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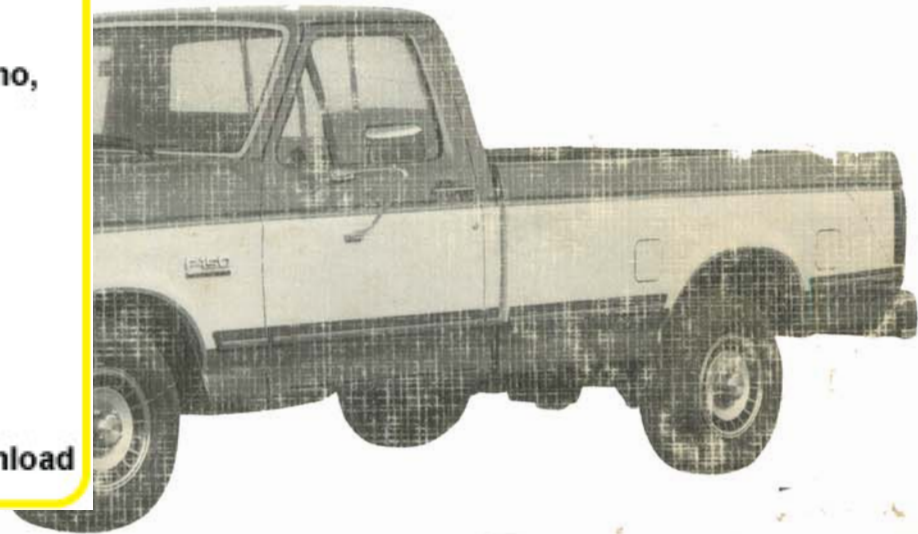
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**1990 Bronco/F150-F350/F-Super Duty Electrical &
Vacuum Trouble-Shooting Manual (EVTM)**

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ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL FPS-12129-90

FORD PARTS and SERVICE DIVISION

Quality is Job 1

For customer satisfaction, Ford Parts and Service Division has developed an EVTM for the 1990 model year. The EVTM is directed to you--the technician. Our goal is to provide accurate and timely service information for product maintenance.

1990 EVTM FEATURES

- A "How to Use This Manual" section that orients the user to the manual and its use.
 - **Electrical Schematics** categorized by system and circuit.
 - "How the Circuit Works" descriptions that explain how each circuit works. These descriptions are designed to be used in conjunction with the Electrical Schematic.
 - **Component Location** information that tells where each component is located on the car as well as a reference to a **Component Location View**.
 - **Troubleshooting Hints** presented in a "condition-cause-action" format.
 - **Component Testing Procedures** that tell the user how to perform diagnostic tests on various circuits.
 - **Connector End Views** designed to help with troubleshooting.
 - **Notes, Cautions, and Warnings** that contain important safety information.
 - Full view **Component Location Illustrations** to help locate on-vehicle components.
- Component Base Part Numbers and Harness Base Part Numbers** to aid in ordering

in locating systems for easier referencing.
help with the EVTM System Location.

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Publisher Note - table of contents are hyperlinked to pages

2-1 HOW TO USE THIS MANUAL

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 and references to pictures in the manual.

Notes, Cautions and Warnings containing important information appear in boxes on text pages. Notes provide additional information to help complete a particular procedure. Cautions provide information that could prevent making an error that could damage the vehicle. Warnings provide information to prevent personal injury. The warnings list on the previous page contains general warnings to follow when working on a vehicle.

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 Main Light Switch is an electrical part of many circuits and is repeated on many pages. In some cases, how a component may seem (by its name) on a page where it has no electrical termination, action at * shown

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. Reading the Shop Manual provides more detailed repair procedures.

Connector end views of switches and other components are shown in Cell 149 (beginning on page 149-1) 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 *Location Index* chart. Two-color listings indicate separate colors for each connector half.

A Location Index in Cell 152 (beginning on page 152-1) identifies individual components, connectors, and splices. This index describes the component, connector, or splice location and directs you to the component illustrations. In addition, the component base part number has been included for your convenience in ordering parts. A list of harness base numbers, harness names and major systems associated with the respective harness base part number is also included within the Location Index.

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

Component Connectors with more than 5 cavities are shown in Cell 150 (Beginning on page 150-1) to help with system troubleshooting. Any component connector with 5-9 cavities will be shown with a connector end

view of the connector. A component with 10 or more connector cavities will have a pinout chart in addition to the connector face. The pinout chart contains information such as cavity number, wire number and color, and circuit function.

Resistors and Diodes are currently covered with PVC molds and are taped to the harness outside the tubing. Many of the resistor and diode assemblies will be covered with heat shrinkable tubing making the assembly small enough to be placed within the harness bundle.

The wiring diagrams show the number of times the resistors and diodes are used. The wiring diagrams also show the distance from connector/length of wire in exact centimeters. Resistors and diodes are identified on the wiring diagrams by the following base part numbers:

Resistor/diode assembly	14A601
Diode only	14A604

We welcome any comments you may have regarding this EVTM. Use the Feedback Sheet at the back of this manual to submit comments. The information submitted on this sheet will improve future editions.

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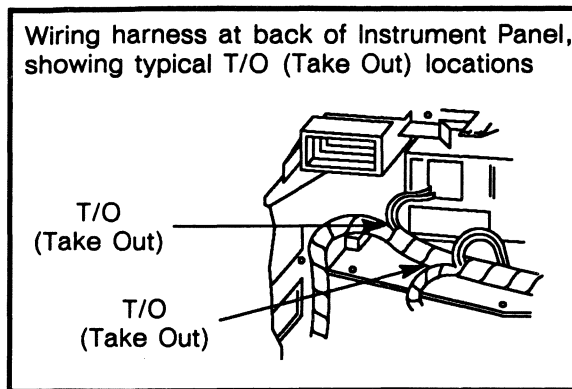
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Before using the EVTm for troubleshooting, refer to the HELPFUL REMINDERS described on this page.

1. The abbreviation T/O, for take out, used in the Component Location Chart, refers to the point at which a harness branches to feed a component. Refer to the wiring harness illustration.



2. If a connector serves the same purpose in two separate versions (e.g., EFI/Carb), but is physically different, two connector numbers are used. However, if a connector serves the same purpose in two separate versions (e.g., EFI/Carb) and is physically the same, but the wire colors are different, only *one* connector number is used. If the same physical connector is used more than once, then more than *one* connector number is used.

3. Wiring diagrams provide a schematic picture of how and under what conditions the circuit is powered, of the current path to circuit components, and of how a 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		

Whenever a wire is labeled with two colors, the first color listed is the basic color of the wire, and the second color listed is the stripe marking of the wire.

4. When reporting Vehicle Repair Location Codes to Ford Parts and Service Division, refer to Cell 160 (Beginning on page 160-1).

Note: Do *not* use the illustrations in Cell 151 (Beginning on page 151-1) for reporting Vehicle Repair Location Codes.

5. WARNINGS

- *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 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.*

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4-1 HOW TO FIND THE ELECTRICAL PROBLEM

TROUBLESHOOTING STEPS

These six steps present an orderly method of troubleshooting.

Step 1. Verify the problem.

- Operate the complete system to check the accuracy and completeness of the customer's complaint.

Step 2. Narrow the problem.

- Using the EVTM, narrow down the possible causes and locations of the problem to pinpoint 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 determine where to check for the trouble. Further information can be found in the Shop Manual pages listed after *How the Circuit Works*.

Step 3. Test the cause.

- Use electrical test procedures to find the specific cause of the symptoms.
- *Troubleshooting Hints* will give you helpful ideas.
- The *Component Location Charts* and the pictures will help you find components. Following each chart, there is a reference to the Location Index at the end of the manual. This index gives component location information for connectors, diodes, resistors, splices and grounds.

Step 4. Verify the cause.

Confirm that you have found the correct cause by connecting jumper wires and/or

Step 5. Make the repair.

- Repair or replace the inoperative component.

Step 6. Verify the repair.

- Operate the system as in Step 1 and check that your repair has removed all symptoms without creating any new symptoms.

Some engine circuits may need special test equipment and special procedures. See the *Shop Manual* and other service books for details. You will find these 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, bypassing an open.

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

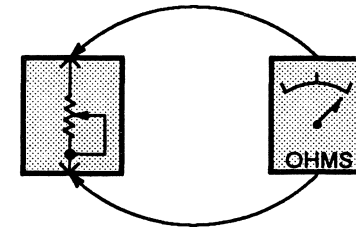


Figure 1-Resistance Check

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

TEST LAMP

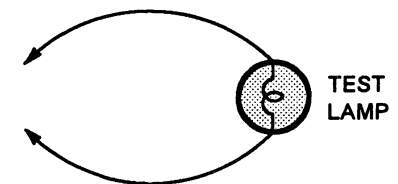


Figure 2-Test Lamp

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

Uses: Voltage Check, Short Check

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SELF-POWERED TEST LAMP

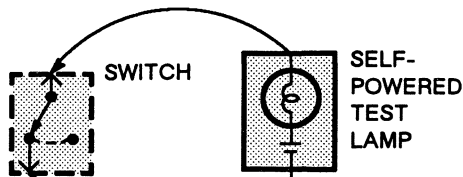


Figure 3—Continuity Check

The Self-Powered Test Lamp 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 lamp or ohmmeter, be sure power is off in circuit during testing. Hot circuits can cause equipment damage and false readings.

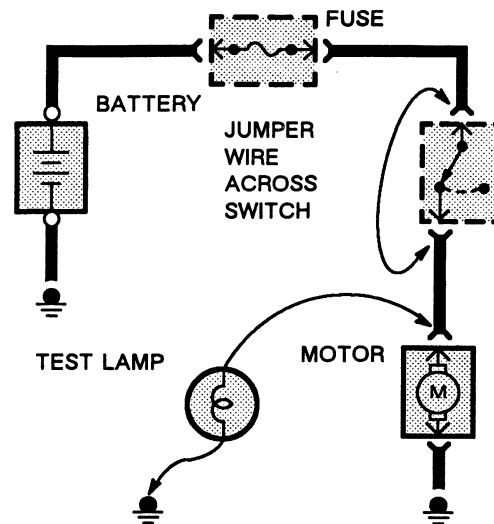


Figure 4—Switch Circuit Check and Voltage Check

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

CONTINUITY CHECK (Locating open circuits)

Connect one lead of Self-Powered Test Lamp or Ohmmeter to each end of circuit (Figure 3). Lamp will glow if circuit is closed. Switches and fuses can be checked in the same way.

VOLTAGE CHECK

Connect one lead of test lamp to a known good ground or the negative (-) battery terminal. Test for voltage by touching the other lead to the test point. Bulb goes on when the test point has voltage (Figure 4).

