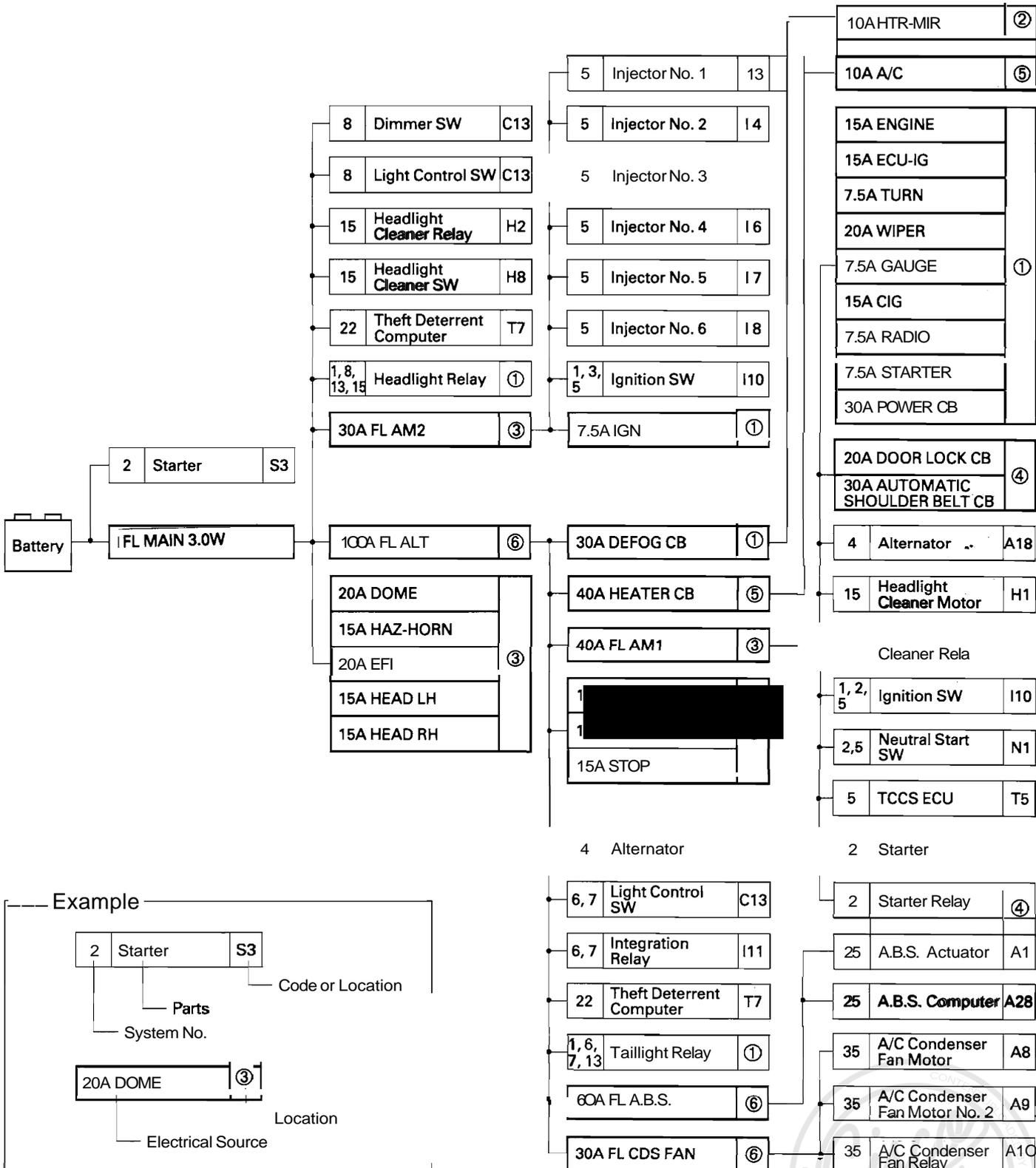
# Connector Joining Wire Harness and Wire Harness



# H POWER SOURCE (Current Flow Chart)

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

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

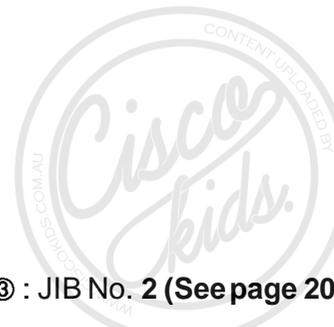


[LOCATION] ① : JIB No. 1 (See page 18) ② : Fuse Block (F7 See on page 23) ③ : JIB No. 2 (See page 20)



# H POWER SOURCE (Current Flow Chart)

Location	System No.		Parts																								
	Code		Code																								
	CB or Fuse		A/T Indicator Light (Analog)	Brake Fluid Level SW	Blower Control Relay	Blower Motor	Back Up Light LH	Back Up Light RH	Check Connector	Cold Start Injector	Cigarette Lighter	Cigarette Lighter and Ash Tray Illumination	Clock	Combination Meter (Analog)	Combination Meter (Digital)	Combination Meter (Analog)	Combination Meter (Digital)	Combination Meter (Digital)	Cruise Control Computer	Cruise Control Main Relay	Stop Light SW	Charge Warning Light (Digital)	Charge Warning Light (Analog)	Check Engine Warning Light (Digital)	Check Engine Warning Light (Analog)	Clock Light	
		C10	B1	82	83	R8	R9	C1	C2	C6	C6	C7	C8	C9	C10	C11	C14	C15	C16	C9	C8	C10	C9	C7			
①	30A	POWERCB																									
	30A	DEFOG CB																									
	7.5A	RADIO																									
	15A	CIG									●	●															
	15A	ENGINE																									
	7.5A	IGN											●	●							●	●					
	7.5A	STARTER								●										●							
	20A	WIPER																									
	15A	ECU-B																									
	15A	ECU-IG				●														●							
	7.5A	TURN																									
	15A	STOP																		●		●					
	7.5A	GAUGE		●			●	●								●	●	●		●				●	●		
	15A	TAIL	●									●	●													●	
②	10A	HTR-MIR																									
③	20A	EFI							●																		
	20A	DOME										●								●							
	15A	HAZ-HORN																									
	15A	HEAD LH																									
	15A	HEAD RH																									
④	20A	DOOR LOCK CB																									
	30A	AUTOMATIC SHOULDER BELT CB																									
⑤	40A	HEATER CB			●	●																					
	10A	A/C																									

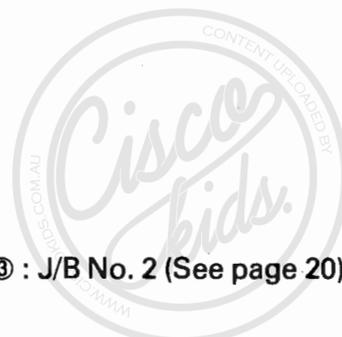




# H POWER SOURCE (Current Flow Chart)

Location	CB or Fuse	System No.	5	34	7	7	15	8	8	22	22	11	35	9	7	7	7	8	8	29	5	12	12	6	6	
		Parts	Fuel Pump	Fuel Sender (Analog)	Glove Box Light	Glove Box Light SW	Headlight Cleaner Relay (for CANADA)	Headlight LH	Headlight RH	Horn RH	Horn LH	Hazard SW	Heater Control SW	High Mount Stop Light	Hazard SW Light	Headlight Cleaner SW Light	Heater Control SW Light	High Beam Indicator Light (Digital)	High Beam Indicator Light (Analog)	Horn SW	ISC Valve	Ignition Key Cylinder Light	Integration Relay	Interior Light	Licence Plate Light LH	Licence Plate Light RH
①	30A	POWER CB																								
	30A	DEFOG CB																								
	7.5A	RADIO																								
	15A	CIG																								
	15A	ENGINE																								
	7.5A	IGN																								
	7.5A	STARTER																								
	20A	WIPER					●																			
	15A	ECU-B																								
	15A	ECU-IG											●													
	7.5A	TURN										●														
	15A	STOP												●												
	7.5A	GAUGE		●																			●			
	15A	TAIL			●	●									●	●	●								●	●
	②	10A	HTR-MIR																							
③	20A	EFI	●																		●					
	20A	DOME																				●	●	●		
	15A	HAZ-HORN								●	●	●								●						
	15A	HEAD LH						●										●	●							
	15A	HEAD RH							●									●	●							
④	20A	DOOR LOCK CB																								
	30A	AUTOMATIC SHOULDER BELT CB																								
⑤	40A	HEATER CB																								
	10A	A/C											●													

[LOCATION] ① : J/B No. 1 (See page 18) ② : Fuse Block (F7 See on page 23) ③ : J/B No. 2 (See page 20)





# H POWER SOURCE (Current Flow Chart)

Location	System No.		Parts																								
	Code		Code																								
	CB or Fuse		Rheostat	Rear Window Defogger (+)	Remote Control Mirror LH	Mirror Heater LH	Remote Control Mirror RH	Mirror Heater RH	Radio and Tape Player Light	Rear Light Warning Light (Digital)	Rear Light Warning Light (Analog)	Rear Window Defogger SW Light	Start Injector Time SW	Shift Lock Control Computer (Shift Lock Control SW, Shift Lock Solenoid)	Starter Cut Relay	Seat Belt Warning Light (Digital)	Seat Belt Warning Light (Analog)	Stop Light LH	Stop Light RH	Theft Deterrent Horn	TCCS ECU	TCCS ECU	TDCI (TOYOTA DIAGNOSTIC COMMUNICATION LINK)	Theft Deterrent Computer	Taillight and Rear Side Marker Light LH	Taillight and Rear Side Marker Light RH	
		R7	R10	R12	R13	R2	C10	C9	R5	S1	S5	S8	C10	C9	R8	R9	T1	T3	T5	T6	T7	R8	R9				
①	30A	POWER CB																									
	30A	DEFOG CB		●		●		●																			
	7.5A	RADIO			●		●																				
	15A	CIG										●													●		
	15A	ENGINE																									
	7.5A	IGN																		●							
	7.5A	STARTER									●		●														
	20A	WIPER																									
	15A	ECU-B																									
	15A	ECU-IG											●														
	7.5A	TURN																									
	15A	STOP											●			●	●		●								
	7.5A	GAUGE							●	●					●	●				●	●						
	15A	TAIL	●						●		●														●	●	
	②	10A	HTR-MIR				●		●																		
	20A	EFI																		●							
	20A	DOME																						●			
③	15A	HAZ-HORN																●					●				
	15A	HEAD LH																									
	15A	HEAD RH																									
④	20A	DOOR LOCK CB																									
	30A	AUTOMATIC SHOULDER BELT CB																									
⑤	40A	HEATER CB																									
	10A	A/C																									







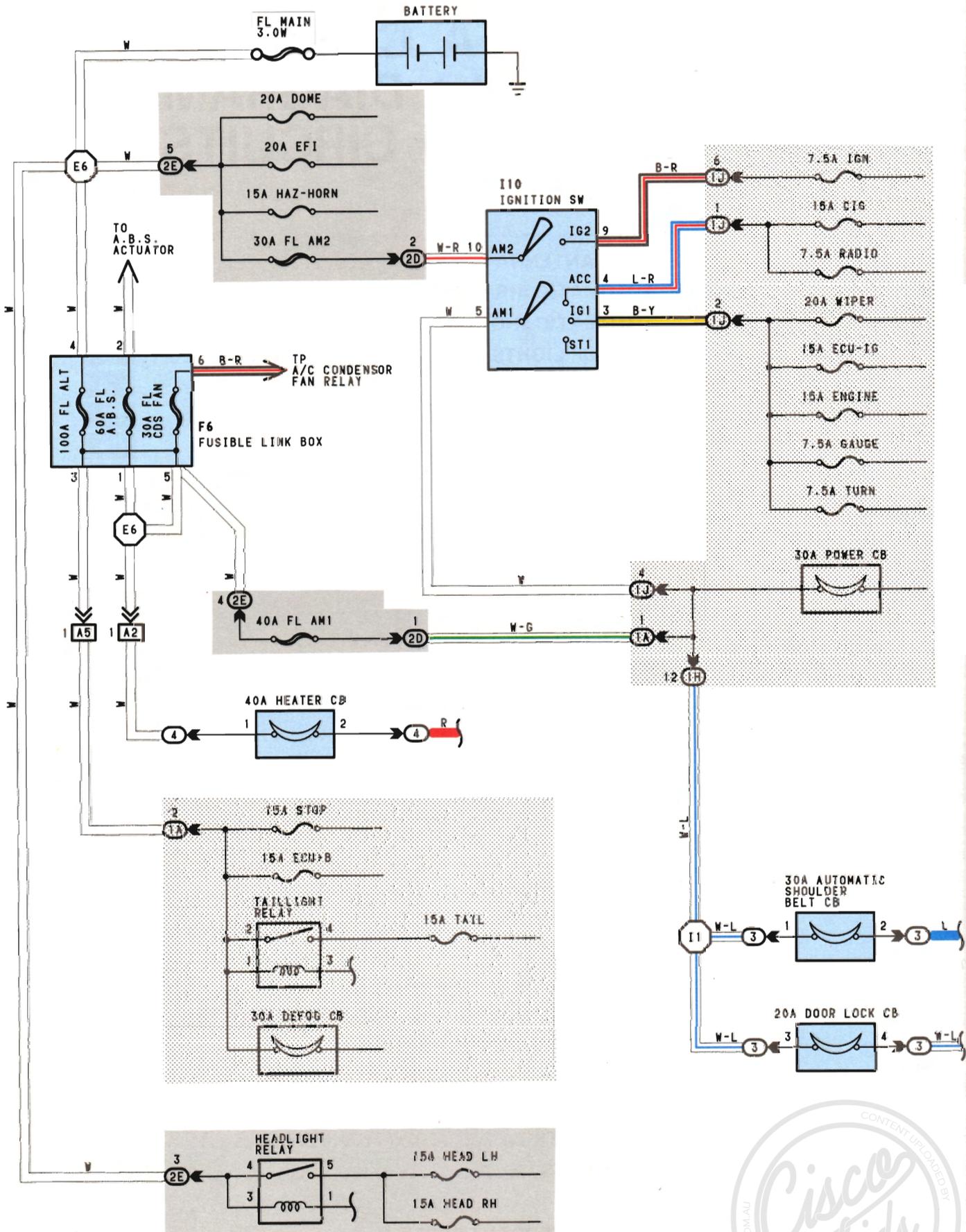
# 1989 TOYOTA CRESSIDA ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

	System No.	Page
A.B.S. ....	25	116
AUTO ANTENNA ....	33	138
AUTOMATIC AIR CONDITIONER ....	35	144
AUTOMATIC SHOULDER BELT (USA) ....	27	122
BACK-UP LIGHTS ....	10	72
CHARGING SYSTEM ....	4	50
CIGARETTE LIGHTER AND CLOCK ....	31	135
COMBINATION METER ....	34	140
CRUISE CONTROL ....	24	111
DOOR LOCKS ....	18	92
ECT AND A/T INDICATOR ....	28	126
FRONT WIPER AND WASHER ....	14	83
HEADLIGHTS ....	8	68
HEADLIGHTS CLEANER ....	15	86
HORNS ....	29	131
IGNITION SYSTEM ....	3	48
ILLUMINATION ....	7	64
INTERIOR LIGHTS ....	12	76
LIGHT AUTO TURN OFF SYSTEM ....	13	80
MOON ROOF ....	23	108
POWER SEAT ....	20	100
POWER SOURCE ....	1	44
POWER WINDOWS ....	19	97
PPS (PROGRESSIVE POWER STEERING) ....	21	102
RADIO AND TAPE PLAYER ....	32	136
REAR WINDOW DEFOGGER AND MIRROR HEATER ...	16	88
REMOTE CONTROL MIRRORS ....	17	90
SHIFT LOCK ....	26	120
STARTING SYSTEM ....	2	46
STOP LIGHTS ....	9	70
TAILLIGHTS ....	6	61
TCCS ....	5	52
THEFT DETERRENT SYSTEM ....	22	104
TURN SIGNAL AND HAZARD WARNING LIGHTS ....	11	74
UNLOCK AND SEAT BELT WARNING ....	30	132





# POWER SOURCE



**SERVICE HINTS**

**TAILLIGHT RELAY**

2-4:CLOSED WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION

**HEADLIGHT RELAY**

4-5:CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION OR DIMMER SW AT FLASH POSITION

**I10 IGNITION SW**

5-4 :CLOSED WITH IGNITION KEY AT ACC OR ON POSITION

5-3 :CLOSED WITH IGNITION KEY AT OM OR ST POSITION

10-9:CLOSED WITH IGNITION KEY AT OM OR ST POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F6	22	I10	23		

**○ : RELAY BLOCKS**

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)
4	17	R/B NO.4 (RIGHT KICK PANEL)

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1H		
1J		
2D	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A2	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (RIGHT FENDER)
A5	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)

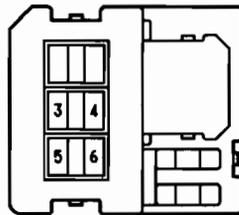
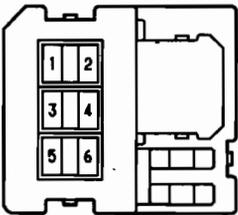
**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E6	26	ENGINE WIRE	I1	28	COWL WIRE

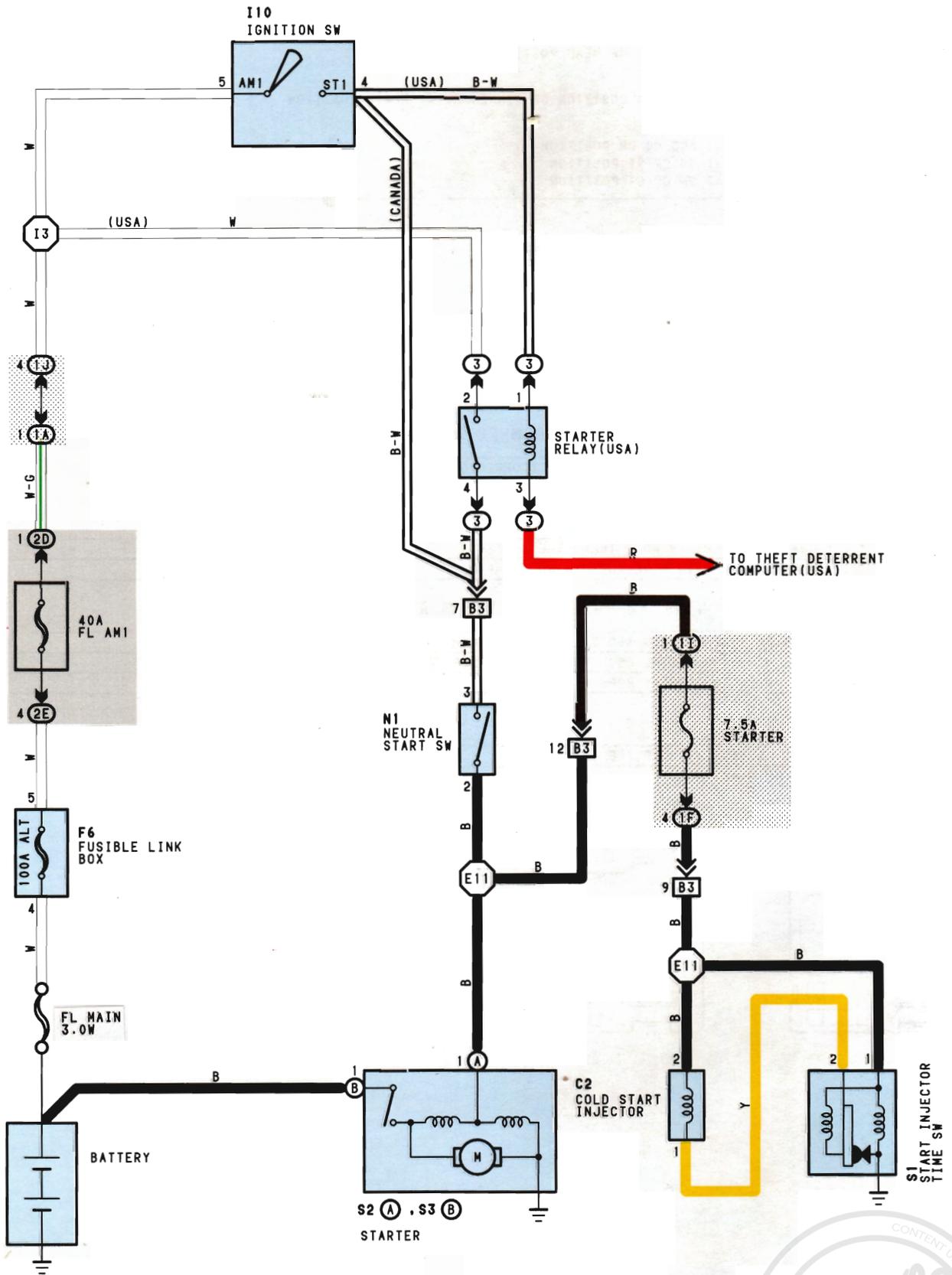
(W/ A.B.S.) F6 BLACK

(W/O A.B.S.) F6

I10 BLACK



# 2 STARTING SYSTEM



**SERVICE HINTS**

**STARTER RELAY**

③ 2- ③ 4:CLOSED WITH NEUTRAL START SW ON AND IGNITION SW AT ST POSITION

**STARTER**

POINTS CLOSED WITH NEUTRAL START SW ON AND IGNITION SW AT ST POSITION

**C2 COLD START INJECTOR**

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

**I10 IGNITION SW**

5-2:CLOSED WITH IGNITION SW AT ST POSITION

**M1 NEUTRAL START SW**

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

**S1 START INJECTOR TIME SW**

POINTS OPEN ABOVE 22°C(72°F)

2-1:APPROX. 30-50Ω BELOW 15°C(59°F)

2-1:APPROX. 70-90Ω ABOVE 30°C(86°F)

2-GROUND:APPROX. 25-85Ω

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C2	22	M1	22	S3	B 22
F6	22	S1	22		
I10	23	S2	A 22		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
J	17	R/B NO.3 (LEFT KICK PANEL)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

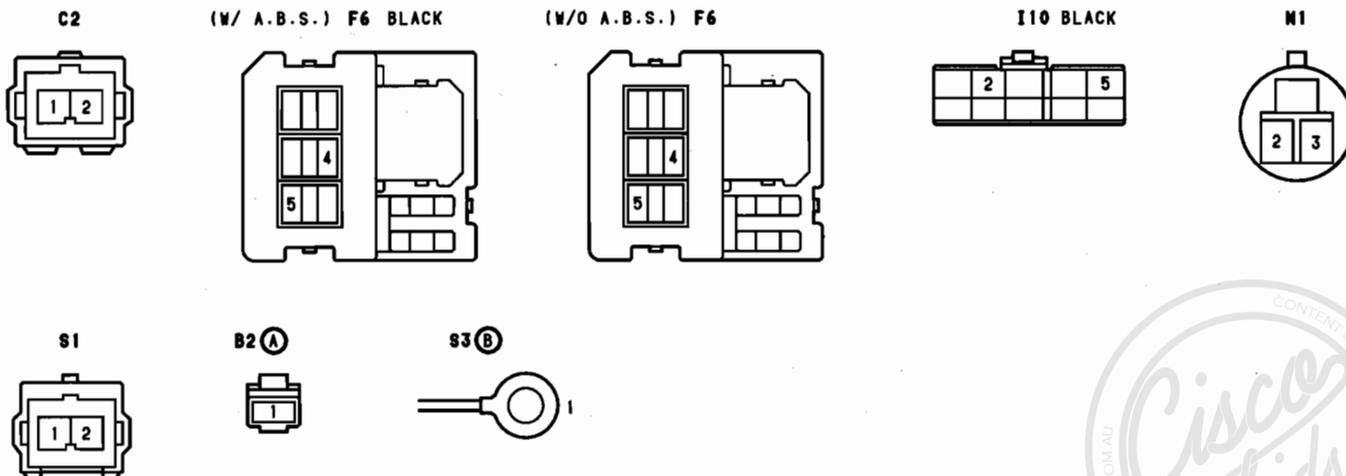
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
1I		
1J		
2D	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

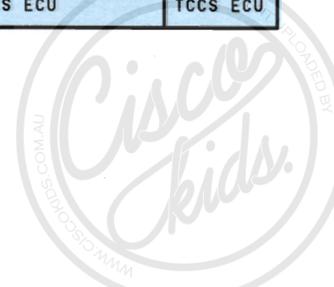
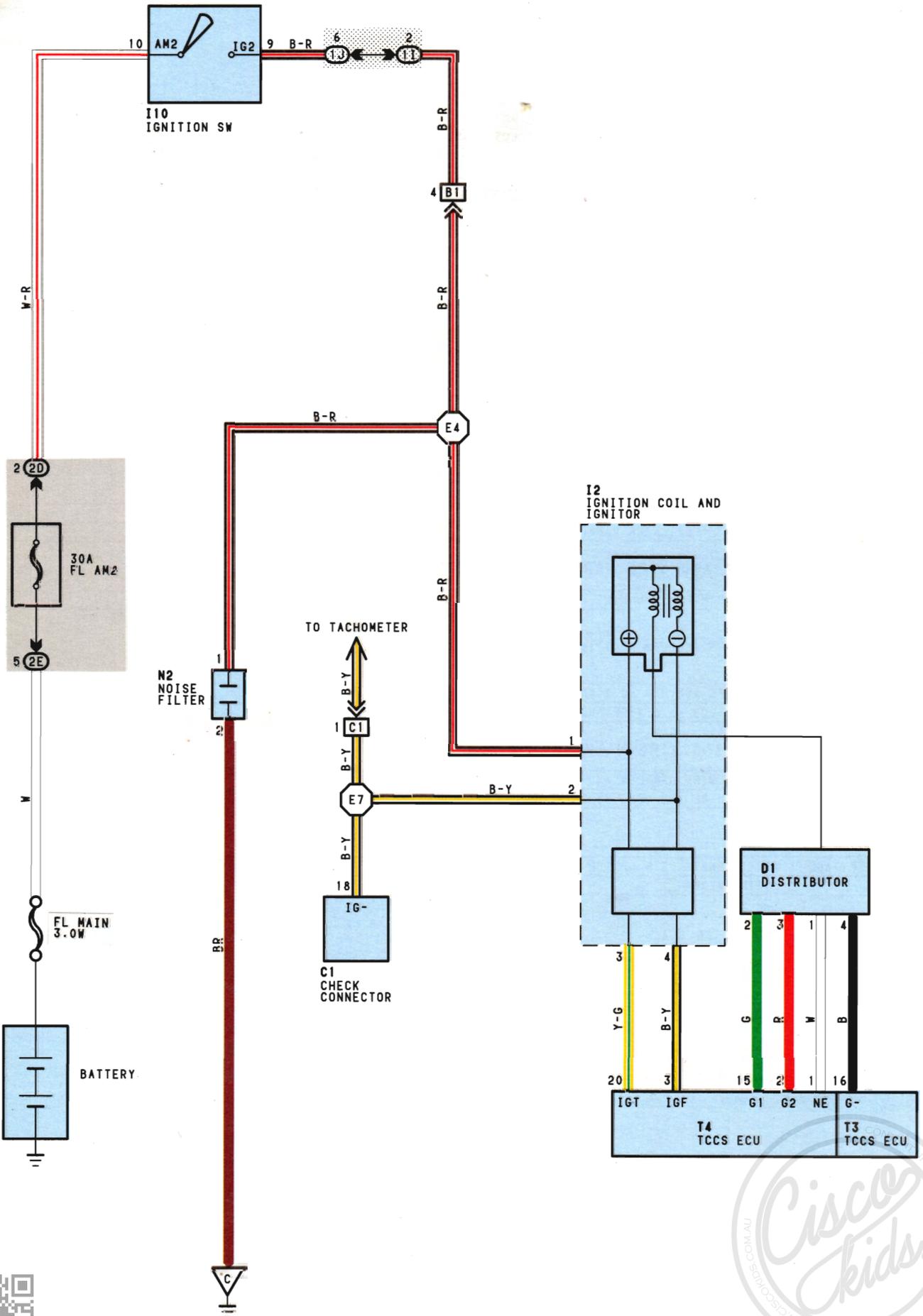
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B3	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E11	26	ENGINE WIRE	I3	28	COWL WIRE





**SERVICE HINTS**

**I10 IGNITION SW**

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

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C1	22	I10	23	T4	23
D1	22	N2	22		
I2	22	T3	23		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
I1	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
IJ		
2D	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B1	26	COWL WIRE AND ENGINE WIRE (NEAR THE BATTERY)
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)

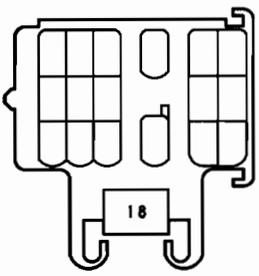
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
C	26	AIR INTAKE CHAMBER

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E4	26	ENGINE WIRE	E7	26	ENGINE WIRE

C1 GRAY



D1 BLACK



I2 GRAY



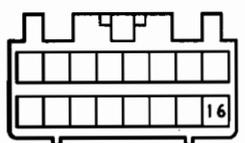
I10 BLACK



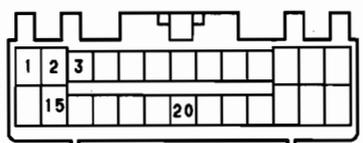
N2



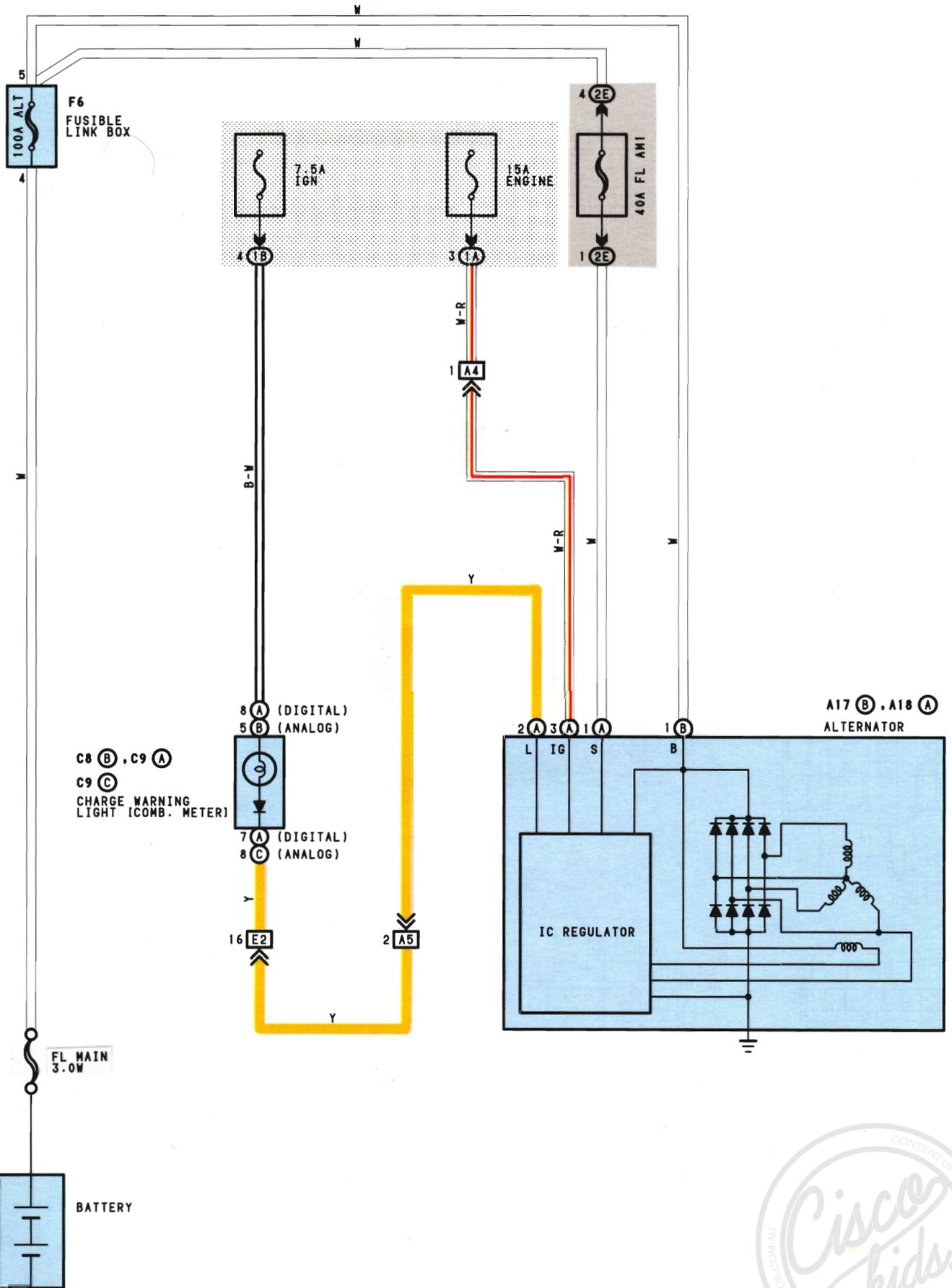
T3 GRAY



T4 GRAY



# 4 CHARGING SYSTEM



**SERVICE HINTS**

**A18 ALTERNATOR**

- Ⓐ 1-GROUND: 13.9-15.1VOLTS WITH ENGINE RUNNING AT 2000 RPM AND 25°C(77°F)  
13.5-14.3VOLTS WITH ENGINE RUNNING AT 2000 RPM AND 115°C(239°F)
- Ⓐ 2-GROUND: 0-4VOLTS WITH IGNITION SW AT ON POSITION AND ENGINE NOT RUNNING

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A17	22	C8	23	C9	23
A18	22	C9	23	F6	22

⊙ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A4	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
A5		
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)

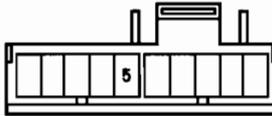
A17 Ⓑ



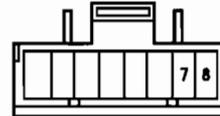
A18 Ⓐ BLACK



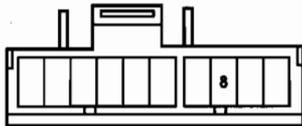
(ANALOG) C8 Ⓑ BROWN



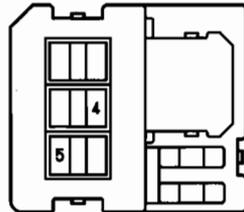
(DIGITAL) C9 Ⓐ



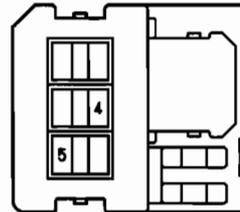
(ANALOG) C9 Ⓒ GRAY

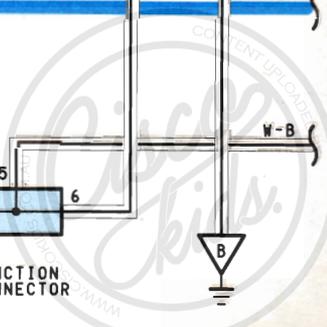
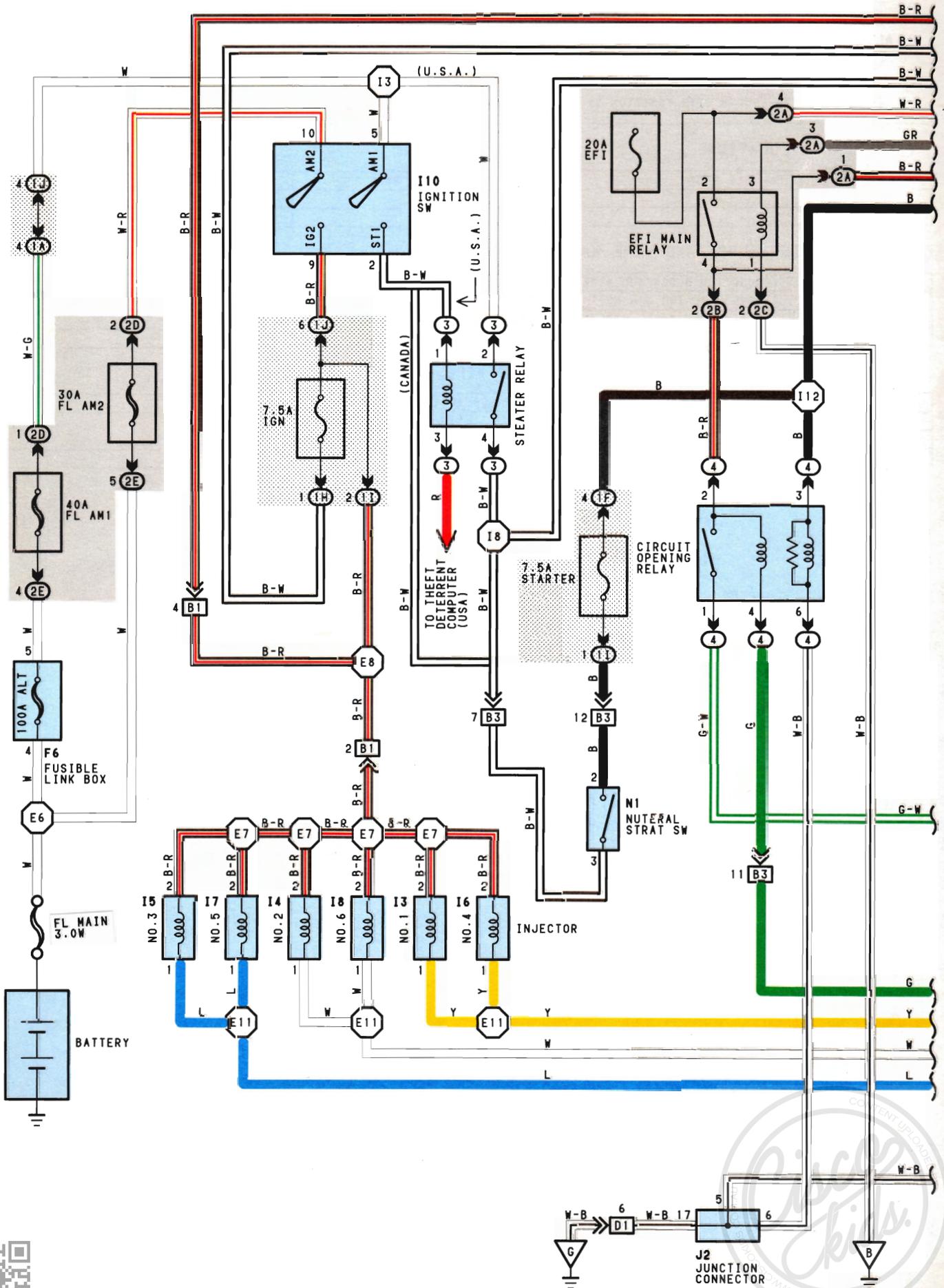


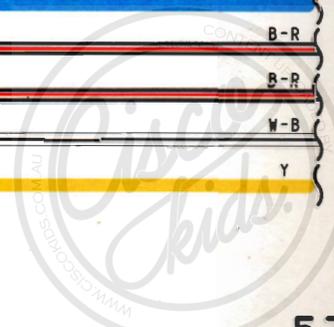
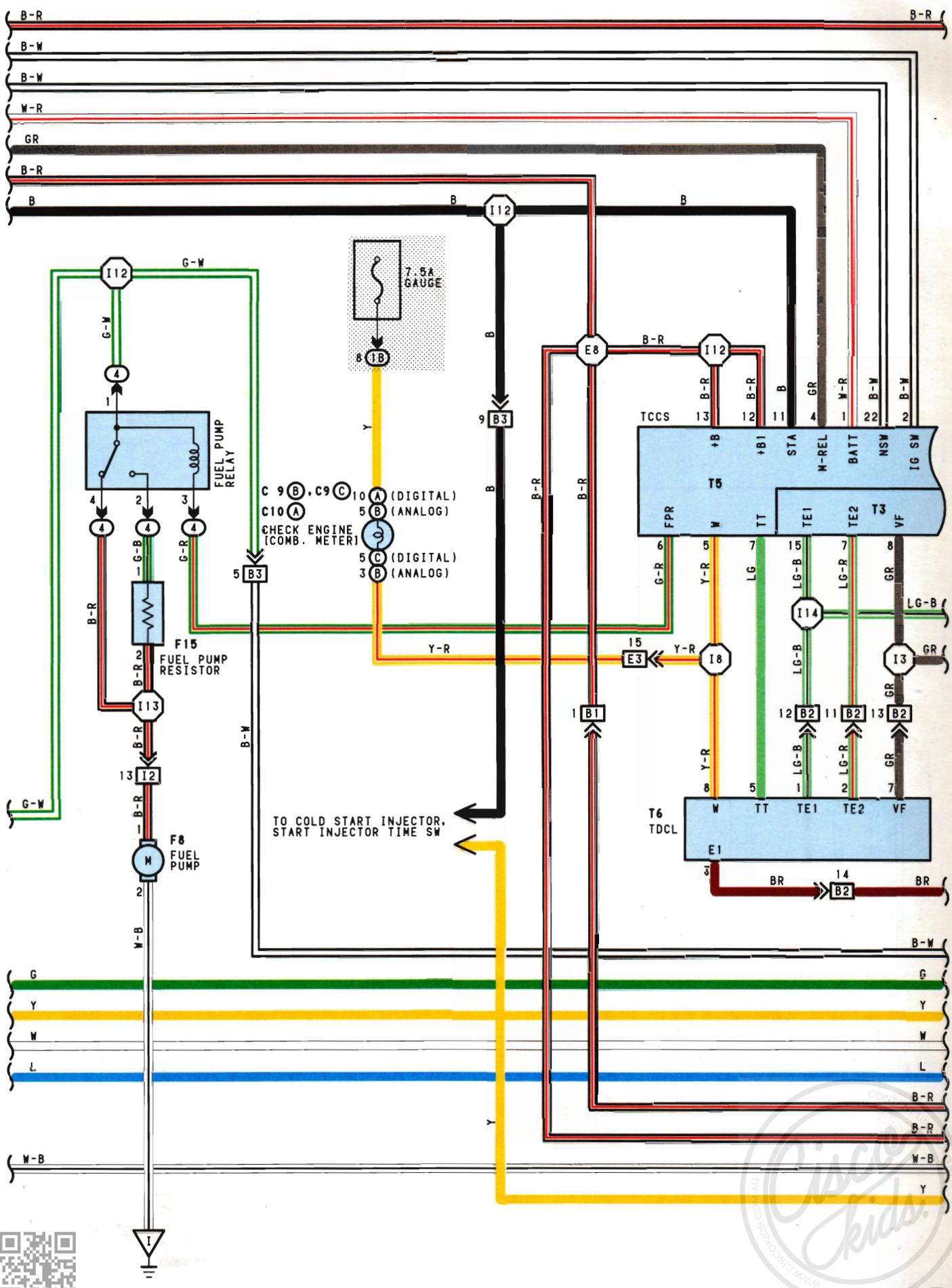
(W/ A.B.S.) F6 BLACK

