

₩ 1988-1989 Electrical Troubleshooting Manual

Canada & USA

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American Honda Motor Co., Inc. Service Publications

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#### **Circuit Index**

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#### **Page Numbering System**

This manual divides the electrical system into individual sections. Each section has a unique section number. For example, the wiper/washer circuit is section 90, the wiper/washer-pulse circuit is section 91, and the rear wiper/washer circuit is 92. Component Location photographs and Harness Routing drawings are at the back of the manual in sections 201 and 203 respectively.

Within a section, the first section page uses the section number and then the remaining pages are numbered using the section number, a dash, and then a consecutive number. So, if there are three pages in section 90, the pages will be numbered 90, 90-1, and 90-2.

In addition, the sections are not numbered sequentially, and in many cases, numbers have been left out to leave room for possible additions to reflect the new features for next year or new model types.

#### **Outline of Each Circuit Section**

Each circuit section will have a Circuit Schematic (wiring diagram), a Component Location Index, and a System Description. Certain complex circuits will also have System Operation charts, Quick-Checks, and Troubleshooting procedures.

- 1. A Circuit Schematic starts off each section. Schematics show:
  - how all the components within a circuit work together.
  - current flow from the power source (at top of page) to ground (at bottom of page).
  - switch positions (shown "at rest" as if the ignition was off).
  - special instructions ("Solid-State: Do not check resistance").
  - those circuits sharing a common power source or ground.
- 2. A Component Location Index follows each schematic and lists:
  - major components, connectors, and grounds for that particular schematic.
  - the physical locations of each component, connector, and ground.
  - the number of cavities within and the color of each connector.
  - the page number showing photos of each component, connector, and ground.
- 3. A **System Description** follows the index, and gives a concise explanation of the basic operation of that particular circuit.
- 4. A System Operation chart follows (if required), which describes how the circuit should normally operate, to help you quickly validate the symptom.
- 5. Next, a list of Quick-Checks follows (if required) explaining how to quickly test for proper operation of fuses, grounds, and components without the help of any special equipment. For example: "Check fuse 13 by sounding the horn."
- 6. Last are the **Troubleshooting** procedures (if required), which are step-by-step instructions leading to diagnosis and repair.

#### **New Features**

New for this year is Section 202 - Harness Connector Views. The views are shown from the wire side of the female connectors, and only connectors with 6 or more pins are shown. Also, the number in each cavity corresponds to the number found next to the same connector on the schematic.

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## r Symbols

The abbreviations and symbols explained here are used throughout the manual; you'll need to know what they mean before you can use the schematics effectively.

#### Wire Color Abbreviations

The following abbreviations are used to identify wire colors in the circuit schematics:

BLKblack
BLUblue
BRNbrown
GRN green
GRY gray
LT BLU light blue
LT GRNlight green
ORNorange
PNK pink
RED red
WHT white
YEL yellow

#### Wires

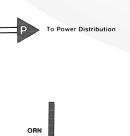
A wavy line means the wire is broken by the binding of the book but continues on the next page.

Wire insulation can be one color, or one color with

color, or one color with another color stripe. (The second color is the stripe.)

This means the current path continues on another page. (The arrow shows direction of current flow.) To follow the white wire in this example, you would turn to the Power Distribution schematic and look for the "P" arrow.

This means the wire connects to another circuit. The wire is shown again in the circuit the arrow is pointing to.

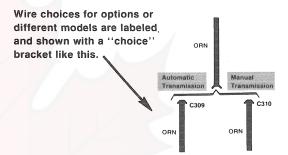


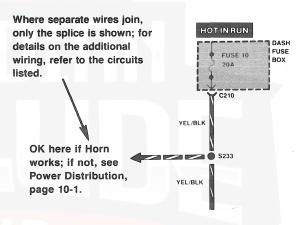
BLK

YEL/RED

A broken line means only some of the circuit is shown; refer to the circuit listed for the complete schematic.





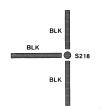


This dashed line means the BLU/RED and RED/BLU wires are both in connector C134.



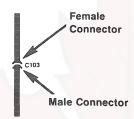
#### Splices - "S"

Splices (S) are numbered and shown as a dot. The location and connection of these splices may change depending on manufacturer.

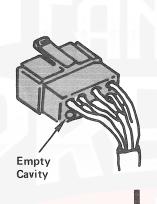


#### Connectors — "C"

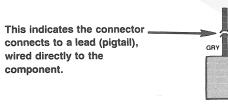
Each connector (C) is numbered for reference in the component location index.



The index also lists the total number of cavities and the color of the connector. Wires may not be used in all cavities.



This means the connector connects directly to the component.





#### Components

A solid line means the entire component is shown.



A broken line indicates only part of the component is shown.



The name of the component appears next to its upper right corner.



SWITCH Closed with pedal depressed.

Notes about component function follow its name.

#### Grounds - "G"

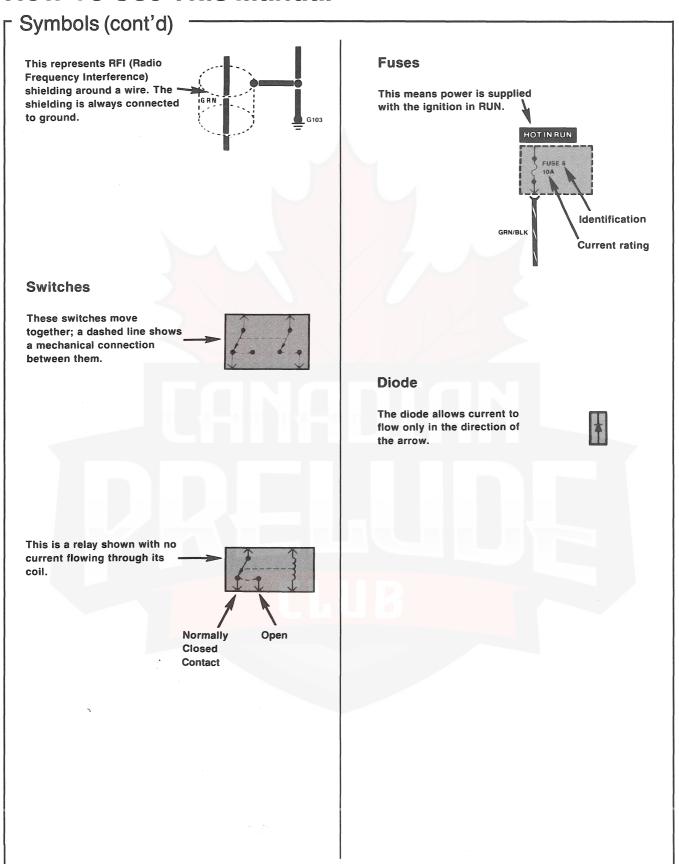
This symbol means the end of the wire is attached to a metal part of the car.



Each wire ground (G) is numbered for reference in the component location index.

This ground symbol (dot and 3 lines) overlapping the component means the housing of the component is attached directly to a metal part of the car.







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## **Circuit Schematics**

Circuit schematics break the entire electrical system into individual circuits. Electrical components that work together are shown together. You are not distracted by wiring that is not part of the circuit you are working on.

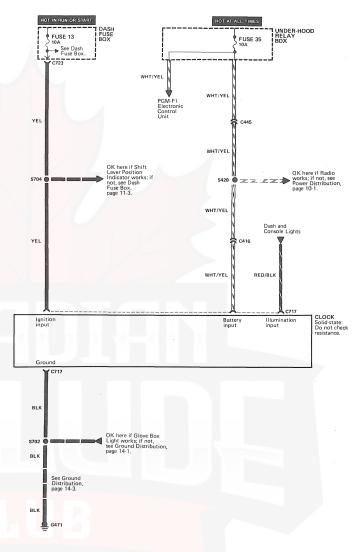
Each drawing is arranged so current flows from positive, at the top of the page, to ground, at the bottom of the page. The "hot" labels at the top of a fuse show when the ignition switch supplies power to that fuse.

Each circuit is shown completely and independently on one schematic. Other circuits getting their power from the same point, or grounding at the same point are not shown. However, if other circuits actually share some wires with the circuit shown, the shared wires of the other circuits will also be shown.

Wires that connect to another circuit are shown with an arrowhead pointing in the direction of current flow. The name of the circuit or component that shares the wiring is provided for reference. You can check shared wiring by checking the operation of the other circuits.

"See Dash Fuse Box" means there are more connections to other circuits that are not shown. All such shared circuits are shown on the Dash Fuse Box circuit schematic. "See Ground Distribution" means there are more shared ground circuits which are shown on the Ground Distribution schematic.

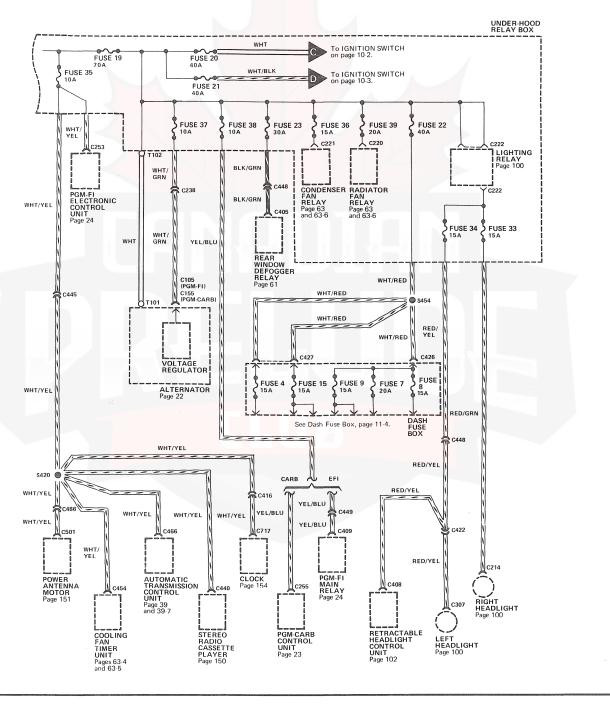
The note "OK here if Glove Box Light works; if not, see Ground Distribution Page 14-1" is a troubleshooting aid. Check the glove box light by opening the glove box and observing the light. If it works, the ground circuit is OK from that point to the ground. In the dash fuse box circuit the circuit is good from that point to the fuse.





The sample Power Distribution schematic shows how voltage is supplied from the positive battery terminal to the various circuits in the car.

Individual circuit schematics begin with a fuse. Power Distribution shows the wiring between the battery and the fuses. By combining Power Distribution with any individual schematic, you get a complete picture of how voltage is applied to the circuit.

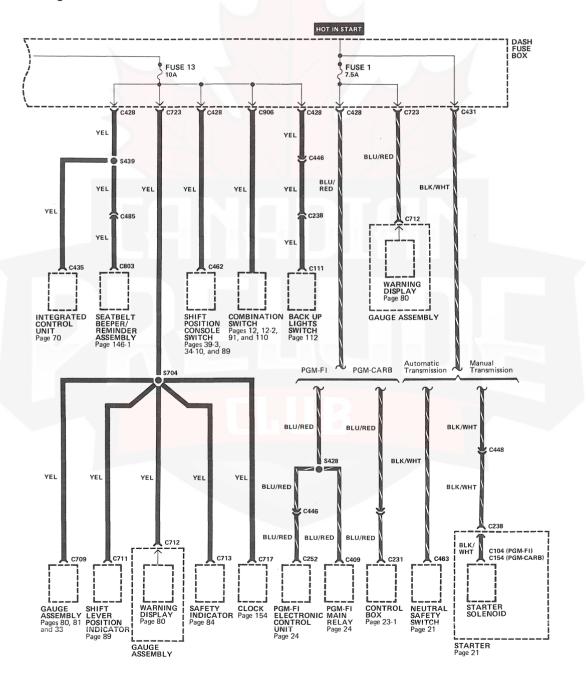


## Circuit Schematics (cont'd)

#### **Dash Fuse Box**

The sample Dash Fuse Box schematic shows how voltage is supplied from the fuse to each individual component.

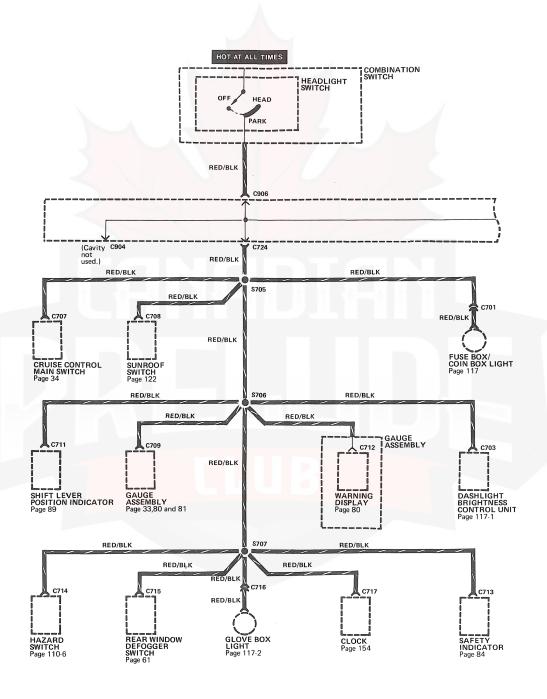
You can use the Dash Fuse Box circuit to speed your troubleshooting. If the Dash Fuse Box circuit shows that an inoperative circuit and a second circuit share a fuse, check the operation of the second circuit. If it works, you know the fuse is good and voltage is available to the inoperative circuit. You can then continue troubleshooting.





## **Headlight Switch**

The sample Headlight Switch schematic shows how voltage is supplied from the headlight switch to each individual component.





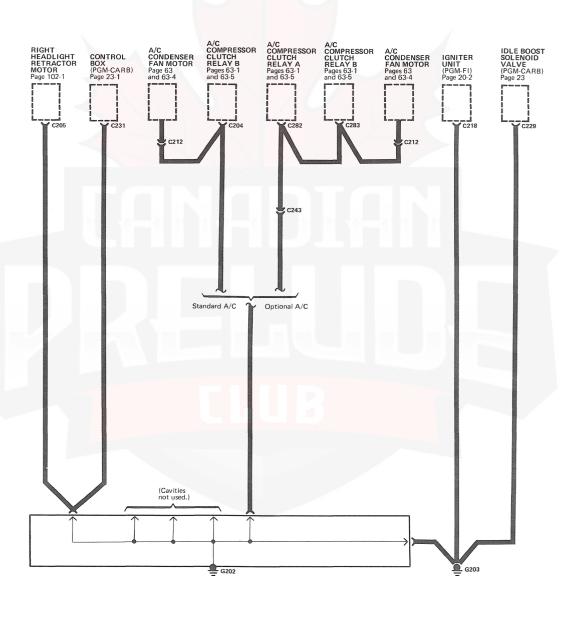


## ┌ Circuit Schematics (cont'd)

#### **Ground Distribution**

This sample Ground Distribution schematic shows which components share the same two ground points.

All wires shown are black unless otherwise designated.





## **Component Location**

A component location index follows each schematic. It lists every component, connector and ground in that circuit and describes its location in the car. The index also gives references to photographs of component locations which are located in Section 201.

## **Component Location Index** (Refer to Section 201 for photographs.) Under right side of dash On center of floor, near gear selector On automatic transmission control unit On automatic transmission control unit C710 (7-WHT)......82 Behind gauge assembly C711 (10-WHT)..... Behind gauge assembly Behind gauge assembly C723 (4-WHT) . . . . . . . . . . . . . . . . . 95 Under left side of dash, on dash fuse box On right front of engine Behind top center of dash Right front of trunk area

## **Five-Step Troubleshooting**

#### 1. Verify The Complaint

Turn on all the components in the problem circuit to check the accuracy of the customer complaint. Note the symptoms. Do not begin disassembly or testing until you have narrowed down the problem area.

#### 2. Analyze The Schematic

Look up the schematic for the problem circuit. Determine how the circuit is supposed to work by tracing the current paths from the power source through the circuit components to ground. Also, trace circuits that share wiring with the problem circuit. The names of circuits that share the same fuse, ground, or switch, and so on are referred to on each circuit schematic. Try to operate any shared circuits you didn't check in step 1. If the shared circuits work, the shared wiring is OK, and the cause must be in the wiring used only by the problem circuit. If several circuits fail at the same time, the fuse or ground is a likely cause.

Based on the symptoms and your understanding of the circuit's operation, identify one or more possible causes of the problem.

#### 3. Isolate The Problem By Testing The Circuit

Make circuit tests to check the diagnosis you made in step 2. Keep in mind that a logical, simple procedure is the key to efficient troubleshooting. Test for the most likely cause of failure first. Try to make tests at points that are easily accessible.

#### 4. Fix The Problem

Once the specific problem is identified, make the repair. Be sure to use proper tools and safe procedures.

#### 5. Make Sure The Circuit Works

Turn on all components in the repaired circuit in all modes to make sure you've fixed the entire problem. If the problem was a blown fuse, be sure to test all of the circuits on that fuse. Make sure no new problems turn up and the original problem does not recur.

## **Test Equipment**

**Voltmeter and Test Light** 

CAUTION: A number of circuits include solidstate devices. Voltages in these circuits should be tested only with a 10-megohm or higher impedance digital multimeter. Never use a test light on circuits that contain solid-state devices. Damage to the device may result.

On circuits without solid-state devices, use a test light to check for voltage. A test light is made up of a 12-volt bulb with a pair of leads attached. After grounding one lead, touch the other lead to various points along the circuit where voltage should be present. The bulb will go on if there is voltage at the point being tested.

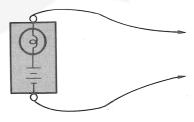
A voltmeter can be used in place of a test light. While a test light shows whether or not voltage is present, a voltmeter indicates how much voltage there is.

#### **Self-Powered Test Light and Ohmmeter**

CAUTION: Never use a self-powered test light on circuits that contain solid-state devices. Damage to these devices may result.

Diodes and solid-state devices in a circuit can make an ohmmeter give a false reading. To find out if a component is affecting a measurement, take one reading, reverse the leads, and take a second reading. If the readings differ, the component is affecting the measurement.

An ohmmeter can be used in place of a self-powered test light. The ohmmeter shows how much resistance there is between two points along a circuit. Low resistance means good continuity.



Self-Powered Test Light



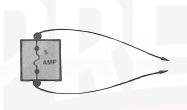
Circuits that contain solid-state devices should only be tested with a 10-megohm or higher impedance digital multimeter.

Use a self-powered test light to check for continuity. This tool is made up of a light bulb, battery, and two leads. If the leads are touched together, the bulb will go on.

A self-powered test light is only used on an unpowered circuit. First disconnect the battery or remove the fuse that feeds the circuit you are working on. Select two points along the circuit through which there should have continuity. Connect one lead of the self-powered test light to each point. If there is continuity, the test light's circuit will be completed and the bulb will go on.

#### **Jumper Wire**

Use a jumper wire to bypass an open circuit. A jumper wire is made up of an in-line fuse holder connected to a set of test leads. It should have a five ampere fuse. Never use a jumper wire across any load. This direct battery short will blow the fuse.



#### **Short Finder**

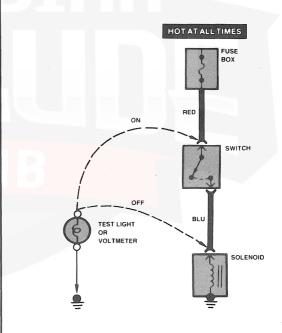
Short finders are available to locate shorts to ground. The short finder creates a pulsing magnetic field in the shorted circuit and shows you the location of the short through body trim or sheet metal. Its use is explained in the following troubleshooting tests.

## **Troubleshooting Tests**

#### **Testing For Voltage**

This test measures voltage in a circuit. When testing for voltage at a connector, you do not have to separate the two halves of the connector. Instead, probe the connector from the back. Always check both sides of the connector because dirt and corrosion between its contact surfaces can cause electrical problems.

- Connect one lead of test light to a known good ground, or if you are using a voltmeter, be sure you connect its negative lead to ground.
- 2. Connect the other lead of the test light or voltmeter to the point you want to check.
- If the test light glows, there is voltage present. If you are using a voltmeter, note the voltage reading. It should be within one volt of measured battery voltage. A loss of more than one volt indicates a problem.

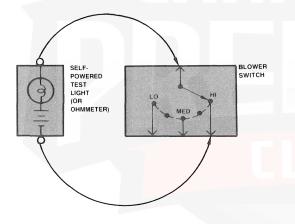


## Troubleshooting Tests (cont'd)

#### **Testing for Continuity**

This test checks for continuity within a circuit. When testing for continuity at a connector, you do not have to separate the two halves of the connector. Instead, probe the connector from the back. Always check both sides of the connector because dirt and corrosion between contact surfaces can cause electrical problems.

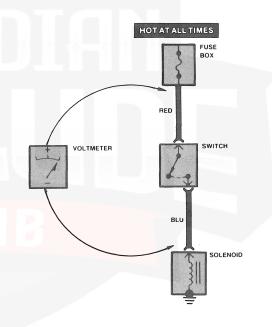
- Disconnect the negative cable from the car battery. If you are using an ohmmeter, hold the leads together and adjust the ohmmeter to read zero ohms.
- Connect one lead of self-powered test light or ohmmeter to one end of the part of the circuit you wish to test.
  - 3. Connect the other lead to the other end.
- 4. If the self-powered test light glows, there is continuity. If you're using an ohmmeter, low or no resistance means good continuity.



#### **Testing For Voltage Drop**

Wires, connectors, and switches are designed to conduct current with a minimum loss of voltage. A voltage drop of more than one volt indicates a problem.

- Connect the positive lead of a voltmeter to the end of the wire (or to the side of the connector or switch) closest to the battery.
- Connect the negative lead to the other end of the wire (or the other side of the connector or switch).
- 3. Turn on the components in the circuit.
- 4. The voltmeter will show the difference in voltage between the two points. A difference, or drop, of more than one volt indicates a problem. Check the circuit for loose or dirty connections.



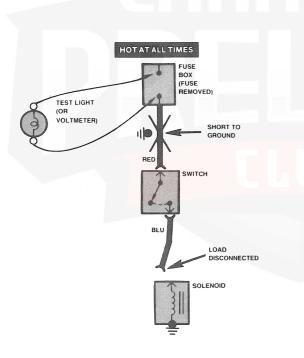


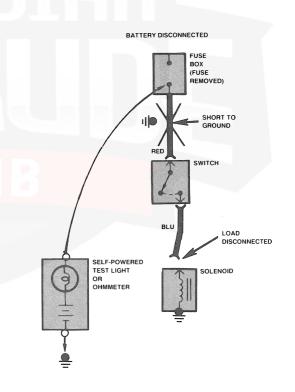
# Testing For A Short With A Test Light Or Voltmeter

- 1. Remove the blown fuse and disconnect the load.
- Connect a test light or voltmeter across the fuse terminals. Make sure that voltage is being applied to the fuse terminals. You might have to put the ignition switch in RUN. Check the schematic to see.
- Beginning near the fuse box, wiggle the harness.
   Continue this at convenient points about six inches apart while watching the test light or voltmeter.
- 4. When the test light blinks or the voltmeter needle moves, there is a short to ground in the wiring near that point.

# Testing For A Short With A Self-Powered Test Light Or Ohmmeter.

- 1. Remove the blown fuse and disconnect the battery and load.
- Connect one lead of a self-powered test light or ohmmeter to the fuse terminal on the load side.
- 3. Connect the other lead to a known good ground.
- Beginning near the fuse box, wiggle the harness.
   Continue this at convenient points about six inches apart while watching the test light or ohmmeter.
- 5. If the self-powered test light blinks or the ohmmeter needle moves, there is a short to ground in the wiring near that point.

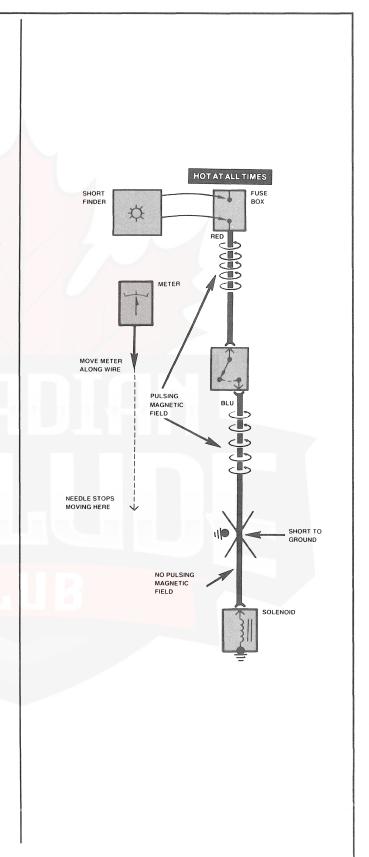




## Troubleshooting Tests (cont'd)

**Testing For A Short With A Short Circuit Locator** 

- Remove the blown fuse. Leave the battery connected.
- 2. Connect the short finder across the fuse terminals
- Close all switches in series in the circuit you're testing.
- Turn on the short circuit locator. It sends pulses of current to the short. This creates a pulsing magnetic field around the wiring between the fuse box and the short.
- 5. Beginning at the fuse box, slowly move the short finder along the circuit wiring. The meter will show current pulses through sheet metal and body trim. As long as the meter is between the fuse and the short, the needle will move with each current pulse. Once you move the meter past the point of the short, the needle will stop moving. Check around this area to locate the cause of the short circuit.





## **Troubleshooting Precaution**

#### **Before Troubleshooting**

- Check the main fuse and the fuse box.
- Check the battery for damage, state of charge, and clean and tight connections.
- Check alternator belt tension.

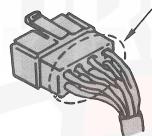
#### **CAUTION:**

- Do not quick-charge a battery unless the battery ground cable has been disconnected, or you will damage the alternator diodes.
- Do not attempt to crank the engine with the ground cable disconnected or you will severely damage the wiring.

#### While You're Working

- Make sure connectors are clean, and have no loose pins or receptacles.
- Make sure multiple pin connectors are packed with silicone grease.



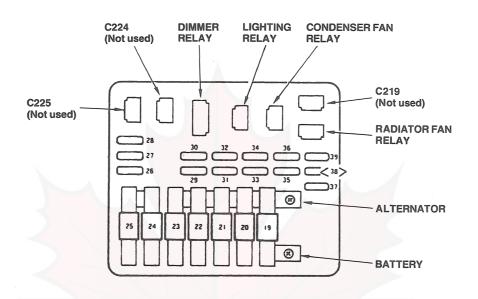


#### **CAUTION:**

- Do not pull on the wires when disconnecting a connector, pull only on the connector housings.
- When connecting a connector, push it until it clicks into place.
- Refer to page 12 for cautions about troubleshooting circuits that contain solid-state devices.

# **Fuse Information**

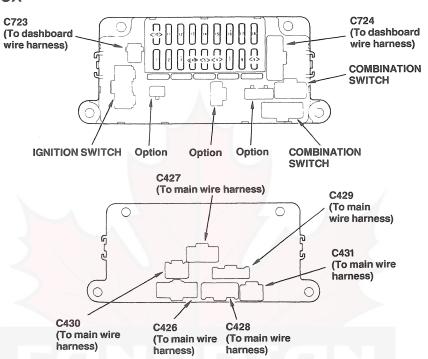
# Under-Hood Relay Box



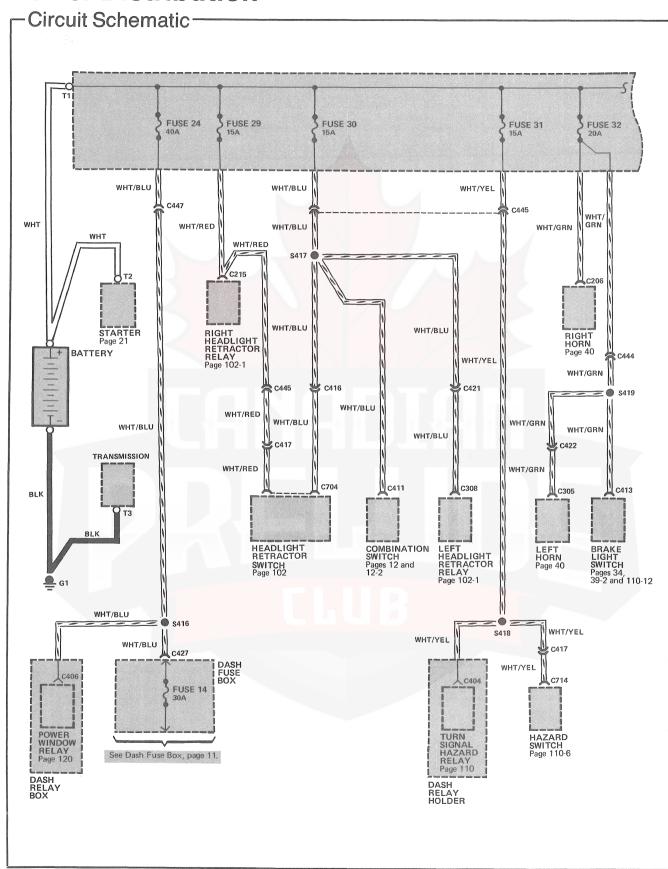
Fuse Number	Amps	Circuit Protected
19	70	Power distribution
20	40	Power distribution (ignition switch)
21	40	Power distribution (ignition switch)
22	40	Dash fuse box
23	30	Rear window defogger
24	40	Power window relay; dash fuse box
25	_	Not used
26		Not used
27	_	Not used
28		Not used
29	15	Right headlight retractor motor
30	15	Left headlight retractor motor; retractable headlight control unit; combination switch
31	15	Turn signal/hazard relay; hazard switch
32	20	Horns; brake lights; high mount brake light
33	15	Right headlight
34	15	Left headlight
35	10	PGM-FI electronic control unit; power antenna motor; cooling fan timer unit;
		automatic transmission control unit; stereo radio cassette player; clock
36	15	Condenser fan motor
37	10	Alternator
38	10	PGM-CARB control unit/PGM-FI main relay
39	20	Radiator fan motor



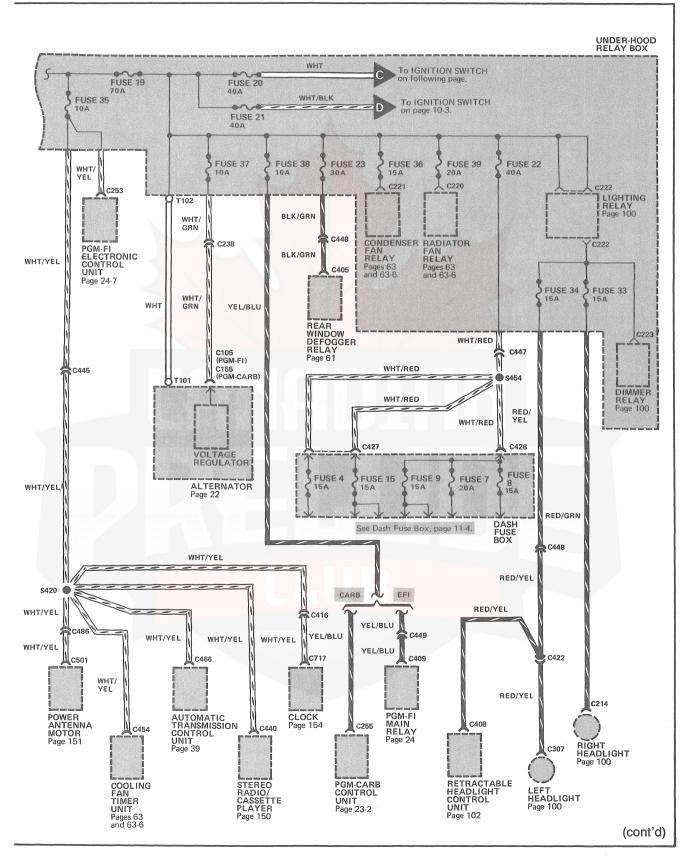
## Dash Fuse Box

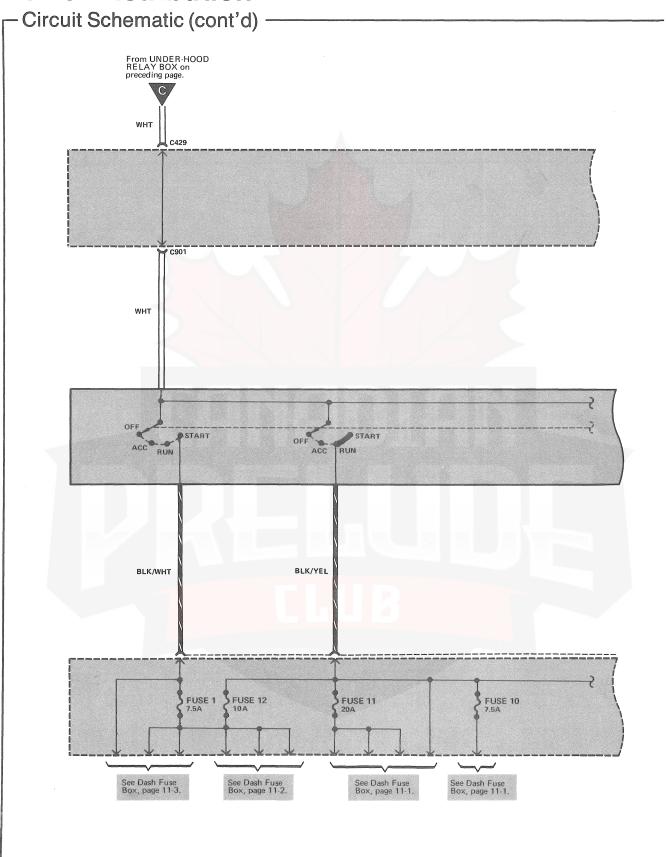


Fuse Number	Amps	Circuit/Component Protected
1	7.5	Warning display; starter solenoid; PGM-FI electronic control unit; PGM-FI main
(Automatic)		relay; control box (PGM-CARB)
2	10	Stereo radio cassette player
3		Warning display; starter solenoid; PGM-FI electronic control unit; PGM-FI main
(Manual)		relay; control box (PGM-CARB)
4	15	Power door lock control unit
5	15	Passenger's power window switch
6	15	Driver's power window switch
7	20	Automatic seat belt retractors
8	15	Trunk light; ignition key switch; dome light, cigarette lighter and ashtray light;
		integrated control unit; driver's door outer handle switch
9	15	Foglights
10	7.5	Cruise control main switch
11	20	Sunroof relay; power windows; integrated control unit; windshield wipers; combination switch
12	10	Warning display; speed sensor amplifier; automatic transmission control unit; PGM-FI main relay; fuel cut-off relay; voltage regulator; cooling fan timer unit; emission control solenoid valves; PGM-CARB control unit
13	10	Intergrated control unit; seat belt beeper/reminder assembly; shift position console switch; combination switch; back up lights switch; gauge assembly; shift lever position indicator; safety indicator; clock; gauge assembly
14	30A	Sunroof motors
15	15	Combination switch
16	_	Not used
17	15	Power mirrors; cooling fan timer unit
18	10	Rear window defogger; heater controls; A/C controls

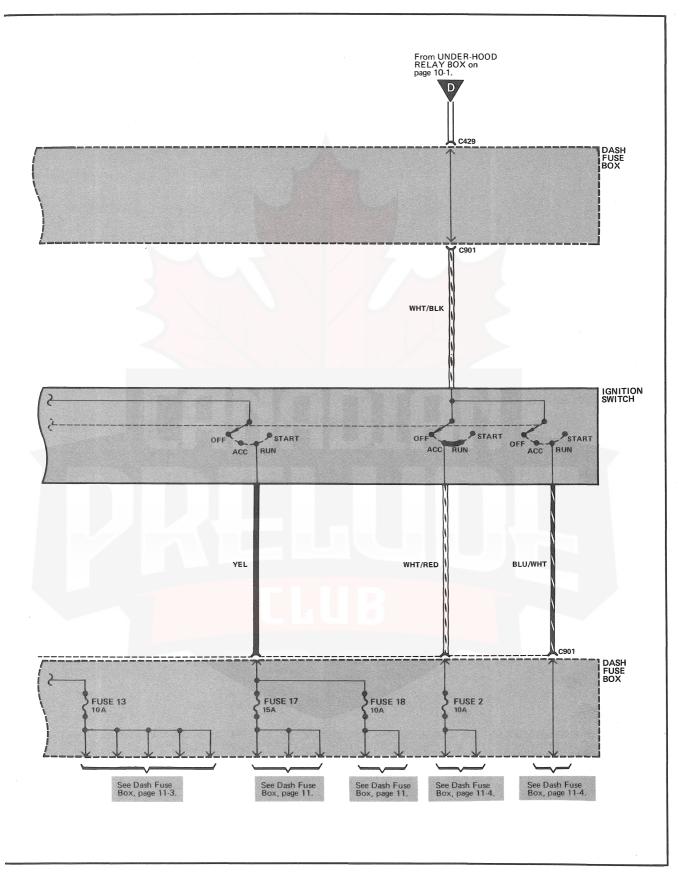












# □ Component Location Index

(Refer to Section 201 for photographs.)	
Alternator	17
Automatic Transmission Control Unit Underside of passenger's footrest	92
Brake Light Switch	86
Condenser Fan Relay	96
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PGM-CARB Control Unit	68
PGM-FI Electronic Control Unit Underside of passenger's footrest	91
Power Antenna Motor	27
Power Window Relay	98
Radiator Fan Relay	96
Rear Window Defogger Relay Behind left side of dash, on relay holder	98
Retractable Headlight Control Unit On left kick panel	62

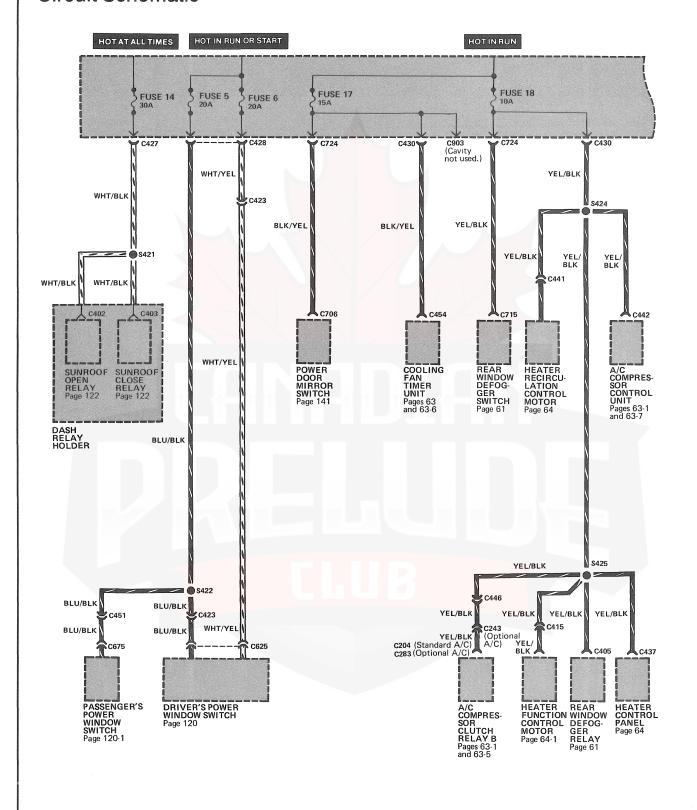
Right Headlight Retractor Relay Right front corner of engine compartment	10
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C238 (8-WHT)	56
C253 (17-WHT)	61
C255 (16-BLU)	68
C305 (1-BLK)	54
C411 (14-GRN)Behind left side of dash	70
C416 (22-WHT)	78
C417 (24-WHT)	78
C421 (20-WHT)	71
C422 (4-WHT)	71
C426 (7-YEL)	72
C427 (6-YEL)	72
C429 (3-YEL)	72



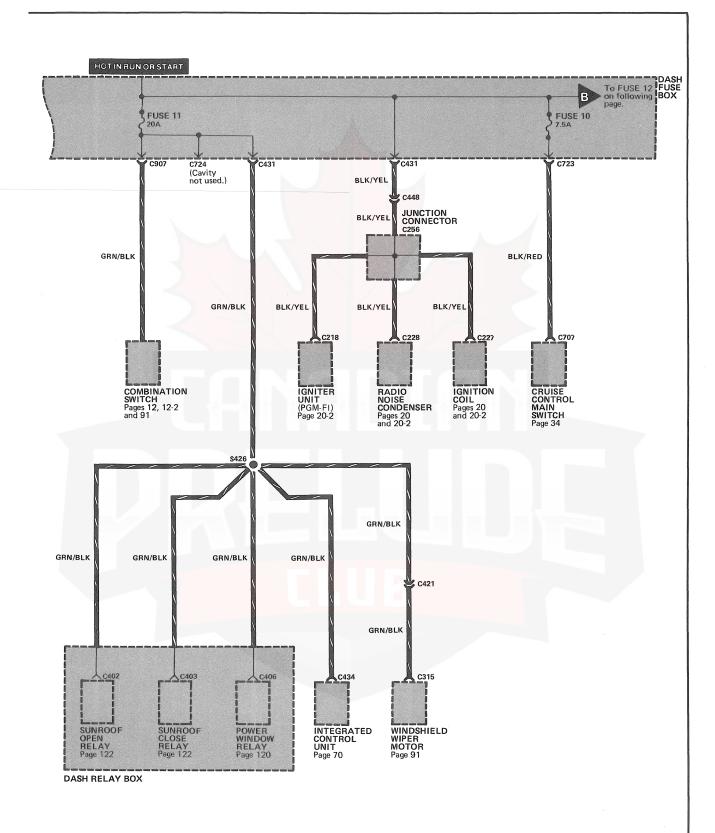
C440 (16-WHT)On rear of stereo radio cassette player	79
C444 (4-WHT)	112
C445 (22-WHT)	112
C447 (3-WHT)	73
C448 (7-WHT)	73
C449 (18-WHT)1 Under right side of dash	112
C466 (12-WHT)On automatic transmission control unit	92
C486 (13-WHT)Upper right side of trunk	26
C501 (4-WHT) (S Model)	26
C501 (8-WHT) (Si Model)	26
C901 (7-WHT)	80
G1  Lower right front of engine compartment, on fran	<b>83</b> ne
T1In under-hood relay box	11
T2 On starter solenoid	
T3 On lower right front of transmission	14
T101On alternator	109
T102 In under-hood relay box	96

# **Dash Fuse Box**

## Circuit Schematic





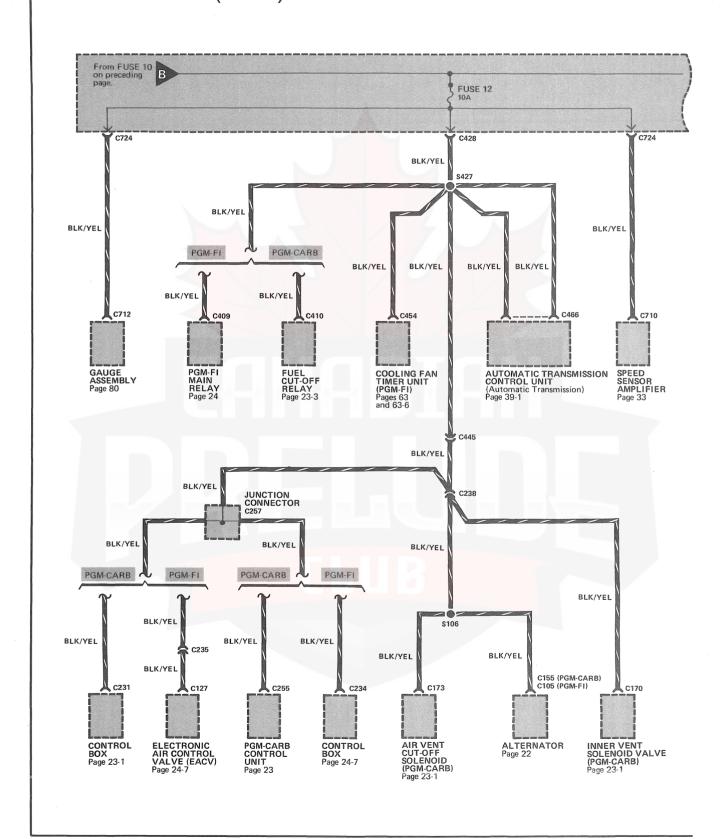


11-1

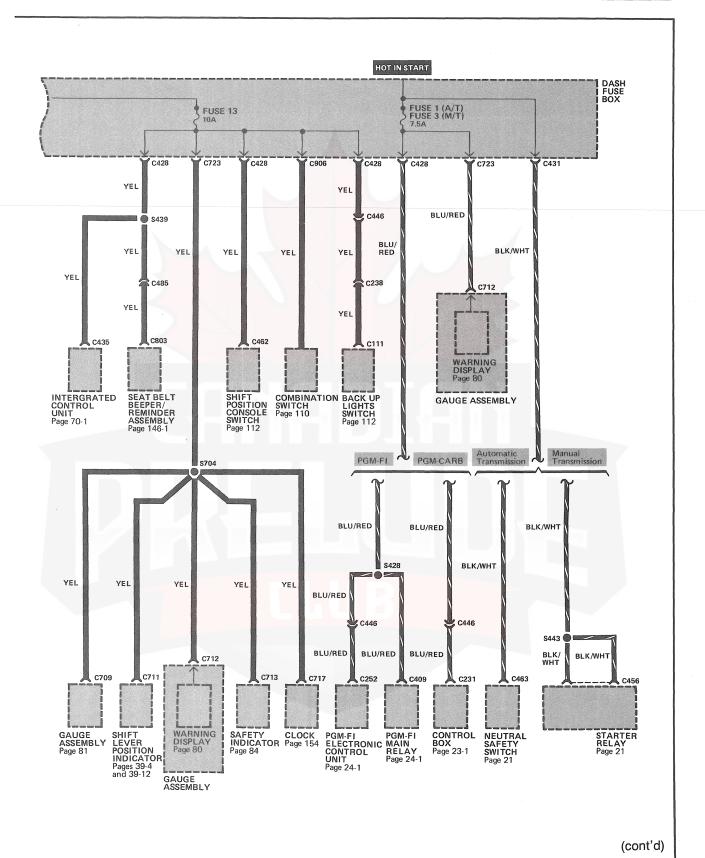
(cont'd)

# **Dash Fuse Box**

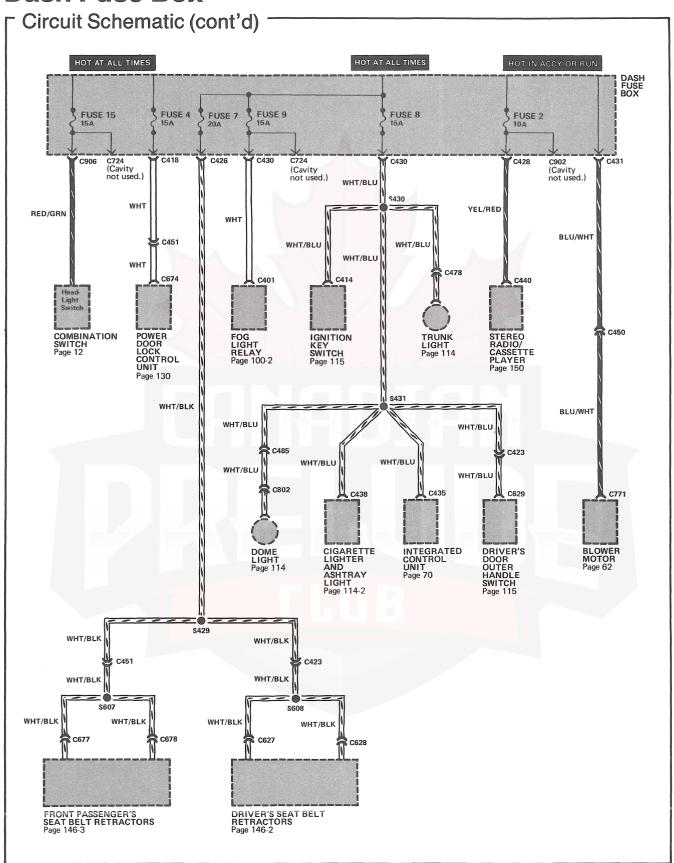
□ Circuit Schematic (cont'd)







# **Dash Fuse Box**





# Component Location Index

(Refer to Section 201 for photographs.)	
A/C Compressor Clutch Relay B	89
A/C Compressor Control Unit	90
Air Vent Cut-Off Solenoid Rear of engine, near carburetors	
Alternator	17
Automatic Transmission Control Unit Underside of passenger's footrest	92
Back Up Lights Switch	51
Blower Motor	93
Condenser Fan Relay	96
Control Box	36
Cooling Fan Timer UnitBelow right side of dash, on kick panel	85
Dash Fuse BoxBehind left side of dash	70
Dash Relay Holder	98
Driver's Door Outer Handle Switch	31
Driver's Seat Belt Retractors	30
Electronic Air Control Valve (EACV) (PGM-CARB)	50
Top right of engine	
Electronic Air Control Valve (EACV) (PGM-FI) Top of engine	40
Fog Light Relay	63
Front Passenger's Seat Belt Retractors In rear half of passenger's door	33
Fuel Cut-Off Relay	

Heater Function Control Motor 59  Behind center of dash
Heater Recirculation Control Motor 57 Behind right side of dash
Igniter Unit (PGM-FI)
Ignition Coil
Ignition Key Switch
Inner Vent Solenoid Valve
Integrated Control Unit
Main Relay
Neutral Safety Switch 60  Base of gear selector lever
PGM-CARB Control Unit
PGM-FI Electronic Control Unit91 Underside of passenger's footrest
Power Door Lock Control Unit
Power Window Relay
Radio Noise Condenser
Rear Window Defogger Relay
Seat Belt Beeper/Reminder Assembly 117 Center of windshield header
Shift Position Console Switch 60 In console, below shift lever
Speed Sensor Amplifier
Starter Relay Behind left side of dash, on relay holder

# **Dash Fuse Box**

# □ Component Location Index

(Refer to Section 201 for photographs.)	
Sunroof Close Relay	3
Sunroof Open Relay 63 Behind left side of dash, on relay holder	3
Windshield Wiper Motor	2
C105 (4-WHT)	9
C111 (1-BLK)	1
C155 (3-WHT)	9
C170 (1-BLK)	9
C227 (2-WHT)	5
C228 (1-BLK)	5
C231 (8-WHT)	5
C234 (4-WHT)	6
C235 (14-WHT)	6
C238 (8-WHT)	6
C243 (14-WHT)	8
C252 (20-BLK) 6	1
C255 (16-BLU)	8
C256 (4-RED)	8
C257 (20-GRN)	8
C315 (5-WHT)	2

