

100% MONEY BACK GUARANTEE

Click Here To Order

BUY IT NOW!

1983 BRONCO/ F100/350



DEMO

This DEMO contains only a few pages of the entire manual/product.

Not all Bookmarks work on the Demo, but they do on the full version.

Features:

- Searchable text
- Printable pages
- Bookmarked for easy navigation
- High Resolution images
- Zoom to see exact details
- Money back Guarantee
- Available on USB and eBook download



License #84356800

Electrical & Vacuum Trouble- Shooting Manual

Copyright © 2023, Forel Publishing Company, LLC, Woodbridge, Virginia

All Rights Reserved. No part of this book may be used or reproduced in any manner whatsoever without written permission of Forel Publishing Company, LLC. For information write to Forel Publishing Company, LLC, Woodbridge, VA 22192

**1983 Bronco F-100/F-350 Electrical & Vacuum
Trouble-Shooting Manual (EVTM)**

EAN: 978-1-60371-406-8

ISBN: 1-60371-406-5

Forel Publishing Company, LLC
Woodbridge, VA 22192
Email: sales@ForelPublishing.com
<https://www.ForelPublishing.com>



License #84356800

This publication contains material that is reproduced and distributed under a license from Ford Motor Company. No further reproduction or distribution of the Ford Motor Company material is allowed without the express written permission of Ford Motor Company.

Note from the Publisher

This product was created from the original Ford Motor Company's publication. Every effort has been made to use the original scanned images, however, due to the condition of the material; some pages have been modified to remove imperfections.

Disclaimer

Although every effort was made to ensure the accuracy of this book, no representations or warranties of any kind are made concerning the accuracy, completeness or suitability of the information, either expressed or implied. As a result, the information contained within this book should be used as general information only. The author and Forel Publishing Company, LLC shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to be caused, directly or indirectly by the information contained in this book. Further, the publisher and author are not engaged in rendering legal or other

advice, mechanical, electrical, or other expert assistance is required, the professional should be sought.



How to Use This Manual	1
How to Find the Electrical Problem	2
Symbols (Electrical)	4
(Vacuum)	94
How to Find the Vacuum Problem	93
Instrument Panel (Back View)	79, 122
Component Testing	
Introduction	95
Light Switch	95
Ignition Switch	96
Turn Switch	97
Windshield Wiper/Washer Switch	98
Interval Wiper/Washer Switch	99
A/C-Heater Function Selector	100
A/C-Heater Blower Switch	101

.....

A/C-Heater	82
Auxiliary Battery	17
Brake Warning Indicator	56
Carburetor Circuits	19, 21
Charge (Gasoline)	12, 14
(Diesel)	110
Choke Heater	12, 14, 21
Cigar Lighter	66
Clock	70
Coolant Temperature Gage	58, 118, 125
Diesel Glow Plug Control	114
Digital Clock	70
Electric Fuel Pump Control	123
Electronic Engine Control	32, 106
Feedback Carburetor Control	30, 109
Four-Wheel Drive Indicator	90
Gage	58
Switch	58
Warning	11
Warning Light	118
Warning Light (Gasoline)	58, 125
Warning Light (Diesel)	5
Warning Light (Diesel) (Gasoline)	38

Heater	80
Horn	66
Ignition	18
Instrument Cluster Terminals	54
Instrument Illumination	54
Lights On Warning	52, 53
Lights	
Backup	46
Brake Warning Indicator	56
Cargo	52, 53
Dome	52, 53
Exterior	40, 41
Fog	43
Hazard	48, 49
Headlights	38
Instrument Illumination	54
License	40, 41
Map	52, 53
Marker	40, 41, 42
Park	40, 41
Radio Illumination	54
Stop	48
Tail (Rear Park)	40, 41
Turn	48, 49
Light Switch	12, 14
MCU	30
Power Distribution (Diesel)	110
(Gasoline)	2, 14
Power Door Locks	74
Power Mirrors	86
Power Windows	72
Printed Circuit Board Connectors	54
Radio (Mono)	76
(Stereo)	77
Rear Window Defrost	64
Seatbelt Warning	56
Speed Control	66
Start (Diesel)	115
(Gasoline)	18, 20
Tachometer	19, 21
Tailgate Power Window	64

Trailer	88
Upshift Indicator	102
Vacuum Distribution	92
Warning Indicators (Diesel)	120
(Gasoline)	56
Windshield Wiper/Washer	60
Wiper/Washer (Interval)	62

IMPORTANT SAFETY NOTICE

Appropriate service methods and proper repair procedures are essential for the safe, reliable operation of all motor vehicles, as well as the personal safety of the individual doing the work. This Manual provides general directions for accomplishing service and repair work with tested, effective techniques. Following them will help assure reliability.

There are numerous variations in procedures, techniques, tools, and parts for servicing vehicles, as well as in the skill of the individual doing the work. This Manual cannot possibly anticipate all such variations and provide advice or cautions as to each. Accordingly, anyone who departs from the instructions provided in this Manual must first establish that he compromises neither his personal safety nor the vehicle integrity by his choice of methods, tools or parts.

100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

PayPal American Express Discover MasterCard VISA

The purpose of this manual is to show electrical and vacuum circuits of these vehicles in a clear and simple fashion to make troubleshooting easier. With each circuit is a description of *How the Circuit Works* and some *Troubleshooting Hints*. A *Component Location* chart lists components, connectors, and references to pictures in the manual.

Wiring Diagrams give a schematic picture of when and how the circuit is powered, what the current path is to circuit components, and how the circuit is grounded. Each circuit component is named (underlined titles). Wire and connector colors are listed (standard Ford color abbreviations are used):

COLOR ABBREVIATIONS

BL	Blue	N	Natural
BK	Black	O	Orange
BR	Brown	PK	Pink
DB	Dark Blue	P	Purple
DG	Dark Green	R	Red
GR	Green	T	Tan
GY	Gray	W	White
LB	Light Blue	Y	Yellow
LG	Light Green		

Where two colors are shown for a wire, the first color is the basic color of the wire. The second color is the dot, hash, or stripe marking. If **D** or **H** is given, the second color is dots or hash marks. If there is no letter after the second color, the wire has a stripe.

Connector end views of switches and other components are shown to help with bench testing. The views show the harness wire colors that connect to the mating terminals. Connector colors and locations are shown in the *Component Location* chart. Two-color listings indicate separate colors for each connector half.

Components which work together are shown together. For example, all electrical components used in any circuit are shown on one diagram. The circuit breaker or fuse is shown at the top of the page. All wires, connectors, splices, switches, and motors are shown in the flow of current to ground at the bottom of the page. Notes are included which describe how switches and other components work. If a component is used in several different circuits, it is shown in several places. For example, the **Light Switch** is an electrical part of many circuits and is repeated on many pages. In some cases, however, a component may seem by its name to belong on a page where it has no electrical connection. For example, **Radio Illumination** is electrically part of **Instrument Illumination**. Since it has no electrical connection at all with the actual **Radio** circuit, it is not shown on the **Radio** page.

Troubleshooting Hints point the technician in a general direction, but are not intended as a step-by-step procedure. Ignition troubleshooting is an exception to this. It includes a step-by-step procedure of basic quick checks to locate some of the more common **Ignition System** problems. Read the Shop Manual for more detailed repair procedures.