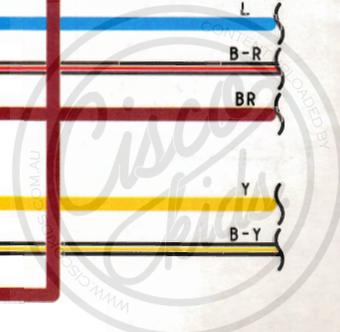
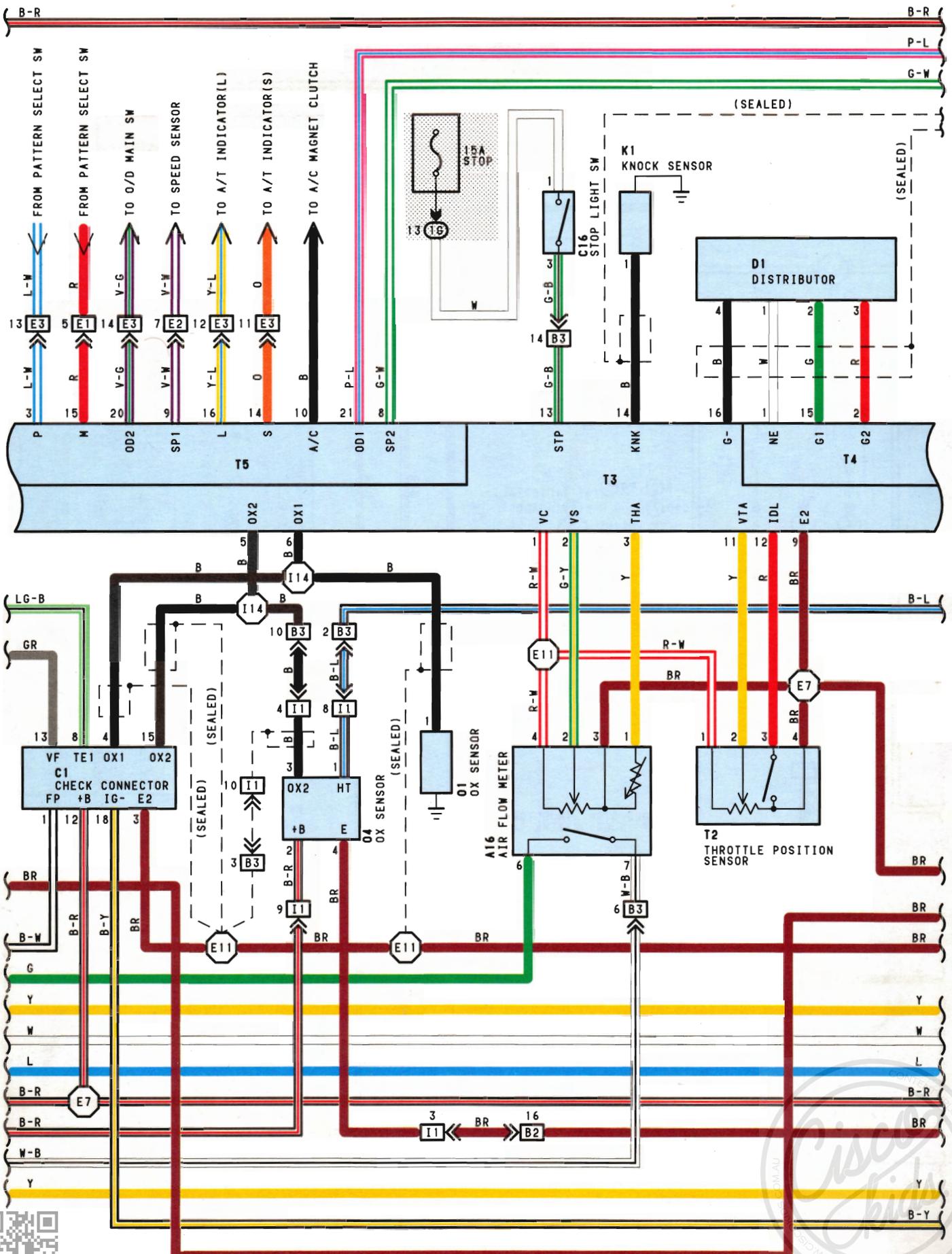


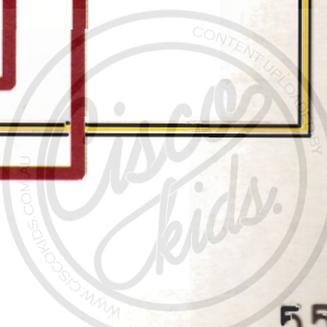
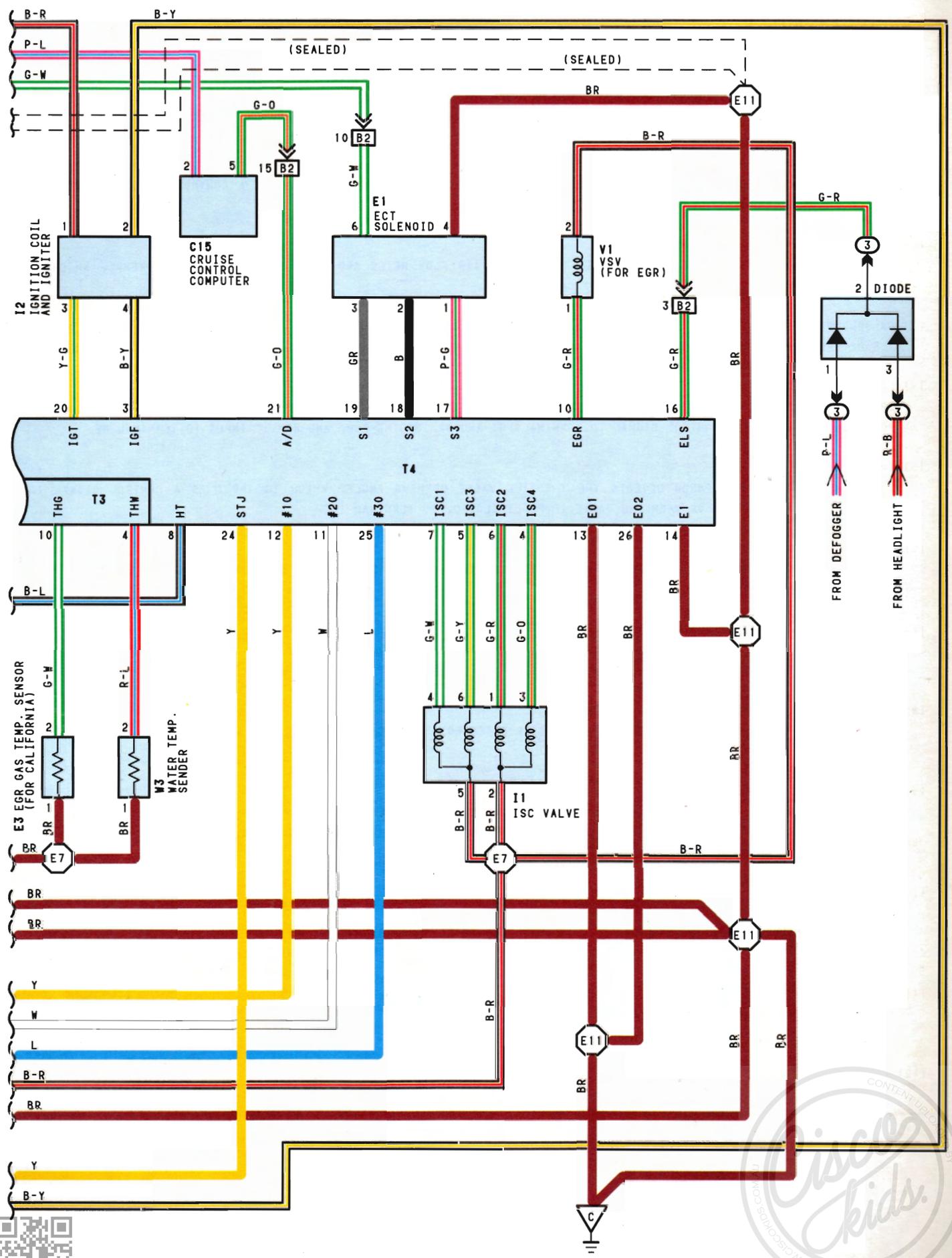
(W/O A.B.S.) F6











**SYSTEM OUTLINE**

THE TCCS SYSTEM UTILIZES A MICROCOMPUTER AND MAINTAINS OVERALL CONTROL OF THE ENGINE, T/M, ETC. AN OUTLINE OF ENGINE CONTROL IS GIVEN HERE.

**1. INPUT SIGNALS****(1) WATER TEMP. SIGNAL SYSTEM**

THE 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 TCCS ECU.

**(2) INTAKE AIR TEMP. SIGNAL SYSTEM**

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

**(3) OX SENSOR SIGNAL SYSTEM**

THE OXYGEN DENSITY IN THE EXHAUST EMISSIONS IS DETECTED AND INPUT AS A CONTROL SIGNAL TO TERMINAL OX1 OF THE ECU.

**(4) RPM SIGNAL SYSTEM**

CRANKSHAFT POSITION AND ENGINE RPM ARE DETECTED BY THE PICK-UP COIL INSTALLED INSIDE THE DISTRIBUTOR. CRANKSHAFT POSITION IS INPUT AS A CONTROL SIGNAL TO TERMINALS G1 AND G2, OF THE ECU, AND RPM IS INPUT TO TERMINAL NE.

**(5) THROTTLE SIGNAL SYSTEM**

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

**(6) VEHICLE SPEED SIGNAL SYSTEM**

THE SPEED SENSOR, INSTALLED INSIDE THE COMBINATION METER, DETECTS THE VEHICLE SPEED AND INPUTS A CONTROL SIGNAL TO TERMINAL SPI OF THE ECU.

**(7) NEUTRAL START SW SIGNAL SYSTEM (A/T)**

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

**(8) A/C SW SIGNAL SYSTEM**

THE OPERATING VOLTAGE OF THE A/C MAGNET CLUTCH IS DETECTED AND INPUT IN THE FORM OF A CONTROL SIGNAL TO TERMINAL A/C OF THE ECU.

**(9) BATTERY SIGNAL SYSTEM**

VOLTAGE IS CONSTANTLY APPLIED TO TERMINAL BATT OF THE 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 ECU. ALSO, CURRENT FLOWS VIA THE IGM FUSE TO TERMINAL IGSW OF THE ECU.

**(10) INTAKE AIR VOLUME SIGNAL SYSTEM**

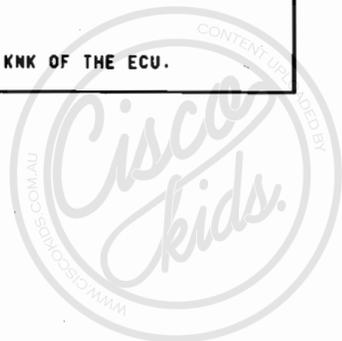
INTAKE AIR VOLUME IS DETECTED BY THE POTENTIOMETER INSTALLED INSIDE THE AIR FLOW METER AND IS INPUT AS A CONTROL SIGNAL TO TERMINAL VS OF THE ECU. INSIDE THE AIR FLOW METER THERE IS ALSO A SW FOR FUEL PUMP OPERATION, AND WHEN THE MEASURING PLATE OPENS (AIR INTAKE OCCURS), THIS SW TURNS ON AND CURRENT FLOWS TO THE FUEL PUMP TO OPERATE IT.

**(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 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 ECU.



## SYSTEM OUTLINE

### 2. CONTROL SYSTEM

- **EFI (ELECTRONIC FUEL INJECTION) SYSTEM**

THE EFI SYSTEM MONITORS THE ENGINE REVOLUTIONS THROUGH THE SIGNALS EACH SENSOR (INPUT SIGNALS (1) TO (11)) INPUTS TO THE ECU. BASED ON THIS DATA AND THE PROGRAM MEMORIZED IN THE ECU, THE MOST APPROPRIATE FUEL INJECTION TIMING IS DECIDED AND CURRENT IS OUTPUT TO TERMINALS #10, #20, AND #30 OF THE ECU, CAUSING THE INJECTORS TO OPERATE IT (TO INJECT FUEL). IT IS THIS SYSTEM WHICH, THROUGH THE WORK OF THE ECU, FINELY CONTROLS FUEL INJECTION IN RESPONSE TO DRIVING CONDITIONS.

- **ESA (ELECTRONIC SPARK ADVANCE) SYSTEM**

THE ESA SYSTEM MONITORS THE ENGINE REVOLUTIONS USING THE SIGNALS (INPUT SIGNALS (1,4,5,6,8,10,11,12)) INPUT TO THE ECU FROM EACH SENSOR. BASED ON THIS DATA AND THE PROGRAM MEMORIZED IN THE ECU, THE MOST APPROPRIATE IGNITION TIMING IS DECIDED AND CURRENT IS OUTPUT TO TERMINALS IGT OF THE ECU. THIS OUTPUT CONTROLS THE IGNITER TO PRODUCE THE MOST APPROPRIATE IGNITION TIMING FOR DRIVING CONDITIONS.

- **ISC (IDLE SPEED CONTROL) SYSTEM**

THE ISC SYSTEM (STOP MOTOR TYPE) SETS THE APPROPRIATE IDLE SPEED ACCORDING TO THE ENGINE CONDITION 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 ECU EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS (1,4,10),11)), OUTPUTS CURRENT TO TERMINALS ISC1, ISC2, ISC3 AND ISC4, AND CONTROLS THE ISC VALVE.

- **EGR CONTROL SYSTEM**

WITH THE EGR CONTROL SYSTEM, THE ECU EVALUATES THE (INPUT SIGNALS (1,4,10) ) FROM EACH SENSOR, CURRENT IS OUTPUT TO TERMINAL EGR AND OPERATION OF THE EGR VALVE IS CONTROLLED.

- **FUEL PUMP CONTROL SYSTEM**

EVERY TIME THE NE SIGNAL IS INPUT THE COMPUTER EVALUATES IT AND FOR 2 SECONDS OUTPUTS TO TERMINAL FC, TURNS THE CIRCUIT OPENING RELAY TO ON AND SENDS ELECTRIC CURRENT TO THE FUEL PUMP. COMPUTER OPERATION OUTPUTS TO TERMINAL FPR AND CONTROLS THE FUEL PUMP CONTROL RELAY AND THUS CONTROLS THE FUEL PUMP DRIVE SPEED IN RESPONSE TO CONDITIONS.

### 3. DIAGNOSIS SYSTEM

WITH THE DIAGNOSIS SYSTEM, WHEN THERE IS A MALFUNCTIONING IN THE 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 ECU MEMORY OR ELSE STOPS THE ENGINE.



**SERVICE HINTS****EFI MAIN RELAY**

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

**STARTER RELAY**

③ 2-③ 4:CLOSED WITH NEUTRAL START SW ON AND IGNITION SW AT ST POSITION

**CIRCUIT OPENING RELAY**

④ 1-④ 2:CLOSED WITH STARTER RUNNING OR MEASURING PLATE (AIR FLOW METER) OPEN

**A16 AIR FLOW METER**

7-6:CLOSED WITH STARTER RUNNING OR MEASURING PLATE OPEN

3-2: 20-1200 $\Omega$ 3-4:200- 400 $\Omega$ 3-1:10.0-20.0K $\Omega$ (-20°C, -4°F)4.0- 7.0K $\Omega$ ( 0°C, 32°F)2.0- 3.0K $\Omega$ ( 20°C, 68°F)0.9- 1.3K $\Omega$ ( 40°C, 104°F)0.4- 0.7K $\Omega$ ( 60°C, 140°F)**F15 FUEL PUMP RESISTOR**1-2:APPROX. 0.7 $\Omega$ **I1 ISC VALVE**2-1,3:EACH 10-30 $\Omega$ 5-4,6:EACH 10-30 $\Omega$ **I3, I4, I5, I6, I7, I8 INJECTOR**1-2:EACH 1.8-3.4 $\Omega$ **T2 THROTTLE POSITION SENSOR**2-4:0.3-6.3K $\Omega$  WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0MM(0IN.)3-4:LESS THAN 2.3K $\Omega$  WITH CLEARANCE BETWEEN LEVEL AND STOP SCREW 0.4MM(0.0157IN.)  
 $\infty\Omega$  WITH 0.75MM(0.0295IN.)2-4:3.5-10.3K $\Omega$  WITH THROTTLE VALVE FULLY OPEN1-4:4.25-8.25K $\Omega$ **W3 EFI WATER TEMP. SENSOR**1-2:APPROX. 6.0K $\Omega$  ( 0°C, 32°F)APPROX. 1.5K $\Omega$  (40°C, 104°F)APPROX. 0.5K $\Omega$  (80°C, 176°F)**T3, T4, T5 TCCS ECU (ELECTRONIC CONTROLLED UNIT)****VOLTAGE AT ECU CONNECTORS**

T5 1- T4 14:10.0-14.0VOLTS

T5 12, T5 13- T4 14:10.0-14.0VOLTS(IGNITION SW ON)

T5 4- T4 14:10.0-14.0VOLTS(IGNITION SW ON)

T5 2- T4 14:10.0-14.0VOLTS(IGNITION SW ON)

T3 12- T3 9: 4.0- 6.0VOLTS(IGNITION SW ON, THROTTLE VALVE OPEN)

T3 1- T3 9: 4.0- 6.0VOLTS(IGNITION SW ON)

T3 11- T3 9: 0.1- 1.0VOLTS(IGNITION SW ON, THROTTLE VALVE FULLY CLOSED)

3.2- 4.2VOLTS(IGNITION SW ON, THROTTLE VALVE FULLY OPEN)

T3 2- T3 9: 3.7- 4.3VOLTS(IGNITION SW ON, MEASURING PLATE FULLY CLOSED)

0.2- 0.5VOLTS(IGNITION SW ON, MEASURING PLATE FULLY OPEN)

2.3- 2.8VOLTS(IDLING)

1.0- 2.0VOLTS(3000RPM)

T4 12, 11, 25- T4 13, 26:10.0-14.0VOLTS(IGNITION SW ON)

T3 3- T3 9: 1.0- 3.0VOLTS(IGNITION SW ON, INTAKE AIR TEMP. 20°C(68°F))

T3 4- T3 9: 0.1- 1.0VOLTS(IGNITION SW ON COOLANT TEMP. 80°C(176°F))

T5 11- T4 14: 6.0-14.0VOLTS WITH CRANKING

T4 20- T4 14: 0.7- 1.0VOLTS(IGNITION SW ON)

T4 7, 6, 5, 4- T4 14:9.0-14.0VOLTS(IGNITION SW ON)

T5 5- T4 14: 8.0-14.0VOLTS NO TROUBLE("CHECK ENGINE" WARNING LIGHT OFF) AND ENGINE RUNNING

T5 10- T4 14:10.0-14.0VOLTS(IGNITION SW ON, AIR CONDITIONING ON)

T3 15- T4 14: 4.0- 6.0VOLTS WITH IGNITION SW ON, CHECK CONNECTOR TE1-E1 NOT CONNECT

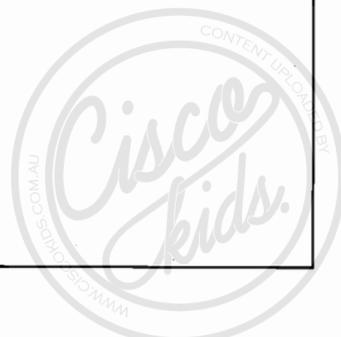
0.0VOLT WITH IGNITION SW ON CHECK CONNETOR TE1-E1 CONNECT

T5 22- T4 14: 0.0VOLT WITH IGNITION SW ON, SHIFT POSITION P OR N PANGE

10.0-14.0VOLT WITH IGNITION SW ON, SHIFT POSITION EXCEPT P OR N RANGE

**RESISTANCE AT ECU CONNECTOR**

(DISCONNECT WIRING CONNECTOR FROM ECU)

T3 2-T3 9: $\infty\Omega$ (THROTTLE VALVE FULLY OPEN) LESS THAN 2.3K $\Omega$ (THROTTLE VALVE FULLY CLOSE)T3 11-T3 9:3500-10300 $\Omega$ (THROTTLE VALVE FULLY OPEN)200-1200  $\Omega$ (THROTTLE VALVE FULLY CLOSED)T3 2-T3 9: 200- 600 $\Omega$ (MEASURING PLATE FULLY CLOSED)200- 1200 $\Omega$ (MEASURING PLATE FULLY OPEN)T3 3-T3 9:2000- 3000 $\Omega$ (INTAKE AIR TEMP. 20°C, 68°F)T3 4-T3 9: 200- 400 $\Omega$ (COOLANT TEMP. 80°C, 176°F)T4 15, 2-T3 16:140-180  $\Omega$ T4 1- T3 16:180-220 $\Omega$ T4 7, 6, 5, 4 T5 12:10-30 $\Omega$ 

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE	
A16	22	F8	24	N1	22	
C1	22	I1	22	O1	22	
C16	22	I2	22	O4	24	
C9	B	23(ANALOG)	I3	22	T2	22
	C	23(DIGITAL)	I4	22	T3	23
C10	A	23	I5	22	T4	23
C15	23	I6	22	T5	23	
C16	23	I7	22	T6	23	
E1	22	I8	22	V1	22	
E3	22	I10	23	W3	22	
F5	22	J2	23			
F6	22	K1	22			

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)
4	17	R/B NO.4 (RIGHT KICK PANEL)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B	18	INSRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G		
1H		
1I		
1J		
2A	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2B		
2C	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)
2D	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

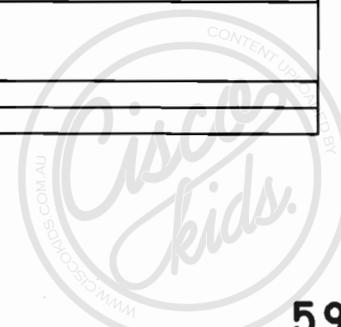
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B1	26	COWL WIRE AND ENGINE WIRE (NEAR THE BATTERY)
B2	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
B3		
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E2		
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
I1	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
I2		

▽ : GROUND POINTS

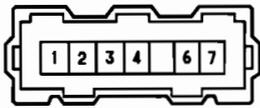
CODE	SEE PAGE	GROUND POINTS LOCATION
B	26	FRONT OF LEFT FENDER
C	26	AIR INTAKE CHAMBER
G	28	R/B NO.4 SET BOLT
I	30	RIGHT REAR PILLAR

○ : SPLICE POINTS

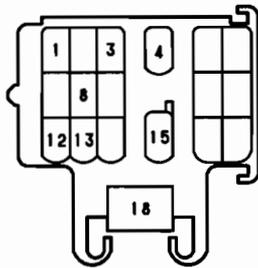
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E6	26	ENGINE WIRE	I8	28	COWL WIRE
E7					
E8	26	COWL WIRE	I13		
E11	26	ENGINE WIRE	I14	28	ENGINE WIRE
I3	28	COWL WIRE			



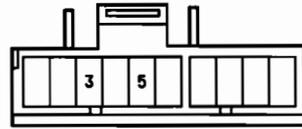
A16 BLACK



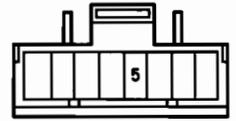
C1 GRAY



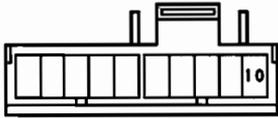
C9 (B) GRAY



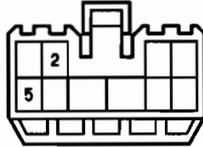
C9 (C)



C10 (A)



C15



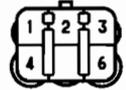
C16



D1 BLACK



E1



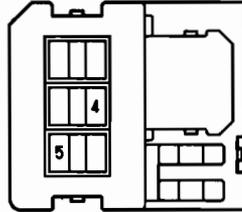
E3 GREEN



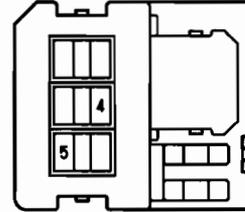
E15 DARK GRAY



(W/ A.B.S.) F6 BLACK



(W/O A.B.S.) F6



F8 DARK GRAY



I1 GRAY



I2 GRAY



I3, I5, I7 GRAY



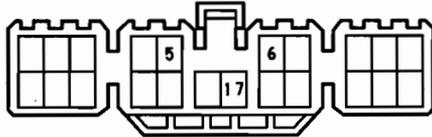
I4, I6, I8 BROWN



I10 BLACK



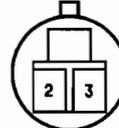
J2



K1 GRAY



M1



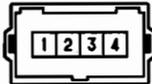
O1 GRAY



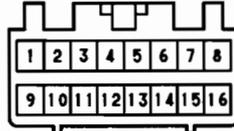
O4 DARK GRAY



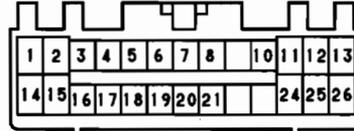
T2 BLACK



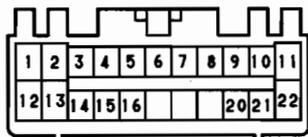
T3 GRAY



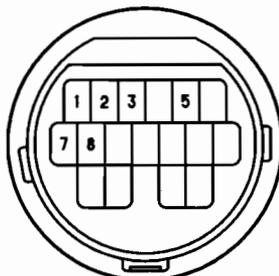
T4 GRAY



T5 DARK GRAY



T6 BLACK



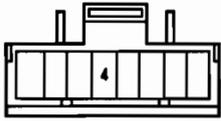
V1 BLUE



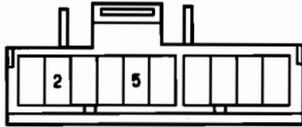
W3 GRAY



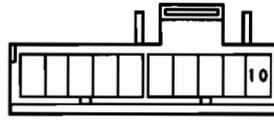
(DIGITAL) C9 **B**



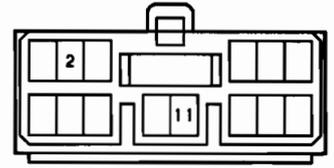
(ANALOG) C9 **C** GRAY



(DIGITAL) C10 **A** BROWN



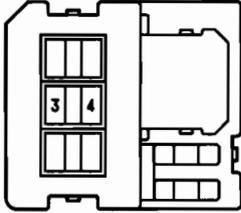
C13 BLACK



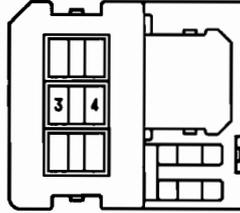
F1, F2



(W/ A.B.S.) F6 BLACK



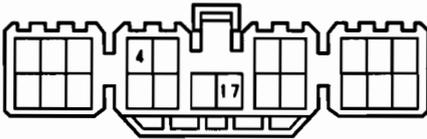
(W/O A.B.S.) F6



I11



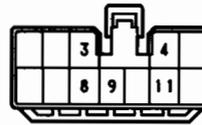
J2



L1, L2



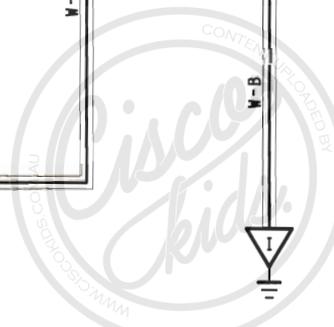
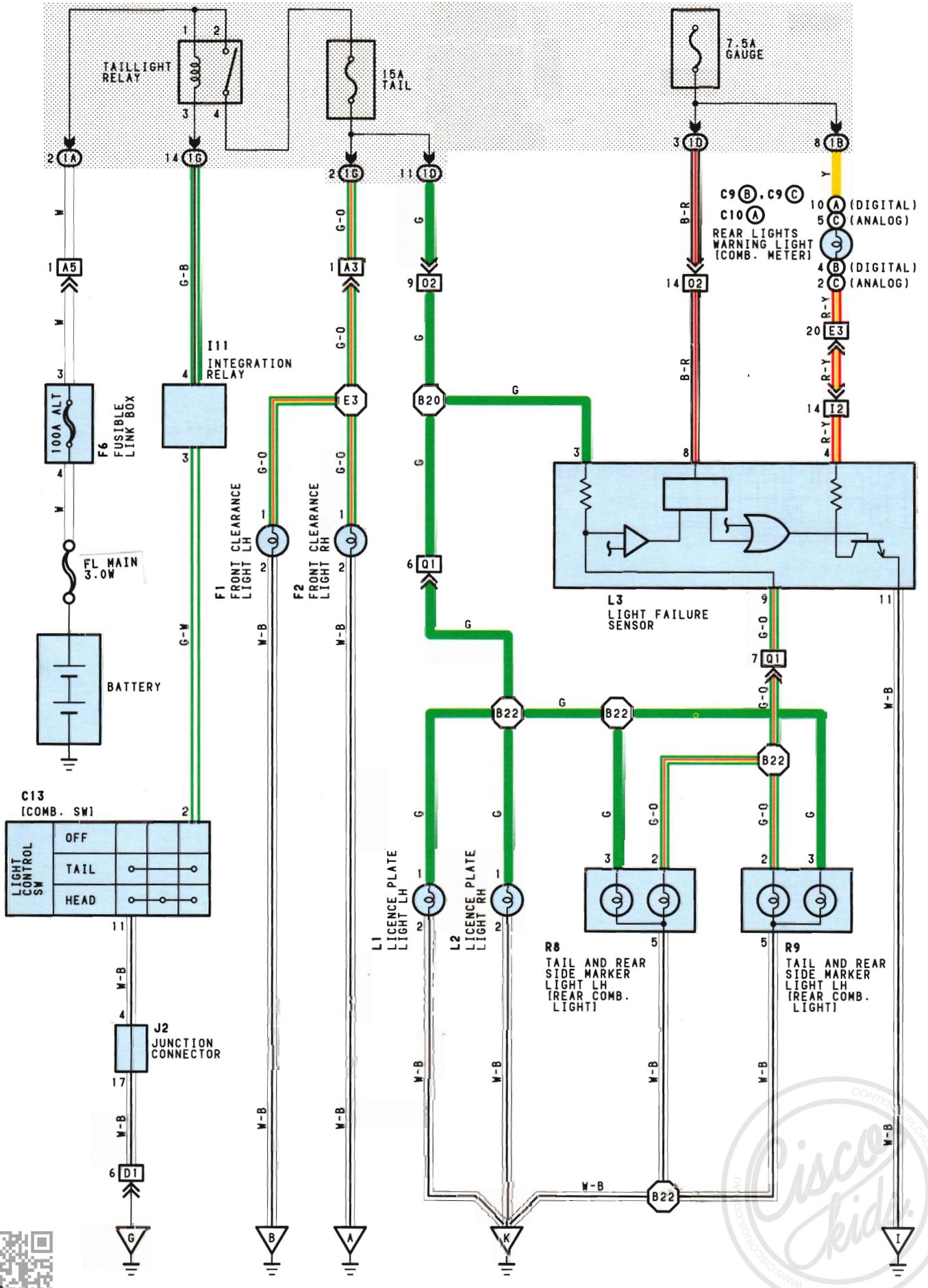
L3



R8, R9



# 6 TAILLIGHTS



**SYSTEM OUTLINE**

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

WHEN THE IGNITION SW IS TURNED ON, THE CURRENT FLOWS FROM THE GAUGE FUSE TO TERMINAL 4 OF THE LIGHT FAILURE SENSOR THROUGH TERMINAL 8 OF THE LIGHT FAILURE SENSOR AND THROUGH THE REAR LIGHT WARNING LIGHT.

**TAIL LIGHT DISCONNECTION WARNING**

WITH THE IGNITION SW ON AND THE LIGHT CONTROL SW TURNED TO TAIL OR HEAD POSITION, IF THE TAILLIGHT CIRCUIT IS OPEN, THE LIGHT FAILURE SENSOR DETECTS THE FAILURE BY THE CHANGE IN CURRENT FLOWING FROM TERMINAL 3 OF THE LIGHT FAILURE SENSOR TO TERMINAL 9, AND THE WARNING CIRCUIT OF THE LIGHT FAILURE SENSOR IS ACTIVATED.

AS A RESULT, THE CURRENT FLOWS FLOW FROM TERMINAL 4 OF THE LIGHT FAILURE SENSOR → TERMINAL 11 → GROUND AND TURNS THE REAR LIGHT WARNING LIGHT ON, WHICH REMAINS ON UNTIL THE LIGHT CONTROL SW IS TURNED OFF.

**SERVICE HINTS****TAILLIGHT RELAY**

2-4:CLOSED WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION

**L3 LIGHT FAILURE SENSOR**

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

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

11-GROUND :ALWAYS CONTINUITY

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C9	B	23(DIGITAL)	F2	L2	24
	C	23(ANALOG)	F6	L3	24
C10	A	23(DIGITAL)	I11	R8	24
C13	23	J2	23	R9	24
F1	22	L1	24		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A3	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
A5		
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

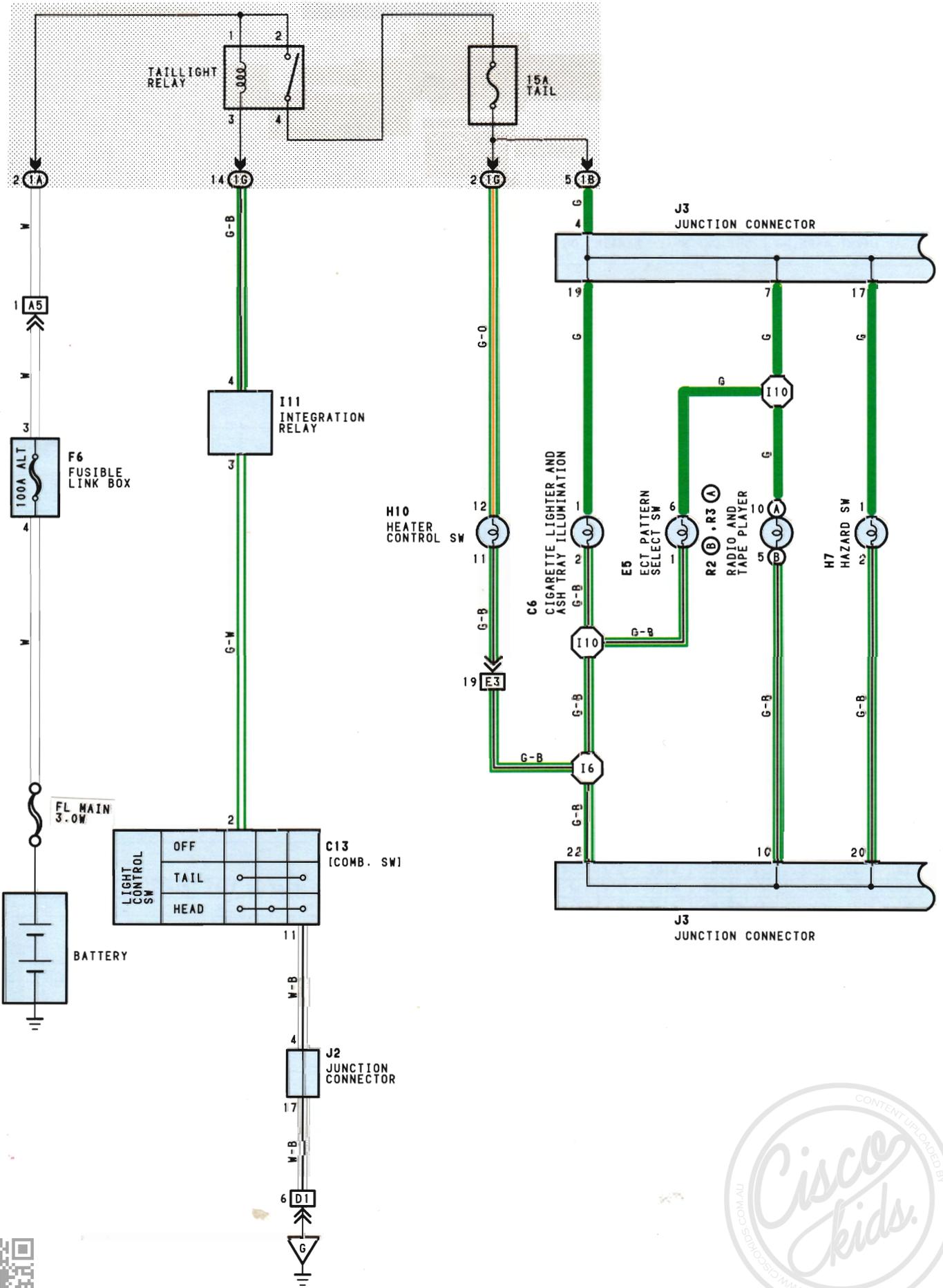
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
A	26	FRONT OF RIGHT FENDER
B	26	FRONT OF LEFT FENDER
G	28	R/B NO.4 SET BOLT
I	30	RIGHT REAR PILLAR
K	30	BACK PANEL CENTER

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E3	26	ENGINE ROOM MAIN WIRE	B22	30	LUGGAGE ROOM WIRE
B20	30	FLOOR NO.1 WIRE			







## SERVICE HINTS

### TAILLIGHT RELAY

2-4: CLOSED WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION

### C13 LIGHT CONTROL SW (COMB. SW)

2-11: CLOSED WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C6	23	E5	23	J2	23
C7	23	F6	22	J3	23
C8	B	23 (ANALOG)	G1	23	23
C9	A	23 (DIGITAL)	G2	23	23
C10		23 (ANALOG)	H7	23	23
C11	C	23 (ANALOG)	H8	23	23
C11		23 (DIGITAL)	H10	23	23
C13	23	I11	23	R7	23

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
16	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

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

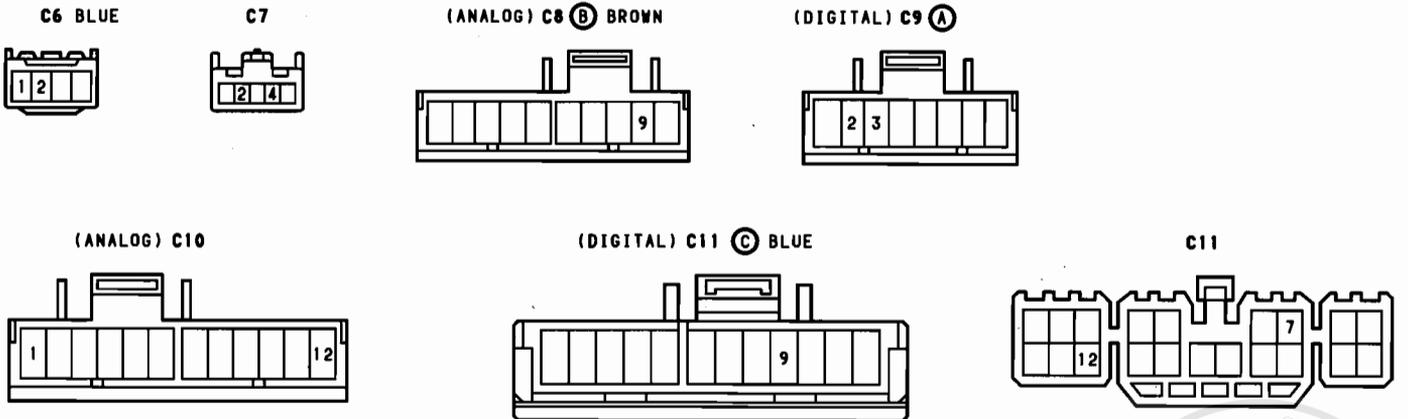
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A5	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)