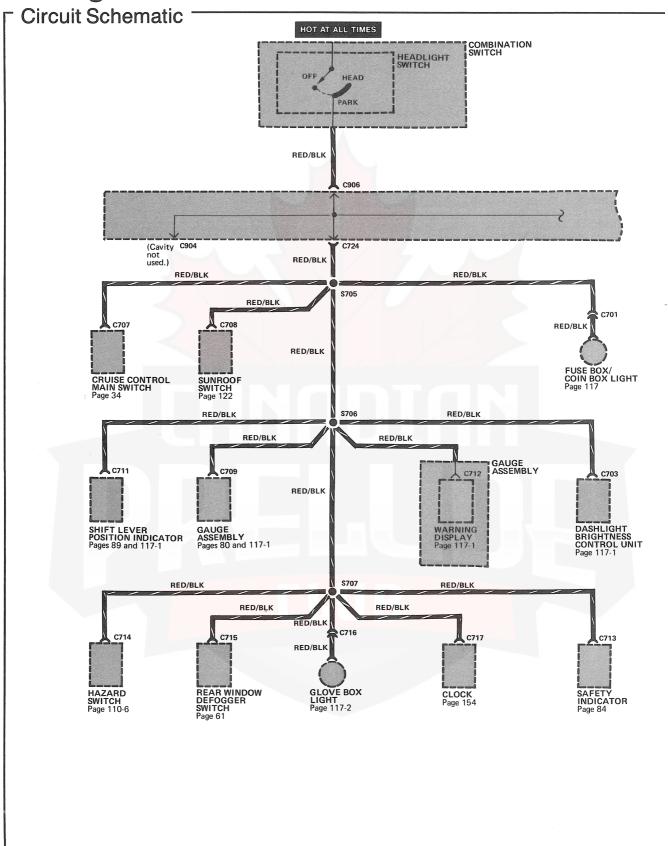
C414 (4-BLU)	78
C415 (8-WHT)Behind center of dash	59
C421 (20-WHT)	71
C423 (18-WHT)Behind right kick panel	
C426 (7-YEL)	72
C427 (6-YEL)	72
C428 (14-YEL)	72
C430 (10-YEL)	72
C431 (4-YEL)	72
C434 (4-WHT)	64
C435 (16-BLU)	64
C438 (4-WHT)	79
C440 (16-WHT)On rear of stereo radio cassette player	79
C441 (4-WHT)	93
C445 (22-WHT)	112
C446 (23-GRN)	73
C448 (7-WHT)	73
C450 (2-WHT)	93
C451 (14-WHT)Behind right kick panel	58
C462 (10-WHT)	60



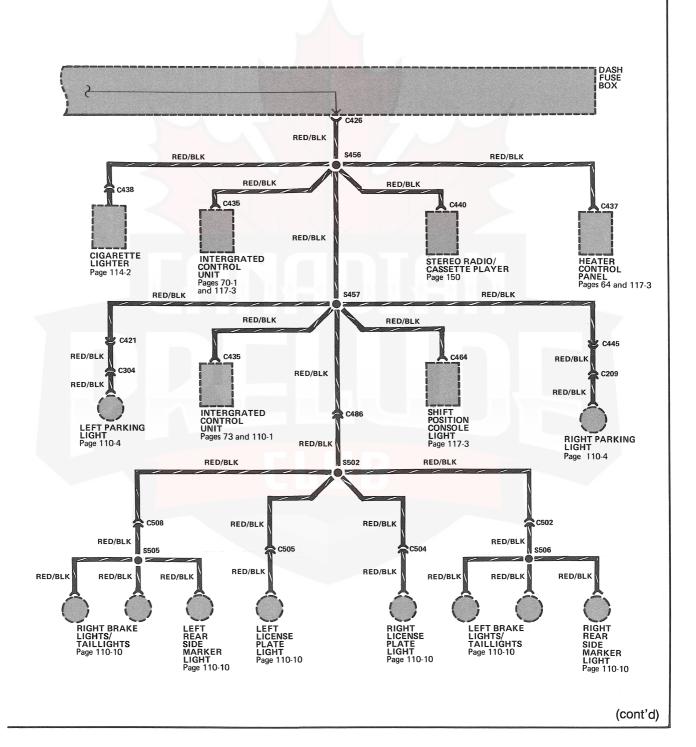
C463 (2-WHT)	60
C466 (12-WHT)On automatic transmission control unit	92
C485 (8-WHT)	20
C625 (10-WHT)	28
C627 (4-WHT)	30
C628 (4-WHT)	30
C629 (4-WHT)	113
C675 (6-WHT)	32
C677 (4-WHT)	33
C678 (4-WHT)	33
C709 (12-WHT)On rear of gauge assembly	81
C710 (7-YEL)	81
C711 (10-WHT)On rear of gauge assembly	81
C712 (14-YEL)	107
C713 (16-YEL)	81
C723 (4-WHT)	94
C724 (14-WHT)Behind LH side of dash, on front of dash fuse bo	
C902 (1-WHT) Behind LH side of dash, on front of dash fuse bo	Х
C906 (8-WHT)	80
C907 (10-WHT)On front of dash fuse box	80



# **Headlight Switch**

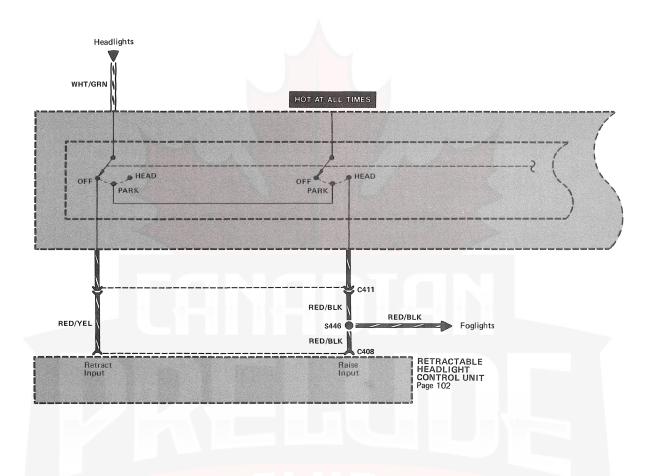




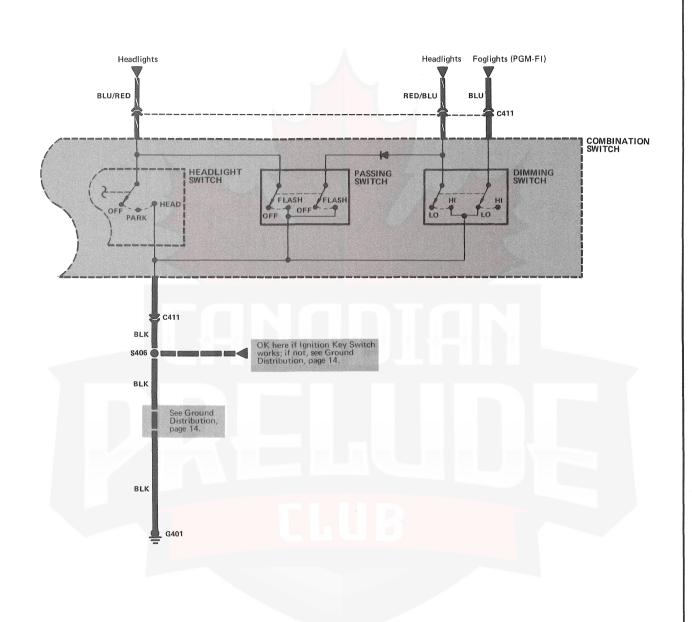


# **Headlight Switch**

Circuit Schematic (cont'd)







# **Headlight Switch**

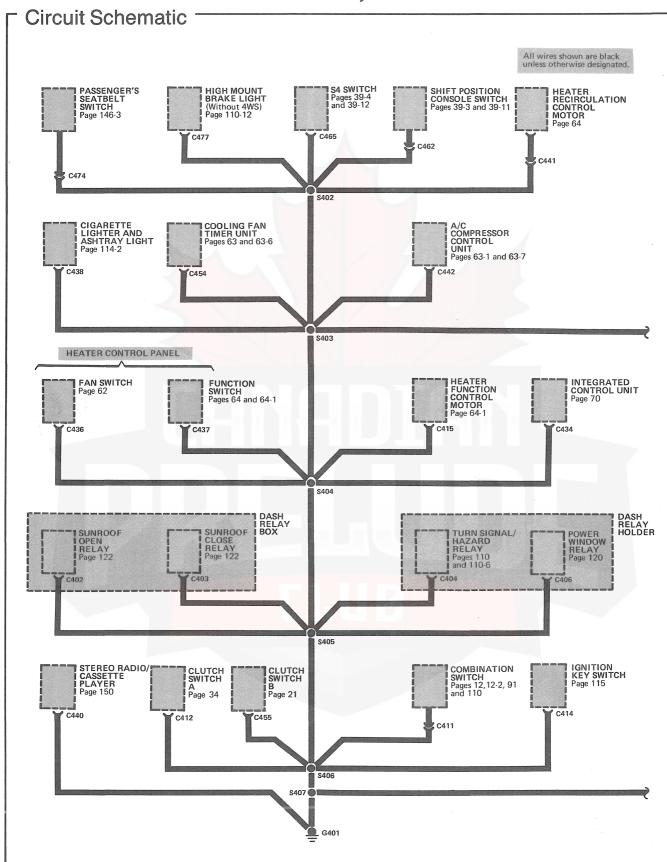
# □ Component Location Index

(Refer to Section 201 for photographs.)		
Dash Fuse Box		
Integrated Control Unit 64 Behind center of dash		
Retractable Headlight Control Unit 62 On left kick panel		
C209 (3-GRN)		
C304 (3-GRN)		
C411 (14-GRN)		
C421 (20-WHT)		
C426 (7-YEL)		
C435 (16-BLU) 64  Behind center of dash, on integrated control unit		
C438 (4-WHT)		
C440 (16-WHT)		
C445 (22-WHT)		
C464 (2-WHT)		

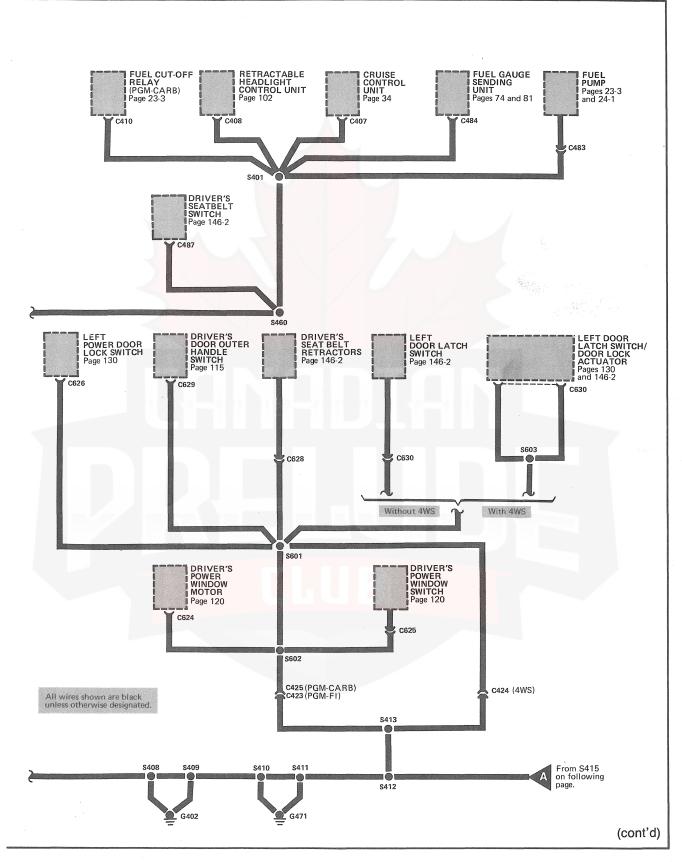
C486 (13-WHT)	26
C502 (8-WHT)	23
C504 (4-WHT)	19
C508 (8-WHT)	25
C701 (4-WHT)	94
C709 (12-WHT)On rear of gauge assembly	81
C711 (10-WHT)On rear of gauge assembly	81
C713 (16-YEL)	81
C716 (2-GRN)Behind right center of dash	77
C724 (14-WHT)	<b>80</b> ×
C904 (9-WHT) Behind LH side of dash, on front of dash fuse bo	Х
C906 (8-WHT)	80
G401	74



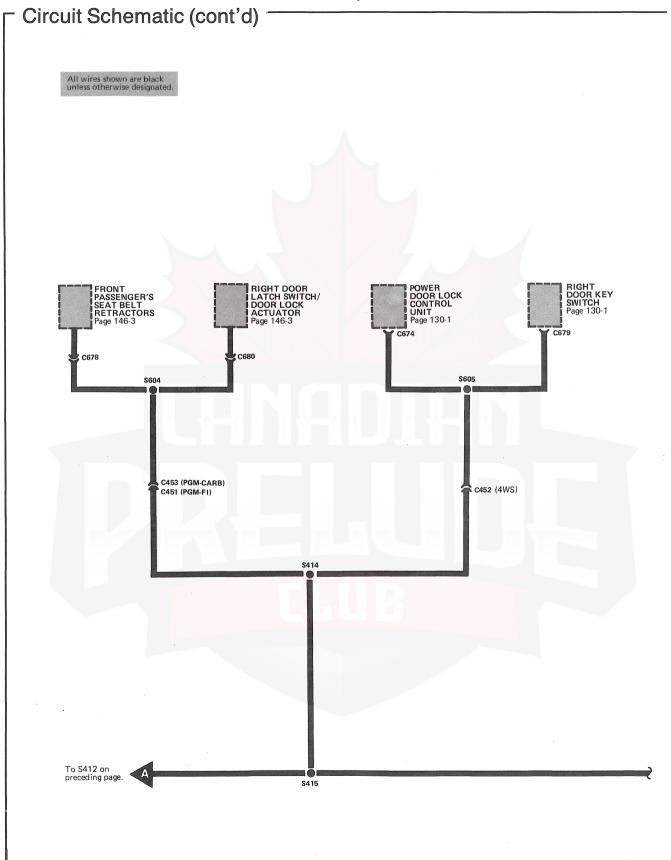
# Ground Distribution: G401, G402 and G471



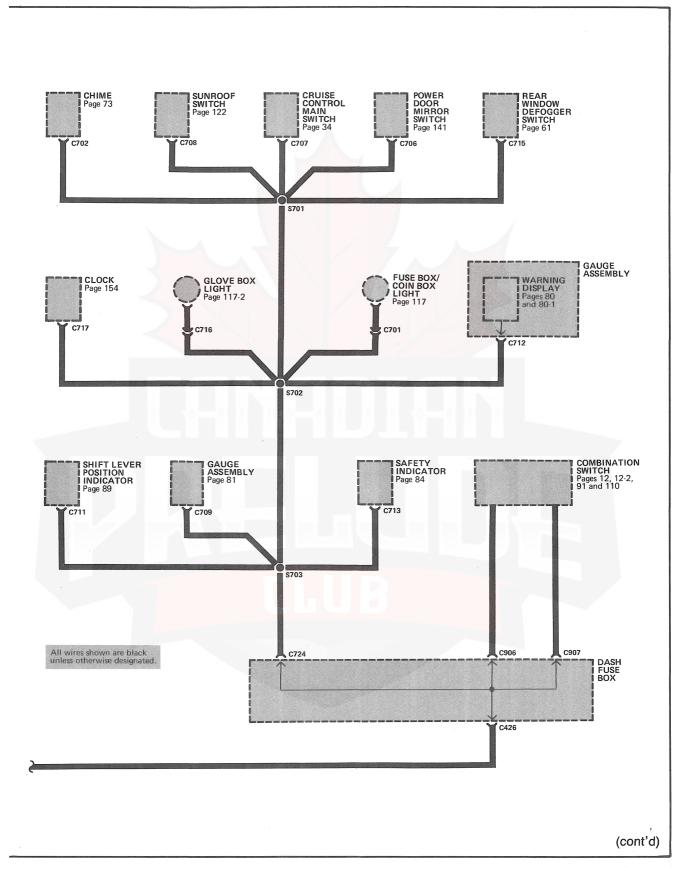




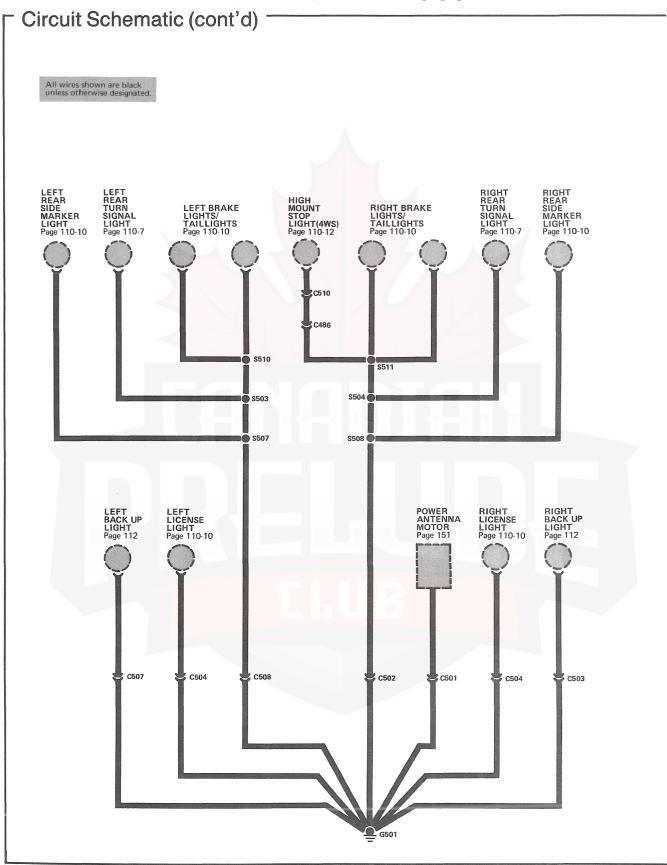
# Ground Distribution: G401, G402 and G471



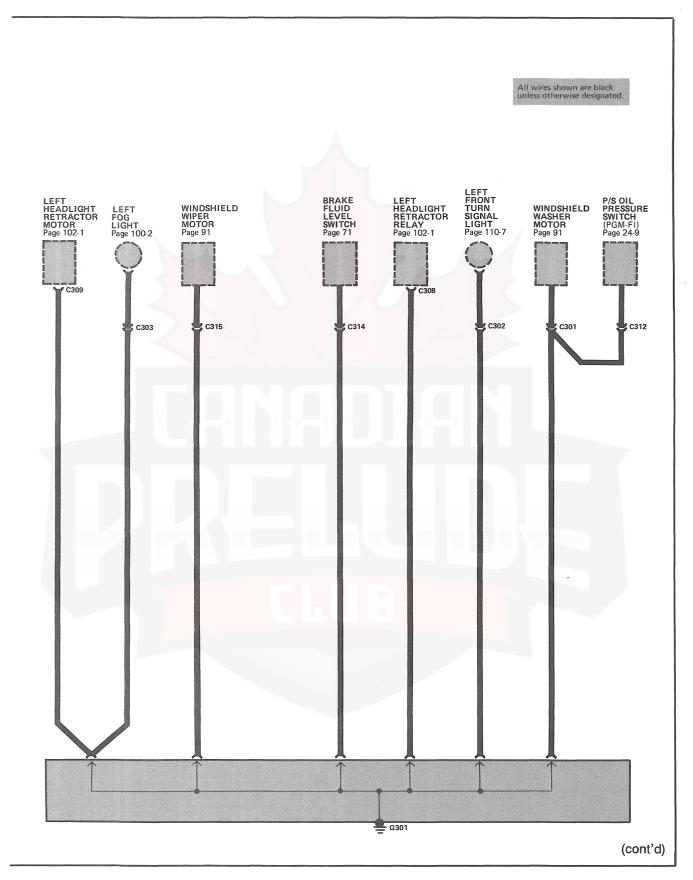




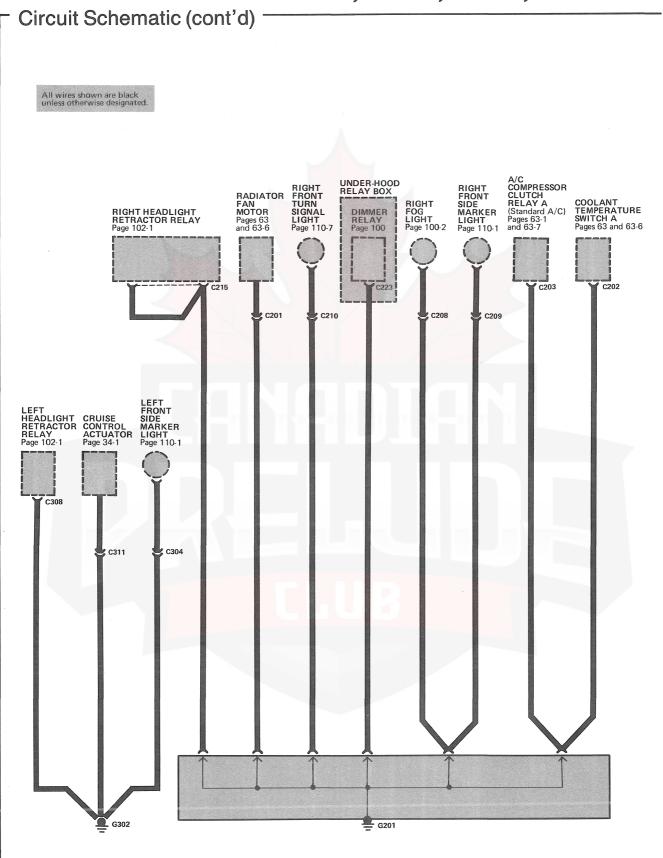
# **Ground Distribution: G301 and G501**





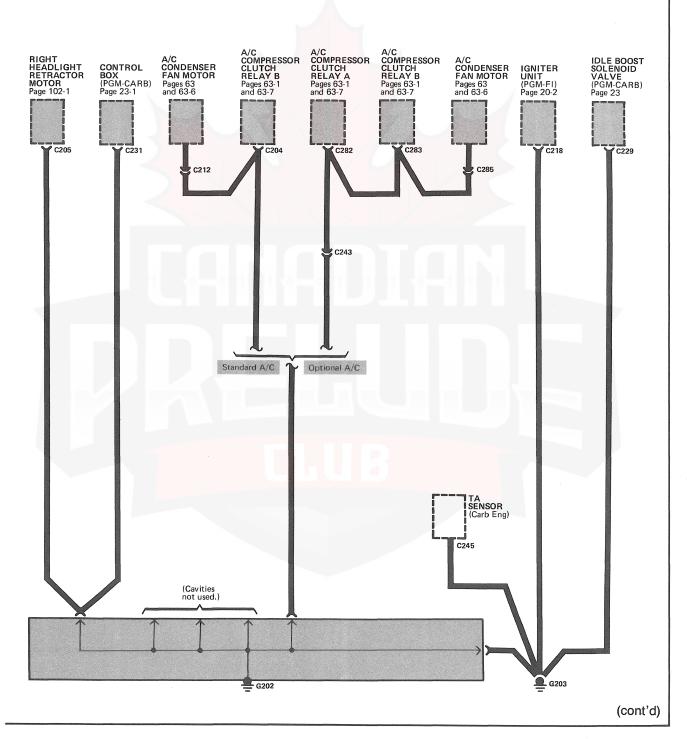


# Ground Distribution: G201, G202, G203, G302





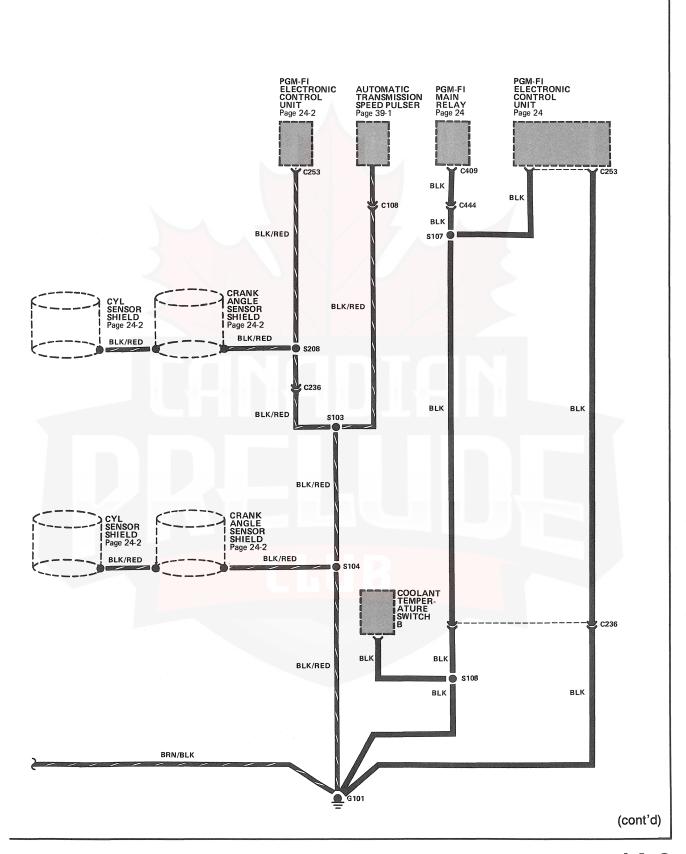
All wires shown are black unless otherwise designated.



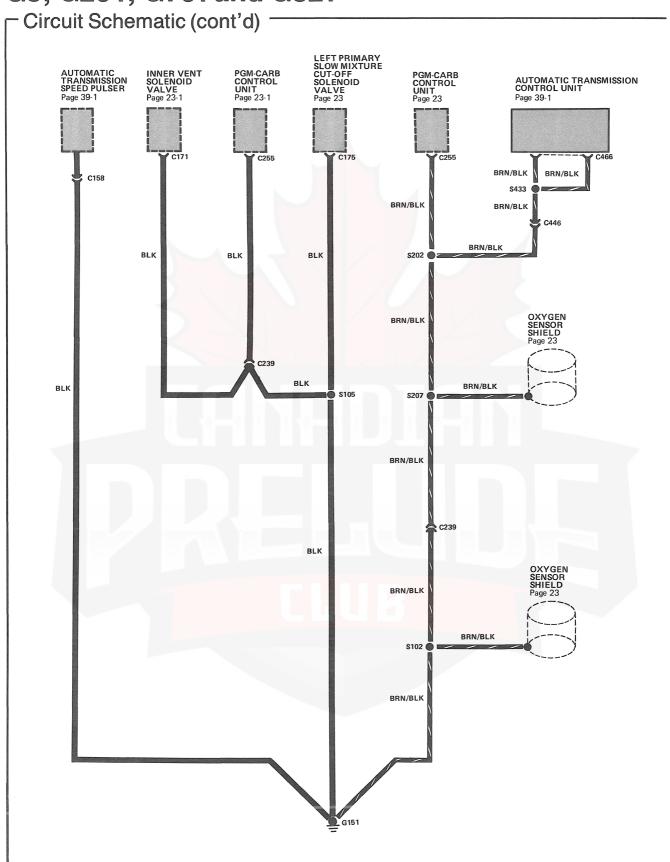
# **Ground Distribution: G101 (PGM-FI)**

Circuit Schematic (cont'd) PGM-FI ELECTRONIC CONTROL UNIT Page 24-3 AUTOMATIC TRANSMISSION CONTROL UNIT Page 39-9 BRN/BLK BRN/BLK \$433 BRN/BLK BRN/BLK C449 BRN/BLK BRN/BLK OXYGEN SENSOR B SHIELD Page 24-3 TDC SENSOR SHIELD Page 24-2 BRN/BLK BRN/BLK BRN/BLK BRN/BLK OXYGEN SENSOR B SHIELD Page 24-3 OXYGEN SENSOR A I SHIELD I Page 24-3 TDC SENSOR SHIELD Page 24-2 BRN/BLK BRN/BLK BRN/BLK BRN/BLK S102 BRN/BLK

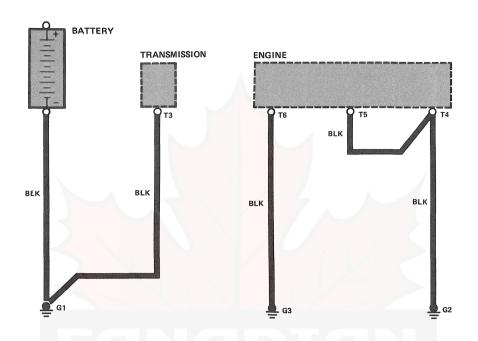


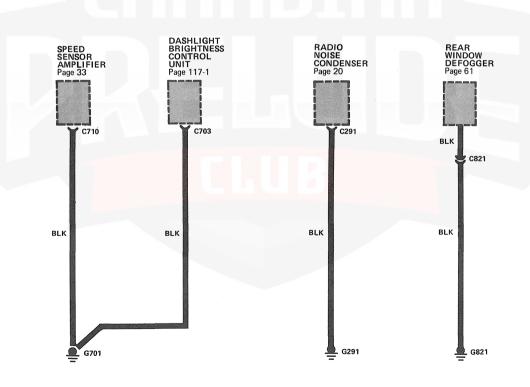


# **Ground Distribution: G151 (PGM-CARB), G1, G2, G3, G291, G701 and G821**









# **Ground Distribution**

# □ Component Location Index

(Refer to Section 201 for photographs.)	
A/C Compressor Clutch Relay A Right front corner of engine compartment	89
A/C Compressor Clutch Relay B Right front corner of engine compartment	89
A/C Compressor Control Unit	90
Automatic Transmission Control Unit Underside of passenger's footrest	92
Automatic Transmission Speed Pulser On right side of transmission	41
Brake Fluid Level Switch	1
Chime	94
Clutch Switch A	86
Clutch Switch B	86
Condenser Fan MotorLeft rear of radiator	95
Control Box	36
Coolant Temperature Switch A On radiator, below coolant fan	47
Coolant Temperature Switch B	97
Cooling Fan Timer UnitBelow right side of dash, on kick panel	85
Cruise Control Actuator	5
Cruise Control Unit	62
Dash Fuse Box	70
Dash Relay Holder	98
Dimmer Relay	11
Driver's Door Outer Handle Switch	31

Driver's Power Door Lock Switch In driver's door	
Driver's Seat Belt Retractors	30
Driver's Seat Belt Switch In driver's seat belt buckle	
Front Passenger's Seat Belt Retractors In rear half of passenger's door	33
Fuel Cut-Off Relay	
Fuel Gauge Sending Unit Below rear of car, top of fuel tank	
Fuel Pump In fuel tank	
Heater Function Control Motor	59
Heater Recirculation Control Motor Behind right side of dash	57
Igniter Unit (PGM-FI)Right side of engine compartment	102
Ignition Key Switch	. 87
Inner Vent Solenoid Valve	49
Integrated Control Unit	64
Left Door Latch Switch/Door Lock Actuator In rear half of driver's door	
Left Door Switch	. 116
Left Headlight Retractor Motor Left front corner of engine compartment	. 4
Left Headlight Retractor Relay Left front corner of engine compartment	. 4
Left Primary Slow Mixture Cut-Off Solenoid Valve On left carburetor	
Main Relay	. <b>100</b> se



Oxygen Sensor A	7
Oxygen Sensor B	7
Passenger's Seat Belt Switch In passenger's seat belt buckle	
PGM-CARB Control Unit	68
PGM-FI Electronic Control Unit	91
Power Antenna Motor	27
Power Door Lock Control Unit	35
Power Steering Oil Pressure Switch Lower left rear of engine compartment	44
Power Window Relay	98
Radiator Fan Motor	9
Radio Noise Condenser	36
Retractable Headlight Control Unit On left kick panel	62
Right Door Key Switch In passenger's door	
Right Door Latch Switch/Door Lock Actuator In rear half of passenger's door	
Right Headlight Retractor Motor	10
Right Headlight Retractor Relay Right front corner of engine compartment	10
Shift Position Console Switch	60
Speed Sensor Amplifier	107
Sunroof Close Relay	63
TA SwitchOn firewall, left of control box	105

Turn Signal/Hazard Relay63 Behind left side of dash, on relay holder
Under-Hood Relay Box
Windshield Washer Motor
Windshield Wiper Motor
C108 (2-WHT)
C158 (2-WHT)41 Lower right side of engine
C175 (1-BLK) Lower right rear of engine
C201 (2-WHT)
C205 (6-WHT)
C208 (2-RED)
C209 (3-GRN)
C210 (2-WHT)
C212 (2-GRN)95 Lower left front of engine compartment
C229 (2-WHT)
C231 (8-WHT)
C236 (14-WHT)
C239 (7-WHT)
C243 (14-WHT)
C245 (2-GRN)

# **Ground Distribution**

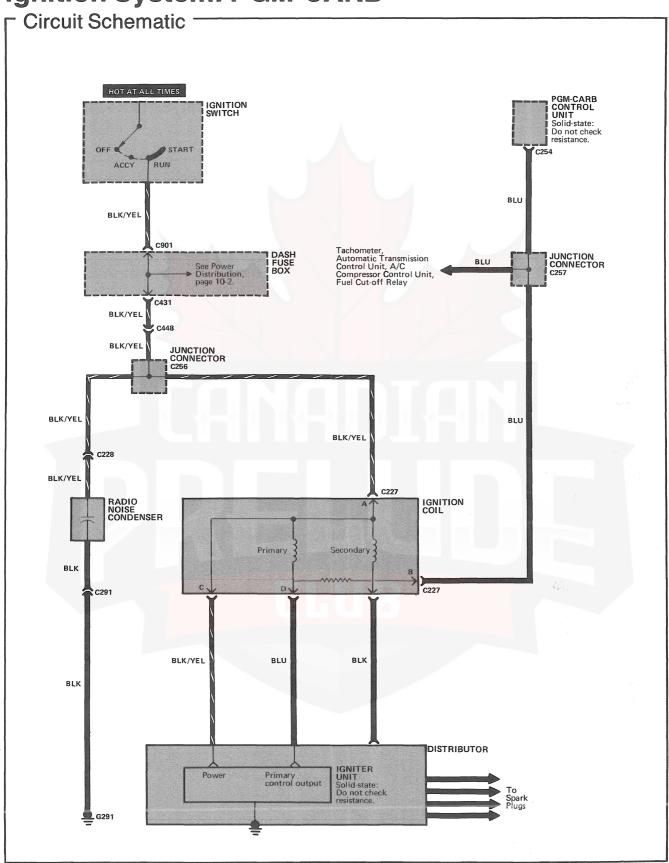
<ul> <li>Component Location Index =</li> </ul>	·	
(Refer to Section 201 for photographs.)		
C253 (17-WHT)	61	C414 (4-BLU)
C255 (16-BLU)	68	C415 (8-WHT)
C285 (2-GRN)	95	C423 (18-WHT)111  Behind right kick panel
C291 (1-BLK)	36	C424 (4-WHT)
C302 (2-WHT)	67	C425 (6-WHT)
C303 (2-RED)Behind left side of front bumper	67	C426 (7-YEL)
C304 (3-GRN)Behind left side of front bumper	69	C434 (4-WHT)
C309 (6-WHT)  Left front corner of engine compartment	4	C438 (4-WHT)
C311 (4-WHT)Left front of engine compartment	5	C441 (4-WHT)
C312 (2-GRN)Left rear of engine compartment, on strut tower	2	C444 (4-WHT)
G301	114	C446 (23-GRN)
G302	114	C449 (18-WHT)112 Under right side of dash
G401 Behind top center of dash	74	C451 (14-WHT)58 Behind right kick panel
G402	74	C452 (4-WHT)
G471	20	C453 (6-WHT) 58 Behind right kick panel
G501	26	C462 (10-WHT)
G701	75	C466 (12-WHT)
G821	24	C474 (2-WHT) Under right front seat
C314 (1-BLK)	1	C477 (2-WHT)
C315 (5-WHT)	2	C487 (2-WHT) Under driver's seat
C411 (14-GRN)Behind left side of dash	70	C501 (4-WHT) (S Model)



C501 (8-WHT) (Si Model)	26
C502 (8-WHT)	23
C504 (4-WHT)	19
C508 (8-WHT)	25
C624 (6-WHT)	29
C625 (10-WHT)	28
C626 (3-WHT)	28
C628 (4-WHT)	30
C629 (4-WHT)	13
C630 (6-WHT)	13
C678 (4-WHT)	33
C679 (3-WHT)	34
C680 (4-WHT)	34
C701 (4-WHT)	94
C702 (2-WHT)	94
C709 (12-WHT)On rear of gauge assembly	81
C710 (7-YEL)	81
C711 (10-WHT)On rear of gauge assembly	81
C712 (14-YEL)	07
C713 (16-YEL)	81

C716 (2-GRN)
C724 (14-WHT)
C906 (8-WHT)
C907 (10-WHT)
G1
G2 (PGM-CARB) 6 Left side of engine compartment, on front of strut tower
G2 (PGM-FI). 3 Left side of engine compartment, on front of strut tower
G3
G101
G151
G201
G202
G203
G291 (PGM-CARB)
G291 (PGM-FI)
T3
T4 (PGM-CARB)6 On top left front of engine
T4 (PGM-FI)
T5
T6         76           On rear of engine         76

# **Ignition System: PGM-CARB**



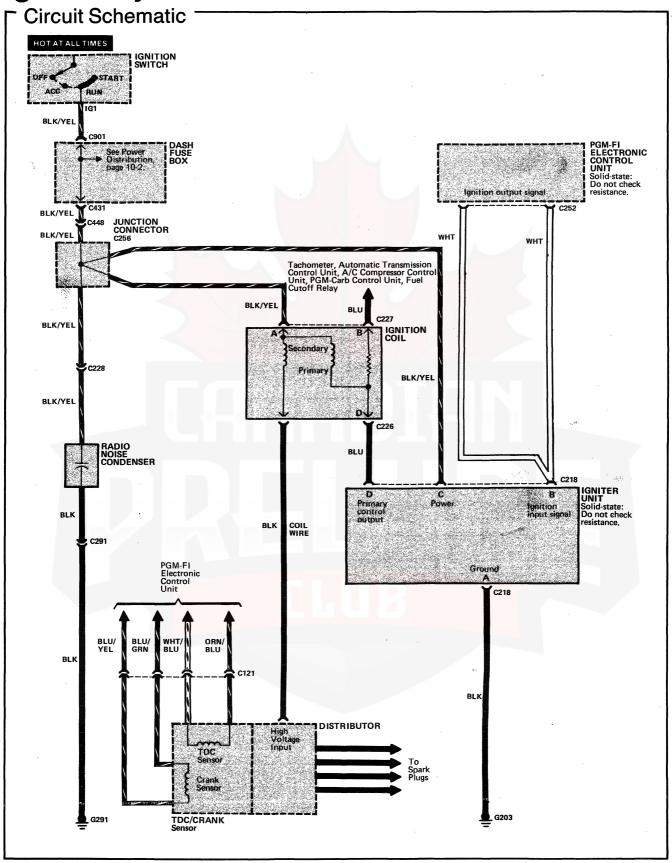


#### Component Location Index ———— F How The Circuit Works (Refer to Section 201 for photographs.) Behind left side of dash Top right side of engine Igniter Unit (PGM-CARB) . . . . . . . . . . . 50 In distributor, under side cover Right rear of engine compartment Right side of steering column, behind steering column covers Behind right side of dash Right rear corner of engine compartment On ignition coil In right rear corner of engine compartment On PGM-CARB control unit Behind right side of dash Behind right side of dash Right rear corner of engine compartment On rear of dash fuse box Under right side of dash C901 (7-WHT) . . . . . . . . . . . . . . . . . . 80 On front of dash fuse box G291 (PGM-CARB)......110 On underside of distributor On rear of distributor

With the ignition switch in RUN or START, voltage is applied to the ignition coil and the solid-state igniter in the distributor. As the distributor shaft turns, the igniter acts as a switch to control current flow through the primary winding of the ignition coil. When current flow through the primary winding is stopped, a highvoltage current is induced in the secondary winding of the ignition coil. The high-voltage current flows through the distributor cap and rotor to the proper spark plug.

The radio noise condenser helps suppress electrical radio interference.

# **Ignition System: PGM-FI**





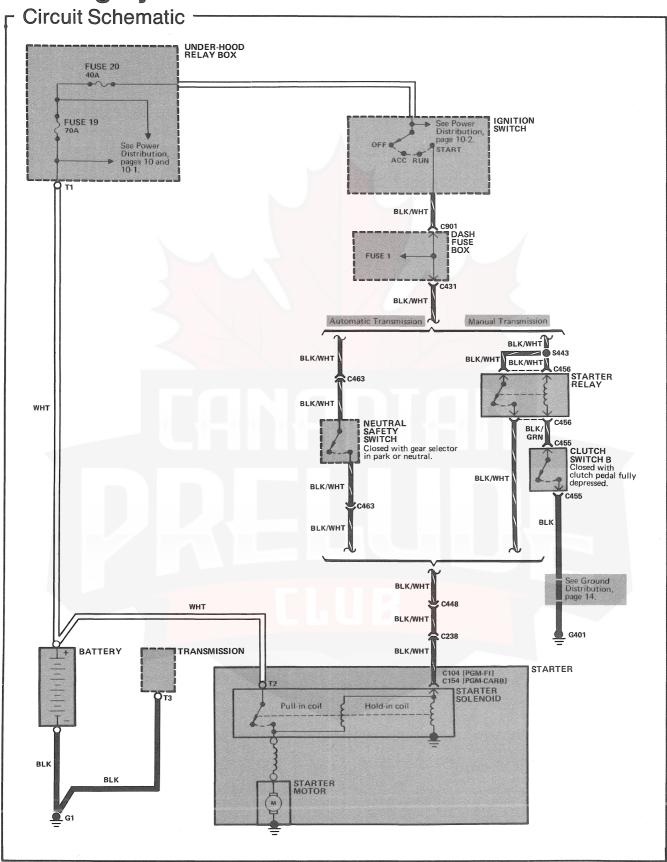
#### Component Location Index —— r How The Circuit Works (Refer to Section 201 for photographs.) Behind left side of dash Right side of engine compartment Right rear of engine compartment Right side of steering column, behind steering column covers PGM-FI Electronic Control Unit...............................91 Underside of passenger's footrest Right rear corner of engine compartment In distributor Top right side of engine, near distributor On igntion coil On ignition coil In right rear corner of engine compartment C252 (20-BLK) . . . . . . . . . . . . 61 On electronic control unit Behind right side of dash Right rear corner of engine compartment On rear of dash fuse box Under right side of dash On front of dash fuse box On right rear of engine compartment G291 (PGM-CARB)......110 On underside of distributor On rear of distributor

With the ignition switch in RUN or START, voltage is applied to the ignition coil. As the distributor shaft turns, the igniter acts as a switch to control current flow through the primary winding of the ignition coil. When current flow through the primary winding is stopped, a high-voltage current is induced in the secondary winding of the ignition coil. The high-voltage current flows through the distributor cap and rotor to the proper spark plug.

The radio noise condenser helps suppress electrical radio interference.

# **Starting System**







#### Component Location Index -(Refer to Section 201 for photographs.) Above clutch pedal support Behind left side of dash Ignition Switch . . . . . . . . . . . . . . . . . . 87 Right side of steering column, behind steering column covers Neutral Safety Switch . . . . . . . . . . . . 60 Base of gear selector lever Lower right front of engine Starter Relay Behind left side of dash, on relay holder Right side of engine compartment Right side of engine compartment On rear of dash fuse box On rear of dash fuse box Under right side of dash C463 (2-WHT) . . . . . . . . . . . . 60 On center of floor, near gear selector C901 (7-WHT) . . . . . . . . . . . . . . . . . . 80 On front of dash fuse box Lower right front of engine compartment, on frame Behind top center of dash T1 ..... 11 In under-hood relay box On starter solenoid T3 ..... 14 On lower right front of transmission

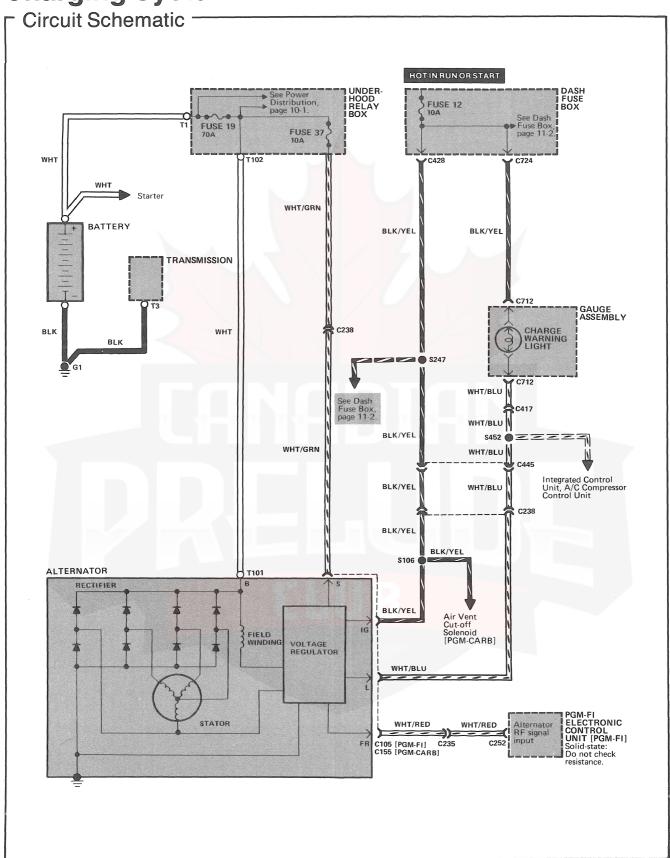
#### — r How The Circuit Works

Voltage is applied at all times from the positive battery terminal to the ignition switch and the normally open starter solenoid contacts. When the ignition switch is turned to START and the neutral safety switch (automatic transmission) is closed, voltage is applied to the starter solenoid coil. The starter solenoid coil energizes, the starter solenoids contacts close, and voltage is applied to the starter motor: The starter motor engages to start the engine.

With a manual transmission voltage is applied to the starter relay coil when the ignition switch is turned to start and clutch switch B is closed, the starter relay coil energizes the starter relay contacts allowing voltage to be applied to the starter solenoid coil which energizes the starter solenoid contacts. Voltage is then applied to the starter and engaging it to start the engine.



# **Charging System**





### (Refer to Section 201 for photographs.) Left front of engine Behind left side of dash PGM-FI Electronic Control Unit...............................91 Underside of passenger's footrest Under-Hood Relay Box......102 Right side of engine compartment On alternator C155 (3-WHT)......109 On alternator Right rear corner of engine compartment Right side of engine compartment C252 (20-BLK) . . . . . . . . . . . . . . . 61 On electronic control unit Under left side of dash, right of steering column On rear of dash fuse box Under right side of dash On rear of gauge assembly Lower right front of engine compartment, on frame In under-hood relay box On lower right front of transmission On alternator T102...... 96 In under-hood relay box

The alternator supplies DC voltage to operate the vehicle's electrical systems and to recharge its battery. The output of the alternator is controlled by the built-in voltage regulator.

When you first move the ignition switch to RUN, before the engine is started, voltage is applied to the charge warning light through fuse 12. The charge warning light is grounded through terminal L of the alternator, and it goes on.

With the engine running and the alternator operating normally, voltage is still applied to the charge warning light through fuse 12 but now voltage is also applied from the alternator (terminal L). With equal voltage on both sides of the charge warning light, the light does not go on.

When the engine is running and the alternator is not charging, the charge warning light is grounded through the alternator (terminal L): The charge warning light goes on to warn the driver that the alternator is not charging properly.

# **Charging System**

## **Quick Checks**

- 1. Check that the battery is not damaged by observing the case for cracks or loose posts.
- 2. Check that the battery is fully charged by observing the battery indicator:

Blue or Green — OK Red — add distilled water Clear — needs charging

Note: If battery indicator is Red or Clear, see Section 23 of the Service Manual for battery test procedures.

- 3. Check fuses 12, 19 and 37 by visual inspection.
- 4. Check alternator belt tension. See Section 23 of the Service Manual for alternator belt adjustment.
- 5. Refer to Section 11 of the Service Manual for Alternator FR Signal test procedures.