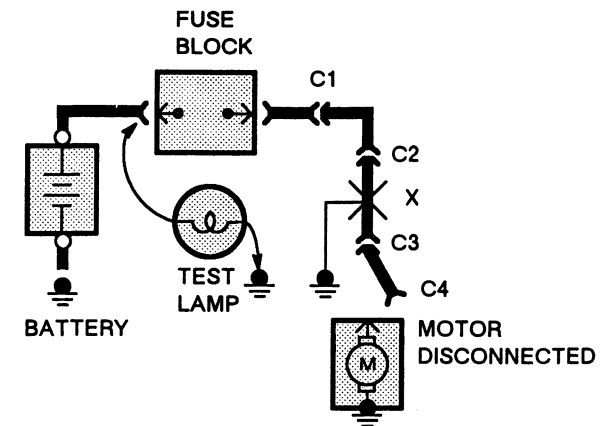


Figure 5—Short Check

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 (Connector C4 in Figure 5)
 - Lights: remove bulbs.
3. Turn Ignition Switch to RUN (if necessary) to power fuse.
4. Connect one Test Lamp 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.)*

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4-3 HOW TO FIND THE ELECTRICAL PROBLEM

5. Disconnect the test lamp lead that is connected to ground, and reconnect it to the load side of the fuse at the connector of the disconnected component. (In Figure 5, connect the test lamp lead to connector C4.)
- If the Test Lamp is off, the short is in the disconnected component.
 - If the Test Lamp 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 Lamp goes out. For example, in figure 5 with a ground at X, the bulb goes out when C1 or C2 is disconnected, but stays on after disconnecting C3. This means the short is between C2 and C3.

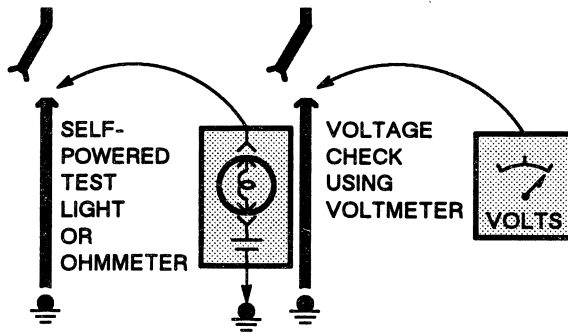


Figure 6—Ground Checks

Turn on power to the circuit. Perform a Voltage Check between the suspected inoperative ground and the frame. Any indicated voltage means that the ground is inoperative.

TROUBLESHOOTING HINTS

The circuit schematics in this manual 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 headlamps work, but high beams and the indicator lamp don't work, then power and ground paths must be good. Since the dimmer switch is the component that switches this power to the high beam lights and indicator, it is most likely the cause of failure.

Troubleshooting Hints unique to a particular circuit are given in a new, three column format. Included in the charts are conditions that may develop, possible causes, and one or more tests that can be done quickly to determine the cause of the condition.

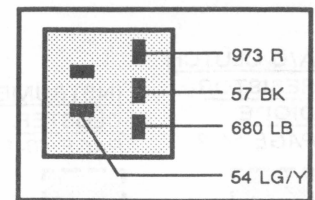
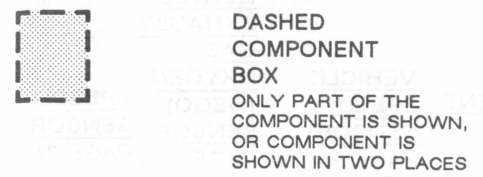
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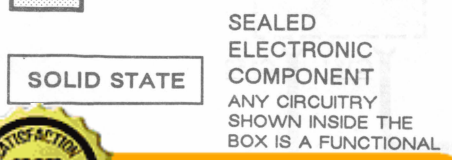
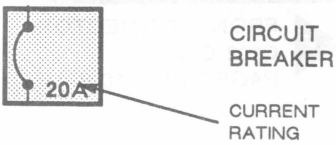
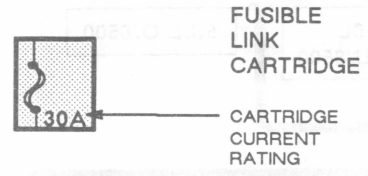
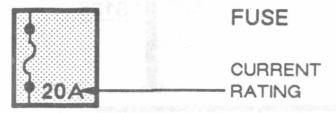
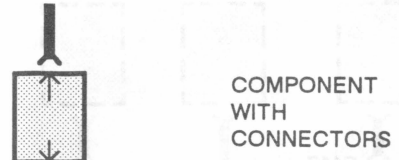
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WIRE COLORS ARE LABELED FOR MATING HARNESS CONNECTOR

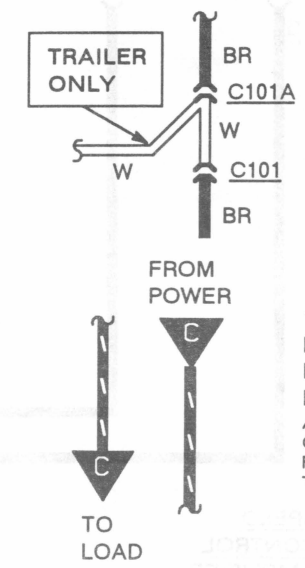
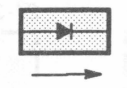
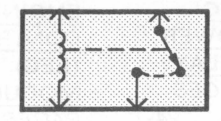
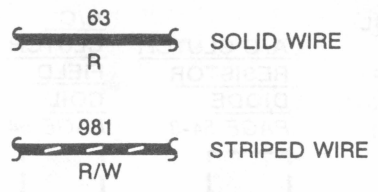
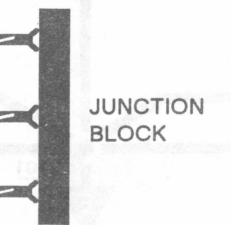
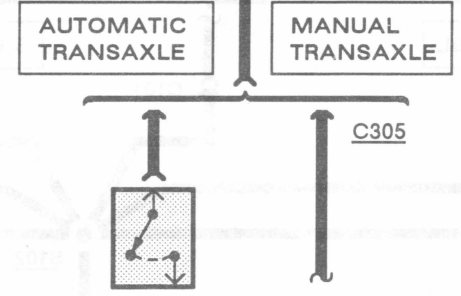
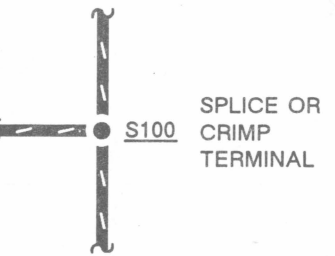
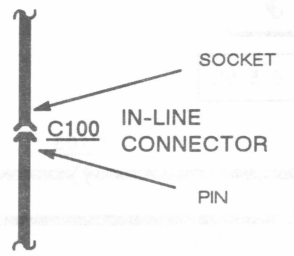


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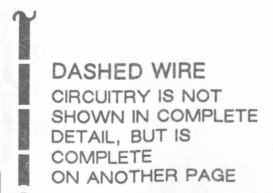
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"CUT" WIRES REFERENCED BETWEEN PAGES
ARROWS SHOW CURRENT FLOW FROM POWER TO GROUND