### ▽ : GROUND POINTS

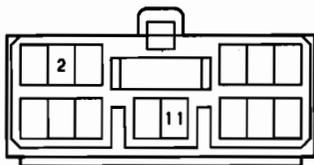
CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT

### ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
15	28	INSTRUMENT PANEL WIRE	I10	28	INSTRUMENT PANEL WIRE
16					



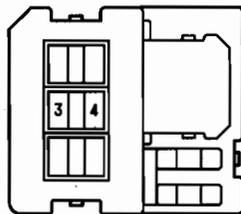
C13 BLACK



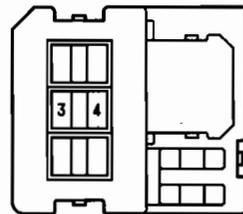
E5



(W/ A.B.S.) F6 BLACK



(W/O A.B.S.) F6



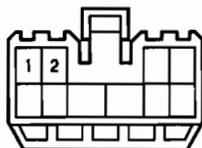
G1 GRAY



G2



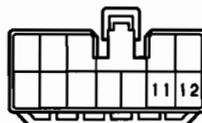
H7 BLACK



H8 BLACK



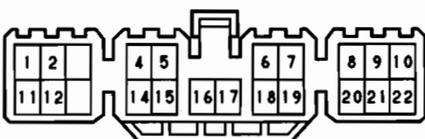
H10 BLUE



I11



J2 J3



O3 BLUE



R2 (B)



R3 (A)



R5 ORANGE



(DIGITAL) R7

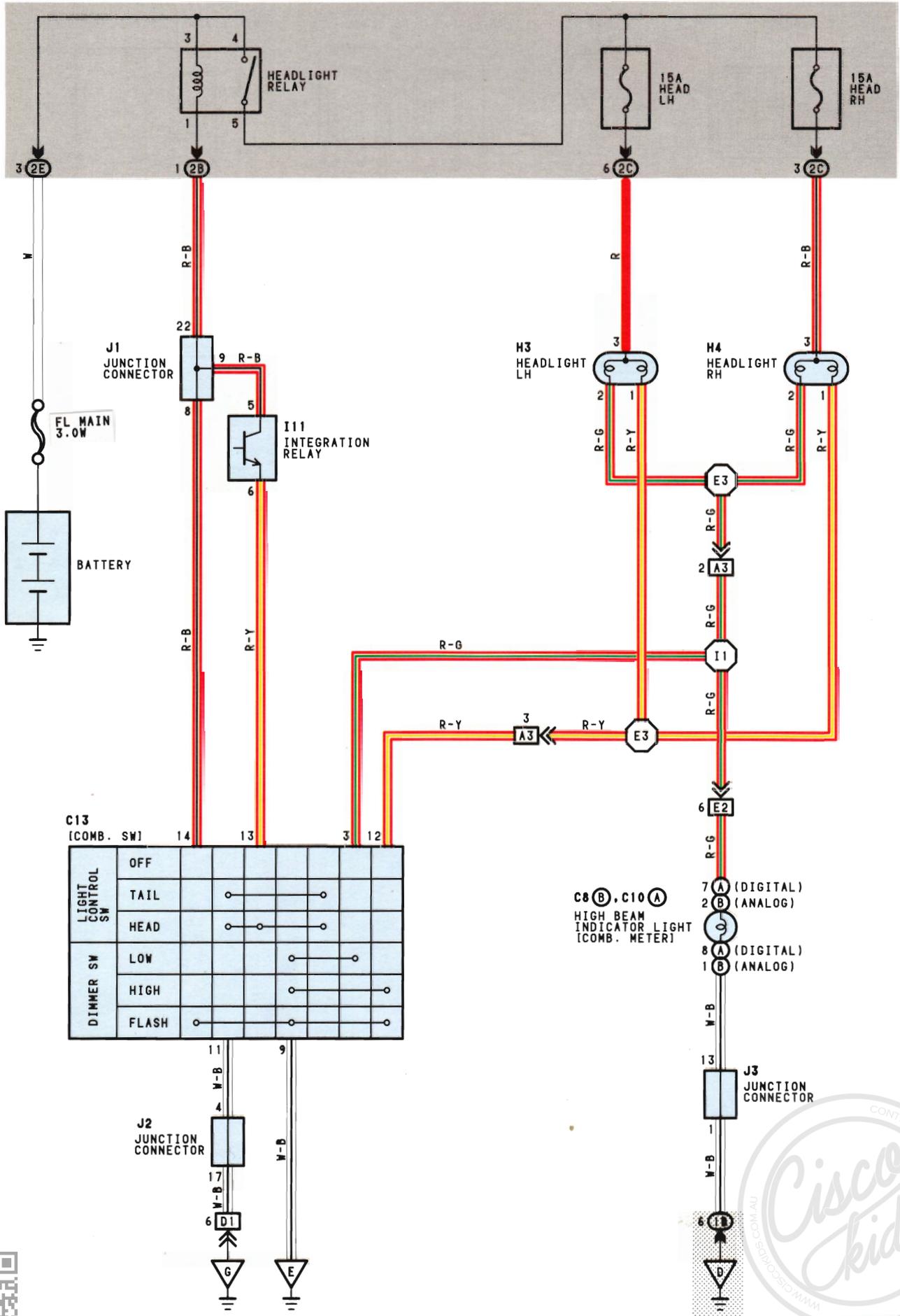


(ANALOG) R7





# HEADLIGHTS



**SERVICE HINTS**

**HEADLIGHT RELAY**

4-5:CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION OR DIMMER SW AT FLASH POSITION

**C13 LIGHT CONTROL SW (COMB. SW)**

13-11:CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION

**C13 DIMMER SW (COMB. SW)**

14-9:CLOSED WITH DIMMER SW AT FLASH POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C8	23(ANALOG)	H3	22	J1	23
C10	23(DIGITAL)	H4	22	J2	23
C13	23	I11	23	J3	23

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2C	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E		

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A3	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
D1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)

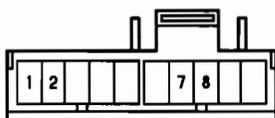
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
E	28	INSTRUMENT PANEL CENTER
G	28	R/B NO.4 SET BOLT

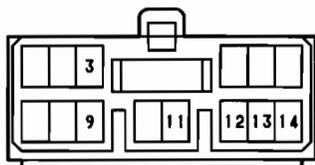
**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E3	26	ENGINE ROOM MAIN WIRE	I1	28	COWL WIRE

C8 (B) C10 (A) BROWN



C13



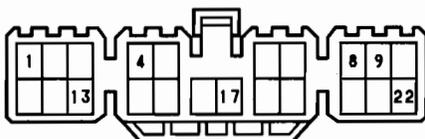
H3, H4



I11



J1, J2, J3





## SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH A STOP FUSE TO TERMINAL 1 OF THE STOP LIGHT SW.  
WHEN THE IGNITION SW IS TURNED ON, CURRENT FLOWS FROM THE GAUGE FUSE TO TERMINAL 8 OF THE LIGHT FAILURE SENSOR THROUGH TERMINAL 4 OF THE LIGHT FAILURE SENSOR AND THE REAR LIGHT WARNING LIGHT.

## STOP LIGHT DISCONNECTION WARNING

WHEN THE IGNITION SW IS TURNED ON AND THE BRAKE PEDAL IS PRESSED (STOP LIGHT SW ON). IF THE STOP LIGHT CIRCUIT IS OPEN, THE CURRENT FLOWING FROM TERMINAL 7 OF THE LIGHT FAILURE SENSOR TO TERMINAL 1 AND 2 CHANGES, SO THE LIGHT FAILURE SENSOR DETECTS THE DISCONNECTION AND THE WARNING CIRCUIT OF THE LIGHT FAILURE SENSOR IS ACTIVATED.

AS A RESULT, THE CURRENT FLOWS FROM TERMINAL 4 OF THE LIGHT FAILURE SENSOR → TERMINAL 11 → GROUND AND TURNS THE REAR LIGHT WARNING LIGHT ON. BY PRESSING THE BRAKE PEDAL, THE CURRENT FLOWING TO TERMINAL 8 OF THE LIGHT FAILURE SENSOR KEEPS THE WARNING CIRCUIT ON HOLD AND THE WARNING LIGHT ON UNTIL THE IGNITION SW TURNED OFF.

## SERVICE HINTS

### C16 STOP LIGHT SW

1-3: CLOSED WITH BRAKE PEDAL DEPRESSED

### L3 LIGHT FAILURE SENSOR

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

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

11-GROUND : ALWAYS CONTINUITY

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C9	B 23	C16	23	N3	23
	C 23	H11	24	R8	24
C10	23	L3	24	R9	24

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

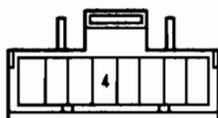
## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
H	30	LEFT REAR PILLAR
I	30	RIGHT REAR PILLAR
K	30	BACK PANEL CENTER

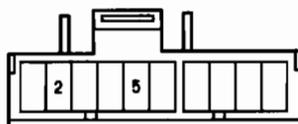
## ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B22	30	LUGGAGE ROOM WIRE			

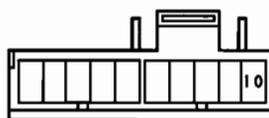
C9 (B)



C9 (C) GRAY



C10 (A) BROWN



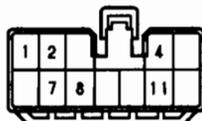
C16



H11



L3



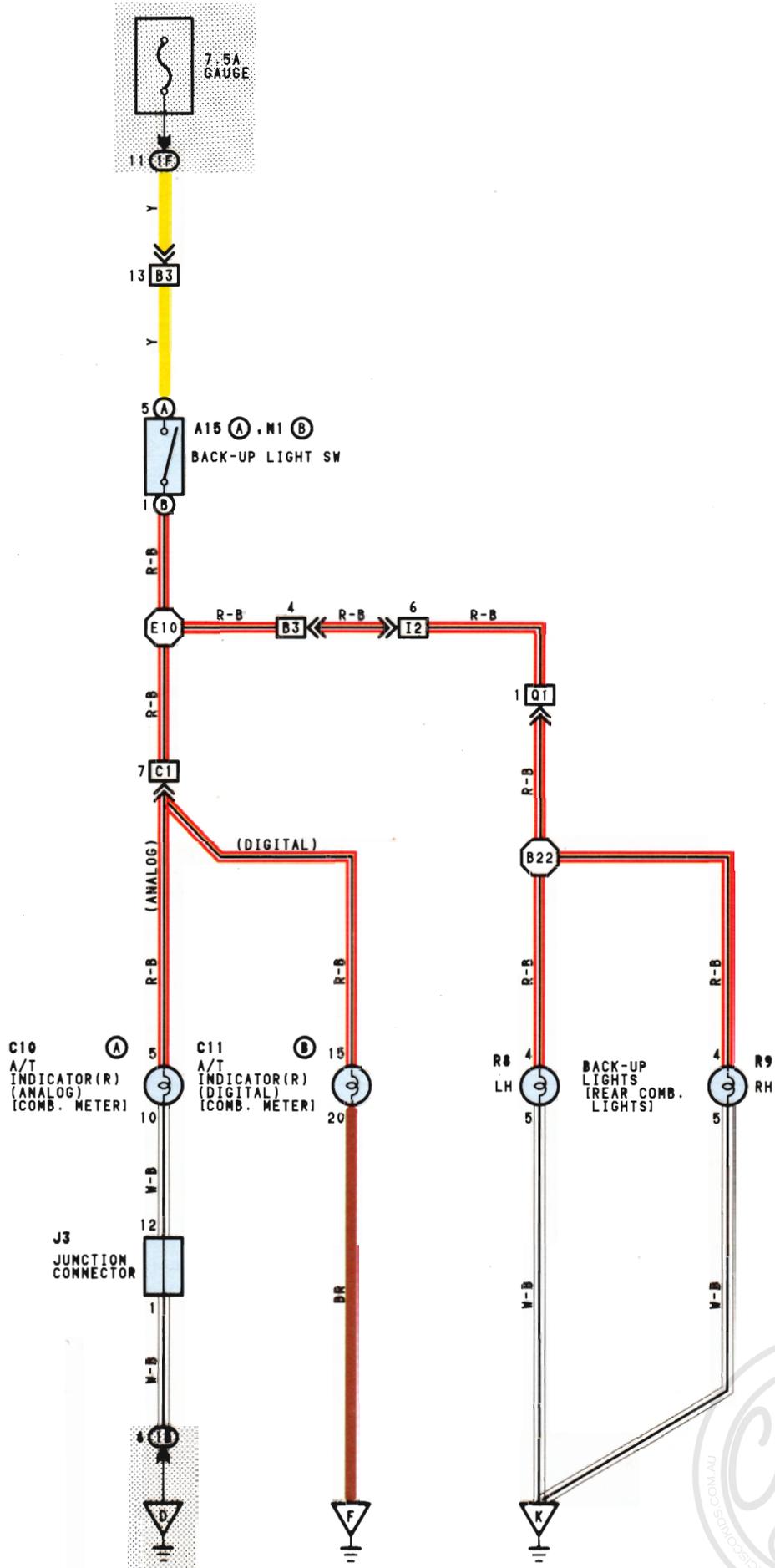
N3



R8, R9



# 10 BACK-UP LIGHTS



**SERVICE HINTS**

A15 (A), M1 (B) BACK-UP LIGHT SW

(A)-(B) 1: CLOSED WITH SHEFT LEVER R POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A15	22	J3	23	R9	24
C10	A	M1	22		
C11	B	R8	24		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B3	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT ,
F	28	INSTRUMENT PANEL CENTER
K	30	BACK PANEL CENTER

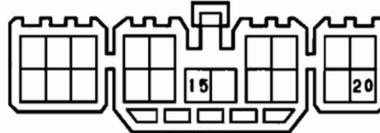
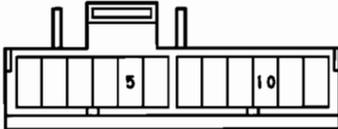
**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E10	26	ENGINE WIRE	B22	30	LUGGAGE ROOM WIRE

A15 (A)

(ANALOG) C10 (A)

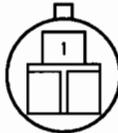
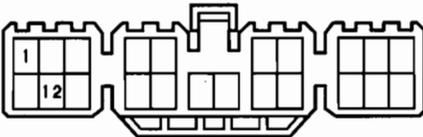
(DIGITAL) C11 (B)

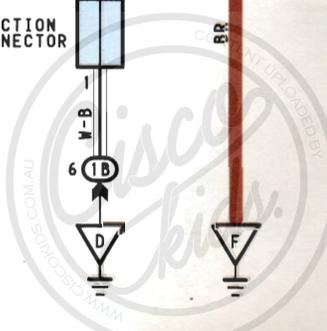
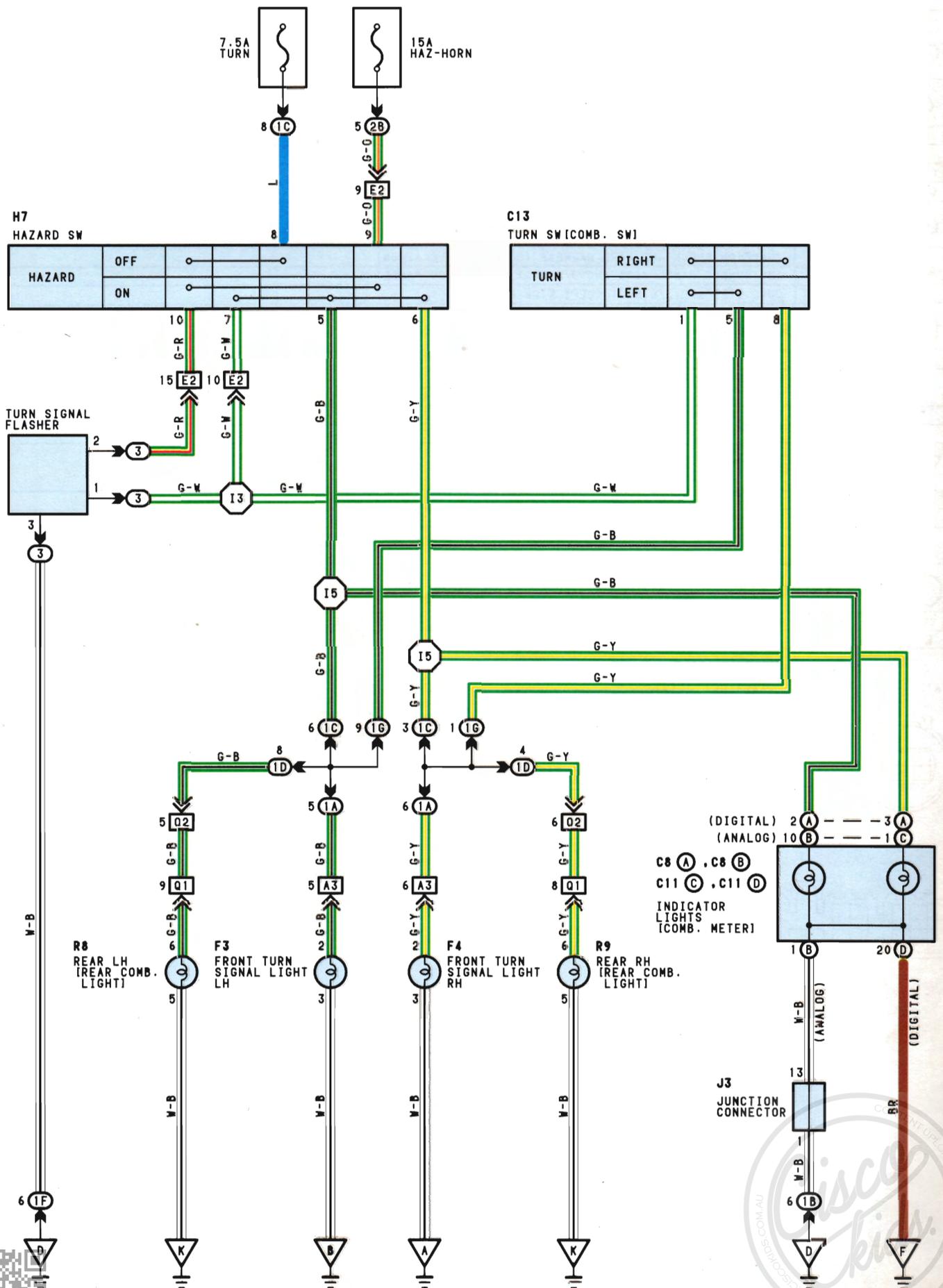


J3

M1 (B)

R8, R9





**SERVICE HINTS**

**TURN SIGNAL FLASHER**

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

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE	
C8	A	23	C13	23	J3	23
C8	B	23	F3	22	R8	24
C11	C	23	F4	22	R9	24
C11	D	23	H7	23		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1C		
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G		
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

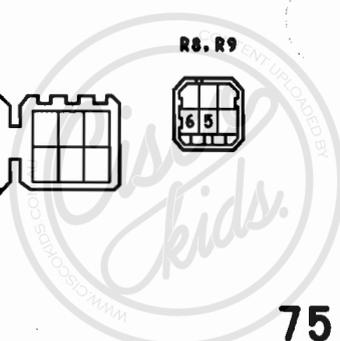
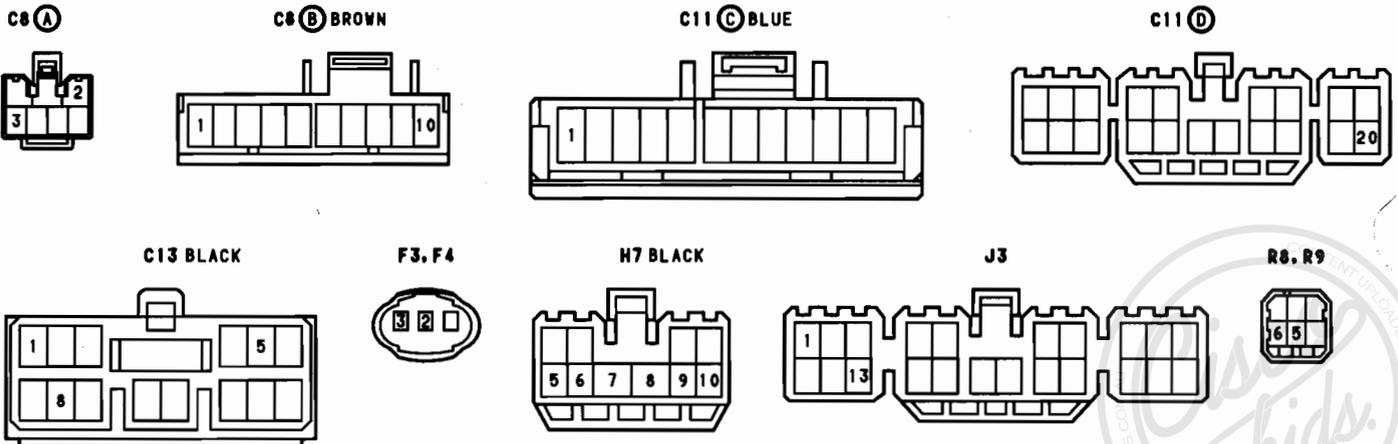
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A3	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

▽ : GROUND POINTS

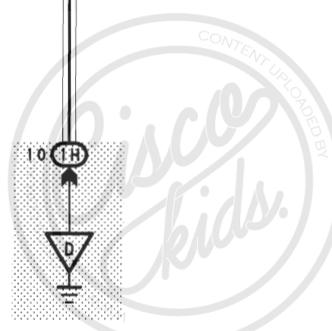
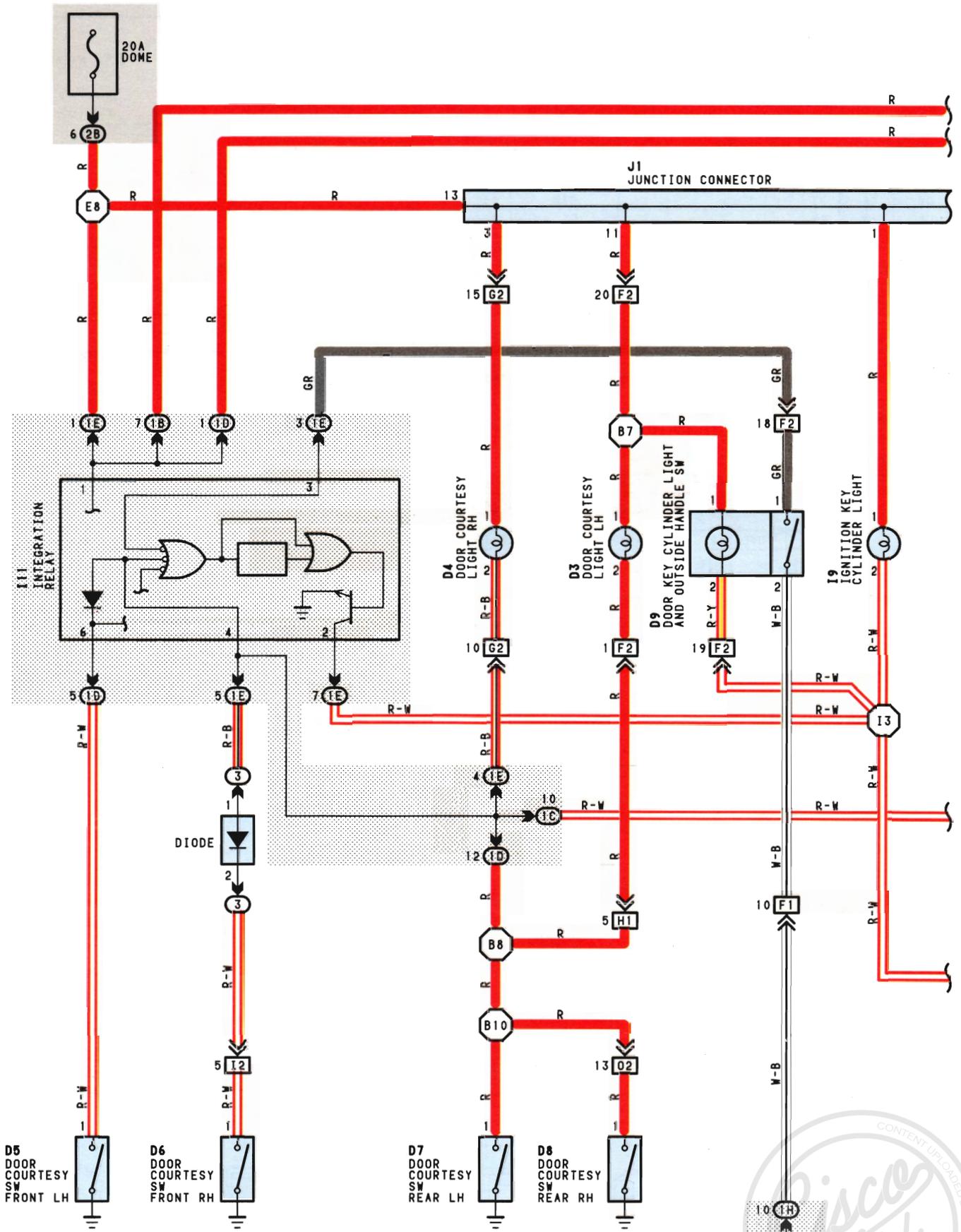
CODE	SEE PAGE	GROUND POINTS LOCATION
A	26	FRONT OF RIGHT FENDER
B	26	FRONT OF LEFT FENDER
D	28	J/B NO.1 SET BOLT
F	28	INSTRUMENT PANEL CENTER
K	30	BACK PANEL CENTER

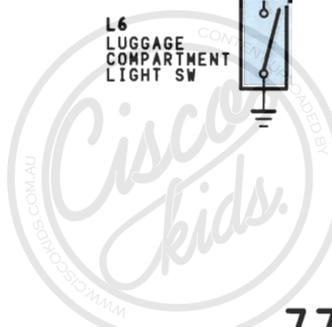
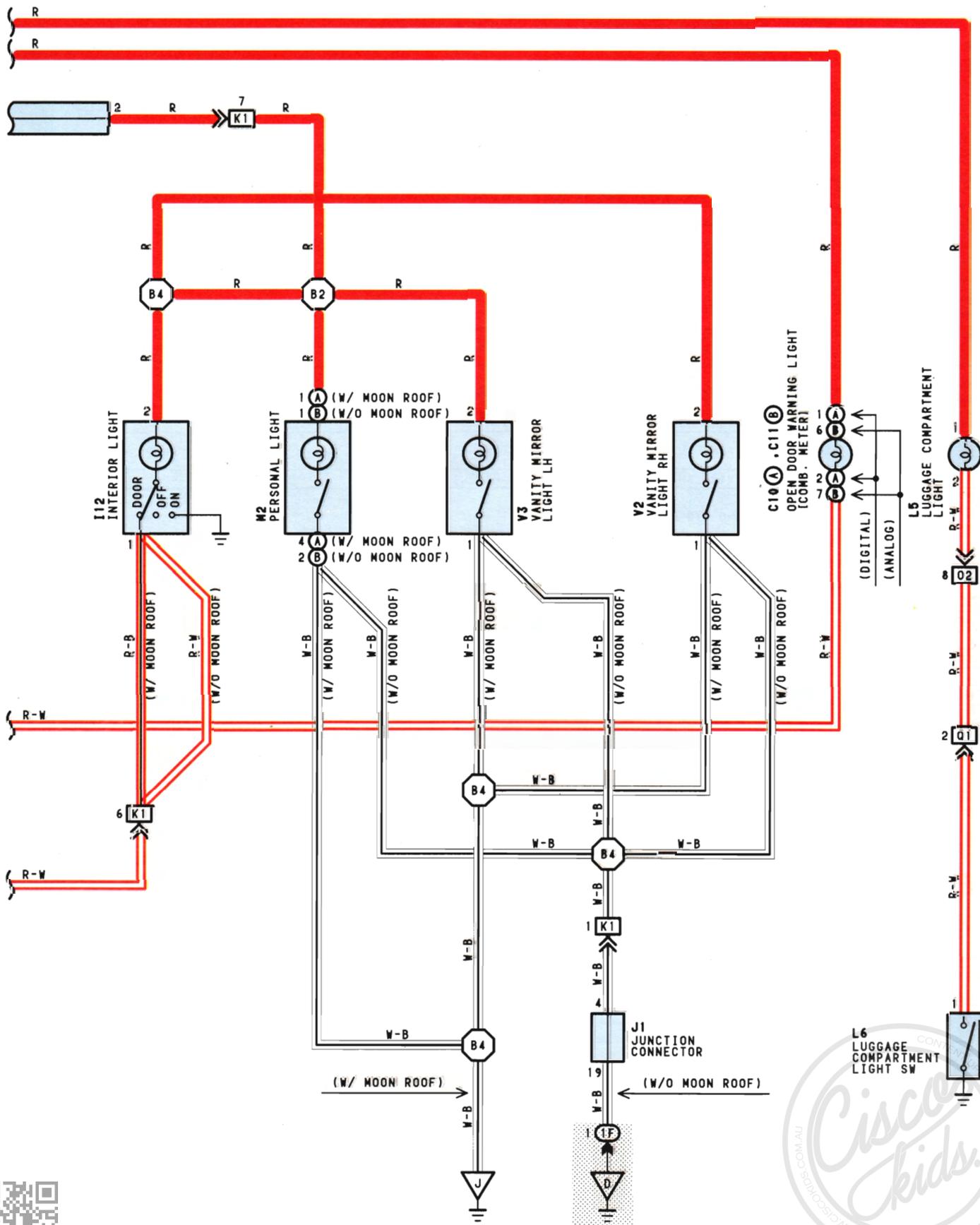
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I3	28	COWL WIRE	I5	28	INSTRUMENT PANEL WIRE



# 12 INTERIOR LIGHTS





# 12 INTERIOR LIGHTS

## SERVICE HINTS

### INTEGRATION RELAY

1-GROUND : ALWAYS APPROX. 12VOLTS  
4,6-GROUND: CONTINUITY WITH DOOR OPEN

### D5, D6, D7, D8 DOOR COURTESY SW

1-GROUND : CLOSED WITH DOOR OPEN

### L6 LUGGAGE COMPARTMENT LIGHT SW

1-GROUND : CLOSED WITH LUGGAGE COMPARTMENT DOOR OPEN

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE		
C10	A	23(DIGITAL)	D8	24	L6	24	
C11	B	23(ANALOG)	D9	24	M2	A	24(W/ MOON ROOF)
D3	24	I9	23	B		24(W/O MOON ROOF)	
D4	24	I11	23	V2	24		
D5	24	I12	24	V3	24		
D6	24	J1	23				
D7	24	L6	24				

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1C		
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
1H		
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

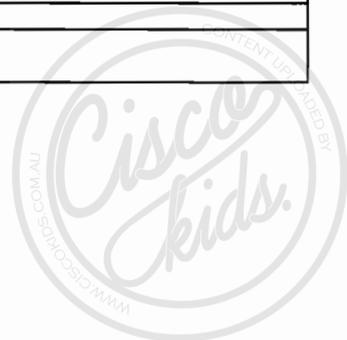
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
F2		
G2	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
K1	30	ROOF WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

## ▽ : GROUND POINTS

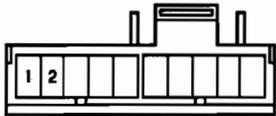
CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
J	30	ROOF LEFT

## ○ : SPLICE POINTS

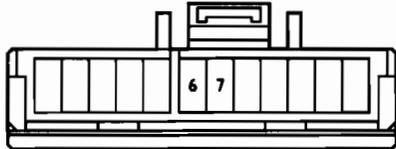
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E8	26	COWL WIRE
I3	28	
B2	30	ROOF WIRE
B4		
B7	30	FRONT DOOR LH WIRE
B8	30	FLOOR NO.2 WIRE
B10		



(DIGITAL) C10 BROWN



(ANALOG) C11 BLUE



D3, D4, I12



D5, D6, D7, D8



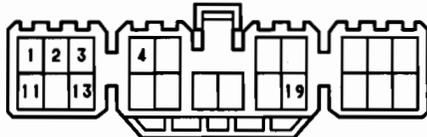
D9



I9 ORANGE



J1



L5 GRAY



L6



(W/ MOON ROOF) M2 A



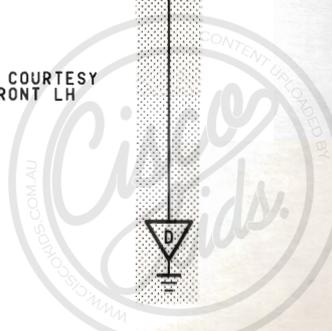
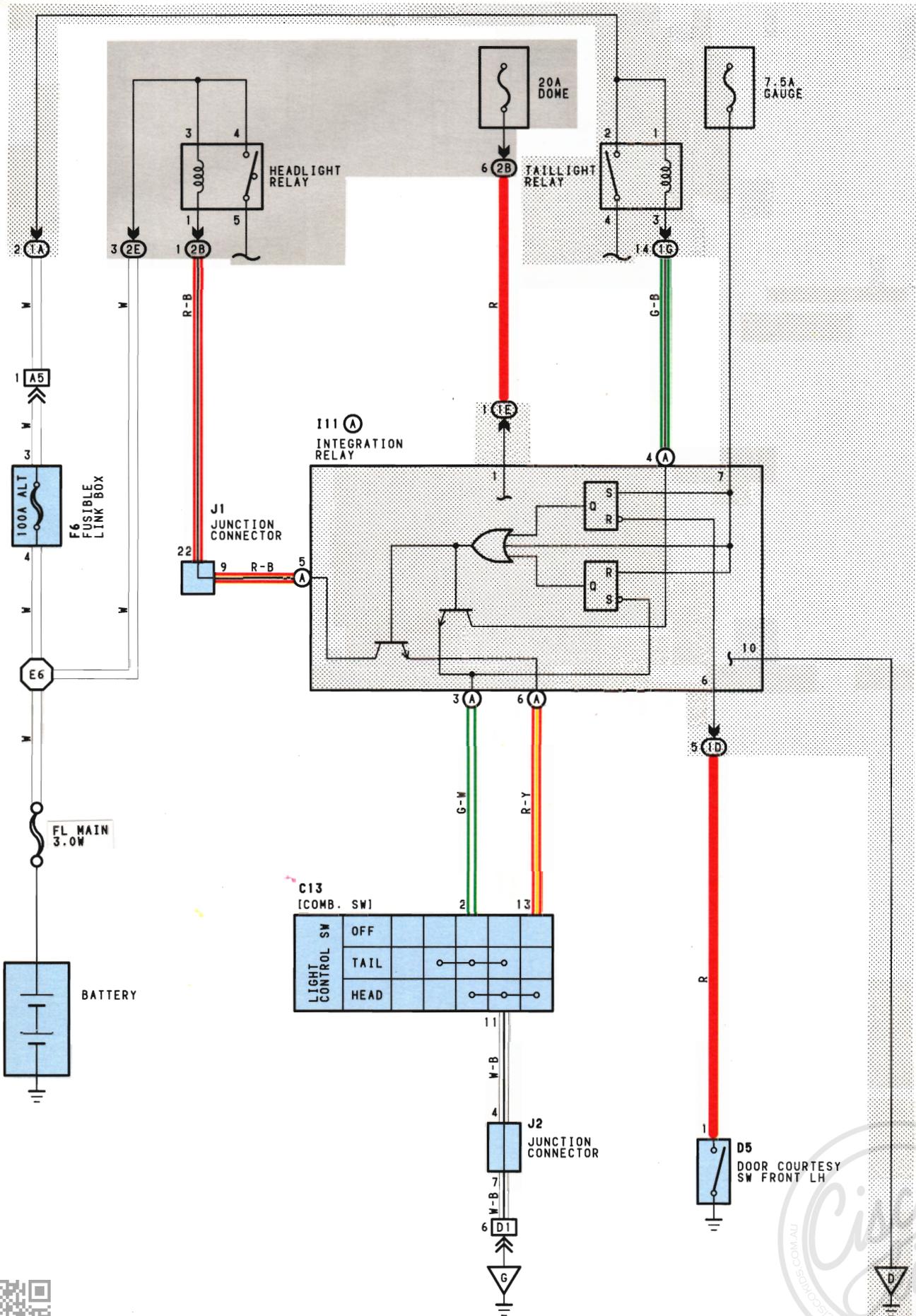
(W/O MOON ROOF) M2 B



V2, V3 BLUE



# 13 LIGHT AUTO TURN OFF SYSTEM



## SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO TERMINAL 7 OF THE INTEGRATION RELAY (LIGHT RETAINER RELAY) THROUGH GAUGE FUSE.

VOLTAGE IS APPLIED AT ALL TIMES TO TERMINAL A4 OF THE INTEGRATION RELAY (LIGHT RETAINER RELAY) THROUGH THE TAILLIGHT RELAY COIL, AND TO TERMINAL A5 THROUGH THE HEADLIGHT RELAY COIL.

### 1. NORMAL LIGHTING OPERATION

<TURN TAILLIGHT ON>

WITH LIGHT CONTROL SW TURNED TO TAIL POSITION, A SIGNAL IS INPUT INTO TERMINAL A3 OF THE INTEGRATION RELAY (LIGHT RETAINER RELAY). ACCORDING TO THIS SIGNAL, THE CURRENT FLOWING TO TERMINAL A4 OF THE RELAY FLOWS FROM THE RELAY FROM TERMINAL A3 → TERMINAL 2 OF THE LIGHT CONTROL SW → 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 A3 AND A6 OF THE INTEGRATION RELAY (LIGHT RETAINER RELAY). ACCORDING TO THIS SIGNAL, THE CURRENT FLOWING TO TERMINALS A4 AND A5 OF THE RELAY FLOWS FROM THE RELAY FROM TERMINAL A5 → TERMINAL A6 → TERMINAL 13 OF THE LIGHT CONTROL SW → TERMINAL 11 → TO GROUND IN THE HEADLIGHT CIRCUIT, AND CAUSES TAILLIGHT AND HEADLIGHT RELAY TO TURN THE LIGHT ON. THE TAILLIGHT CIRCUIT IS SAME AS ABOVE.

### 2. LIGHT AUTO TURN OFF OPERATION

WITH LIGHTS ON AND IGNITION SW TURNED OFF (INPUT SIGNAL GOES TO TERMINAL 7 OF THE RELAY), WHEN DOOR ON DRIVER'S SIDE IS OPENED (INPUT SIGNAL GOES TO TERMINAL 6 OF THE RELAY), THE RELAY OPERATES AND THE CURRENT IS CUT OFF WHICH FLOWS FROM TERMINAL A4 OF THE RELAY TO TERMINAL A3 IN TAILLIGHT CIRCUIT AND FROM TERMINAL A5 TO TERMINAL A6 IN HEADLIGHT CIRCUIT.

AS A RESULT, ALL LIGHTS ARE TURNED OFF AUTOMATICALLY.