The **Grounds** pages show detailed views of multiple component ground points. This is useful for checking interconnections among the ground circuits of different diagrams.

Notes, Cautions, and Warnings appear in boxes on text pages and contain important vehicle and mechanic safety information.

Notes give added information to help complete a particular procedure. Cautions are included to prevent making an error that could damage the vehicle. Warnings highlight areas where carelessness can cause personal injury. The following list contains some general **Warnings** that should be followed when working on a vehicle.

- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires being under a vehicle.
- Be sure that the **Ignition Switch** is always in the OFF position, unless otherwise required by the procedure.
- Set the parking brake when working on any vehicle. An automatic transmission should be in PARK. A manual transmission should be in NEUTRAL.
- Operate the engine only in a well-ventilated area to avoid the danger of carbon monoxide.
- Keep away from moving parts when the engine is running, especially the fan and belts.
- To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe, catalytic converter, and muffler.
- Do not allow flame or sparks near the battery. Gases are always present in and around the battery cell. An explosion could occur.
- Do not smoke.
- To avoid injury, always remove rings, watches, loose hanging jewelry, and loose clothing.

Example: _____

_____ ge stripe.

_____ ts.

_____ ash marks.

100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

PayPal American Express Discover MasterCard VISA

TROUBLESHOOTING STEPS

These six steps present an orderly method of troubleshooting:

Step 1. Verify the problem.

- Operate the complete system and see all symptoms for yourself in order to:
 - check the accuracy and completeness of the customer's complaint.
 - learn more that might give a clue to the nature and location of the problem.

Step 2. Narrow the problem.

- Using this manual, narrow down the possible causes and locations of the problem in order to more quickly find the exact cause.
- Read the description of *How the Circuit Works* and study the wiring diagram. You should then know enough about the circuit operation to figure out where to check for this trouble.

Step 3. Test the cause.

- Use electrical test procedures to find the specific cause of the symptoms.
- *Troubleshooting Hints* will give some helpful ideas.
- The *Component Location* charts and the pictures will help you find components, grounds, and connectors.

Step 4. Verify the cause.

- Confirm the fact that you have found the correct cause through operating the parts of the circuit you think are good.

Step 5. Make the repair.

- Repair or replace the faulty component.

Verify the repair.

100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

Shop Manual and other service books for details. You will find the circuits in this manual to be helpful with these special tests.

TROUBLESHOOTING TOOLS

JUMPER WIRE

This is a test lead used to connect two points of a circuit. A **Jumper Wire** can complete a circuit by bypassing an open.

Uses: Bypassing Switches or Open Circuits

WARNING

Never use a jumper wire across loads (motors, etc.) connected between hot and ground. This direct battery short may cause injury or fire.

VOLTMETER

A DC **Voltmeter** measures circuit voltage. Connect negative (- or black) lead to ground, and positive (+ or red) lead to voltage measuring point.

OHMMETER

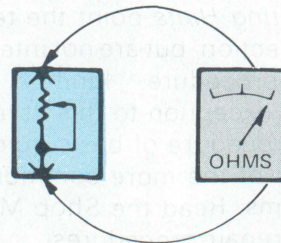


Figure 1— Resistance Check

An **Ohmmeter** shows the resistance between two connected points (Figure 1).

TEST LIGHT

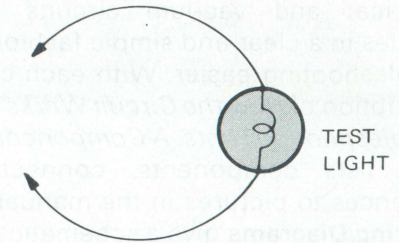


Figure 2— Test Light

A **Test Light** is a 12-volt bulb with two test leads (Figure 2).

Uses: Voltage Check. Short Check

SELF-POWERED TEST LIGHT

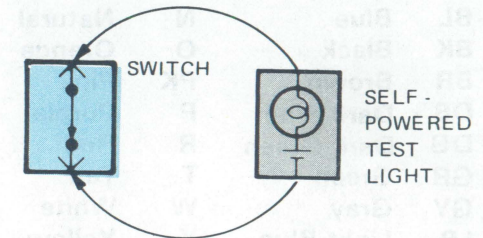


Figure 3— Continuity Check

The **Self-Powered Test Light** is a bulb, battery and set of test leads wired in series (Figure 3). When connected to two points of a continuous circuit, the bulb glows.

Uses: Continuity Check. Ground Check

CAUTION

When using a self-powered test light or ohmmeter, be sure power is off in circuit during testing. Hot circuits can cause equipment damage and false readings.

TROUBLESHOOTING CHECKS

SWITCH CIRCUIT CHECK

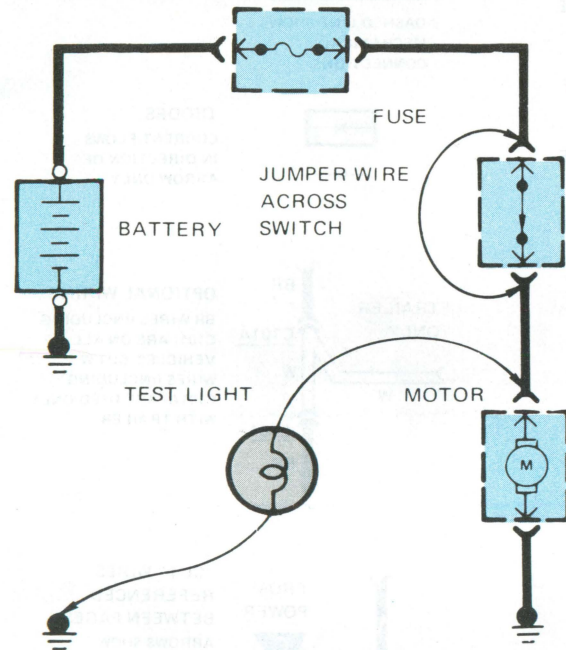


Figure 4—Switch Circuit Check and Voltage Check

In a bad circuit with a switch in series with the load, jumper the terminals of the switch to power the load. If jumping the terminals powers the circuit, the switch is bad (Figure 4).

CONTINUITY CHECK (Locating open circuits)

With power off, connect one lead of **Self-Powered Test Light** or **Ohmmeter** to each end of circuit (Figure 3). Light will glow if circuit is closed. Switches and fuses can be checked in the same way.

SHORT CHECK (short to ground)

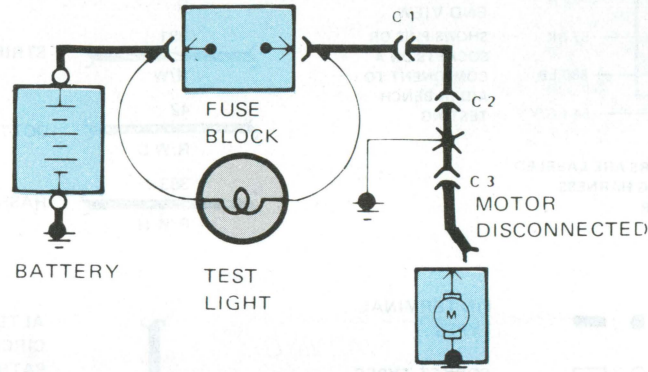


Figure 5—Short Check

A fuse that repeatedly blows is usually caused by a short to ground. It's important to be able to locate such a short quickly (Figure 5).