"REFERENCE" WIRES
COMPLETE WIRING SHOWN ON ANOTHER PAGE

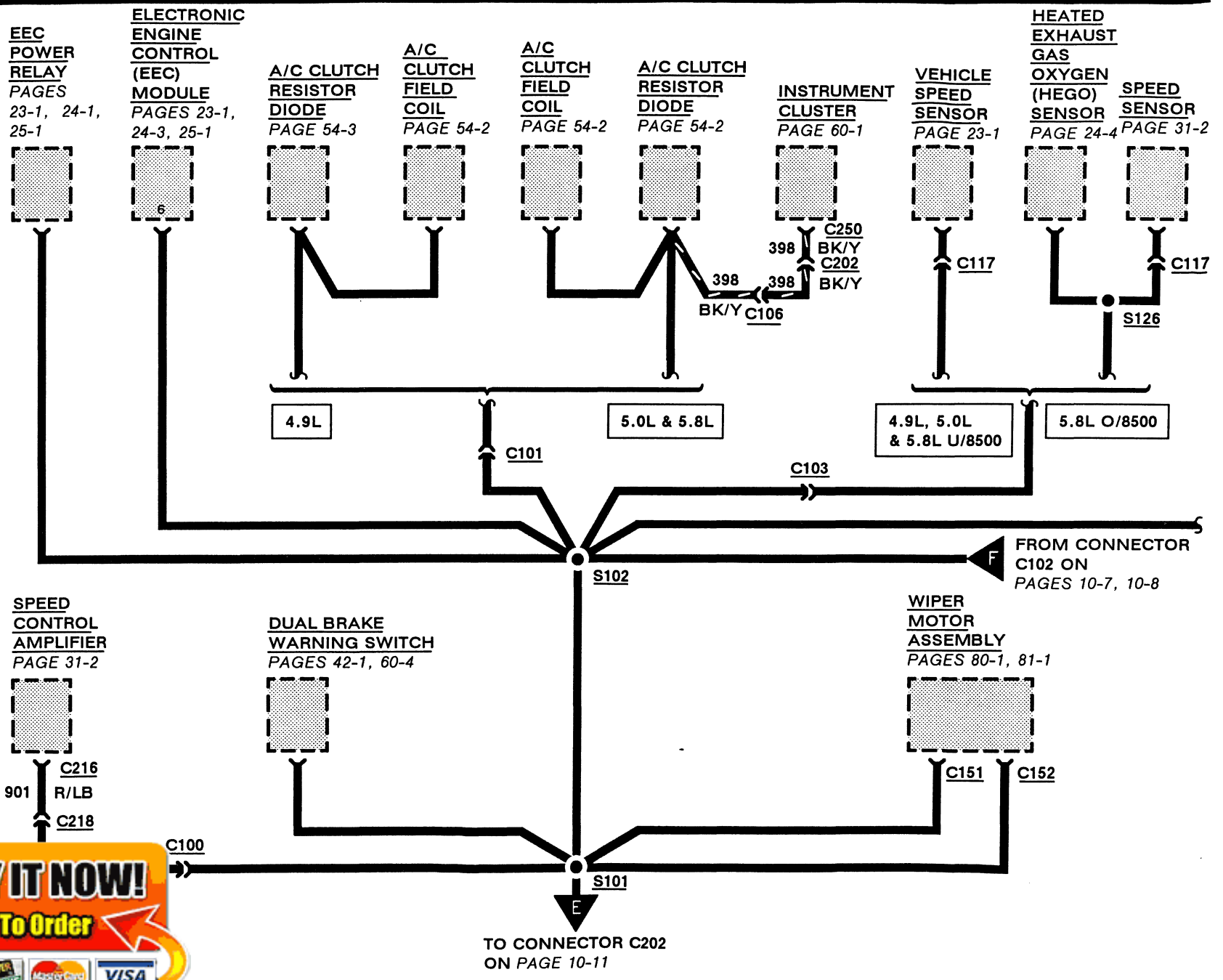


SEE GROUNDS
PAGES 10-0, 10-1



10-1 GROUND

4.9L, 5.0L
& 5.8L

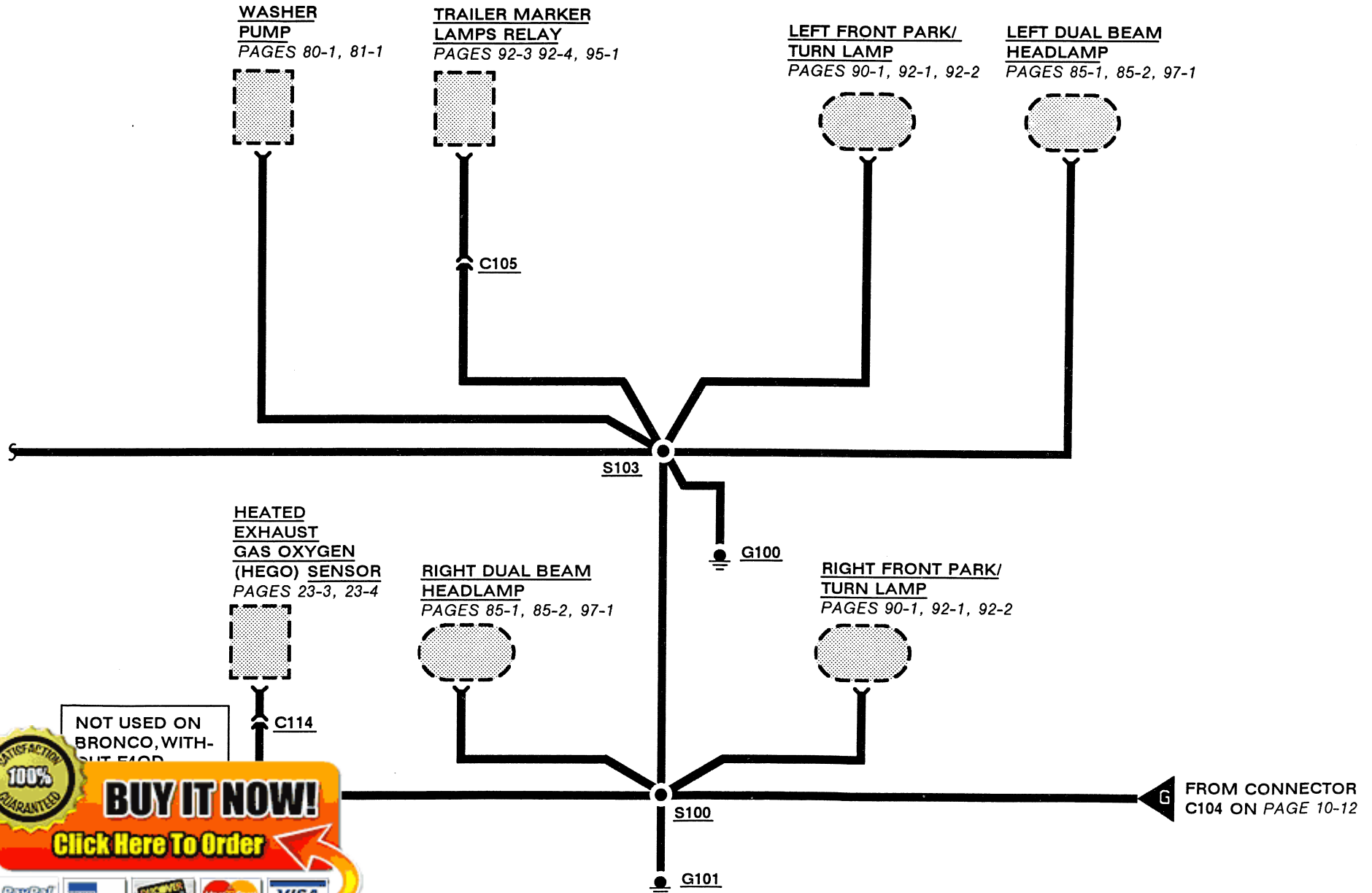


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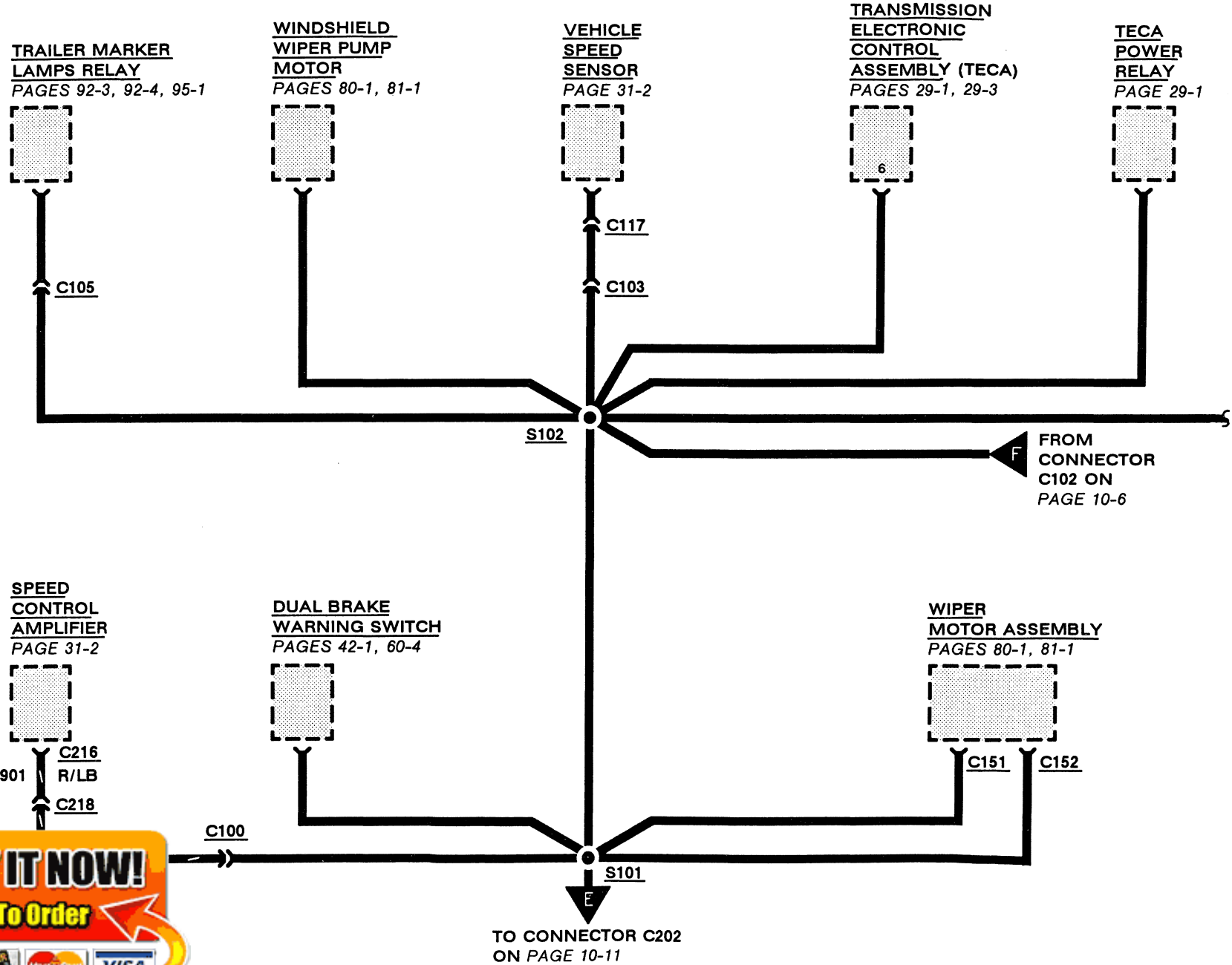
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10-3 GROUNDS

**DIESEL
(7.3L)**



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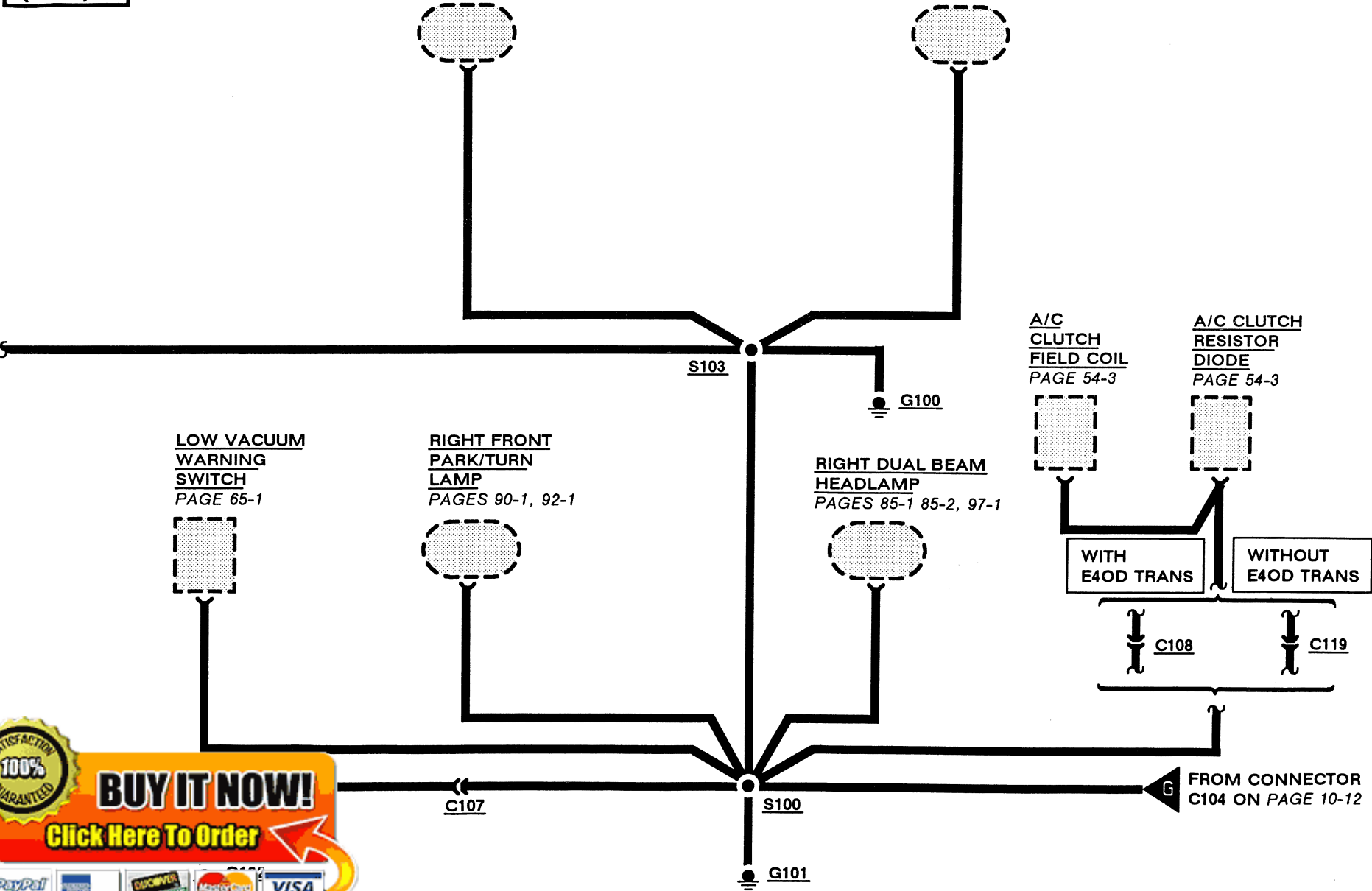
VISA