## SERVICE HINTS

### 111 INTEGRATION RELAY(LIGHT RETAINER RELAY)

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

Ⓐ 4-GROUND, Ⓐ 5-GROUND:ALWAYS APPROX. 12VOLTS

6-GROUND :CONTINUITY WITH DRIVER'S DOOR OPEN

10-GROUND :ALWAYS CONTINUITY

Ⓐ 3-GROUND:CONTINUITY WITH LIGHT CONTROL SW AT TAIL POSITION

Ⓐ 6-GROUND:CONTINUITY WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C13	23	F6	22	J1	23
D5	24	I11	23	J2	23

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G		
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A5	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)

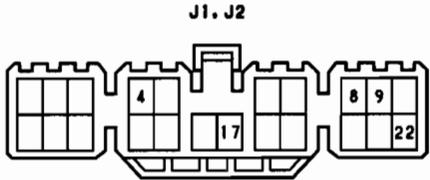
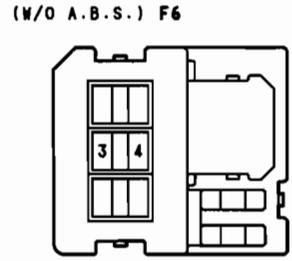
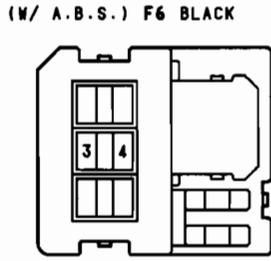
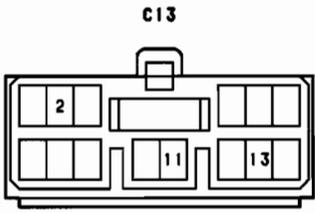
### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT

### ○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E6	26	ENGINE WIRE			

# 13 LIGHT AUTO TURN OFF SYSTEM



**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
<b>C12</b>	23	<b>W2</b>	22	<b>W5</b>	23
<b>W1</b>	22	<b>W4</b>	22		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
<b>1F</b>	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
<b>1G</b>		

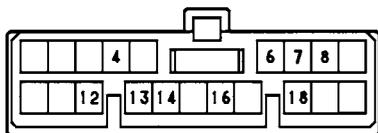
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
<b>E</b>	28	INSTRUMENT PANEL CENTER

**⊘ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
<b>I3</b>	28	COWL WIRE	<b>I7</b>	28	COWL WIRE

**C12 BLACK**



**W1**



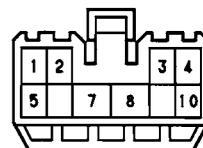
**W2 BLACK**



**W4 DARK GRAY**

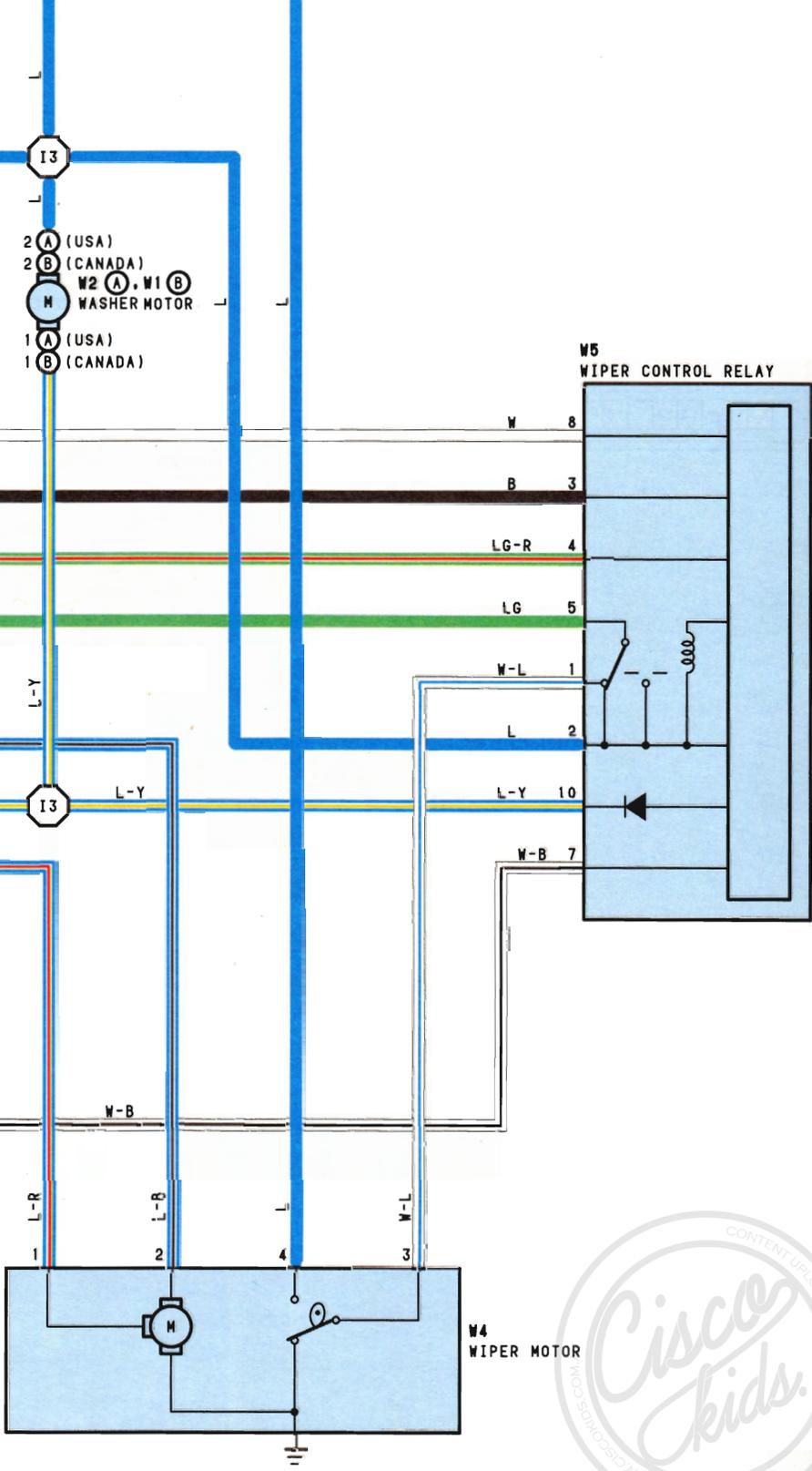
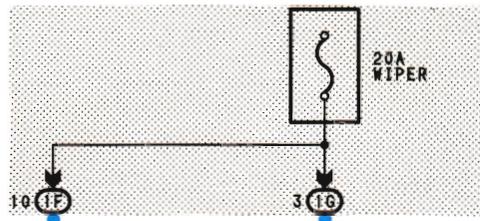
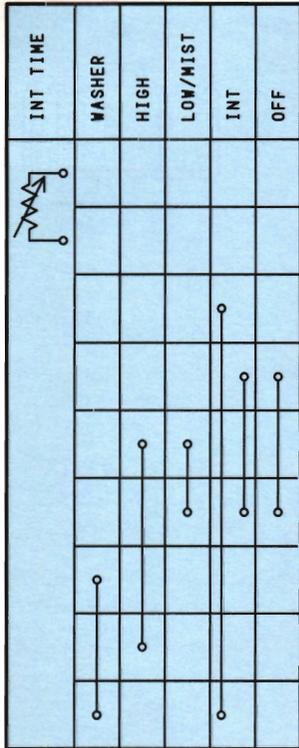


**W5**



# 14 FRONT WIPER AND WASHER

C12  
WIPER AND WASHER S/W  
(COMB. SW)



## SYSTEM OUTLINE

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

### 1. LOW SPEED POSITION

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

### 2. HIGH SPEED POSITION

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

### 3. INT POSITION

WITH WIPER AND WASHER SW TURNED TO INT POSITION, CURRENT FLOWS FROM TERMINAL 2 OF THE WIPER RELAY → TERMINAL 4 → TERMINAL 12 OF THE WIPER AND WASHER SW → TERMINAL 16 → TO GROUND. AS A RESULT, THE WIPER RELAY OPERATES AND CURRENT FLOWING THROUGH TERMINAL 2 OF THE RELAY FLOWS FROM TERMINAL 5 OF THE RELAY → TERMINAL 4 OF THE WIPER AND WASHER SW → TERMINAL 7 → TERMINAL 2 OF THE WIPER MOTOR → MOTOR → TO GROUND AND THE MOTOR OPERATES. INTERMITTENT OPERATION IS CONTROLLED BY THE CHARGING AND DISCHARGING OF A CONDENSER INSTALLED IN THE RELAY. BY CONTROLLING THE CHARGE TIME, THE TIMER CONTROL SW (WIPER SW) CHARGES THE INTERMITTENT INTERVAL.

### 4. MIST POSITION (W/ MIST SW)

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

### 5. WASER CONTINUOUS OPERATION

WHEN THE WASHER SW IS PUSHED, THE CURRENT FLOWING TO TERMINAL 2 OF THE WASHER MOTOR FLOWS TO TERMINAL 1 OF THE WASHER MOTOR → TERMINAL 8 OF THE WIPER AND WASHER SW → TERMINAL 16 → GROUND, CAUSING THE WASHER MOTOR TO OPERATE TO SPRAY THE WINDOW WASHER LIQUID.

AT THE SAME TIME, THE CURRENT FLOWING TO TERMINAL 2 OF THE WIPER CONTROL RELAY FLOWS TO TERMINAL 10 → TERMINAL 8 OF THE WIPER AND WASHER SW → TERMINAL 16 → GROUND AND ACTIVATES THE WASHER CONTINUOUS OPERATION CIRCUIT OF THE WIPER RELAY.

AS S RESULT, THE CURRENT FLOWS FROM TERMINAL 2 OF THE RELAY → TERMINAL 5 → TERMINAL 4 OF THE WIPER AND WASHER SW → TERMINAL 7 → TERMINAL 2 OF THE WIPER MOTOR → GROUND, AND THE WASHER OPERATES CONTINUOUSLY.

## SERVICE HINTS

### C12 WIPER AND WASHER SW

16-GROUND: ALWAYS CONTINUITY

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

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

APPROX. 12VOLTS EVERY 4 SECONDS INTERMITTENTLY WITH WIPER SW AT INT POSITION

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

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

### W4 WIPER MOTOR

3-4: CLOSED UNLESS WIPER MOTOR AT STOP POSITION





**SERVICE HINTS****HEADLIGHT RELAY**

4-5:CLOSED WITH LIGHT CONTROL SW AT HEAD POSITION OR WITH DIMMER SW AT FLASH POSITION

**H2 HEADLIGHT CLEANER RELAY**

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

4-GROUND:APPROX. 12 ~ 0 VOLT FOR 0.5 SECONDS WITH IGNITION SW ON, LIGHT CONTROL SW AT HEAD POSITION AND HEADLIGHT CLEANER SW ON

1-GROUND:CONTINUITY WITH LIGHT CONTROL SW AT HEAD POSITION AND HEADLIGHT CLEANER SW ON

5-GROUND:ALWAYS CONTINUITY

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C13	23	H2	22	J1	23
F6	22	H8	23	J2	23
H1	22	I11	23		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2D		
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)

**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E6	26	ENGINE WIRE			

C13 BLACK



F6 BLACK



H1



H2



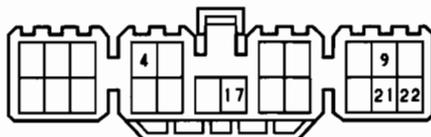
H8 BLACK

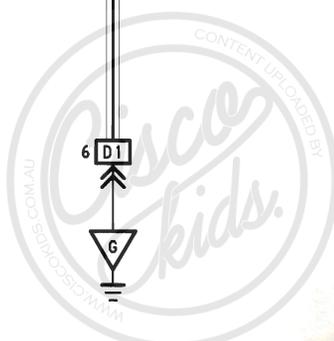
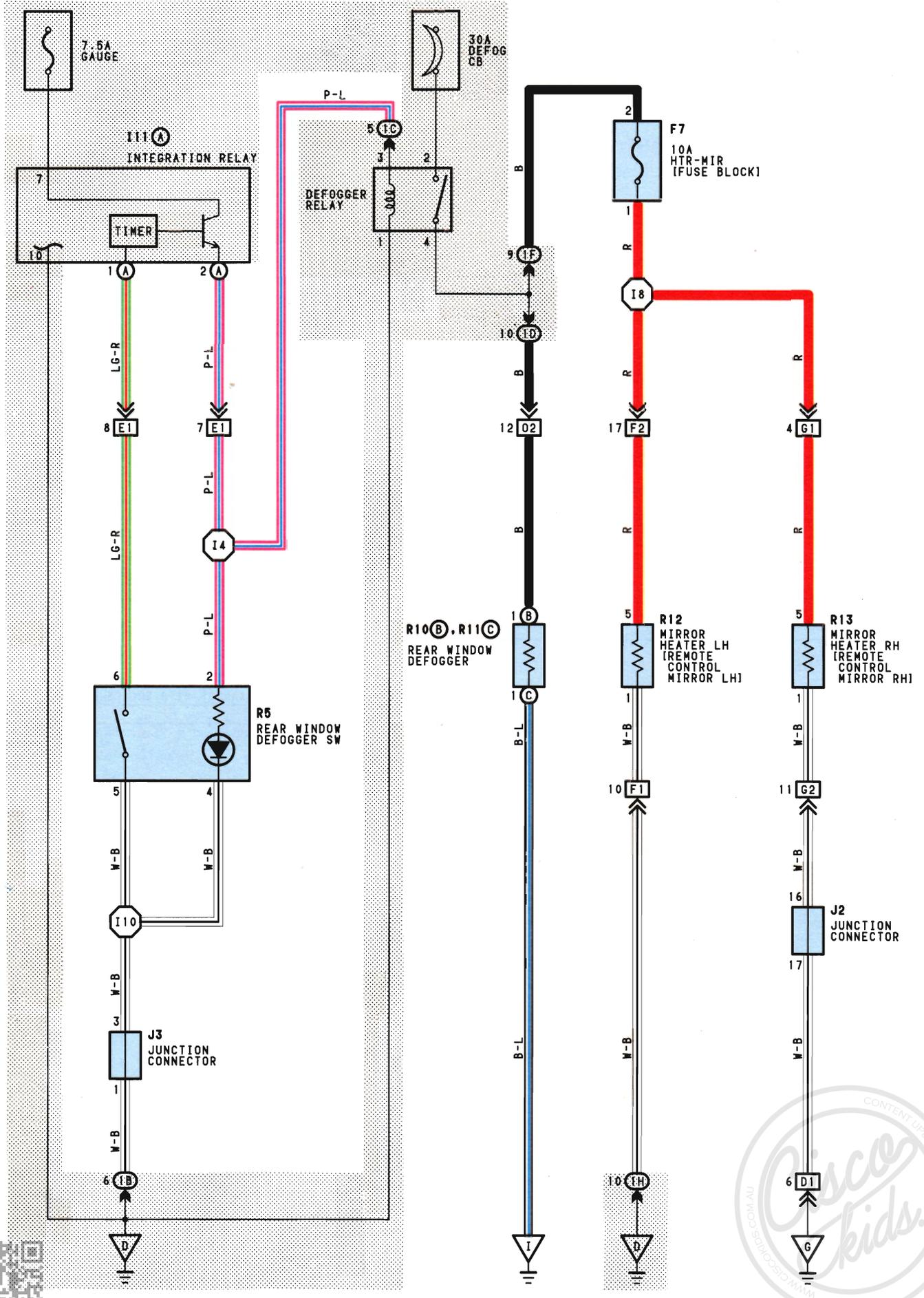


I11



J1, J2





**SERVICE HINTS****DEFOGGER RELAY**

2-4: CLOSED WITH IGNITION SW ON. REAR WINDOW DEFOGGER SW ON AND 15 MINUTES THEREAFTER

**I11 INTEGRATION RELAY**7-**(A)**1: CONTINUITY WITH DEFOGGER SW ON AND 15 MINUTES THEREAFTER**R5 REAR WINDOW DEFOGGER SW**

6-GROUND: APPROX. 12VOLTS WITH IGNITION SW ON AND 15 MINUTES THEREAFTER

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
F7	23	J3	23	R11	24
I11	23	R5	23	R12	24
J2	23	R10	24	R13	24

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
I <b>B</b>	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
I <b>C</b>		
I <b>D</b>	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
I <b>F</b>	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
I <b>H</b>		

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
F2		
G1	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
G2		
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)

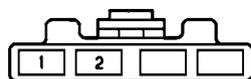
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT
I	30	RIGHT REAR PILLAR

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I4	28	INSTRUMENT PANEL WIRE	I8	28	COWL WIRE
I10	28	INSTRUMENT PANEL WIRE			

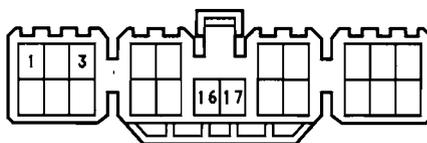
F7



I11 (A)



J2, J3

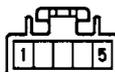


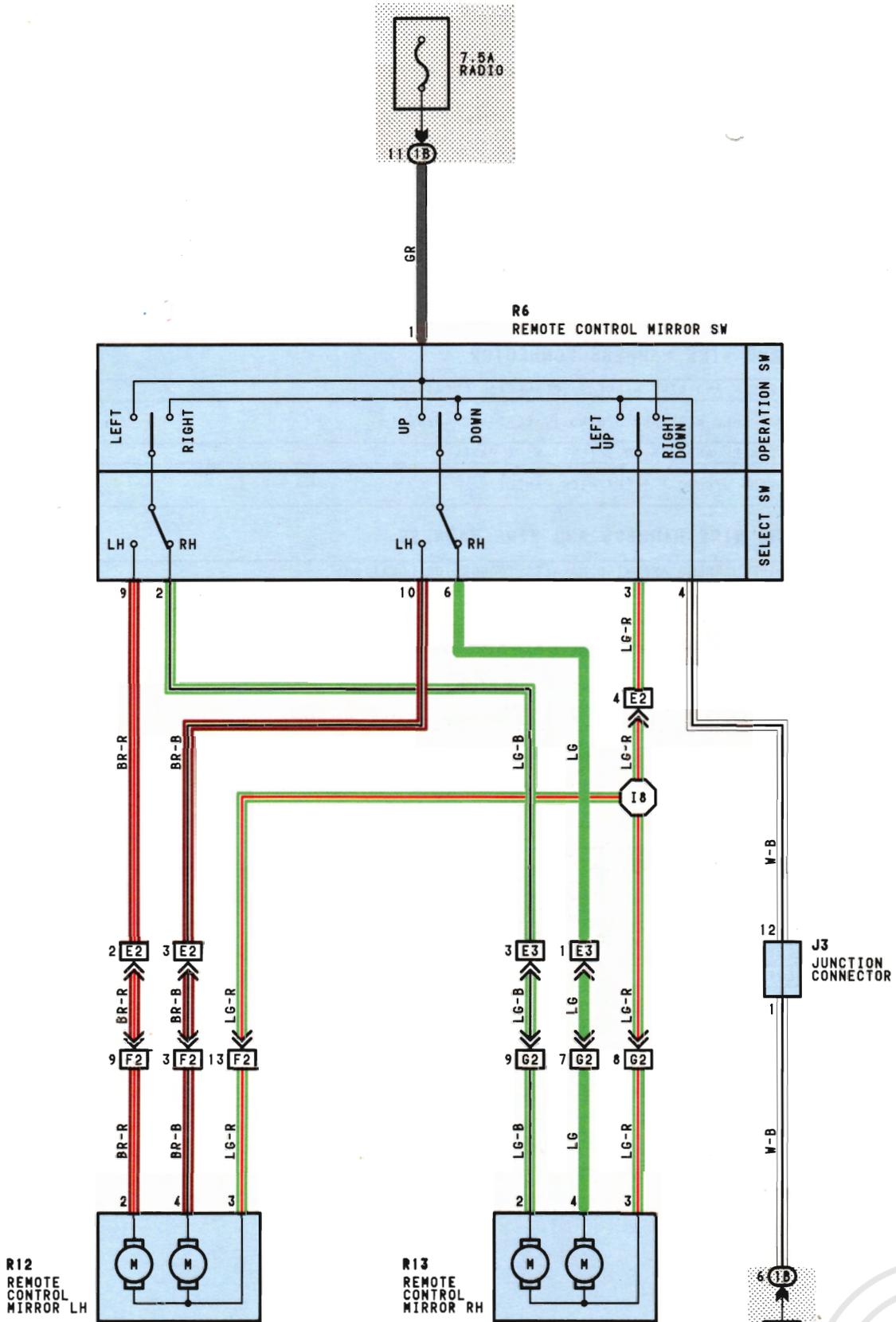
R5 ORANGE

R10, R11



R12, R13





**SERVICE HINTS**

**R6 REMOTE CONTROL MIRROR SW**

- 1-GROUND: APPROX. 12VOLTS WITH IGNITION SW AT ACC OR ON POSITION
- 3-4 : CONTINUITY WITH OPERATION SW AT UP OR LEFT POSITION
- 1-3 : CONTINUITY WITH OPERATION SW AT DOWN OR RIGHT POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J3	23	R12	24		
R6	23	R13	24		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
I8	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
F2	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
G2	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)

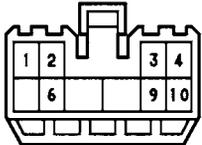
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT

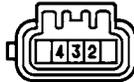
**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I8	28	COWL WIRE			

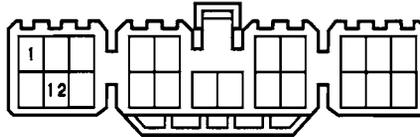
R6 BLUE



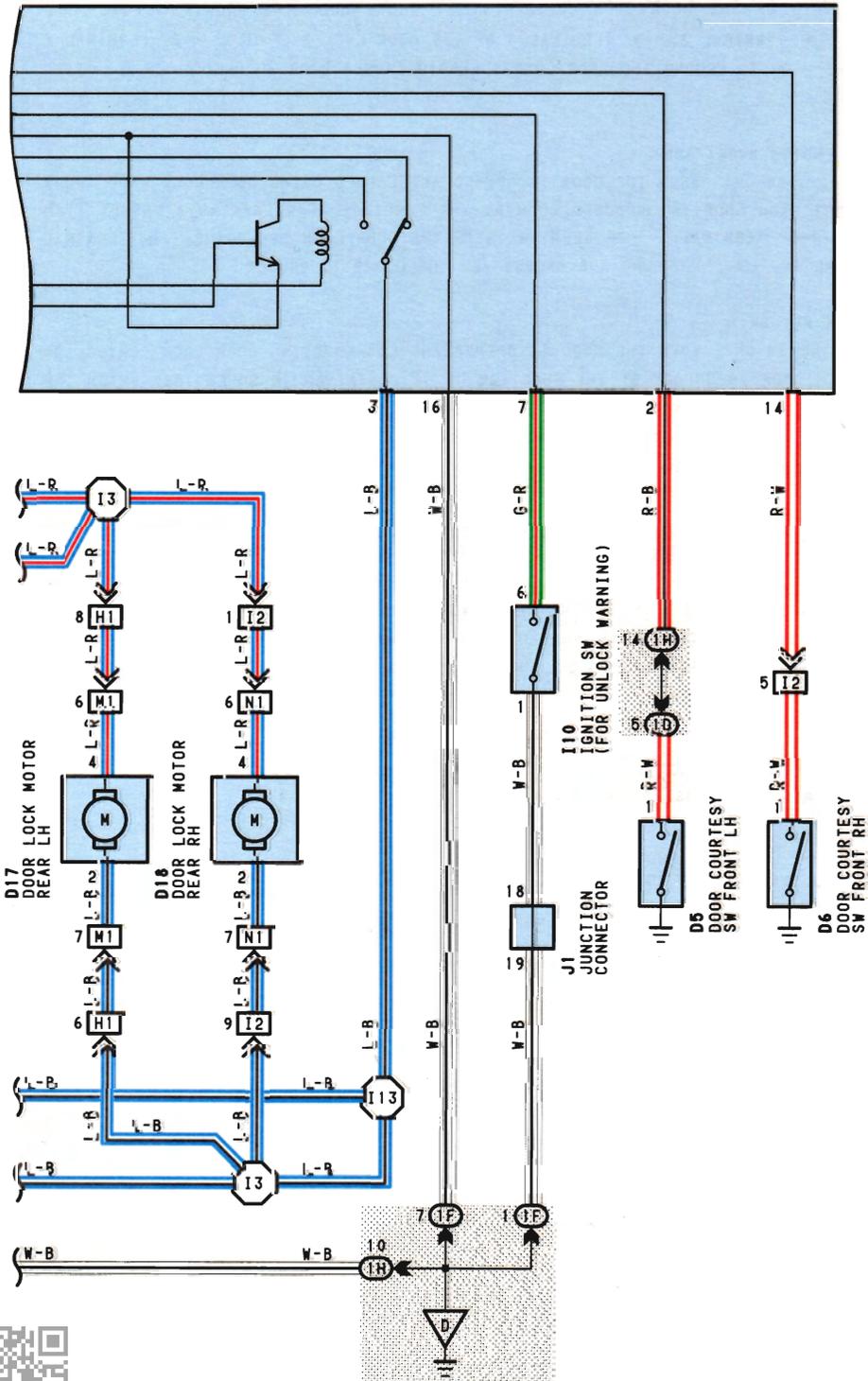
R12,R13



J3









### SYSTEM OUTLINE

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

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO TERMINAL 1 OF THE DOOR LOCK CONTROL RELAY THROUGH GAUGE FUSE.

#### 1. MANUAL LOCK OPERATION

TO PUSH DOOR LOCK SW AND KEY SW TO LOCK POSITION, A LOCK SIGNAL IS INPUT TO TERMINAL 10 OR 12 OF THE DOOR LOCK CONTROL RELAY AND CAUSES THE RELAY TO FUNCTION. CURRENT FLOWS FROM TERMINAL 8 OF THE RELAY → TERMINAL 4 → TERMINAL 4 OF THE DOOR LOCK SOLENOIDS → TERMINAL 3 → TERMINAL 2 → TERMINAL 3 OF THE RELAY → TERMINAL 16 → TO GROUND AND DOOR LOCK SOLENOID CAUSES THE DOOR TO LOCK.

#### 2. MANUAL UNLOCK OPERATION

WHEN THE DOOR LOCK CONTROL SW IS PUSHED UNLOCK POSITION ON THE KEY SW IS PUSHED TWICE TO THE UNLOCK POSITION, AN UNLOCK SIGNAL IS INPUT TO TERMINAL 11 OR 9.13 OF THE DOOR LOCK CONTROL RELAY AND CAUSES THE RELAY TO FUNCTION. CURRENT FLOWS FROM TERMINAL 8 OF THE RELAY → TERMINAL 3 → TERMINAL 3 OF THE DOOR LOCK SOLENOIDS → TERMINAL 4 → TERMINAL 4 OF THE RELAY → TERMINAL 16 → TO GROUND AND DOOR LOCK SOLENOID CAUSES DOOR TO UNLOCK.

#### 3. IGNITION KEY REMINDER OPERATION

##### • OPERATION DOOR LOCK KNOB (IN DOOR LOCK SOLENOIDS OPERATION)

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK KNOB (DOOR LOCK SOLENOID), THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCKED SOON BY THE FUNCTION OF RELAY. AS A RESULT, THE CURRENT FLOWS FROM TERMINAL 8 OF THE RELAY → TERMINAL 3 → TERMINAL 2 OF THE DOOR LOCK SOLENOIDS → TERMINAL 4 → TERMINAL 4 OF THE RELAY → TERMINAL 16 → TO GROUND AND CAUSES ALL THE DOORS TO UNLOCK.

##### • OPERATING DOOR LOCK CONTROL SW OR DOOR LOCK KEY SW

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK CONTROL SW OR KEY SW, THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCK BY THE FUNCTION OF SW CONTAINED IN SOLENOIDS, WHICH THE SIGNAL IS INPUT TO TERMINAL 5 OR 6 OF THE RELAY. ACCORDING TO THIS INPUT SIGNAL, THE CURRENT IN RELAY FLOWS FROM TERMINAL 8 OF THE RELAY → TERMINAL 3 → TERMINAL 2 OF THE DOOR LOCK SOLENOIDS → TERMINAL 4 → TERMINAL 4 OF THE RELAY → TERMINAL 16 → TO GROUND AND CAUSES ALL THE DOOR TO UNLOCK.

##### • IN CASE OF KEY LESS LOCK

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE UNLOCK FUNCTION IS DISTURBED MORE THAN 0.2 SECONDS, FOR EXAMPLE PUSHING THE DOOR LOCK KNOB ETC., THE DOOR HOLDS ON LOCK CONDITION. CLOSING THE DOOR AFTER, DOOR COURTESY SW INPUTS THE SIGNAL INTO RELAY. BY THIS INPUT SIGNAL, THE RELAY WORKS AND CURRENT FLOWS FROM TERMINAL 8 OF THE RELAY → TERMINAL 3 → TERMINAL 2 OF THE DOOR LOCK SOLENOIDS → TERMINAL 4 → TERMINAL 4 OF THE RELAY → TERMINAL 16 → TO GROUND AND CAUSES ALL THE DOORS TO UNLOCK.

### SERVICE HINTS

#### D2 DOOR LOCK CONTROL RELAY

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

16-GROUND: ALWAYS CONTINUITY

2-GROUND: CONTINUITY WITH DRIVER'S DOOR OPEN

8-GROUND: ALWAYS APPROX. 12VOLTS

3-GROUND: APPROX. 12VOLTS 0.2 SECONDS WITH FOLLOWING OPERATION

- DOOR LOCK CONTROL SW UNLOCKED
- DOOR LOCK CONTROL SW LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
- DOOR LOCK KNOB LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
- UNLOCKING THE DRIVER'S, PASSENGER'S DOOR CYLINDER WITH KEY

4-GROUND: APPROX. 12VOLTS 0.2 SECONDS WITH FOLLOWING OPERATION

- DOOR LOCK CONTROL SW LOCKED
- LOCKING THE DRIVER'S, PASSENGER'S DOOR CYLINDER WITH KEY

12-GROUND: 0VOLT WITH DOOR LOCK CONTROL SW LOCKED OR DRIVER'S, PASSENGER'S DOOR LOCK CYLINDER LOCKED WITH KEY

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

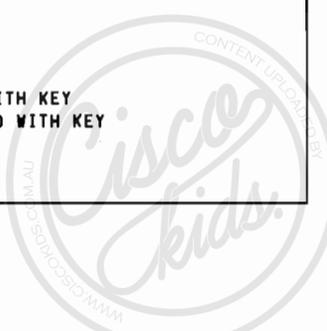
7-GROUND: CONTINUITY WITH IGNITION KEY IN CYLINDER

13-GROUND: 0VOLT WITH DOOR LOCK CONTROL SW UNLOCKED OR DRIVER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY

9-GROUND: 0VOLT WITH DOOR LOCK CONTROL SW UNLOCKED OR PASSENGER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY

#### D5, D6 DOOR COURTESY SW

1-GROUND: CLOSED WITH DOOR OPEN



**D10, D11, D12, D13 DOOR LOCK KEY SW**

Ⓐ 1-Ⓐ 3, Ⓑ 2-Ⓑ 3: CLOSED WITH DOOR LOCK CYLINDER UNLOCKED WITH KEY

Ⓐ 2-Ⓐ 3, Ⓑ 1-Ⓑ 3: CLOSED WITH DOOR LOCK CYLINDER LOCKED WITH KEY

**D15, D16 DOOR LOCK MOTOR**

1-3: CLOSED WITH UNLOCK POSITION

**I10 UNLOCK WARNING SW**

1-6: CLOSED WITH IGNITION KEY IN CYLINDER

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D2	23	D13	24	I10	23
D5	24	D14	24	J1	23
D6	24	D15	24	J2	23
D10	24	D16	24	P4	24
D11	24	D17	24		
D12	24	D18	24		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
1H	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
F1		
F2	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
G1		
G2	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
N1	30	REAR DOOR LH WIRE AND FLOOR NO.2 WIRE (LEFT CENTER PILLAR)
N1	30	REAR DOOR RH WIRE AND FLOOR NO.1 WIRE (RIGHT CENTER PILLAR)

## ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT

## ○ : SPLICE POINTS

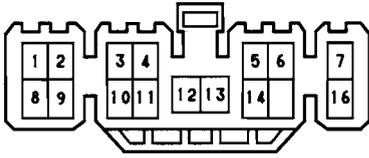
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I2		
I3	28	COWL WIRE
I13		
B6	30	FRONT DOOR LH WIRE
B13	30	FRONT DOOR RH WIRE
B14		



# 18 DOOR LOCKS



D2



D5, D6



(CANADA) D10, D11 BLUE



(USA) D12, D13 GRAY



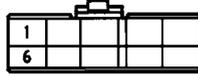
D14



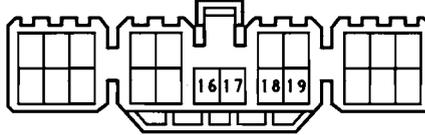
D15, D16, D17, D18



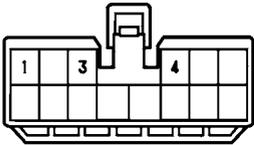
I10 BLACK



J1, J2



P4





○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
P4	24	P7	24	P10	24
P5	24	P8	24	P11	24
P6	24	P9	24		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
IF	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
IG		
IH		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
G1	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
M1	30	REAR DOOR LH WIRE AND FLOOR NO.2 WIRE (LEFT CENTER PILLAR)
N1	30	REAR DOOR RH WIRE AND FLOOR NO.1 WIRE (RIGHT CENTER PILLAR)

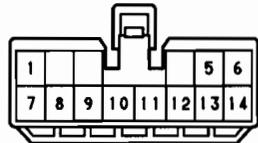
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I2	28	COWL WIRE	I13	28	COWL WIRE

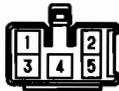
P4

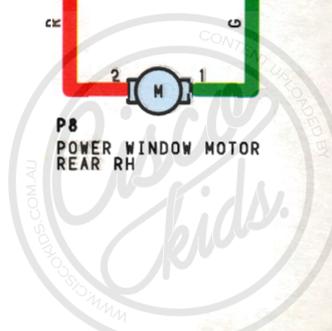
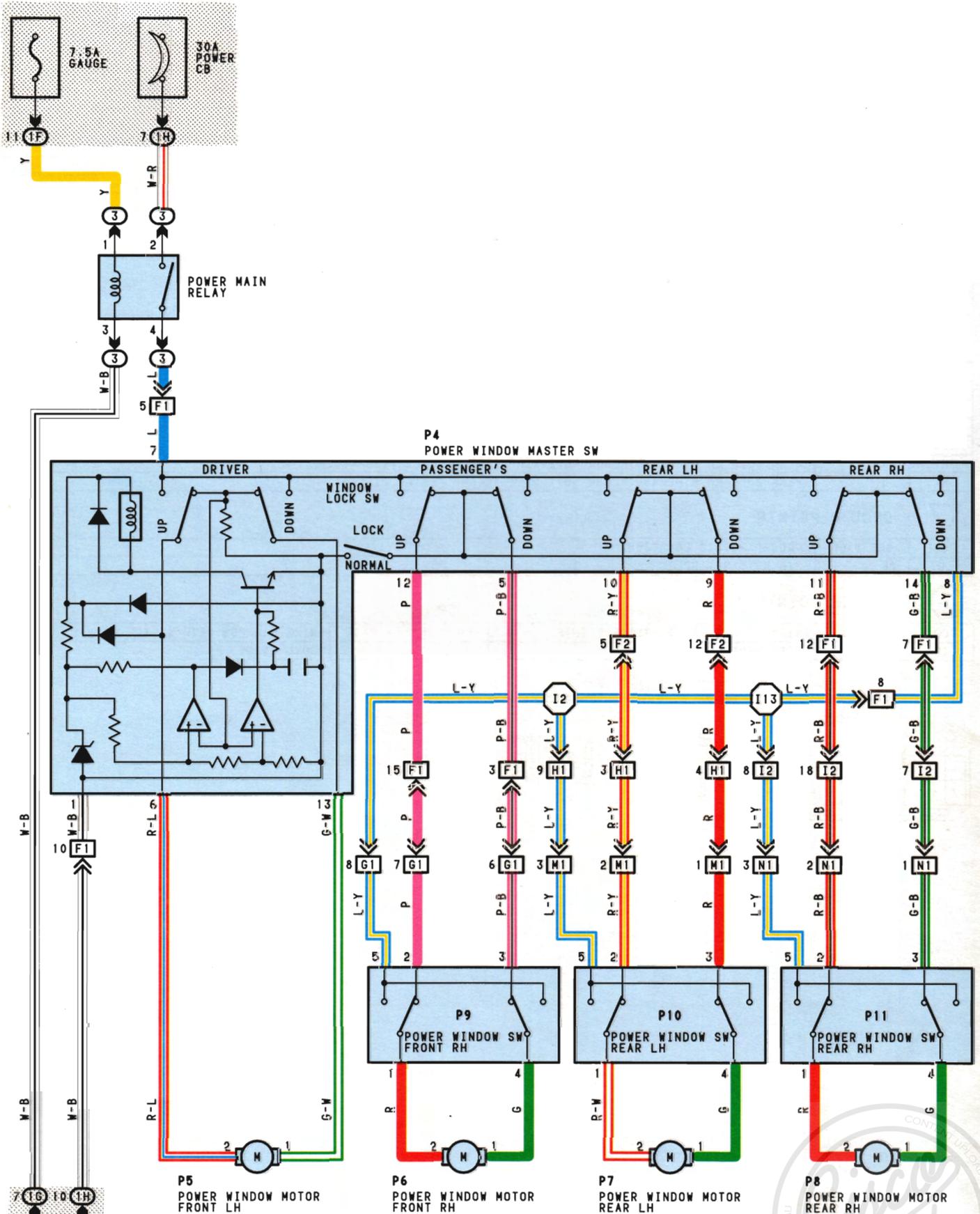


P5, P6, P7, P8



P9, P10, P11





## SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE GAUGE FUSE TO TERMINAL 1 OF THE POWER MAIN RELAY → TERMINAL 3 → TO GROUND. THIS ACTIVATES THE RELAY AND THE CURRENT FLOWING TO TERMINAL 2 OF THE RELAY FROM POWER CB FLOWS TO TERMINAL 4 OF THE RELAY → TERMINAL 7 OF THE POWER WINDOW MASTER SW → TO TERMINALS 5 (PASSENGER'S) AND TERMINAL 5 (REAR LH,RH) OF THE POWER WINDOW SW.

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

WITH THE IGNITION SW TURNED ON AND WITH THE POWER WINDOW MASTER SW (MANUAL SW) IN UP POSITION, THE CURRENT FLOWING TO TERMINAL 7 OF THE POWER WINDOW MASTER SW FLOWS TO TERMINAL 6 OF THE MASTER SW → TERMINAL 2 OF THE POWER WINDOW MOTOR → TERMINAL 1 → TERMINAL 13 OF THE MASTER SW → TERMINAL 1 → TO GROUND AND CAUSES THE POWER WINDOW MOTOR TO ROTATE IN THE UP DIRECTION. THE WINDOW ASCENDS ONLY WHILE THE SW IS BEING PUSHED.

IN DOWN OPERATION, THE FLOW OF CURRENT FROM TERMINAL 7 OF THE POWER WINDOW MASTER SW TO TERMINAL 13 OF THE MASTER SW CAUSES THE FLOW OF CURRENT FROM TERMINAL 1 OF THE MOTOR → TERMINAL 2 → TERMINAL 6 OF THE MASTER SW → TERMINAL 1 → TO GROUND. FLOWING IN THE OPPOSITE DIRECTION TO MANUAL UP OPERATION AND CAUSING THE MOTOR TO ROTATE IN REVERSE, LOWERING THE WINDOW.

### 2. AUTO DOWN OPERATION

WITH THE IGNITION SW ON AND WITH THE AUTO SW OF THE POWER WINDOW MASTER SW IN DOWN POSITION, CURRENT FLOWING TO TERMINAL 7 OF THE MASTER SW FLOWS TO TERMINAL 13 OF THE MASTER SW → TERMINAL 1 OF THE POWER WINDOW MOTOR → TERMINAL 2 → TERMINAL 6 OF THE MASTER SW → TERMINAL 1 → TO GROUND, CAUSING THE MOTOR TO ROTATE TOWARDS THE DOWN SIDE.

THEN THE SOLENOID IN THE MASTER SW IS ACTIVATED AND IT LOCKS THE AUTO SW BEING PUSHED, CAUSING THE MOTOR TO CONTINUE TO ROTATE IN AUTO DOWN OPERATION.

WHEN THE WINDOW HAS COMPLETELY DESCENDED, THE CURRENT FLOW BETWEEN TERMINAL 6 OF THE MASTER SW AND TERMINAL 1 INCREASES. AS A RESULT, THE SOLENOID STOPS OPERATING, THE AUTO SW TURNS OFF AND FLOW FROM TERMINAL 7 OF THE MASTER SW TO TERMINAL 13 IS CUT OFF, STOPPING THE MOTOR SO THAT AUTO STOP OCCURS.

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

WHEN THE MANUAL SW (DRIVER'S) IS PUSHED TO THE UP SIDE DURING AUTO DOWN OPERATION, A GROUND CIRCUIT OPENS IN THE MASTER SW AND CURRENT DOES NOT FLOW FROM TERMINAL 6 OF THE MASTER SW → TO TERMINAL 1, SO THE MOTOR STOPS, CAUSING AUTO DOWN OPERATION TO STOP. IF THE MANUAL SW IS PUSHED CONTINUOUSLY, THE MOTOR ROTATES IN THE UP DIRECTION IN MANUAL UP OPERATION.

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

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

AS A RESULT, EVEN IF OPEN/CLOSE OPERATION OF THE PASSENGER'S WINDOW IS TRIED, THE CURRENT FROM TERMINAL 1 OF THE POWER WINDOW MASTER SW IS NOT GROUNDED AND THE MOTOR DOES NOT ROTATE. SO THE PASSENGER'S WINDOW CAN NOT BE OPERATED AND WINDOW LOCK OCCURS.

FURTHERMORE, REAR LH, RH WINDOW OPERATE THE SAME AS THE ABOVE CIRCUIT.