- 1) Turn off everything powered through the fuse.
- 2) Disconnect other loads powered through the fuse:
 - Motors: disconnect motor connector.
 - Lights: remove bulbs.
- 3) Turn **Ignition Switch** to RUN (if necessary) to power fuse.
- 4) Connect one **Test Light** lead to hot end of blown fuse. Connect other lead to ground. Bulb should glow showing power to fuse. *(This step is just a check to be sure you have power to the circuit.)*
- 5) Disconnect the **Test Light** lead from ground and reconnect it to the load side of the fuse.
 - If the **Test Light** is off, the short is in the disconnected equipment.
 - If the **Test Light** goes on, the short is in the wiring. You must find the short by disconnecting the circuit connectors one at a time until the **Test Light** goes out. For example: with a ground at X, the bulb goes out when C1 or C2 is disconnected, but stays on after disconnecting C3. This

means the ground is between C2 and C3.

"GOOD GROUND" CHECK

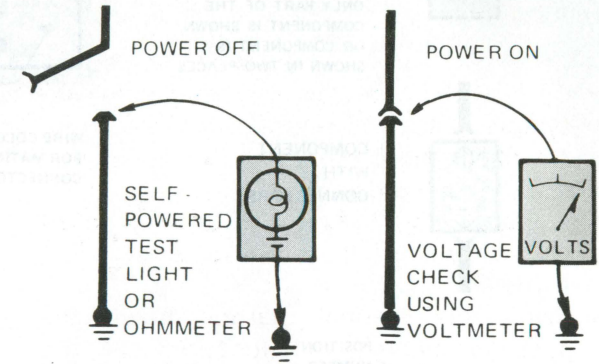


Figure 6—Grounds Checks

Turn on power to circuit. Perform Voltage Check between suspected bad ground and frame. Any voltage means ground is bad.

Turn off power to circuit. Connect one lead of **Self-Powered Test Light** or **Ohmmeter** to wire in question, and the other to known ground. If bulb glows, circuit ground is OK (Figure 6).

TROUBLESHOOTING HINTS

The circuit schematics in this manual are designed to make it easy to identify common points in circuits. This knowledge can help narrow the problem to a specific area. For example, if several circuits fail at the same time, check for a common power or ground connection. (See *Power Distribution* or *Grounds*). If part of a circuit fails, check the connections between the part that works and the part that doesn't work.

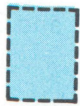
For example, if low beam headlights work but high beams and the indicator light don't work, then power and ground paths must be good. Since the dimmer switch is the component which switches this power to the high beam lights and indicator, it is most likely the cause of failure.

100% SATISFACTION GUARANTEED

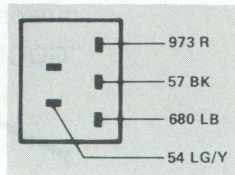
BUY IT NOW!

Click Here To Order

PayPal, American Express, Discover, MasterCard, VISA

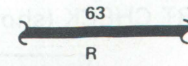


DASHED COMPONENT BOX
ONLY PART OF THE COMPONENT IS SHOWN, OR COMPONENT IS SHOWN IN TWO PLACES

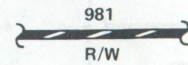


COMPONENT CONNECTOR END VIEW
SHOWS PINS OR SOCKETS ON A COMPONENT TO AID IN BENCH TESTING

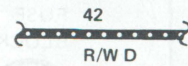
WIRE COLORS ARE LABELED FOR MATING HARNESS CONNECTOR



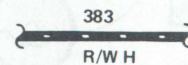
SOLID WIRE



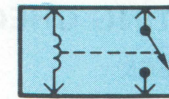
STRIPED WIRE



DOTTED WIRE

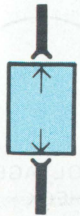


HASHED WIRE



RELAY CONTACTS CLOSE WITH CURRENT THROUGH COIL

DASHED LINE SHOWS MECHANICAL CONNECTIONS



COMPONENT WITH CONNECTORS



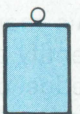
DIODES CURRENT FLOWS IN DIRECTION OF ARROW ONLY



POSITION NUMBER
FUSE
CURRENT RATING



POSITION NUMBER
CIRCUIT BREAKER
CURRENT RATING



SCREW TERMINAL ON COMPONENT



PIN TERMINAL TYPES
SOCKET TYPES



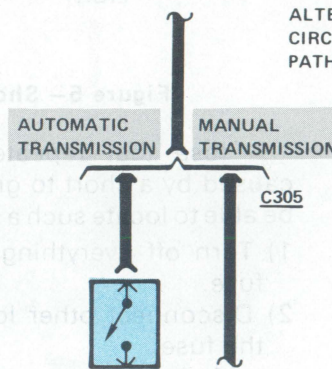
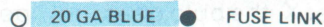
SOCKET
IN-LINE CONNECTOR
PIN



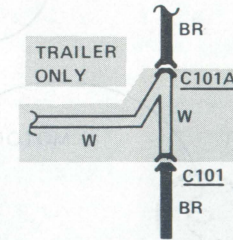
SPLICE OR CRIMP CONNECTION. MOST ARE BUILT INTO HARNESS AND ARE NOT ACCESSIBLE.



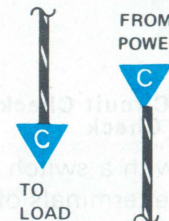
GROUND CONNECTION



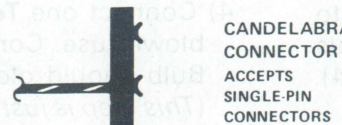
ALTERNATE CIRCUIT PATHS



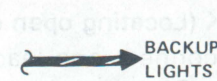
OPTIONAL WIRING BR WIRES (INCLUDING C101) ARE ON ALL VEHICLES, BUT W WIRES (INCLUDING C101A) ARE USED ONLY WITH TRAILER