GROUNDS (G100, G101, G102) 10-4

**DIESEL
(7.3L)**

LEFT FRONT
PARK/TURN
LAMP
PAGES 90-1, 92-1

LEFT DUAL BEAM
HEADLAMP
PAGES 85-1, 85-2, 97-1



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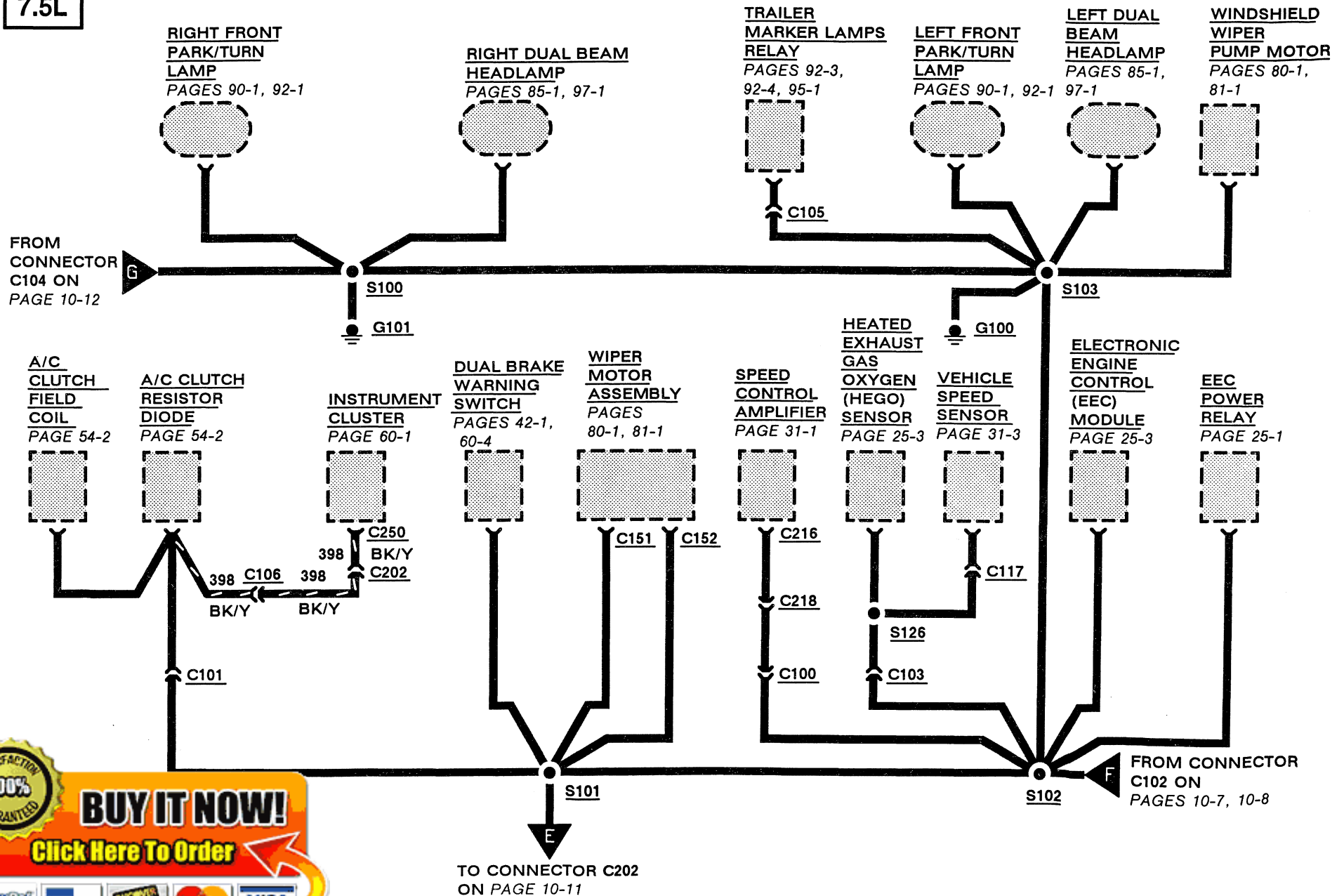
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10-5 GROUNDS (G100, G101)

7.5L



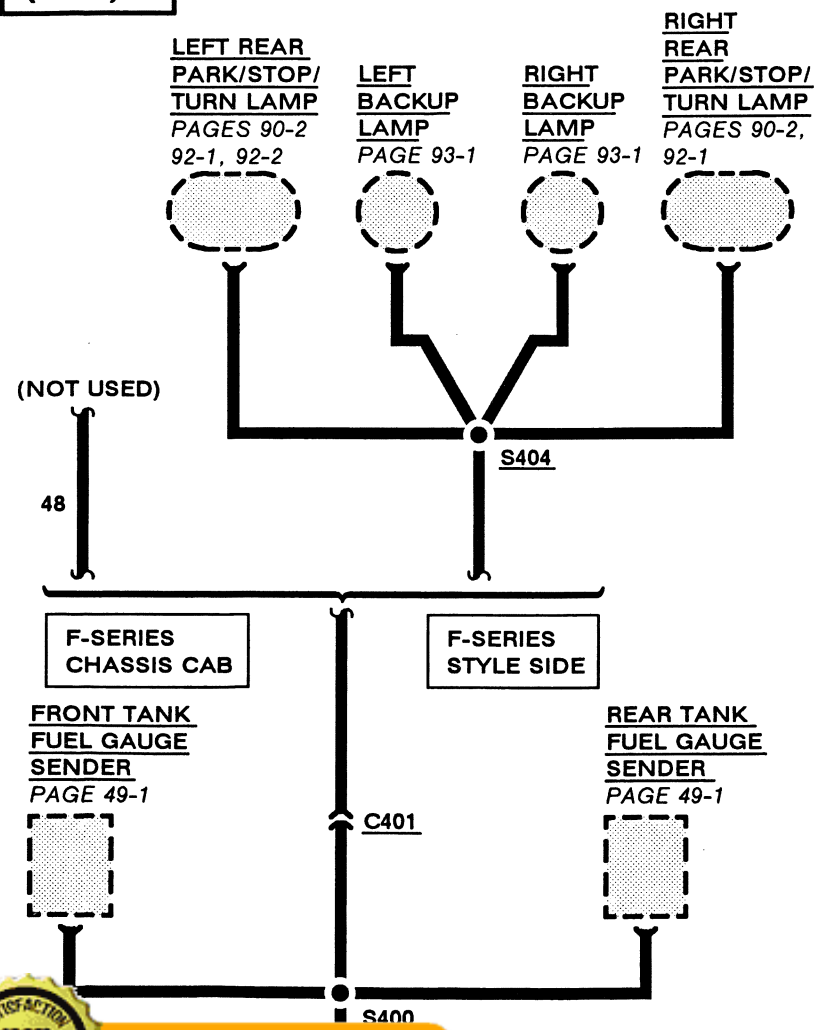
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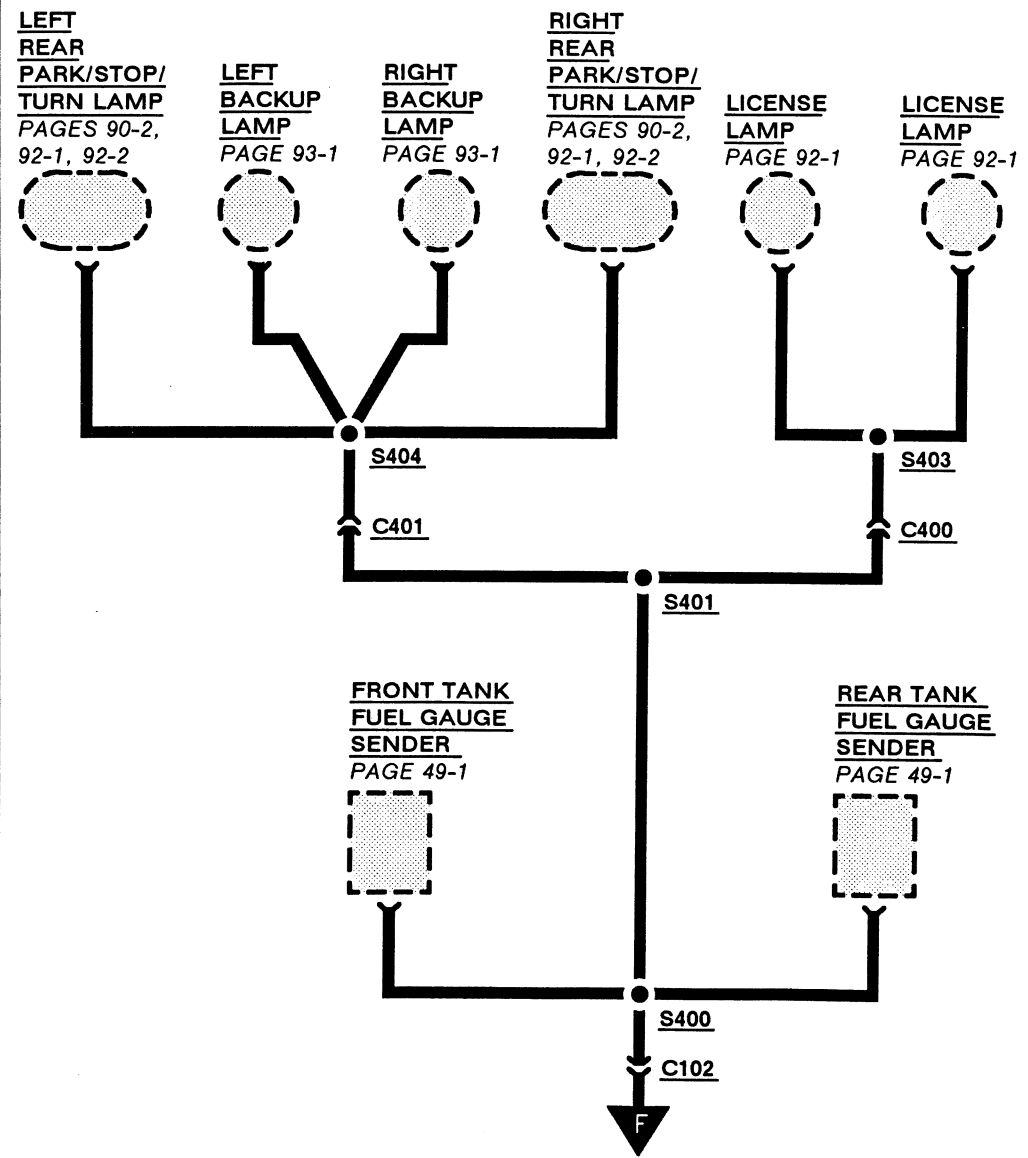
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**DIESEL
(7.3L)**

137" + 161" W.B.



133" + 155" W.B.