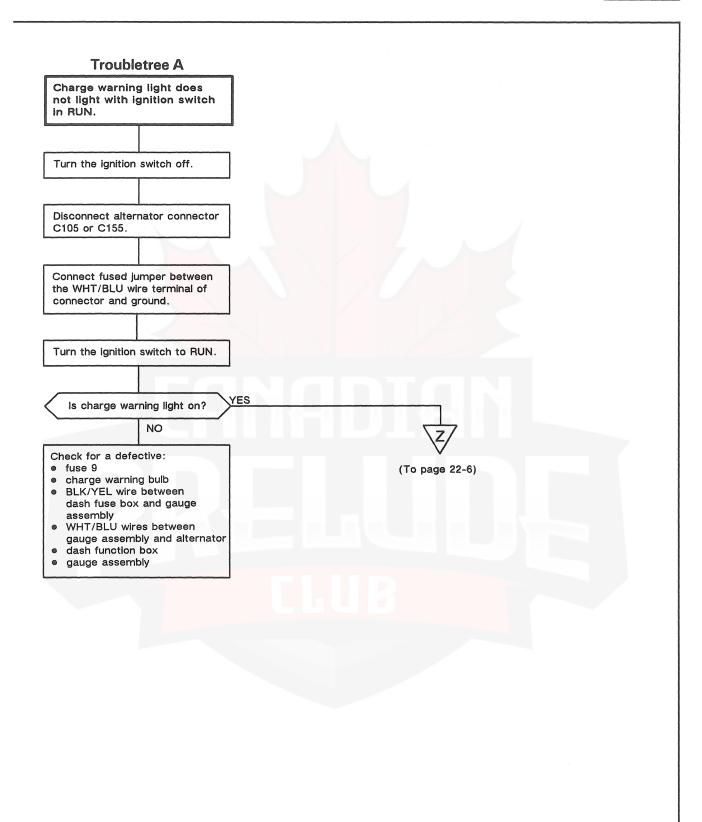
## **Troubleshooting**

Symptom	Troubletree
Charge warning light does not light with the ignition switch in RUN.	А
Battery is undercharged or charge warning light is ON with engine running.	В
Interior and exterior lights intensify or dim depending on engine rpm.	C

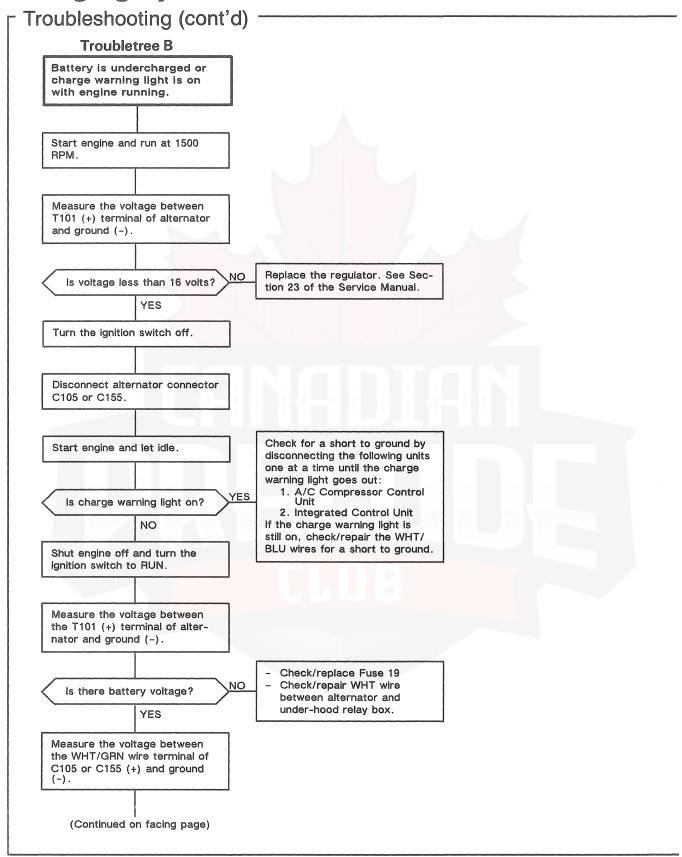




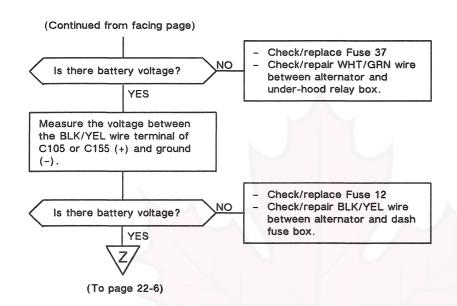




# **Charging System**



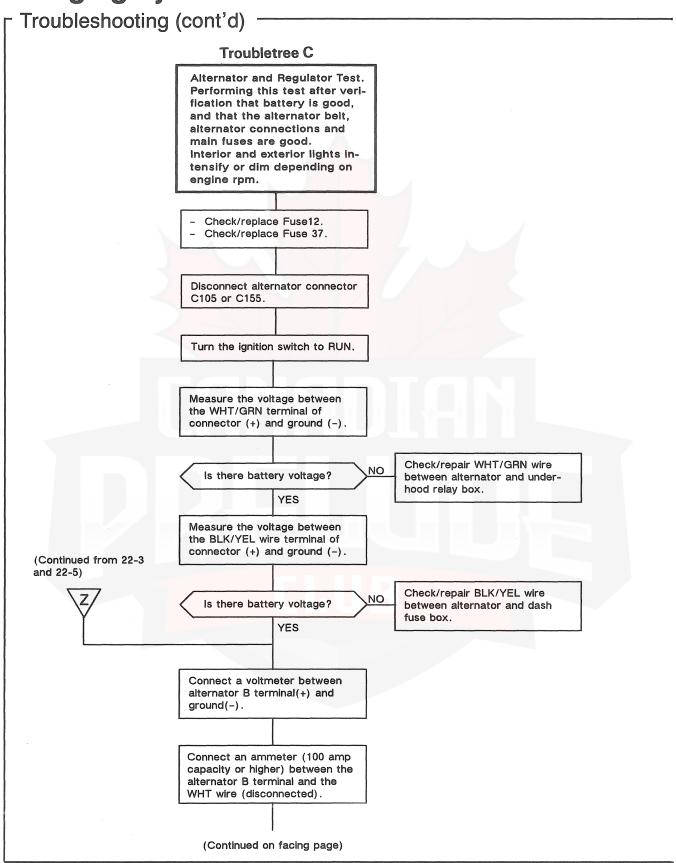




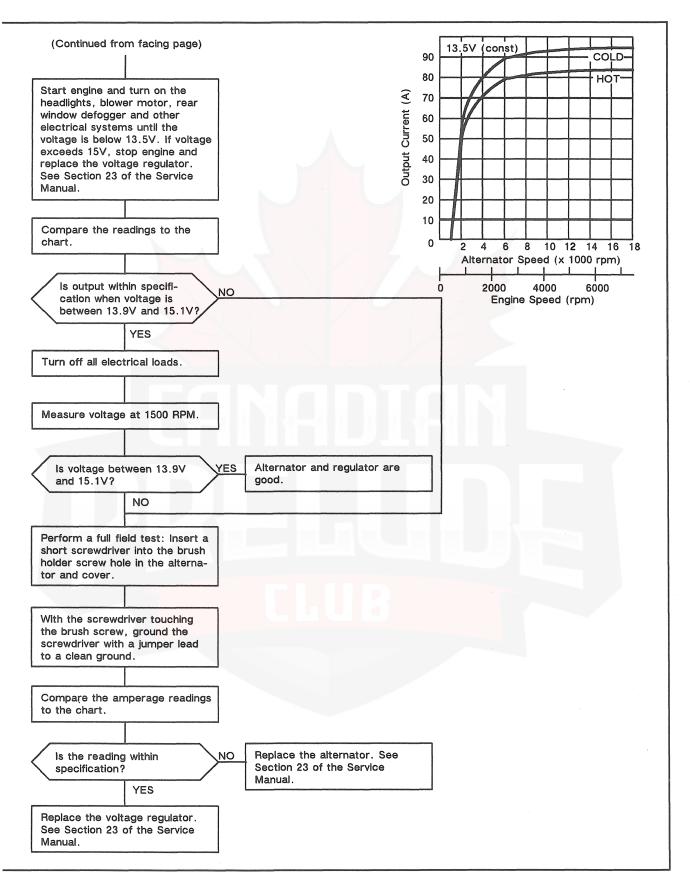
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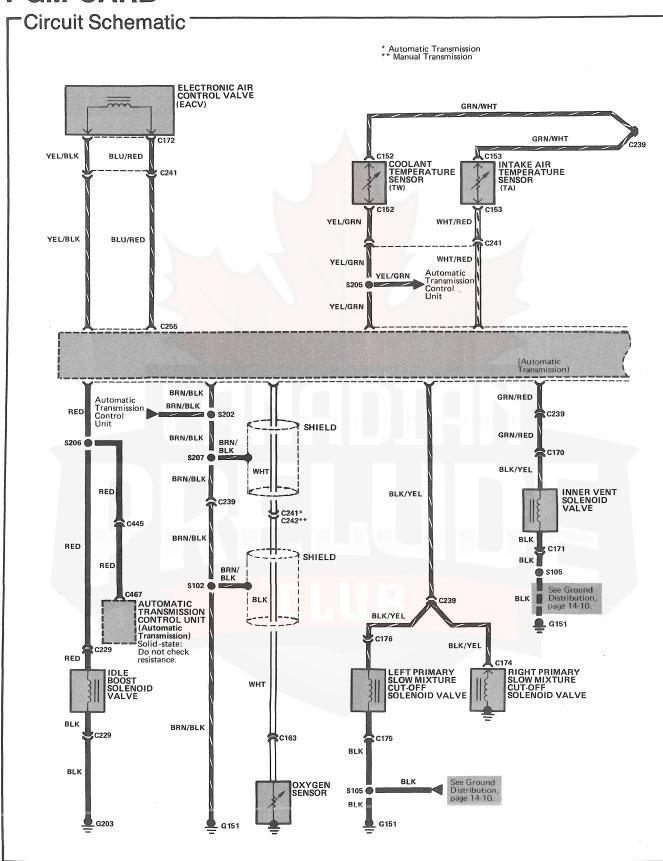
# **Charging System**



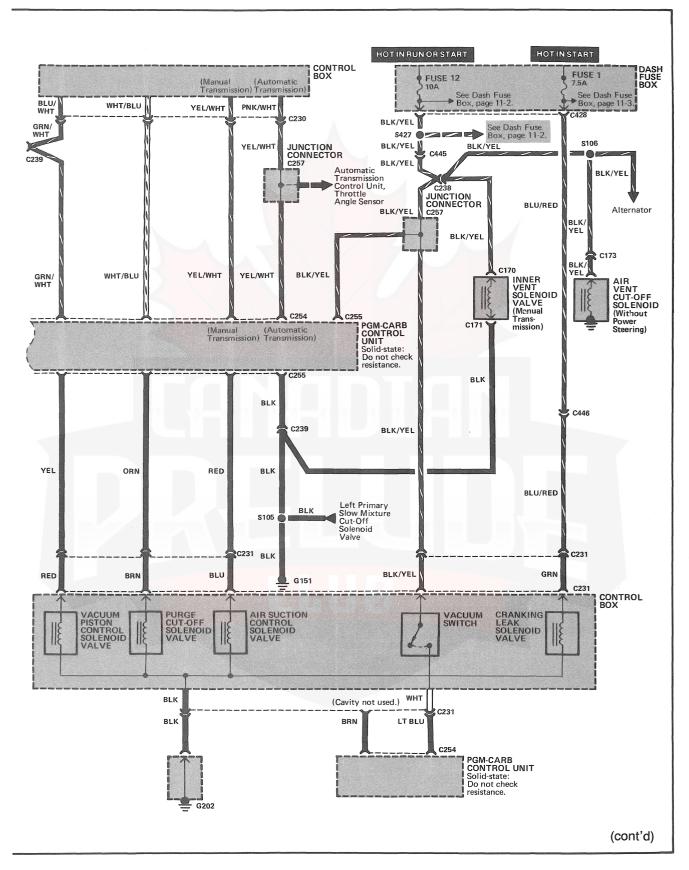




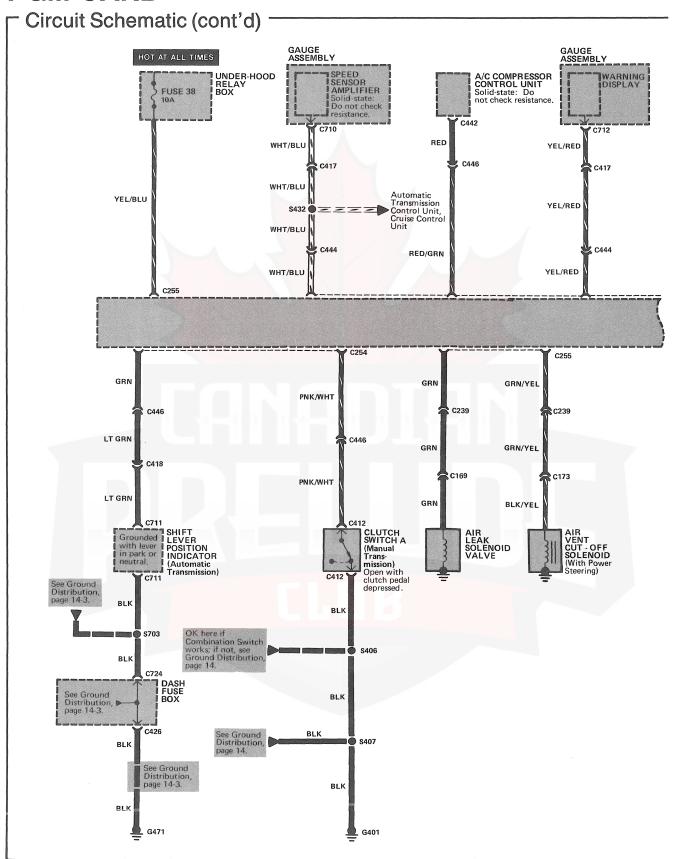
## **PGM-CARB**



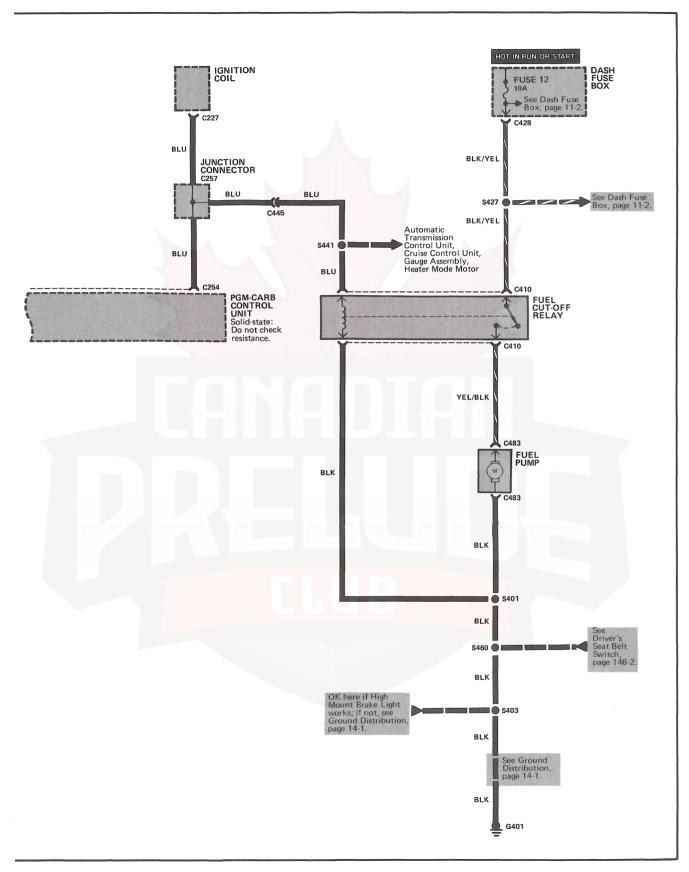




#### **PGM-CARB**







### **PGM-CARB**

Component Location Index	
(Refer to Section 201 for photographs.)	
A/C Compressor Control Unit	Oxygen Sensor
Air Leak Solenoid Valve	PGM-CARB Control Unit 68  Behind right side of dash
Air Suction Control Solenoid Valve 48 In control box	Purge Cut-Off Solenoid Valve
Air Vent Cut-Off Solenoid Rear of engine, near carburetors	Right Primary Slow Mixture Cut-Off Solenoid Valve
Automatic Transmission Control Unit 92 Underside of passenger's footrest	On right carburetor  Speed Sensor Amplifier
Clutch Switch A	Under-Hood Relay Box
Control Box	Right side of engine compartment  Vacuum Piston Control Solenoid Valve 48 In control box
Coolant Temperature Sensor (TW)	Vacuum Switch
Cranking Leak Solenoid Valve 48 In control box	In control box C163 (1-WHT)
Cruise Control Unit	Lower front of engine  C169 (1-BLK)
Dash Fuse Box    70      Behind left side of dash	Top right rear of engine  C170 (1-BLK)
Electronic Air Control Valve (EACV) (PGM-CARB)	Top right rear of engine  C171 (1-BLK)
Fuel Cut-Off Relay	C174 Lower left rear of engine compartment
box Fuel Pump	C175 (1-BLK)  Lower right rear of engine
In fuel tank  Idle Boost Solenoid Valve	C176 (1-BLK)  Lower right rear of engine
Right rear of engine compartment, on firewall  Ignition Coil	C227 (2-WHT)
Right rear of engine compartment  Inner Vent Solenoid Valve49	C230 (3-WHT)
Center rear of engine compartment	C231 (8-WHT)
Intake Air Temperature (TA) Sensor (PGM-CARB)	control box
Top rear of engine  Left Primary Slow Mixture Cut-Off Solenoid	C238 (8-WHT) 56 Right side of engine compartment
Valve On left carburetor	C239 (7-WHT)



C241 (6-YEL)	56
C242 (1-WHT) Right side of engine compartment	
C254 (16-YEL)	68
C255 (16-BLU)	68
C257 (20-GRN)Behind right side of dash	58
C417 (24-WHT)	78
C418 (10-BLU)	78
C426 (7-YEL)	72
C428 (14-YEL)	
C444 (4-WHT)1  Under right side of dash	112
C445 (22-WHT)1 Under right side of dash	112
C446 (23-GRN)Under right side of dash	73
C467 (18-WHT)On automatic transmission control unit	92
C710 (7-WHT), C711 (10-WHT)	81
C712 (14-YEL)	107
C724 (14-WHT)  Behind LH side of dash, on front of dash fuse bo	
G151 On top right front of engine	110
G202	12
G203	16
G401 Behind top center of dash	74
G471	20

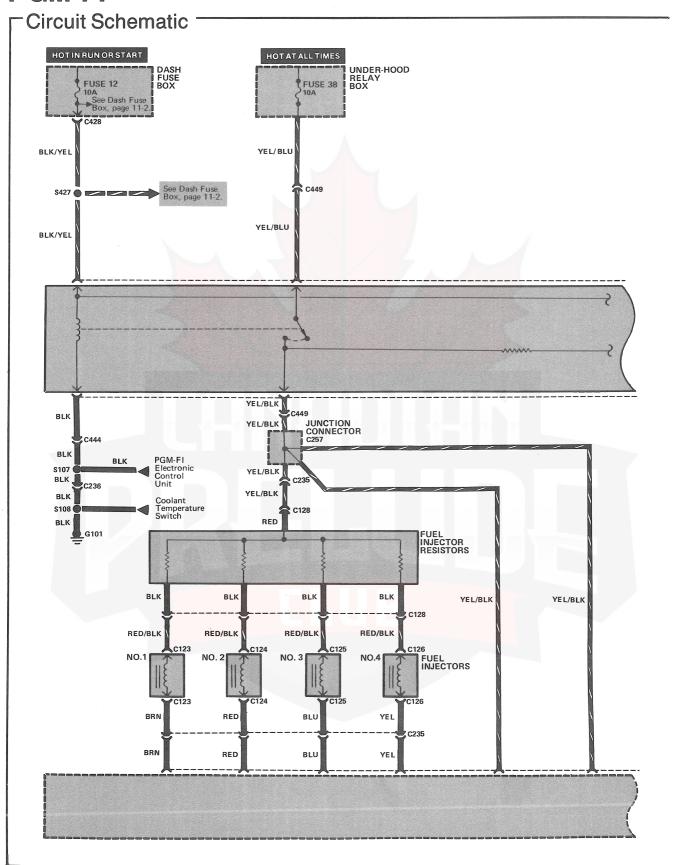
#### How The Circuit Works

The PGM-CARB system provides the correct air-fuel ratio based on engine speed and absolute pressure in the manifold.

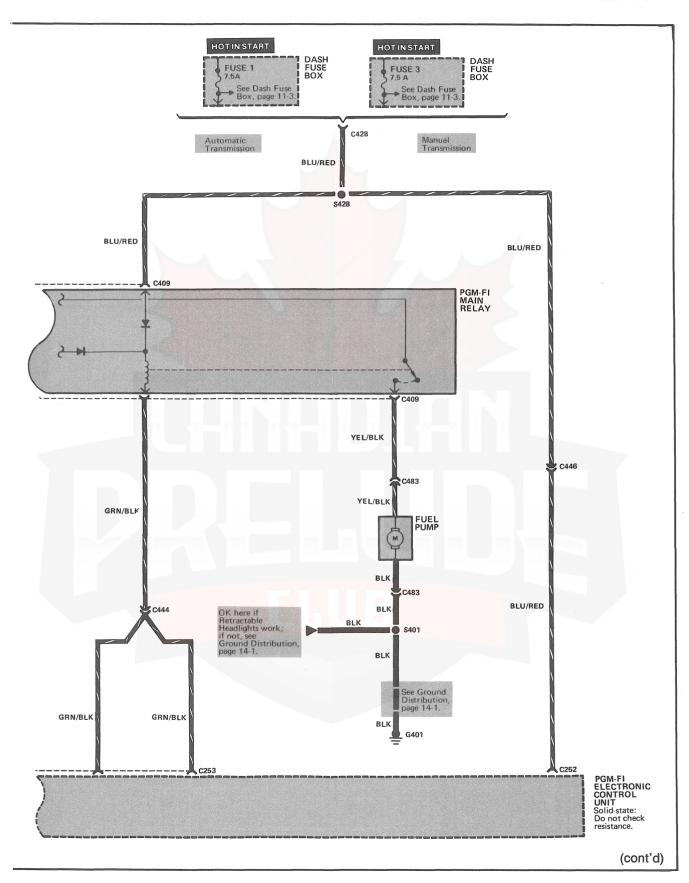
The electronic control unit and various sensors provide extremely accurate control of air-fuel mixture under all operating conditions.

See Section 11 of the Service Manual for circuit description and troubleshooting procedures.

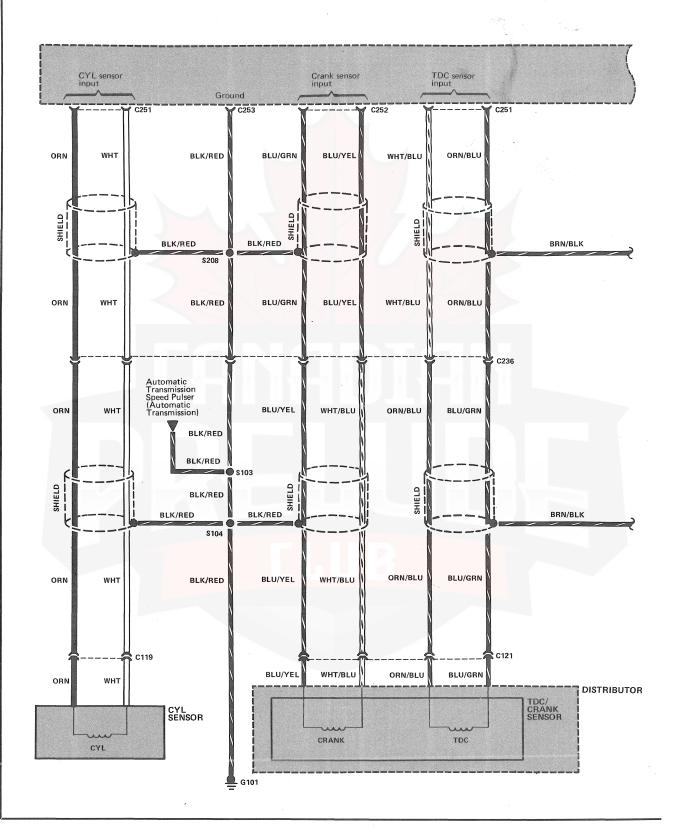




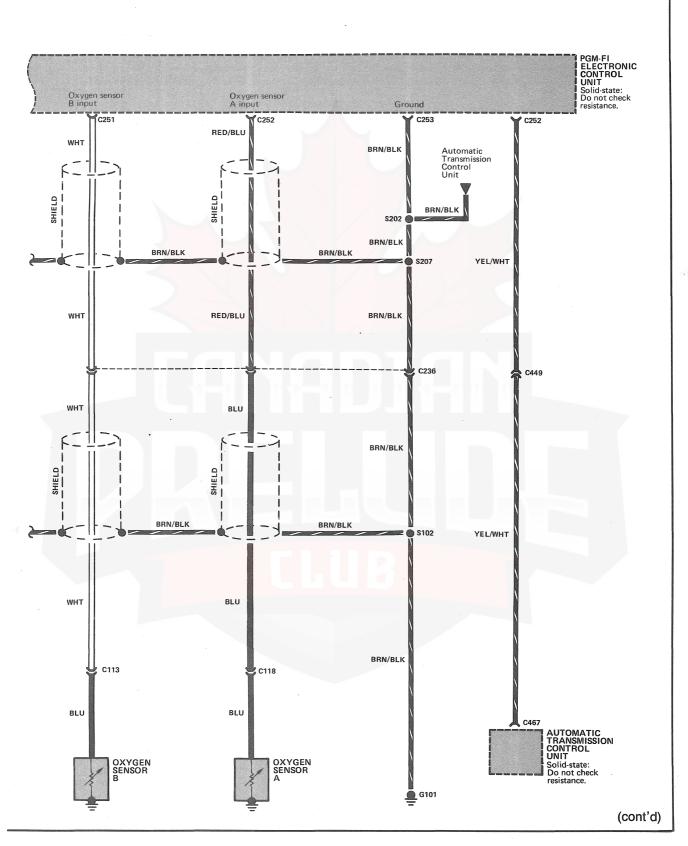


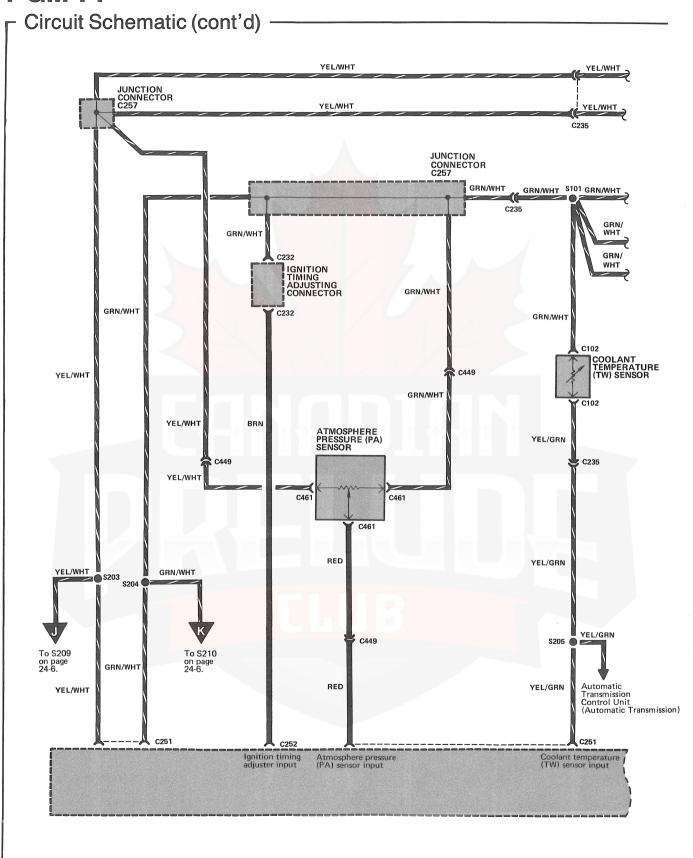


#### - Circuit Schematic (cont'd)

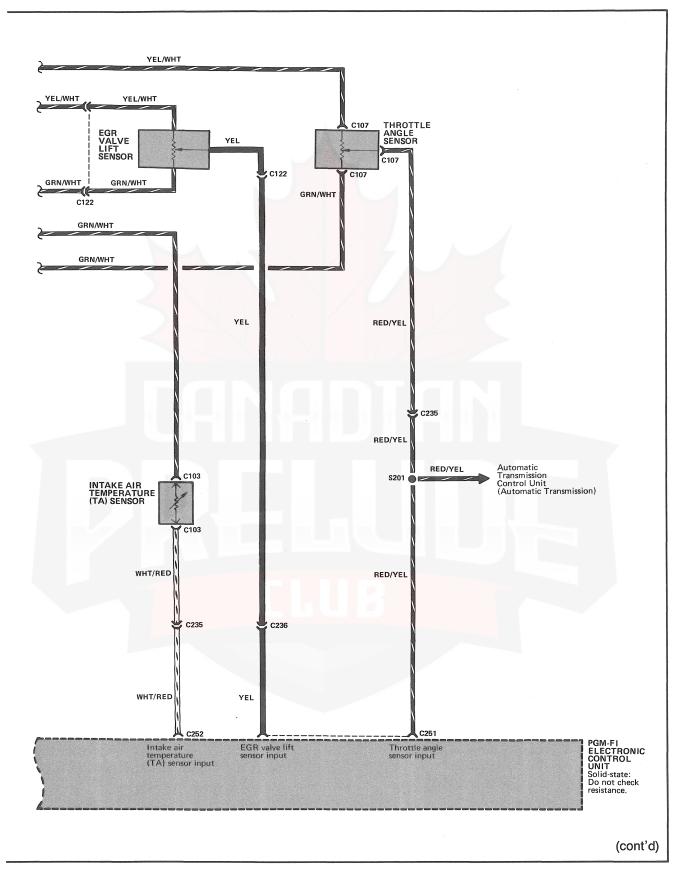




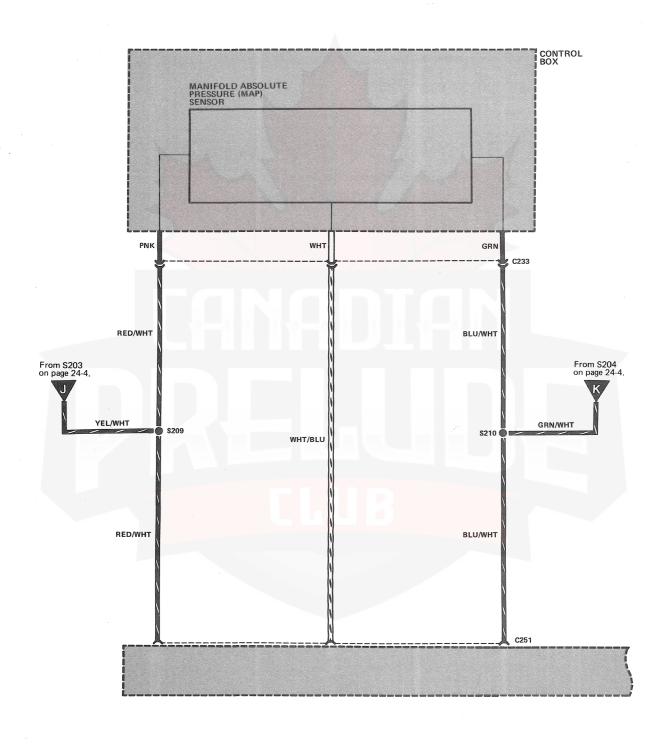




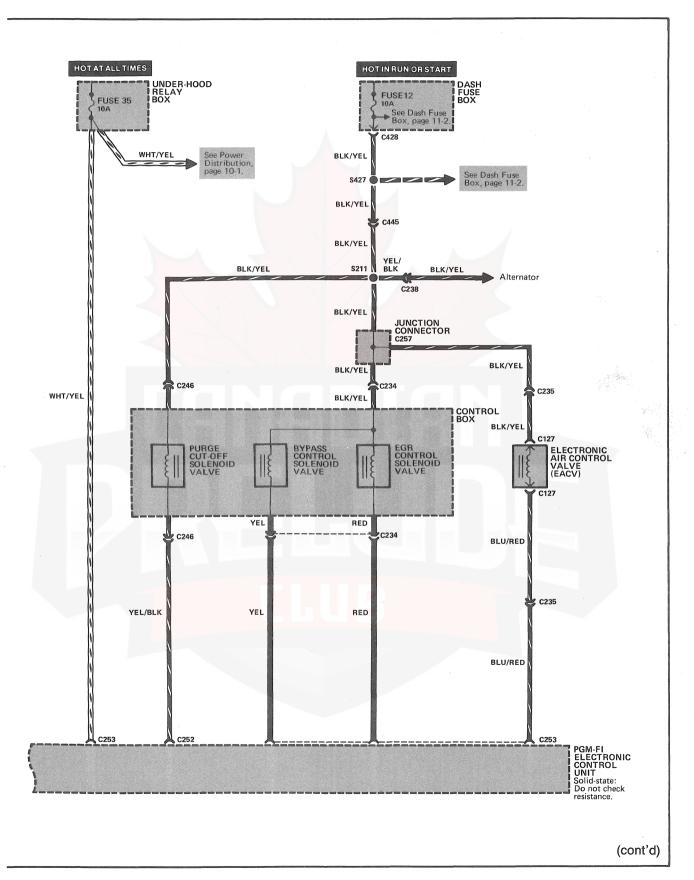




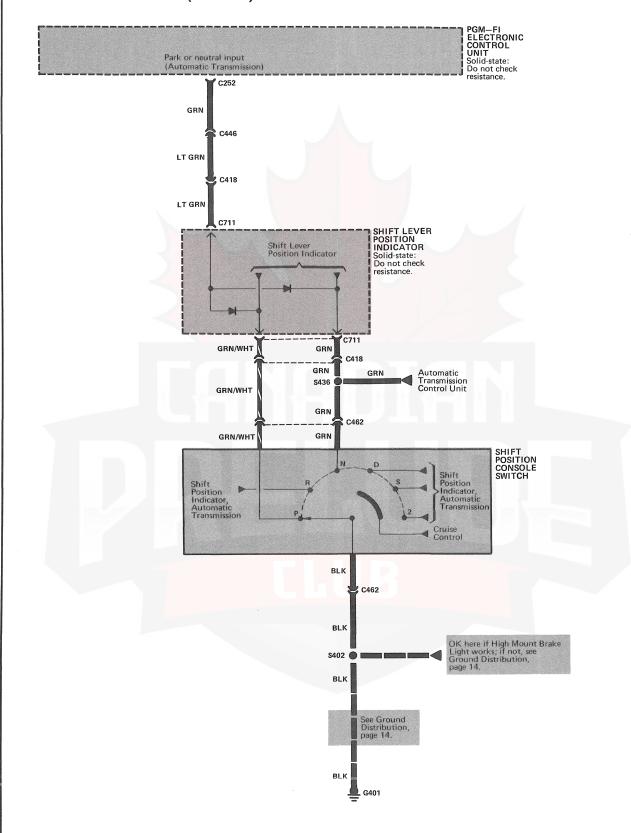
Circuit Schematic (cont'd)



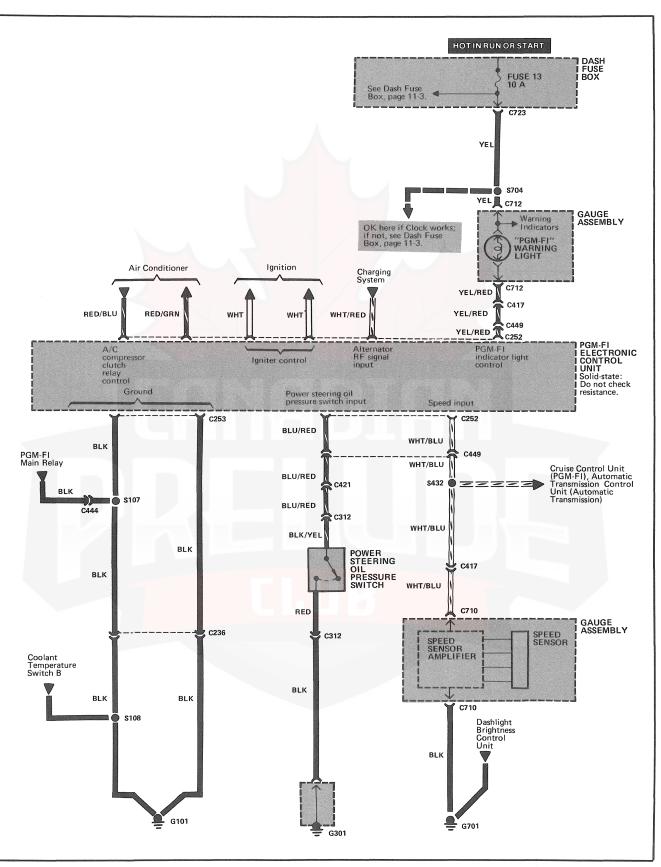




#### Circuit Schematic (cont'd)







Component Location index			
(Refer to Section 201 for photographs.)			
Atmosphere Pressure (PA) Sensor	91	PGM-FI Electronic Control Unit	91
Automatic Transmission Control Unit Underside of passenger's footrest	92	Power Steering Oil Pressure Switch	44
Bypass Control Solenoid Valve	37	Shift Position Console Switch	60
Control Box	36	Speed Sensor Amplifier	07
Coolant Temperature Sensor (TW)	97	TDC/Crank Sensor	99
CYL Sensor	39	Throttle Angle Sensor (PGM-FI)	43
Dash Fuse BoxBehind left side of dash	70	Under-Hood Relay Box	02
Distributor	99	C113 (1-WHT)	7
EGR Control Solenoid Valve	37	C118 (1-GRN)Center front of engine	7
EGR Valve Lift Sensor	18	C119 (2-WHT)	39
Electronic Air Control Valve (EACV) (PGM-FI) Top of engine	40	C121 (4-WHT)  Top right side of engine, near distributor	18
Fuel Injector Resistors	101	C122 (3-WHT)  Top right side of engine, near distributor	18
Fuel Injectors	40	C128 (6-WHT)	01
Fuel Pump In fuel tank	- 1	C232 (2-WHT)	16
Ignition Timing Adjusting Connector In right rear corner of engine compartment	16	C233 (3-WHT)	16
Intake Air Temperature (TA) Sensor (PGM-FI) Left rear of engine	45	C234 (4-WHT)	36
Main Relay		Right rear corner of engine compartment	16
Manifold Absolute Pressure (MAP) Sensor In control box	37	Right rear corner of engine compartment	16
Oxygen Sensor A	7	Right side of engine compartment	56
Center front of engine, on exhaust manifold  Oxygen Sensor B	7	C251 (16-BLK)	61
Center front of engine, on exhaust manifold		C252 (20-BLK)	61



C253 (17-WHT)61 On electronic control unit	
C257 (20-GRN)58  Behind right side of dash	i
C312 (2-GRN)2  Left rear of engine compartment, on strut tower	!
C417 (24-WHT)78  Under left side of dash, right of steering column	j.
C418 (10-BLU)	}
C421 (20-WHT)	
C428 (14-YEL)	!
C444 (4-WHT)112 Under right side of dash	
C445 (22-WHT)	!
C446 (23-GRN)73 Under right side of dash	}
C449 (18-WHT)	
C462 (10-WHT)60 On center of floor, near gear selector	)
C467 (18-WHT)92 On automatic transmission control unit	!
C710 (7-YEL)	
C711 (10-WHT)81 On rear of gauge assembly	
C712 (14-YEL)	•
C723 (4-WHT)94 Under left side of dash, on dash fuse box	-
G101	}
G301	
G401 74 Behind top center of dash	1
G701 75  Behind center dash, on center frame	5

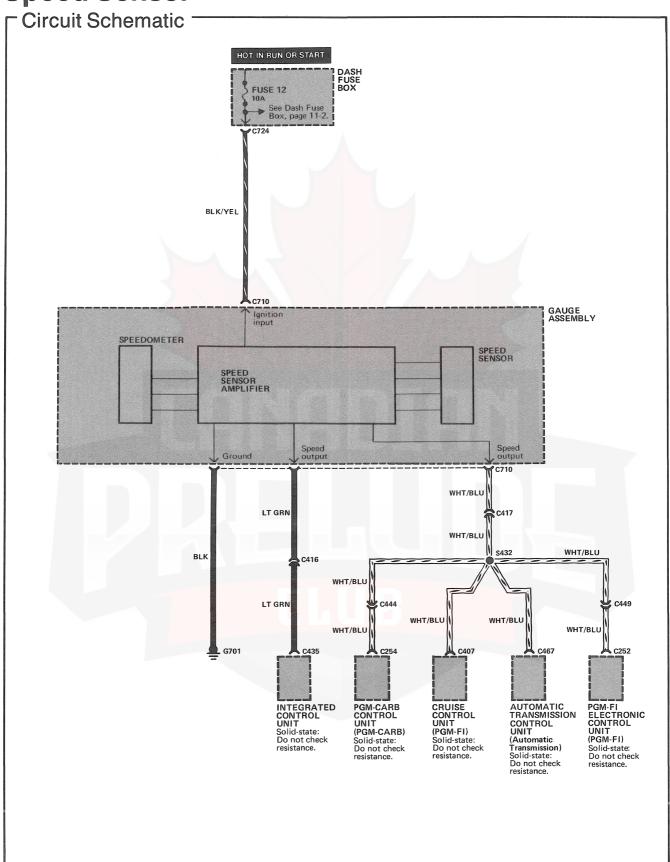
#### **How The Circuit Works**

The PGM-FI system provides the correct air-fuel ratio based on engine speed and absoute pressure in the manifold.

The electronic control unit and various sensors provide extremely accurate control of air-fuel mixture under all operating conditions. At the precise time a piston is on the intake stroke, fuel is injected into the correct intake manifold runner.

See Section 11 of the Service Manual for circuit description and troubleshooting procedures.

# **Speed Sensor**





#### (Refer to Section 201 for photographs.) Automatic Transmission Control Unit . . . . . . . 92 Underside of passenger's footrest Cruise Control Unit . . . . . . . . . . . . . . . . 62 On left kick panel Dash Fuse Box..... 70 Behind left side of dash Integrated Control Unit . . . . . . . . . . . . . . . 64 Behind center of dash PGM-CARB Control Unit . . . . . . . . . . . . 68 Behind right side of dash PGM-FI Electronic Control Unit...............................91 Underside of passenger's footrest On rear of gauge assembly C252 (20-BLK) . . . . . . . . . . . 61 On electronic control unit C254 (16-YEL) . . . . . . . . . . . . . . . . . . 68 On PGM-CARB control unit Under left side of dash, right of steering column Under left side of dash, right of steering column C435 (16-BLU) . . . . . . . . . . . . . . . . . . 64 Behind center of dash, on integrated control unit Under right side of dash C449 (18-WHT).....112 Under right side of dash C467 (18-WHT)......92

On automatic transmission control unit

Behind center dash, on center frame

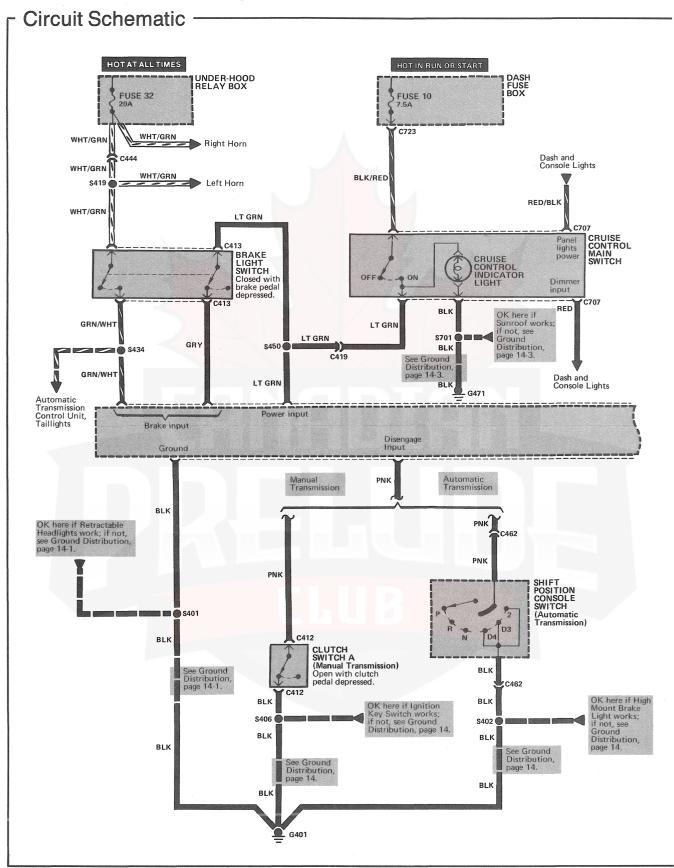
On rear of gauge assembly

Behind LH side of dash, on front of dash fuse box 

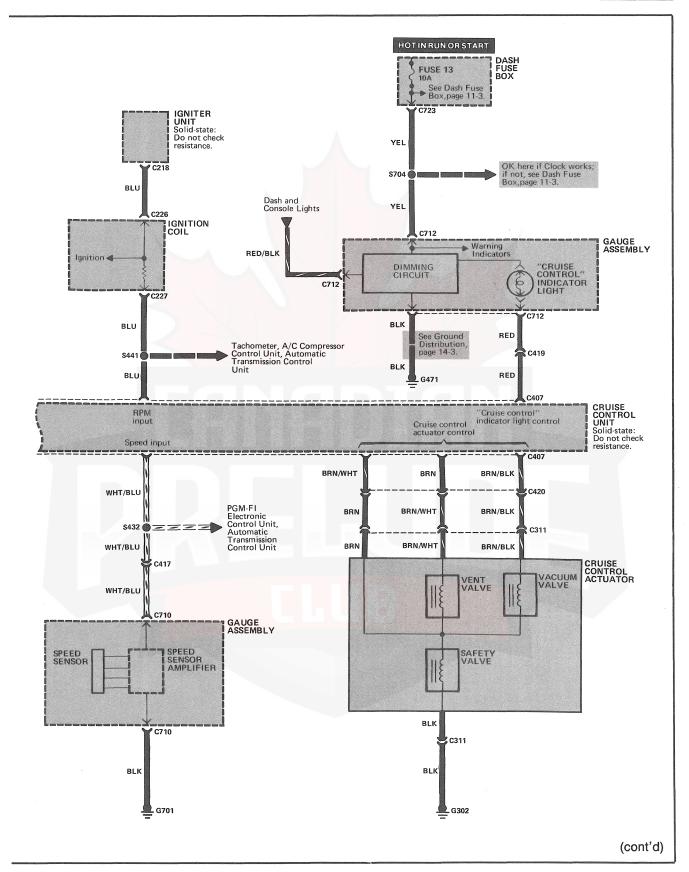
The speed sensor generates a signal that indicates the speed of the car. The speed sensor amplifier receives this signal and applies it to the integrated control unit and other equipped control units. This signal is then used by each control unit to perform the necessary functions required by each circuit.



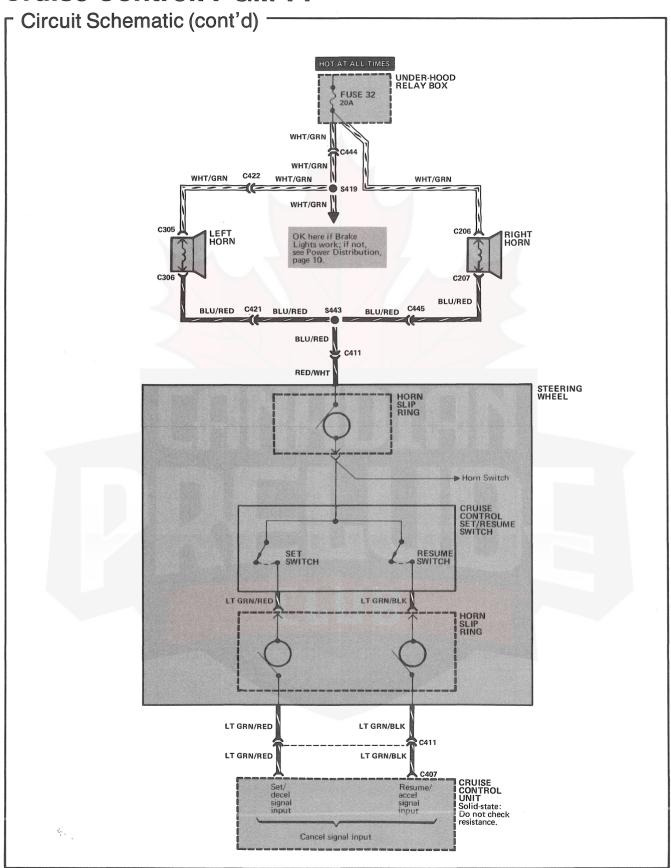
#### **Cruise Control: PGM-FI**







#### **Cruise Control: PGM-FI**





# **Component Location Index**

(Refer to Section 201 for photographs.)	
Brake Light Switch	86
Clutch Switch A	86
Cruise Control Actuator	5
Cruise Control UnitOn left kick panel	62
Dash Fuse BoxBehind left side of dash	70
Horn Slip Ring On underside of steering wheel	
Igniter Unit (PGM-FI)	102
Ignition Coil	15
Left Horn Behind left side of front bumper	54
Right Horn	52
Shift Position Console Switch	60
Speed Sensor Amplifier	
Under-Hood Relay Box	102
C206 (1-BLK)	52
C207 (1-BLK)	52
C226 (2-WHT)	15
C227 (2-WHT)	15
C305 (1-BLK)	54

C306 (1-BLK)	54
C311 (4-WHT)	5
C411 (14-GRN)Behind left side of dash	70
C417 (24-WHT)Under left side of dash, right of steering column	78
C419 (8-WHT)	78
C420 (13-WHT)Behind left kick panel	71
C421 (20-WHT)	71
C422 (4-WHT)	71
C444 (4-WHT)	12
C445 (22-WHT)	12
C462 (10-WHT)On center of floor, near gear selector	60
C710 (7-YEL)	81
C712 (14-YEL)	07
C723 (4-WHT)	94
G302	14
G401 Behind top center of dash	74
G471	20
G701	75

#### **Cruise Control**

#### How The Circuit Works

The cruise control system uses mechanical, electrical, and vacuum operated devices to maintain vehicle speed at a setting selected by the driver.

#### **System Description**

The cruise control unit receives command signals from the cruise control main switch and the cruise control set/resume switch. The cruise control unit receives information about operating conditions from the brake switch, the distributor, the speed sensor, the clutch switch (manual transmission), or the shift position console switch (automatic transmission). The cruise control unit sends operational signals to the cruise control actuator valves that regulate the throttle position. The throttle position maintains the selected vehicle speed. Essentially, the control unit compares the actual speed of the vehicle to the selected speed. Then, the control unit uses the result of that comparison to open or close the throttle.

The brake switch releases the system's control of the throttle at the instant the driver depresses the brake pedal. The switch sends an electronic signal to the control unit when the brake pedal is depressed; the control unit responds by allowing the throttle to close. The clutch switch (manual transmission) or the shift position console switch (automatic transmission) sends a disengage signal input to the control unit that also allows the throttle to close.

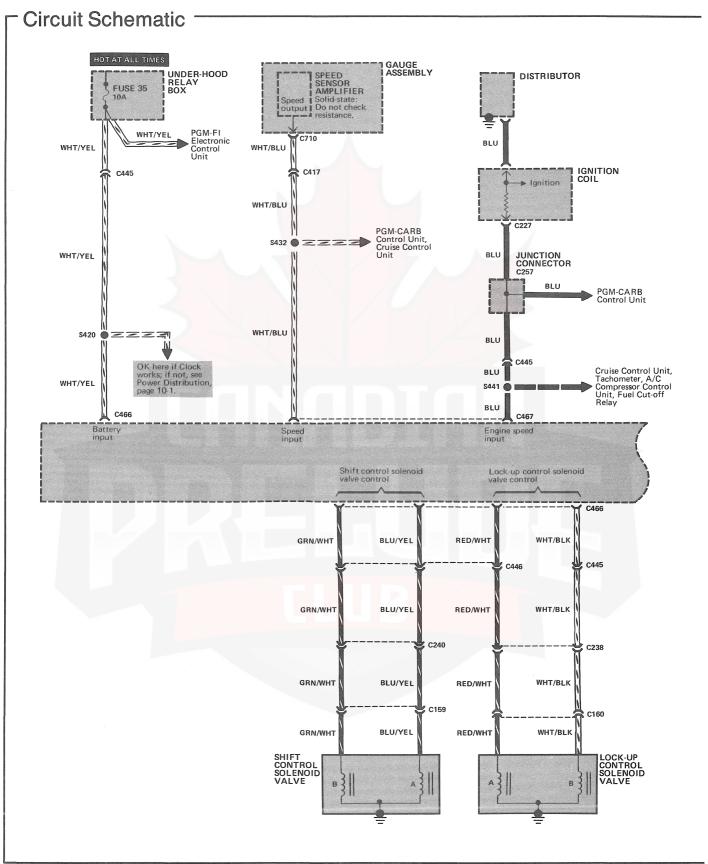
The cruise control system will set and automatically maintain any speed above 30 mph (45 kph). To set, make sure that the main switch is ON. After reaching the desired speed, press the set switch. The cruise control unit receives a set signal input and, in turn, actuates the cruise control vacuum valves.

When the set switch is depressed and the cruise control system is on, the "Cruise Control" indicator on the warning display lights up.

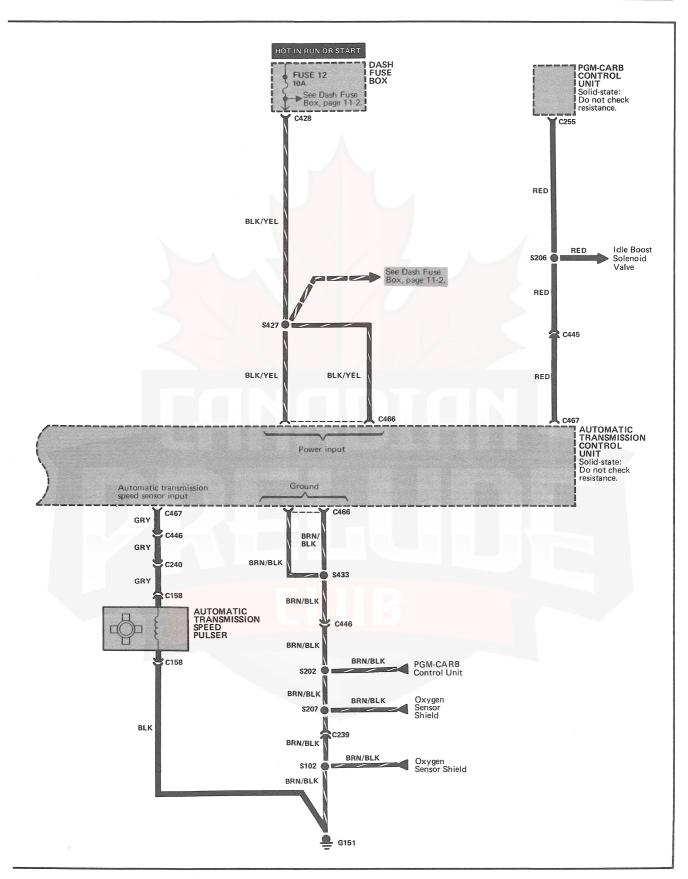
You can cancel the cruise control system by pushing the main switch off. This removes power to the control unit and erases the set speed from memory. If the system is disengaged temporarily by the brake switch, clutch switch, or shift position console switch and vehicle speed is still above 30 mph, press the resume switch. With the resume switch depressed and the set memory retained, the vehicle automatically returns to the previously set speed.