"CUT" WIRES REFERENCED BETWEEN PAGES ARROWS SHOW CURRENT FLOW FROM POWER TO GROUND

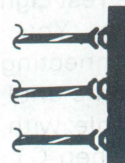


CANDELABRA CONNECTOR ACCEPTS SINGLE-PIN CONNECTORS



BACKUP LIGHTS

"REFERENCE" WIRES COMPLETE WIRING SHOWN ON ANOTHER PAGE



JUNCTION BLOCK



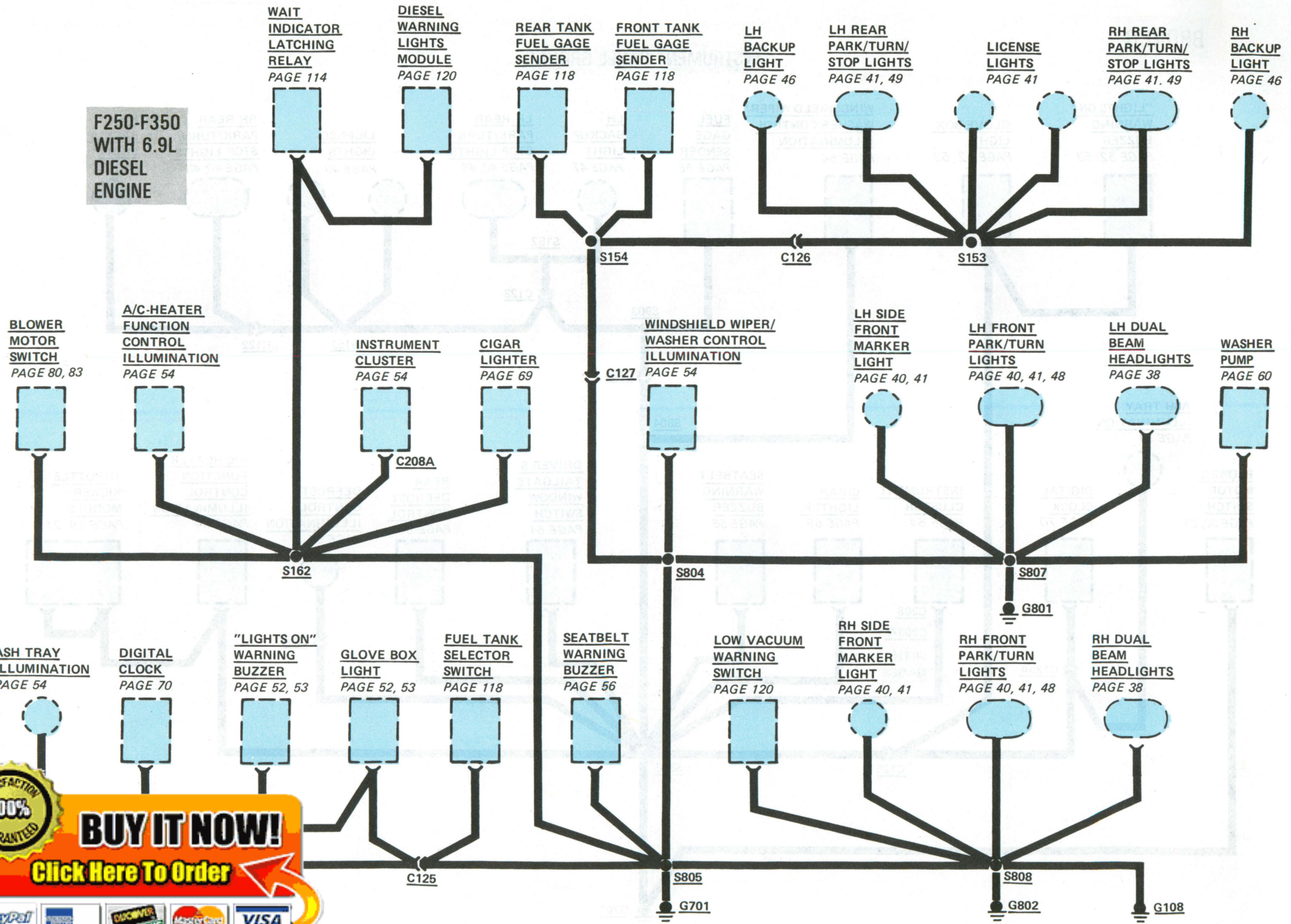
DASHED WIRE CIRCUITRY IS NOT SHOWN IN COMPLETE DETAIL, BUT IS COMPLETE ON ANOTHER PAGE

SEE GROUNDS PAGE 6, 7

100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order



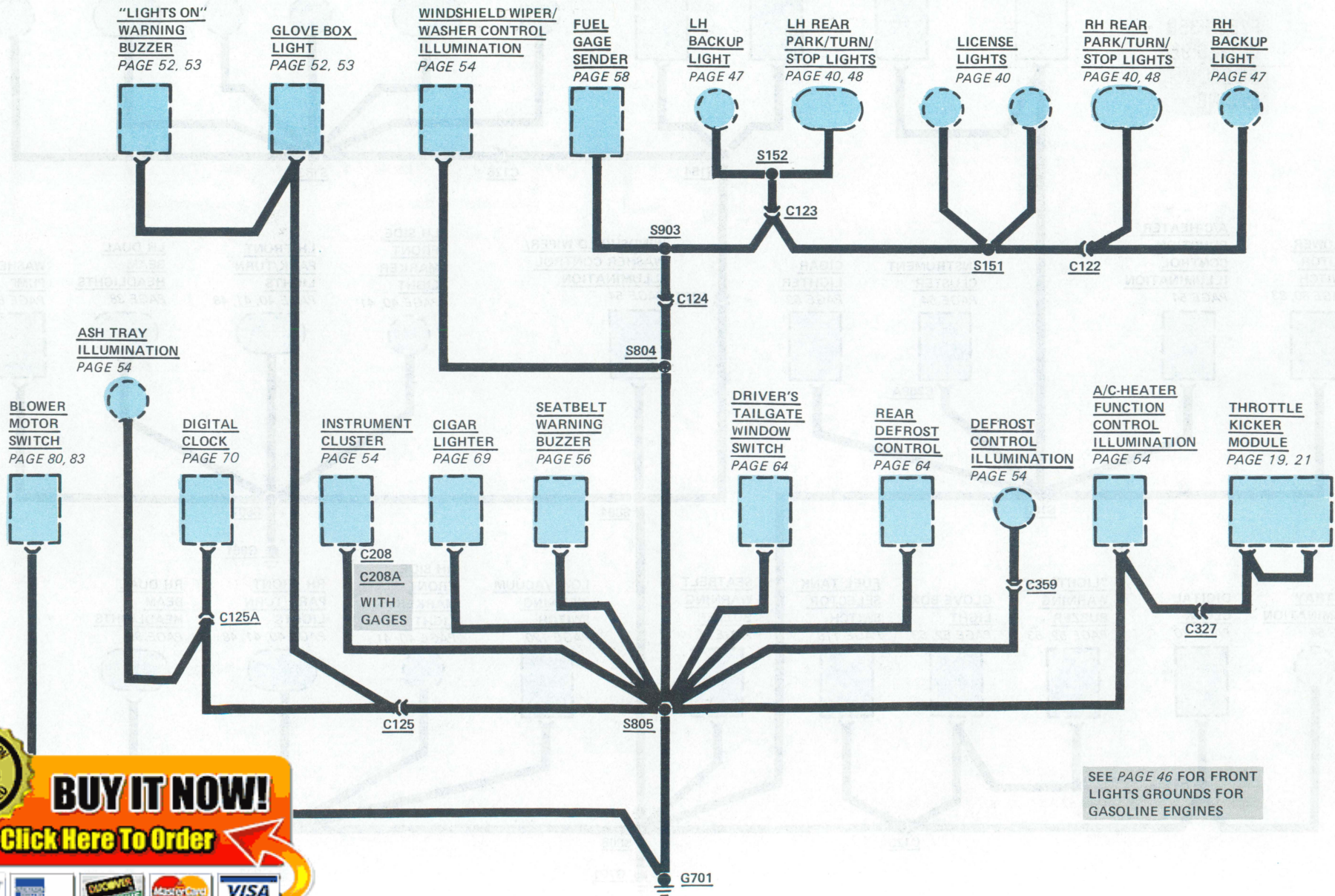
100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

BRONCO

INSTRUMENT PANEL GROUND



SEE PAGE 46 FOR FRONT LIGHTS GROUNDS FOR GASOLINE ENGINES

100% SATISFACTION GUARANTEED

BUY IT NOW!