## SERVICE HINTS

### P4 POWER WINDOW MASTER SW

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

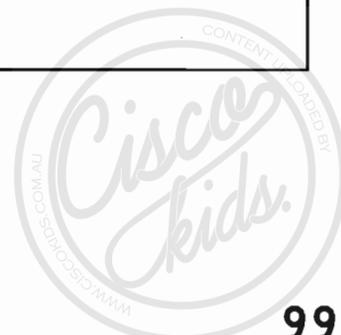
1-GROUND:ALWAYS CONTINUITY

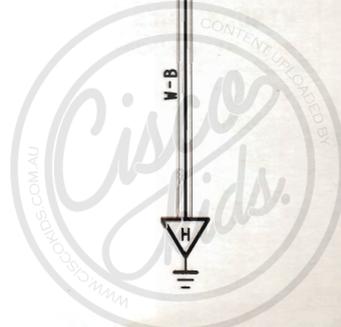
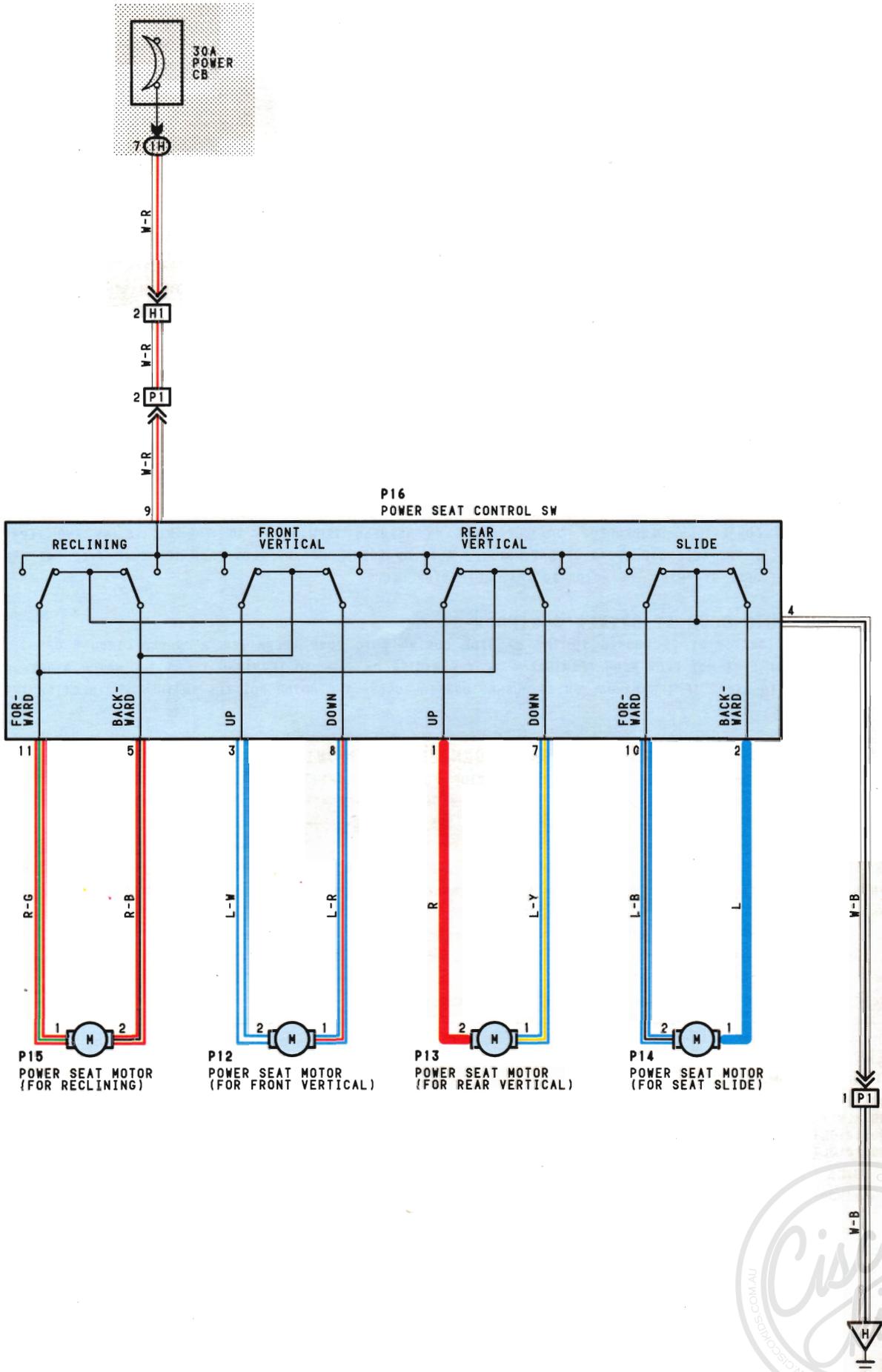
6-GROUND:12VOLTS WITH IGNITION SW ON AND MASTER SW(DRIVER'S WINDOW) AT UP POSITION

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

### WINDOW LOCK SW

OPEN WITH WINDOW LOCK SW AT LOCK POSITION





**SERVICE HINTS**

**R16 POWER SEAT SW**

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

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
P12	25	P14	25	P16	25
P13	25	P15	25		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1M	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
P1	32	FLOOR NO.2 WIRE AND SEAT WIRE (UNDER THE DRIVER'S SEAT)

**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION	CODE	SEE PAGE	GROUND POINTS LOCATION
H	30	LEFT REAR PILLAR			

P12 ORANGE



P13 ORANGE



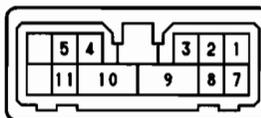
P14 GREEN

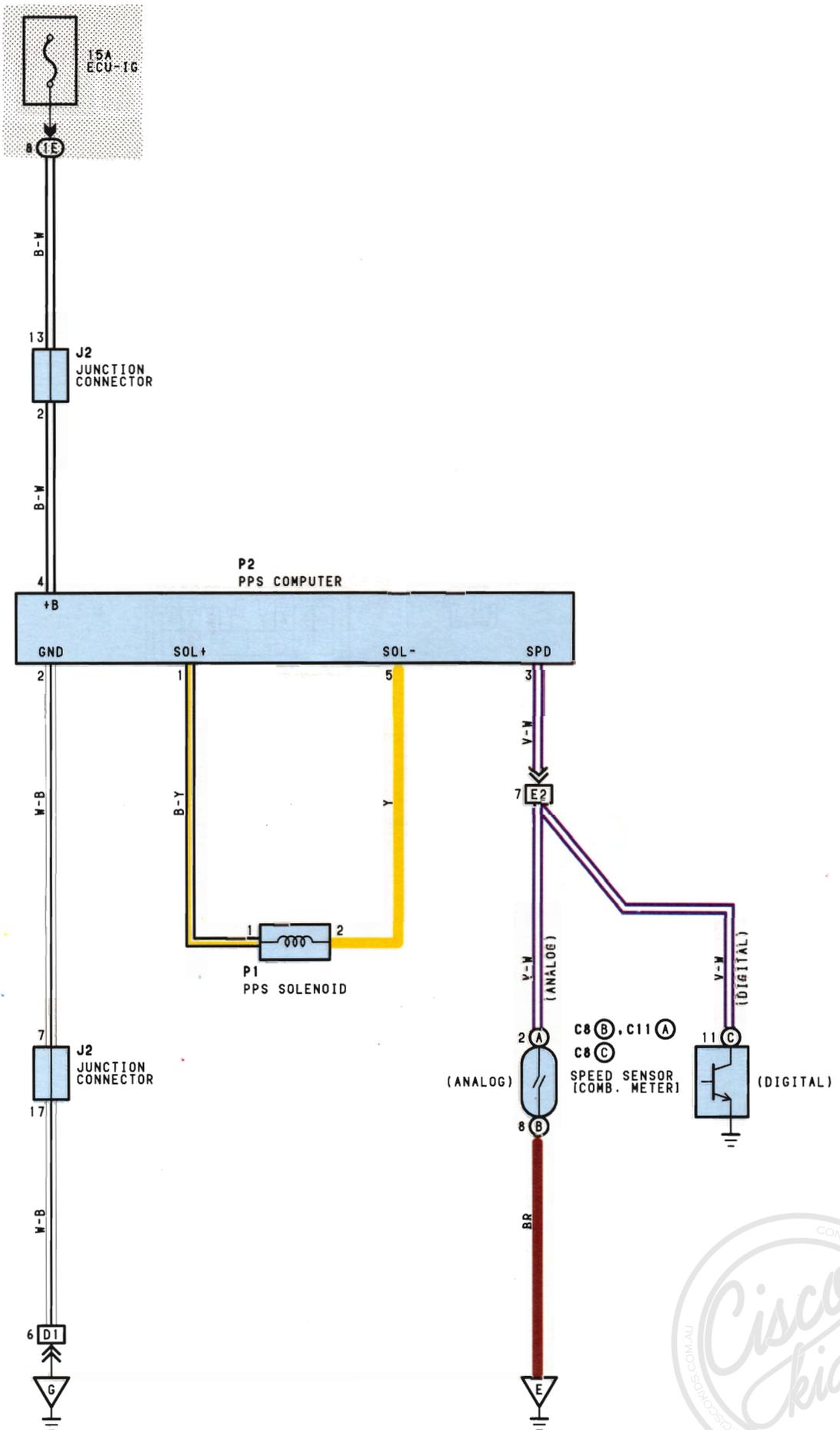


P15



P16





**SYSTEM OUTLINE**

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

**PPS OPERATION**

WHEN THE IGNITION SW IS TURNED ON THE STARTING CURRENT FLOWS FROM THE ECU-IG FUSE TO TERMINAL 4 OF THE PPS COMPUTER. THE SPEED SENSOR MONITORS THE VEHICLE SPEED AND TRANSMITS CONTROL SIGNALS TO TERMINAL 3 OF THE COMPUTER. WHEN THE VEHICLE SPEED IS LOW, THE PPS COMPUTER SENDS A HIGHER-VOLTAGE FROM TERMINAL 1 OF THE ALLOWING A HIGH-VOLTAGE FROM TERMINAL 1 OF THE COMPUTER → TERMINAL 1 OF THE SOLENOID VALVE → TERMINAL 2 → TERMINAL 5 OF THE COMPUTER → GROUND, INCREASING THE SOLENOID VALVE OPENING ANGLE TO PROVIDE COMFORTABLE STEERING OPERATION. WHEN THE VEHICLE SPEED IS HIGH, THE PPS COMPUTER DECREASES THE SOLENOID VALVE OPENING ANGLE BY REDUCING THE VOLTAGE TO THE VALVE TO PROVIDE RESPONSIVE STEERING FEELING.

**SERVICE HINTS**

**P2 PPS COMPUTER**

- 4-GROUND: APPROX. 12VOLTS WITH IGNITION SW ON
- 2-GROUND: ALWAYS CONTINUITY
- 1-5 : 3.1±1V(50KM/H, 31MPH)
- 3-GROUND: 0-∞ 0-∞(SPIN THE REAR WHEEL)

**P1 PROGRESSIVE POWER STEERING SOLENOID**

- 1-2 : 7.4-8.0Ω

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C8	B	23(ANALOG)	C11	C	23(DIGITAL)
C11	A	23(DIGITAL)	J2		23
				P1	22
				P2	23

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

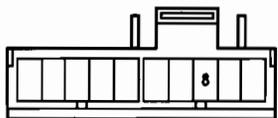
**□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS**

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)

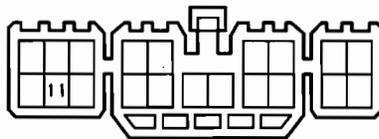
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION	CODE	SEE PAGE	GROUND POINTS LOCATION
E	28	INSTRUMENT PANEL CENTER	G	28	R/B NO.4 SET BOLT

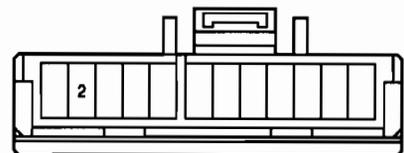
(ANALOG) C8 **B** BROWN



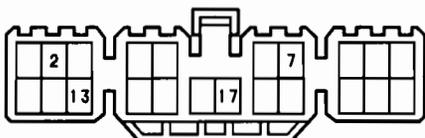
(DIGITAL) C11 **C**



(ANALOG) C11 **A** BLUE



J2



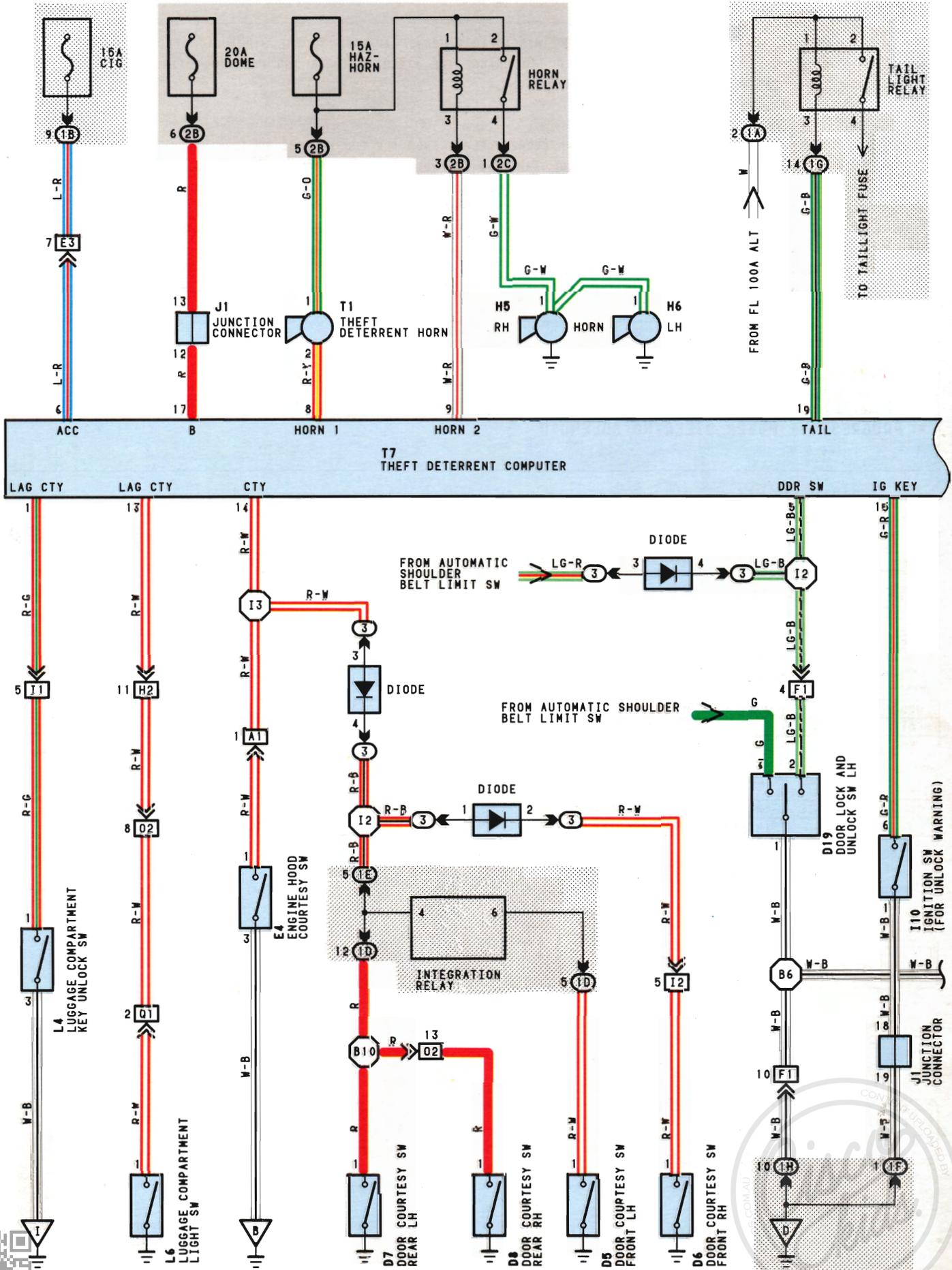
P1



P2



# 22 THEFT DETERRENT SYSTEM(USA)





## SERVICE HINTS

### D5, D6, D7, D8 DOOR COURTESY SW

1-GROUND: CLOSED WITH DOOR OPEN

### D12, D13 DOOR KEY LOCK AND UNLOCK SW

2-3: CLOSED WITH FRONT DOOR LOCKED WITH THE KEY

1-3: CLOSED WITH FRONT DOOR UNLOCK WITH THE KEY

### D19, D20 DOOR LOCK AND UNLOCK SW

2-1: CLOSED WITH DOOR OPEN

3-1: CLOSED WITH DOOR CLOSED

### L6 LUGGAGE COMPARTMENT LIGHT SW

1-GROUND: CLOSED WITH LUGGAGE COMPARTMENT DOOR OPEN

### T7 THEFT DETERRENT COMPUTER

- 1-GROUND: 0VOLT WITH LUGGAGE COMPARTMENT DOOR UNLOCKED WITH THE KEY  
APPROX. 12VOLTS WITH LUGGAGE COMPARTMENT DOOR LOCKED WITH THE KEY
- 2-GROUND: 0VOLT WITH REAR LH OR RH DOOR LOCK KNOB PULLED UP  
APPROX. 12VOLTS WITH REAR LH OR RH DOOR LOCK KNOB PUSHED DOWN
- 3-GROUND: 0VOLT WITH FRONT LH DOOR LOCK KNOB PULLED UP  
APPROX. 12VOLTS WITH FRONT LH DOOR LOCK KNOB PUSHED DOWN
- 4, 5-GROUND: 0VOLT WITH FRONT LH OR RH DOOR OPEN  
APPROX. 12VOLTS WITH FRONT LH OR RH DOOR CLOSED
- 6-GROUND: APPROX. 12VOLTS WITH IGNITION SW AT ACC OR ON POSITION
- 7-GROUND: ALWAYS CONTINUITY
- 8, 9-GROUND: APPROX. 12VOLTS WITH SYSTEM OFF CHANGES I2 TO 0VOLT WITH SYSTEM ON
- 10-GROUND: 0VOLT WITH FRONT LH OR RH DOOR UNLOCK WITH THE KEY  
APPROX. 12VOLTS WITH FRONT LH OR RH DOOR EXCEPT UNLOCK WITH THE KEY
- 11-GROUND: 0VOLT WITH FRONT LH OR RH DOOR LOCKED WITH THE KEY  
APPROX. 12VOLTS WITH FRONT LH OR RH DOOR EXCEPT LOCKED WITH THE KEY
- 12-GROUND: 0VOLT WITH FRONT RH DOOR LOCK KNOB PULLED UP  
APPROX. 12VOLTS WITH FRONT RH DOOR LOCK KNOB PUSHED DOWN
- 13-GROUND: 0VOLT WITH LUGGAGE COMPARTMENT DOOR OPEN  
APPROX. 12VOLTS WITH LUGGAGE COMPARTMENT DOOR CLOSED
- 14-GROUND: 0VOLT WITH FRONT LH OR RH DOOR, REAR LH OR RH DOOR, ENGINE HOOD OPEN  
APPROX. 12VOLTS WITH FRONT LH OR RH DOOR, REAR LH OR RH DOOR, ENGINE HOOD CLOSED
- 15-GROUND: APPROX. 12VOLTS WITH IGNITION KEY IN CYLINDER
- 16-GROUND: APPROX. 12VOLTS WITH SYSTEM ON
- 17-GROUND: ALWAYS APPROX. 12VOLTS
- 18-GROUND: APPROX. 12VOLTS WITH SYSTEM ON AND IGNITION SW AT ST POSITION
- 19-GROUND: 0VOLT WITH LIGHT CONTROL SW AT TAIL POSITION  
APPROX. 12VOLTS WITH LIGHT CONTROL SW TURNED OFF
- 20-GROUND: 0VOLT WITH LIGHT CONTROL SW AT HEAD OR WITH DIMMER SW AT FLASH POSITION  
APPROX. 12VOLTS WITH LIGHT CONTROL SW TURNED OFF

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE	
C8	A	23	D16	24	J1	23
	B	23	D17	24	J2	23
D5	24	D18	24	J3	23	
D6	24	D19	24	L4	24	
D7	24	D20	24	L6	24	
D8	24	E4	22	T1	22	
D12	24	H5	22	T7	23	
D13	24	H6	22			
D15	24	I10	23			

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
1G		
1H		
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2C	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)
2E		



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

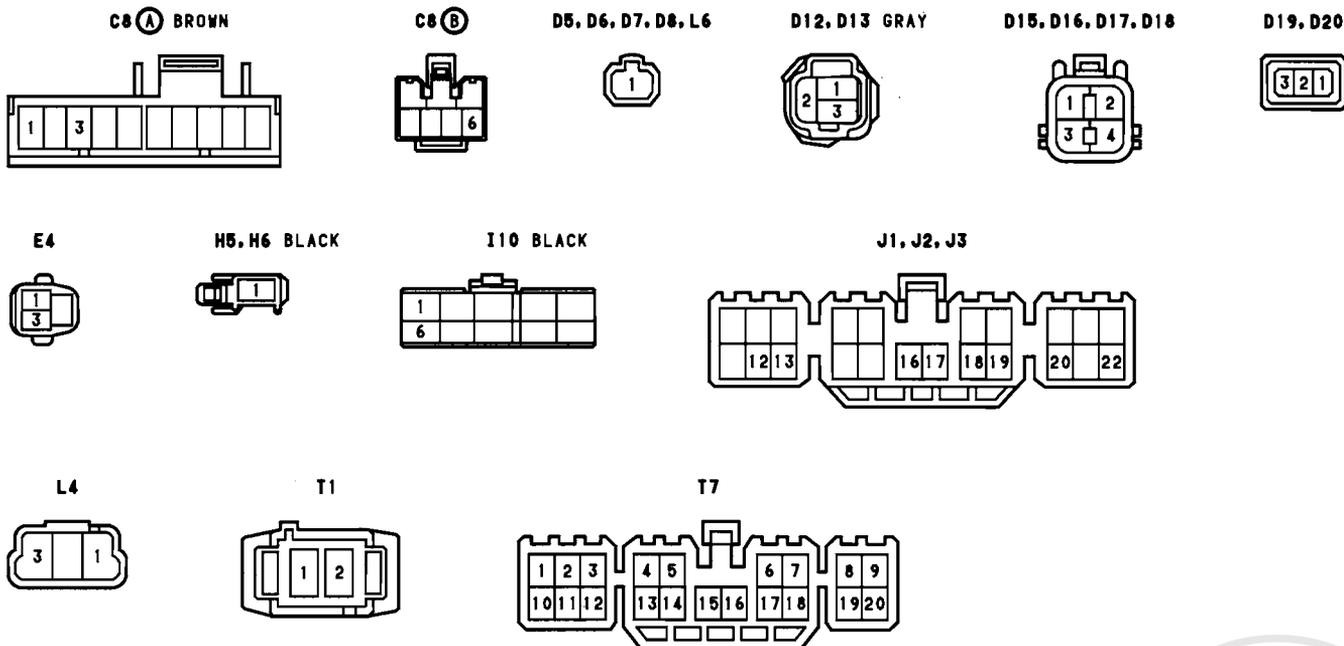
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A1	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (RIGHT FENDER)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
F2		
G1	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
G2		
H2	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I1	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
M1	30	REAR DOOR LH WIRE AND FLOOR NO.2 WIRE (LEFT CENTER PILLAR)
M1	30	REAR DOOR RH WIRE AND FLOOR NO.1 WIRE (RIGHT CENTER PILLAR)
Q2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

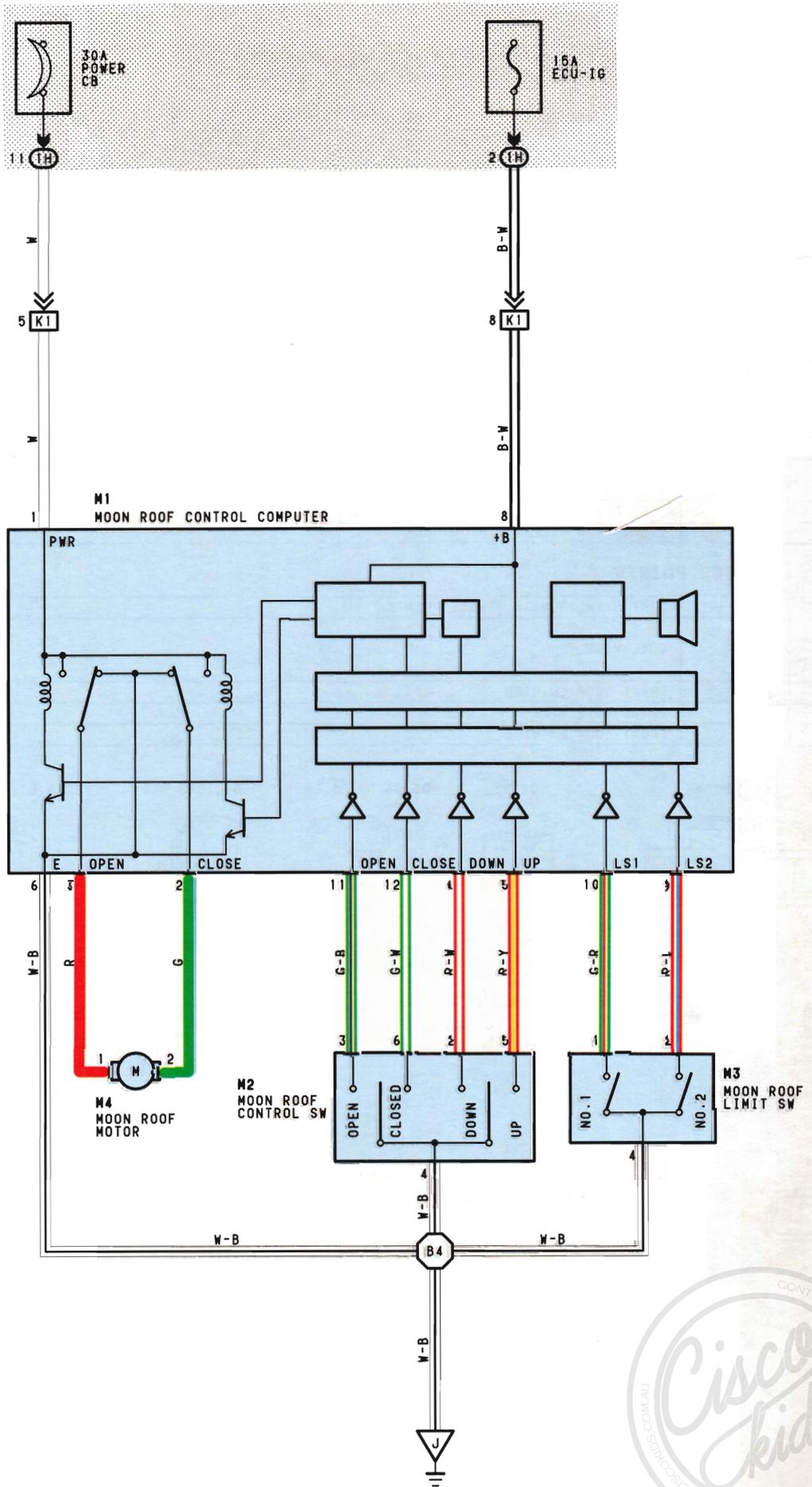
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
B	26	FRONT OF LEFT FENDER
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT
H	30	LEFT REAR PILLAR
I	30	RIGHT REAR PILLAR

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I2	28	COWL WIRE
I3		
I8		
B6	30	FRONT DOOR LH WIRE
B10	30	FLOOR NO.2 WIRE
B14	30	FRONT DOOR RH WIRE





## SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH POWER CB TO TERMINAL 1 OF MOON ROOF CONTROL COMPUTER.

WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS TO TERMINAL 8 OF THE MOON ROOF CONTROL COMPUTER THROUGH THE ECU-IG FUSE.

### 1. SLIDE OPEN OPERATION

WHEN THE IGNITION SW IS TURNED ON AND THE MOON ROOF CONTROL SW IS PUSHED TO THE OPEN POSITION, A SIGNAL IS INPUT TO TERMINAL 11 OF THE MOON ROOF CONTROL COMPUTER. WHEN THIS OCCURS, THE CURRENT FLOWING TO TERMINAL 8 OF THE MOON ROOF CONTROL COMPUTER FLOWS TO TERMINAL 6 → GROUND. THIS ACTIVATES THE COMPUTER SO THAT THE CURRENT FLOWS FROM TERMINAL 1 OF THE COMPUTER → TERMINAL 3 → TERMINAL 1 OF THE MOON ROOF CONTROL MOTOR → TERMINAL 2 → TERMINAL 2 OF THE COMPUTER → TERMINAL 6 → GROUND SO THAT THE MOTOR ROTATES TO THE OPEN SIDE AND THE BUZZER SOUNDS FOR 0.5 SEC. AT THIS TIME, EVEN THE MOON ROOF SW IS RELEASED, THE SLIDE ROOF WILL CONTINUE TO OPEN UNDER COMPUTER CONTROL UNTIL COMPLETELY OPEN.

IF THE MOON ROOF CONTROL SW IS PUSHED TO ANY POSITION DURING THE SLIDE OPEN OPERATION, THE SLIDE ROOF CAN BE STOPPED AT THE DESIRED POSITION AND IF THE MOON ROOF CONTROL SW IS PUSHED TO THE CLOSE SIDE FOR MORE THAN 0.3 SEC., THE WARNING BUZZER SOUNDS FOR 0.5 SEC., THEN THE FUNCTION SWITCHES TO "SLIDE CLOSE".

### 2. SLIDE CLOSE OPERATION

WHEN THE IGNITION SW IS TURNED ON AND THE MOON ROOF CONTROL SW IS PUSHED TO THE CLOSE POSITION, A SIGNAL IS INPUT TO TERMINAL 12 OF THE MOON ROOF CONTROL COMPUTER AND THE CURRENT FLOWING TO TERMINAL 8 OF THE MOON ROOF CONTROL COMPUTER FLOWS TO TERMINAL 6 → GROUND. THIS ACTIVATES THE COMPUTER AND THE CURRENT FLOWING TO TERMINAL 1 OF THE COMPUTER FLOWS TO TERMINAL 2 → TERMINAL 2 OF THE MOON ROOF CONTROL MOTOR → TERMINAL 1 → TERMINAL 3 OF THE COMPUTER → TERMINAL 6. THIS CAUSES THE MOTOR TO ROTATE TO THE CLOSE SIDE AND CAUSES THE BUZZER TO SOUND 0.5 SEC. AFTER THE MOON ROOF SW IS TURNED ON.

AT THIS TIME, EVEN IF THE MOON ROOF CONTROL SW IS RELEASED, THE CLOSE FUNCTION CONTINUES UNDER COMPUTER CONTROL. HOWEVER, THE MOON ROOF LIMIT SW TURNS OFF 100MM BEFORE THE FULLY CLOSED POSITION AND THE SIGNAL IS INPUT INTO TERMINAL 10 OF THE COMPUTER. WHEN THIS HAPPENS THE COMPUTER STOPS OPERATING SO CURRENT DOES NOT FLOW TO THE MOTOR AND THE MOON ROOF STOPS AUTOMATICALLY. APPROX. 2.0 SEC. AFTER AUTO STOP, THE COMPUTER OPERATES AND ROTATES THE MOTOR TO CLOSE THE SLIDE ROOF COMPLETELY WITH THE BUZZER SOUNDING. IF THE MOON ROOF CONTROL SW IS AGAIN PUSHED TO ANY POSITION DURING THE SLIDE CLOSE OPERATION, THE SLIDE ROOF CAN BE STOPPED AT THE DESIRED POSITION AND IF THE MOON ROOF CONTROL SW IS PUSHED TO THE OPEN SIDE MORE THAN 0.3 SEC., THE WARNING BUZZER SOUNDS FOR 0.5 SEC., THEN THE FUNCTION IS SWITCHED TO "SLIDE OPEN".

### 3. TILT UP OPERATION

WHEN THE MOON ROOF CONTROL SW IS PUSHED TO THE TILT UP POSITION, WITH THE IGNITION SW TURNED ON AND THE SLIDE ROOF COMPLETELY CLOSED, A SIGNAL IS INPUT TO TERMINAL 5 OF THE MOON ROOF CONTROL COMPUTER. WHEN THIS OCCURS, THE CURRENT FLOWING TO TERMINAL 8 OF THE COMPUTER FLOWS TO TERMINAL 6 OF THE COMPUTER → GROUND. AS A RESULT, THE COMPUTER IS ACTIVATED AND THE CURRENT FLOWS FROM TERMINAL 1 OF THE COMPUTER → TERMINAL 2 OF THE COMPUTER → TERMINAL 2 OF THE MOON ROOF CONTROL MOTOR → TERMINAL 1 → TERMINAL 3 OF THE COMPUTER → TERMINAL 6 → GROUND, ROTATING THE MOTOR FOR TILT UP OPERATION.

### 4. TILT DOWN OPERATION

WHEN THE MOON ROOF CONTROL SW IS PUSHED TO THE TILT DOWN POSITION, WITH THE IGNITION SW TURNED ON AND THE SLIDE ROOF TILTED UP, A SIGNAL IS INPUT TO TERMINAL 4 OF THE MOON ROOF CONTROL COMPUTER. WHEN THIS OCCURS, THE CURRENT FLOWING TO TERMINAL 8 OF THE COMPUTER FLOWS TO TERMINAL 6 → GROUND. AS A RESULT, THE COMPUTER IS ACTIVATED AND CURRENT FLOWS FROM TERMINAL 1 OF THE COMPUTER → TERMINAL 3 OF THE COMPUTER → TERMINAL 1 OF THE MOON ROOF CONTROL MOTOR → TERMINAL 2 → TERMINAL 2 OF THE COMPUTER → TERMINAL 6 → GROUND, ROTATING THE MOTOR FOR TILT DOWN OPERATION.

## SERVICE HINTS

### M1 MOON ROOF CONTROL COMPUTER

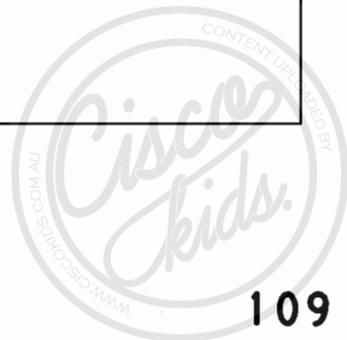
6-GROUND: ALWAYS CONTINUITY

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

9-GROUND: APPROX. 12VOLTS - 0VOLT WITH FROM OPEN TO CLOSE  
0VOLT WITH UP OR DOWN POSITION

10-GROUND: 0VOLT - APPROX. 12VOLTS WITH APPROX. 100MM(3.94IN.) BEFORE CLOSED POSITION  
0VOLT - APPROX. 12VOLTS WITH FROM OPEN TO CLOSE

1-GROUND: ALWAYS APPROX. 12VOLTS



**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
M1	24	M3	24		
M2	24	M4	24		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
IH	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
K1	30	ROOF WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)

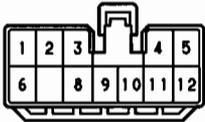
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
J	30	ROOF LEFT

**⊘ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B4	30	ROOF WIRE			

M1



M2

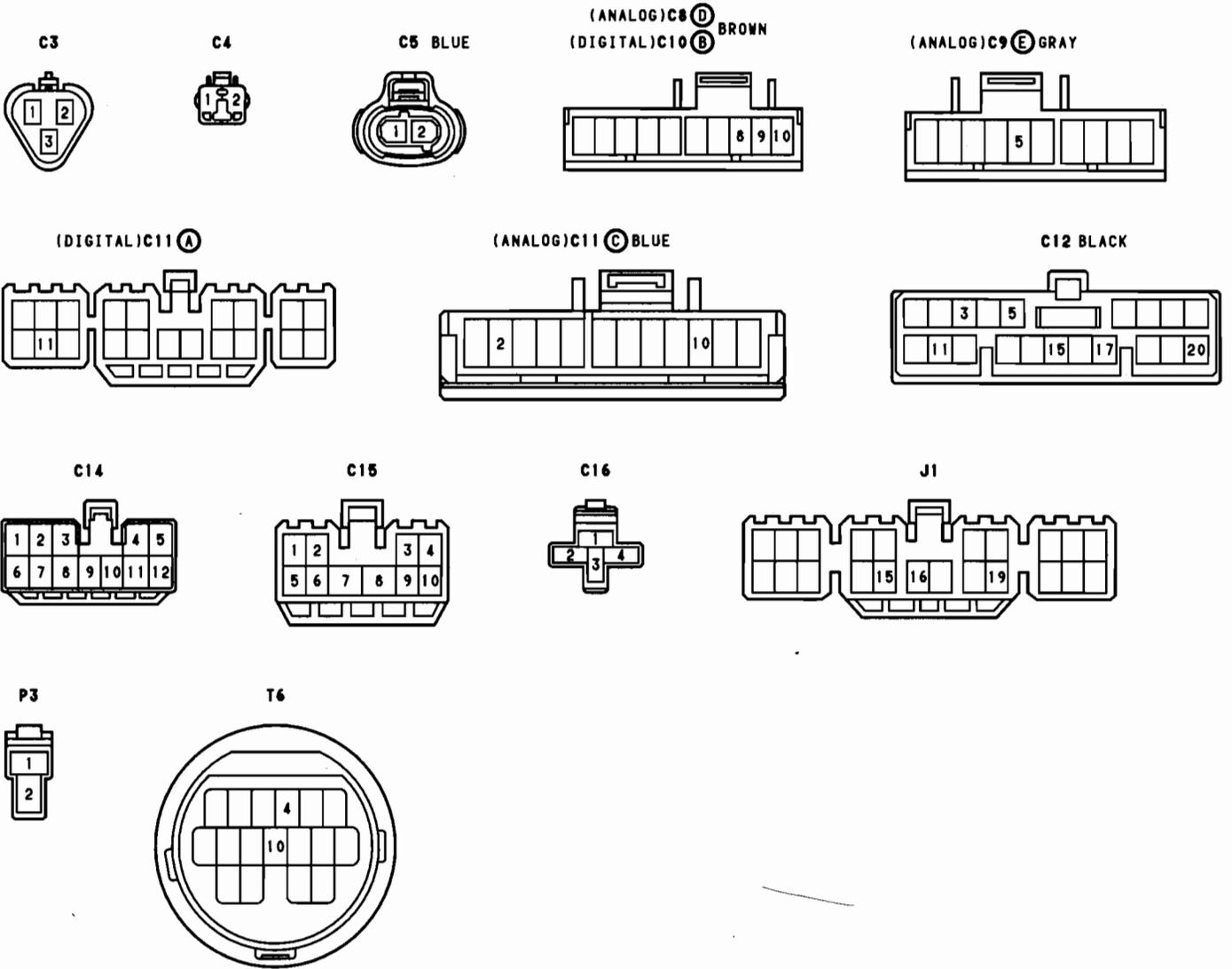


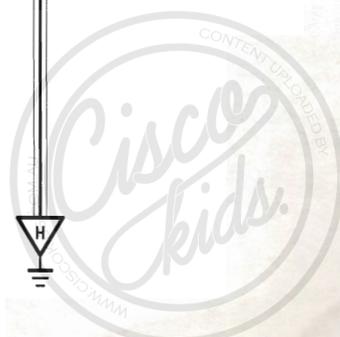
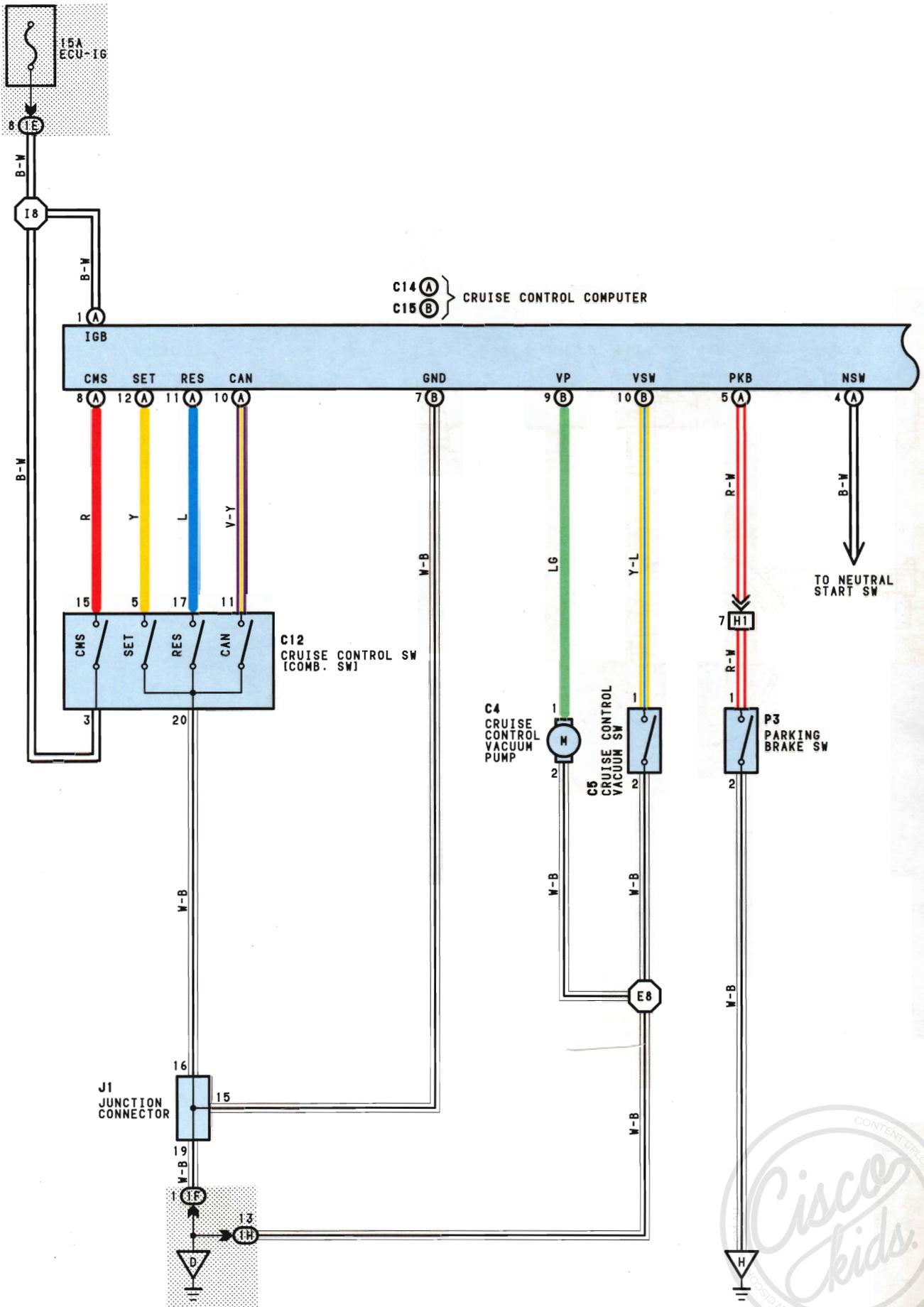
M3

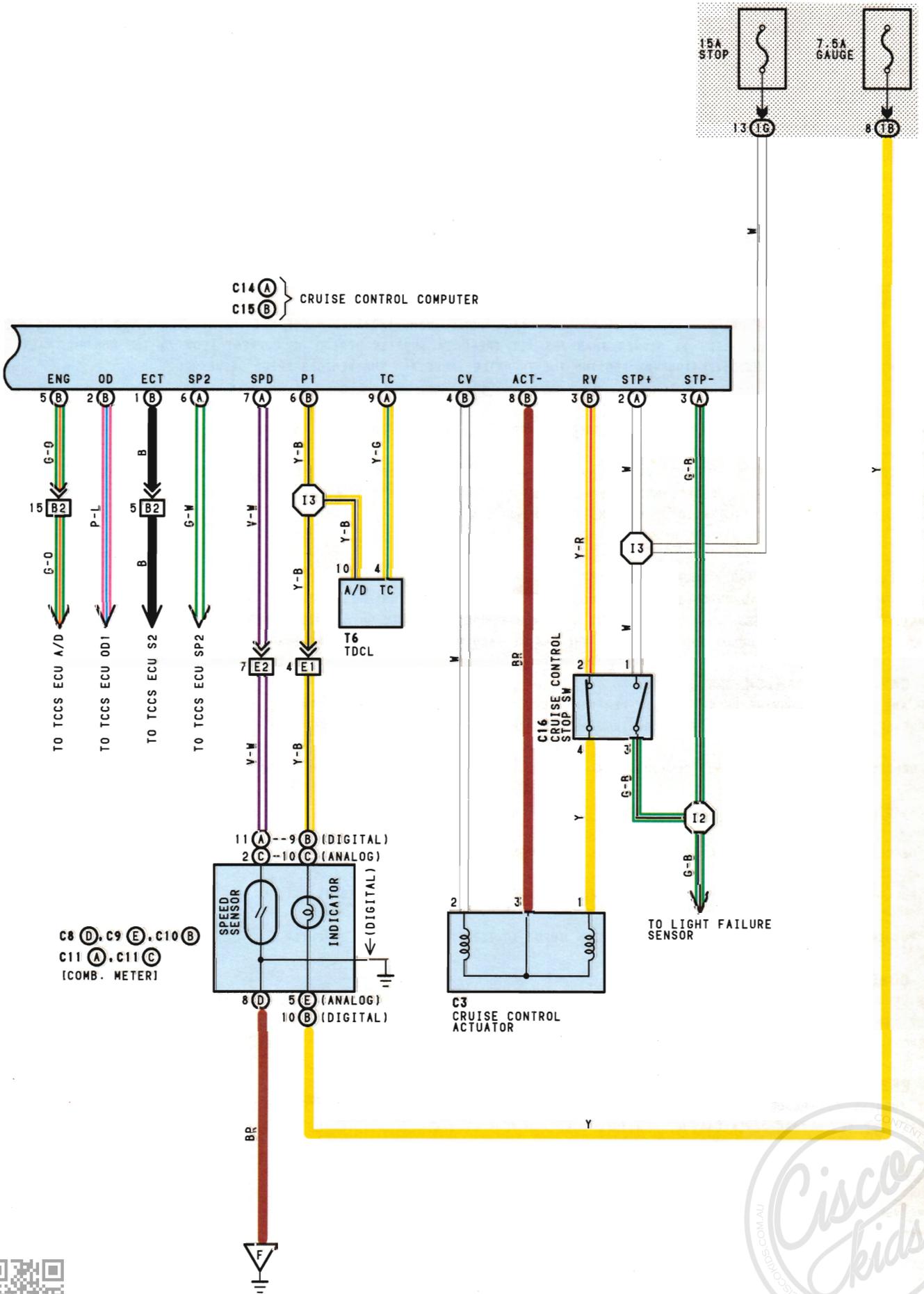


M4









**SYSTEM OUTLINE**

WHEN THE IGNITION SW IS TURNED TO ON, THE CURRENT FLOWING THROUGH THE ECU-IG FUSE FLOWS THEN TO TERMINAL A1 OF THE CRUISE CONTROL COMPUTER. IF AT THIS TIME THE MAIN SW IS TURNED ON, THE CURRENT APPLIED TO TERMINAL 3 FLOWS TO TERMINAL A8 OF THE COMPUTER, MAINTAINING THE CRUISE CONTROL SYSTEM IN CONSTANT READINESS FOR OPERATION. SIMULTANEOUSLY, THE CURRENT FLOWING THROUGH THE GAUGE FUSE FLOWS TO THE INDICATOR LIGHT → TERMINAL B6 OF THE COMPUTER → GROUND, CAUSING THE INDICATOR LIGHT TO LIGHT UP.