TO SPLICE S102
ON PAGE 10-3

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10-7 GROUNDS

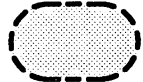
BRONCO

LEFT REAR
PARK/STOP/
TURN LAMP
PAGES 90-2,
92-1, 92-2

LEFT
BACKUP
LAMP
PAGE 93-1

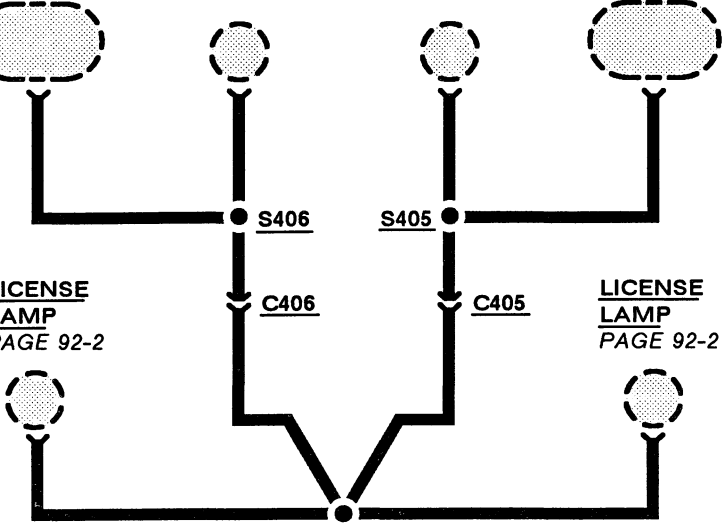
RIGHT
BACKUP
LAMP
PAGE 93-1

RIGHT REAR
PARK/STOP/
TURN LAMP
PAGES 90-2,
92-1, 92-2

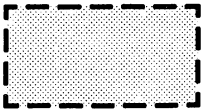


LICENSE
LAMP
PAGE 92-2

LICENSE
LAMP
PAGE 92-2



FUEL GAUGE
SENDER
AND PUMP
PAGES 23-6, 24-6,
25-5, 49-2



89 O

S401

S400

C102

TO SPLICE S102
ON PAGES 10-1, 10-5

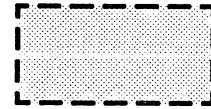
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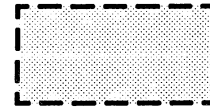
F-SERIES CHASSIS CAB

FRONT TANK
FUEL GAUGE
SENDER
AND PUMP
PAGES 23-6, 24-6,
25-5, 49-2



89 O

REAR TANK FUEL
GAUGE
SENDER
AND PUMP
PAGES 23-6, 24-6,
25-5, 49-2



89 O

(NOT USED)