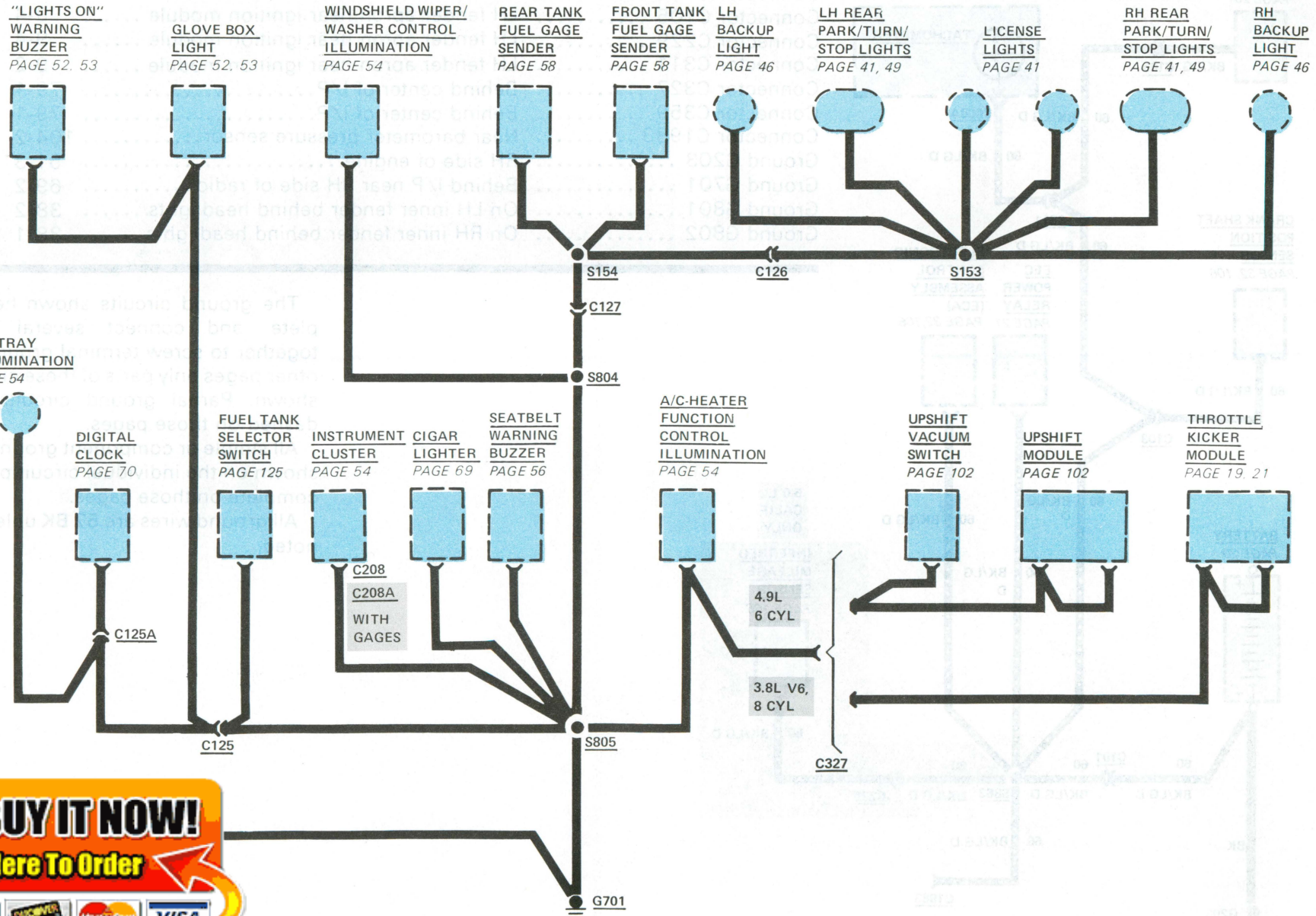
Click Here To Order

PayPal | American Express | Discover | MasterCard | VISA

F100-F350

GASOLINE ENGINES

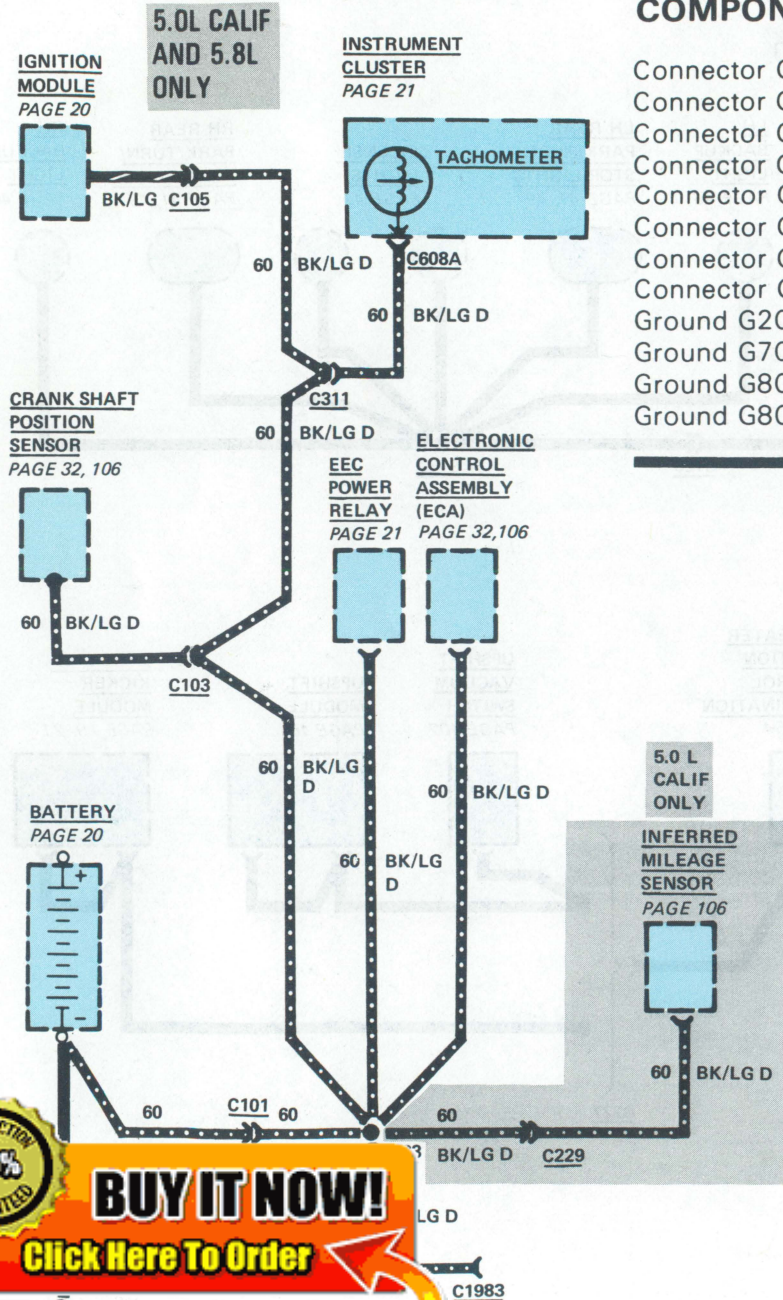
INSTRUMENT PANEL GROUND



100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order



COMPONENT LOCATION

		Page-Figure	Color	Terminals
Connector C101	At battery ground pigtail	104-2		1
Connector C103	Behind distributor	29-1	W	1
Connector C105	LH fender apron near ignition module	9-4		3
Connector C229	LH fender apron near ignition module	9-4		3
Connector C311	LH fender apron near ignition module	9-2	BR	2
Connector C327	Behind center of I/P	79-1	GY	3
Connector C359	Behind center of I/P	79-1	GR	2
Connector C1983	Near barometer pressure sensor	104-2	BK	4
Ground G203	RH side of engine	51-3		
Ground G701	Behind I/P near RH side of radio	69-2		
Ground G801	On LH inner fender behind headlights	38-2		
Ground G802	On RH inner fender behind headlights	38-1		

The ground circuits shown here are complete and connect several components together to screw terminal ground points. On other pages only parts of these circuits may be shown. Partial ground circuits are shown dashed on those pages.