**1. CRUISE CONTROL DRIVING**

WHEN THE MAIN SW IS TURNED TO ON AND THE SET SW IS PUSHED IN 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 A12 OF THE COMPUTER AND THE VEHICLE SPEED AT THAT TIME IS RECORDED IN THE COMPUTER MEMORY AS THE SET SPEED. THE COMPUTER COMPARES THE RECORDED SET SPEED WITH THE ACTUAL VEHICLE SPEED INPUT INTO TERMINAL A7 FROM THE SPEED SENSOR, AND CONTROLS THE CRUISE CONTROL ACTUATOR IN ORDER TO MAINTAIN THE SET VEHICLE SPEED.

WHEN THE ACTUAL VEHICLE SPEED IS LOWER THAN THE SET SPEED, COMPUTER OPERATION LENGTHENS THE PERIOD OF CURRENT FLOW FROM TERMINAL B4 OF THE COMPUTER → TERMINAL 2 OF THE ACTUATOR → THE CONTROL VALVE → TERMINAL 3 → TERMINAL B8 OF THE COMPUTER, THE CABLE IS PULLED IN THE DIRECTION FOR OPENING THROTTLE VALVE AND THE VEHICLE SPEED INCREASES. WHEN THE ACTUAL VEHICLE SPEED IS HIGHER THAN THE SET SPEED, A SHORTER PERIOD OF CURRENT FLOW TO THE CONTROL VALVE RETURNS THE CABLE IN THE DIRECTION FOR CLOSING THE THROTTLE VALVE AND THE VEHICLE SPEED DECREASES.

**(ACTUATOR OPERATION)**

WHEN THE CRUISE CONTROL SYSTEM OPERATES (THE SET SIGNAL IS INPUT), CURRENT FLOWS FROM THE COMPUTER TO THE RELEASE VALVE, CLOSING THE ATMOSPHERIC INTAKE PORT.

WHEN THERE IS CONTINUITY TO THE CONTROL VALVE, VACUUM IS INTRODUCED INSIDE THE ACTUATOR, AND WHEN THERE IS NO CONTINUITY, VACUUM INTAKE STOPS AND ATMOSPHERE IS INTRODUCED. IN OTHER WORDS, THE ACTUATOR (THROTTLE VALVE) IS CONTROLLED BY CHANGING THE RATIO OF CONTINUITY AND NON-CONTINUITY TO THE CONTROL VALVE WITHIN A SPECIFIED PERIOD OF TIME.

**(ROLE OF THE VACUUM SW AND VACUUM PUMP)**

WHEN THE VACUUM SW TURNS ON DURING CRUISE CONTROL OPERATION, ITS SIGNAL IS INPUT TO TERMINAL B10 OF THE COMPUTER SO THAT THE COMPUTER APPLIES CURRENT TO OPERATE THE VACUUM PUMP (TERMINAL B9 OF THE COMPUTER → TERMINAL 1 OF THE PUMP → TERMINAL 2 → GROUND) AND SUPPLEMENT THE ENGINE VACUUM WHICH BY ITSELF IS INADEQUATE FOR CONTROL.

**2. CANCEL MECHANISM**

IF ANY OF THE FOLLOWING OPERATIONS IS PERFORMED DURING CRUISE CONTROL, THEN CONTINUITY TO THE CONTROL VALVE AND THE RELEASE VALVE IS CUT OFF AND CRUISE CONTROL IS RELEASED :

- DEPRESSING THE CLUTCH PEDAL (CLUTCH SW ON), SIGNAL INPUT TO TERMINAL 11 OF THE COMPUTER.
- PLACING THE NEUTRAL START SW IN "N" RENG (NEUTRAL START SW ON), SIGNAL INPUT TO TERMINAL 11 OF THE COMPUTER.
- DEPRESSING THE BRAKES PEDAL (STOP LIGHT SW ON), SIGNAL INPUT TO TERMINAL 15 OF THE COMPUTER.
- PULLING THE PARKING BRAKE LEVER (PARKING BRAKE SW ON), SIGNAL INPUT TO TERMINAL 12 OF THE COMPUTER.
- PUSHING THE CRUISE CONTROL CANCEL SW, SIGNAL INPUT TO TERMINAL 17 OF THE COMPUTER.

**3. COAST CONTROL**

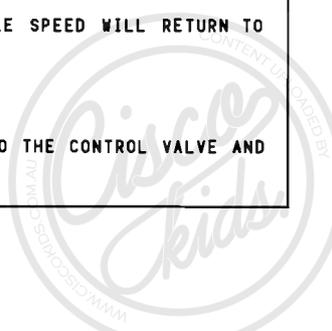
WHILE THE COAST SW IS ON DURING CRUISE CONTROL, CURRENT FLOW TO THE CONTROL VALVE AND RELEASE VALVE IS STOPPED AND THE VEHICLE DECELERATES UNTIL THE SW IS RELEASED. THE VEHICLE SPEED WHEN THE SW IS RELEASED IS THEN RECORDED IN MEMORY.

**4. RESUME CONTROL**

BY TURNING THE RESUME SW TO ON AFTER CANCELLATION OF THE CRUISE CONTROL SYSTEMS, THE VEHICLE SPEED WILL RETURN TO THE SPEED SET BEFORE CANCELLATION, PROVIDED THAT THE VEHICLE SPEED IS WITHIN THE SET LIMITS.

**5. ACCEL CONTROL**

WHEN THE ACCEL SW IS TURNED TO ON DURING CRUISE CONTROL DRIVING, CURRENT CONTINUES TO FLOW TO THE CONTROL VALVE AND THE VEHICLE ACCELERATES. THE VEHICLE SPEED WHEN THE SW IS TURNED OFF IS RECORDED IN MEMORY.



**SERVICE HINTS****C14 (A) .C15 (B) CRUISE CONTROL COMPUTER**

(DISCONNECT THE COMPUTER CONNECTOR)

- (A) 1-GROUND: APPROX. 12VOLTS WITH IGNITION SW ON  
 (A) 2-GROUND: ALWAYS APPROX. 12VOLTS  
 (A) 4-GROUND: CONTINUITY WITH CLUTCH PEDAL DEPRESSED (M/T) OR SHIFT LEVER IN N OR P RANGE (A/T) (ONE OF THE CANCEL SW)  
 (A) 5-GROUND: CONTINUITY WITH PARKING BRAKE LEVER PULL UP. (ONE OF THE CANCEL SW) OR BRAKE LEVEL WARNING SW ON  
 (A) 7-GROUND: 1PULSE EACH 40CM (DRIVE VEHICLE SLOWLY)  
 (A) 8-GROUND: APPROX. 12VOLTS WITH IGNITION SW AND MAIN SW ON  
 (A) 10-GROUND: CONTINUITY WITH CANCEL SW ON IN CONTROL SW  
 (A) 11-GROUND: CONTINUITY WITH RES/ACC SW ON  
 (A) 12-GROUND: CONTINUITY WITH SET/COAST SW ON  
 (B) 7-GROUND: ALWAYS CONTINUITY  
 (B) 10-GROUND: CONTINUITY (ENGINE STOP)  
                   ON CONTINUITY (ENGINE IDLING)  
 (B) 4-(B) 8 : APPROX. 30Ω (ACTUATOR CONTROL VALVE)  
 (B) 3-(B) 8 : APPROX. 68Ω (ACTUATOR RELEASE VALVE)

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C3	22	C10	B 23	C15	23
C4	22	C11	A 23	C16	23
C5	22	C11	C 23	J1	23
C8	D 23	C12	23	P3	24
C9	E 23	C14	23	T6	23

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
1G		
1H		

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B2	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
E1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E2		
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)

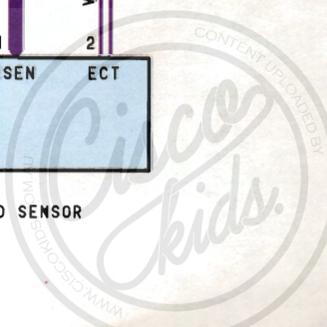
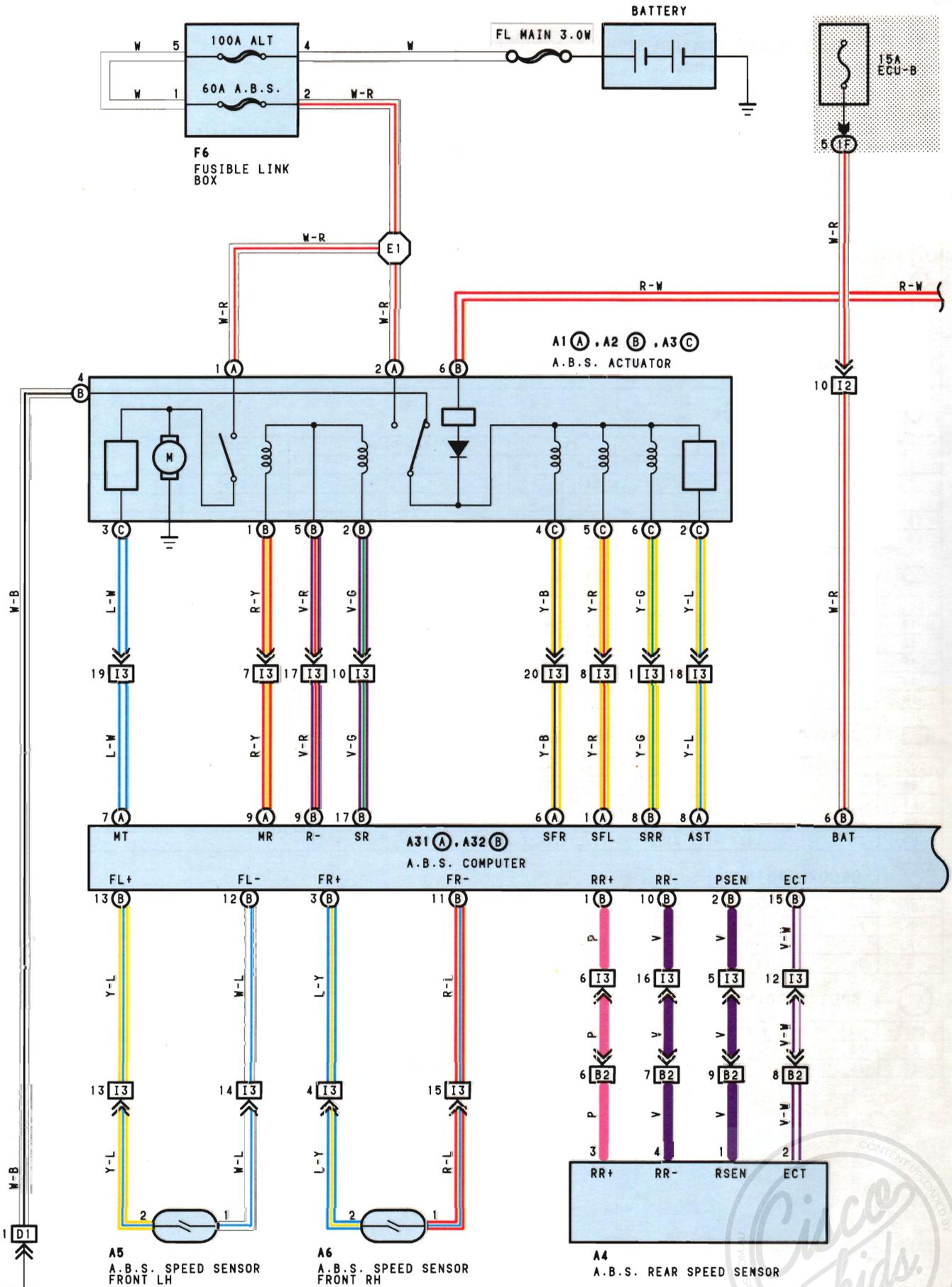
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
F	28	INSTRUMENT PANEL CENTER
H	30	LEFT REAR PILLAR

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E8	26	COWL WIRE	13	28	COWL WIRE
I2	28		18		

# 25 A.B.S. (ANTI-LOCK BRAKE SYSTEM)





# 25 A.B.S. (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+ AND RR+ OF THE A.B.S. COMPUTER.

#### (2) STOP LIGHT SW SIGNAL

A SIGNAL IS INPUT TO TERMINAL STP OF THE A.B.S. COMPUTER WHEN BRAKE PEDAL IS OPERATED.

#### (3) PARKING BRAKE SW SIGNAL

A SIGNAL IS INPUT TO TERMINAL PKB OF THE A.B.S. COMPUTER WHEN THE PARKING BRAKE IS OPERATED.

### 2. SYSTEM OPERATION

DURING SUDDEN BRAKING THE A.B.S. COMPUTER, 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 FLOUID FROM THE RESERVOIR TO THE MASTER CYLINDER, THUS PREVENTING LOCKING OF THE VEHICLE WHEELS.

IF THE COMPUTER 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 REDUCTION, HOLDING AND INCREASE ARE REPLEAD TO MAINTAIN VEHICLE STABILITY AND TO IMPROVE STEERBILITY DURING SUDDEN BRAKING.

## SERVICE HINTS

### A31 (A), A32 (B) A.B.S. COMPUTER

(DISCONNECT THE COMPUTER)

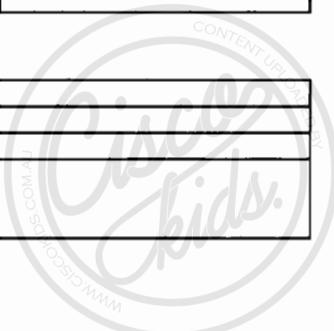
- |                              |   |
|------------------------------|---|
| (B) 7-GROUND, (B) 5-GROUND:  | } APPROX. 12VOLTS WITH IGNITION SW ON             |
| (A) 8-GROUND, (B) 8-GROUND:  |   |
| (A) 1-GROUND, (A) 6-GROUND:  |   |
| (B) 4-GROUND, (B) 14-GROUND: | ALWAYS CONTINUITY                                 |
| (A) 10-GROUND :              | CONTINUITY WITH PARKING BRAKE LEVER PULLED        |
| (A) 3-GROUND :               | APPROX. 12VOLTS WITH BRAKE PEDAL DEPRESSED        |
| (A) 11-GROUND :              | APPROX. 12VOLTS WITH SHIFT LEVER N POSITION (A/T) |
| (A) 12-GROUND :              | APPROX. 12VOLTS WITH SHIFT LEVER P POSITION (A/T) |
| (B) 6-GROUND :               | ALWAYS APPROX. 12VOLTS                            |
| (A) 9- (B) 9:                | 50-80Ω  |
| (B) 17- (B) 9:               | 65-100Ω   |
| (B) 13- (B) 12:              | 0.85-1.30KΩ                                       |
| (B) 3- (B) 11:               | 0.85-1.30KΩ                                       |
| (A) 1- (A) 8:                | APPROX. 6Ω  |
| (A) 8- (B) 8:                | APPROX. 6Ω  |
| (A) 8-GROUND :               | APPROX. 5Ω  |
| (B) 10-GROUND :              | NO CONTINUITY                                     |

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A1	22	A15	22	F6	22
A2	22	A31	24	J2	23
A3	22	A32	24	P3	24
A4	22	C9	23	T6	23
A5	22	C10	23		
A6	22	C16	23		

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E		
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G		



☐ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

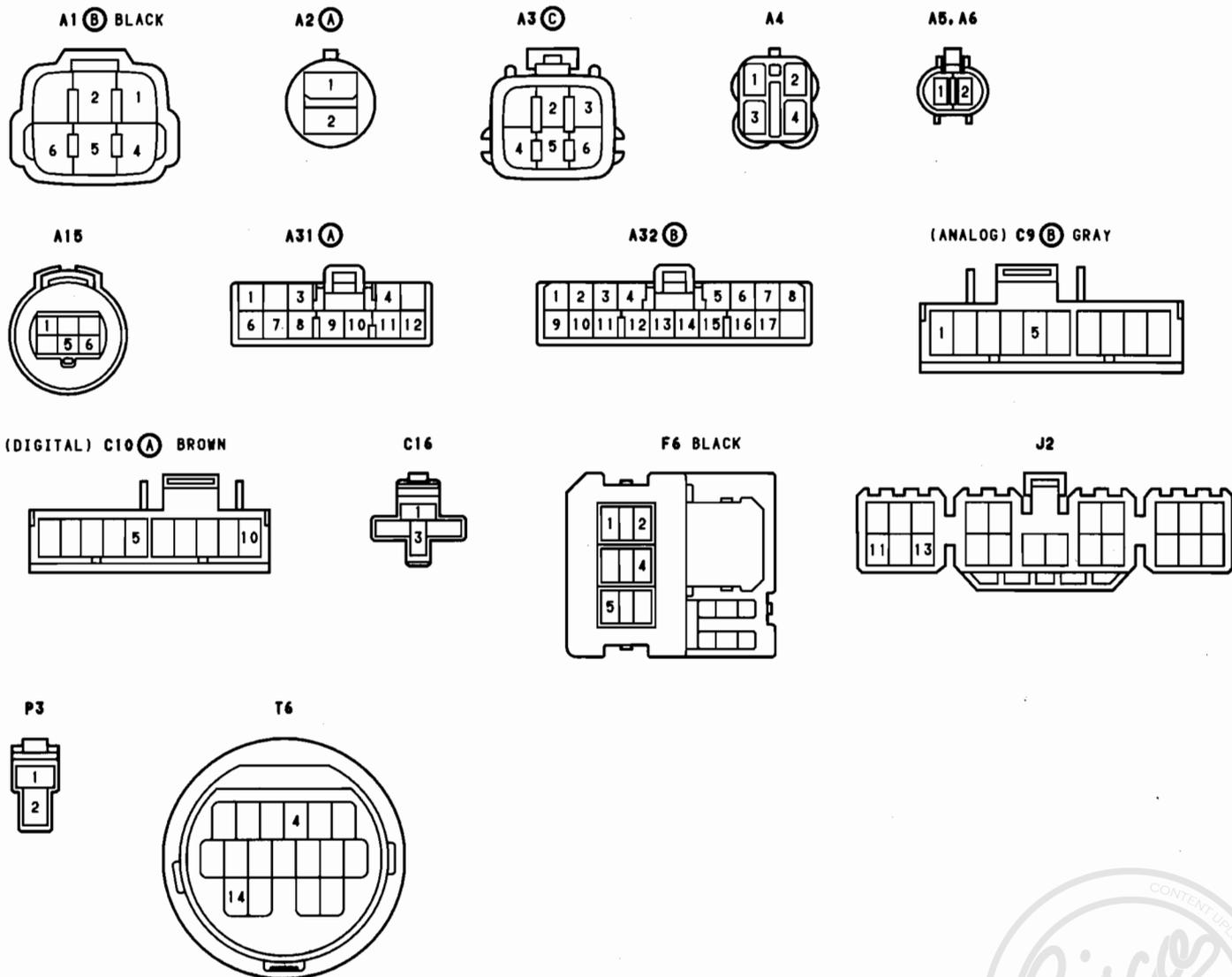
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B2	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
B3		
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
I3		
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)

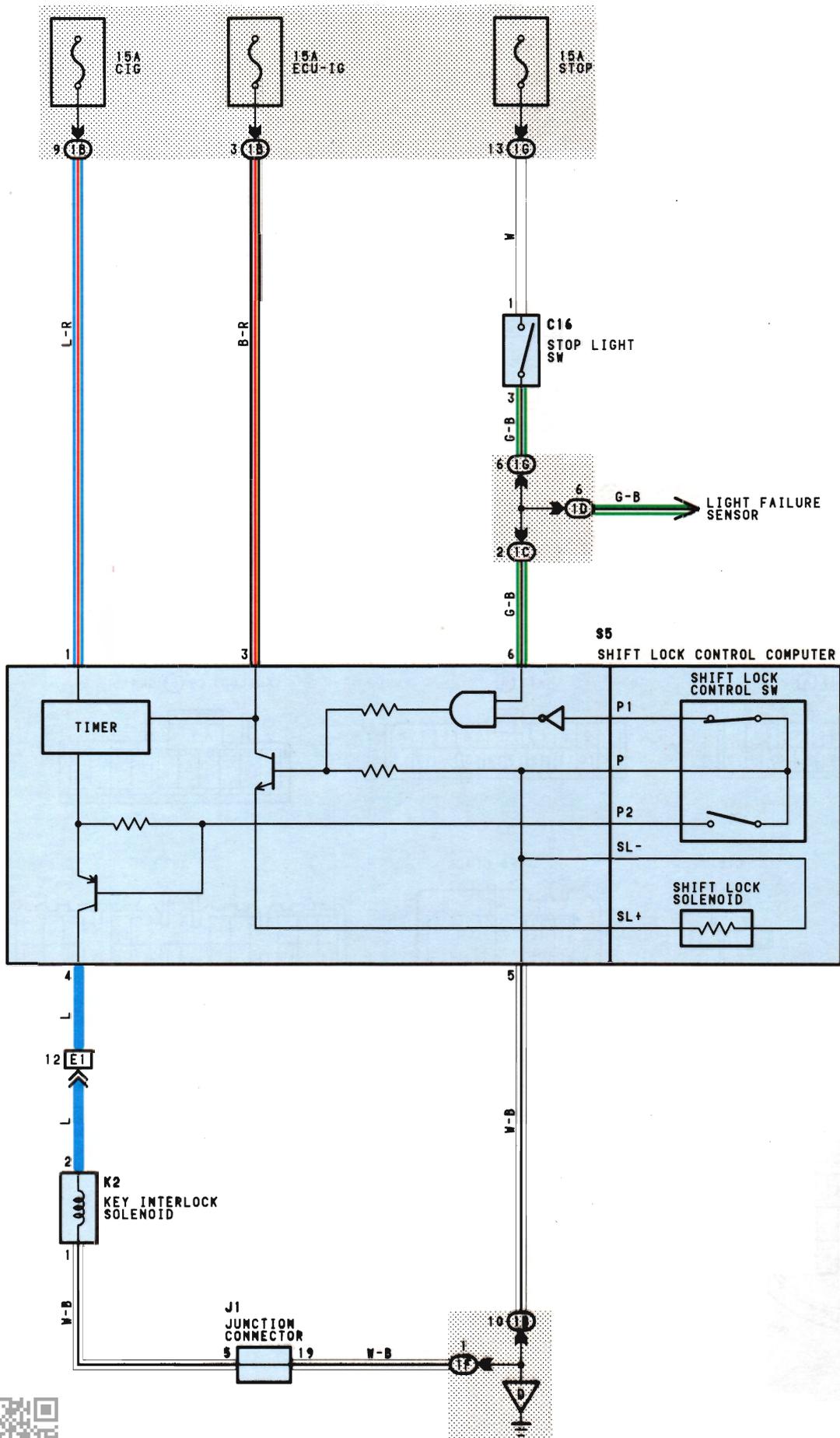
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
G	28	R/B NO.4 SET BOLT
H	30	LEFT REAR PILLAR
I	30	RIGHT REAR PILLAR

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E1	26	ENGINE ROOM MAIN WIRE
I13	28	COWL WIRE





## SYSTEM OUTLINE

WHEN THE IGNITION SW IS TURNED TO ACC POSITION THE CURRENT FROM THE CIG FUSE FLOWS TO TERMINAL 1 OF THE SHIFT LOCK CONTROL COMPUTER. IN THE ON POSITION, THE CURRENT FROM THE ECU-IG FUSE FLOWS TO TERMINAL 3 OF THE COMPUTER.

### 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 COMPUTER, THE COMPUTER OPERATES AND CURRENT FLOWS FROM TERMINAL 3 OF THE COMPUTER → TERMINAL 2 OF THE SHIFT LOCK SOLENOID → SOLENOID → TERMINAL 1 → TERMINAL 5 OF THE COMPUTER → 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 INTER LOCK 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 4 OF THE COMPUTER → KEY INTER LOCK SOLENOID IS CUT OFF. THIS CAUSES THE KEY INTER LOCK 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 COMPUTER OPERATES TO RELEASE THE LOCK.

## SERVICE HINTS

### S5 SHIFT LOCK CONTROL COMPUTER

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

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

5-GROUND: ALWAYS CONTINUITY

6-GROUND: APPROX. 12VOLTS WITH BRAKE PEDAL DEPRESSED

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C16	23	K2	23		
J1	23	S5	23		

### ⊙ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1C		
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G		

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
E1	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)

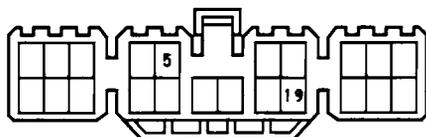
### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION	CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT			

C16



J1



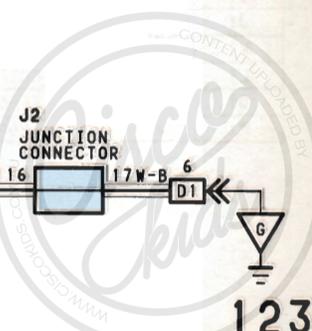
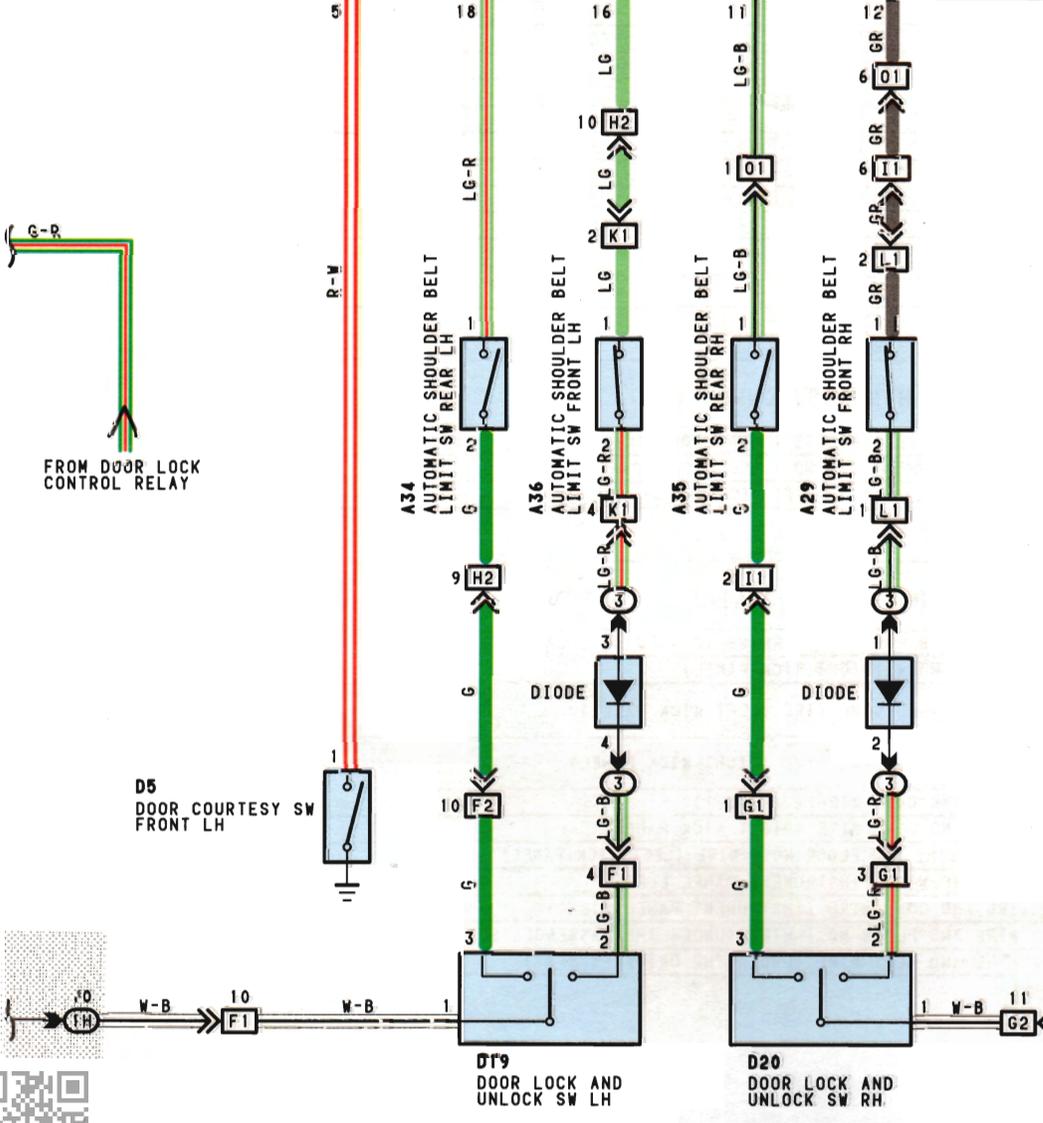
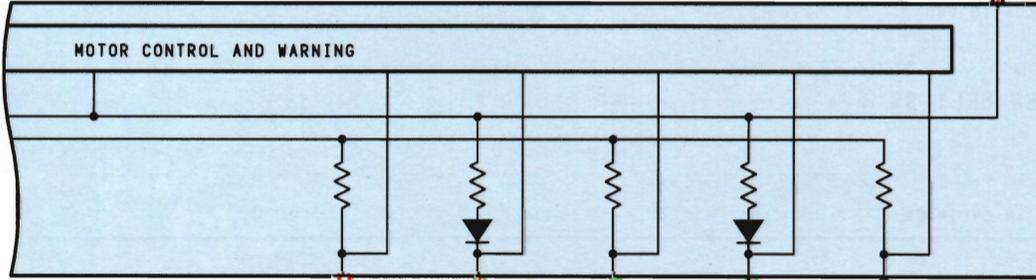
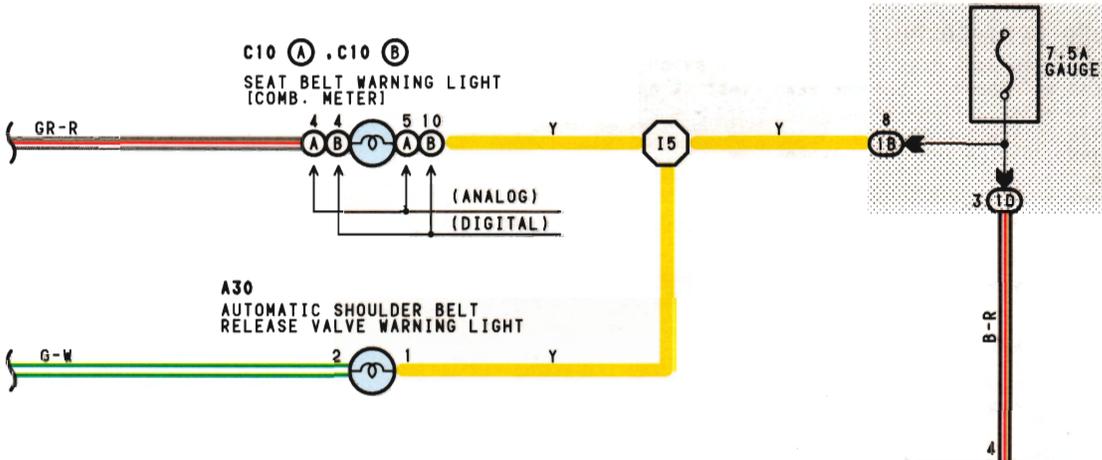
K2



S5









## SERVICE HINTS

**A28 AUTOMATIC SHOULDER BELT COMPUTER**

- 1,6-GROUND: APPROX. 12VOLTS WITH DOOR OPEN AND FRONT LIMIT SW ON (RELEASING SHOULDER BELT)  
 3,8-GROUND: APPROX. 12VOLTS WITH DOOR CLOSED AND REAR LIMIT SW ON (FASTENING SHOULDER BELT)  
 4-GROUND : APPROX. 12VOLTS WITH IGNITION SW ON  
 5-GROUND : CONTINUITY WITH DRIVER'S DOOR OPEN  
 7-GROUND : CONTINUITY WITH IGNITION KEY IN CYLINDER  
 9-GROUND : ALWAYS APPROX. 12VOLTS  
 13-GROUND : ALWAYS CONTINUITY  
 10-GROUND : 0VOLT FOR 4-8 SECONDS WITH IGNITION SW ON AND 12VOLTS 4-8 SECONDS AFTER IGNITION SW ON

**A39 AUTOMATIC SHOULDER BELT SPOOL RELEASE SW**

- 1-2: OPEN WITH SPOOL RELEASE LEVER PULLED UP

**A29, A36 FRONT LIMIT SW**

- 1-2: OPEN WITH BELT ANCHOR AT FRONT END OF GUIDE RAIL

**A34, A35 REAR LIMIT SW**

- 4-3: OPEN WITH BELT ANCHOR AT REAR END OF GUIDE RAIL

**B5, B6 BUCKLE SW**

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

**D5 DOOR COURTESY SW**

- 1-GROUND: CLOSED WITH DOOR OPEN

**D19, D20 AUTOMATIC SHOULDER BELT SW**

- 3-1: CLOSED WITH DOOR CLOSED  
 2-1: CLOSED WITH DOOR OPEN

**I10 UNLOCK WARNING SW**

- 1-2: CLOSED WITH IGNITION KEY IN CYLINDER

## ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A28	23	A38	24	D19	24
A29	23	A39	24	D20	24
A30	23	B5	24	I10	23
A34	24	B6	25	J1	23
A35	24	C10	A	J2	23
A36	24	C10	B		
A37	24	D5	24		

## ○ : RELAY BLOCKS

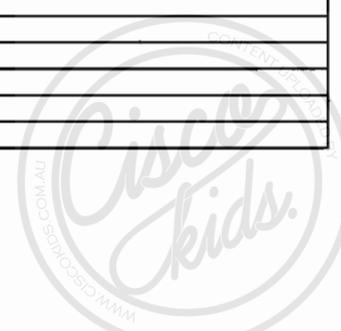
CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1H		

## □ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
F2		
G1	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
G2		
H2	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I1	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
J1	28	INSTRUMENT PANEL WIRE AND FLOOR NO.2 WIRE (LEFT KICK PANEL)
K1	30	ROOF WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
L1	28	ROOF NO.2 WIRE AND COWL WIRE (INSTRUMENT PANEL RIGHT)
O1	30	FLOOR NO.2 WIRE AND FLOOR NO.1 WIRE (UNDER THE PASSENGER'S SEAT)
P1	32	FLOOR NO.2 WIRE AND SEAT WIRE (UNDER THE DRIVER'S SEAT)

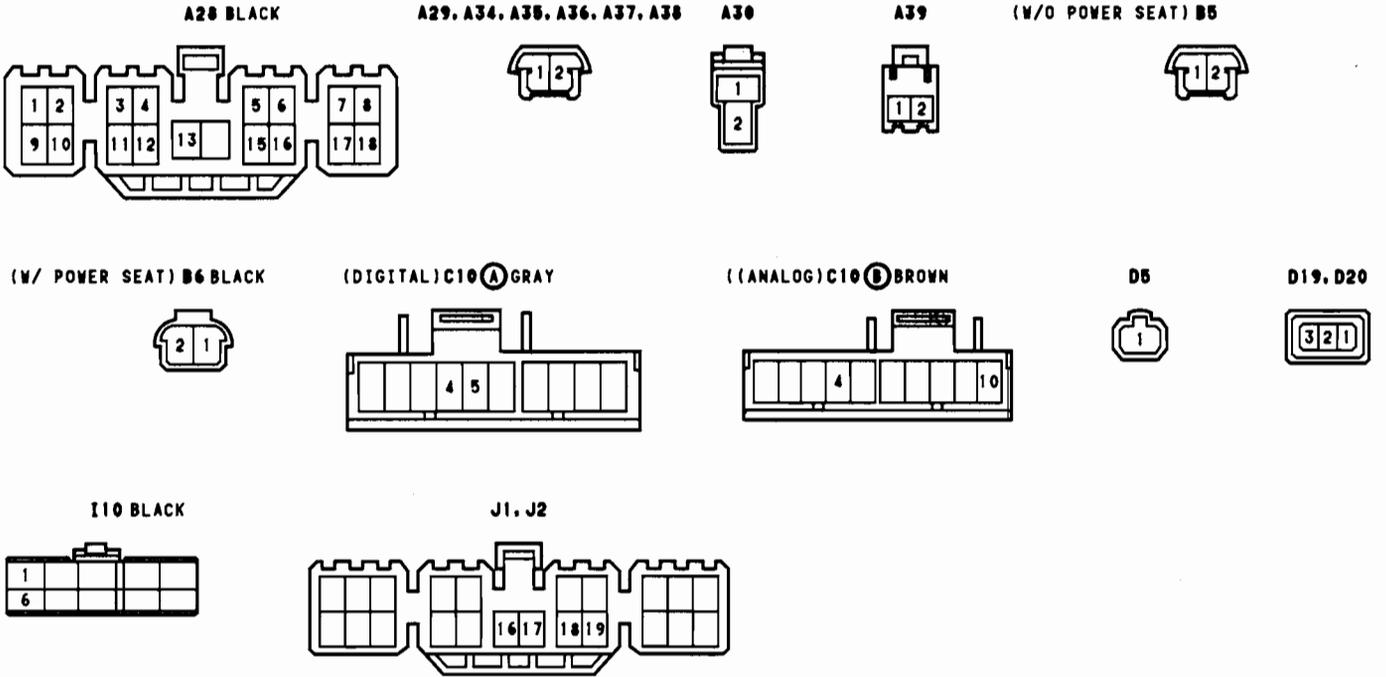


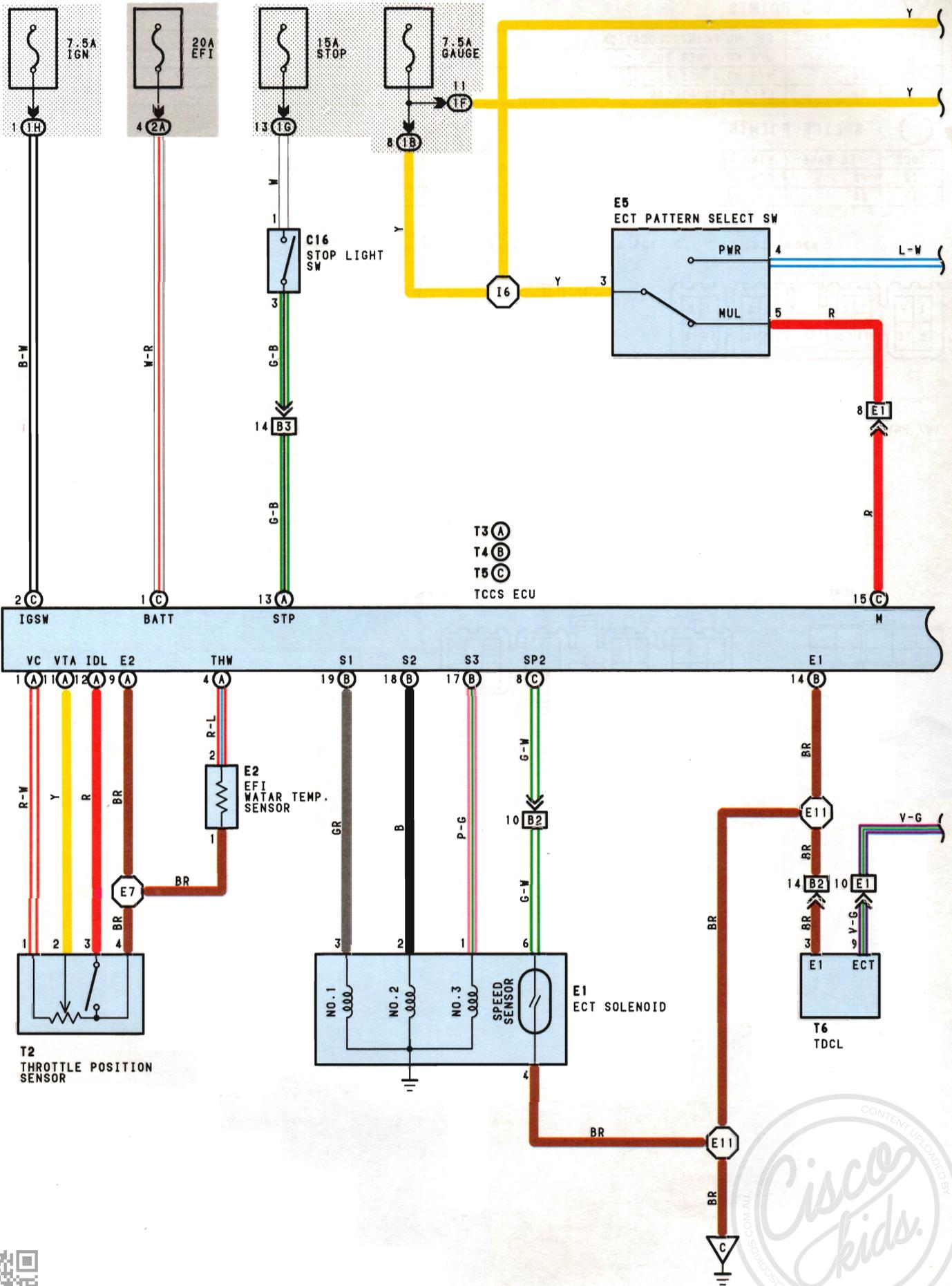
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT
G	28	R/B NO.4 SET BOLT
H	30	LEFT REAR PILLAR

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I2	28	COVL WIRE	B8	30	FLOOR NO.2 WIRE
I5	28	INSTRUMENT PANEL WIRE	B9		







## SYSTEM OUTLINE

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

### 1. GEAR SHIFT OPERATION

DURING DRIVING, THE COMPUTER SELECTS THE SHIFT FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS, BASED ON INPUT SIGNALS FROM THE EFI WATER TEMP. SENSOR TO TERMINAL A4 OF THE TCCS COMPUTER, AND ALSO THE INPUT SIGNALS TO TERMINAL SP2 OF THE COMPUTER 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 B19 OF THE COMPUTER → TERMINAL 3 OF THE ECT SOLENOIDS → GROUND, AND CONTINUITY TO THE NO.1 SOLENOID CAUSES THE SHIFT.