48

C401

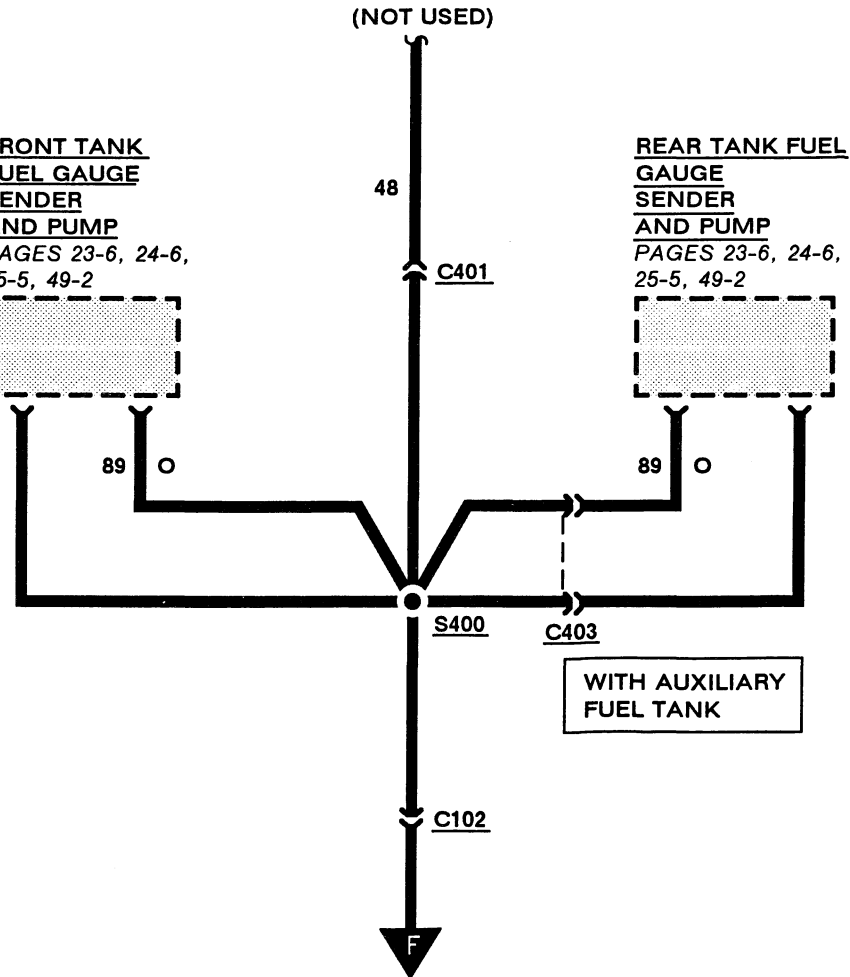
S400

C403

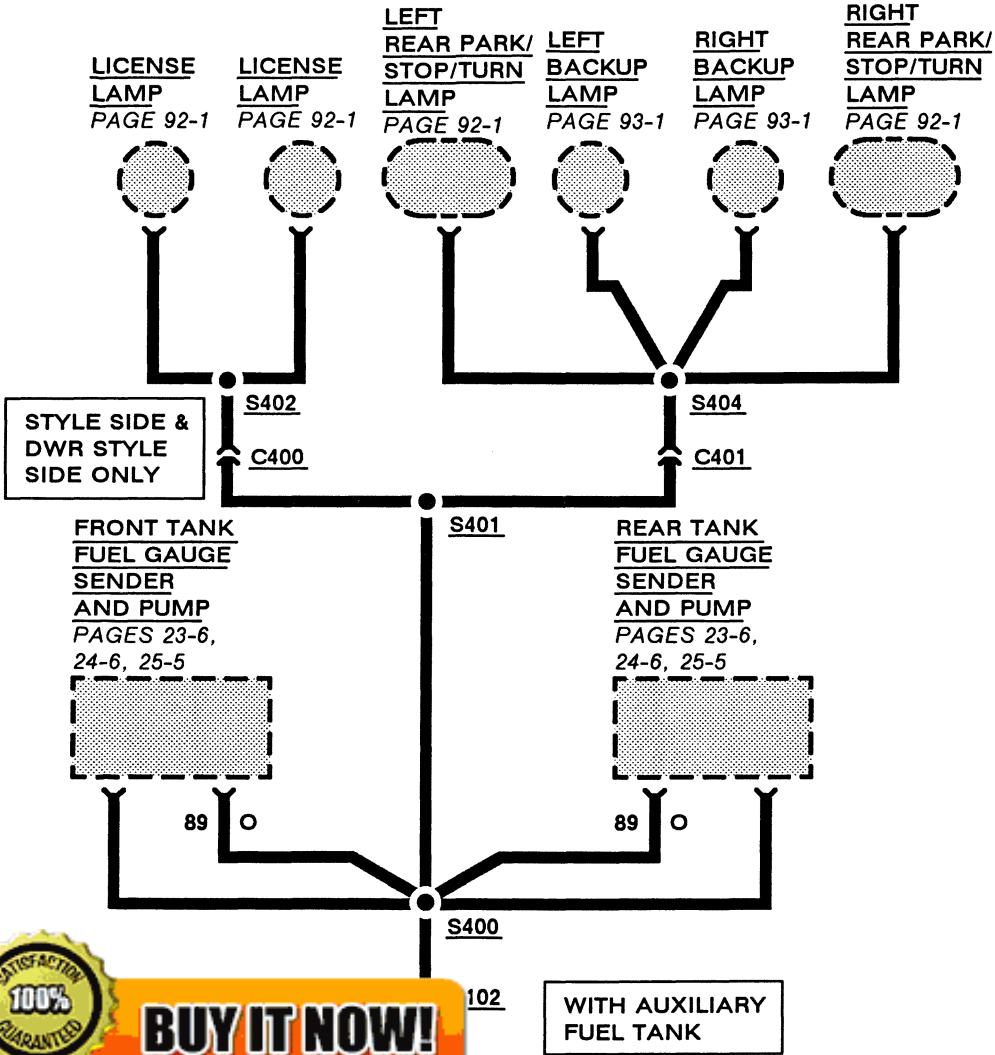
C102

TO SPLICE S102
ON PAGES 10-1, 10-5

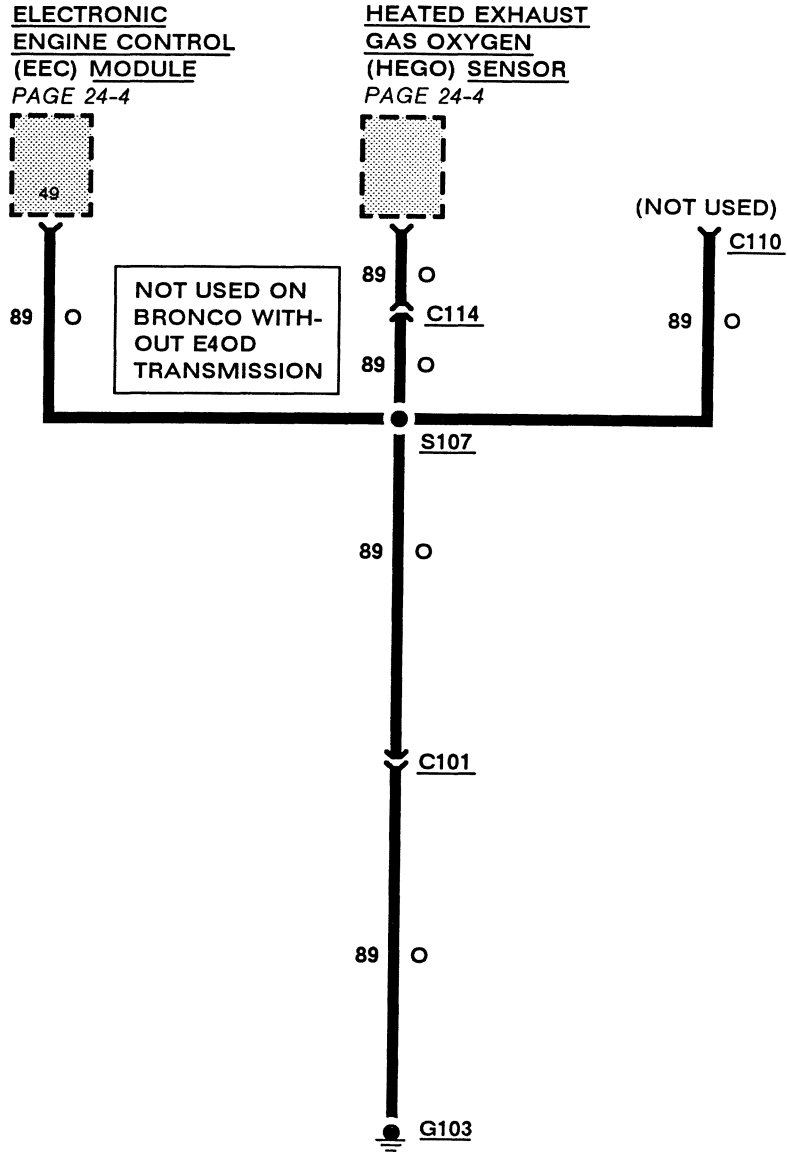
WITH AUXILIARY
FUEL TANK



F-SERIES, STYLE SIDE & DWR STYLE SIDE



5.0L



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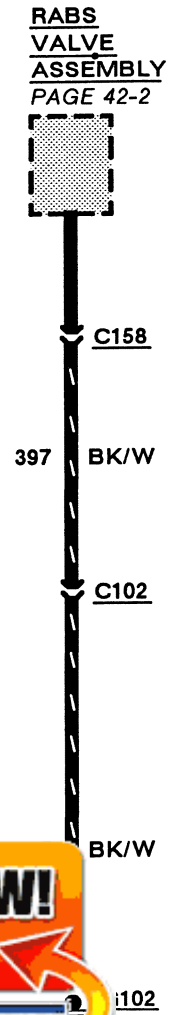
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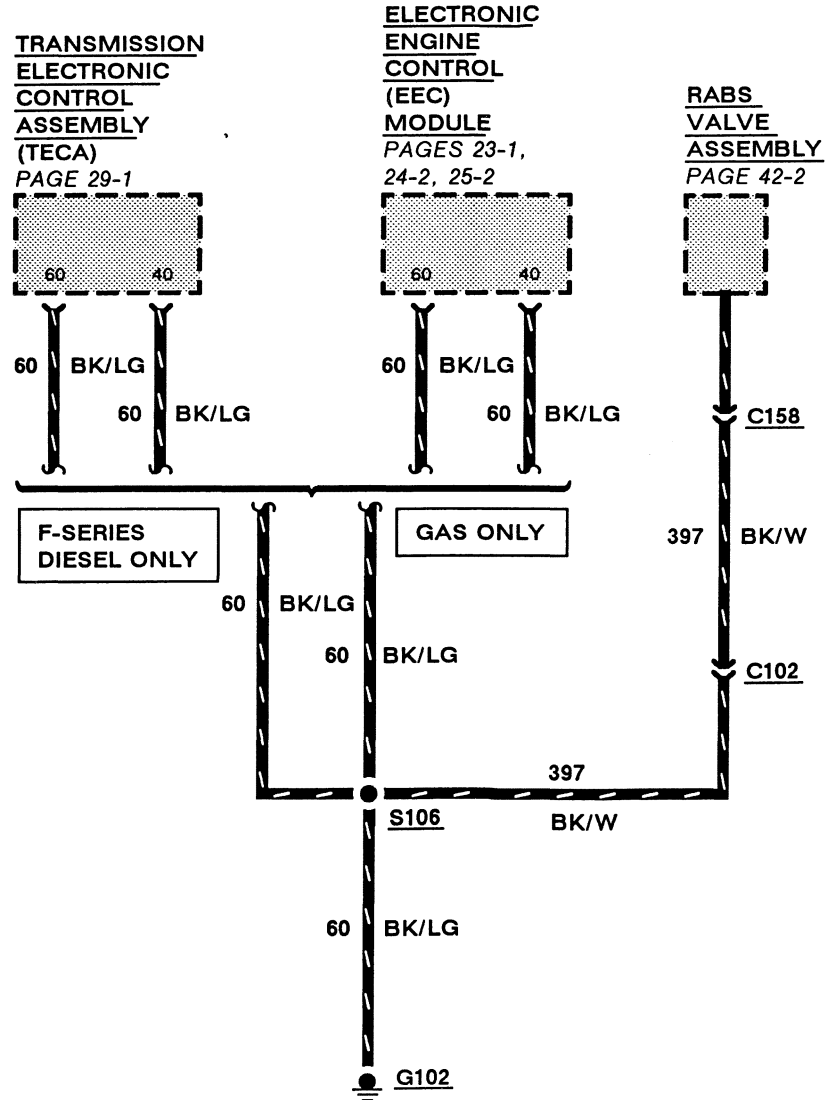
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10-9 GROUNDS (G102)

F-SERIES DIESEL WITHOUT E40D TRANSMISSION



ALL OTHER MODELS

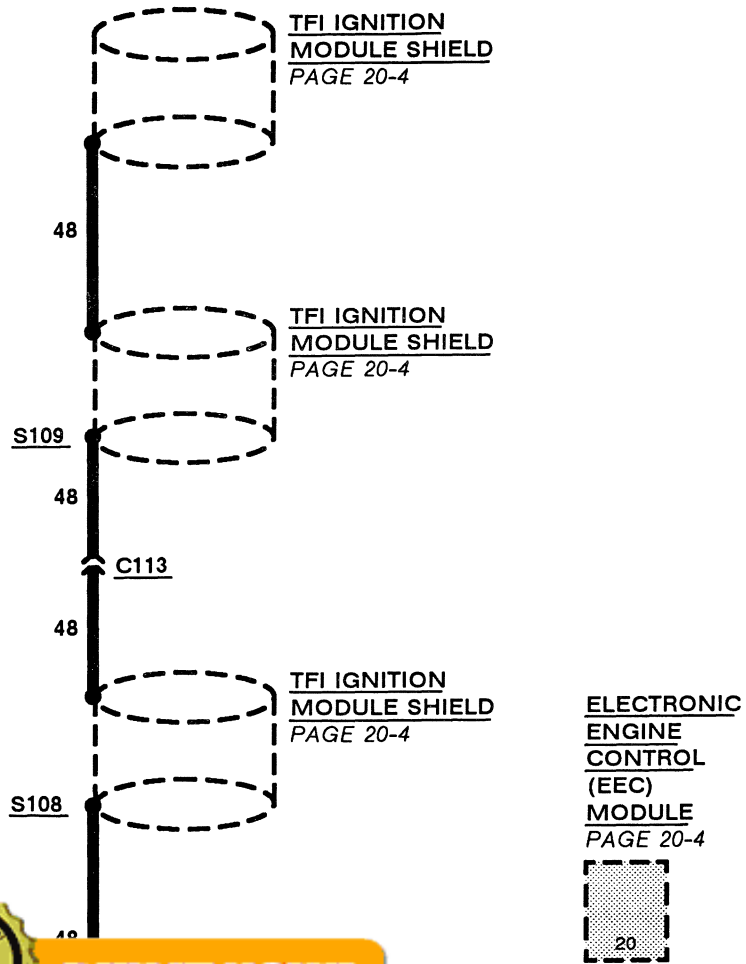


100% SATISFACTION GUARANTEED

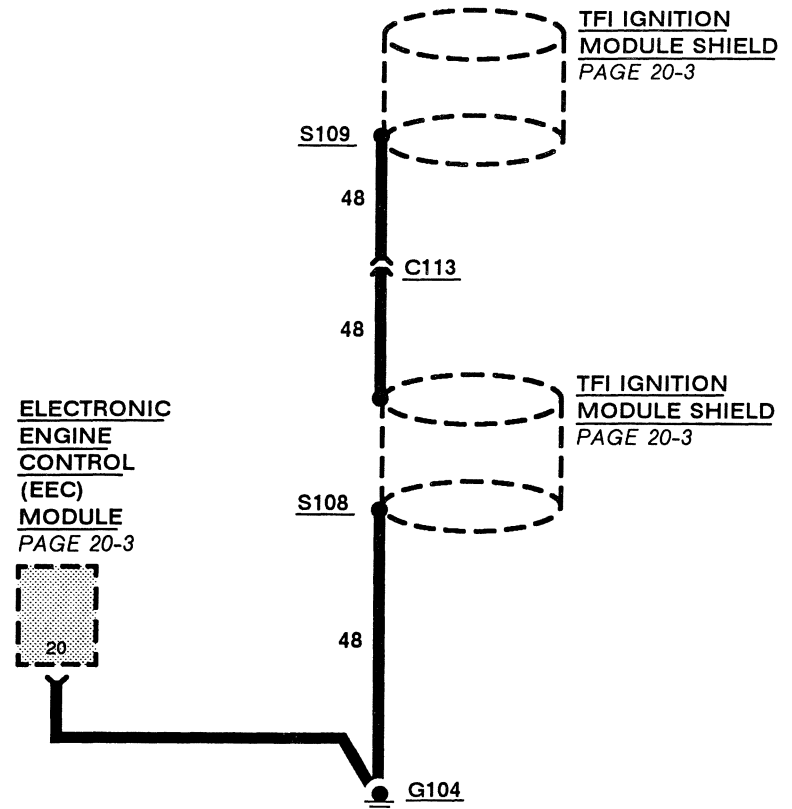
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5.0L & 5.8L



4.9L



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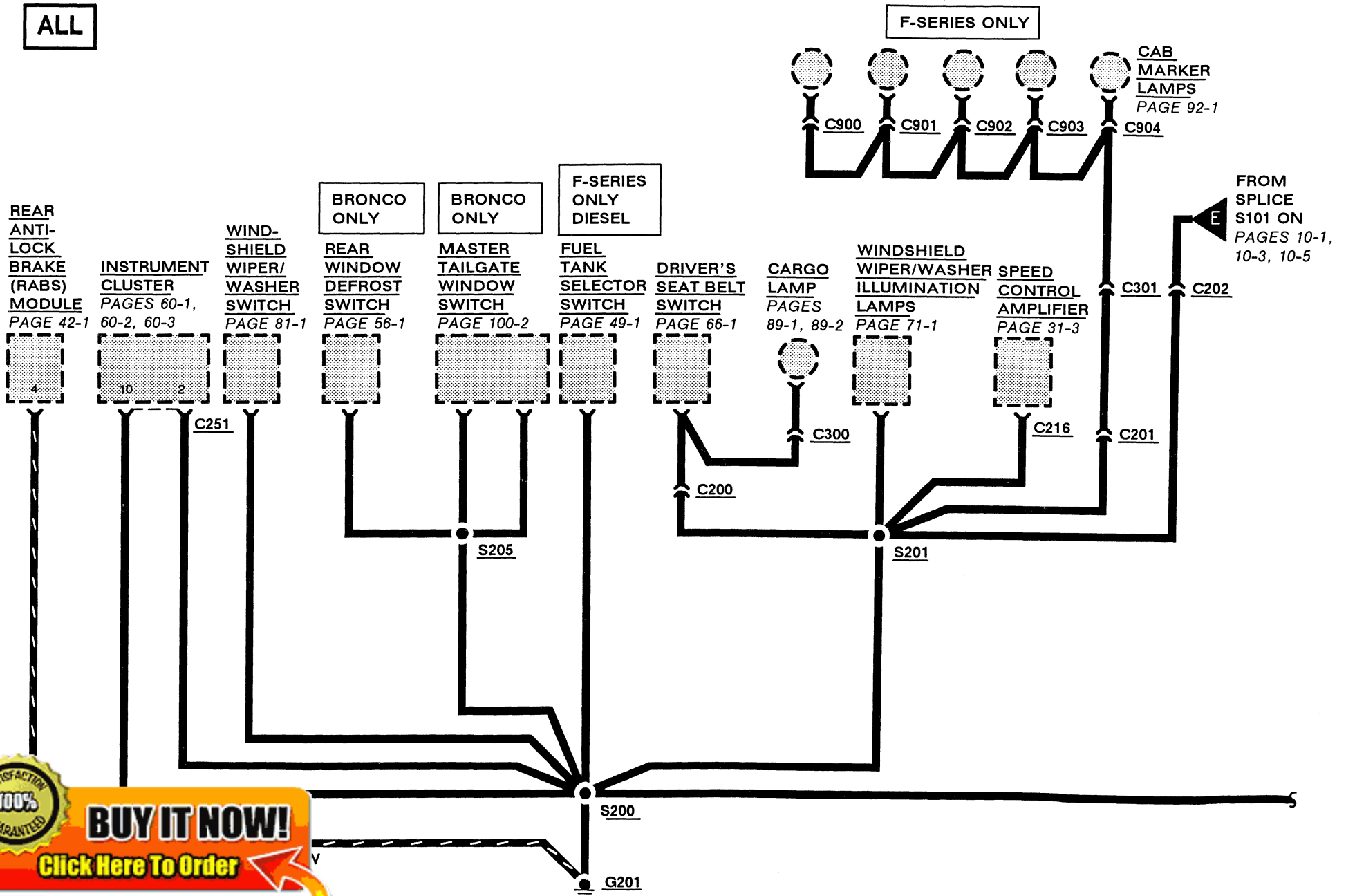
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10-11 GROUNDS (G201)