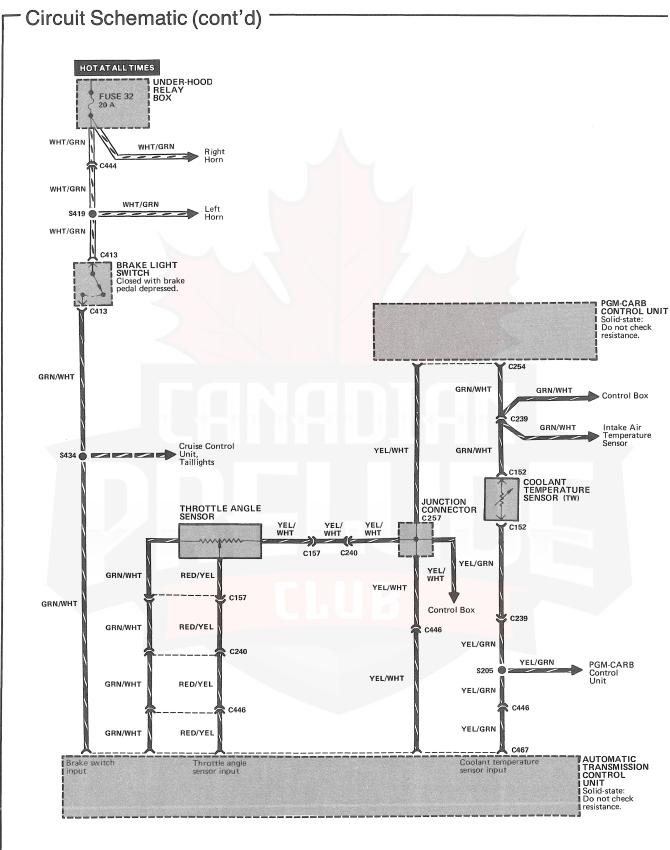
For gradual acceleration without depressing the accelerator pedal, push the resume switch down and hold it there until the desired speed is reached. This will send an acceleration signal input to the control unit. When the switch is released, the system will be reprogrammed for the new speed. To slow the vehicle down, depress the set switch. This sends a deceleration signal input to the control unit causing the vehicle to coast until the desired speed is reached. When the desired speed is reached, release the set switch. This reprograms the system for the new speed.



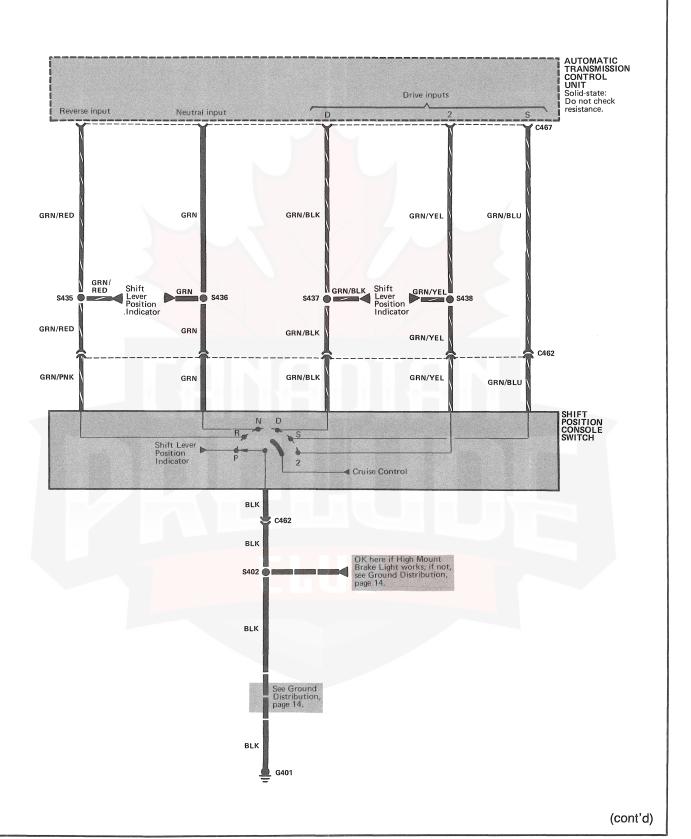


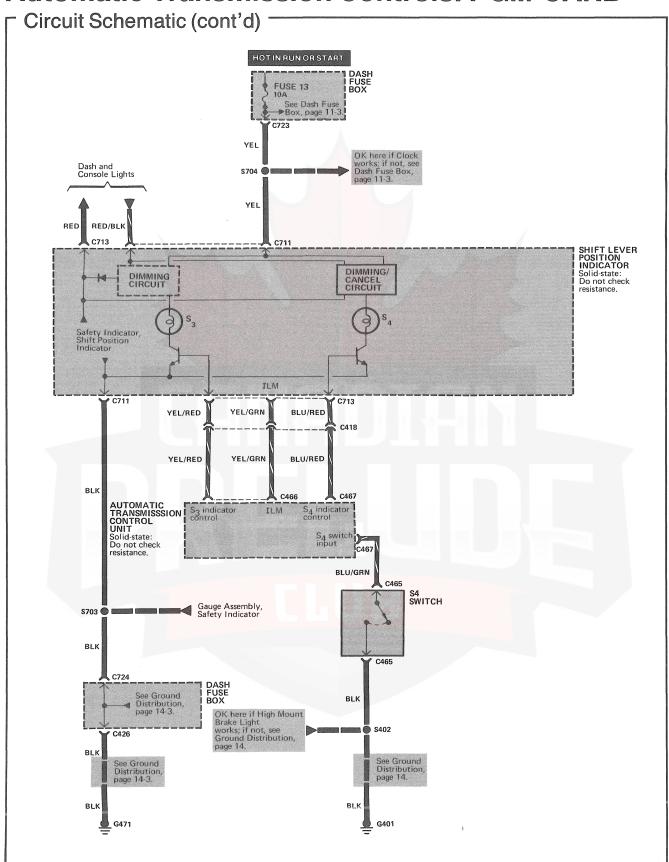














# **Component Location Index**

(Refer to Section 201 for photographs.)
Automatic Transmission Control Unit 92 Underside of passenger's footrest
Automatic Transmission Speed Pulser 41 On right side of transmission
Brake Light Switch
Coolant Temperature Sensor (TW) 97 Top right front of engine
Dash Fuse Box
Distributor
Ignition Coil
Lock-Up Control Solenoid Valve
PGM-CARB Control Unit
Shift Control Solenoid Valve
Shift Position Console Switch 60 In console, below shift lever
Speed Sensor Amplifier
Throttle Angle Sensor (PGM-CARB) On right carburetor
Under-Hood Relay Box
C157 (3-WHT) Center rear of engine

C158 (2-WHT)Lower right side of engine	41
C159 (2-WHT)Lower right front of engine	42
C160 (2-WHT)Lower right front of engine	42
C238 (8-WHT)	56
C239 (7-WHT)	56
C240 (6-WHT)	56
C254 (16-YEL)	68
C255 (16-BLU)	68
C257 (20-GRN)Behind right side of dash	58
C417 (24-WHT)	78
C418 (10-BLU)	78
C426 (7-YEL)	72
C428 (14-YEL)	72
C444 (4-WHT)	112
C445 (22-WHT)	112

Component Location Index -	
• • • • • • • • • • • • • • • • • • •	
(Refer to Section 201 for photographs.)	
C446 (23-GRN)	73
C462 (10-WHT)On center of floor, near gear selector	60
C466 (12-WHT)	92
C467 (18-WHT)On automatic transmission control unit	92
C710 (7-YEL)	81
C711 (10-WHT)On rear of gauge assembly	81
C713 (16-YEL)	81
C723 (4-WHT)	94
C724 (14-WHT)Behind LH side of dash, on front of dash fuse bo	80 ×
G151 On top right front of engine	110
G401 Behind top center of dash	74
G471 Behind right side of rear seat	20

#### **How The Circuit Works**

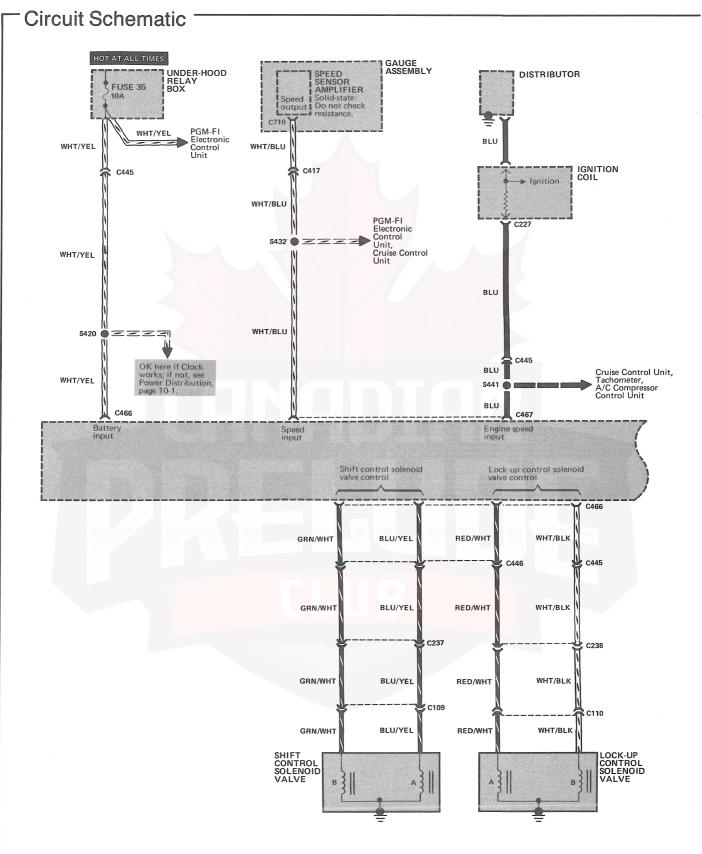
The automatic transmission is a combination of a three element torque converter and a dual-shaft electronically controlled automatic transmission which provides four forward speeds and one reverse speed. The entire unit is positioned in line with the engine.

The electronic control system consists of an automatic transmission control unit, sensors, and four solenoid valves. Shifting and lock-up are electronically controlled for comfortable driving under all conditions.

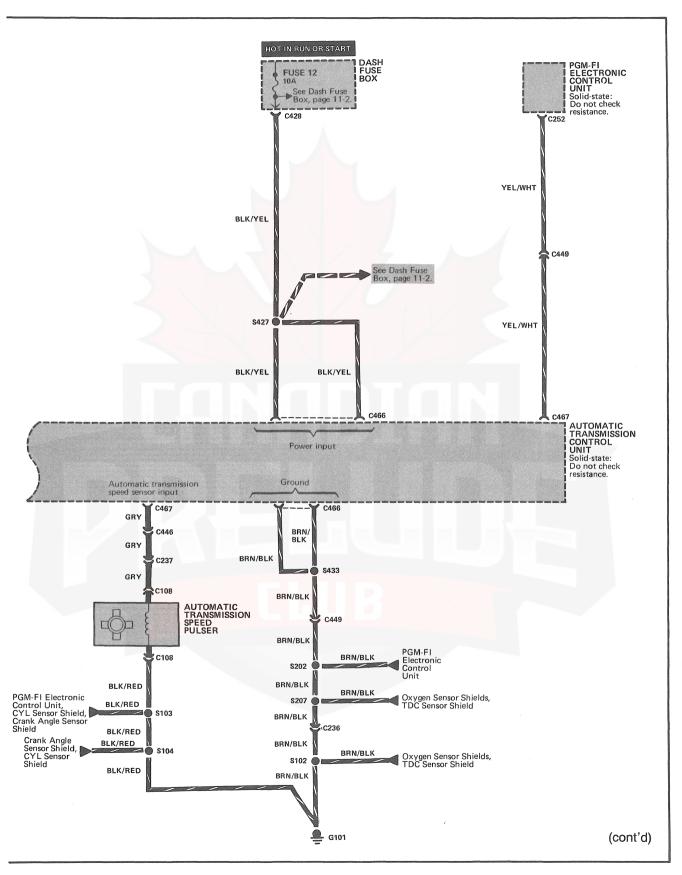
See Section 14 of the Service Manual for circuit description and troubleshooting procedures.

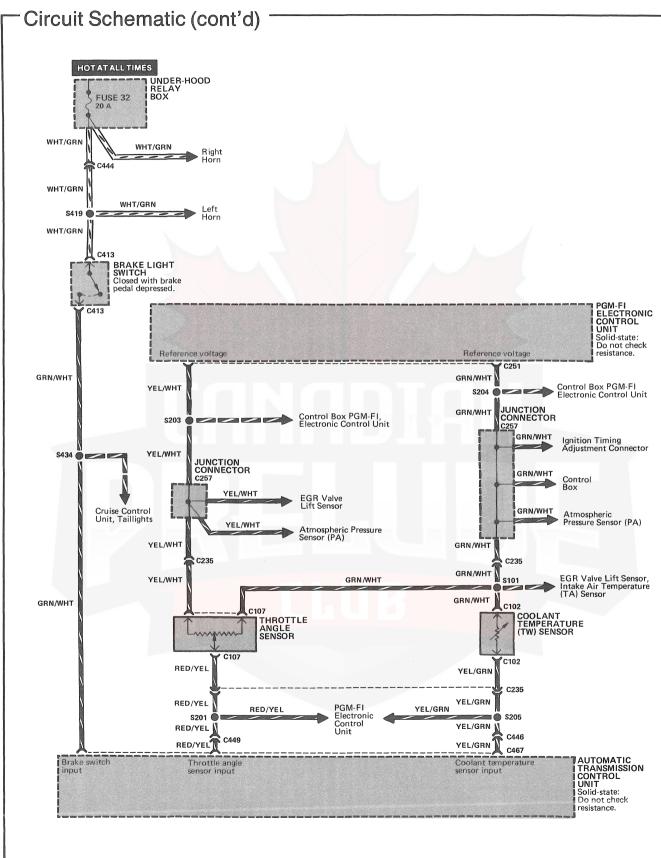


# CANADIAN PRELIUB

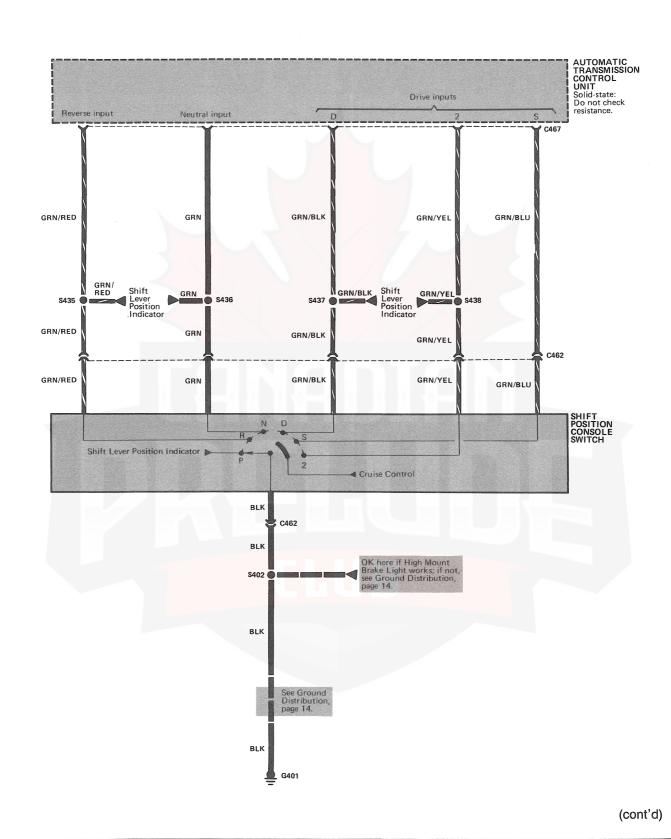




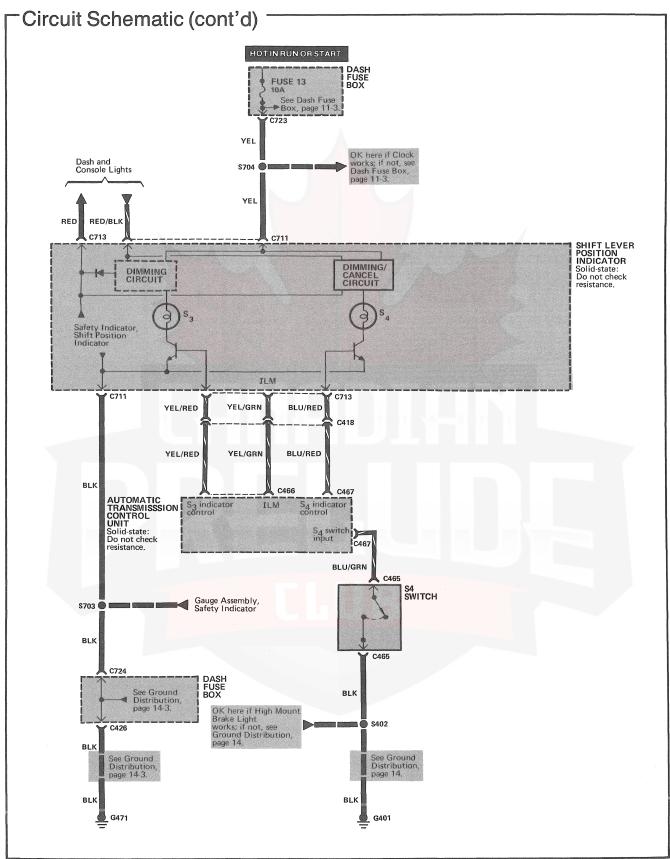








# **Automatic Transmission Controls: PGM-FI**





# **Component Location Index**

## (Refer to Section 201 for photographs.) Automatic Transmission Control Unit . . . . . . . 92 Underside of passenger's footrest Automatic Transmission Speed Pulser . . . . . . 41 On right side of transmission Top of brake pedal support Coolant Temperature Sensor (TW) . . . . . . . . . 97 Top right front of engine Behind left side of dash Top right side of engine Right rear of engine compartment Lock-Up Control Solenoid Valve . . . . . . . . . . . . 103 Right front of transmission PGM-FI Electronic Control Unit...............................91 Underside of passenger's footrest Right front of transmission Shift Position Console Switch . . . . . . . . . . 60 In console, below shift lever On rear of gauge assembly Throttle Angle Sensor (PGM-FI) . . . . . . . . . 43 Top rear of engine Right side of engine compartment Lower right side of engine

C109 (2-WHT)Lower right front of engine	42
C110 (2-WHT)Lower right front of engine	42
C227 (2-WHT)	15
C235 (14-WHT)	16
C236 (14-WHT)Right rear corner of engine compartment	16
C237 (3-WHT)	13
C238 (8-WHT)	56
C251 (16-BLK)	61
C252 (20-BLK)	61
C257 (20-GRN)Behind right side of dash	58
C417 (24-WHT)	78
C418 (10-BLU)	78
C426 (7-YEL)	72
C428 (14-YEL)  On rear of dash fuse box	72
C444 (4-WHT)	112

# **Automatic Transmission Controls: PGM-FI**

# THow The Circuit Works

The automatic transmission is a combination of the element torque converter and a dual-shaft electronically controlled automatic transmission which provides four forward speeds and one reverse speed. The entire unit is positioned in line with the engine.

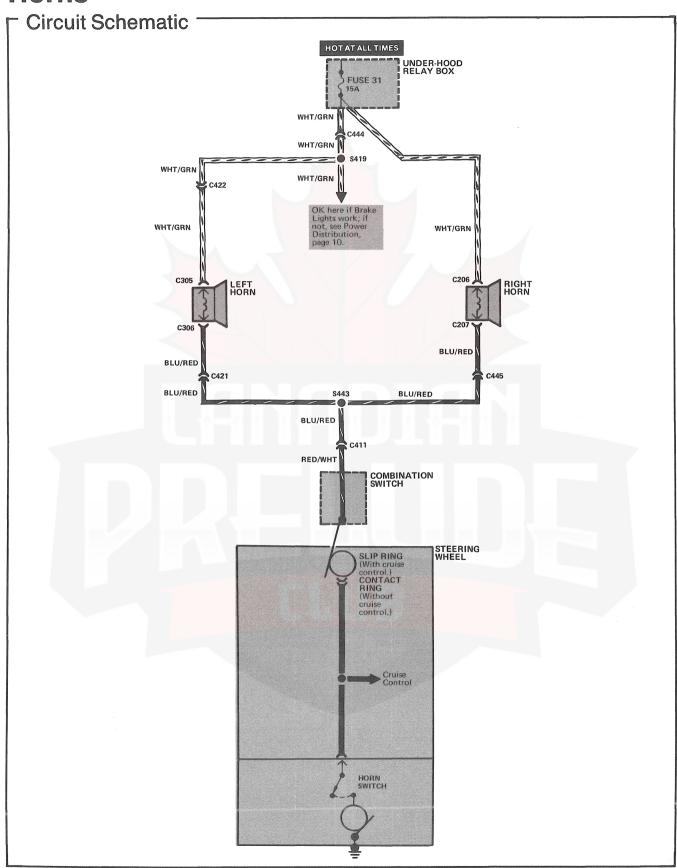
The electronic control system consists of an automatic transmission control unit, sensors, and four solenoid valves. Shifting and lock-up are electronically controlled for comfortable driving under all conditions.

See Section 14 of the Service Manual for circuit description and troubleshooting procedures.

39-14



# Horns



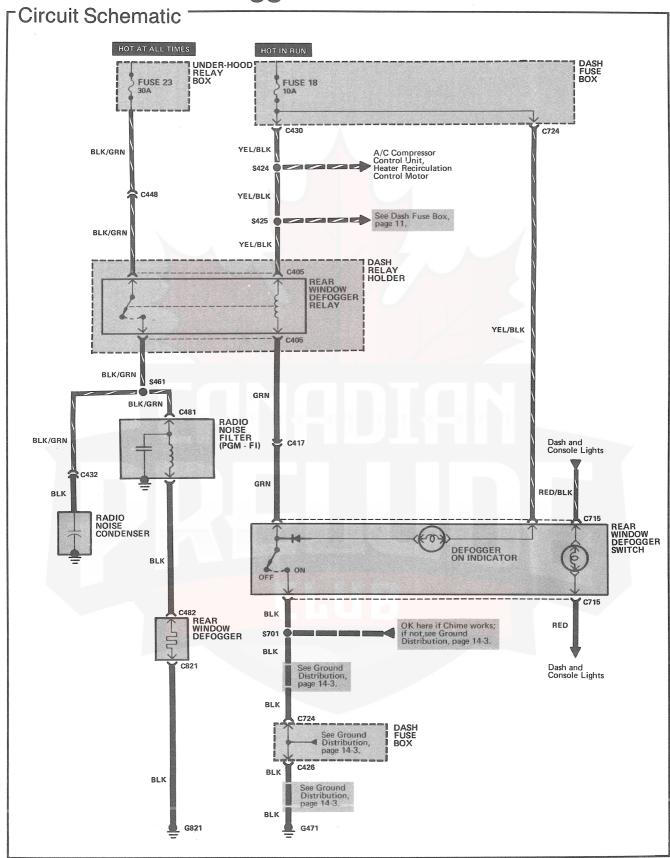


Component Location Index -	
Component Location Index - (Refer to Section 201 for photographs.)	
<b>Left Horn</b>	54
Under-Hood Relay Box	102
C206 (1-BLK)	52
C207 (1-BLK)	52
C305 (1-BLK)	54
C306 (1-BLK)	54
C411 (14-GRN)Behind left side of dash	70
C421 (20-WHT)	71
C422 (4-WHT)	71
C444 (4-WHT)	112
C445 (22-WHT)	112

# How The Circuit Works

Voltage is applied at all times through fuse 32 to the left and right horns. The circuit continues from the horns to the slip ring or contact ring and to the horn switch. When the horn switch is closed, the cirucit path is completed to ground: The horns sound.

# **Rear Window Defogger**

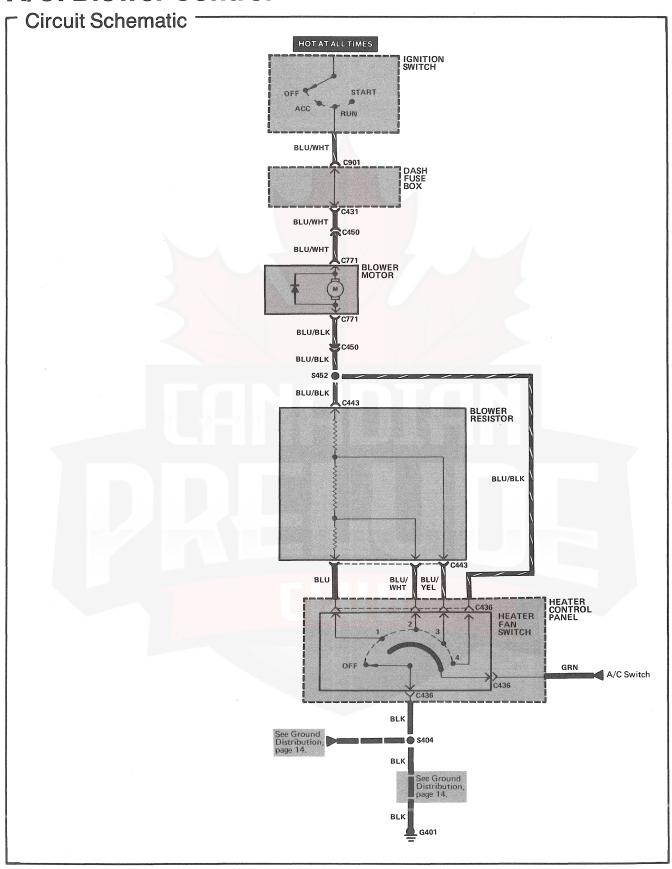


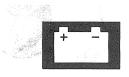
# (Refer to Section 201 for photographs.) Dash Fuse Box..... 70 Behind left side of dash Behind left side of dash Radio Noise Condenser Below left side of dash, on kick panel Right rear of trunk Rear Window Defogger Relay . . . . . . . . . . . . 98 Behind left side of dash, on relay holder Right side of engine compartment Under left side of dash, right of steering column On rear of dash fuse box On rear of dash fuse box C432 (1-BLK) At left kick panel Under right side of dash C724 (14-WHT)......80 Behind LH side of dash, on front of dash fuse box Behind right side of rear seat Behind left side of rear seat

Voltage is applied at all times through fuse 23 to the rear window defogger relay. With the ignition switch in RUN, voltage is applied through fuse 18 to the rear window defogger relay coil and the defogger ON indicator.

When you turn the rear window defogger switch to ON, a path to ground is provided for the rear window defogger relay coil and the defogger ON indicator. The defogger ON indicator lights up and the rear window defogger relay contact closes. Voltage is applied to the defogger grid on the surface of the rear window: The grid heats the rear window to remove any fog from the glass.

# A/C: Blower Control





# Component Location Index (Refer to Section 201 for photographs.)

Blower Motor	93
Blower Resistor	90
Dash Fuse BoxBehind left side of dash	70
Ignition Switch	87
C431 (4-YEL)	72
C450 (2-WHT)	93
C901 (7-WHT)	80
G401	74

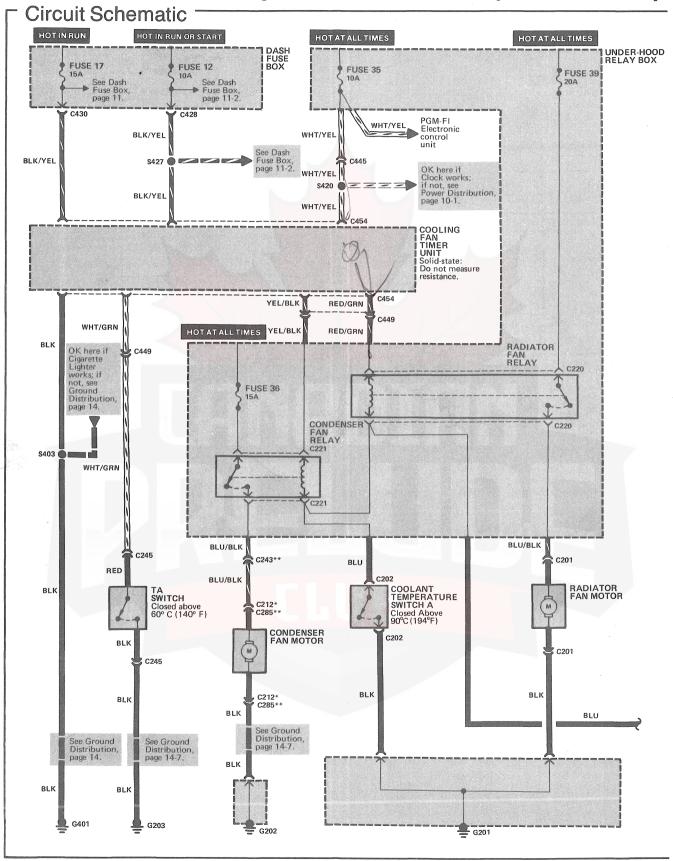
# How The Circuit Works

The blower motor speed is controlled by the heater fan switch in the heater control panel. With the ignition switch in RUN and the heater fan switch in position 1, all the blower resistors are in the circuit with the motor so the motor runs slowly. In positions 2 and 3, the heater fan switch bypasses some of the resistors, increasing the speed of the blower motor.

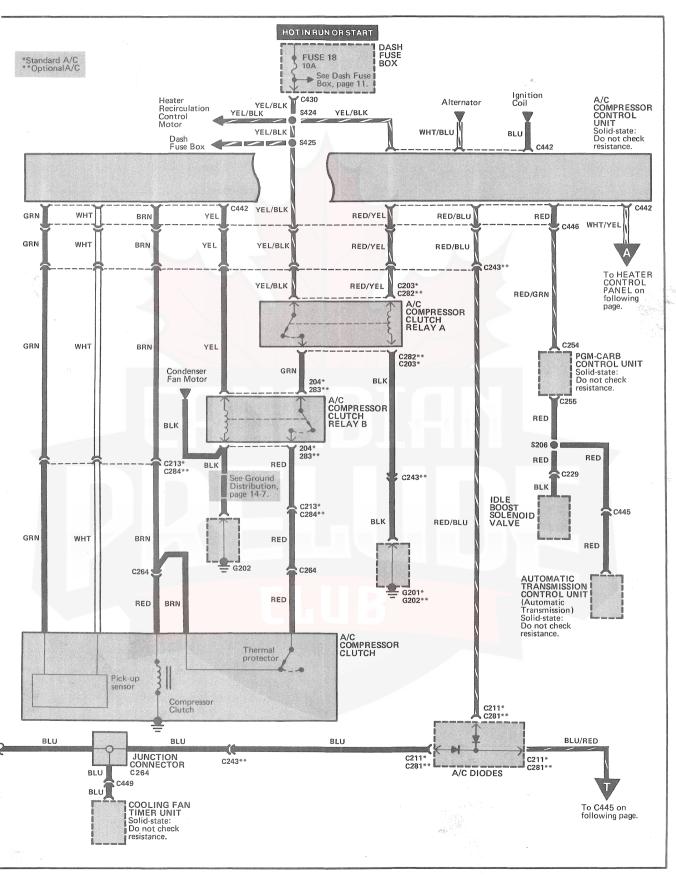
When the heater fan switch is in position 4, all the blower resistors are bypassed and full battery voltage is applied across the blower motor: The motor runs at maximum speed.

With the heater fan switch off the circuit is open and no voltage is applied across the blower motor. The motor does not run.

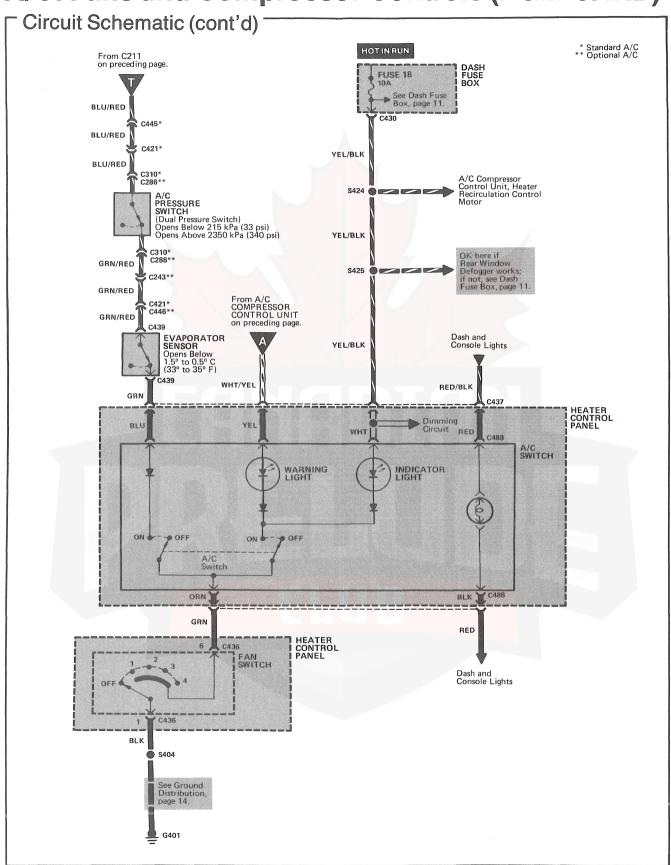
# A/C: Fans and Compressor Controls (PGM-CARB)







# A/C: Fans and Compressor Controls (PGM-CARB)





# **Component Location Index**

(Refer to Section 201 for photographs.)	
A/C Compressor Clutch	17
A/C Compressor Clutch Relay A Right front corner of engine compartment	89
A/C Compressor Clutch Relay B Right front corner of engine compartment	89
A/C Compressor Control Unit	90
A/C Diodes	38
A/C Pressure Switch	5 on
Condenser Fan MotorLeft rear of radiator	95
Condenser Fan Relay	96
Coolant Temperature Switch A On radiator, below coolant fan	47
Cooling Fan Timer Unit	85
Dash Fuse BoxBehind left side of dash	70
Evaporator Sensor	65
Idle Boost Solenoid Valve	105
PGM-CARB Control Unit	68
Radiator Fan Motor	9
Radiator Fan Relay	96
TA SwitchOn firewall, left of control box	105
Under-Hood Relay Box	102

C201 (2-WHT)	)
C212 (2-GRN)95 Lower left front of engine compartment	;
C213 (4-WHT)  Lower left front of engine compartment, near A/C compressor	
C229 (2-WHT)	,
C243 (14-WHT)	3
C245 (2-GRN)	>
C254 (16-YEL)	3
C255 (16-BLU)	3
C284 (2-WHT) Lower left front of engine compartment, near A/C compressor	
C285 (2-GRN). 95  Lower left front of engine compartment	5
C286 (2-WHT)	5
C310 (2-WHT)	5
C421 (20-WHT)7  Behind left kick panel	1
C428 (14-YEL)	2
C430 (10-YEL)	2
C445 (22-WHT)	2

# A/C: Fans and Compressor Controls (PGM-CARB)

Component Location Index (Refer to Section 201 for photographs.)
C446 (23-GRN)
C449 (18-WHT)
G201
G202
G203

Behind top center of dash

# How The Circuit Works

### Fans

The cooling fan timer unit operates the radiator and condenser fans according to the temperature of the engine coolant. Both fans are turned on when the coolant temperature rises above 194°F (90°C) and are turned off when the coolant temperature falls below 181°F (83°C). If the engine coolant temperature is above 226°F (108°C) when the ignition is turned off, the cooling fan timer will run the condenser fan for a maximum of 15 minutes or until the engine coolant temperature drops to 214°F (101°C). The cooling fan timer unit controls the fans by operating the radiator and condenser fan relays.

Closure of coolant temperature switch A initiates the operation of both fans at 194°F (90°C). Closure of coolant temperature switch B affects only the condenser fan and is used for initiating operation of the condenser fan at ignition turn-off.

### **Compressor Control**

When the A/C switch and the blower switch are turned on, a ground is applied from the heater control panel through the evaporator sensor, the A/C pressure switch and the A/C diodes to the cooling fan timer unit and the PGM-FI electronic control unit. The cooling fan timer unit energizes both fans. The electronic control unit increases the engine idle speed and signals the A/C compressor control unit to operate compressor clutch relays A and B, which will engage the A/C compressor clutch.

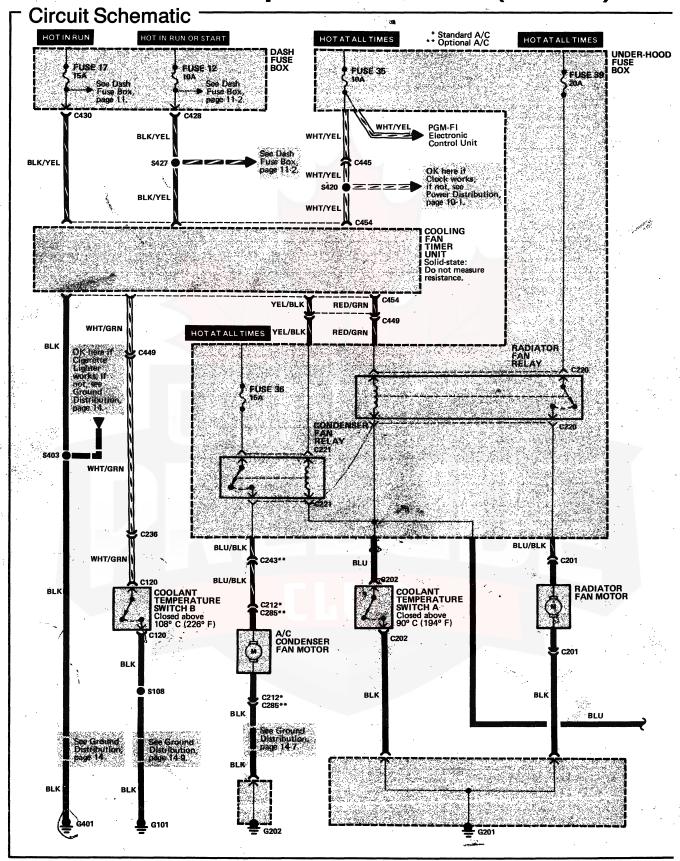
When the evaporator temperature drops below 37°F (3°C), the evaporator sensor opens its contacts, removing the ground from the cooling fan timer and electronic control unit. Both cooling fans and the A/C compressor clutch are de-energized until the evaporator temperature rises to a point where additional cooling is required. The evaporator sensor then closes its contacts and the cycle is repeated.

If refrigerant pressure becomes too high due to blockage or too low due to leakage, the A/C pressure switch contacts open, which interrupts the ground signal and prevents the air conditioning system from operating.

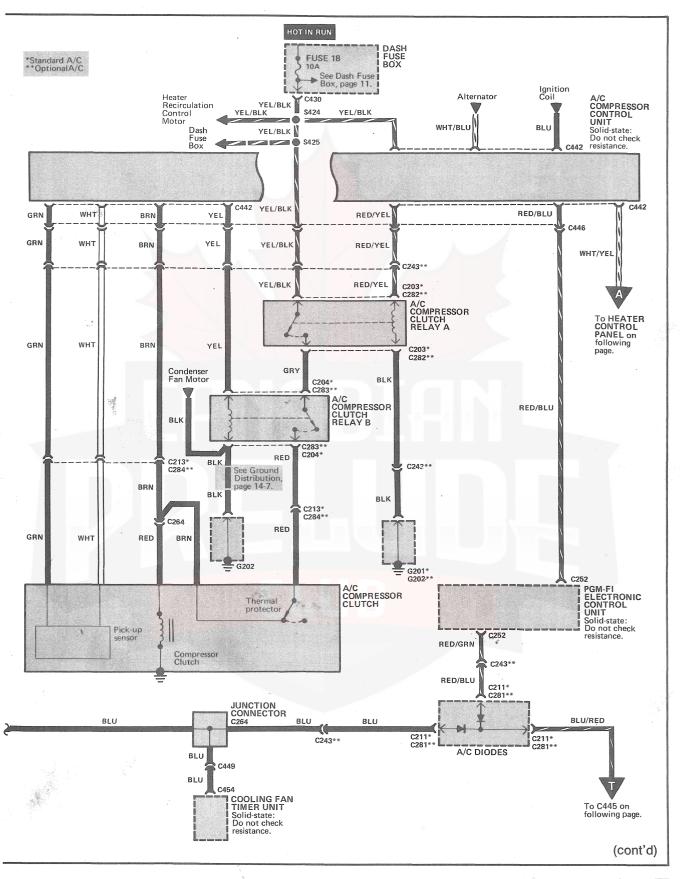


# EANADIAN PRELIUB LUB

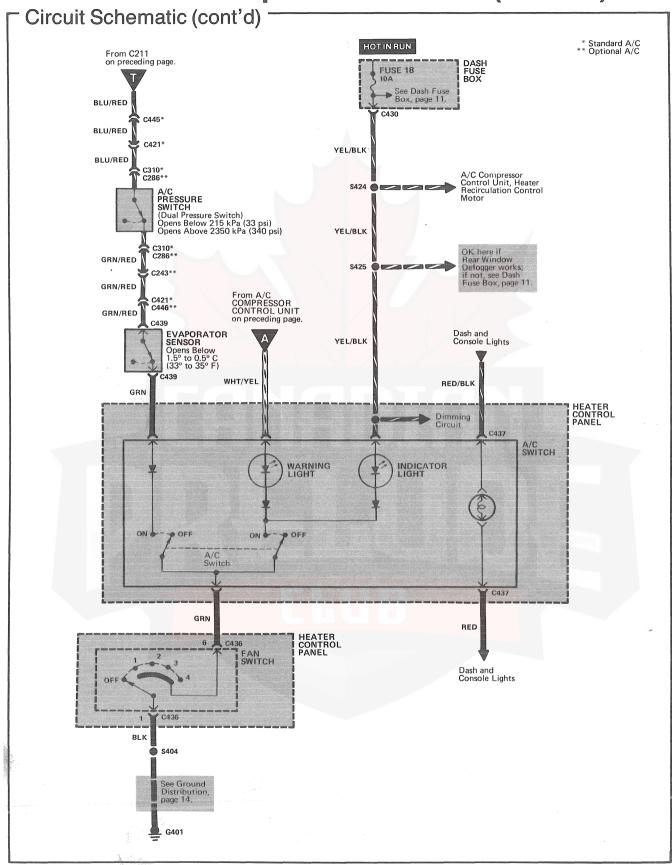
# A/C: Fans and Compressor Controls (PGM-FI)







# A/C: Fans and Compressor Controls (PGM-FI)





# Component Location Index

(Refer to Section 201 for photographs.)	
A/C Compressor Clutch	17
A/C Compressor Clutch Relay A Right front corner of engine compartment	89
A/C Compressor Clutch Relay B Right front corner of engine compartment	89
A/C Compressor Control Unit	90
A/C Diodes	38
Condenser Fan MotorLeft rear of radiator	95
Condenser Fan Relay	96
Coolant Temperature Switch A On radiator, below coolant fan	47
Coolant Temperature Switch B	97
Cooling Fan Timer UnitBelow right side of dash, on kick panel	85
Dash Fuse BoxBehind left side of dash	70
Evaporator Sensor	65
PGM-FI Electronic Control Unit Underside of passenger's footrest	91
Radiator Fan Motor	9
Radiator Fan Relay In under-hood relay box	96
Under-Hood Relay Box	102
C201 (2-WHT)	9
C212 (2-GRN)	95

C213 (4-WHT)  Lower left front of engine compartment, near A/C compressor
C236 (14-WHT)
C243 (14-WHT)
C252 (20-BLK)
C257 (20-GRN)
C284 (2-WHT)  Lower left front of engine compartment, near A/C compressor
C285 (2-GRN). 95 Lower left front of engine compartment
C421 (20-WHT)
C428 (14-YEL)
C430 (10-YEL)
C445 (22-WHT)112 Under right side of dash
C446 (23-GRN)
C449 (18-WHT)
G101
G201
G202
G401

# A/C: Fans and Compressor Controls (PGM-FI)

### How The Circuit Works

### Fans

The cooling fan timer unit operates the radiator and condenser fans according to the temperature of the engine coolant. Both fans are turned on when the coolant temperature rises above 194°F (90°C) and are turned off when the coolant temperature falls below 181°F (83°C). If the engine coolant temperature is above 226°F (108°C) when the ignition is turned off, the cooling fan timer will run the condenser fan for a maximum of 15 minutes or until the engine coolant temperature drops to 214°F (101°C). The cooling fan timer unit controls the fans by operating the radiator and condenser fan relays.

Closure of coolant temperature switch A initiates the operation of both fans at 194°F (90°C). Closure of coolant temperature switch B affects only the condenser fan and is used for initiating operation of the condenser fan at ignition turn-off.

### **Compressor Control**

When the A/C switch and the blower switch are turned on, a ground is applied from the heater control panel through the evaporator sensor, the A/C pressure switch and the A/C diodes to the cooling fan timer unit and the PGM-FI electronic control unit. The cooling fan timer unit energizes both fans. The electronic control unit increases the engine idle speed and signals the A/C compressor control unit to operate compressor clutch relays A and B, which will engage the A/C compressor clutch.

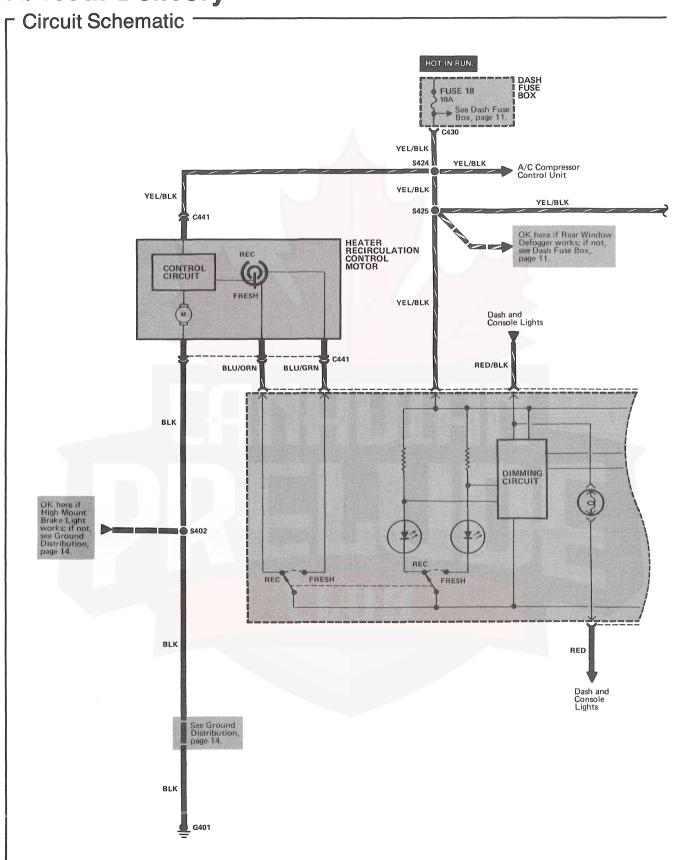
When the evaporator temperature drops below 37°F (3°C), the evaporator sensor opens its contacts, removing the ground from the cooling fan timer and electronic control unit. Both cooling fans and the A/C compressor clutch are de-energized until the evaporator temperature rises to a point where additional cooling is required. The evaporator sensor then closes its contacts and the cycle is repeated.

If refrigerant pressure becomes too high due to blockage or too low due to leakage, the A/C pressure switch contacts open, which interrupts the ground signal and prevents the air conditioning system from operating.

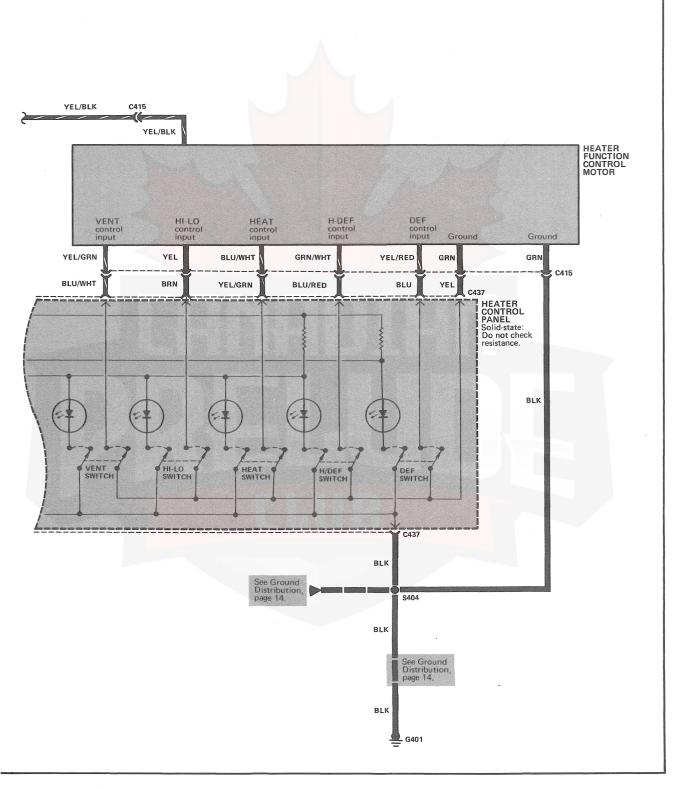




# A/C: Air Delivery







# A/C: Air Delivery



# Component Location Index

(Refer to Section 201 for photographs.)	
Dash Fuse BoxBehind left side of dash	70
Heater Function Control Motor	59
Heater Recirculation Control Motor	57
C415 (8-WHT)Behind center of dash	59
C430 (10-YEL)	72
C441 (4-WHT)	93
G401 Behind top center of dash	74

## How The Circuit Works

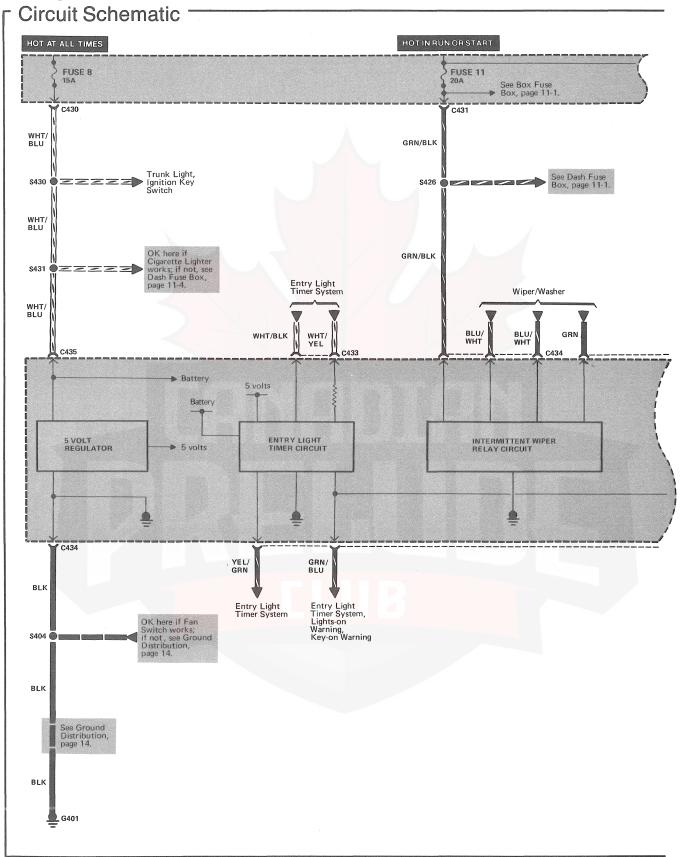
The heating and ventilating system has five modes: Vent, Hi-lo, Heat, H/Def, and Def. You select each mode by a pushbutton switch on the heater control panel. The system will recirculate the air in the car or draw air from the outside, depending on the position of the recirculation control pushbuttons.