FOR 2ND SPEED, CURRENT FLOWS FROM TERMINAL B19 OF THE COMPUTER → TERMINAL 3 OF THE ECT SOLENOIDS → GROUND, AND FROM TERMINAL B19 OF THE COMPUTER → TERMINAL 2 OF THE ECT SOLENOIDS → GROUND, AND CONTINUITY TO SOLENOIDS NO.1 AND NO.2 CAUSES THE SHIFT.

FOR 3RD SPEED, THERE IS NO CONTINUITY TO NO.1 SOLENOID, ONLY TO NO.2, CAUSING THE SHIFT. SHIFTING INTO 4TH SPEED (OVER DRIVE) TAKES PLACE WHEN THERE IS NO CONTINUITY TO EITHER NO.1 OR NO.2 SOLENOID.

### 2. LOCK-UP OPERATION

WHEN THE TCCS COMPUTER JUDGES FROM EACH SIGNAL THAT LOCK-UP OPERATION CONDITIONS HAVE BEEN MET, CURRENT FLOWS FROM TERMINAL B17 OF THE TCCS COMPUTER → TERMINAL 1 OF THE ECT SOLENOID → GROUND, CAUSING CONTINUITY TO THE LOCK-UP SOLENOID AND CAUSING LOCK-UP OPERATION.

### 3. STOP LIGHT SW CIRCUIT

IF THE BRAKE PEDAL IS DEPRESSED (STOP LIGHT SW ON) WHEN DRIVING IN LOCK-UP CONDITION, A SIGNAL IS INPUT TO TERMINAL A13 OF THE COMPUTER, THE COMPUTER OPERATES AND CONTINUITY TO THE LOCK-UP SOLENOID IS CUT.

### 4. OVERDRIVE CIRCUIT

#### •O/D MAIN SW ON

WHEN THE O/D MAIN SW IS TURNED ON (O/D OFF INDICATOR LIGHT TURNS OFF), A SIGNAL IS INPUT TO TERMINAL C20 OF THE COMPUTER AND COMPUTER OPERATION CAUSES GEAR SHIFT WHEN THE CONDITIONS FOR OVERDRIVE ARE MET.

#### •O/D MAIN SW OFF

WHEN THE OVERDRIVE SW IS TURNED TO OFF, THE CURRENT FLOWING THROUGH THE O/D OFF INDICATOR LIGHT FLOWS THROUGH THE O/D MAIN SW TO GROUND, CAUSING THE INDICATOR LIGHT TO LIGHT UP. AT THE SAME TIME, A SIGNAL IS INPUT TO TERMINAL C20 OF THE COMPUTER AND COMPUTER OPERATION PREVENTS SHIFT INTO OVERDRIVE.

### 5. ECT PATTERN SELECT SW CIRCUIT

IF THE ECT PATTERN SELECT SW IS CHANGED FROM NORMAL TO POWER, THE CURRENT FLOWING THROUGH THE POWER INDICATOR FLOWS TO GROUND, CURRENT FLOWS TO TERMINAL C3 OF THE TCCS COMPUTER, THE COMPUTER OPERATES, AND SHIFT UP AND SHIFT DOWN OCCUR AT HIGHER VEHICLE SPEEDS THAN WHEN THE SW IS IN NORMAL POSITION.

## SERVICE HINTS

### T3, T4, T5 TCCS ECU (TURN ON THE IGNITION SW)

(B) 19- (B) 14: 10-14VOLTS

(B) 18, 17- (B) 14: 0VOLT

(C) 3- (B) 14: APPROX. 12VOLTS WITH PATTERN SELECT SW AT PWR POSITION  
0-2VOLTS WITH PATTERN SELECT SW AT NORM POSITION

(A) 13- (B) 14: APPROX. 12VOLTS WITH BRAKE PEDAL DEPRESSED  
0VOLT WITH BRAKE PEDAL RELEASED

(A) 4- (A) 9: 0.1-1.0VOLTS WITH COOLANT TEMP. 80°C (176°F)

(A) 12- (A) 9: 0VOLT WITH THROTTLE VALVE FULLY CLOSED  
APPROX. 12VOLTS WITH THROTTLE VALVE OPEN

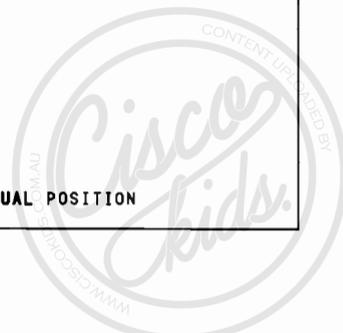
(A) 11- (A) 9: 0.1-1.0VOLTS WITH THROTTLE VALVE FULLY CLOSED  
4-5VOLTS WITH THROTTLE VALVE FULLY OPEN

(A) 1- (A) 9: 4-6VOLTS

(C) 21- (B) 14: 5VOLTS

(C) 20- (B) 14: APPROX. 12VOLTS O/D MAIN SWITCH TURNED ON  
0VOLT O/D MAIN SWITCH TURNED OFF

(C) 15- (B) 14: APPROX. 12VOLTS WITH IGNITION SW AT ON POSITION AND ECT PATTERN SELECT SW AT MANUAL POSITION



- (C) 9-(B) 14:0 OR 5VOLTS CRUISE CONTROL MAIN SW OFF AND STANDING STILL  
 2-3VOLTS CRUISE CONTROL MAIN SW OFF AND VEHICLE MOVING  
 (C) 8-(B) 14:0 OR 5VOLTS WITH STANDING STILL  
 (C) 14-(B) 14:10-14VOLTS WITH SHIFT LEVER AT 2 RANGE  
 0-2VOLTS WITH SHIFT LEVER AT EXCEPT 2 RANGE  
 (C) 16-(B) 14:10-14VOLTS WITH SHIFT LEVER AT L RANGE  
 0-2VOLTS WITH SHIFT LEVER AT EXCEPT L RANGE  
 (C) 2-(B) 14:APPROX. 12VOLTS WITH IGNITION SW ON  
 (C) 1-(B) 14:ALWAYS APPROX. 12VOLTS

**C8,C11 SPEED SENSOR**

- (E) 2-(F) 8 (ANALOG METER)  
 (B) 11-GROUND (DIGITAL METER) REVOLVE METER SHAFT AND CHECK THAT METER NEEDLE REPEATEDLY DEFLECTS FROM 0 $\Omega$  TO  $\infty\Omega$

**E1 ECT SOLENOID**

1, 2, 3-GROUND: EACH 11-15 $\Omega$

**03 O/D MAIN SW**

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

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A15	A 22	C16	23	T2	22
C8	A 23(DIGITAL)	E1	22	T3	A 23
C8	F 23(ANALOG)	E2	22	T4	B 23
C9	C 23	E5	23	T5	C 23
C10	D 23	J3	23	T6	22
C11	B 23(DIGITAL)	N1	B 22		
C11	E 23(ANALOG)	O3	23		

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
1G	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1H		
2A	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B2		
B3	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)
E1		
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)

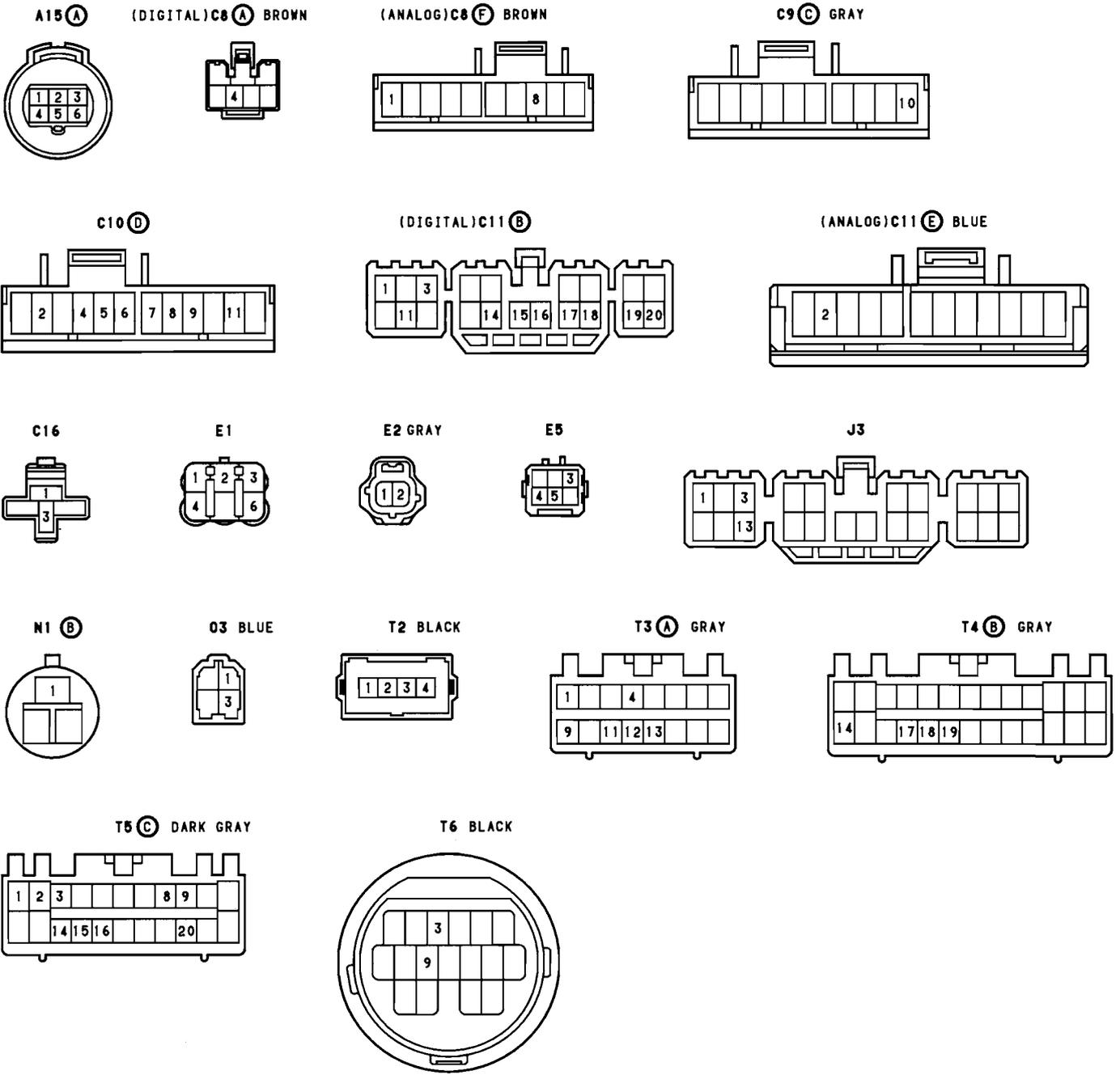
**▽ : GROUND POINTS**

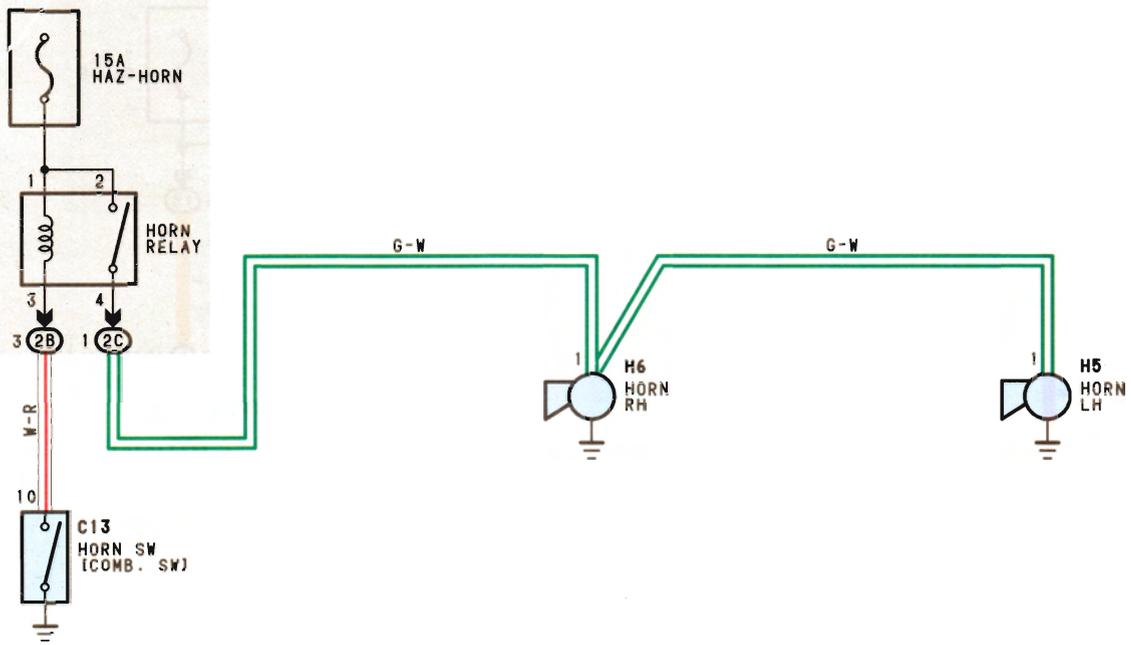
CODE	SEE PAGE	GROUND POINTS LOCATION
C	26	AIR INTAKE CHAMBER
D	28	J/B NO.1 SET BOLT
E		
F	28	INSTRUMENT PANEL CENTER

**○ : SPLICE POINTS**

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E7			I6		
E11	26	ENGINE WIRE	I11	28	INSTRUMENT PANEL WIRE







**SERVICE HINTS**

**HORN RELAY**

2-4: CLOSED WITH HRON SW ON

○ : PARTS LOCATION

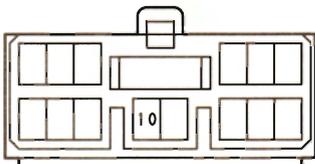
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C13	23	H5	22	H6	22

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)
2C	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

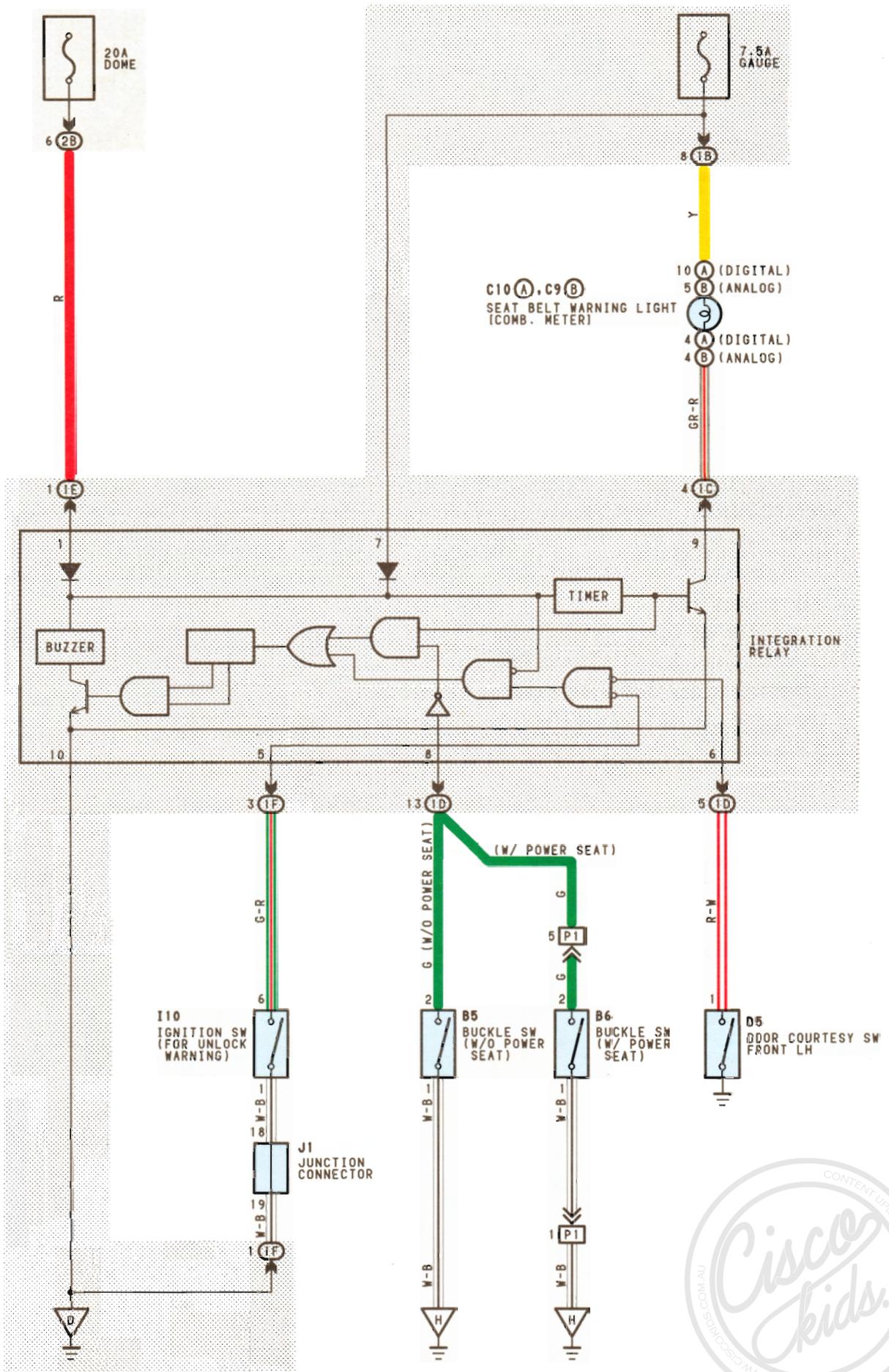
C13 BLACK

H5, H6 BLACK





# UNLOCK AND SEAT BELT WARNING (CANADA)



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

**2. UNLOCK WARNING SYSTEM**

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

**SERVICE HINTS****SEAT BELT WARNING RELAY (INTEGRATION RELAY)**

10-GROUND: ALWAYS CONTINUITY  
 6-GROUND: CONTINUITY WITH DOOR OPEN  
 5-GROUND: CONTINUITY WITH IGNITION KEY IN CYLINDER  
 8-GROUND: CONTINUITY UNLESS DRIVER'S LAP BELT IN USE  
 9-GROUND: 0VOLT FOR 4-8 SECONDS WITH IGNITION SW ON AND 12VOLTS 4-8 SECONDS AFTER IGNITION SW ON  
 1-GROUND: ALWAYS 12VOLTS

**B5, B6 BUCKLE SW**

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

**D5 DOOR COURTESY SW**

1-GROUND: CLOSED WITH DOOR OPEN

**I10 IGNITION SW (FOR UNLOCK WARNING)**

1-6 : CLOSED WITH IGNITION KEY IN CYLINDER

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B5	24	C10	23	J1	23
B6	25	D5	24		
C9	23	I10	23		

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

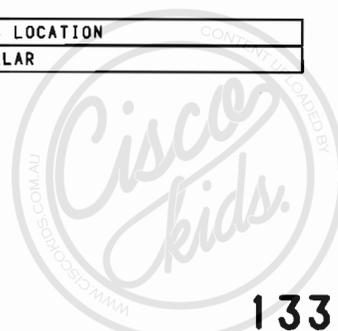
CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1C		
ID	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F		
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
P1	32	FLOOR NO.2 WIRE AND SEAT WIRE (UNDER THE DRIVER'S SEAT)

**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION	CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT	H	30	LEFT REAR PILLAR





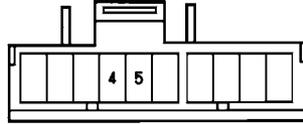
B5



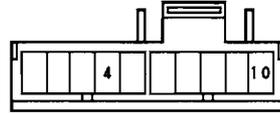
B6 BLACK



(ANALOG) C9 **B** GRAY



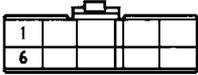
(DIGITAL) C10 **A** BROWN



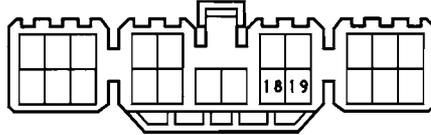
D5

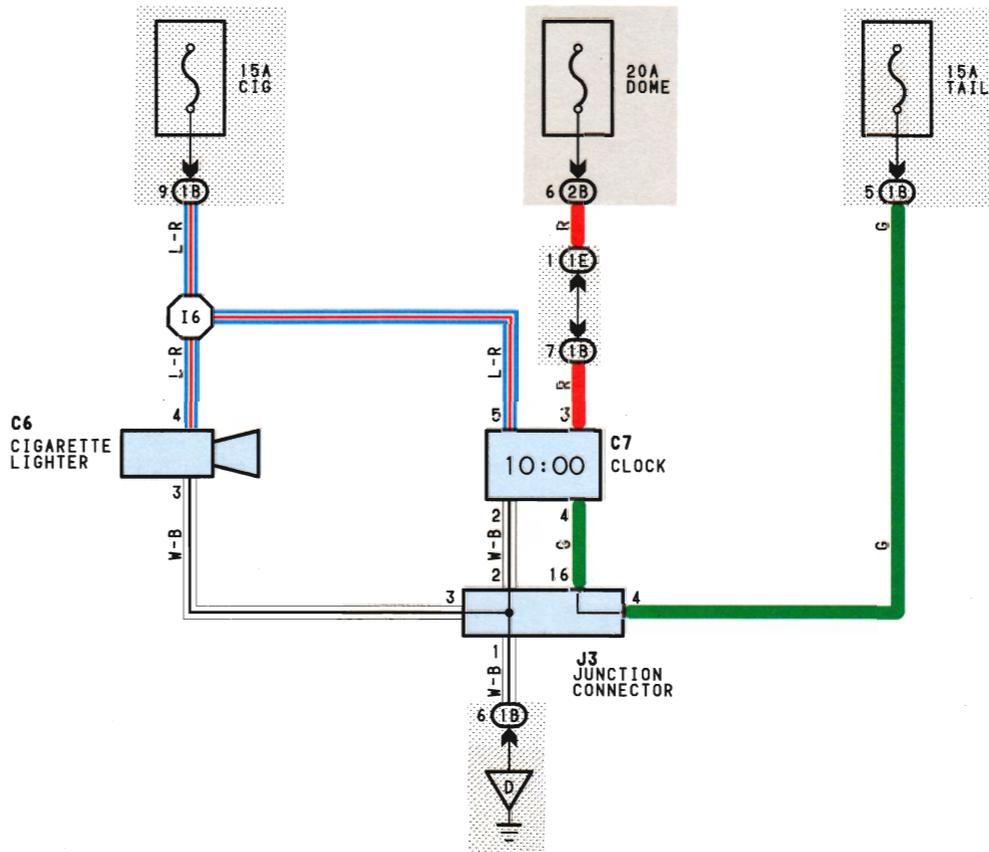


I10 BLACK



J1





### SERVICE HINTS

#### C6 CIGARETTE LIGHTER

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

#### C7 CLOCK

3-GROUND: ALWAYS APPROX. 12VOLTS (POWER FOR CLOCK)  
 5-GROUND: APPROX. 12VOLTS WITH IGNITION SW AT ON OR ACC POSITION (POWER FOR INDICATION)  
 4-GROUND: APPROX. 12VOLTS WITH LIGHT CONTROL SW AT TAIL OR HEAD POSITION (SIGNAL OF DIM INDICATION)  
 2-GROUND: ALWAYS CONTINUITY

### ○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C6	23	C7	23	J3	23

### ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

### ▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
D	28	J/B NO.1 SET BOLT

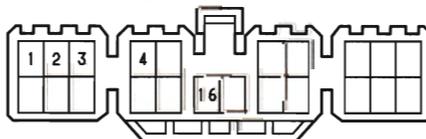
### ○ : SPLICE POINTS

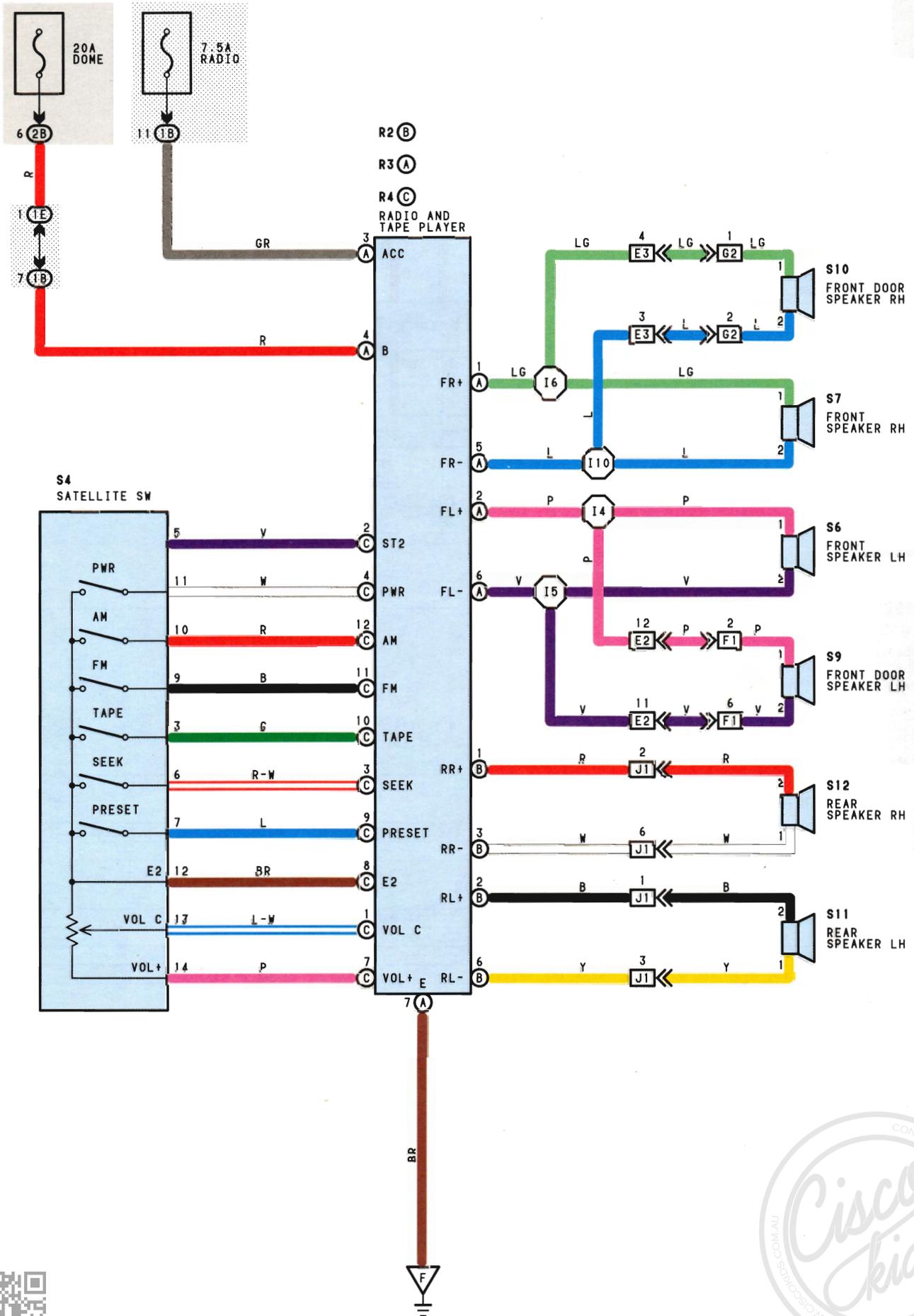
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I6	28	INSTRUMENT PANEL WIRE			

C6 BLUE

C7

J3





**SERVICE HINTS**

**R3 RADIO AND TAPE PLAYER**

- Ⓐ 3-GROUND: APPROX. 12VOLTS WITH IGNITION SW AT ON OR ACC POSITION
- Ⓐ 4-GROUND: ALWAYS APPROX. 12VOLTS
- Ⓐ 7-GROUND: ALWAYS CONTINUITY

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE	
R2	B	23	S6	23	S11	24
R3	A	23	S7	23	S12	24
R4	C	23	S9	24		
S4	23	S10	24			

⊙ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
G2	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
J1	28	INSTRUMENT PANEL WIRE AND FLOOR NO.2 WIRE (LEFT KICK PANEL)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
F	28	INSTRUMENT PANEL CENTER

⊙ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I4	28	INSTRUMENT PANEL WIRE	I6	28	INSTRUMENT PANEL WIRE
I5			I10		

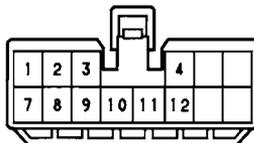
R2(B)



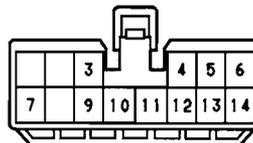
R3(A)



R4(C)



S4



S6, S7, S9, S10



S11, S12





**SERVICE HINTS**

**A33 CONTROL RELAY**

- 2-GROUND:CONTINUITY (UPPER LIMIT SW ON) UNLESS ANTENNA AT UP STOP
- 4-GROUND:CONTINUITY (DOWN LIMIT SW ON) UNLESS ANTENNA AT DOWN STOP
- 3-2 :CLOSED WITH IGNITION SW AT ACC OR ON POSITION AND RADIO SW ON AND PLAYER SW OFF UNTIL ANTENNA AT UPPERMOST POSITION
- 1-4 :CLOSED WITH IGNITION SW AT ACC OR ON POSITION AND RADIO SW OFF AND PLAYER SW OFF UNTIL ANTENNA AT LOWERMOST POSITION

**○ : PARTS LOCATION**

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A33	A 24	A33	B 24	R3	23

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

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1D	18	FLOOR NO.2 WIRE AND J/B NO.1 (LEFT KICK PANEL)
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

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

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
O2	30	FLOOR NO.1 WIRE AND FLOOR NO.2 WIRE (RIGHT SIDE BEHIND THE PACKAGE TRAY TRIM)

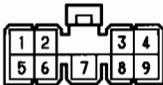
**▽ : GROUND POINTS**

CODE	SEE PAGE	GROUND POINTS LOCATION	CODE	SEE PAGE	GROUND POINTS LOCATION
I	30	RIGHT REAR PILLAR			

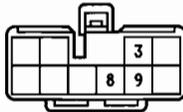
A33 (A)



A33 (B)



R3





**SERVICE HINTS**

**B1 BRAKE FLUID LEVEL SW**

1-2:CLOSED WITH FLOAT DOWN

**C10,C11 COMBINATION METER (DISCONNECT WIRING CONNECTOR FROM METER)**

Ⓐ 13-GROUND:ALWAYS 12VOLTS

Ⓐ 1, Ⓑ 10-GROUND:12VOLTS WITH IGNITION SW AT ON POSITION

Ⓐ 5-GROUND:12VOLTS WITH IGNITION SW AT ST POSITION AND NEUTRAL START SW ON

**F9 FUEL SENDER**

2-1:APPROX. 4.6VOLTS WITH FUEL FULL  
APPROX. 0.3VOLTS WITH FUEL EMPTY

**O2 OIL PRESSURE SW**

1-GROUND:CLOSED OIL PRESSURE BELOW APPROX. 0.2 KG/CM<sup>2</sup>(2.0PSI.20KPA)

**P3 PARKING BRAKE SW**

1-2 CLOSED WITH PARKING BRAKE LEVER PULLED UP

**W3 WATER TEMP. SENDER**

(NIPPON DENSO MAKE)

1-GROUND:APPROX. 226 Ω AT 50 °C(122 °F)  
: APPROX. 26 Ω AT 115 °C(239 °F)

(YAZAKI MAKE)

1-GROUND:APPROX. 183 Ω AT 60 °C(140 °F)  
: APPROX. 26 Ω AT 115 °C(239 °F)

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B1	22	C11	23	O2	22
C9	23	F9	24	P3	24
C10	23	I2	22	W3	22

⊙ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1C		
1E	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1H		
2B	20	COWL WIRE AND J/B NO.2 (NEAR THE BATTERY)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

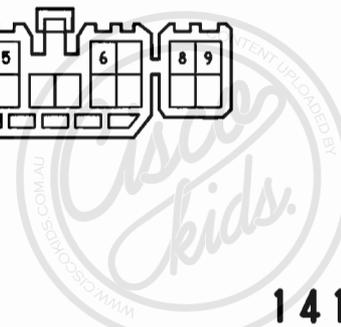
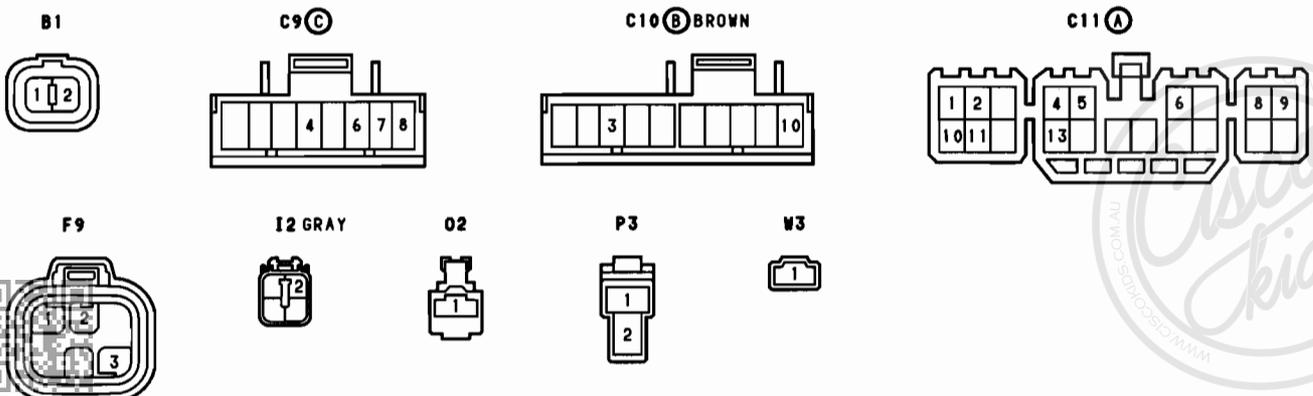
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)