ALL

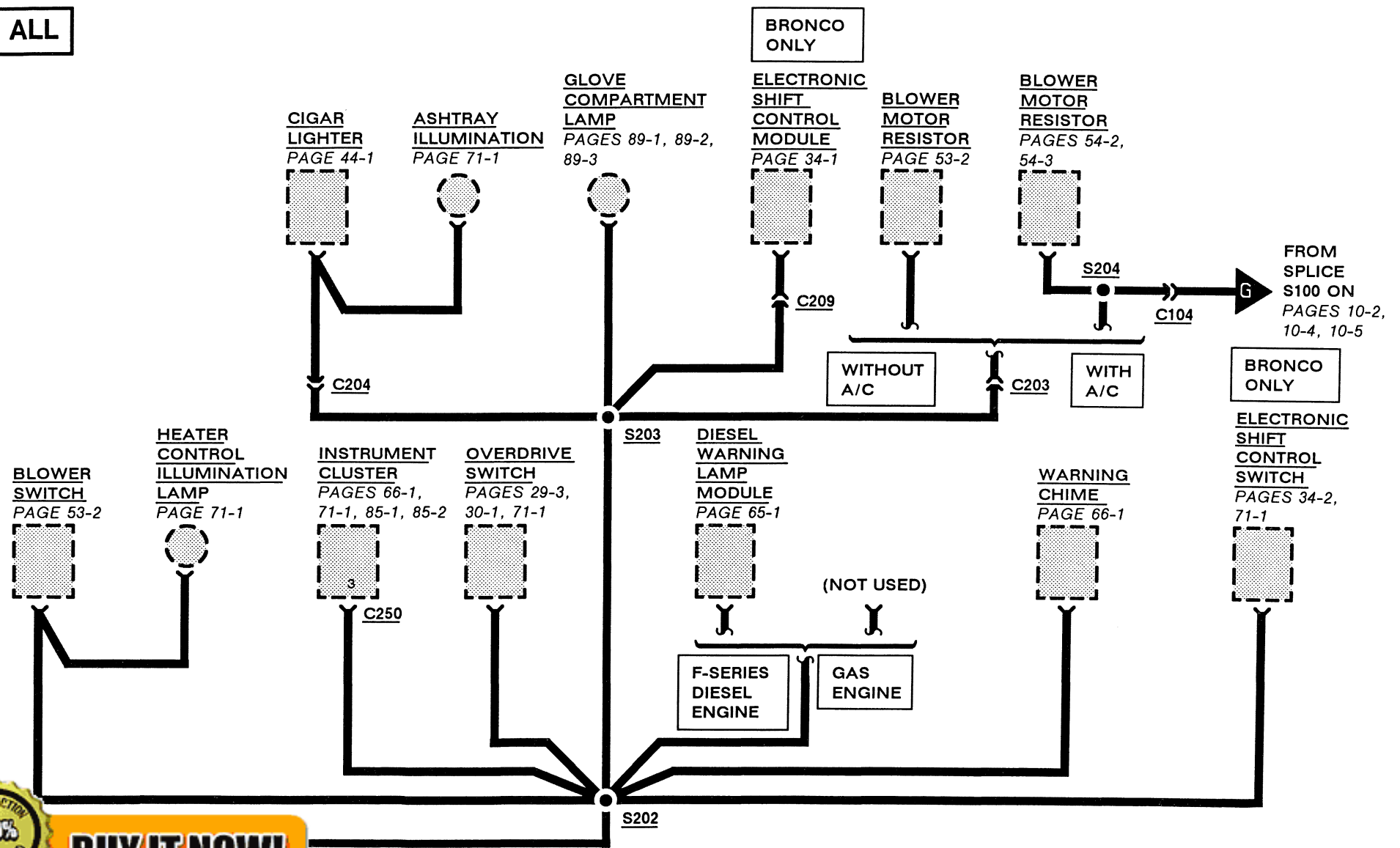


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ALL



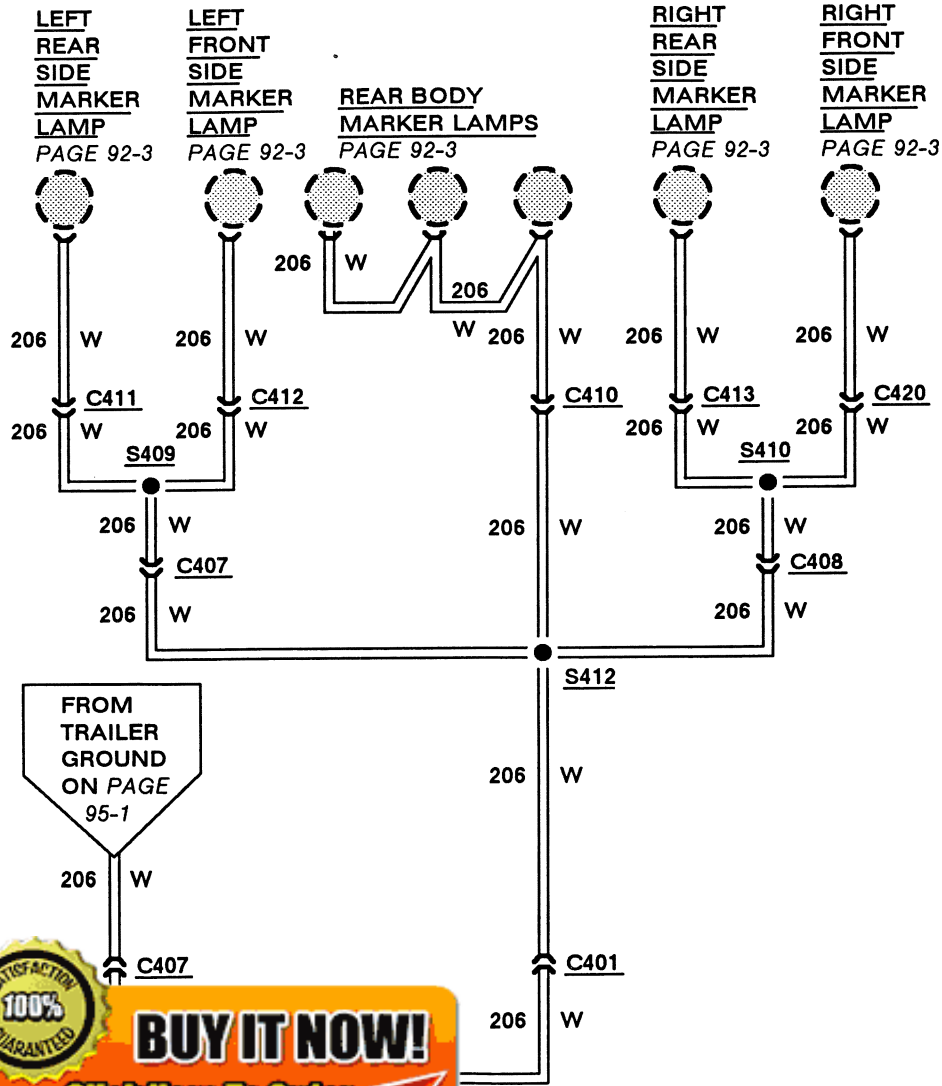
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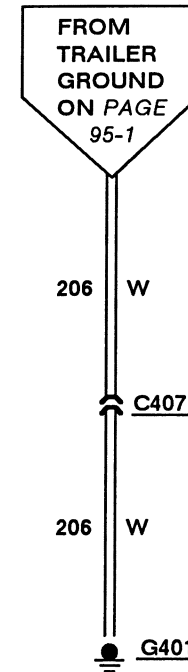
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10-13 GROUNDS (G401)

DRW STYLE SIDE



TRAILER TOW LESS DRW STYLE SIDE



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HOW THE CIRCUIT WORKS

The ground circuits shown here are complete and connect several components together to screw terminal ground points. Parts of these circuits may be shown on other pages throughout the book. 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.

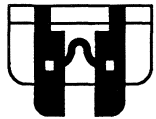
All wires are 57 BK unless otherwise noted.

Refer to Location Index page 152-1 for Connector, Diode, Resistor, Splice, Ground and Base Part Number descriptions and locations.

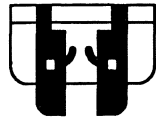


11-1 FUSE PANEL/CIRCUIT PROTECTION

REPLACEMENT OF FUSES/CIRCUIT BREAKERS



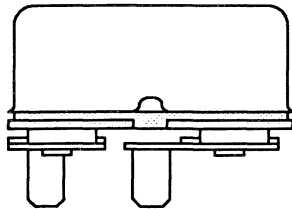
GOOD FUSE



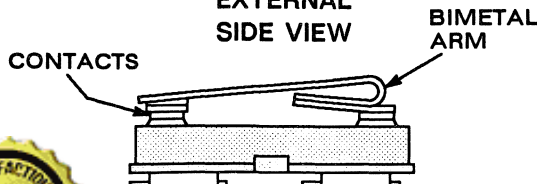
BLOWN FUSE

Fuses are mounted in the Fuse Panel. They are identified by the number rating in amperes. Some positions may have either a fuse 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 to check them.

CIRCUIT BREAKER OPERATION



EXTERNAL SIDE VIEW



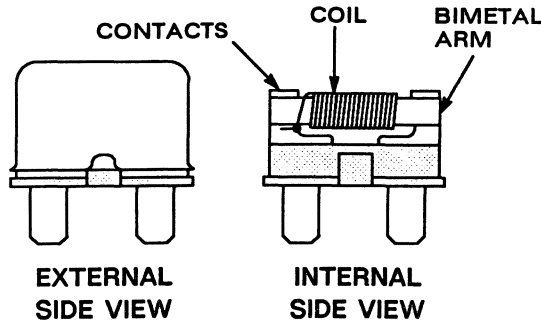
CONTACTS

BIMETAL ARM

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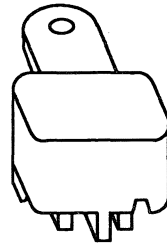
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EXTERNAL SIDE VIEW

INTERNAL SIDE VIEW

Non-Cycling Fuse Panel Type



Cycling In-Line Type

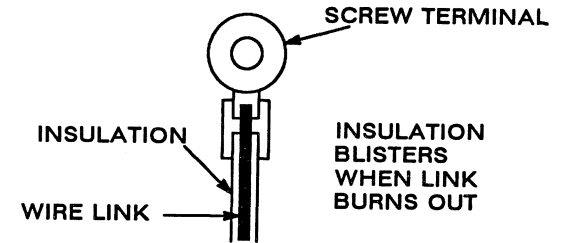
Some circuits are protected by circuit breakers (abbreviated "c.b." in fuse chart). They can be Fuse Panel mounted or in-line. Like fuses, they are rated in amperes.