All simple or component ground circuits are shown on the individual circuit pages and are complete on those pages.

All ground wires are **57 BK** unless otherwise noted.

100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

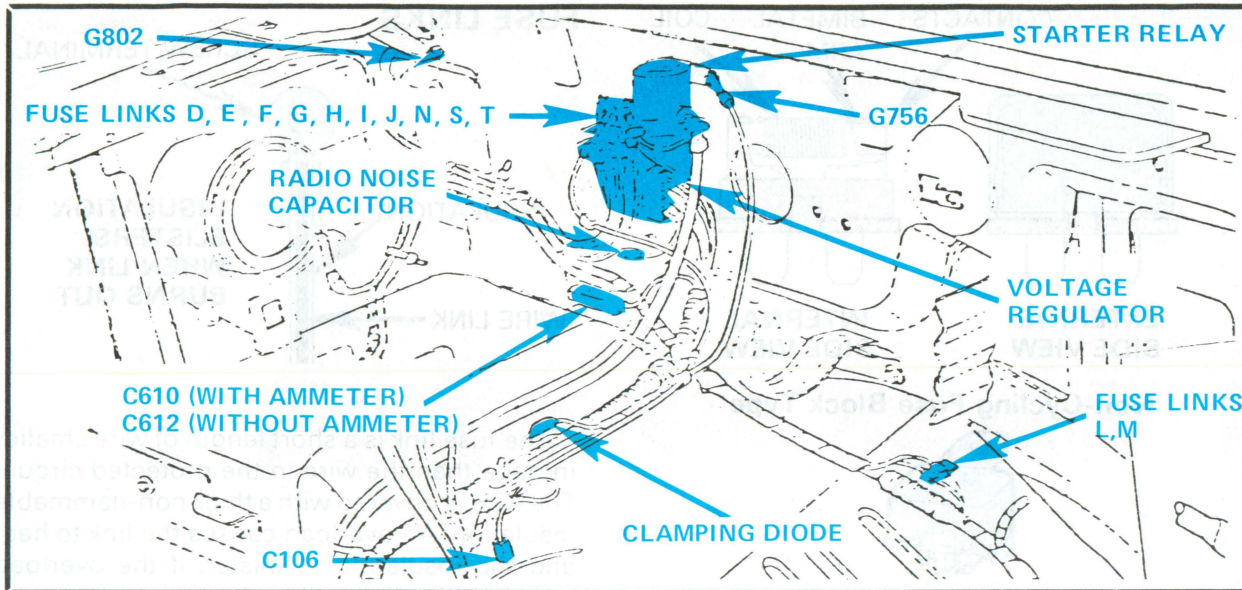


Figure 1 - RH Front Fender Apron (With EEC)

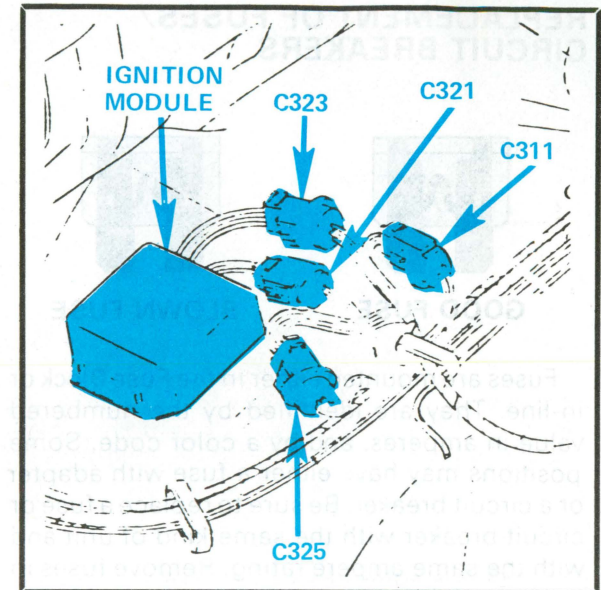
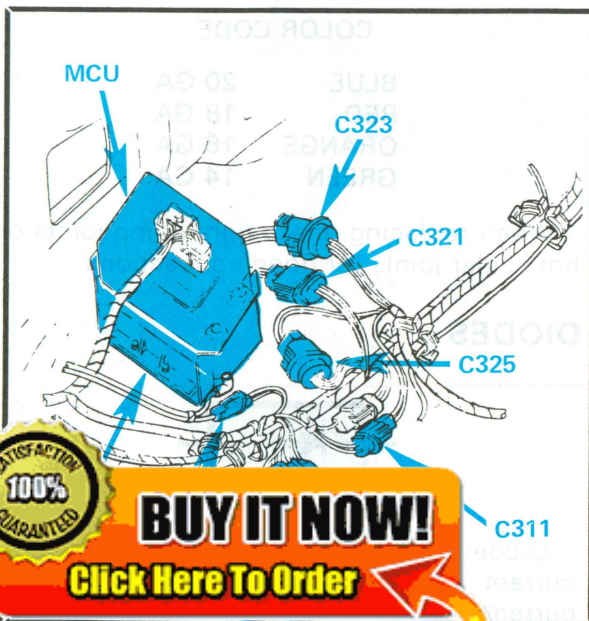


Figure 2 - At LH Inner Fender Well



100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

MCU)

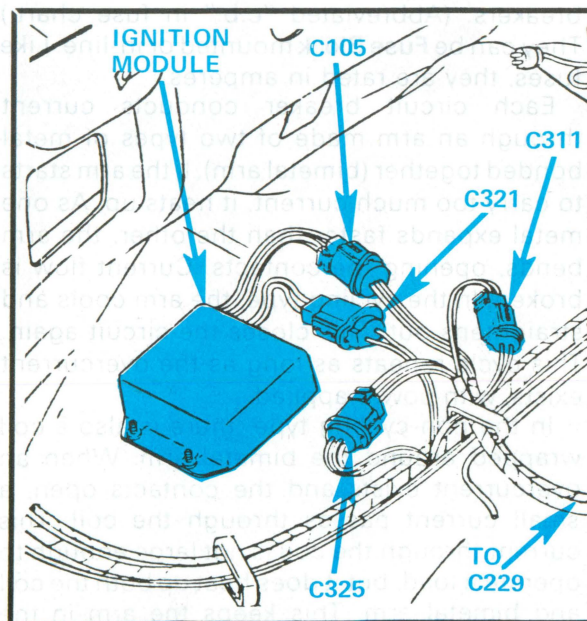


Figure 4 - LH Inner Fender Well (With EEC)