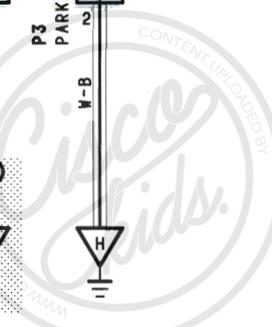
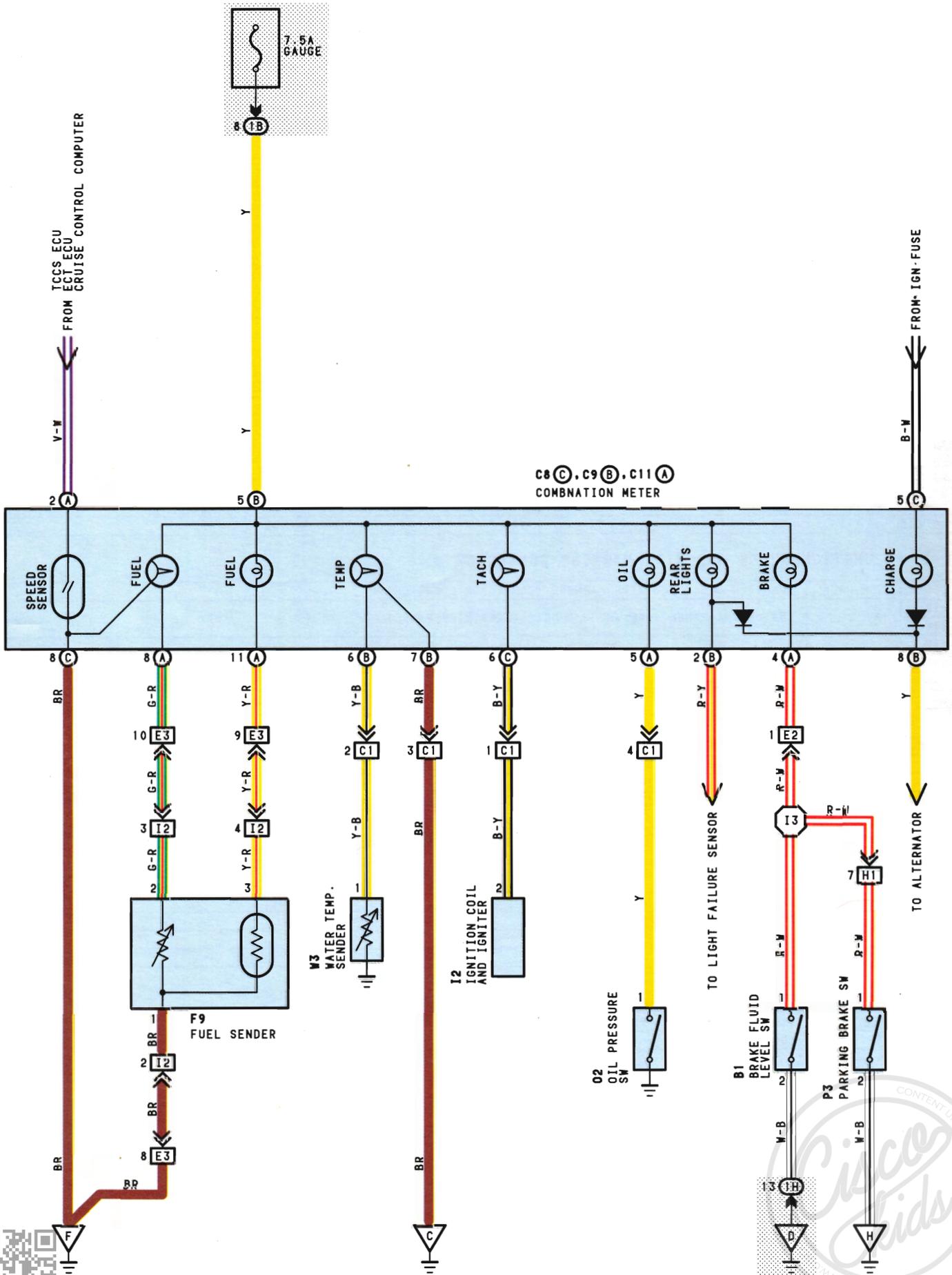
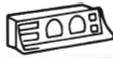
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
C	26	AIR INTAKE CHAMBER
D	28	J/B NO.1 SET BOLT
H	30	LEFT REAR PILLAR

⊕ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I3	28	COWL WIRE	I5	28	INSTRUMENT PANEL WIRE





**SERVICE HINTS**

**B1 BRAKE FLUID LEVEL SW**

(DISCONNECT WIRING CONNECTOR FROM METER)

ⓑ 5-GROUND: 12VOLTS WITH IGNITION SW AT ON POSITION

**F9 FUEL SENDER**

2-1: APPROX. 3Ω WITH FUEL FULL  
: APPROX. 110Ω WITH FUEL EMPTY

**O2 OIL PRESSURE SW**

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

**P3 PARKING BRAKE SW**

1-2: CLOSED PARKING BRAKE LEVER PULLED UP

**W3 WATER TEMP. SENDER**

(NIPPON DENSO MAKE)

1-GROUND: APPROX. 226Ω AT 50°C(122°F)  
: APPROX. 26Ω AT 115°C(239°F)

(YAZAKI MAKE)

1-GROUND: APPROX. 153Ω AT 60°C(140°F)  
: APPROX. 26Ω AT 115°C(239°F)

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B1	22	C11 A	23	O2	22
C8 C	23	F9	24	P3	24
C9 B	23	I2	22	W3	22

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1H	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I2	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
C	26	AIR INTAKE CHAMBER
D	28	J/B NO.1 SET BOLT
F	28	INSTRUMENT PANEL CENTER
H	30	LEFT REAR PILLAR

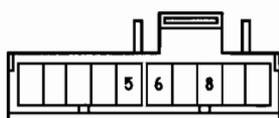
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I3	28	COWL WIRE			

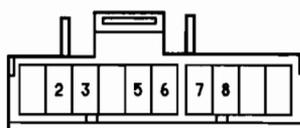
B1



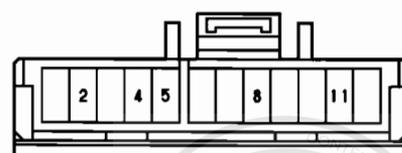
C8 ⓐ BROWN



C9 ⓑ GRAY



C11 ⓐ BLUE



F9



I2 GRAY



O2



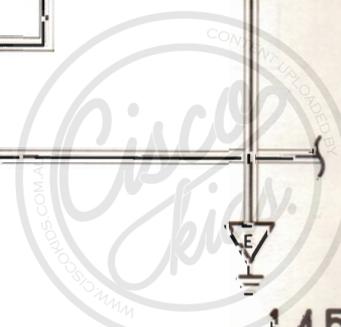
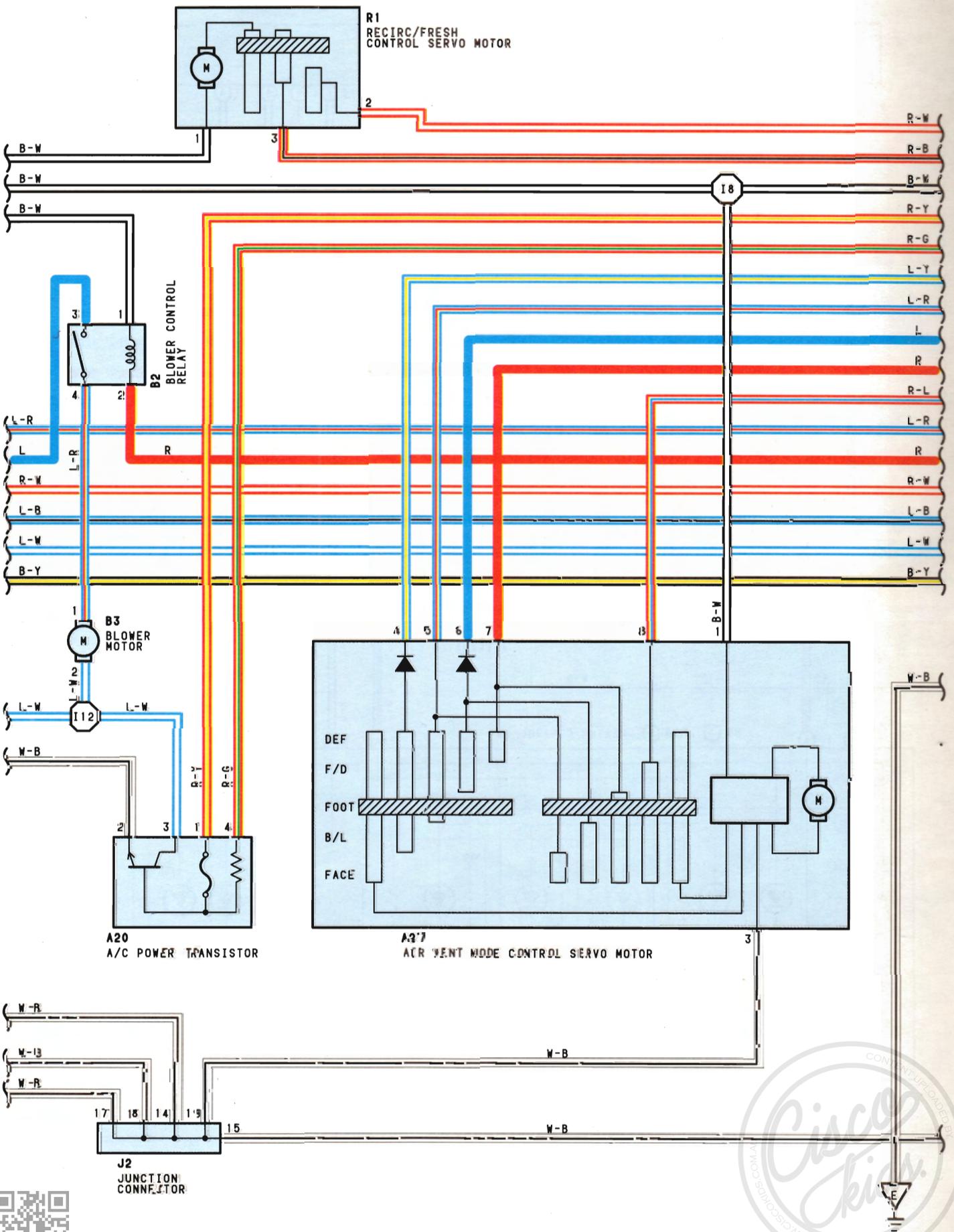
P3

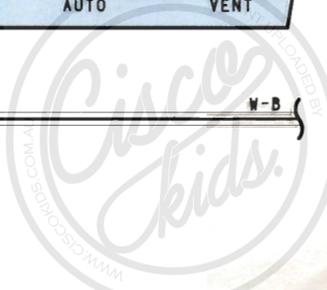
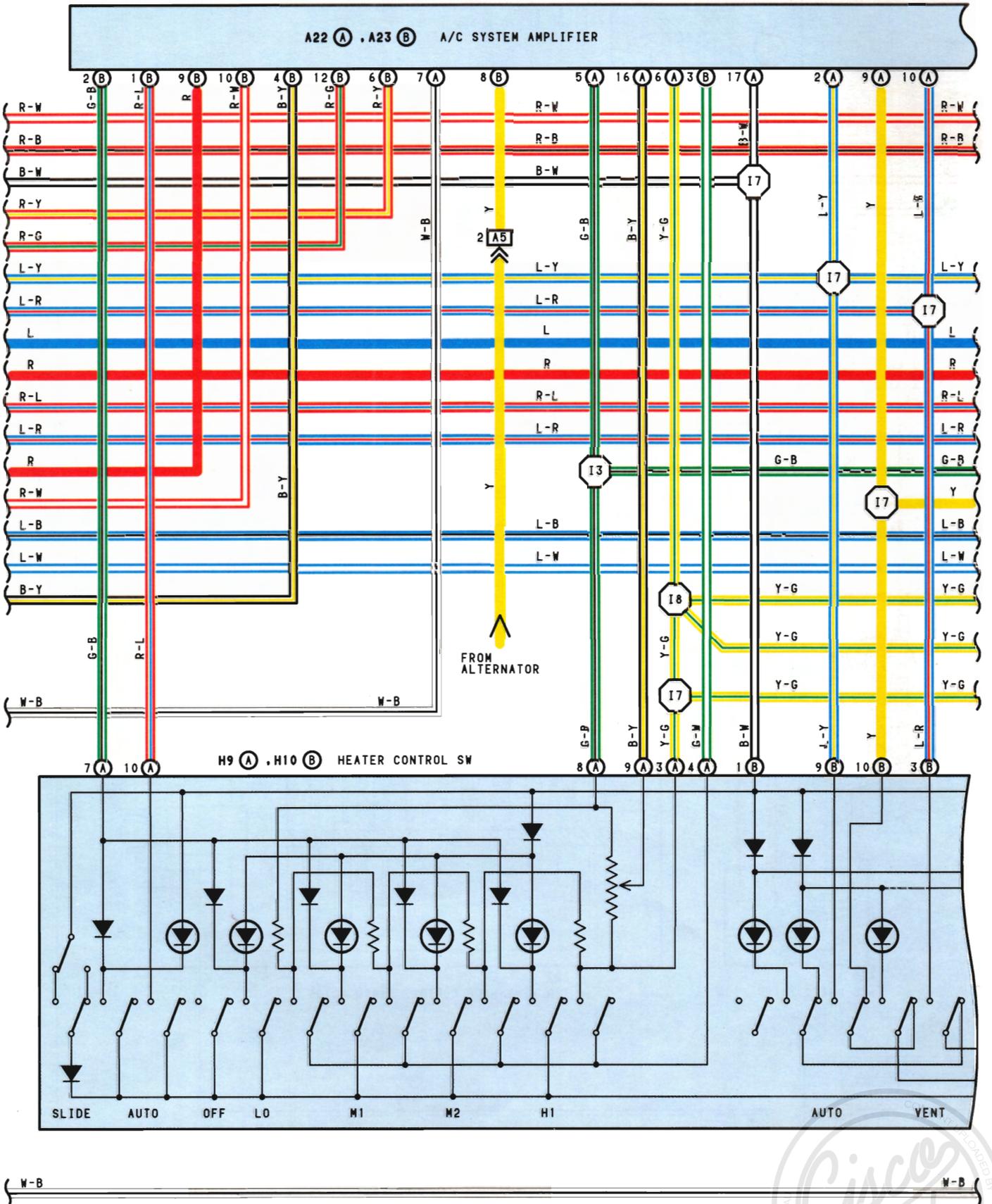


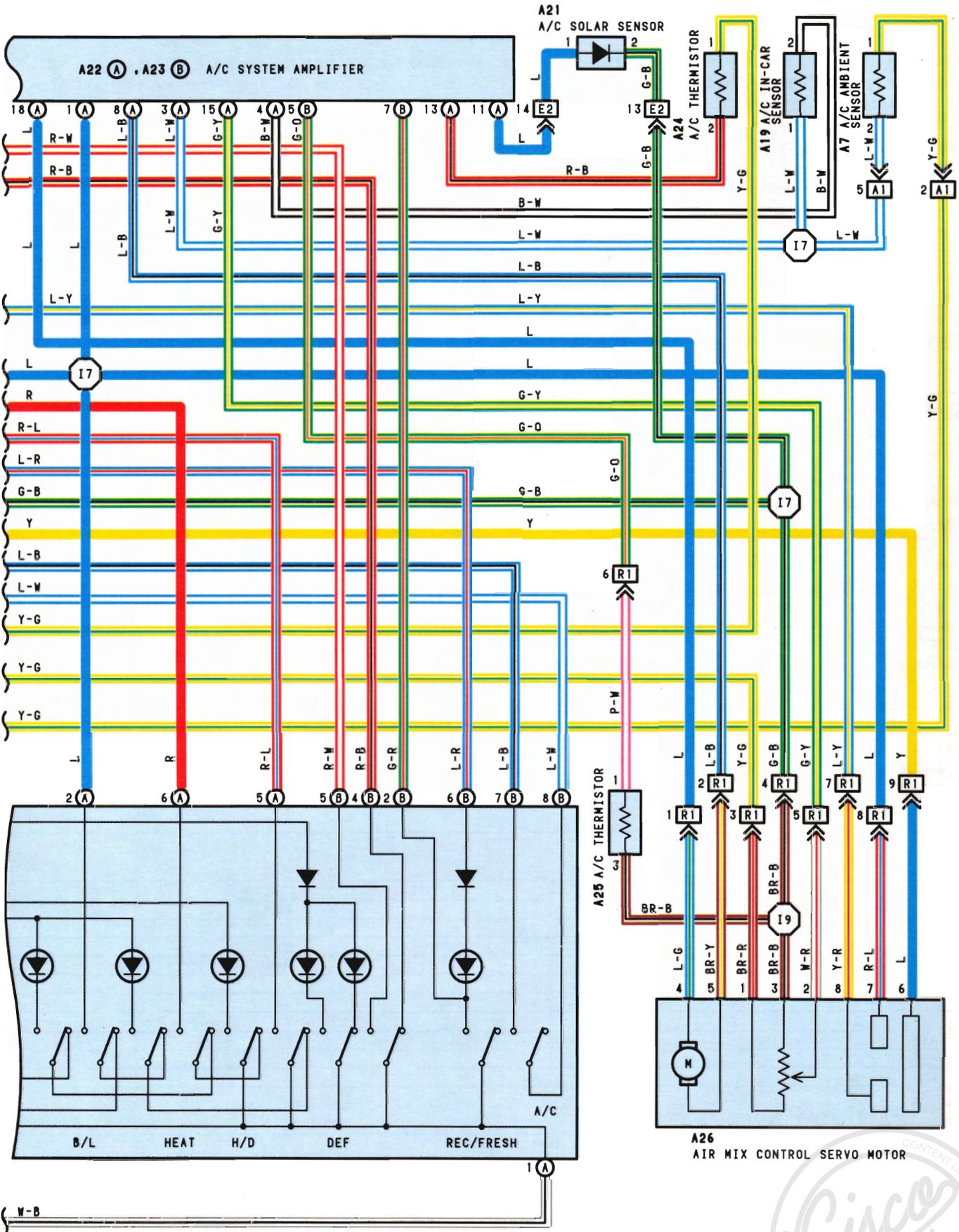
W3











## SYSTEM OUTLINE

### AIR CONDITIONER OPERATION

WHEN THE BLOWER SW IS TURNED ON, CURRENT FROM THE HEATER CB THROUGH THE A/C FUSE TO TERMINAL 2 OF THE MAGNET CLUTCH RELAY. INPUT INTO THE A/C SYSTEM AMPLIFIER ARE EVAPORATOR TEMP. SIGNALS FROM THE A/C THERMISTOR, COOLANT TEMP. SIGNALS FROM THE WATER TEMP. SENSOR.

IF THE A/C SW IS TURNED ON AT THIS TIME, THIS SIGNAL IS INPUT TO THE A/C SYSTEM AMPLIFIER, THE AMPLIFIER OPERATES AND THE CURRENT FLOWING TO TERMINAL 2 OF THE MAGNET CLUTCH RELAY FLOWS TO TERMINAL 4 OF THE RELAY → MAGNET CLUTCH, CAUSING THE COMPRESSOR TO OPERATE.

ALSO, IN AUTO MODE, SIGNALS FROM THE SOLAR SENSOR, AMBIENT SENSOR AND IN-CAR SENSOR, ETC.

WHICH DETECT THE CABIN TEMPERATURE ARE INPUT TOGETHER WITH SIGNALS ABOUT THE VEHICLE CONDITION TO THE A/C SYSTEM AMPLIFIER. THE AMPLIFIER OPERATES IN RESPONSE TO THESE SIGNALS AND AUTOMATICALLY CONTROL EACH ACTUATOR (AIR MIX CONTROL SERVO MOTOR, AIR VENT MODE CONTROL SERVO MOTOR AND BLOWER MOTOR, ETC..) TO REMAIN CLOSE TO THE SET TEMPERATURE.

THE FOLLOWING SIGNALS ARE CONDITIONS FOR TURNING A/C OPERATION TO OFF: HIGH WATER TEMP. SIGNAL, LOW TEMP. SIGNAL FOR THE EVAPORATOR, OR A SIGNAL THAT THE REFRIGERANT PRESSURE IS ABNORMALLY HIGH OR LOW. WHEN ANY OF THESE SIGNAL IS INPUT, A/C OPERATION IS TURNED OFF BY OPERATION OF THE AMPLIFIER.

## SERVICE HINTS

### HEATER RELAY

④4-④5: CLOSED WITH IGNITION SW ON AND BLOWER SW ON

### A7 A/C AMBIENT SENSOR

1-2: APPROX. 1.7KΩ 25°C (77°F)

### A10 A/C CONDENSER FAN RELAY

2-4: CLOSED WITH MAGNET CLUTCH ON AND HIGH PRESSURE SW ON

### A11 A/C DUAL PRESSURE SW

1-2: OPEN WITH PRESSURE LESS THAN 2.1KG/CM² (30PSI, 206KPA) OR ABOVE 27KG/CM² (384PSI, 2648KPA)

### A12 A/C HIGH PRESSURE SW (FOR CONDENSOR FAN)

1-2: OPEN ABOVE 15.5KG/CM² (220PSI, 1520KPA)  
CLOSED BELOW 12.5KG/CM² (178PSI, 1226KPA)

### A13 A/C MAGNET CLUTCH

1-GROUND: APPROX. 3.7Ω

### A14 A/C MAGNET CLUTCH RELAY

2-4: CLOSED WITH IGNITION SW ON BELOWER SW AT LOW OR HIGH POSITION AND A/C SW ON  
CLOSED WITH IGNITION SW ON BELOWER SW AT AUTO POSITION WITH WATER TEMP. ABOVE 40°C (104°F) AND A/C SW ON

### A24 A/C THERMISTOR

1-2: APPROX. 866KΩ 20°C (68°F)

### S8 STARTER CUT RELAY

3-4: OPEN WITH IGNITION SW AT ST POSITION

## ○ : PARTS LOCATION

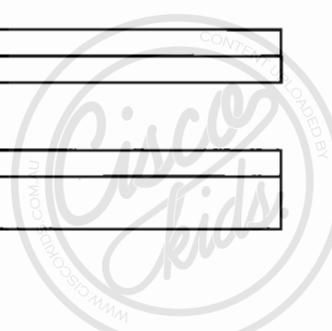
CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A7	22	A21	23	E6	23
A8	22	A22	23	F6	22
A9	22	A23	23	H9	23
A10	22	A24	23	H10	23
A11	22	A25	23	J1	23
A12	22	A26	23	J2	23
A13	22	A27	23	R1	23
A14	22	B2	23	S8	23
A19	23	B3	23		
A20	23	B4	23		

## ○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
4	17	R/B NO.4 (RIGHT KICK PANEL)

## ○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
IE IF	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)



☐ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

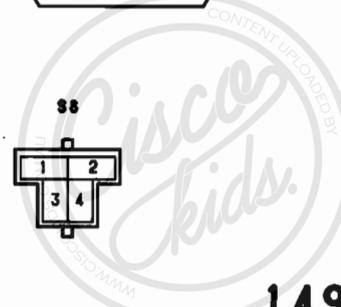
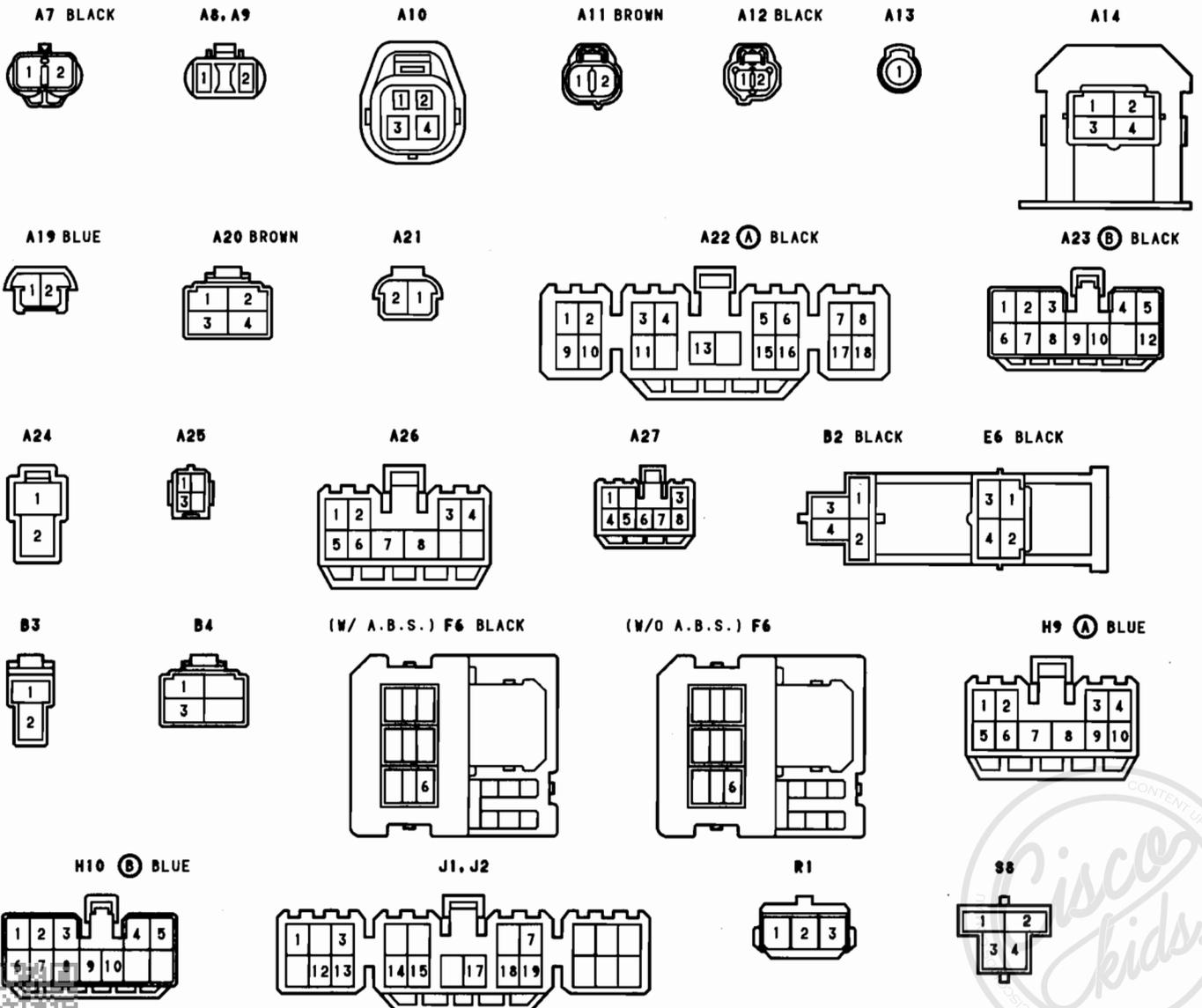
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
A1	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (RIGHT FENDER)
A4	26	COWL WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE BATTERY)
A5		
B3	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E2	28	INSTRUMENT PANEL WIRE AND COWL WIRE (J/B NO.1)
R1	28	COWL WIRE AND A/C SUB WIRE (INSTRUMENT PANEL CENTER)

▽ : GROUND POINTS

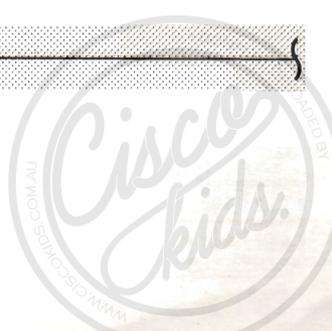
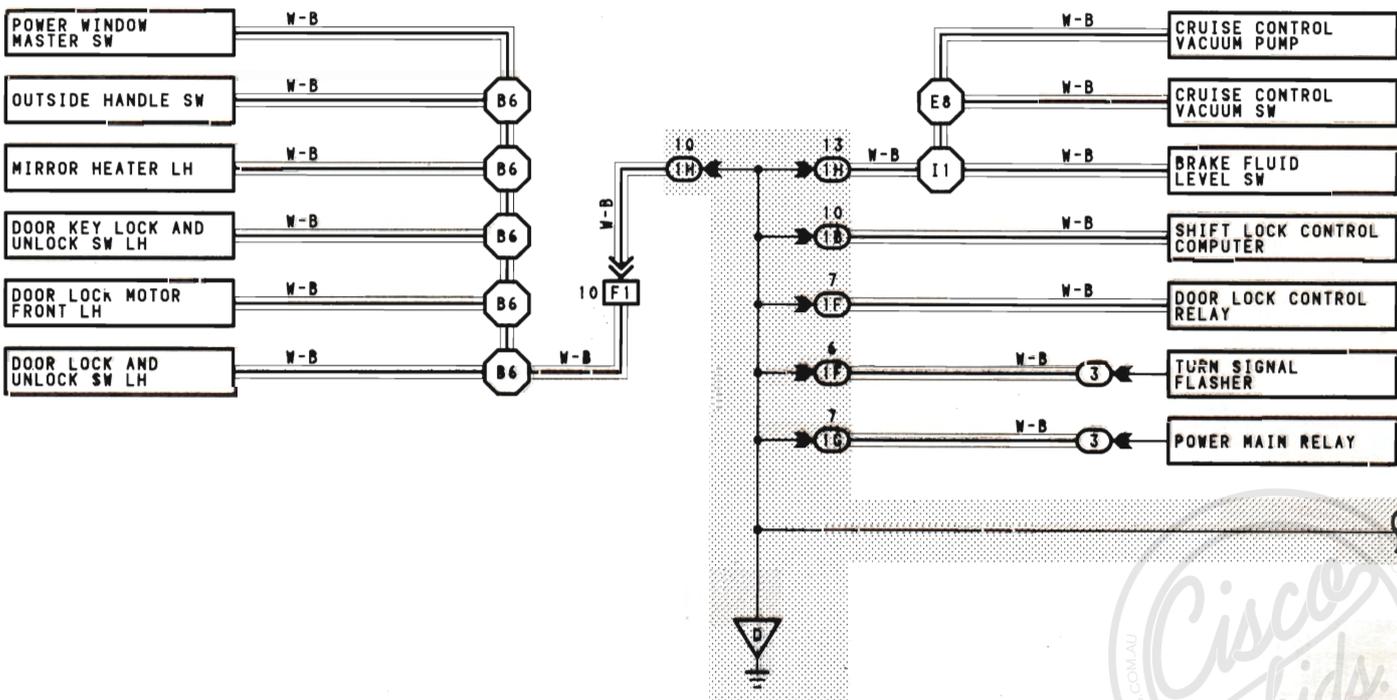
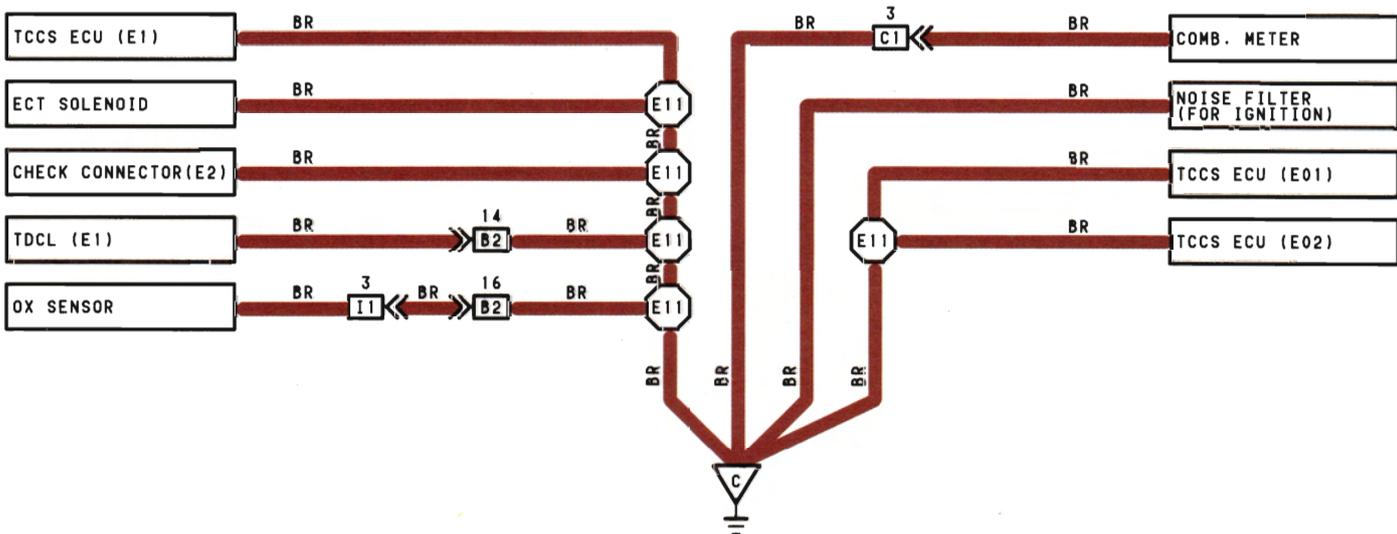
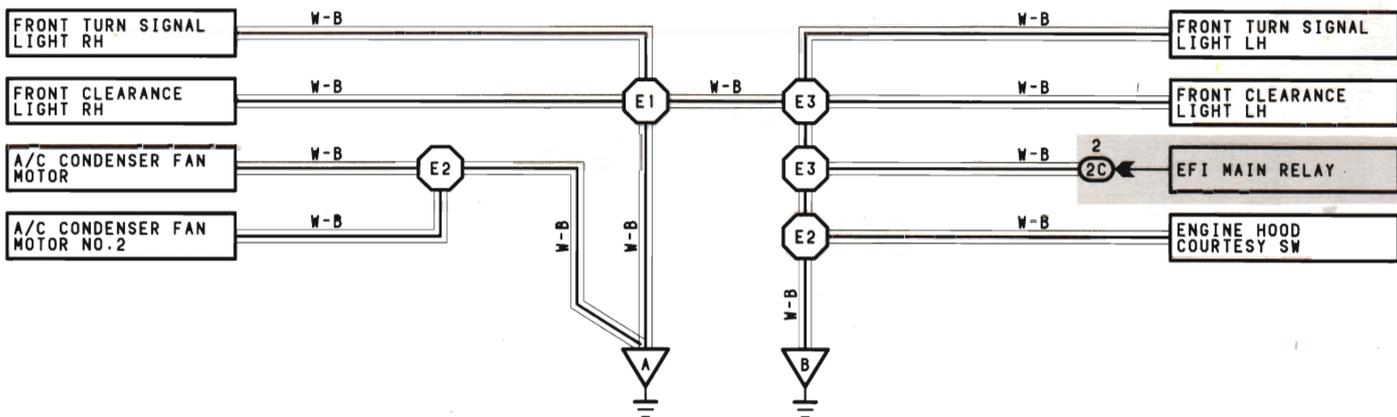
CODE	SEE PAGE	GROUND POINTS LOCATION
A	26	FRONT OF RIGHT FENDER
D	28	J/B NO.1 SET BOLT
E	28	INSTRUMENT PANEL CENTER
G	28	R/B NO.4 SET BOLT

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E2	26	ENGINE ROOM MAIN WIRE	I8	28	COWL WIRE
E3			I9	28	A/C SUB WIRE
E8	26	COWL WIRE	I11	28	INSTRUMENT PANEL WIRE
I3	28		I12	28	COWL WIRE
I7			I13		

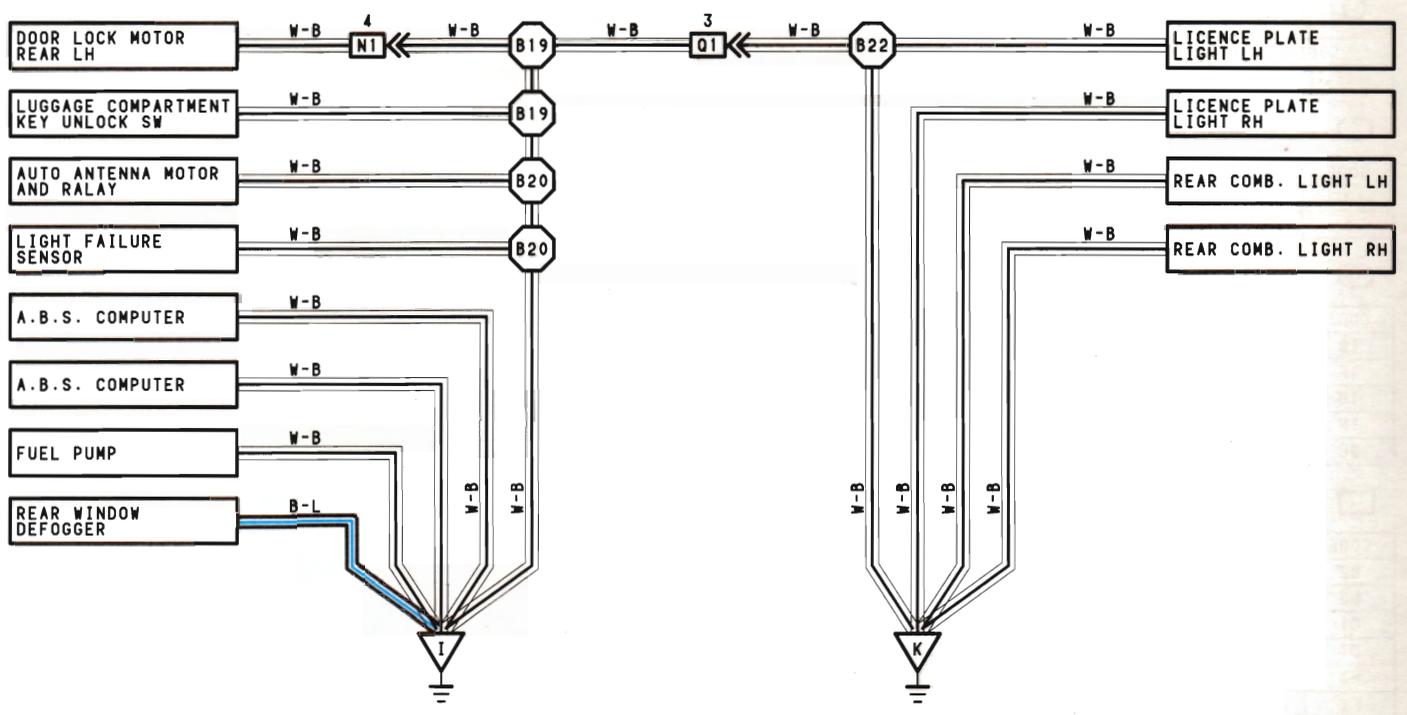


# J GROUND POINTS

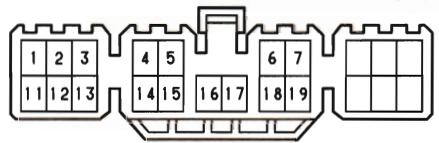








J1, J2, J3



# J GROUND POINTS

## : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
J1	23	J2	23	J3	23

## : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
3	17	R/B NO.3 (LEFT KICK PANEL)
4	17	R/B NO.4 (RIGHT KICK PANEL)

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	18	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1F	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1G		
1H		
2C	20	ENGINE ROOM MAIN WIRE AND J/B NO.2 (NEAR THE BATTERY)

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
B2	28	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
B3		
C1	28	ENGINE WIRE AND INSTRUMENT PANEL WIRE (INSTRUMENT PANEL RIGHT)
D1	28	COWL WIRE AND R/B NO.4 (RIGHT KICK PANEL)
E3	28	INSTRUMENT PANEL WIRE AND COWL WIRE (BEHIND GLOVE BOX)
F1	28	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
G2	28	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
H1	28	FLOOR NO.2 WIRE AND COWL WIRE (J/B NO.1)
I1	30	FLOOR NO.1 WIRE AND COWL WIRE (RIGHT KICK PANEL)
I2		
K1	30	ROOF WIRE AND COWL WIRE (INSTRUMENT PANEL LEFT)
N1	30	REAR DOOR LH WIRE AND FLOOR NO.2 WIRE (LEFT CENTER PILLAR)
N1	30	REAR DOOR RH WIRE AND FLOOR NO.1 WIRE (RIGHT CENTER PILLAR)
PI	32	FLOOR NO.2 WIRE AND SEAT WIRE (UNDER THE DRIVER'S SEAT)
Q1	30	FLOOR NO.1 WIRE AND LUGGAGE ROOM WIRE (LUGGAGE ROOM RIGHT)

## : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
A	26	FRONT OF RIGHT FENDER
B	26	FRONT OF LEFT FENDER
C	26	AIR INTAKE CHAMBER
D	28	J/B NO.1 SET BOLT
E	28	INSTRUMENT PANEL CENTER
F		
G	28	R/B NO.4 SET BOLT
H	30	LEFT REAR PILLAR
I	30	RIGHT REAR PILLAR
J	30	ROOF LEFT
K	30	BACK PANEL CENTER



 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E1	26	ENGINE ROOM MAIN WIRE	I10	28	INSTRUMENT PANEL WIRE
E2			I13	28	COWL WIRE
E3			B4	30	ROOF WIRE
E8	26	COWL WIRE	B6	30	FRONT DOOR LH WIRE
E11	26	ENGINE WIRE	B13	30	FRONT DOOR RH WIRE
I1	28	COWL WIRE	B14		
I3			B19	30	FLOOR NO.1 WIRE
I5			B20		
I6	28	INSTRUMENT PANEL WIRE	B22	30	LUGGAGE ROOM WIRE
I7	28	COWL WIRE	B24	32	SEAT WIRE



SYSTEMS	LOCATION	SYSTEMS	LOCATION
Air Conditioner, Cooler and Heater	 8-4	Moon Roof	 5-1
A.B.S. (Anti-Lock Brake System)	 7-7	Power Seats	 5-5
Auto Antenna	 9-2	Power Source	 1-1
Automatic Shoulder Belt	 6-7	Power Windows	 5-3
Automatic Transmission Indicator	 4-7	PPS (Progressive Power Steering)	 6-8
Back-up Lights	 4-8	Radiator Fan and Condenser Fan	 8-8
Charging	 1-4	Radio and Tape Player	 9-3
Cigarette Lighter	 9-1	Rear Window Defogger	 9-6
Clock	 9-1	Remote Control Mirrors with Heater	 9-5
Combination Meter	 7-3	Shift Lock System	 3-3
Cruise Control	 5-7	Starting	 1-3
Door Locks	 6-5	Stop Lights	 3-4
ECT (Electronic Control Transmission)	 4-5	Taillights and Illumination	 3-6
Front Wiper and Washer	 3-1	TCCS	 2-4
Headlight Cleaner	 3-2	Theft Deterrent System	 6-2
Headlights	 1-6	Turn Signal and Hazard	 1-7
Horn	 6-1	Unlock and Seat Belt Warning	 4-1
Interior Lights	 4-3		