See Section 21 of the Service Manual for circuit description and troubleshooting procedures.

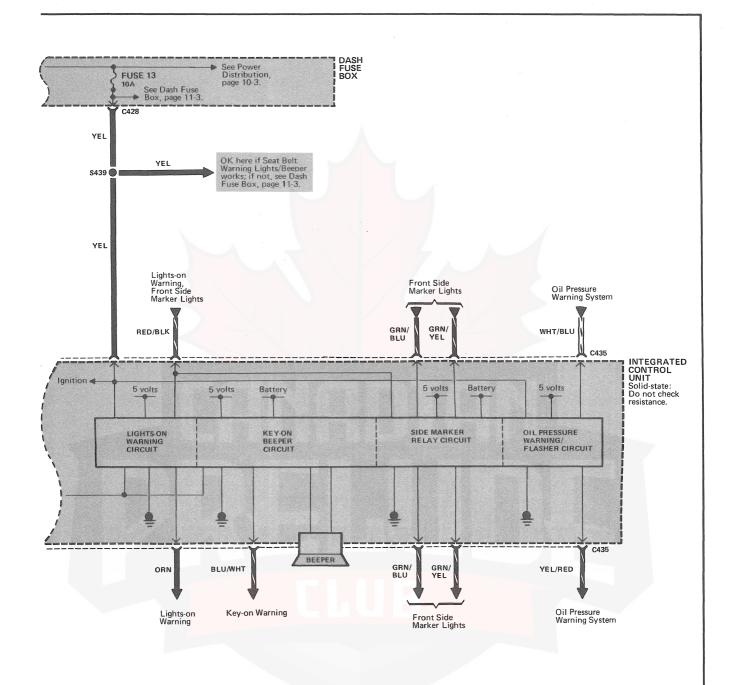




# **Integrated Control Unit**

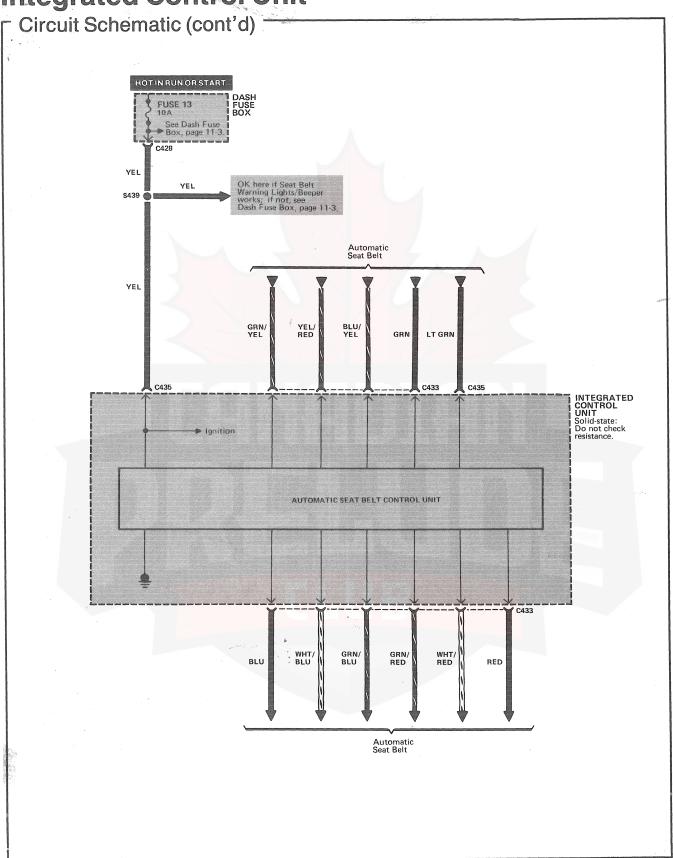






(cont'd)

# **Integrated Control Unit**





# Component Location Index

### (Refer to Section 201 for photographs.)

Dash Fuse BoxBehind left side of dash	70
Integrated Control Unit	64
C428 (14-YEL)	72
C430 (10-YEL)	72
C431 (4-YEL)	72
C433 (12-BLU)	64
C434 (4-WHT)	64
C435 (16-BLU)	64
G401 Behind top center of dash	74

## How The Circuit Works

The integrated control unit combines several circuits sharing common circuit functions.

### **Entry Light Timer Circuit**

For information on how the circuit works, see the Entry Light Timer System circuit.

### Oil Pressure Warning/Flasher Circuit

For information on how the circuit works, see the Oil Pressure Warning System circuit.

### Lights-on Warning and Key-on Beeper Circuit

For information on how the circuit works, see the Seat Belt, Lights-on and Ignition Key-on Warning circuit.

### **Side Marker Relay Circuit**

For information on how the circuit works, see the Front Side Marker Lights circuit.

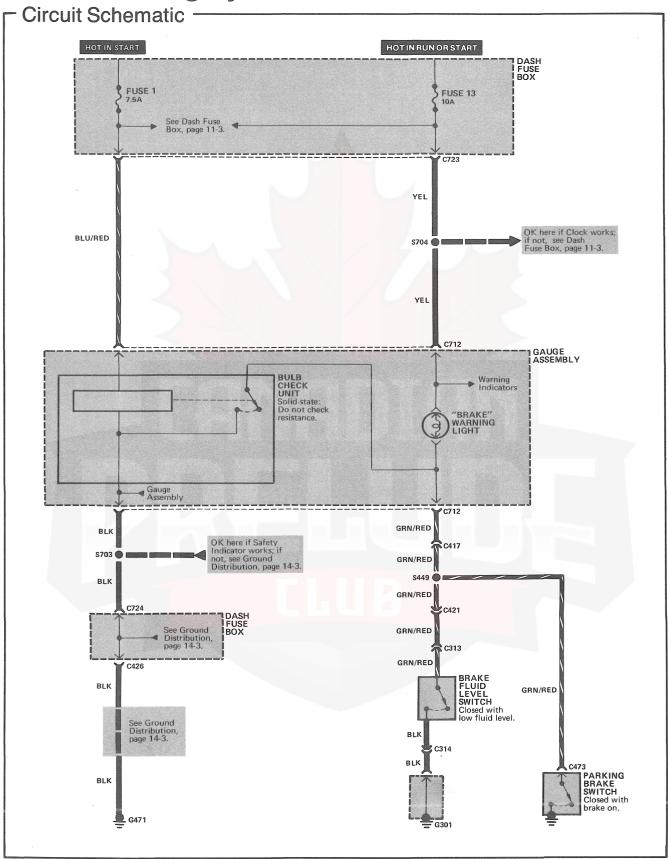
### **Intermittent Wiper Relay Circuit**

For information on how the circuit works, see the Wiper/Washer circuit.

### **Automatic Seat Belt**

For information on how the circuit works, see the Automatic Seat Belt circuit.

# **Brake Warning System**





# Component Location Index — (Refer to Section 201 for photographs.) Left rear of engine compartment, in brake fluid reservoir Behind left side of dash At base of parking brake lever Left rear of engine compartment Left rear of engine compartment Under left side of dash, right of steering column Behind left kick panel On rear of dash fuse box On rear of gauge assembly Under left side of dash, on dash fuse box C724 (14-WHT)......80 Behind LH side of dash, on front of dash fuse box Left front corner of engine compartment

Behind right side of rear seat

### т How The Circuit Works

The brake warning indicator light goes on to alert the driver that the parking brake is applied, or that the brake fluid level is low. It also lights as a bulb test when cranking the engine.

### **Parking Brake**

With the ignition switch in RUN or START, voltage is applied through fuse 13 to the brake warning indicator light. When you apply the parking brake, the switch closes and provides a ground for the light: The brake warning indicator light goes on to remind the driver that the parking brake is applied.

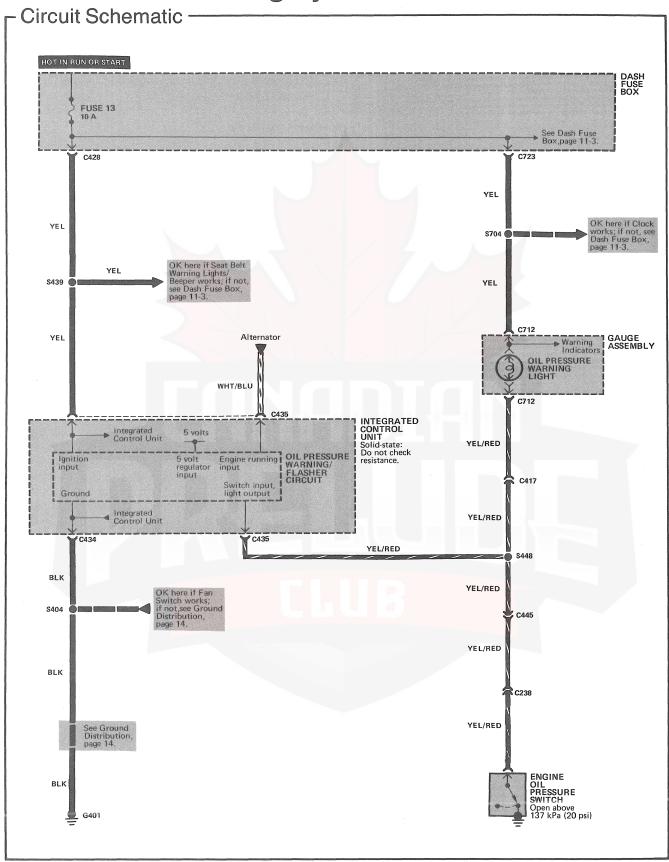
### Brake Fluid Level

With the ignition switch in RUN or START, voltage is applied through fuse 13 to the brake warning indicator light. If the brake fluid level is low, the brake fluid level switch closes and ground is provided to the circuit: The brake warning indicator light operates to warn the driver of low brake fluid level in the brake master cylinder. (Note: Check brake pad wear before adding fluid.)

### **Bulb Check**

With the ignition switch in START, voltage is applied through fuse 1 to the bulb check unit of the warning display. The bulb check unit closes the circuit, allowing current to flow through the brake warning indicator light and bulb check unit to ground: The brake warning indicator light goes on to test the brake warning indicator light bulb.

# **Oil Pressure Warning System**





990	Component Location Index -	
	(Refer to Section 201 for photographs.)	
		70
	Engine Oil Pressure Switch Rear of engine, above oil filter	
	Integrated Control Unit	64
	C238 (8-WHT)	56
	C417 (24-WHT)	78
	C428 (14-YEL)	72
	C434 (4-WHT)	64
	C435 (16-BLU)	64
	C445 (22-WHT)	12
	C712 (14-YEL)	07
	C723 (4-WHT)	94
	G401	74

### How The Circuit Works

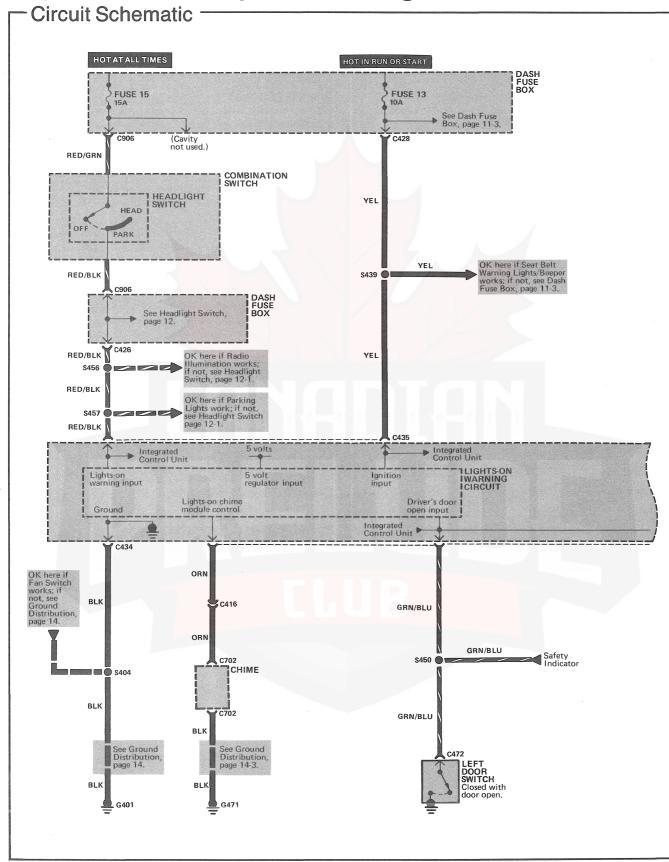
The oil pressure warning indicator light works in two ways. It flashes continuously following a momentary loss of oil pressure, or it goes on and stays on with a complete loss of oil pressure.

When the engine first starts, before oil pressure rises above 20 psi, voltage is applied to the oil pressure warning indicator light and the oil pressure switch to ground. This tests the bulb.

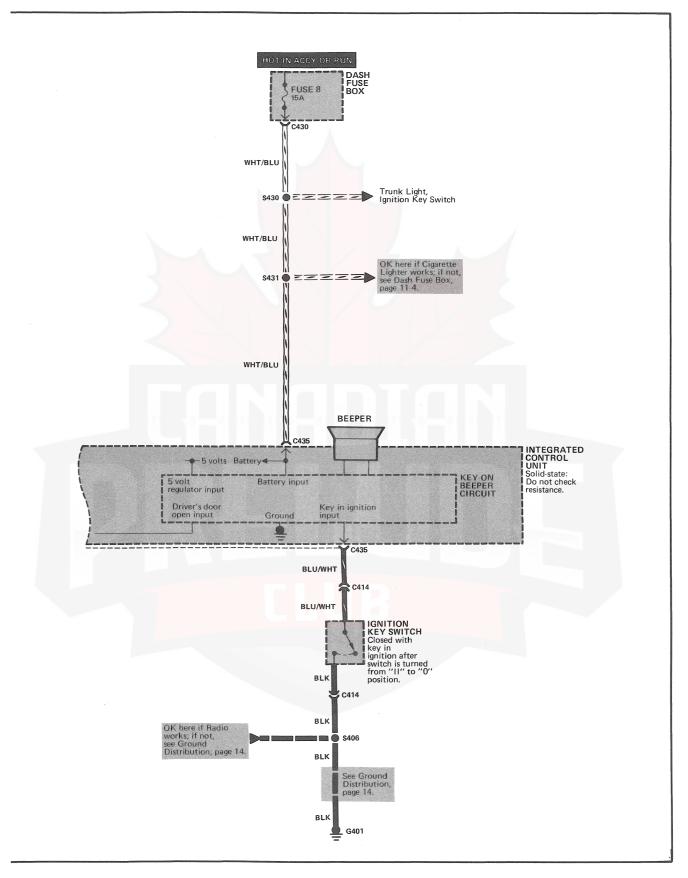
With the engine running, voltage is applied at the WHT/BLU wire of the integrated control unit. With normal oil pressure, the oil pressure switch is open and the oil pressure warning indicator light does not go on. If the oil pressure switch closes momentarily (more than 0.5 seconds) but then opens again, the YEL/RED wire at the integrated control unit will sense ground through the switch. The integrated control unit will then provide and remove ground for the oil pressure warning indicator light through the YEL/ RED wire. The light will flash on and off until you turn the ignition switch off. The flashing feature will not work until 30 seconds after the initial voltage is applied to the WHT/BLU wire of the oil flasher unit. This delay avoids unnecessary warning light operation.

If engine oil pressure falls below 20 psi and does not increase, the oil pressure switch will stay closed. The oil pressure warning indicator light will go on and stay on.

# **Lights-on and Key-on Warning**







# **Lights-on and Key-on Warning**

(Refer to Section 201 for photographs.)	
Chime	
Dash Fuse Box	
Ignition Key Switch	
Integrated Control Unit	
Left Door Switch	
C414 (4-BLU)	
C416 (22-WHT)	
C426 (7-YEL)	
C428 (14-YEL)	
C430 (10-YEL)	
C434 (4-WHT) 64 Behind center of dash, on integrated control unit	
C435 (16-BLU)	
C702 (2-WHT)	
C906 (8-WHT)	
G401	
G471	

# How The Circuit Works

### **Key-on Warning**

When the ignition key switch is closed, a ground is provided at the BLU/WHT wire of the integrated control unit. When you open the driver's door, ground is also provided at the GRN/BLU wire of the integrated control unit: The buzzer sounds.

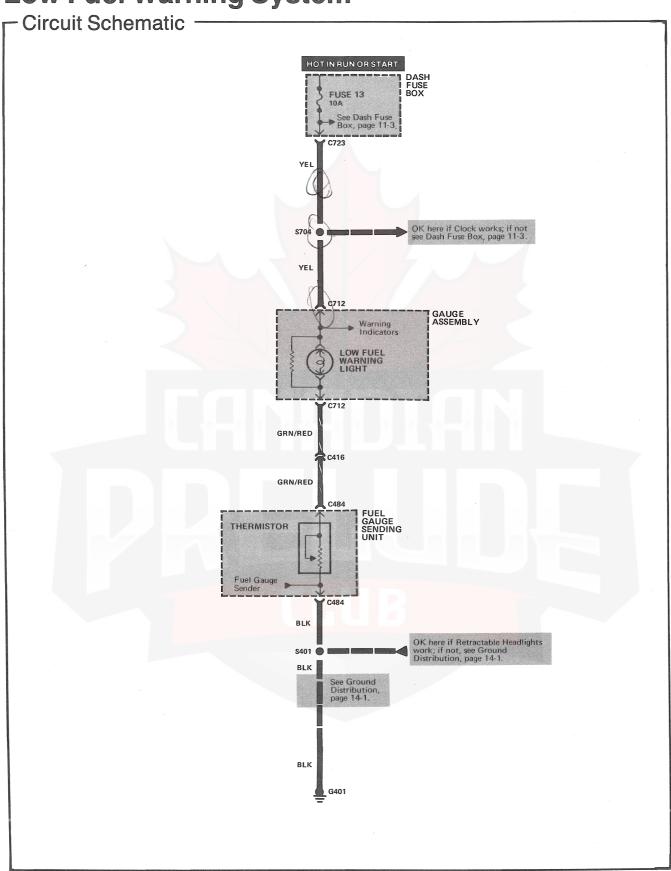
#### **Lights-on Warning**

Voltage is applied at all times to the headlight switch. When the headlight switch is in PARK or HEAD, voltage is applied to the RED/BLK wire of C435. When you open the driver's door, the integrated control unit senses ground at the GRN/BLU wire of C435. If voltage is at the RED/BLK wire and ground is at the GRN/BLU wire, the lights-on chime module sounds.





# **Low Fuel Warning System**





# 

Behind top center of dash

# т F How The Circuit Works

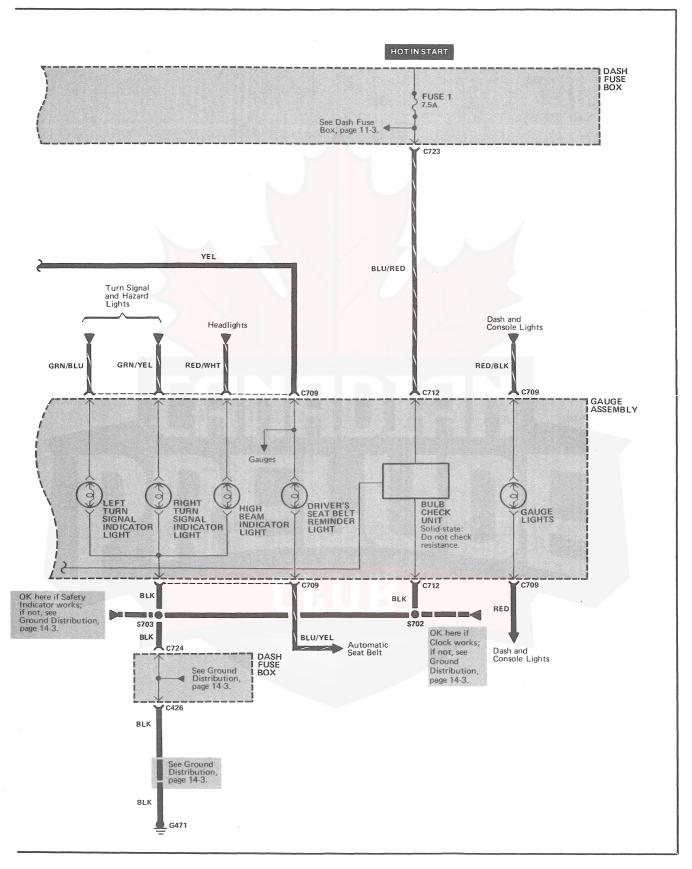
The thermistor is mounted in the fuel tank unit. When the thermistor is cool, its resistance is very high. When the thermistor is warm, its resistance is lower. Fuel in the fuel tank transfers heat away from the thermistor fast enough to keep it cool. The thermistor's resistance stays high and the low fuel warning indicator light does not go on. When the fuel level drops below about 2.9 gallons, the thermistor is no longer immersed in fuel. Without the fuel to cool it, the thermistor's resistance is low. Current flows through the low fuel warning indicator light and the thermistor to ground: The low fuel warning indicator light goes on.



# **Indicators**

# Circuit Schematic HOT IN RUN OR START FUSE 13 10A FUSE 12 10A See Dash Fuse Box, page 11 3. See Dash Fuse Box, page 11 2. ◆ C724 C723 YEL BLK/YEL OK here if Clock works; if not, see page 11-3. YEL S704 🔘 YEL C712 DIMMING "BRAKE" WARNING INDICATOR LIGHT PGM-FI OR PGM-CARB WARNING LIGHT "CRUISE CONTROL" INDICATOR LIGHT CHARGE WARNING LIGHT OIL PRESSURE WARNING LIGHT DOOR/LATCH INDICATOR LIGHT C712 RED GRN/RED WHT/BLU YEL/RED GRN YEL/RED GRN/RED PGM-FI Oil Pressure Warning System Low Fuel Warning System Automatic Seat Belt Cruise Control Brake Warning Charging System or PGM-CARB System





# **Indicators**

# 

Behind right side of rear seat

# How The Circuit Works

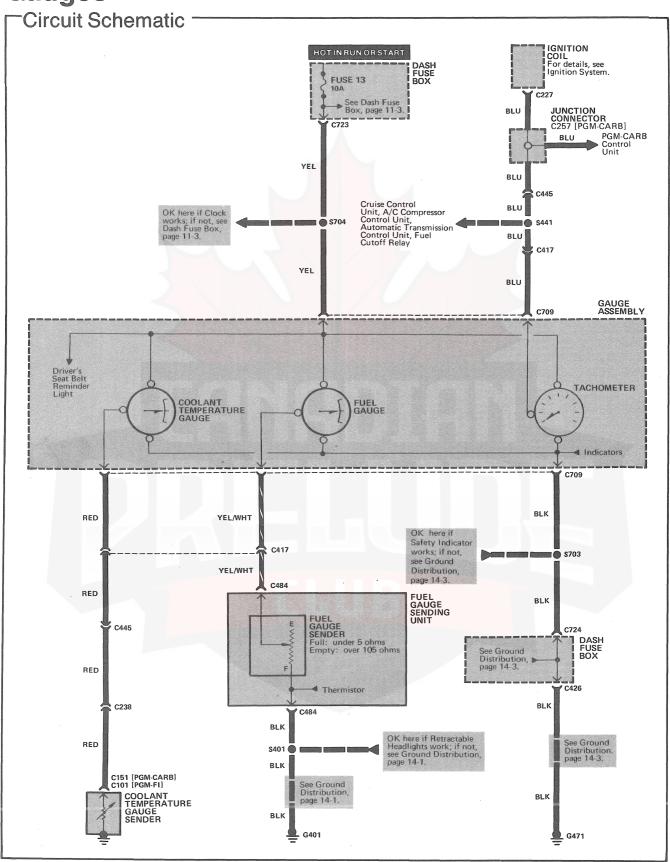
The indicator lights are controlled by different conditions set forth in their associated system. See the associated system for the indicator light circuit description.





# CANADIAN PAELUBAN CLUB

# Gauges





# (Refer to Section 201 for photographs.) Coolant Temperature Gauge Sender . . . . . . . . Top right front of engine Behind left side of dash Fuel Gauge Sending Unit Below rear of car, top of fuel tank Right rear of engine compartment On ignition coil Right side of engine compartment Behind right side of dash Under left side of dash, right of steering column On rear of dash fuse box Under right side of dash On rear of gauge assembly Under left side of dash, on dash fuse box C724 (14-WHT)..... 80 Behind LH side of dash, on front of dash fuse box Behind top center of dash Behind right side of rear seat

The coolant temperature gauge and the fuel gauge are each operated by two intersecting coils wound around a permanent magnet rotor. When voltage from fuse 13 is applied to the coils, a magnetic field is generated. This causes the rotor to rotate and the gauge needle to move. The magnetic field is controlled by the sender. As the resistance in the sender varies, current through the gauge coils changes. The gauge needle moves according to the changing magnetic field.

The coolant temperature sender's resistance varies from approximately 142 ohms at low engine temperature to approximately 32 ohms at high engine temperature.

The fuel gauge sender's resistance varies from approximately 5 ohms at full to approximately 105 ohms at empty. Damper oil surrouding the fuel gauge allows the fuel level to be shown when the ignition is

With the engine running, the tachometer senses ignition pulses from the distributor through the igniter unit. The solid-state tachometer displays these pulses as engine speed. With 200 pulses per minute from the igniter unit, the tachometer displays 100

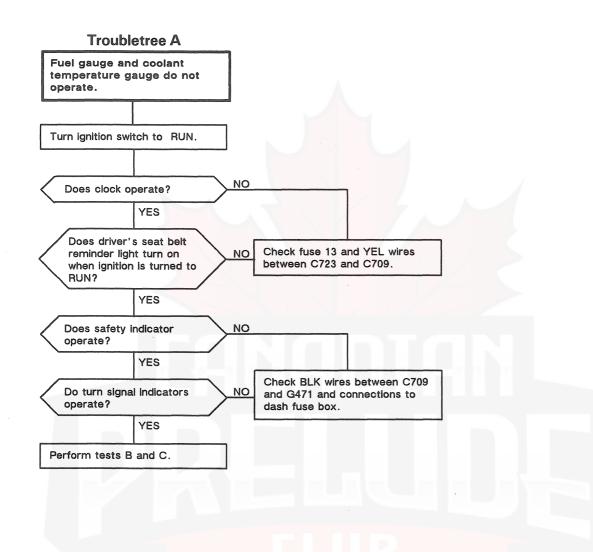
# Gauges

# Troubleshooting

Symptom	Troubletree
Fuel gauge and coolant temperature gauge do not operate.	Α
Fuel gauge does not operate correctly.	В
Coolant temperature gauge does not operate correctly.	С
Inaccurate fuel gauge reading at all times — fuel gauge sender test.	D
Inaccurate coolant temperature gauge — coolant temperature gauge sender test.	E

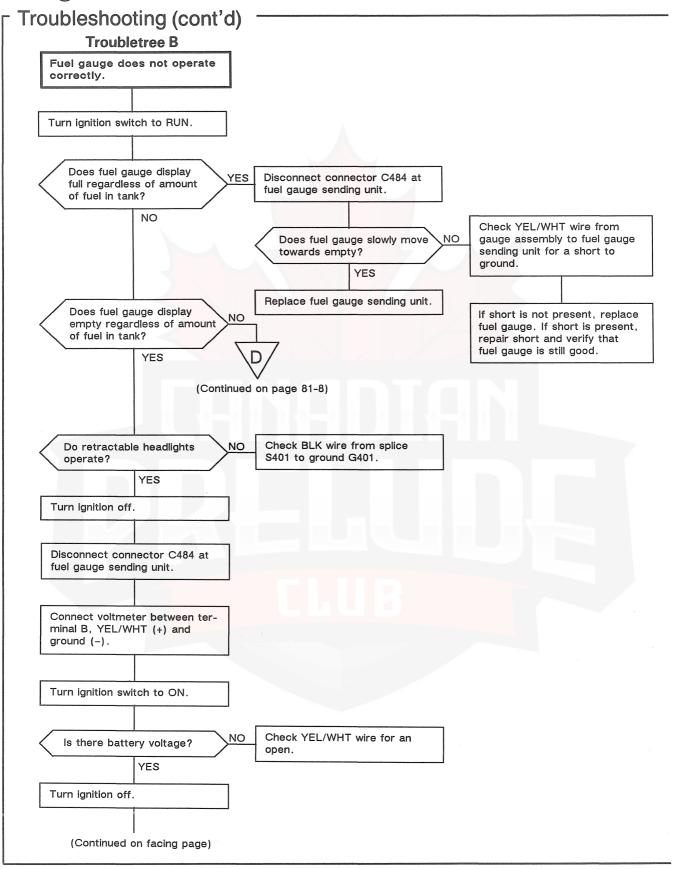




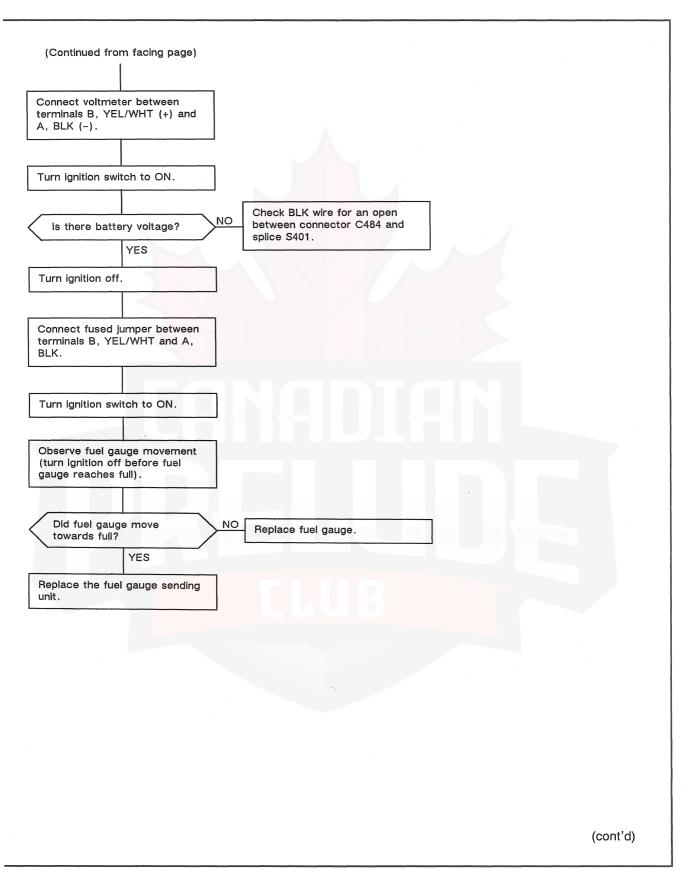


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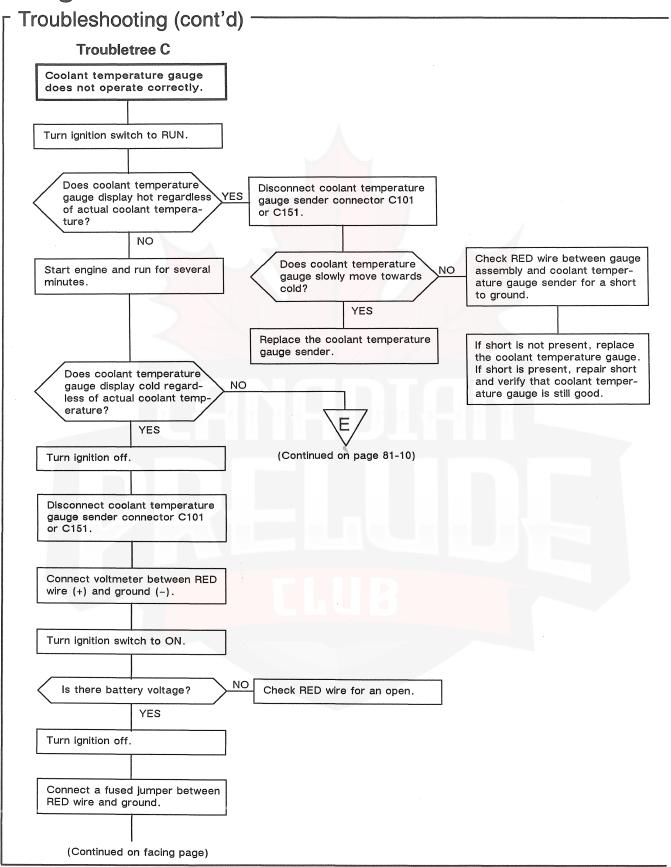
# Gauges



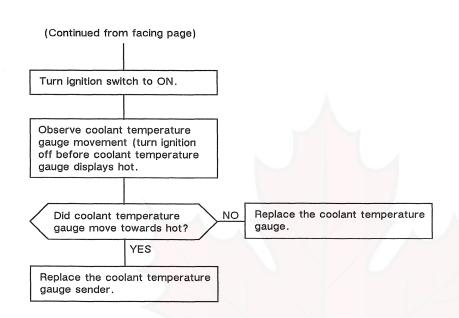




# Gauges



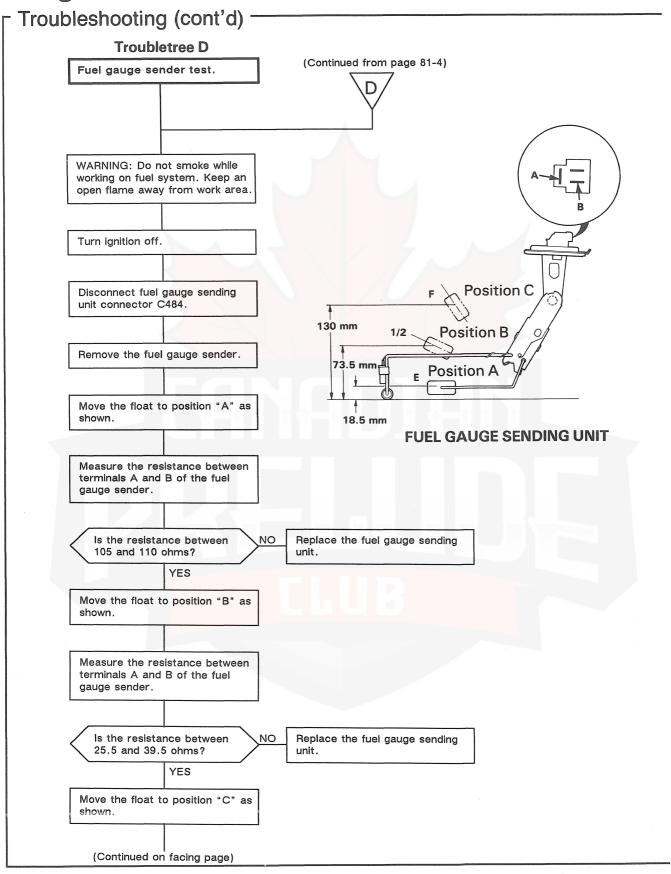




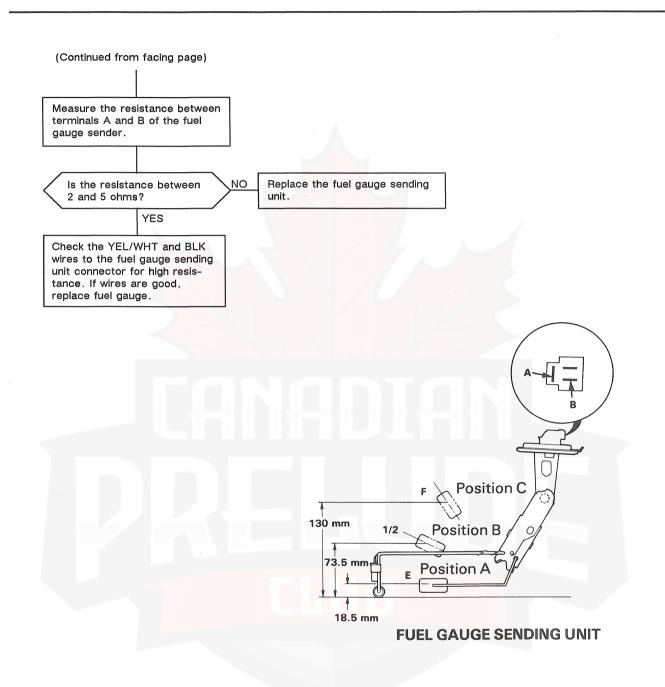
# CANADIAN PARAMETER OF THE LIBERT OF THE LIBE

(cont'd)

# Gauges

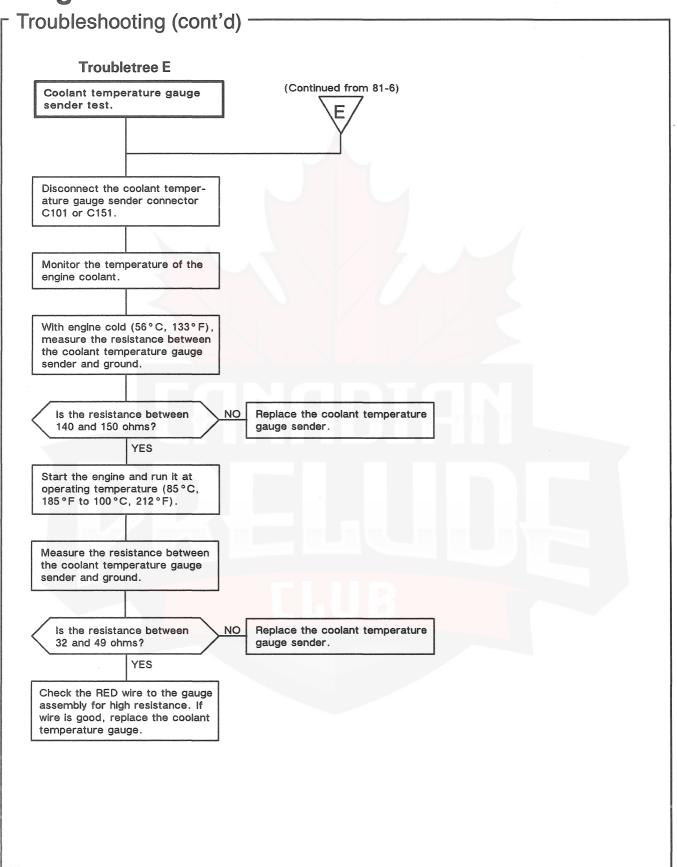






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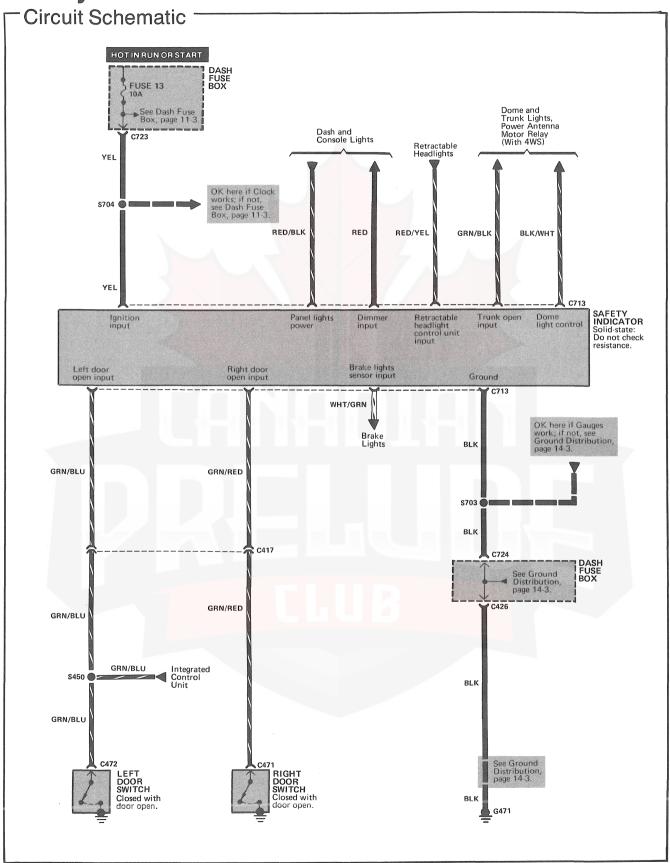
# Gauges





# CANADIAN DE LUB

# **Safety Indicator**





# Component Location Index

### (Refer to Section 201 for photographs.)

Dash Fuse BoxBehind left side of dash	70
Left Door Switch	16
Right Door Switch	16
C417 (24-WHT)	78
C426 (7-YEL)	72
C713 (16-YEL)	81
C723 (4-WHT)	94
C724 (14-WHT)Behind LH side of dash, on front of dash fuse box	80 <
G471 Behind right side of rear seat	20

# How The Circuit Works

With the ignition switch in RUN or START, voltage is applied to the safety indicator. The safety indicator lights the appropriate display according to the corresponding input signal. The brightness of the safety indicator display is controlled by the dash lights dimmer when the headlight switch is in PARK or HEAD.

### **Trunk Light**

For information on how the circuit works, see the Trunk Light circuit.

#### **Brake Light Bulb Failure Warning**

For information on how the circuit works, see the Brake Lights circuit.

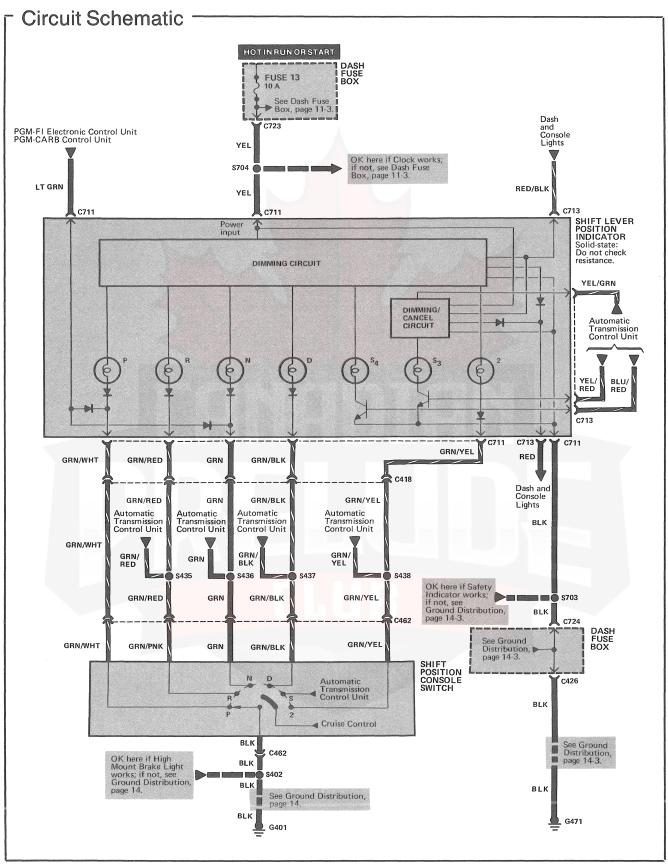
#### **Dome Light**

For information on how the circuit works, see the Dome Light circuit.

#### **Retractable Headlights**

For information on how the circuit works, see the Retractable Headlights circuit.

# **Shift Lever Position Indicator**





# Component Location Index ——— (Refer to Section 201 for photographs.) Behind left side of dash Shift Position Console Switch . . . . . . . . . . 60 In console, below shift lever Under left side of dash, right of steering column On rear of dash fuse box C462 (10-WHT). . . . . . . . . . . . . . . . . 60 On center of floor, near gear selector C711 (10-WHT)......81 On rear of gauge assembly On rear of gauge assembly Under left side of dash, on dash fuse box C724 (14-WHT)..... 80 Behind LH side of dash, on front of dash fuse box Behind top center of dash Behind right side of rear seat

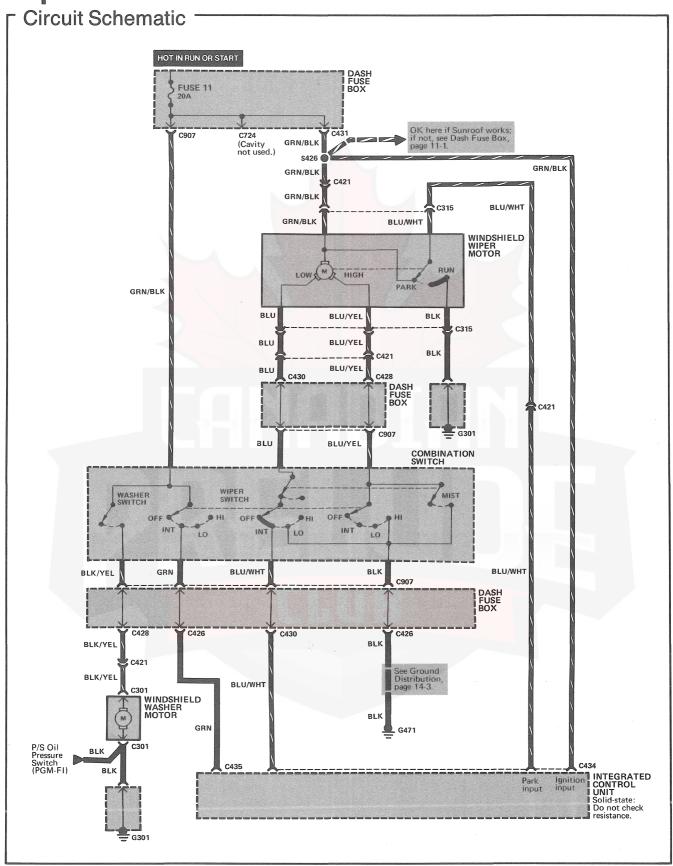
## г How The Circuit Works

With the ignition switch in RUN or START, voltage is applied to the shift lever position indicator. The gear selector switch provides a ground for each position. As an input is grounded, its indicator lights. If R is selected, for example, a ground will be applied to the input of the shift position indicator, and the R indicator will light.

With the headlight switch in PARK or HEAD, voltage is applied to the RED/BLK wire terminal. This changes indicator panel illumination from fixed to controlled by the dash lights dimmer input on the RED wire.

The  $\rm S_4$  and  $\rm S_3$  indicators are controlled by the automatic transmission control unit. See Automatic Transmission and Section 14 of the Service Manual for circuit description and troubleshooting procedures.

# Wiper/Washer





# (Refer to Section 201 for photographs.) Behind left side of dash Integrated Control Unit . . . . . . . . . . . . 64 Behind center of dash Behind left side of bumper, below washer fluid reservoir Left rear corner of engine compartment Left rear of engine compartment C421 (20-WHT)......71 Behind left kick panel On rear of dash fuse box C434 (4-WHT) . . . . . . . . . . . . . . . . . 64 Behind center of dash, on integrated control unit C435 (16-BLU) . . . . . . . . . . . . . . . . . . 64 Behind center of dash, on integrated control unit C724 (14-WHT)..... 80 Behind LH side of dash, on front of dash fuse box On front of dash fuse box Left front corner of engine compartment Behind right side of rear seat

#### Low Speed

With the ignition switch in RUN or START, battery voltage is applied to the windshield wiper motor. When the wiper switch is moved to LO, the low speed winding of the motor is grounded through the low contact of the combination switch. The wipers run at low speed. A cam switch attached to the wiper motor signals the integrated control unit as to the position of the wipers.

#### Park/Off

When the wiper switch is turned off, the integrated control unit provides a ground for the windshield wiper motor. When the cam switch on the motor signals the integrated control unit that the wipers are in the park position, the control unit removes the grounds for the motor. The wipers stop in the parked position.

#### **High Speed**

When the wiper switch is in HI, the high speed winding of the windshield wiper motor is grounded through the high contact of the combination switch: The wipers run at high speed.

#### Intermittent

When the wiper switch is moved to INT, battery voltage is applied through the GRN wire to the integrated control unit. The integrated control unit's intermittent wiper relay circuit provides ground to the low speed windings of the wiper motor: The wipers make a single sweep approximately once every five seconds.

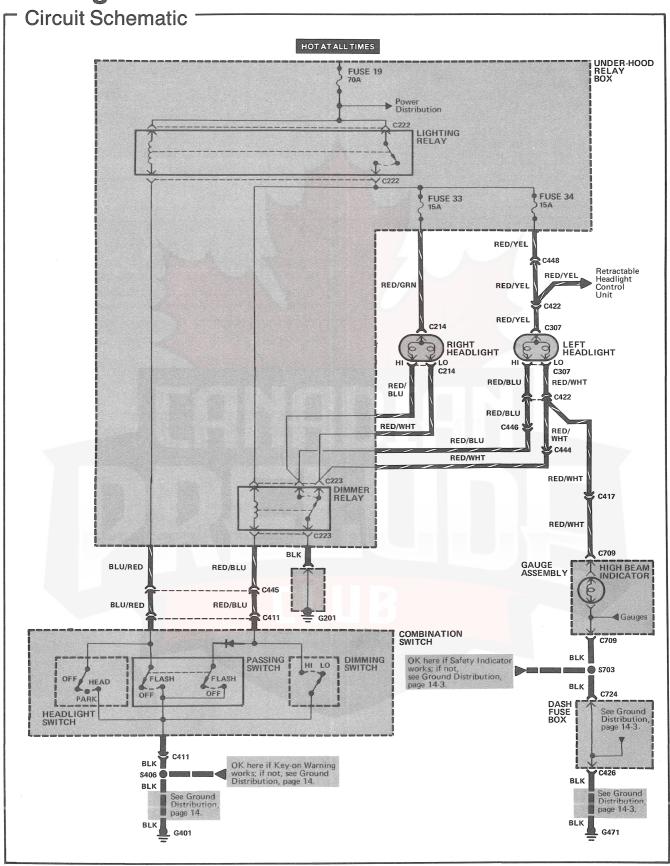
#### Mist

When the wiper switch is moved to MIST and released, the high speed winding of the windshield wiper motor is grounded through the mist contact in the combination switch. The wipers make one sweep at high speed and return to the park position.

#### Washer

When the washer switch is depressed, battery voltage is applied to the windshield washer motor. The motor pumps fluid on the windshield until the switch is released.

# **Headlights**





# Component Location Index

(Refer to Section 201 for photographs.)		
Dash Fuse Box		
Dimmer Relay		
Lighting Relay		
Retractable Headlight Control Unit 62 On left kick panel		
Under-Hood Relay Box		
C411 (14-GRN)		
C417 (24-WHT)		
C422 (4-WHT)		
C426 (7-YEL)		
C444 (4-WHT)		
C445 (22-WHT)		
C446 (23-GRN)73 Under right side of dash		
C448 (7-WHT)		
C709 (12-WHT)		
C724 (14-WHT)		
G201		
G401		
G471		

## How The Circuit Works

### **Low Beam Operation**

Voltage is applied at all times to the lighting relay. With the headlight switch in HEAD, ground is applied to the lighting relay coil, and the contacts close. Voltage is applied through the fuses to the headlights. The low filaments of the dual beam headlights are grounded through the dimmer relay contacts: The low beams go on.