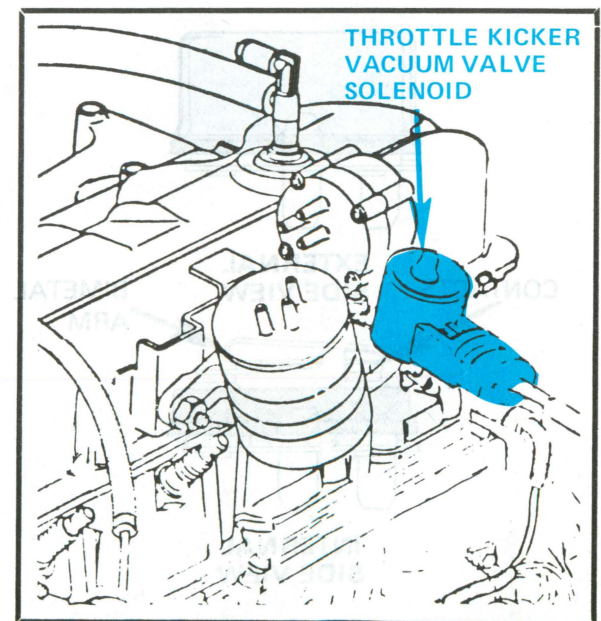


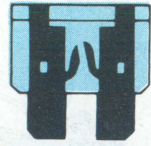
Figure 5 - LH Rear Of 4.9 L Engine



REPLACEMENT OF FUSES/ CIRCUIT BREAKERS



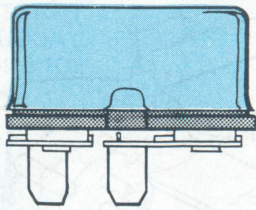
GOOD FUSE



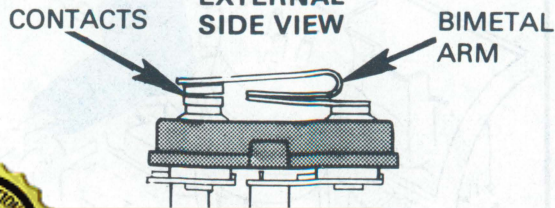
BLOWN FUSE

Fuses are mounted either in the **Fuse Block** or in-line. They are identified by the numbered value in amperes, and by a color code. Some positions may have either a fuse with adapter or a circuit breaker. Be sure to replace a fuse or circuit breaker with the same kind of unit and with the same ampere rating. Remove fuses in order to check them.

CIRCUIT BREAKER OPERATION



EXTERNAL
SIDE VIEW



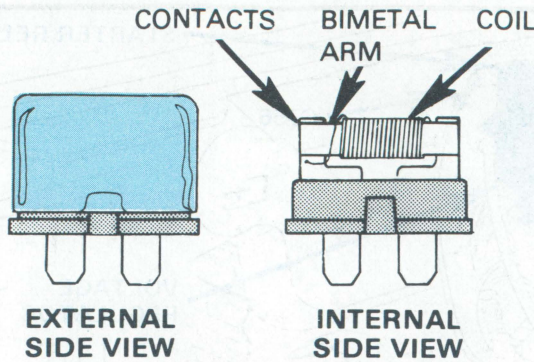
CONTACTS

BIMETAL
ARM



BUY IT NOW!

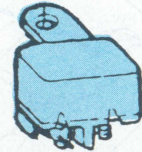
[Click Here To Order](#)



EXTERNAL
SIDE VIEW

INTERNAL
SIDE VIEW

Non-Cycling Fuse Block Type



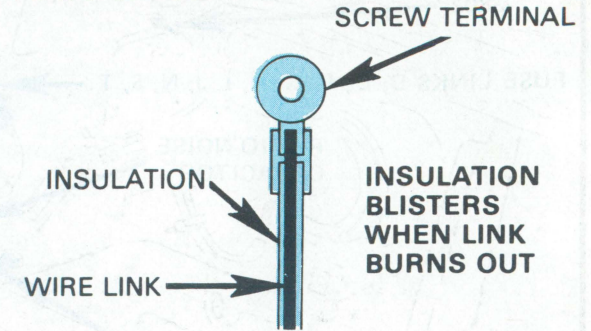
Cycling In-Line Type

Some circuits are protected by circuit breakers. (Abbreviated "c.b." in fuse chart.) They can be **Fuse Block** mounted or in-line. Like fuses, they are rated in amperes.

Each circuit breaker conducts current through an arm made of two types of metal bonded together (bimetal arm). If the arm starts to carry too much current, it heats up. As one metal expands faster than the other, the arm bends, opening the contacts. Current flow is broken. In the cycling type, the arm cools and straightens out. This closes the circuit again. This cycle repeats as long as the overcurrent exists, with power applied.

In the non-cycling type, there is also a coil wrapped around the bimetal arm. When an overcurrent exists and the contacts open, a small current passes through the coil. This current through the coil is not large enough to operate a load, but it does heat up both the coil and bimetal arm. This keeps the arm in the open position until power is removed.

FUSE LINKS



The fuse link is a short length of wire smaller in gage than the wire in the protected circuit. The wire is covered with a thick non-flammable insulation. An overload causes the link to heat and the insulation to blister. If the overload remains, the link will melt, causing an open circuit. The links are color coded for wire size as follows:

COLOR CODE

BLUE	20 GA
RED	18 GA
ORANGE	16 GA
GREEN	14 GA

When replacing, make tight crimp joints or hot solder joints for good connections.

DIODES



Diodes are electrical devices that permit current to flow in one direction only. The current flows in the direction indicated by the arrow.