#### **High Beam Operation**

Voltage is applied to the headlights the same way as it is in low beam operation. Voltage is applied through the lighting relay contacts to the dimmer relay coil. With the dimming switch in HI, ground is applied to the dimmer relay coil and the relay energizes. The high filaments of the dual beam headlights and the high beam headlights are grounded through the dimmer relay contacts: The high beams go on.

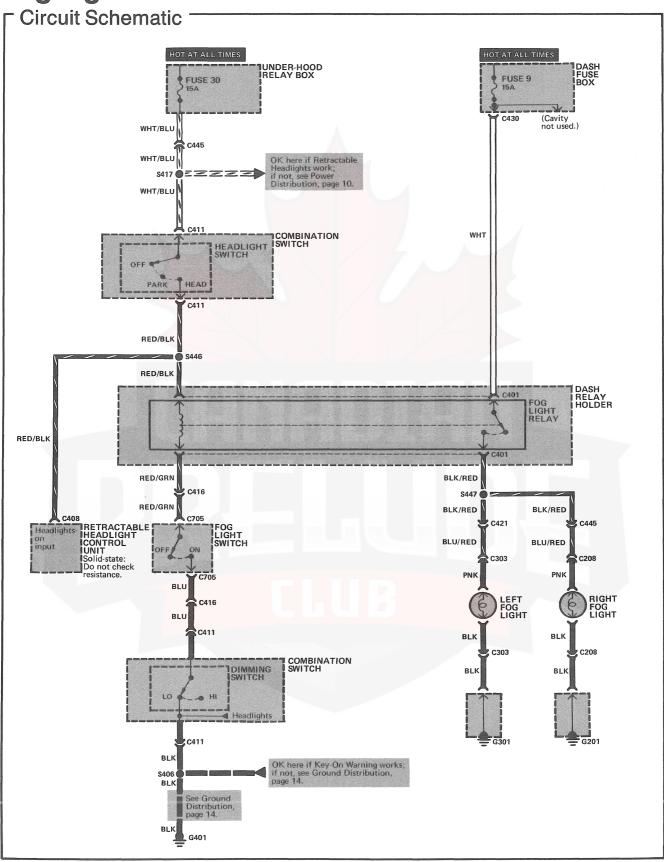
Voltage is applied through the low filaments of the headlights to the high beam indicator light: The indicator light goes on.

#### **Flash Operation**

The flash feature works with the headlight switch off, or in PARK, or HEAD (low beams). With the passing switch in FLASH, ground is applied to the lighting relay coil. The lighting relay energizes and applies voltage to the headlights and the dimmer relay coil. The dimmer relay coil is grounded through the passing switch. The dimmer relay energizes and applies ground to the high filaments of the headlights: The high beams go on.

The flash function has no effect if high beams are already on.

# Fog Lights: PGM-FI



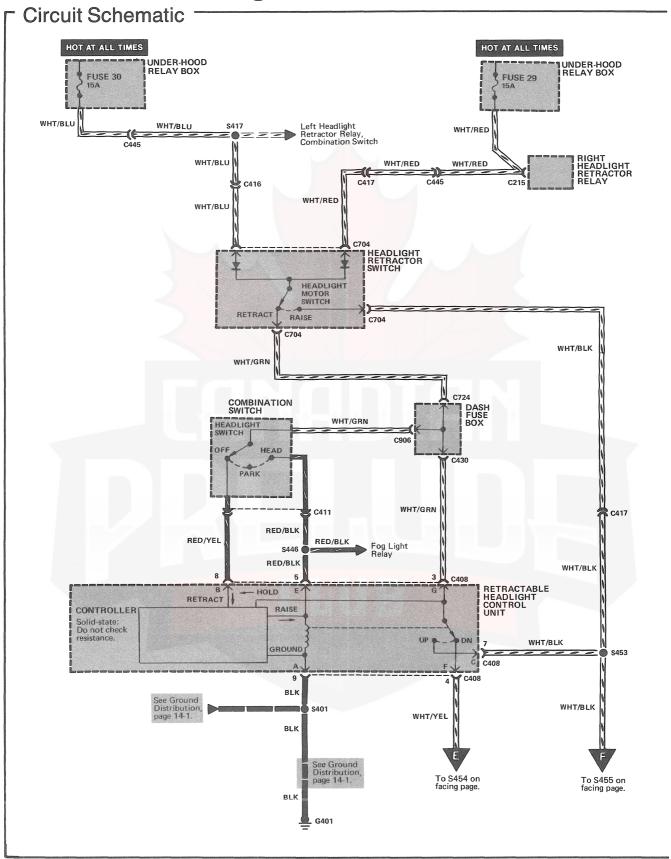


# Component Location Index ——— (Refer to Section 201 for photographs.) Behind left side of dash Behind left side of dash Behind left side of dash, on relay holder Right side of engine compartment Behind right side of front bumper, on right horn Behind right side of front bumper C303 (2-RED) . . . . . . . . . . . . . 67 Behind left side of front bumper Behind left side of dash C416 (22-WHT)..... 78 Under left side of dash, right of steering column C421 (20-WHT)..... 71 Behind left kick panel On rear of dash fuse box Under right side of dash Right side of engine compartment Left front corner of engine compartment Behind top center of dash

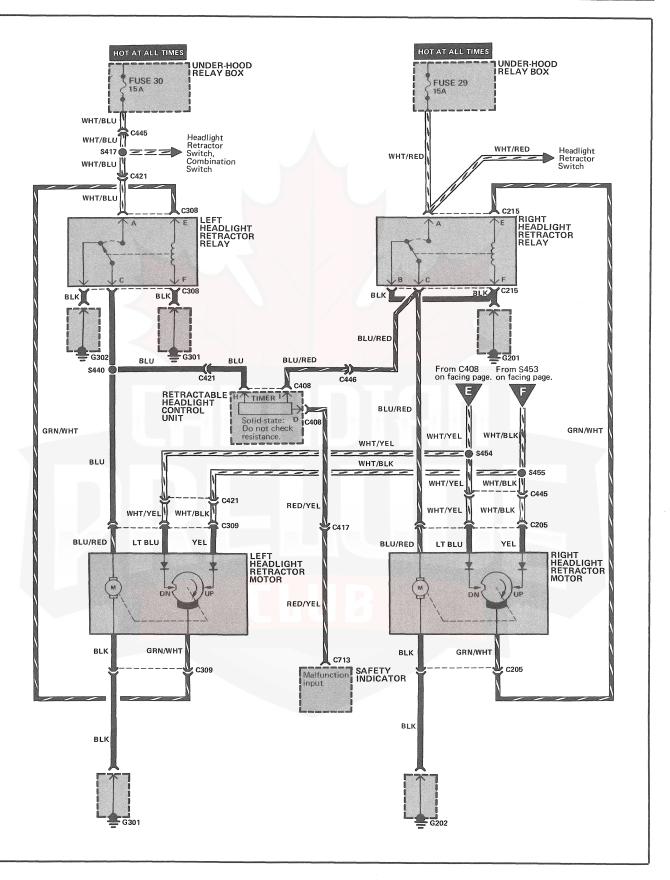
## г How The Circuit Works

The fog lights are controlled indirectly through the fog light relay by the fog light switch, headlight switch and dimming switch. With the headlight switch in the HEAD position battery voltage is applied to the fog light relay coil. With the fog light switch in the ON position, the dimming switch in LO, and the headlight switch ON a current path is created to the fog light relay coil. The fog light relay is energized and voltage from fuse 9 is applied to the fog lights. If the dimming switch is in the HI position, the headlight switch is not in the HEAD position or the fog light switch is turned off, the relay coil is de-energized and the fog lights are turned off.

# **Retractable Headlights**







# **Retractable Headlights**

Component Location index	
(Refer to Section 201 for photographs.)	
Dash Fuse BoxBehind left side of dash	70
Left Headlight Retractor Motor Left front corner of engine compartment	4
Left Headlight Retractor Relay Left front corner of engine compartment	4
Retractable Headlight Control Unit	62

Left front corner of engine compartment	
Retractable Headlight Control Unit On left kick panel	62
Right Headlight Retractor Motor Right front corner of engine compartment	10
Right Headlight Retractor Relay Right front corner of engine compartment	10
Under-Hood Relay Box	102
C205 (6-WHT)	10
C309 (6-WHT)	4

Under left side of dash, right of steering column

Under left side of dash, right of steering column

Behind left side of dash

C421 (20-WHT)Behind left kick panel	71
C430 (10-YEL)	72
C445 (22-WHT)	12
C446 (23-GRN)	73
C713 (16-YEL)	81
C724 (14-WHT)	80 ×
C906 (8-WHT)	80
G201	12
G202	12
G301	14
G302	114
G401 Behind top center of dash	74

71

12

74



# How The Circuit Works

The headlights can be raised or retracted with the headlight motor switch on the instrument panel or with the light switch on the turn signal lever.

#### **Headlight Motor Switch Operation**

With the headlights retracted, the headlight switch in off, and the headlight motor switch pressed in (RAISE), current flows through the headlight motor switch, the LH headlight retractor motor up contact, and the LH headlight retractor relay coil to ground. The relay operates, and current flows through the relay contacts and LH headlight retractor motor to ground. The motor operates to raise the headlight. With the headlight fully raised, the LH headlight retractor motor up contact opens and current to the LH headlight retractor relay is stopped. The relay moves to the position shown in the schematic and current to the motor is cut off: The motor stops. Similar current flow occurs at the same time for the RH retractor relay and motor.

When the headlight retractor relay contacts return to the de-energized state, ground is connected to both sides of the retractor motor. This acts as a dynamic brake to stop the motor quickly.

With the headlights raised, the headlight switch off, and the headlight motor switch released (RETRACT), current flows through the headlight motor switch, the retractable headlight control unit down contacts, the LH headlight retractor motor down contact, and the LH headlight retractor relay coil to ground. The motor operates to retract the headlights. With the headlights fully retracted, the LH headlight retractor motor down contact opens and current to the LH headlight retractor relay is stopped. The relay moves to the position shown in the schematic and current to the motor is cut off: The motor stops.

Similar current flow occurs at the same time for the RH headlight retractor relay and motor.

#### **Headlight Switch Operation**

With the headlight motor switch in RETRACT and the headlight switch moved to HEAD current flows through the retractable headlight control unit coil to ground. The control unit contacts move to up and current flows through the headlight motor switch RETRACT contacts and control unit up contacts to the LH retractor motor. From this point, current flow

to raise the headlights is the same as described in Headlight Motor Switch Operation above. With the headlight motor switch in RETRACT and the headlight switch moved from HEAD to PARK, voltage to the retractable headlight control unit terminal "E" is cut off. The controller applies voltage to the coil to keep the contacts closed in the up position.

With the headlight motor switch in RETRACT and the headlight switch moved to off voltage is applied to terminal "B" of the retractable headlight control unit. Voltage is removed from the control unit coil, and the control unit contacts move to "DN". Current flows through the headlight motor switch retract contacts and control unit down contacts to the LH retractor motor. From this point, current flow to retract headlights is the same as described in Headlight Motor Switch Operation, above.

#### **Safety Indicator Operation**

Voltage is applied to terminals H and I of the retractable headlight control unit whenever the headlight retractor relays operate to activate the headlight retractor motors. The relays operate only for the short time it takes the headlights to rise or retract. With the headlights operating normally, the time that this voltage is applied to the timer is fixed and equal between terminals H and I. If the voltage is applied for too long, not long enough, or unequally, the timer sends a signal to the safety indicator. The safety indicator lights the headlight motor warning light symbol on the safety indicator panel to indicate a problem with the headlight retractors.

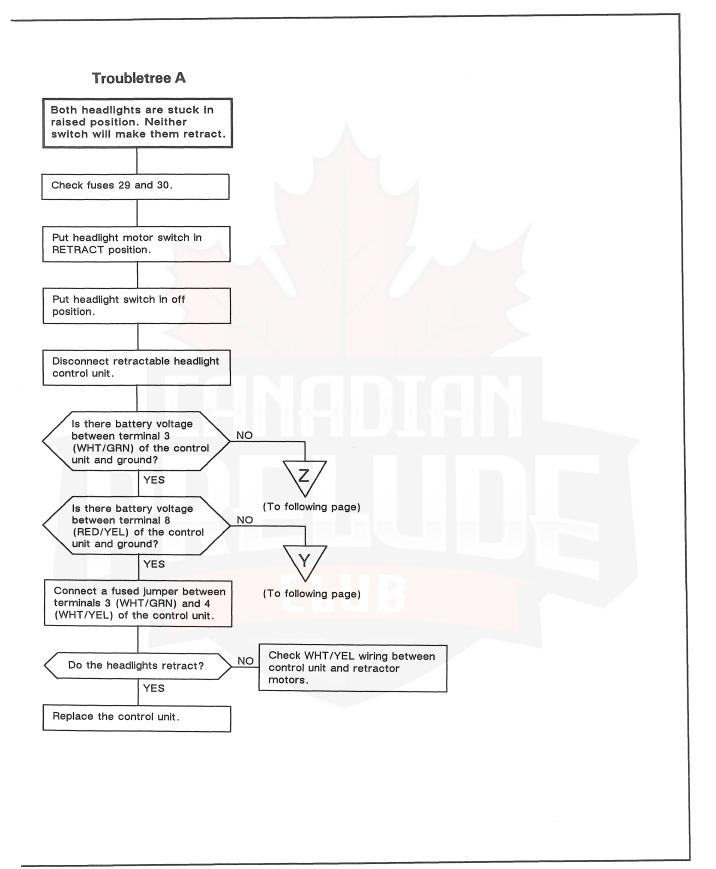
# **Retractable Headlights**

# Troubleshooting

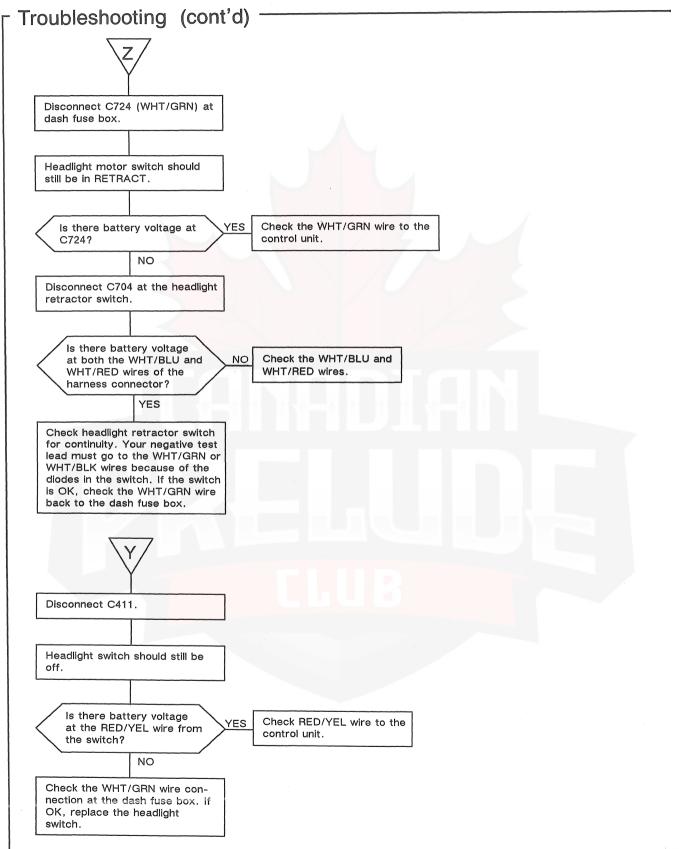
Symptom	Troubletree
Both headlights are stuck in raised position. Neither switch will make them retract.	A
Both retractor motors do not work from the headlight switch but do work from the headlight motor switch.	В
Both retractor motors do not work from the headlight motor switch but do work from the headlight switch.	С
Headlights retract when headlight switch is moved from HEAD to PARK.	D
A single motor is inoperative.	E





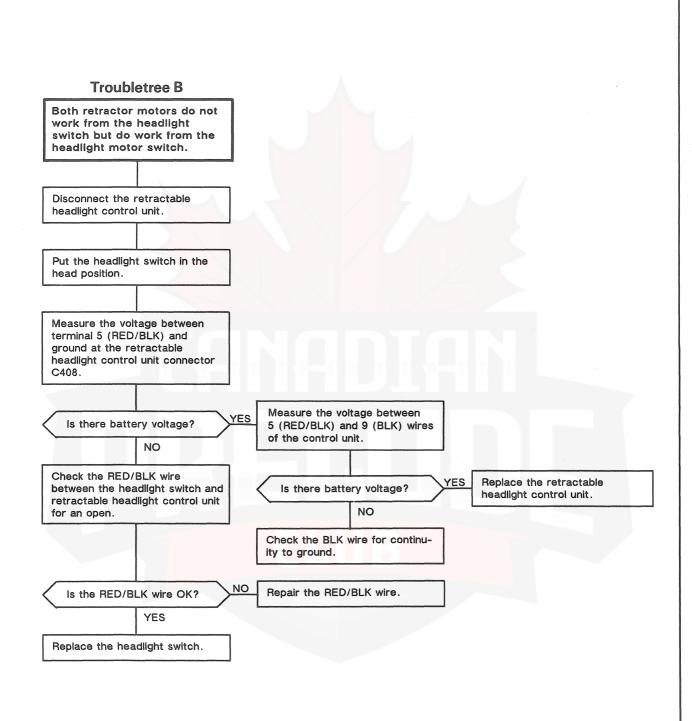


# **Retractable Headlights**



102-6

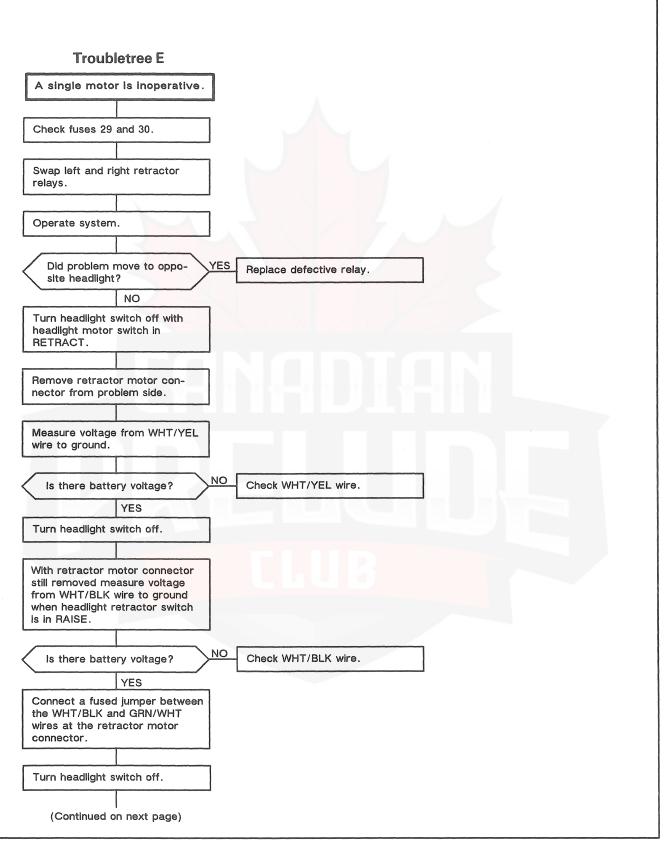




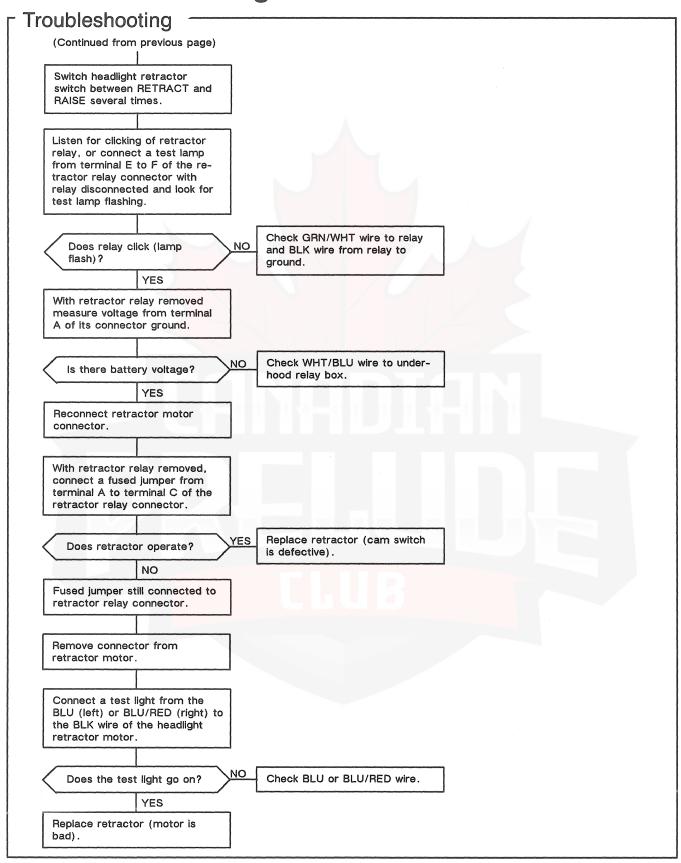
# **Retractable Headlights**

Troubleshooting (cont'd) -Troubletree C Both retractor motors do not work from the headlight motor switch but do work from the headlight switch. Disconnect C704. Jumper the WHT/RED and WHT/BLK wires of C704 together. YES Replace the headlight motor Do the headlights rise? switch. Repair the open in the WHT/BLK wire between C704 and S453. **Troubletree D** Headlights retract when headlight switch is moved from HEAD to PARK. If all other functions work properly, replace the control unit. If any other function does not work refer to the related tree.





# **Retractable Headlights**

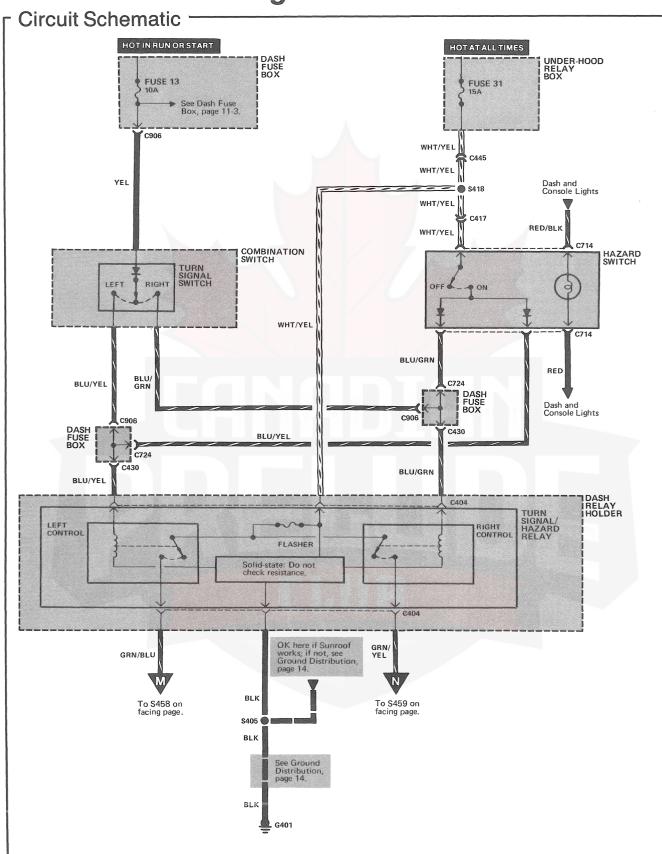


102-10

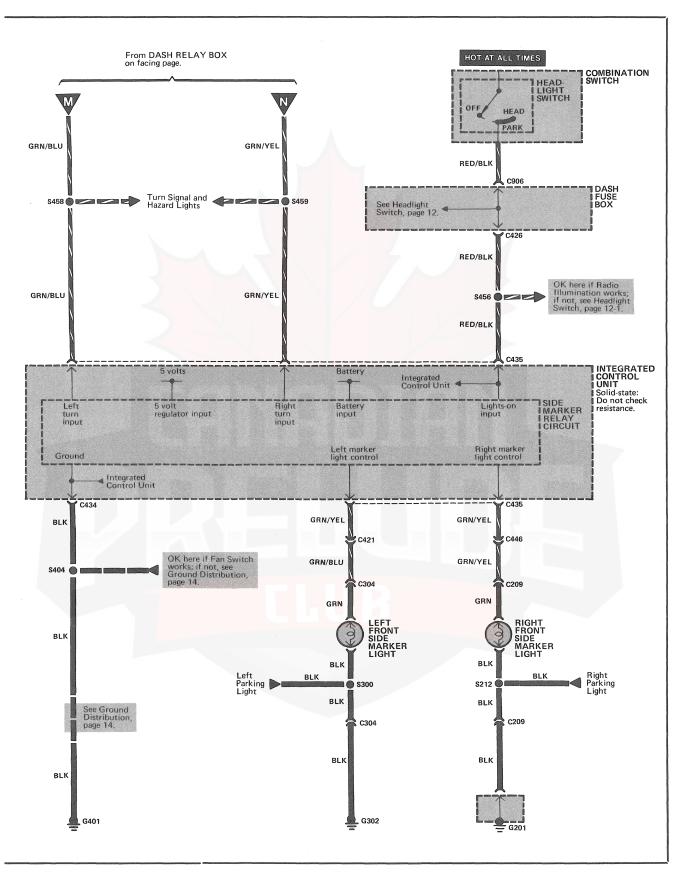


# EANADIAN DELLE BELLE BEL

# **Front Side Marker Lights**







# **Front Side Marker Lights**

# Component Location Index

(Refer to Section 201 for photographs.)	
Dash Fuse BoxBehind left side of dash	70
Dash Relay Holder	98
Integrated Control Unit	64
Turn Signal/Hazard RelayBehind left side of dash, on relay holder	63
Under-Hood Relay Box	102
C209 (3-GRN)Behind right side of front bumper	69
C304 (3-GRN)Behind left side of front bumper	69
C417 (24-WHT)	78
C421 (20-WHT)Behind left kick panel	71
C426 (7-YEL)	72
C430 (10-YEL)	72

C434 (4-WHT) Behind center of dash, on integrated control unit	64
C435 (16-BLU)	64
C445 (22-WHT)	12
C446 (23-GRN)Under right side of dash	73
C513 (2-WHT)Upper right side of trunk	82
C724 (14-WHT)Behind LH side of dash, on front of dash fuse box	
C906 (8-WHT)	80
G201	12
G302	14
G401 Behind top center of dash	74



### **How The Circuit Works**

With the headlight switch in PARK or HEAD, voltage is applied to the integrated control unit: The front side marker lights go on.

### **Turn Operation**

With the ignition switch in RUN or START and the turn signal switch in LEFT, voltage is applied to the coil and flasher of the turn signal/hazard relay. The solid-state flasher provides a ground for the relay coil. The coil controls the relay contacts. As the contacts open and close, the integrated control unit receives an on-off voltage which causes the left front side marker light to flash.

The right front side marker light operates the same way.

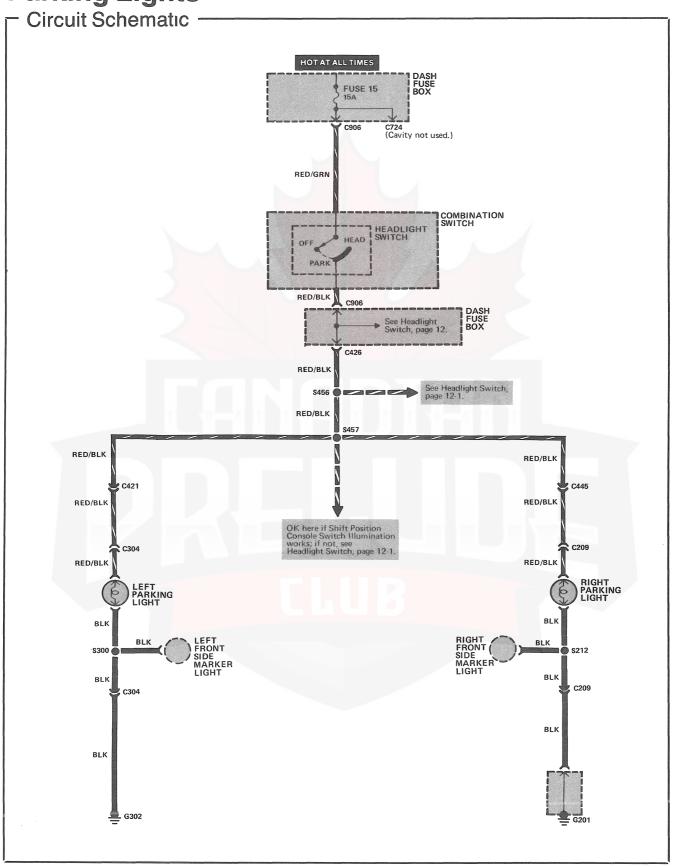
With the headlight switch in OFF, the front side marker lights flash simultaneously with the front and rear turn signal.

With the headlight switch in HEAD or PARK, the front side marker lights and the turn signal lights flash alternately.

### **Hazard Operation**

With the hazard switch ON, voltage is always applied to the turn signal/hazard relay. Hazard operation is similar to turn operation, except both the right and left front side marker lights flash simultaneously.

# **Parking Lights**





## Component Location Index

### (Refer to Section 201 for photographs.)

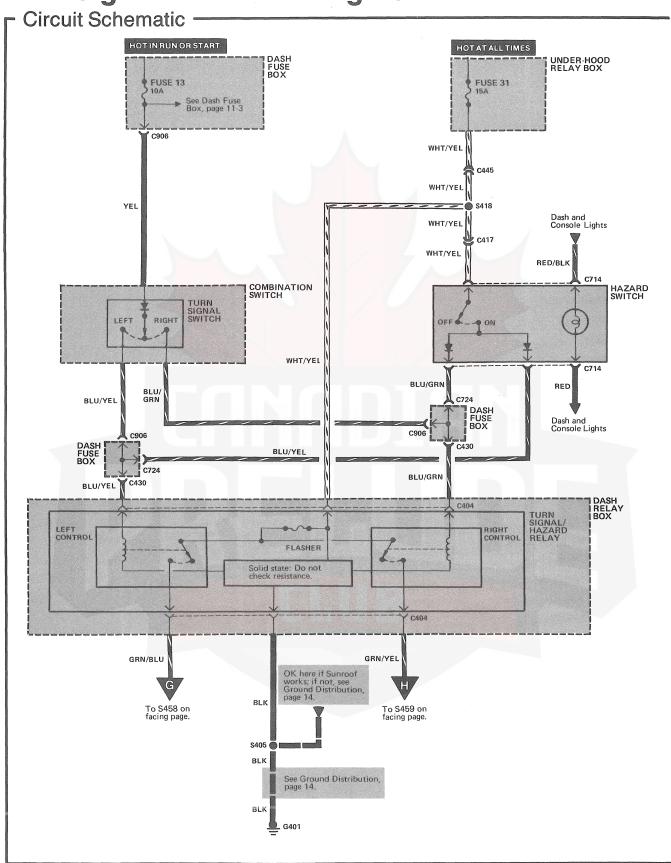
()	
Dash Fuse BoxBehind left side of dash	70
C209 (3-GRN)Behind right side of front bumper	69
C304 (3-GRN)	69
C421 (20-WHT)	71
C426 (7-YEL)	72
C445 (22-WHT)	12
C724 (14-WHT)	80
C906 (8-WHT)	30
G201 Right side of engine compartment	12
G302	14

### How The Circuit Works

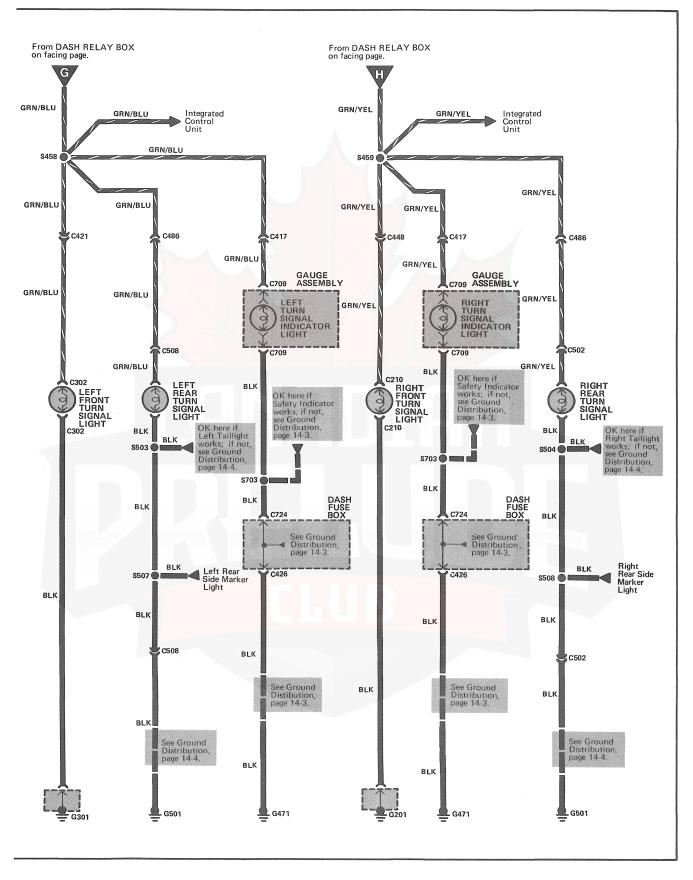
Voltage is applied through fuse 15 to the headlight switch at all times. With the headlight switch in PARK or HEAD, voltage is applied to the parking lights: The parking lights go on.



# **Turn Signal and Hazard Lights**







# **Turn Signal and Hazard Lights**

Component Location index —	
(Refer to Section 201 for photographs.)	
Dash Fuse BoxBehind left side of dash	70
Dash Relay Holder	98
Turn Signal/Hazard RelayBehind left side of dash, on relay holder	63
Under-Hood Relay Box	102
C210 (2-WHT)	66
C302 (2-WHT)	67
C417 (24-WHT)	78
C421 (20-WHT)	71
C426 (7-YEL)	72
C430 (10-YEL)	72
C445 (22-WHT)	112
C448 (7-WHT)	73

C486 (13-WHT)Upper right side of trunk	26
C502 (8-WHT)	23
C508 (8-WHT)	25
C709 (12-WHT)On rear of gauge assembly	81
C724 (14-WHT)Behind LH side of dash, on front of dash fuse box	80 ×
C906 (8-WHT)	80
G201 Right side of engine compartment	12
G301	14
G401	74
G471	20
G501	26



### How The Circuit Works

### **Turn Signal Operation**

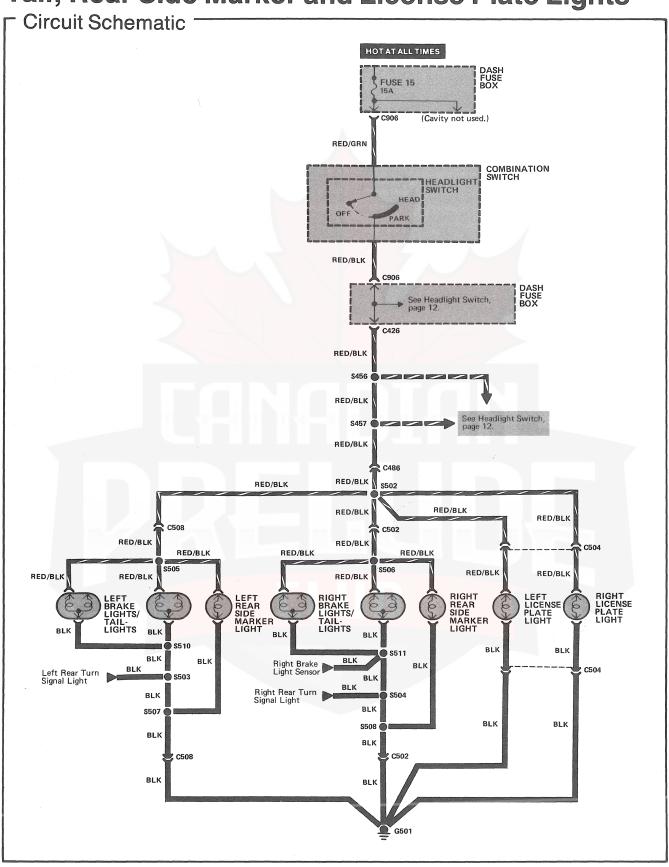
Voltage is applied through fuse 31 to the turn signal/hazard relay contacts and flasher at all times. With the ignition switch in RUN or START and the turn signal switch in LEFT, voltage is applied to the left control coil of the turn signal/hazard relay. The solid-state flasher provides a ground for the relay coil. The coil controls the relay contacts. As the contacts open and close, the left turn signal lights and indicator light flash.

Right turn operation is similar to left turn operation. With the turn signal switch in the RIGHT position, the right turn signal lights and indicator light will both flash.

### **Hazard Flasher Operation**

With the hazard switch ON, voltage is always applied to the turn signal/hazard relay coils, flasher, and contacts. The solid-state flasher provides a ground for the relay coils. The coils control the relay contacts. As the contacts open and close, all the turn signal lights and both indicator lights flash.

Tail, Rear Side Marker and License Plate Lights





### Component Location Index (Refer to Section 201 for photographs.) Dash Fuse Box..... Behind left side of dash On rear of dash fuse box Upper right side of trunk In right rear of trunk Behind center of rear bumper In left rear of trunk C906 (8-WHT) . . . . . . . . . . . . . . . . . 80 On front of dash fuse box

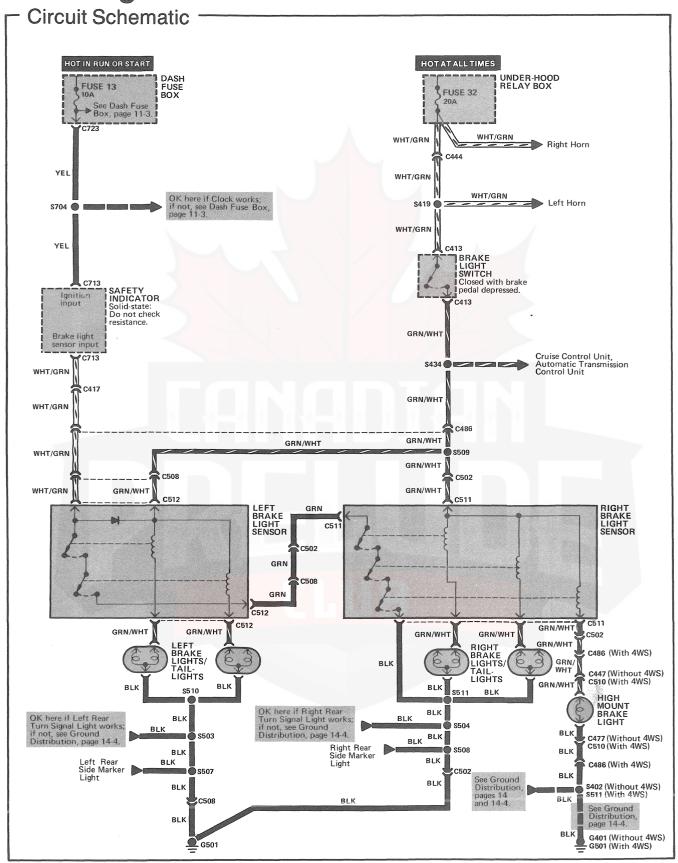
Right side of trunk

### How The Circuit Works

Voltage is applied through fuse 15 to the headlight switch at all times. With the headlight switch in PARK or HEAD, voltage is applied to all the lights in this circuit: The tail, rear side marker, and license plate lights go on.



# **Brake Lights**





### **Component Location Index**

(Refer to Section 201 for photographs.)
Brake Light Switch
Dash Fuse Box
Left Brake Light Sensor
Right Brake Light Sensor
Under-Hood Relay Box
C417 (24-WHT)
C444 (4-WHT)
C477 (2-WHT)
C486 (13-WHT)
C502 (8-WHT)
C508 (8-WHT)
C510 (2-WHT)
C713 (16-YEL)
C723 (4-WHT)
G401
G501

### How The Circuit Works

With the brake switch closed, current flows through the brake switch, the brake light sensors' coils and the brake light filaments to ground: The brake lights go on. The brake light sensors' coils offer very little resistance to the brake light current.

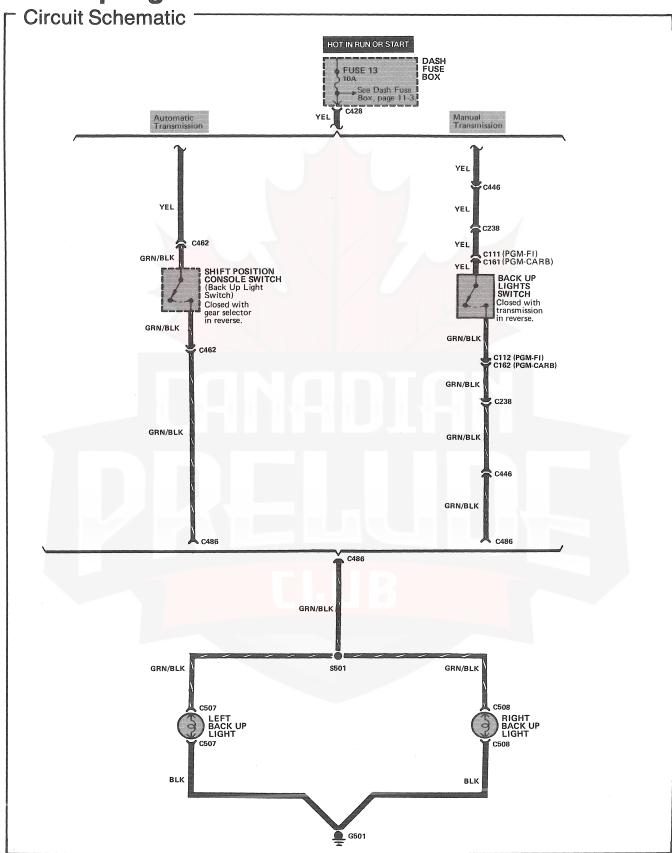
### Safety Indicator Input

If the safety indicator senses a burned out brake light filament, it lights up the "Brake Lamp" symbol on the safety indicator panel. The safety indicator senses ground through the brake light sensors and brake light filaments. With the brake switch open (brake lights off), the safety indicator senses ground through any of the five brake light sensors' coils and brake light filaments. The safety indicator does not light up the "Brake Lamp" symbol.

When the brake switch is closed (brake lights on), current through the brake light sensors' coils and brake lights to ground closes the brake light sensors' contacts. The safety indicator is then grounded through the brake light sensors' contacts. If all five brake light filaments are good, the safety indicator senses ground through the five sensor contacts. The safety indicator does not light up the "Brake Lamp" symbol.

If any one of the five brake light filaments is burned out, the brake light sensor coil for that filament does not receive ground, so its contacts remain open. With the contacts open, the safety indicator does not sense ground, so the indicator lights up the "Brake Lamp" symbol on the safety indicator panel. The symbol remains on until the ignition switch is turned off.

# **Back Up Lights**





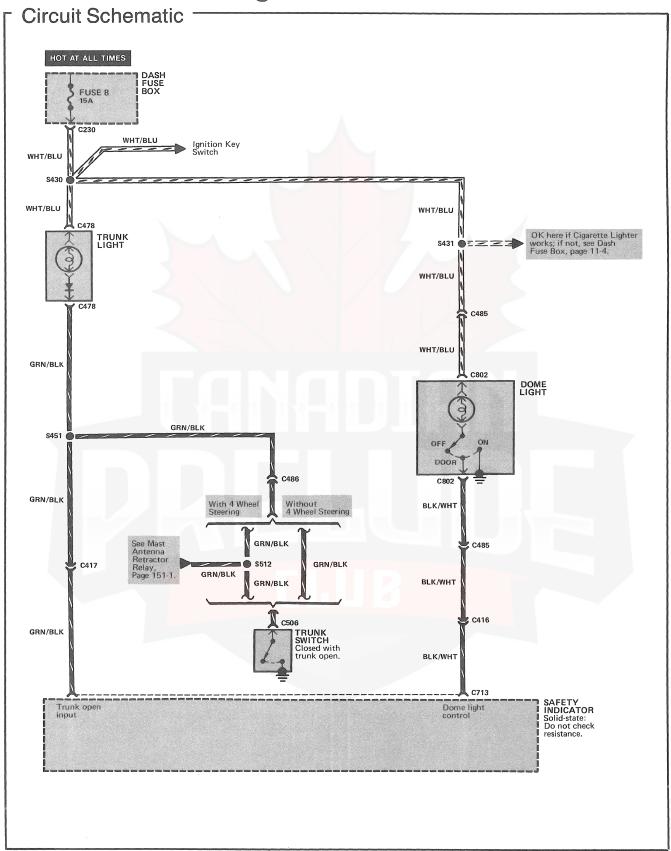
### **Component Location Index**

(Refer to Section 201 for photographs.)	
Back Up Lights Switch	51
Dash Fuse Box	70
Shift Position Console Switch	60
C111 (1-BLK)	51
C112 (1-BLK)	51
C161 (1-BLK)	110
C162 (1-BLK)	110
C238 (8-WHT)	56
C446 (23-GRN)	73
C462 (10-WHT)On center of floor, near gear selector	60
C486 (13-WHT)	26
G501	26

### How The Circuit Works

With the ignition switch in RUN or START, voltage is applied through fuse 13 to the shift position console switch (with automatic transmission), or to the back up lights switch (with manual transmission). When you shift the gear selector lever to reverse, the shift position console switch or the back up lights switch closes and voltage is applied to the back up lights: The back up lights go on.

# **Dome and Trunk Lights**





### (Refer to Section 201 for photographs.) Behind left side of dash In rear of trunk Under left side of dash, right of steering column Under left side of dash, right of steering column Under right side of dash In right quarter panel Upper right side of trunk

On rear of gauge assembly

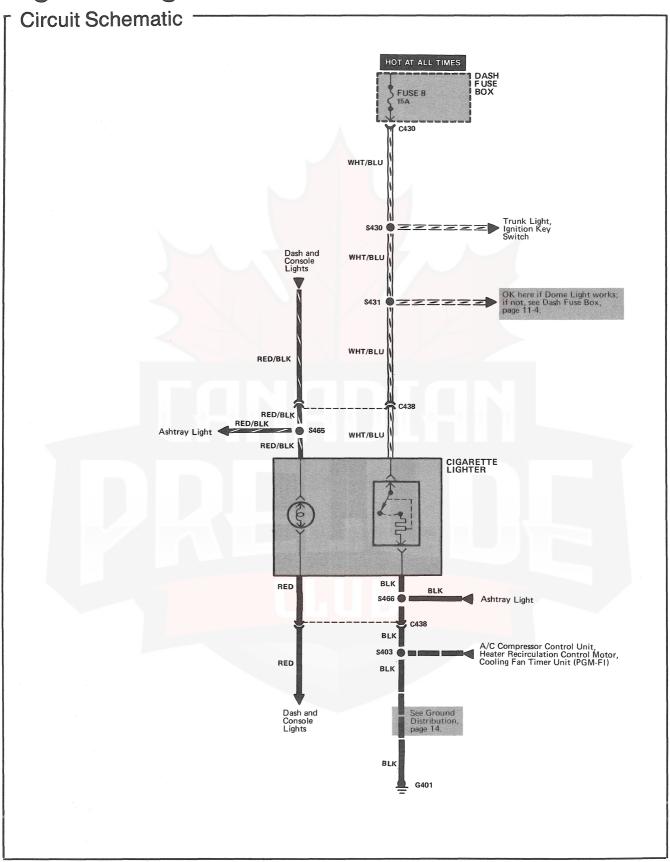
Voltage is applied at all times through fuse 8 to the trunk and dome lights.

When you open the trunk lid, the trunk switch closes providing a path to ground for the trunk light circuit: The light goes on. The safety indicator senses that the trunk switch is closed and lights the trunk-open symbol on the indicator panel.

When the dome light switch is in the DOOR position and you open a door, a ground path is provided by the safety indicator through the closed light switch: The dome light goes on. With the door closed, you can turn on the dome light by turning the light switch to



# **Cigarette Lighter**





### Component Location Index

### (Refer to Section 201 for photographs.)

Dash Fuse BoxBehind left side of dash	70
C430 (10-YEL)	72
C438 (4-WHT)	79
G401 Rehind ton center of dash	74

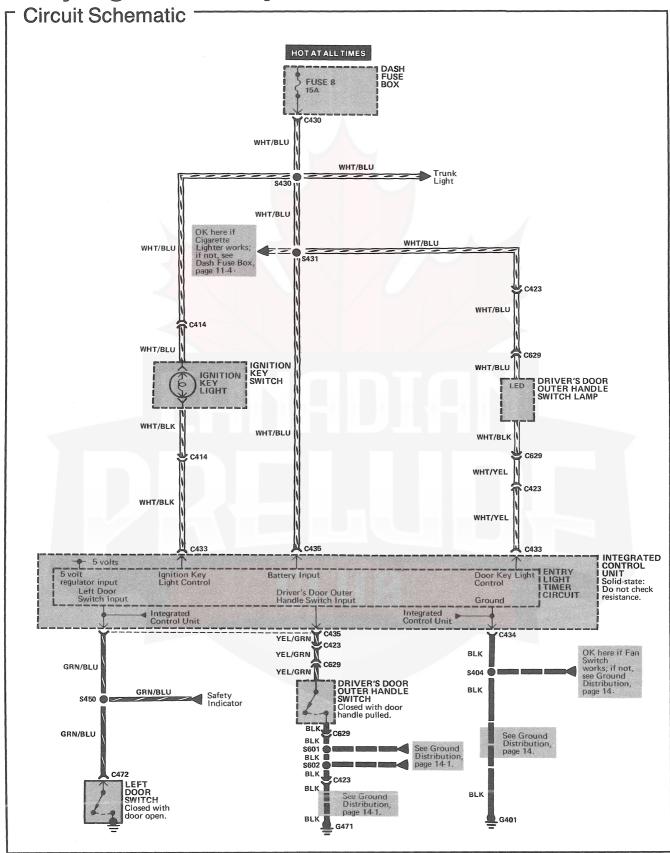
### **How The Circuit Works**

Voltage is applied at all times through fuse 8 to the cigarette lighter. When you depress the lighter, the lighter element completes the circuit to ground. When the element becomes sufficiently heated, it is spring-released and the circuit opens.





# **Entry Light Timer System: PGM-FI**





# Component Location Index (Refer to Section 201 for photographs.)

(Refer to Section 201 for photographs.)
Dash Fuse Box
Driver's Door Outer Handle Switch
Ignition Key Switch
Integrated Control Unit
Left Door Switch
C414 (4-BLU)
C423 (18-WHT)
C430 (10-YEL)
C433 (12-BLU)
C434 (4-WHT)
C435 (16-BLU)
C629 (4-WHT)
G401
G471

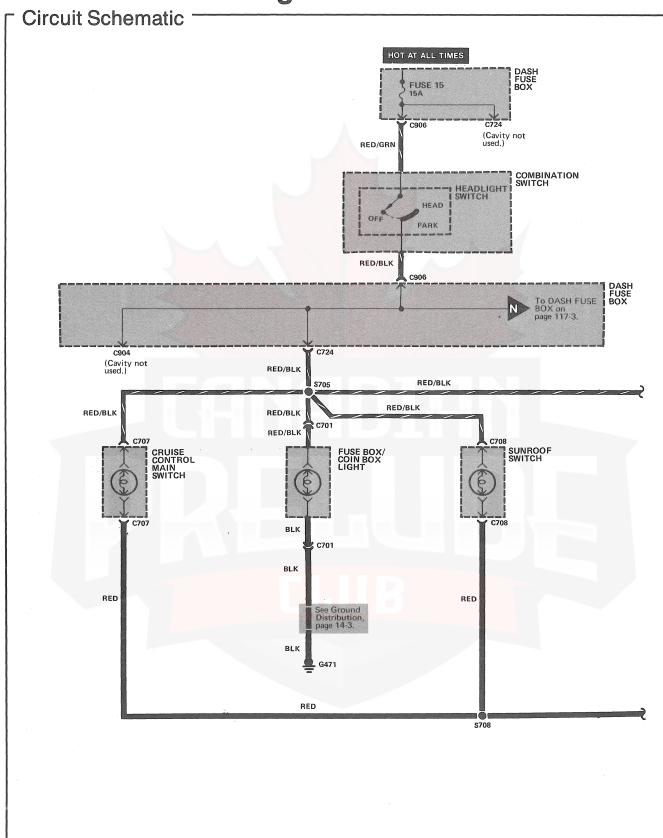
### How The Circuit Works

Voltage is applied at all times through fuse 8 to the ignition key switch light, the footwell light, and the door key light.