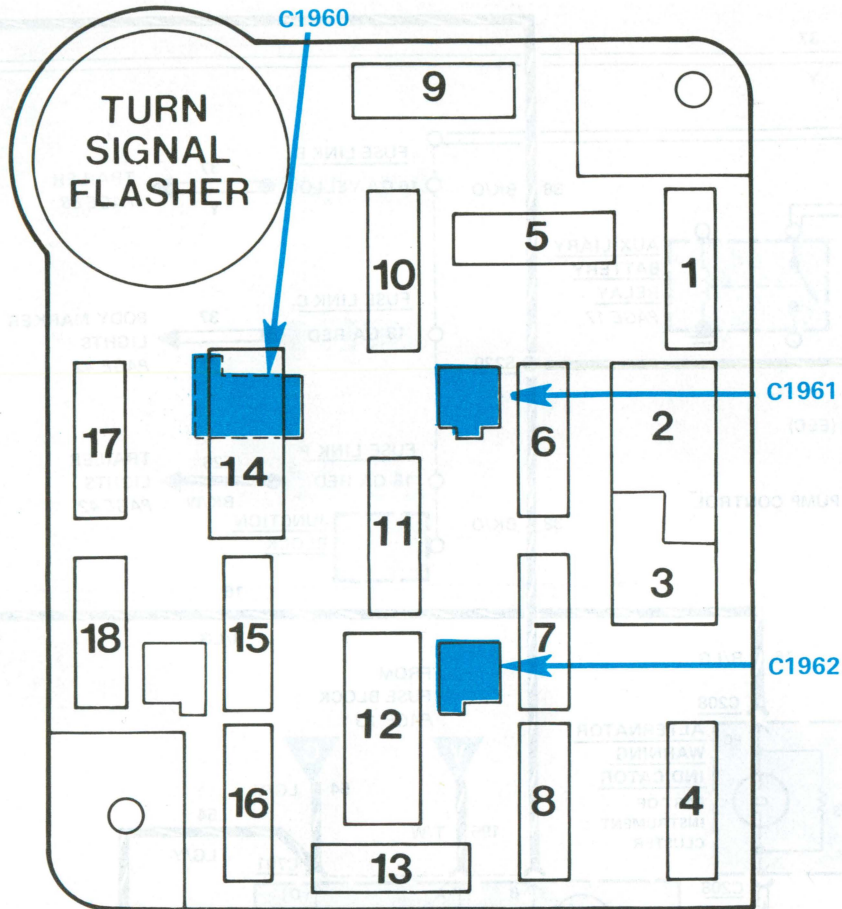


Figure 1 - Fuse Block

Fuse Value Amps	Color Code
4	Pink
5	Tan
10	Blue
15	Green

Fuse Position	Amps	Circuits Protected
1	15	Stop/Hazard Lights; Speed Control
2	--	(Not used)
3	--	(Not used)
4	15	Exterior Lights; Instrument Illumination
5	15	Turn Lights; Backup Lights
6	15	Speed Control; 4-Wheel Drive Indicator; Auxiliary Battery Control; Digital Clock; Rear Window Defrost; Feedback Feedback Carburetor Control (4.9L)
7	--	(Not Used)
8	15	Courtesy, Dome, Cargo Lights; Warning Buzzer
9	30	Heater; A/C-Heater
10	--	(Not used)
11	15	Radio
12	{ 25 30 c.b.	Tailgate Power Window; Power Mirrors Power Door Locks
13	--	(Not used)
14	{ 25 20 c.b.	Tailgate Power Window Power Windows
15	10	Auxiliary Fuel Tank Selector
16	20	Horn; Cigar Lighter
17	5	Instrument Illumination, Digital Clock
18	15	Seatbelt Buzzer; Warning Indicators; EEC; Carburetor Circuits; Tachometer; Choke Heater; Diesel Glow Plug Control; Diesel Indicators; Electric Fuel Pump Control (7.5L); Upshift Indicator (4.9L)

Power Distribution

The **Alternator** and **Battery** are connected together at the **Starter Relay** hot terminal. Other circuits originate at the **Starter Relay** hot terminal and are protected by fuse links. Low power circuits are also protected by fuses.

The **Ignition Switch** and **Light Switch** are powered at all times as are **Fuses 1, 4, 8, 12, and 16**. The other fuses are powered through the **Ignition Switch** or the **Light Switch**.

100% SATISFACTION GUARANTEED

BUY IT NOW!

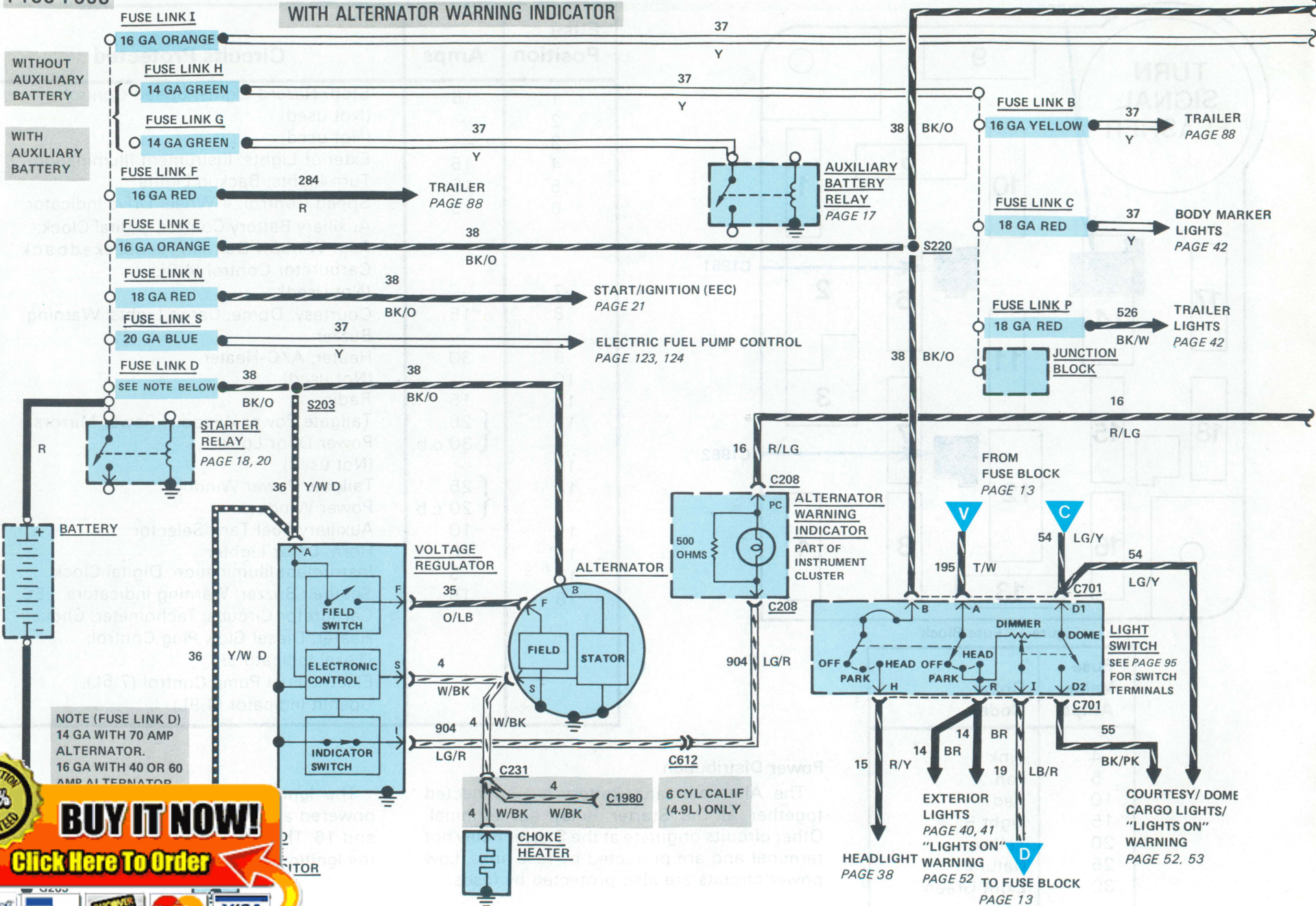
Click Here To Order

12 CHARGE/POWER DISTRIBUTION (WITH ALTERNATOR WARNING INDICATOR)

F100-F350

GASOLINE ENGINES

WITH ALTERNATOR WARNING INDICATOR



100% SATISFACTION GUARANTEED

BUY IT NOW!

Click Here To Order

PayPal, American Express, Discover, MasterCard, VISA



**WE SUPPORT VOLUNTARY
MECHANIC CERTIFICATION**



**Ford Parts and Service Division
Training and Publications Department**