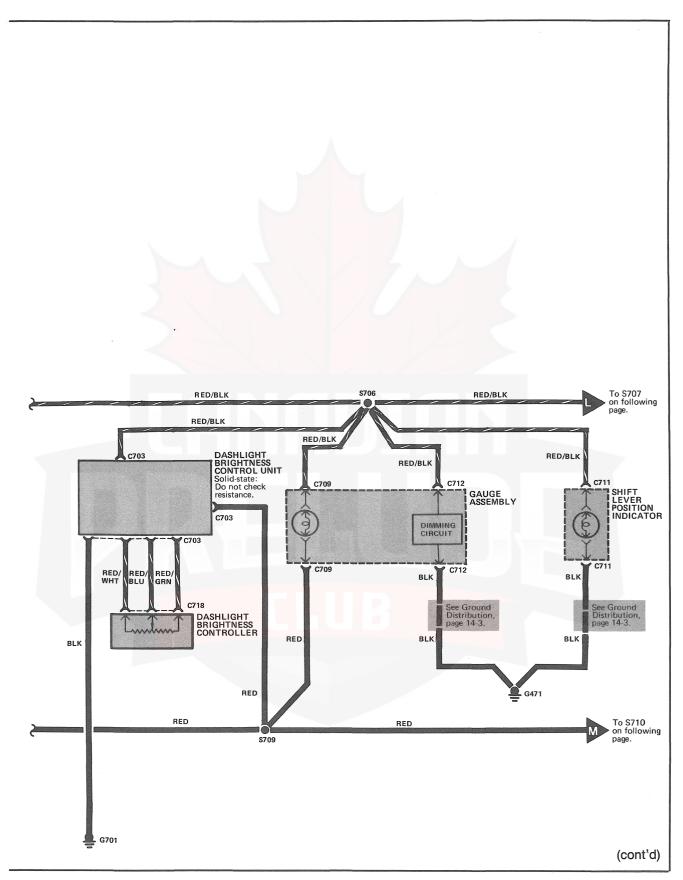
When you lift the driver's door handle, the driver's door outer handle switch input to the integrated control unit is grounded. The integrated control unit provides a path to ground for the ignition key light, the footwell light, and the door key light: The lights go on. When you open the driver's door, the left door switch closes and the lights stay on.

When you close the driver's door, the left door switch opens. The integrated control unit continues to provide ground for the light circuits for approximately eight seconds.

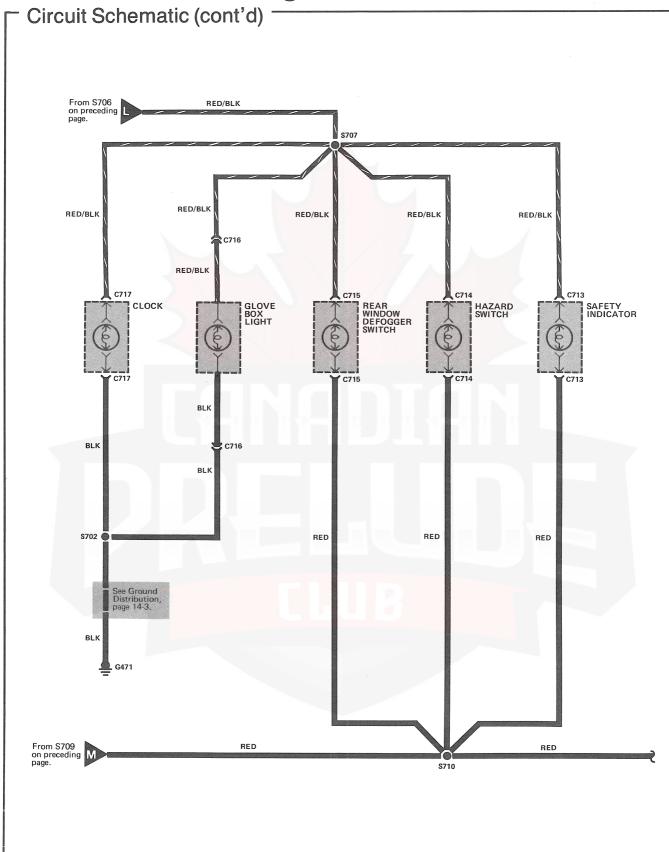
# **Dash and Console Lights**



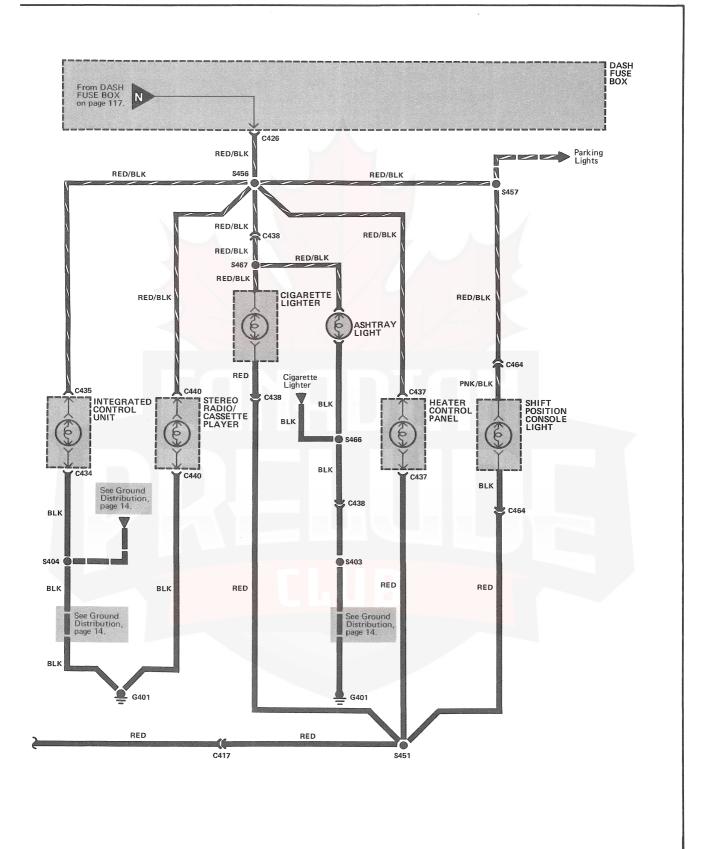




# **Dash and Console Lights**







# **Dash and Console Lights**

### Component Location Index (Refer to Section 201 for photographs.) Behind left side of dash Integrated Control Unit . . . . . . . . . . . . 64 Behind center of dash Under left side of dash, right of steering column On rear of dash fuse box C434 (4-WHT) . . . . . . . . . . . . . . . 64 Behind center of dash, on integrated control unit C435 (16-BLU) . . . . . . . . . . . . . . . . . 64 Behind center of dash, on integrated control unit Behind center of dash On rear of stereo radio cassette player C464 (2-WHT) . . . . . . . . . . . . . . . 60 On center of floor, near gear selector Under left side of dash On rear of gauge assembly Behind right center of dash C724 (14-WHT). . . . . . . . . . . . . . . . . . 80 Behind LH side of dash, on front of dash fuse box C904 (9-WHT) Behind LH side of dash, on front of dash fuse box C906 (8-WHT) . . . . . . . . . . . . . . . . 80 On front of dash fuse box Behind top center of dash Behind right side of rear seat Behind center dash, on center frame

### How The Circuit Works

Voltage is applied at all times through fuse 15 to the headlight switch. With the headlight switch in HEAD or PARK, voltage is applied to the dash and console lights: The lights come on. The glove box light comes on when the glove box door is opened.

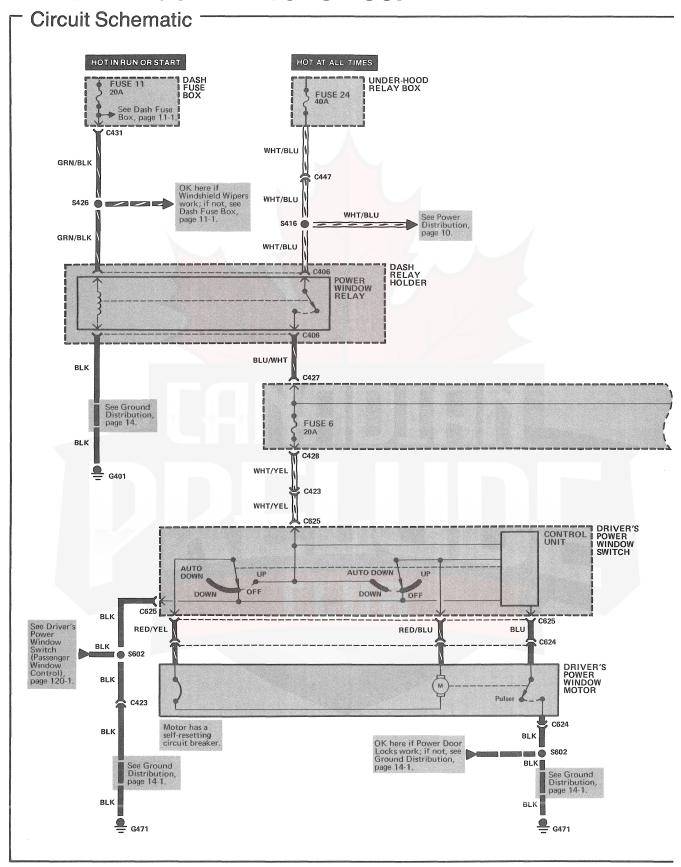
The lights connected with the RED wire to the dashlight brightness control unit can be dimmed by using the dashlight brightness controller, a variable resistor.





# CANADIAN - PAELUB - CLUB

# **Power Window: Driver's Door**



# **Right Front Door**



- Circuit Schematic DASH FUSE BOX FUSE 5 BLU/BLK C428 S422 ( BLU/BLK C451 BLU/BLK C675 PASSENGER'S POWER WINDOW SWITCH C675 BLU/BLK DOWN DOWN OFF BLU/YEL BLU/GRN BLU/RED BLU/WHT BLU/YEL BLU/GRN C423 BLU/YEL BLU/GRN C625 PASSENGER'S POWER WINDOW MOTOR DRIVER'S POWER WINDOW SWITCH DOWN OFF Passenger's Window Control OFF ( C625 See Ground Distribution, page 14-1. See Driver's Power Window Switch (Driver's Window Control), page 120. BLK BLK S602 💂 G471

## **Power Windows: PGM-FI**

•	Component Location Index -	
	(Refer to Section 201 for photographs.)	
	Dash Fuse Box  Behind left side of dash	70
	Dash Relay Holder	98
	Driver's Power Window Motor	28
	Passenger's Power Window Motor	32
	Power Window Control Unit	29
	Power Window Relay	98
	Under-Hood Relay Box	102
	C423 (18-WHT)	111
	C427 (6-YEL)	72
	C428 (14-YEL)	72
	C431 (4-YEL)	72
	C447 (3-WHT)	73
	C451 (14-WHT)	58
	C624 (6-WHT)	29
	C625 (10-WHT)	28
	C675 (6-WHT)	32
	C676 (2-WHT)	32
	G401	74
	G471 Behind right side of rear seat	20

## How The Circuit Works

## **System Description**

The operation of the power windows is controlled by the master switch in the driver's power window switch. When the main switch is off, only the driver's door window can be opened or closed. With the master switch in ON, all windows can be opened or closed by the driver's power window master switch or each window by its respective switch. The driver's window switch also has an automatic down mode which is controlled at the driver's power window switch.

The power windows are driven by reversible motors. Each motor is protected by a built-in circuit breaker. If a window switch is held on too long (with the window obstructed, or after the window is fully up or down) the circuit breaker opens the circuit. The circuit breaker resets automatically as it cools.

When the ignition switch is in RUN or START, voltage is applied to the coil in the power window relay. The contacts of the power window relay close and voltage is applied to the driver's power window switch, the power window control unit, and the passenger's power window switch. When the ignition switch is turned from RUN or START to ACC or OFF and both front doors are closed, the integrated control unit will keep the power window relay energized for approximately ten minutes or until one of the doors is opened.



## **Driver's Window**

With the ignition switch in RUN or START, voltage is applied to the coil of the power window relay. The contacts of the power window relay close and voltage is applied through fuse 6 to the driver's power window switch and the power window control unit. When you move the driver's power window switch to UP, voltage is applied to the power window control unit up input. Voltage is then applied through the power window control unit (motor up control) to the driver's power window motor. The motor's ground path is back through the power window control unit. The power window motor drives the window up. When you move the driver's power window switch to DOWN, voltage is applied to the power window motor in the opposite direction: The motor drives the window down.

## **Automatic Down (Driver's Window)**

With the ignition switch in RUN or START, voltage is applied to the coil of the power window relay. The contacts of the power window relay close and voltage is applied to the driver's power window master switch and the power window control unit. When you push the driver's switch to the AUTO DOWN position, voltage is applied through the driver's power window switch to the power window control unit's down and auto down hold inputs. The voltage triggers the power window control unit and voltage is applied from the power input through the motor down control output to the power window motor. The power window control unit receives voltage pulses at the pulser input while the motor is operating. When the window is fully down, the motor stops and pulses are no longer generated by the pulser. This is sensed by the power window control unit at the pulser input and voltage is no longer applied to the power window motor.

## Passenger's Window

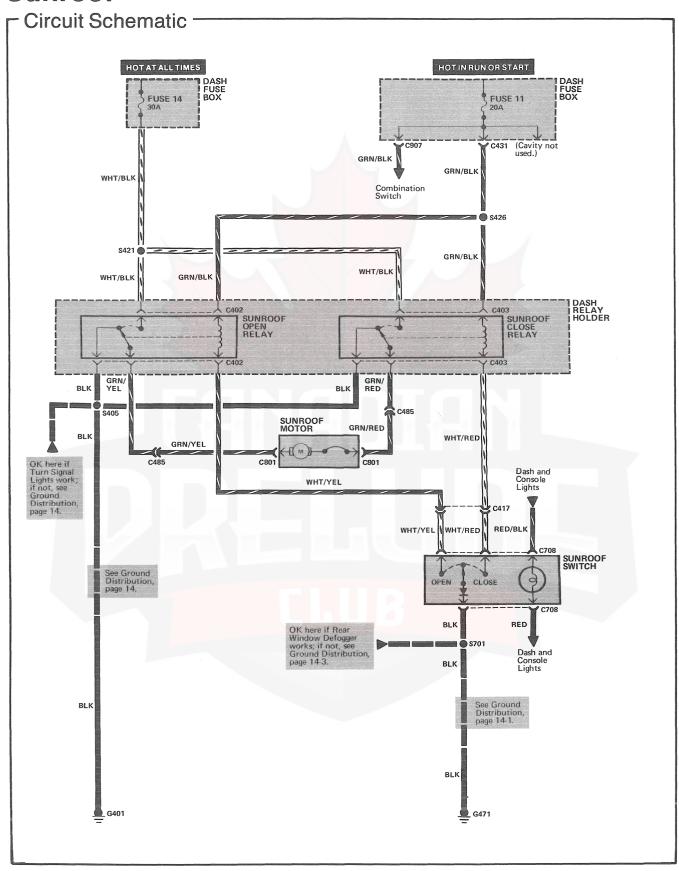
With the ignition switch in RUN or START, voltage is applied to the coil of the power window relay. The contacts of the power window relay close and voltage is applied through fuse 5 to the passenger's power window switch and the driver's power window switch. If you close the master switch in the driver's power window switch, the passenger's window can be operated from the individual window switch or from the driver's power window switch.

When you move the passenger's power window switch to UP, voltage is applied to the passenger's power window motor. The motor is grounded through the contacts in the passenger's power window switch and the driver's power window switch. The window moves up as long as the switch is held in the UP position. If the passenger's power window switch is moved to DOWN, voltage is applied to the passenger's power window motor in the opposite direction. The window moves down as long as the switch is held in the DOWN position.

When the driver's passenger window switch is moved to UP, voltage is applied through the passenger's power window switch contacts to the passenger's power window motor. The motor is grounded through the contacts in the passenger's power window switch and the driver's power window switch. The window moves up as long as the switch is held in the UP position. If the driver's passenger window switch is moved to DOWN, voltage is applied to the passenger's power window motor in the opposite direction. The window moves down as long as the switch is held in the DOWN position.



# **Sunroof**





## **Component Location Index**

(Refer to Section 201 for photographs.)	
Dash Fuse Box	70
Dash Relay Holder	98
Sunroof Close RelayBehind left side of dash, on relay holder	63
Sunroof Motor Center rear of roof	
Sunroof Open Relay	63
C417 (24-WHT)	78
C431 (4-YEL)	72
C485 (8-WHT)	20
C907 (10-WHT)On front of dash fuse box	80
G401 Behind top center of dash	74
G471 Behind right side of rear seat	20

## How The Circuit Works

## **System Description**

The sunroof is driven by a reversible motor which opens and closes the sunroof. Voltage is applied at all times through fuse 14 to the normally open contacts in the sunroof close relay and sunroof open relay. With the ignition switch in RUN or START, voltage is applied through fuse 11, the sunroof close relay coil, and the sunroof open relay coil to the sunroof switch contacts.

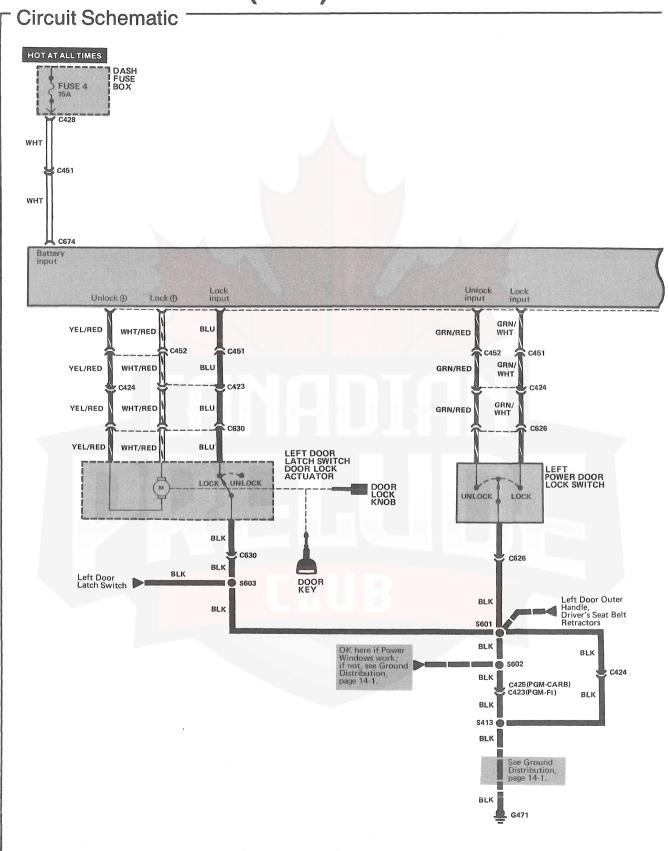
## **Opening the Sunroof**

When the sunroof switch is in the OPEN position, the sunroof open relay coil is grounded through the sunroof switch open contacts to G471. The coil energizes and the sunroof open relay contacts close. Voltage is applied to the sunroof motor. The sunroof motor is grounded through the sunroof close relay contacts to G401. The sunroof motor operates to open the sunroof. The sunroof motor operates until the sunroof switch is moved from the OPEN position.

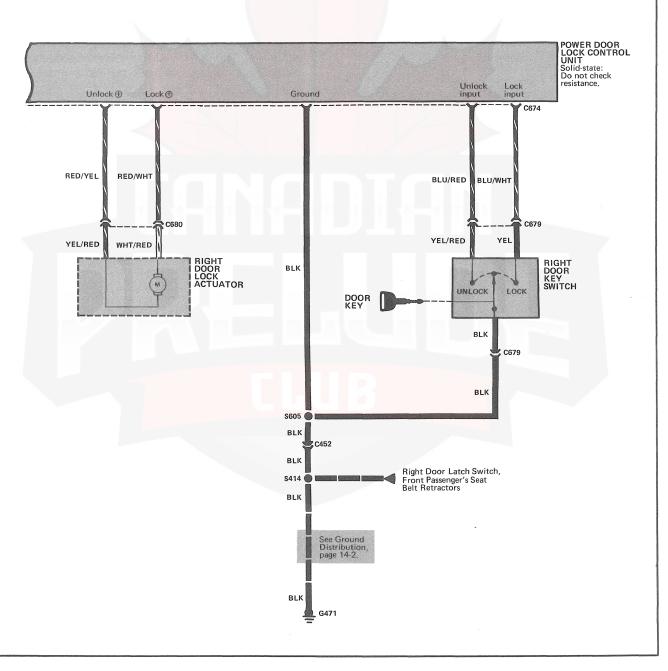
## Closing the Sunroof

When the sunroof switch is in the CLOSE position, the sunroof close relay coil is grounded through the sunroof switch close contacts to G471. The coil energizes and the sunroof close relay contacts close. Voltage is applied to the sunroof motor. The sunroof motor is grounded through the sunroof open relay contacts to G401. The sunroof motor operates to close the sunroof. The sunroof motor operates until the sunroof switch is moved from the CLOSE position.

# **Power Door Locks (4WS)**







# **Power Door Locks (4WS)**

## **Component Location Index** (Refer to Section 201 for photographs.) Dash Fuse Box..... 70 Behind left side of dash In driver's door Driver's Power Door Lock Switch In driver's door Left Door Latch Switch/Door Lock Actuator In rear half of driver's door In front half of passenger's door In passenger's door Right Door Key Switch In passenger's door Right Door Lock Actuator In passenger's door C423 (18-WHT)......111 Behind right kick panel Behind right kick panel Behind right kick panel On rear of dash fuse box Behind right kick panel Behind right kick panel In front half of driver's door In rear half of driver's door In rear of passenger's door In rear of passenger's door Behind right side of rear seat

## How The Circuit Works

Voltage is applied at all times through fuse 4 to the power door lock control unit.

When you use the key to turn the left door lock actuator or right door key switch to the LOCK position, a path to ground is supplied to one of the control unit's lock inputs. The power door lock control unit applies voltage to the door lock actuators: The doors lock.

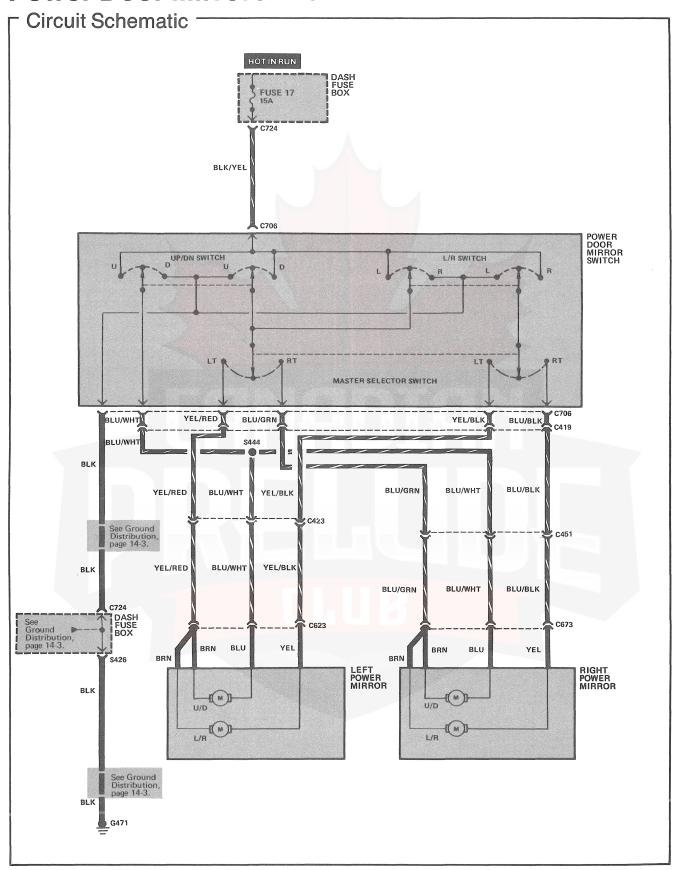
When you use the key to turn the left door lock acutator or right door key switch to the UNLOCK position, a path to ground is supplied to the control unit's unlock input. Voltage is applied to the door lock actuators: The polarity of the voltage applied to the actuators is now reversed and the doors unlock.

Both doors can be electrically locked and unlocked from the driver's power door lock switch. Both doors can also be unlocked mechanically from the outside with a key.





# **Power Door Mirrors: PGM-FI**





## Component Location Index ——

## (Refer to Section 201 for photographs.) Dash Fuse Box..... 70 Behind left side of dash Under left side of dash, right of steering column Behind right kick panel On rear of dash fuse box Behind right kick panel In front half of driver's door In front half of passenger's door C724 (14-WHT). . . . . . . . . . . . . . . . . 80 Behind LH side of dash, on front of dash fuse box

Behind right side of rear seat

## г How The Circuit Works

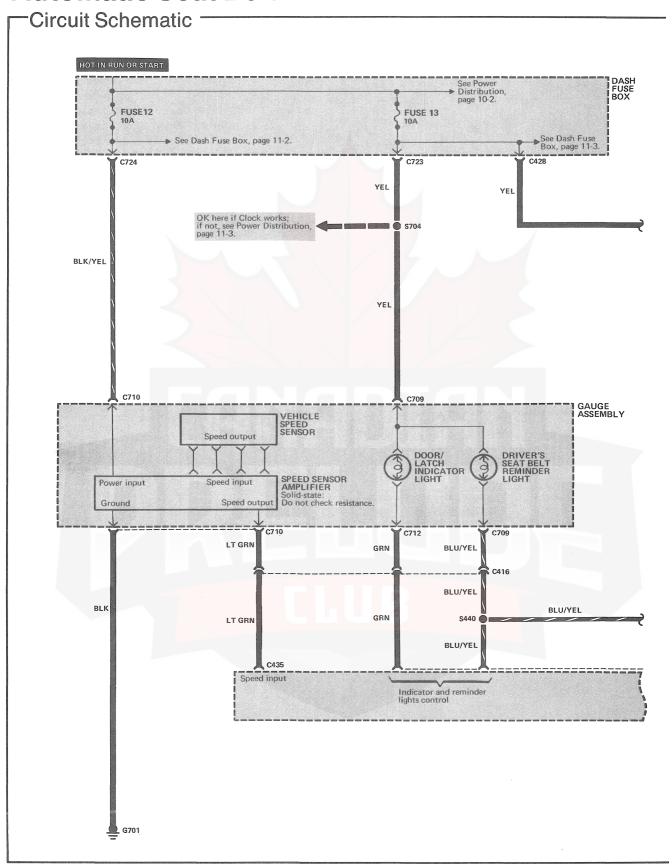
The operation of the two outside mirrors is controlled by the power mirror control switch. Each mirror has two reversible motors: One motor moves the mirror up and down, the other motor moves the mirror left and right. The power mirror control switch directs voltage to the right and left outside mirrors.

With the ignition switch in RUN, voltage is applied through fuse 17 to the power door mirror switch. With the master selector switch in LEFT and up/down switch in UP, voltage is applied through the up contacts of the up/down switch to the left power mirror up/down motor. Ground is provided through the left contacts of the master selector switch and the up contacts of the up/down switch: The mirror goes up. In the DOWN position, voltage is applied to the opposite side of the mirror.

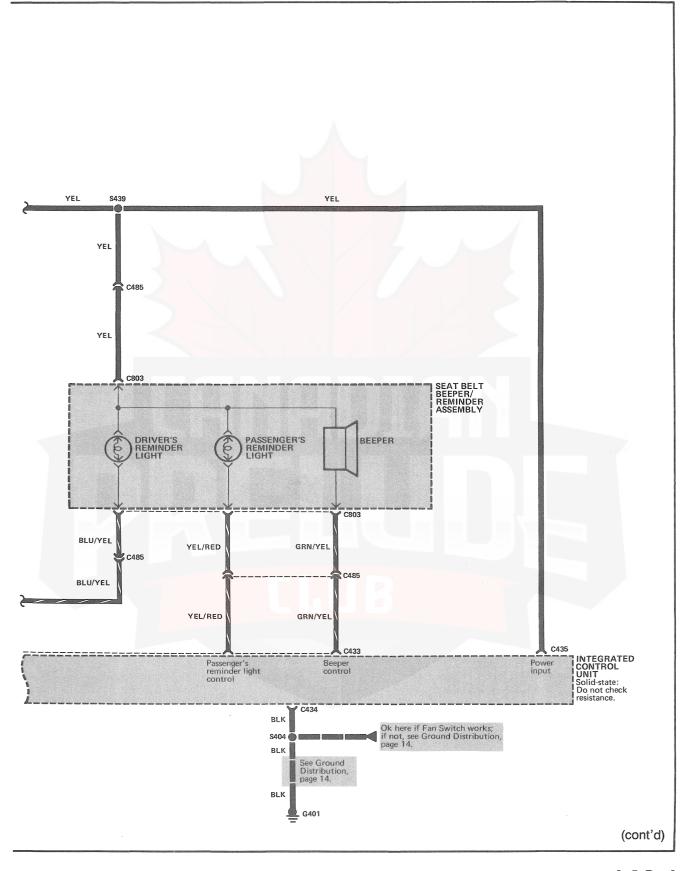
The left/right switch works similary to the up/down switch. With the master selector switch in the RIGHT position, voltage is applied to the right power mirror motors which then operate in a similar way.



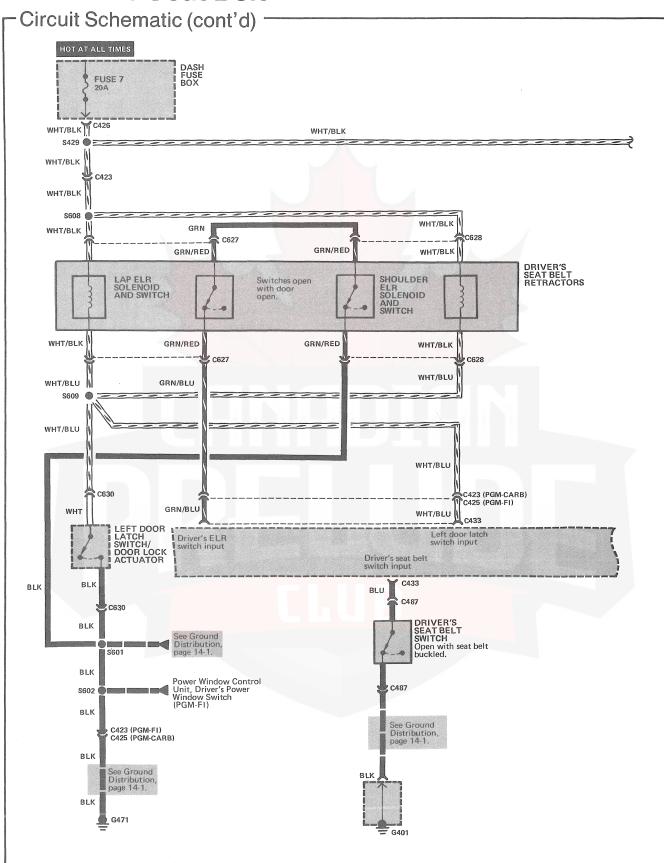
# **Automatic Seat Belt**



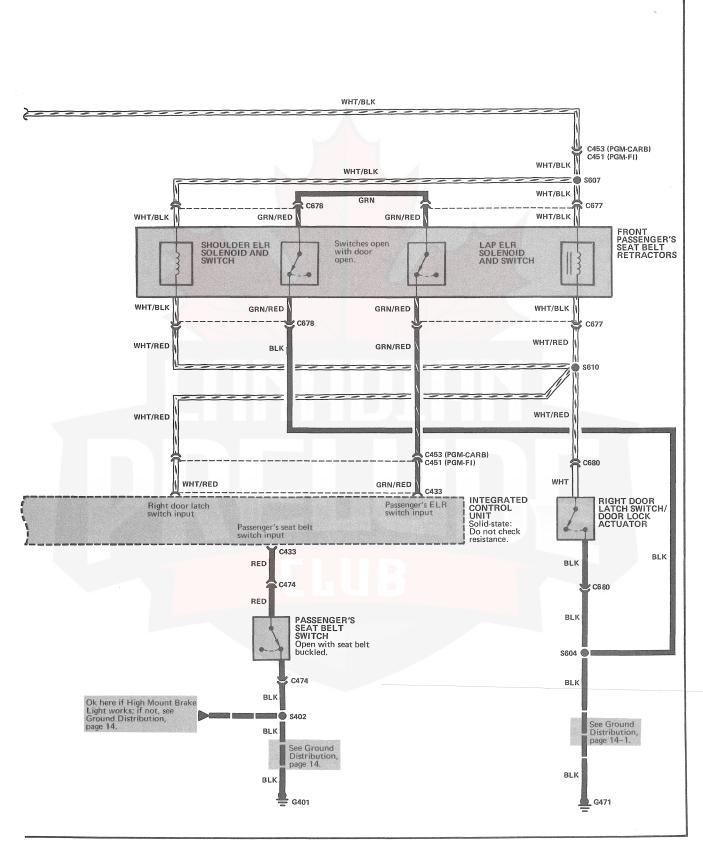




# **Automatic Seat Belt**











# □ Component Location Index

(Refer to Section 201 for photographs.)
Dash Fuse Box
Driver's Seat Belt Retractors
Driver's Seat Belt Switch In driver's seat belt buckle
Front Passenger's Seat Belt Retractors 33 In rear half of passenger's door
Integrated Control Unit
Left Door Latch Switch/Door Lock Actuator In rear half of driver's door
Passenger's Seat Belt Switch In passenger's seat belt buckle
Right Door Latch Switch/Door Lock Actuator In rear half of passenger's door
Seat Belt Beeper/Reminder Assembly 117 Center of windshield header
Speed Sensor Amplifier
Vehicle Speed Sensor
C416 (22-WHT)
C421 (20-WHT)
C423 (18-WHT)
C425 (6-WHT)
C426 (7-YEL)
C428 (14-YEL)
C433 (12-BLU) 64  Behind center of dash, on integrated control unit
C434 (4-WHT) 64  Behind center of dash, on integrated control unit
C435 (16-BLU)

C451 (14-WHT)
C453 (6-WHT)
C474 (2-WHT) Under right front seat
C485 (8-WHT)
C487 (2-WHT) Under driver's seat
C627 (4-WHT)
C628 (4-WHT)
C630 (6-WHT)
C677 (4-WHT)
C678 (4-WHT)
C680 (4-WHT)
C709 (12-WHT)
C710 (7-YEL)
C712 (14-YEL)
C723 (4-WHT)
C724 (14-WHT)
G401 74 Behind top center of dash
G471
G701



## How The Circuit Works

Battery voltage is applied to the integrated control unit through fuse 13 with the ignition switch in RUN or START.

When you open a door, the corresponding door latch switch closes. This provides a ground for the shoulder and lap solenoids. The solenoids energize, and disable the inertia switch in the seat belt retractor. This allows you to open and close the doors freely when the seat belt is buckled, without the door motion causing the seat belt retractors to lock up.

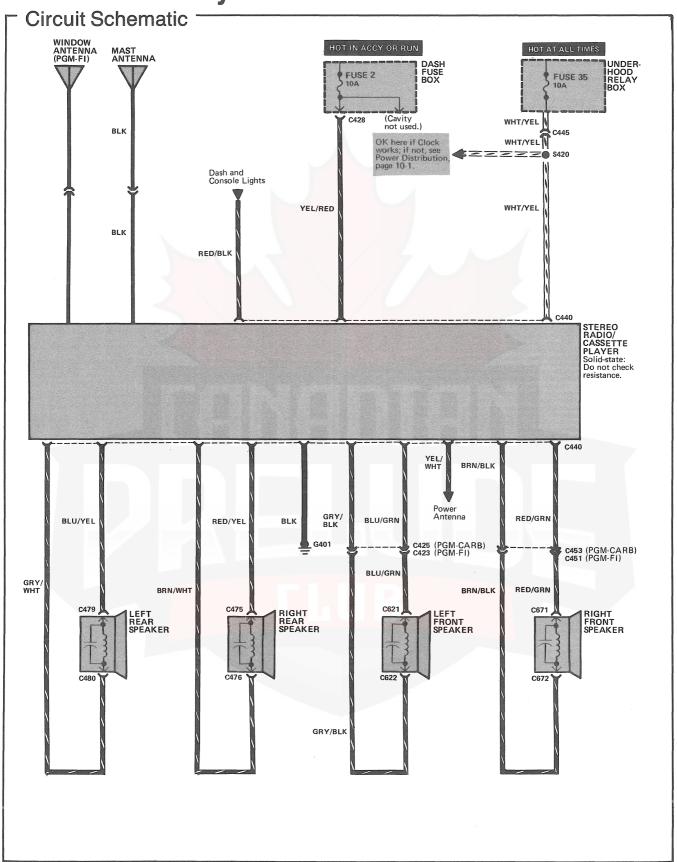
When you close a door the corresponding door latch switch opens, removing the ground for the shoulder and lap solenoids. The solenoids de-energize and operate the seat belt retractor. The seatbelt retractor will lock up in the event of a sudden deceleration.

The integrated conrtrol unit monitors the shoulder and lap solenoids using switches in the driver's seat belt retractors. When the door is opened and the solenoid is energized, the switches are open. Ground is no longer applied to the integrated control unit at the switch input. When the door is closed the solenoids de-energize and the switches are closed. Ground is applied to the switch input of the integrated control unit.

The automatic seat belt system uses two indicators (door latch indicator and driver's seat belt reminder) in the gauge assembly, a beeper and two indicators (driver's reminder light and passenger's reminder light) in the seat belt beeper/reminder assembly to alert the driver and passenger if there is an existing problem.



# **Stereo Sound System**





# Component Location Index

## (Refer to Section 201 for photographs.)

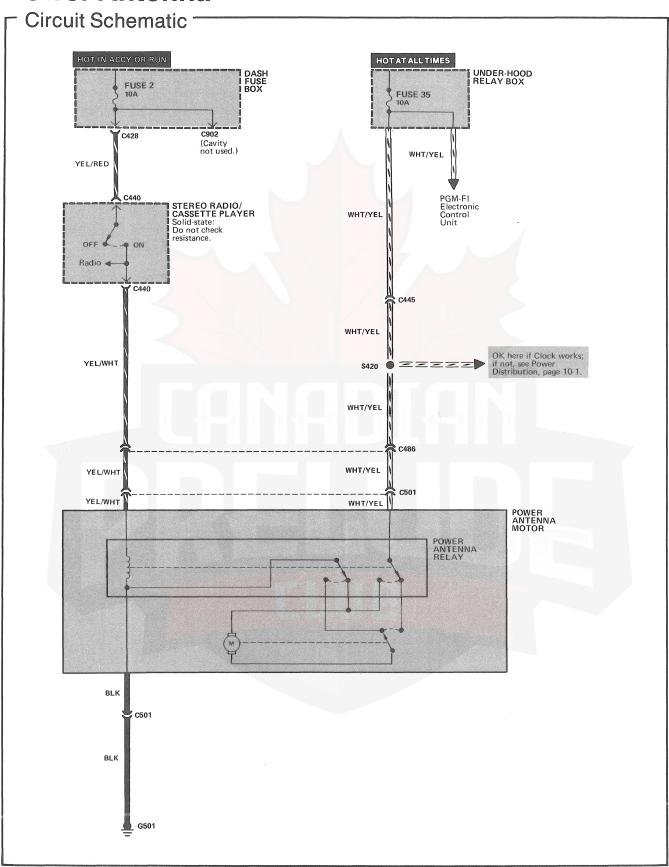
(heler to Section 201 for photographs.)
Dash Fuse Box
Under-Hood Relay Box
C423 (18-WHT)
C425 (6-WHT)
<b>C428 (14-YEL)</b>
C440 (16-WHT). 79 On rear of stereo radio cassette player
C445 (22-WHT). 112 Under right side of dash
C451 (14-WHT). 58 Behind right kick panel
C453 (6-WHT)
G401

## How The Circuit Works

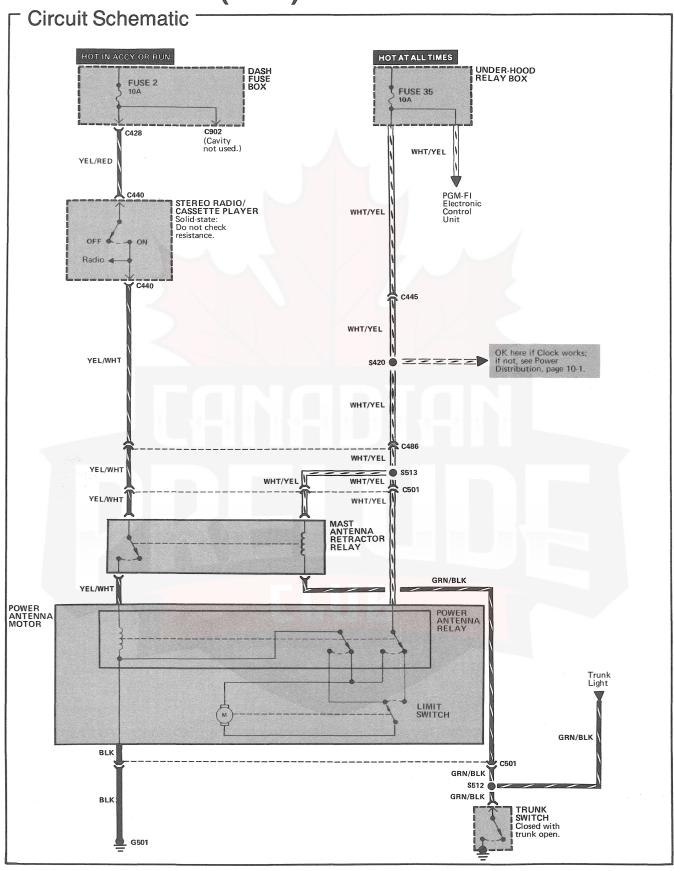
With the ignition switch in ACC or RUN, voltage is applied through fuse 2 to the radio. When you turn the radio on, current flows through fuse 2 into the receiver circuits in the radio. Fuse 35 is hot at all times and provides power to the radio for its memory circuits.



# **Power Antenna**



# Power Antenna (4WS)





## Component Location Index —— (Refer to Section 201 for photographs.) Dash Fuse Box..... 70 Behind left side of dash Mast Antenna Retractor Relay . . . . . . . . . . . 88 Right side of trunk Power Antenna Motor . . . . . . . . . . . . . . . 27 Right side of trunk In rear of trunk Right side of engine compartment On rear of dash fuse box On rear of stereo radio cassette player Under right side of dash Upper right side of trunk Right side of trunk C501 (8-WHT) (Si Model) . . . . . . . . . . . . . 26 Right side of trunk C902 (1-WHT) Behind LH side of dash, on front of dash fuse box Right side of trunk

## **How The Circuit Works**

With the ignition switch in ACC or RUN, voltage is applied through fuse 2 to the radio. Voltage is applied at all times through fuse 35 to the power antenna relay.

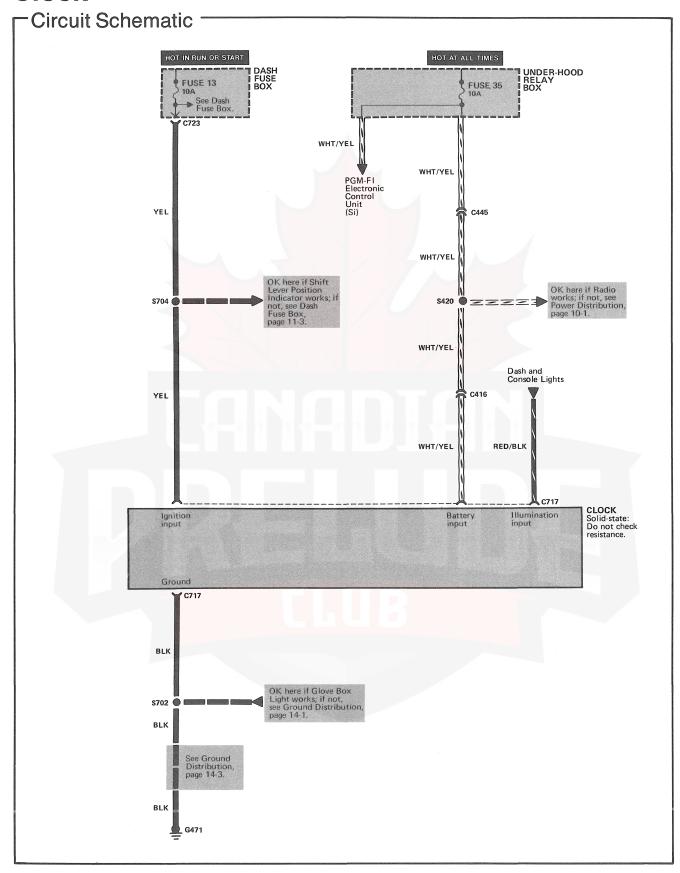
When you turn the radio on, the relay coil is energized and the contacts close. Voltage is applied to the power antenna motor: The antenna motor drives the antenna up to its fully extended position.

When you turn the radio off, the relay contacts open. The polarity of the voltage applied to the motor is now reversed: The antenna motor moves the antenna completely down. A mechanical switch controlled by the motor turns the motor off when the antenna reaches maximum height or when the antenna is fully retracted.



# CANADIAN E PRELIUB

# Clock





# Component Location Index

## (Refer to Section 201 for photographs.)

Dash Fuse Box
Under-Hood Relay Box
C416 (22-WHT)
C445 (22-WHT)
C723 (4-WHT)
G471 20

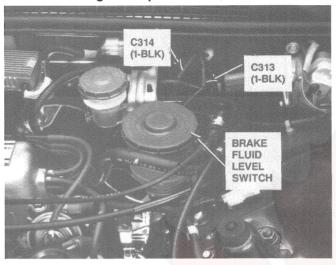
## How The Circuit Works

Voltage is applied at all times to the clock through the WHT/YEL wire to provide clock memory. With the ignition switch in RUN or START, voltage is applied to the clock through the YEL wire: The clock lights up and displays the time.

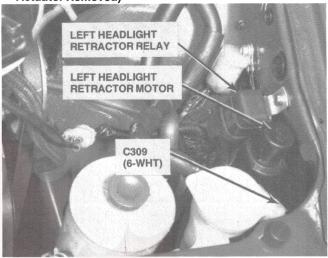


# **Component Location**

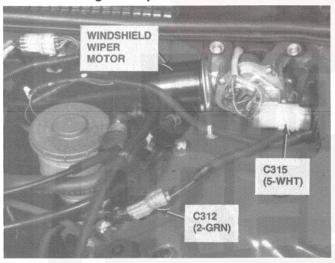
## 1. Left Rear of Engine Compartment



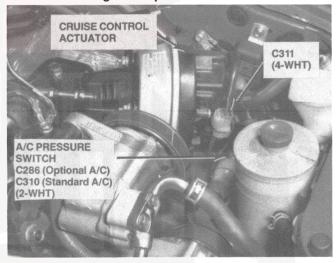
4. Left Front of Engine Compartment (With Cruise Control Actuator Removed)



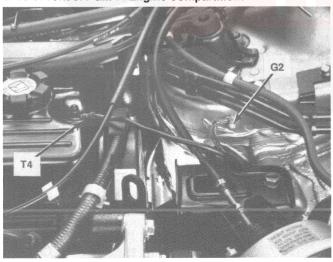
2. Left Rear of Engine Compartment



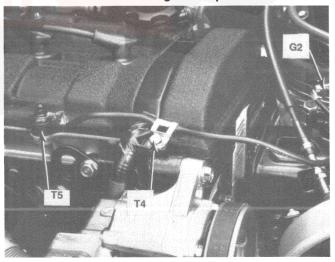
5. Left Front of Engine Compartment



3. Left Front of PGM-FI Engine Compartment

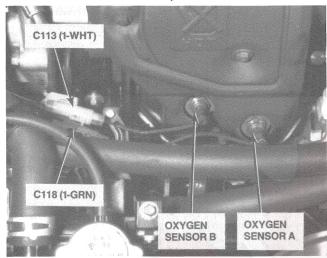


6. Left Front of PGM-CARB Engine Compartment

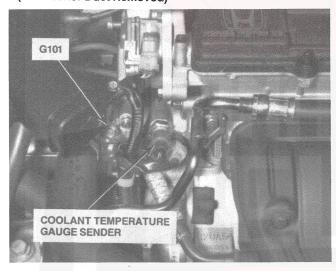




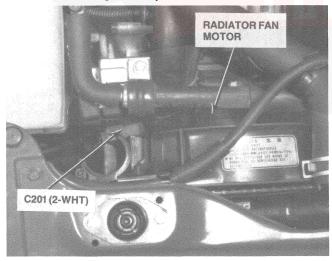
## 7. Front of PGM-FI Engine Compartment



8. Right Front of PGM-FI Engine (Air Cleaner Duct Removed)



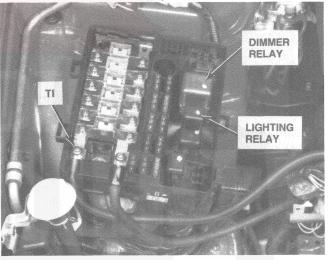
9. Right Front of Engine Compartment



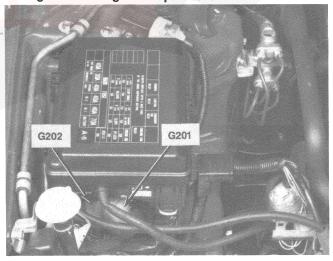
10. Right Front of Engine Compartment (Battery Removed)



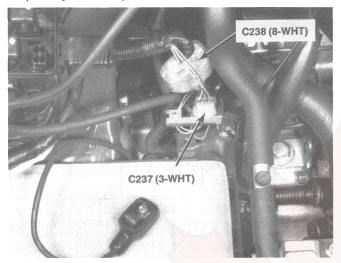
11. Right Side of Engine Compartment



12. Right Side of Engine Compartment



# Component Location 13. Right Front of Engine Compartment (Battery Removed)



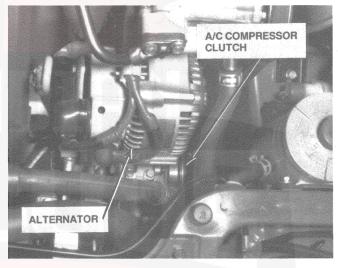
16. Right Rear of PGM-FI Engine Compartment



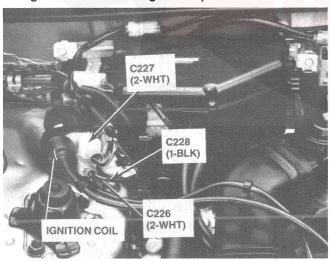
14. Right Front of Engine Compartment



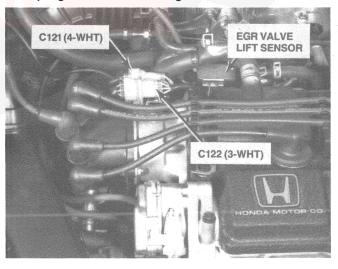
17. Left Front of Engine



15. Right Rear of PGM-FI Engine Compartment



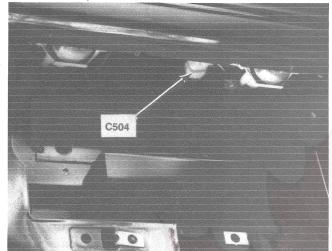
18. Top Right Side of PGM-FI Engine



201-2



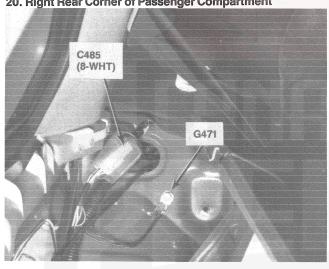
19. Rear of Car, Above License Plate



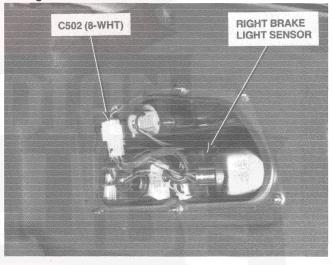
22. In Center of Trunk, Below Rear Deck



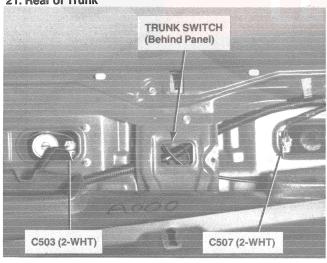
20. Right Rear Corner of Passenger Compartment



23. Right Rear of Trunk



21. Rear of Trunk

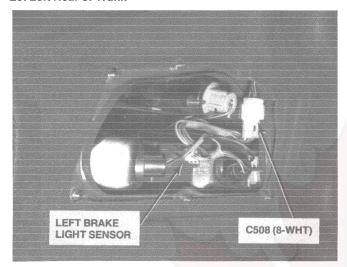


24. Left Rear Corner of Passenger Compartment

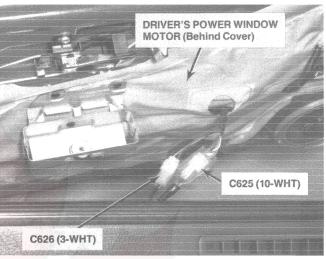


# **Component Location**

## 25. Left Rear of Trunk



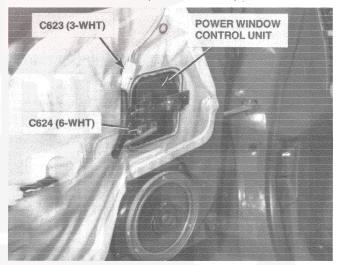
28. Center of Driver's Door (Panel Removed)



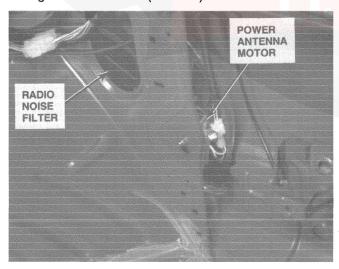
26. Right Rear of Si Trunk (S Similar)



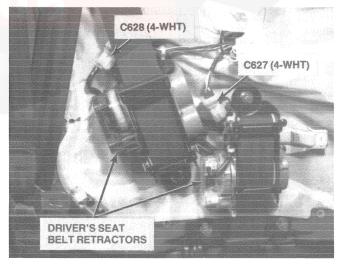
29. Front of Driver's Door (Panel Removed)



27. Right Rear of Si Trunk (S Similar)



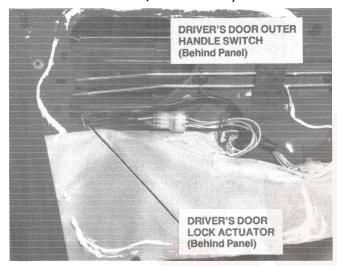
30. Rear of Driver's Door (Panel Removed)



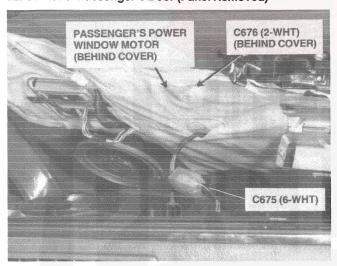
201-4



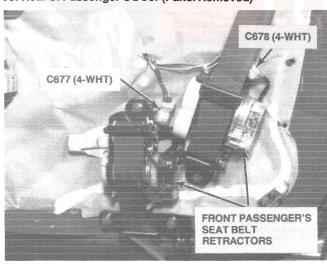
## 31. Rear of Driver's Door (Panel Removed)



## 32. Center of Passenger's Door (Panel Removed)



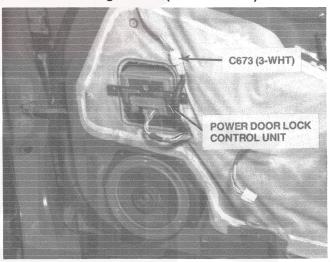
## 33. Rear of Passenger's Door (Panel Removed)



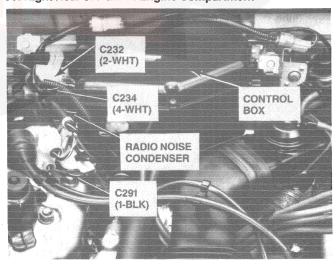
## 34. Rear of Passenger's Door (Panel Removed)



35. Front of Passenger's Door (Panel Removed)

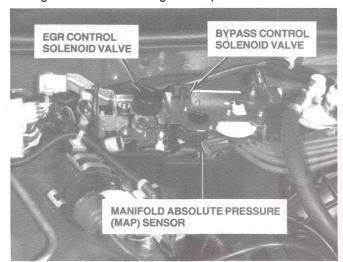


36. Right Rear of PGM-FI Engine Compartment

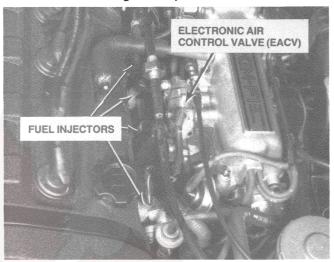


# **Component Location**

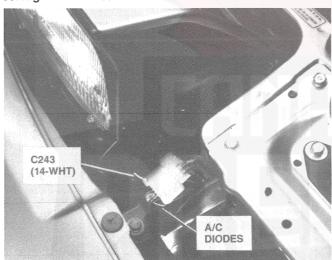
## 37. Right Rear of PGM-FI Engine Compartment



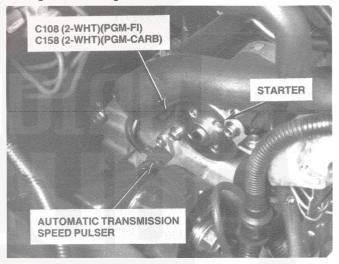
40. Rear of PGM-FI Engine Compartment



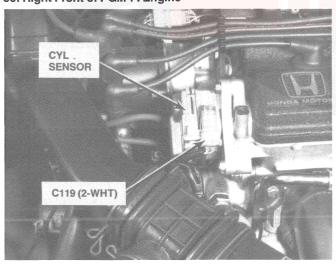
38. Right Front of Car



41. Right Side of Engine



39. Right Front of PGM-FI Engine

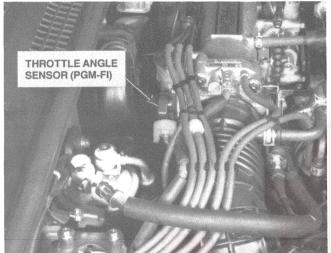


42. Right Front of Engine Compartment (Battery Removed)

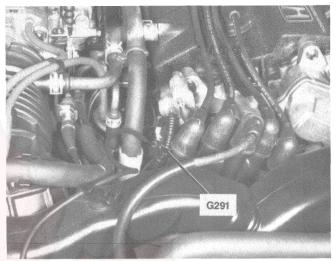




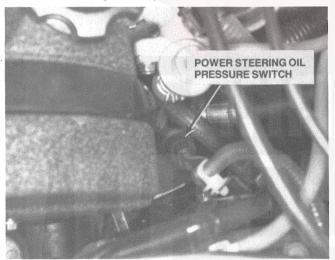
## 43. Rear of PGM-FI Engine Compartment



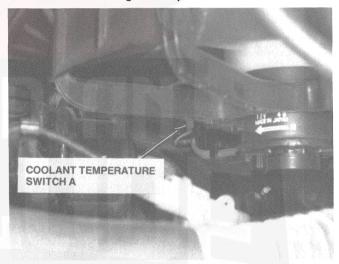
## 46. Right Side of PGM-FI Engine



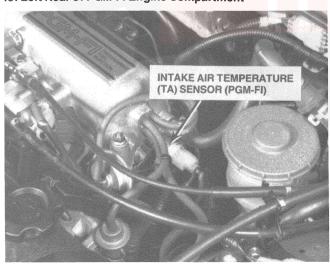
44. Left Rear of Engine Compartment



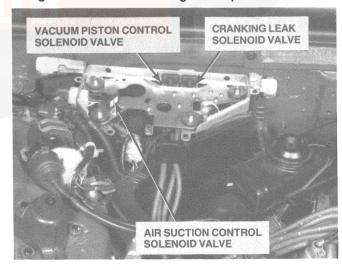
47. Front of PGM-FI Engine Compartment



45. Left Rear of PGM-FI Engine Compartment

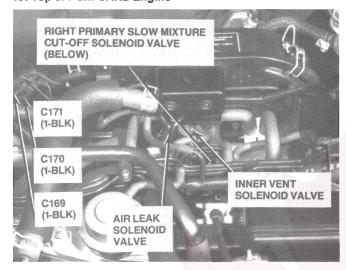


48. Right Rear of PGM-CARB Engine Compartment

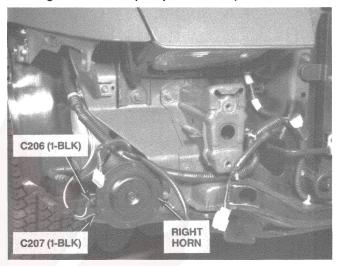


# **Component Location**

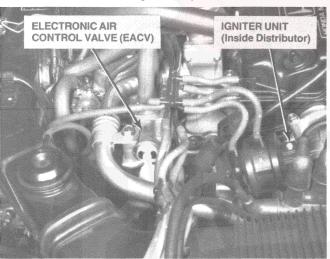
## 49. Top of PGM-CARB Engine



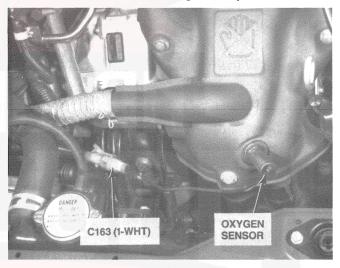
52. Right Front of Car (Bumper Removed)



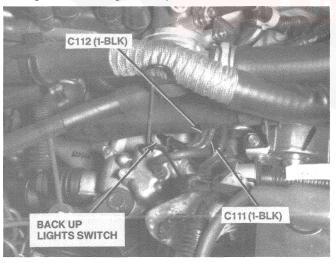
50. Rear of PGM-CARB Engine Compartment



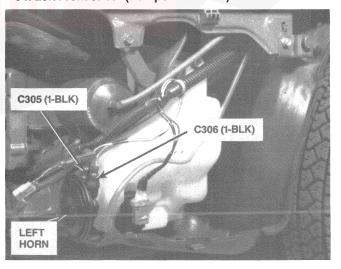
53. Left Front of PGM-CARB Engine Compartment



51. Right Front of Engine Compartment

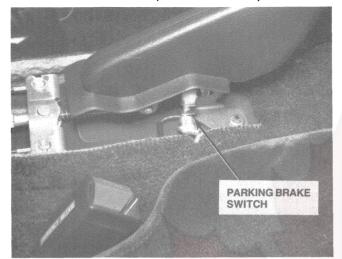


54. Left Front of Car (Bumper Removed)

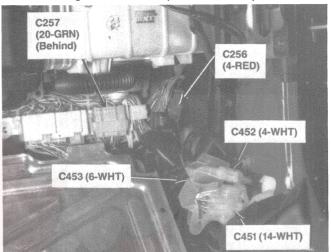




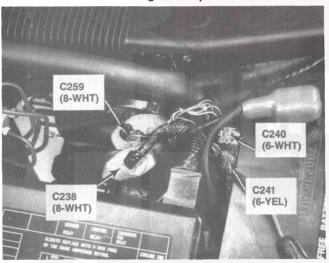
55. Below Rear of Console (Console Removed)



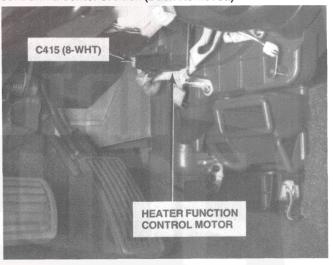
58. Behind Right Side of Dash (Dash Removed)



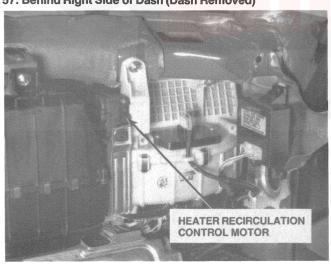
56. Left Front of PGM-FI Engine Compartment



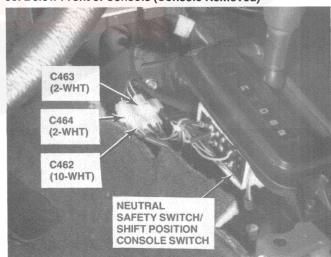
59. Behind Center of Dash (Dash Removed)



57. Behind Right Side of Dash (Dash Removed)

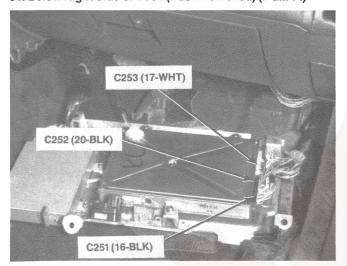


60. Below Front of Console (Console Removed)

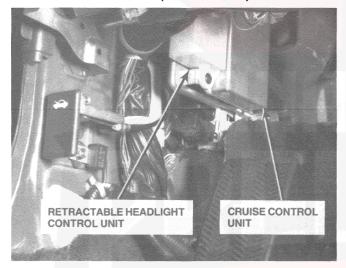


# **Component Location**

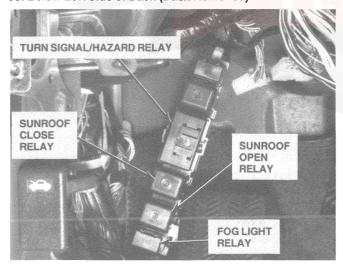
61. Below Right Side of Dash (Dash Removed) (PGM-FI)



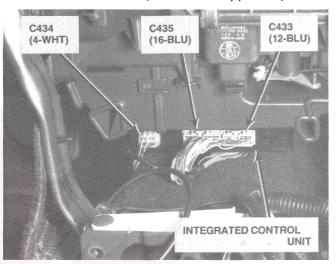
62. Below Left Side of Dash (Dash Removed)



63. Below Left Side of Dash (Dash Removed)



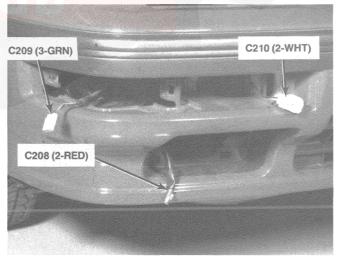
64. Behind Center of Dash (Dash Removed) (PGM-FI)



65. Behind Right Side of Dash (Dash Removed)



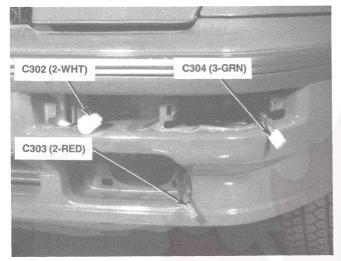
66. Right Front of Car



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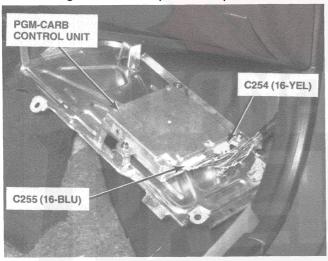
### 67. Left Front of Car



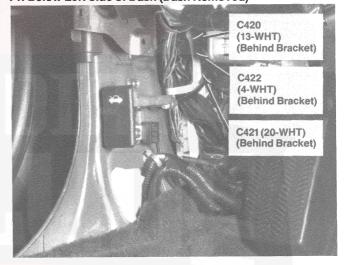
70. Behind Left Side of Dash (Dash Removed)



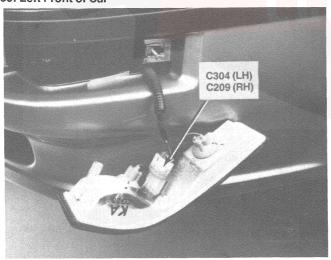
68. Below Right Side of Dash (PGM-CARB)



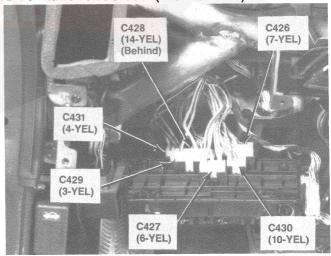
71. Below Left Side of Dash (Dash Removed)



69. Left Front of Car

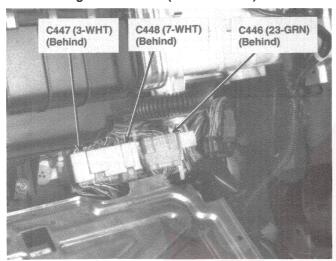


72. Behind Left Side of Dash (Dash Removed)

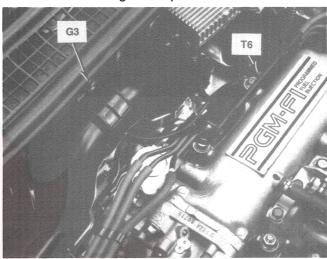


### **Component Location**

73. Behind Right Side of Dash (Dash Removed)



76. Rear of PGM-FI Engine Compartment



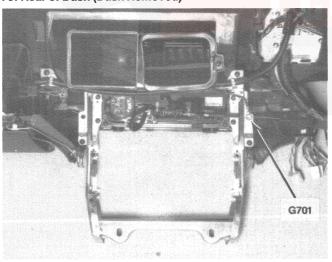
74. Behind Center of Dash (Dash Removed)



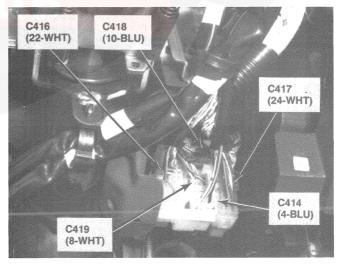
77. Center of Dash (Panel Removed)



75. Rear of Dash (Dash Removed)



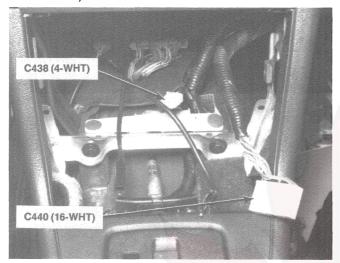
78. Under Left Side of Dash



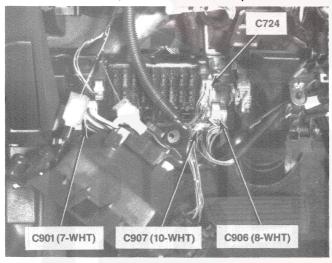
201-12



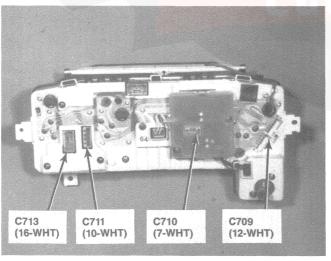
### 79. Center of Dash (Radio and Heater Control Panel Removed)



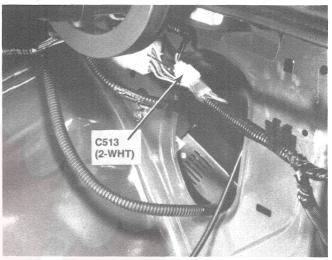
80. Left Side of Dash (Lower Panel Removed)



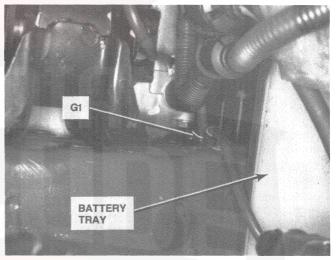
81. Rear of Gauge Assembly



82. Right Side of Si Trunk



83. Right Front of PGM-CARB Engine Compartment (Battery Removed)

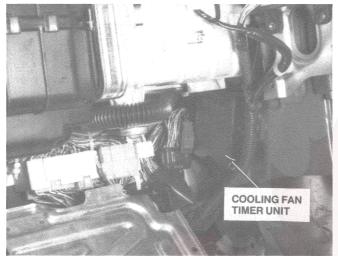


84. Rear of PGM-CARB Engine Compartment



### **Component Location**

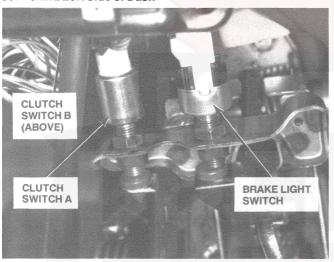
85. Behind Right Side of Dash (Dash Removed)



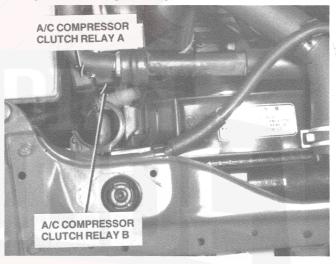
88. Right Side of Si Trunk



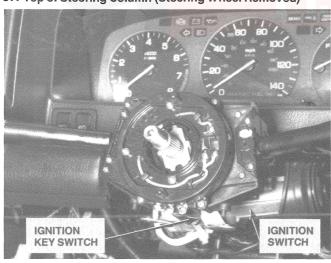
86. Behind Left Side of Dash



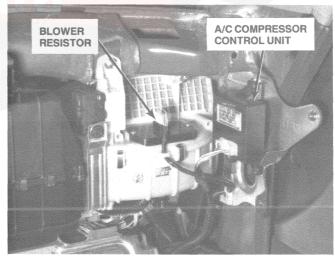
89. Right Front of Engine Compartment



87. Top of Steering Column (Steering Wheel Removed)



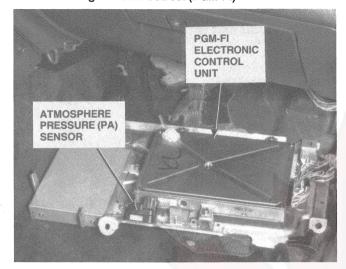
90. Behind Right Side of Dash (Dash Removed)



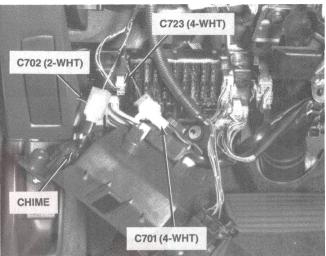
201-14



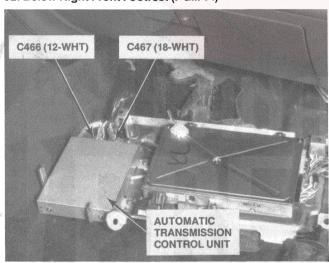
### 91. Behind Right Front Footrest (PGM-FI)



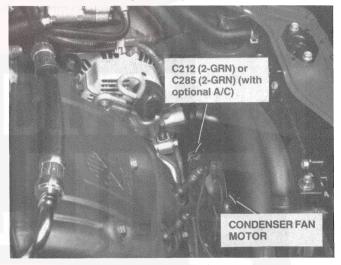
94. Behind Left Side of Dash (Lower Panel Removed)



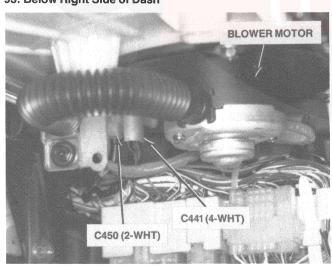
92. Below Right Front Footrest (PGM-FI)



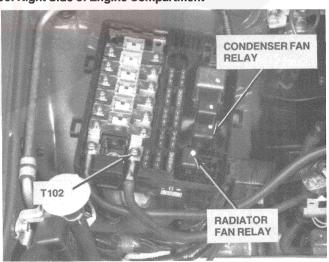
95. Front of PGM-FI Engine Compartment



93. Below Right Side of Dash

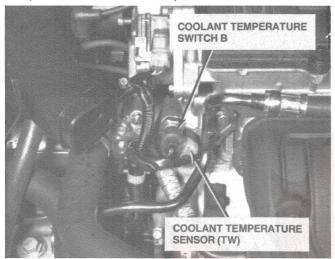


96. Right Side of Engine Compartment

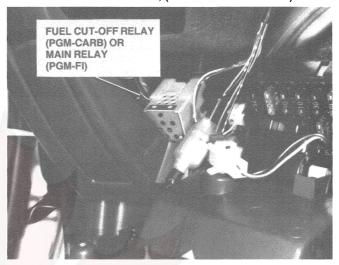


# Component Location 97. Right Front of PGM-FI Engine

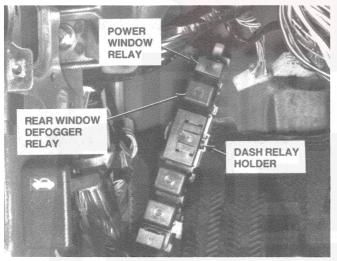
(Air Cleaner Duct Removed)



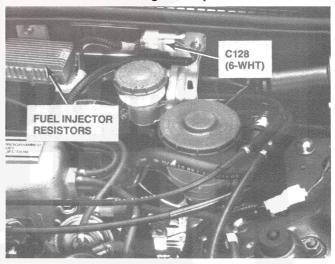
100. Below Left Side of Dash, (Lower Panel Removed)



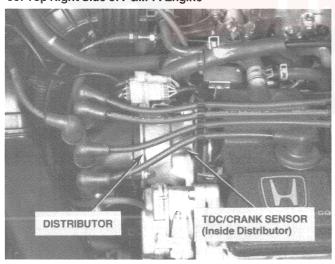
98. Below Left Side of Dash (Dash Removed)



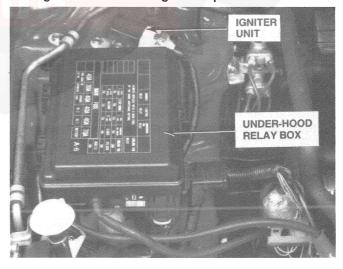
101. Left Rear of PGM-FI Engine Compartment



99. Top Right Side of PGM-FI Engine

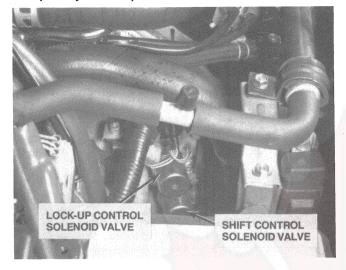


102. Right Side of PGM-FI Engine Compartment

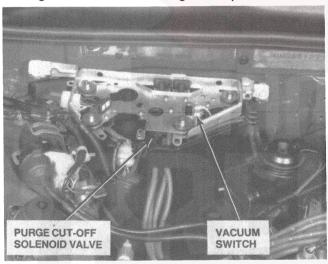




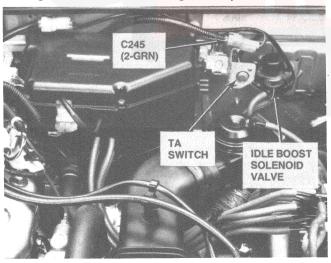
103. Right Front of Engine Compartment (Battery Removal)



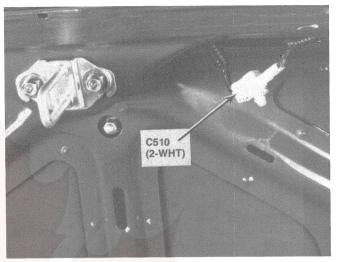
104. Right Rear of PGM-CARB Engine Compartment



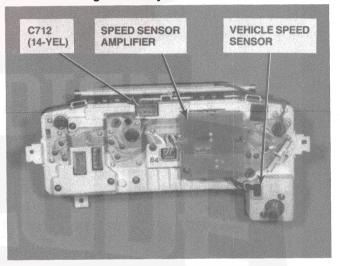
105. Right Rear of PGM-CARB Engine Compartment



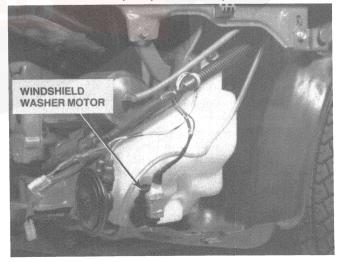
106. Underside of Trunk Lid



107. Rear of Gauge Assembly

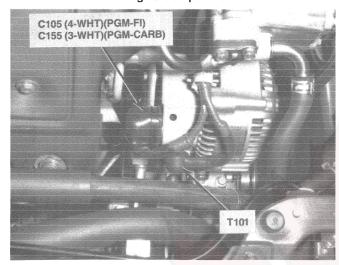


108. Left Front of Car (Bumper Removed)

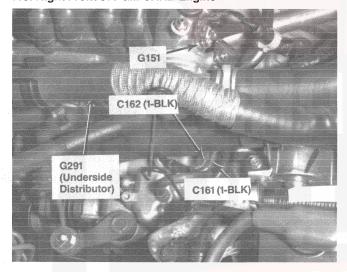


### **Component Location**

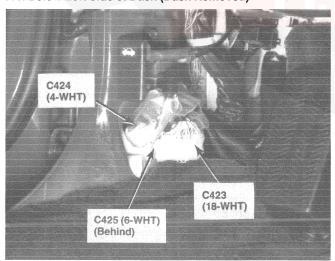
109. Front of PGM-FI Engine Compartment



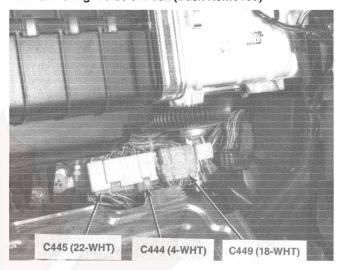
110. Right Front of PGM-CARB Engine



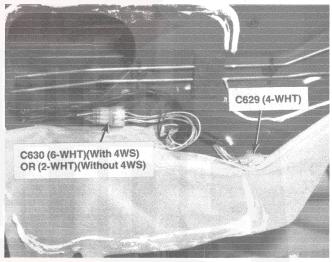
111. Below Left Side of Dash (Dash Removed)



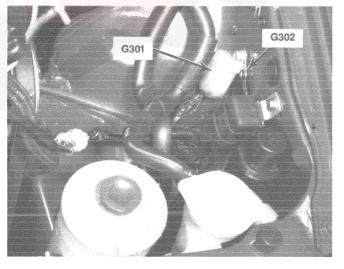
112. Behind Right Side of Dash (Dash Removed)



113. Rear of Drivers Door (Panel Removed)



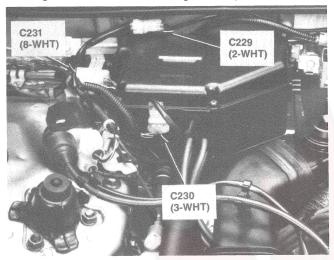
114. Left Front of Engine Compartment



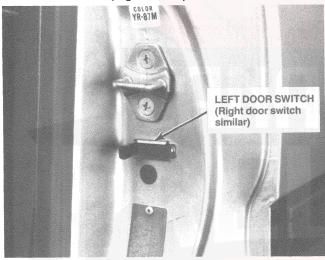
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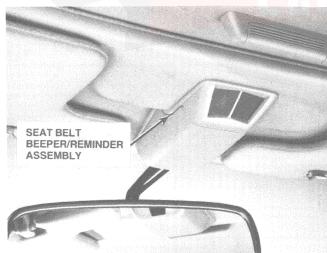
115. Right Rear of PGM-CARB Engine Compartment

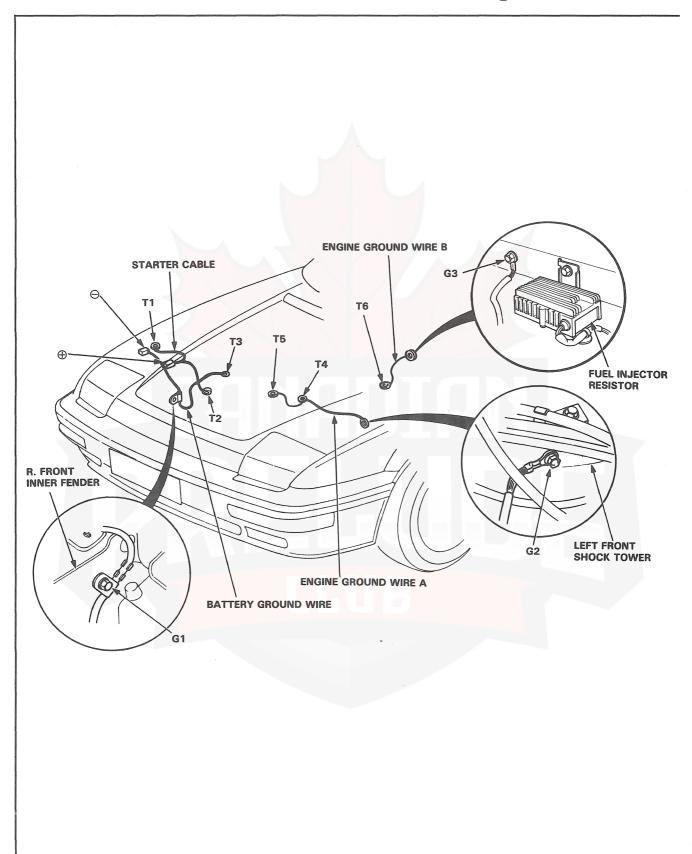


116. Left Door Pillar (Right Similar)

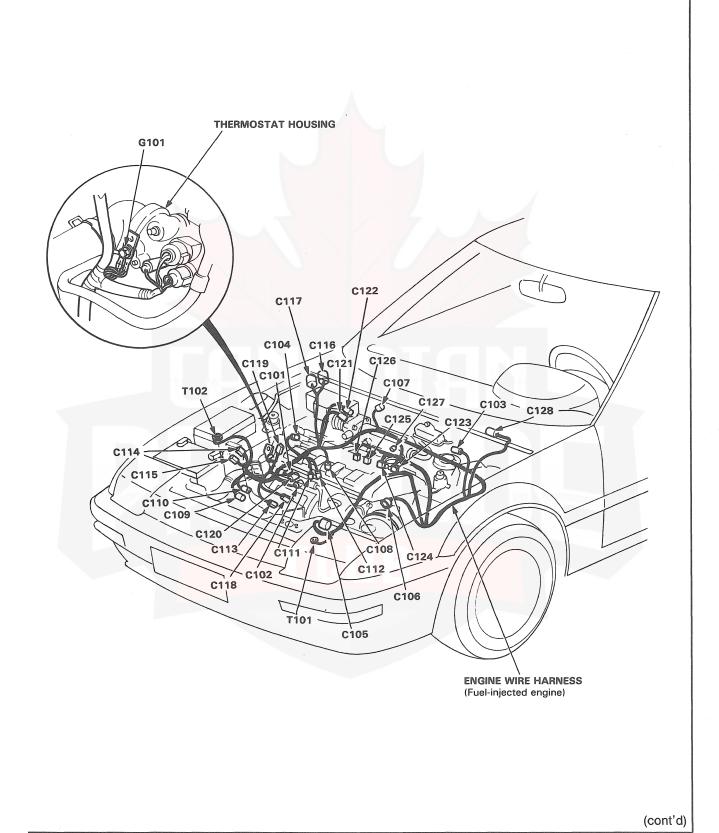


117. Above Center of Windshield



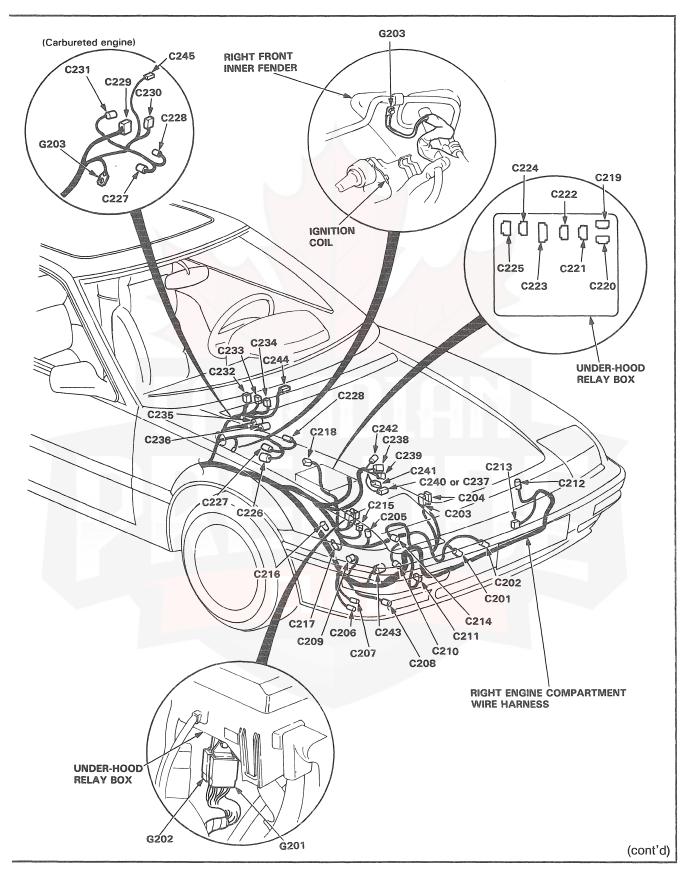


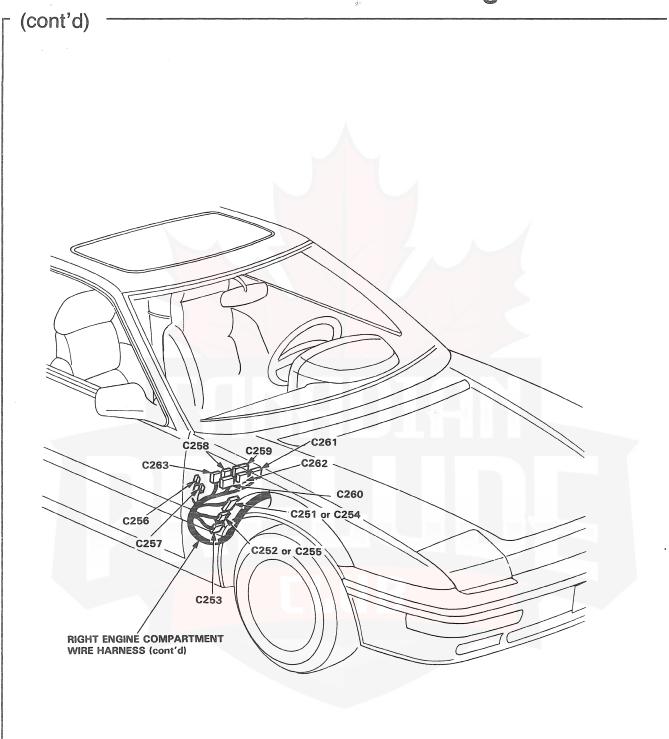




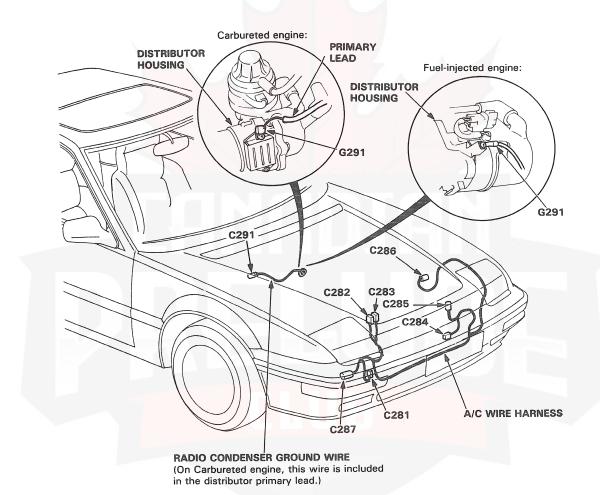
(cont'd) THERMOSTAT HOUSING G151 C163 C159 C162 -ENGINE WIRE HARNESS (Carbureted engine)



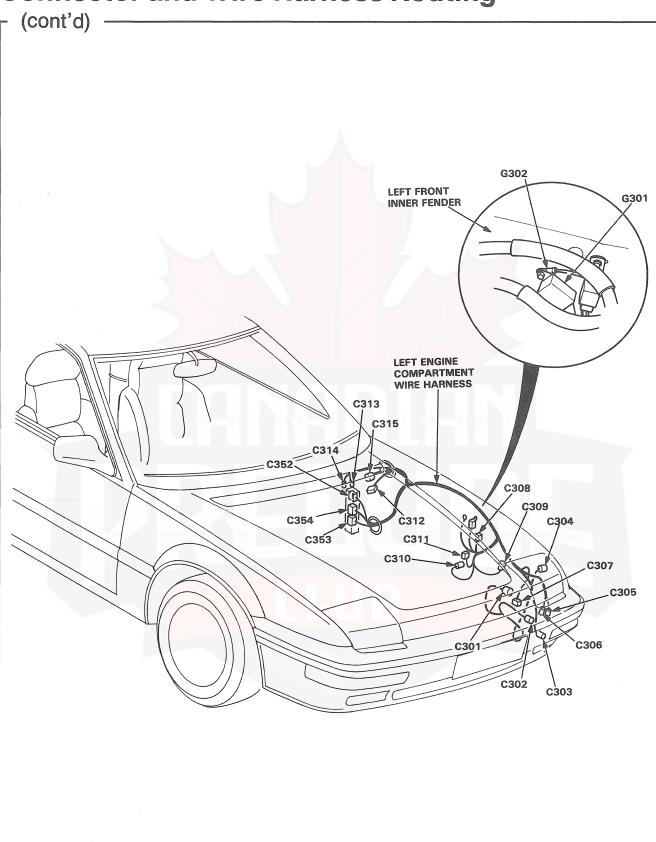




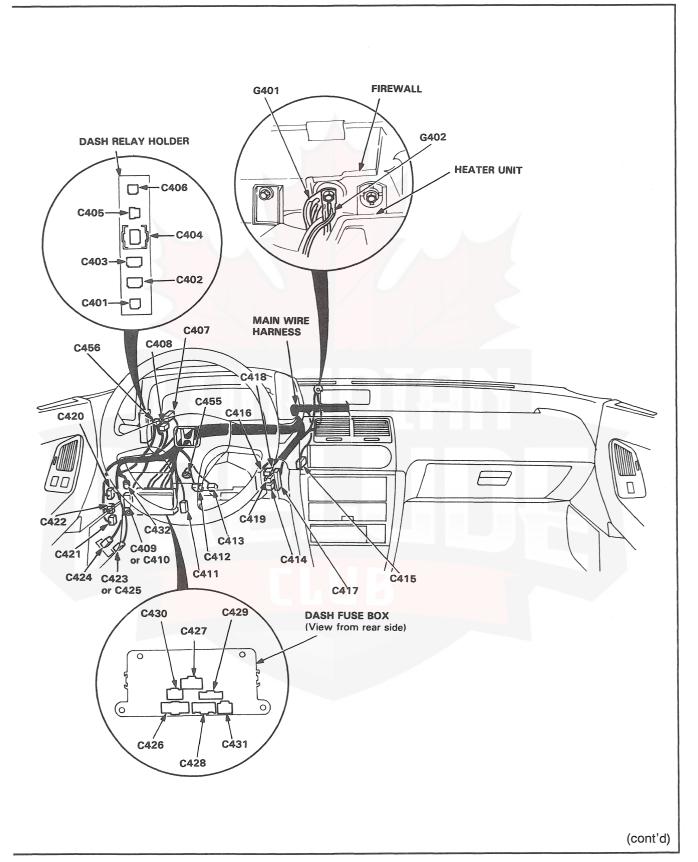




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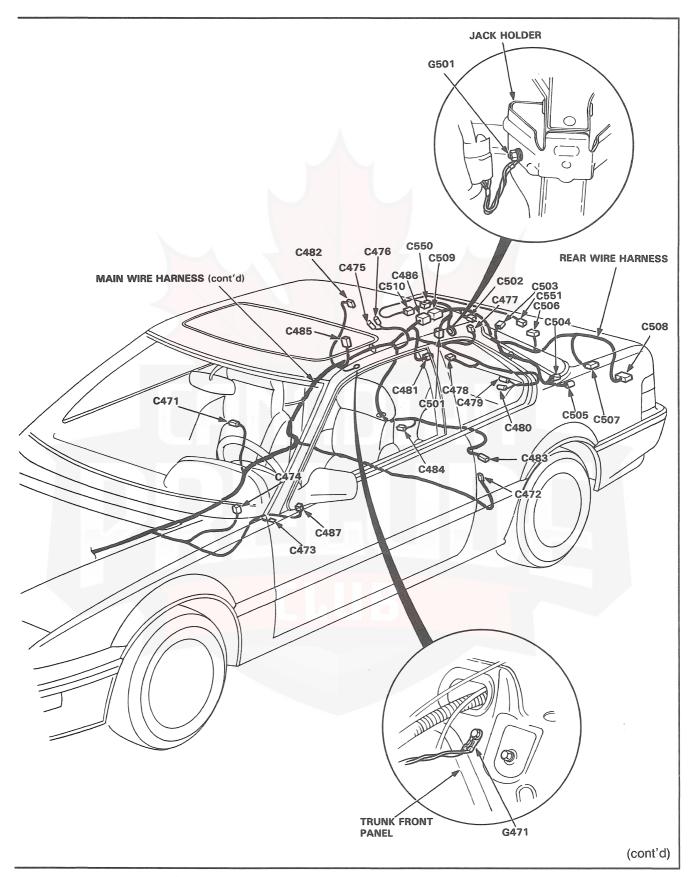


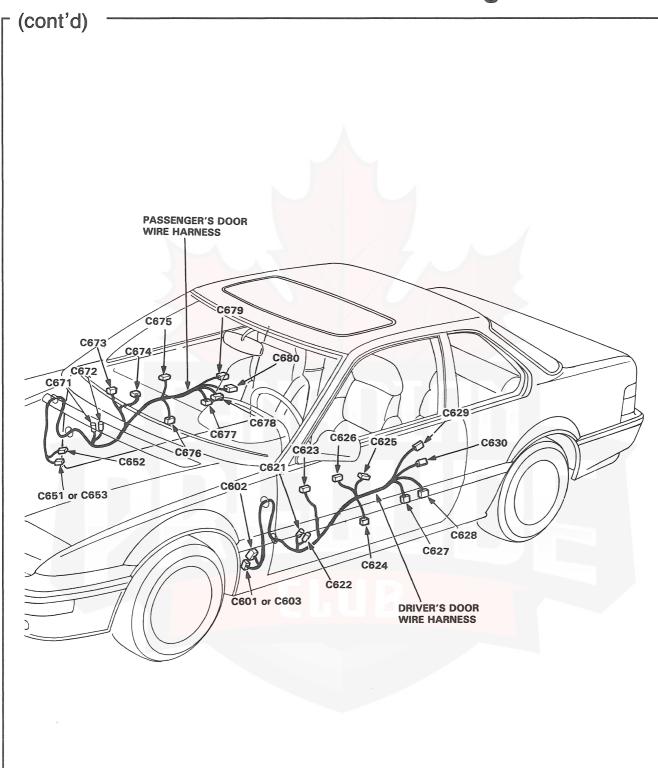




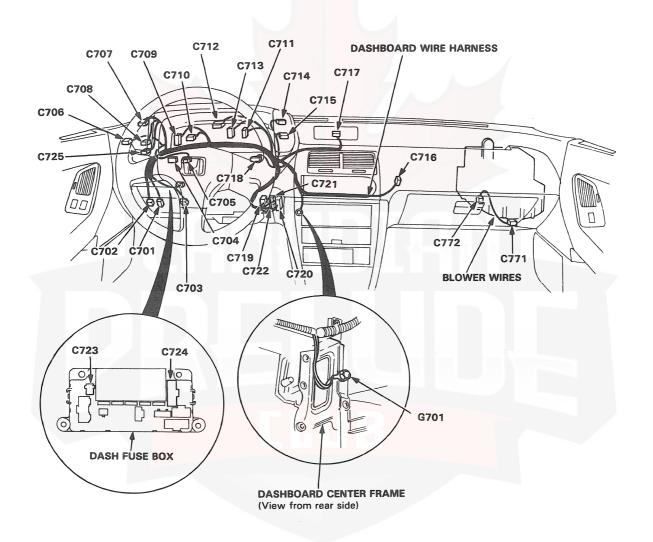
(cont'd) C437 C436 C450-M C435 C451 C466 C438 or C453 C461 C464 C462 C465 C463 MAIN WIRE HARNESS (cont'd)



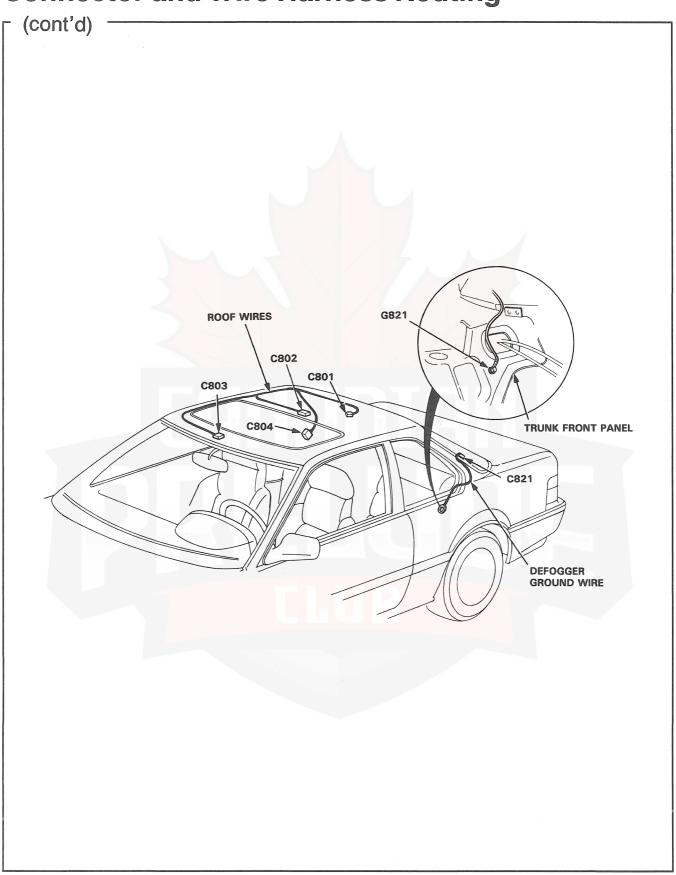








(cont'd)





# EANADIAN PRELIDE CLUB



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