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 cycle repeats as long as the overcurrent exists and power is 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 enough to operate a load, but it does heat up both the coil and the bi-metal 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 gauge 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 usually color coded for wire size as follows:

COLOR CODE

BLUE	20 GA
BROWN OR RED	18 GA
BLACK OR ORANGE	16 GA
GREEN	14 GA

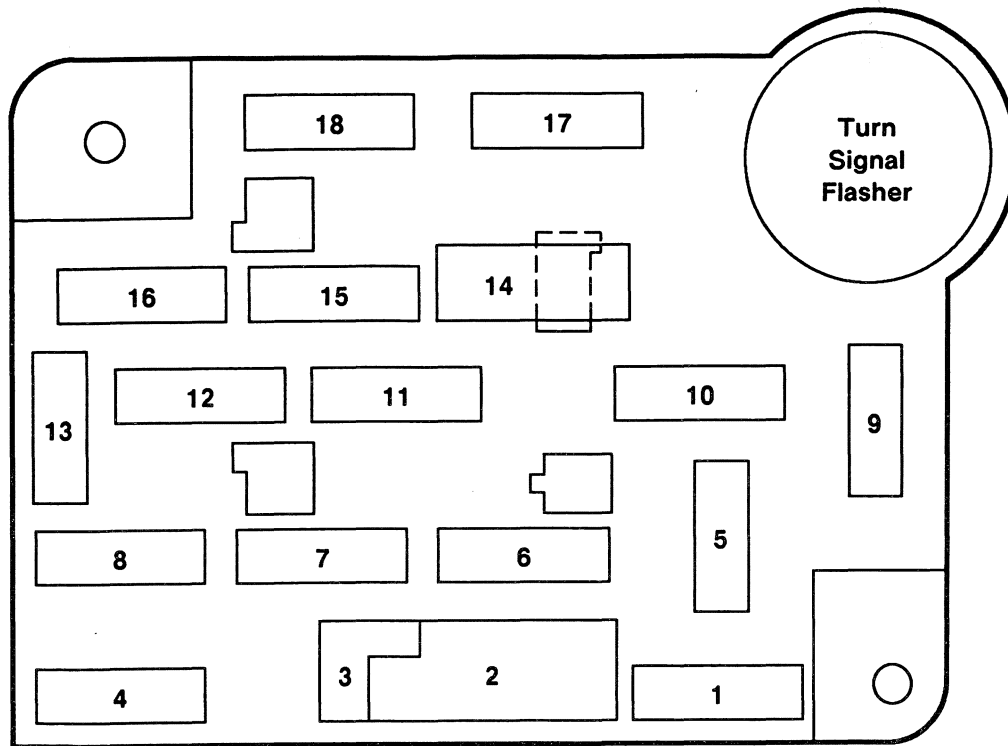
When replacing fuse links, make tight crimp joints or hot solder joints for good connections.

DIODES



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

FUSE PANEL/CIRCUIT PROTECTION 11-2



Fuse Position	Amps	Circuits Protected
1	15	Stop and Hazard Lamps, Anti-lock Brakes, Speed Control
2	—	(Not Used)
3	—	(Not Used)
4	15	Exterior Illumination, Instrument Illumination, Radio Clock Illumination
5	15	Turn Lamps, Daytime Running Lamps, Overdrive Switch, Backup Lamps, HEGO Sensor and rear Window Defrost (Bronco Only)
6	15	Speed Control and All Wheel Drive (Bronco Only)
7	—	(Not Used)
8	15	Dome Lamp, Map Lamp, Radio Memory, Cargo Lamps
9	30	A/C-Heater Blower Motor Relay Coil, A/C Clutch
10	5	Instrument Illumination
11	15	Radio and Clock
12	30 c.b.	Power Door Lock, All Wheel Drive, Power Tailgate Window (Bronco Only)
13	—	(Not Used)
14	30 c.b.	Power Windows
15	10	Fuel Tank Selector (Diesel Only)
16	30	Horn, Cigar Lighter and Speed Control
17	20	Anti-lock Brakes
18	15	Instrument Cluster Gauges and Indicators, Warning Chime, Diesel Warning Indicators and IMS/EVL Module

Fuse Value Amps	Color Code
4	Pink
5	Tan
10	Red
15	Light Blue
20	Yellow

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 Main 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 Main Light Switch.

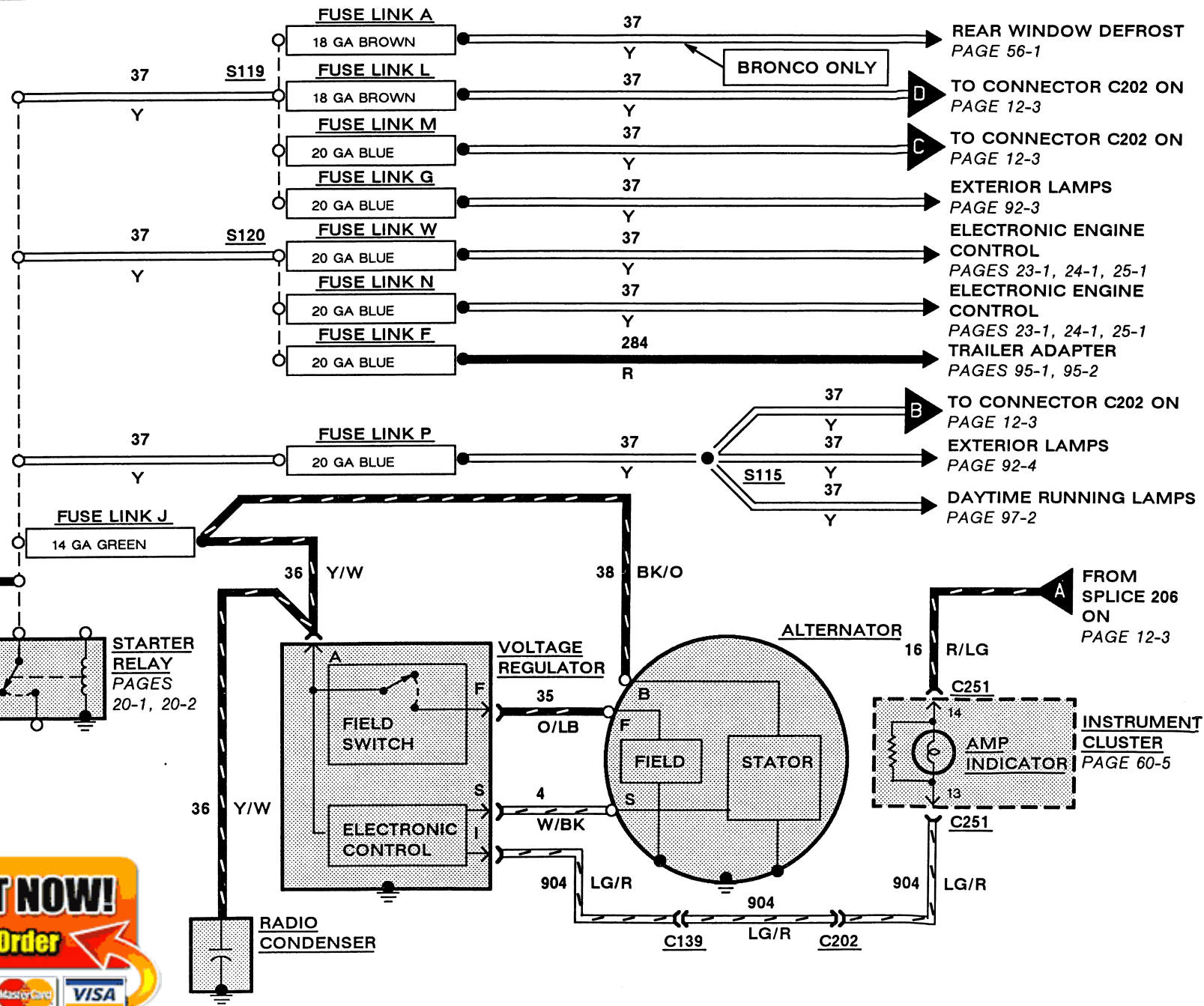
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12-1 CHARGE/POWER DISTRIBUTION

GASOLINE WITH EXTERNAL VOLTAGE REGULATOR



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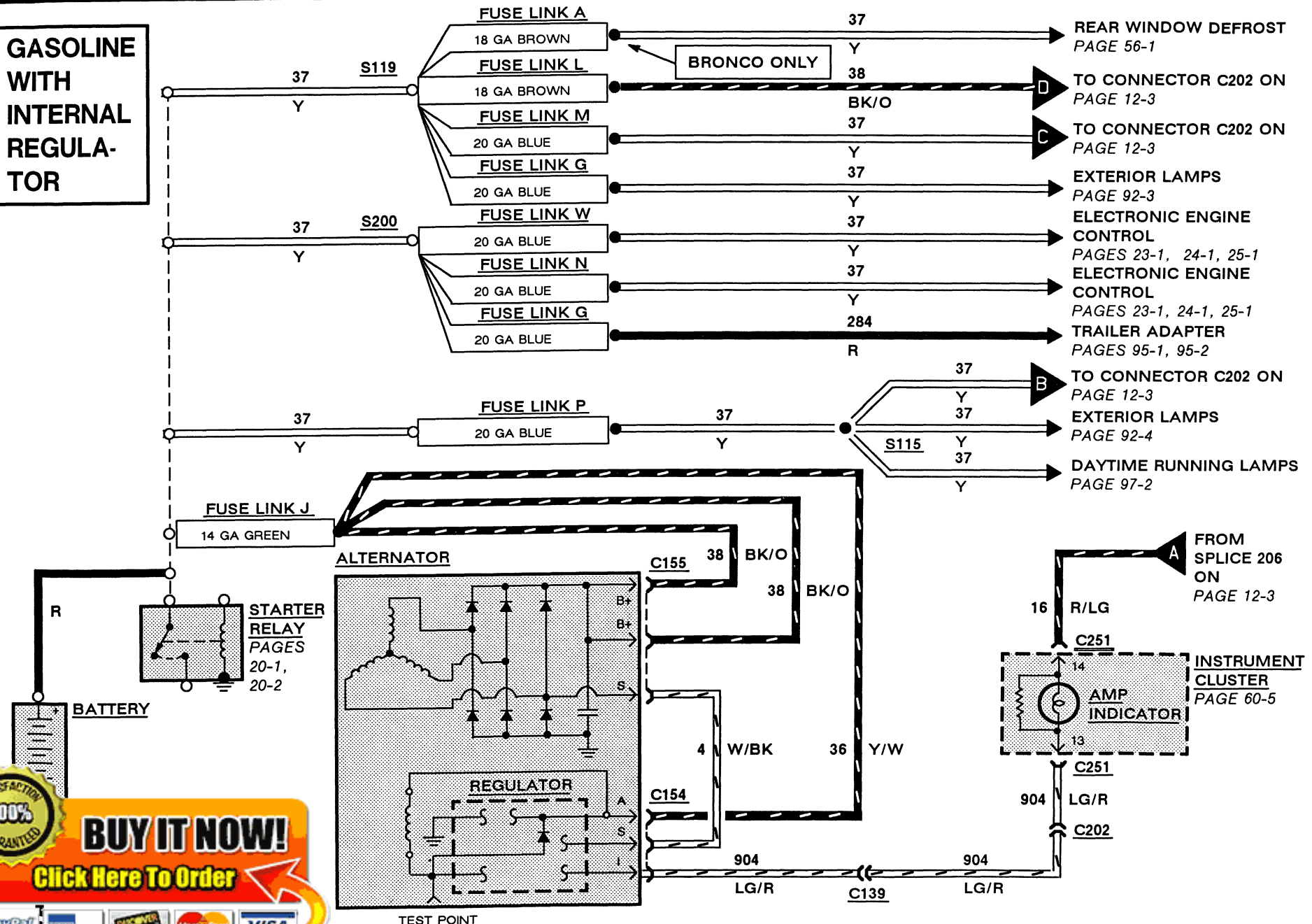
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CHARGE/POWER DISTRIBUTION 12-2

GASOLINE WITH INTERNAL REGULATOR



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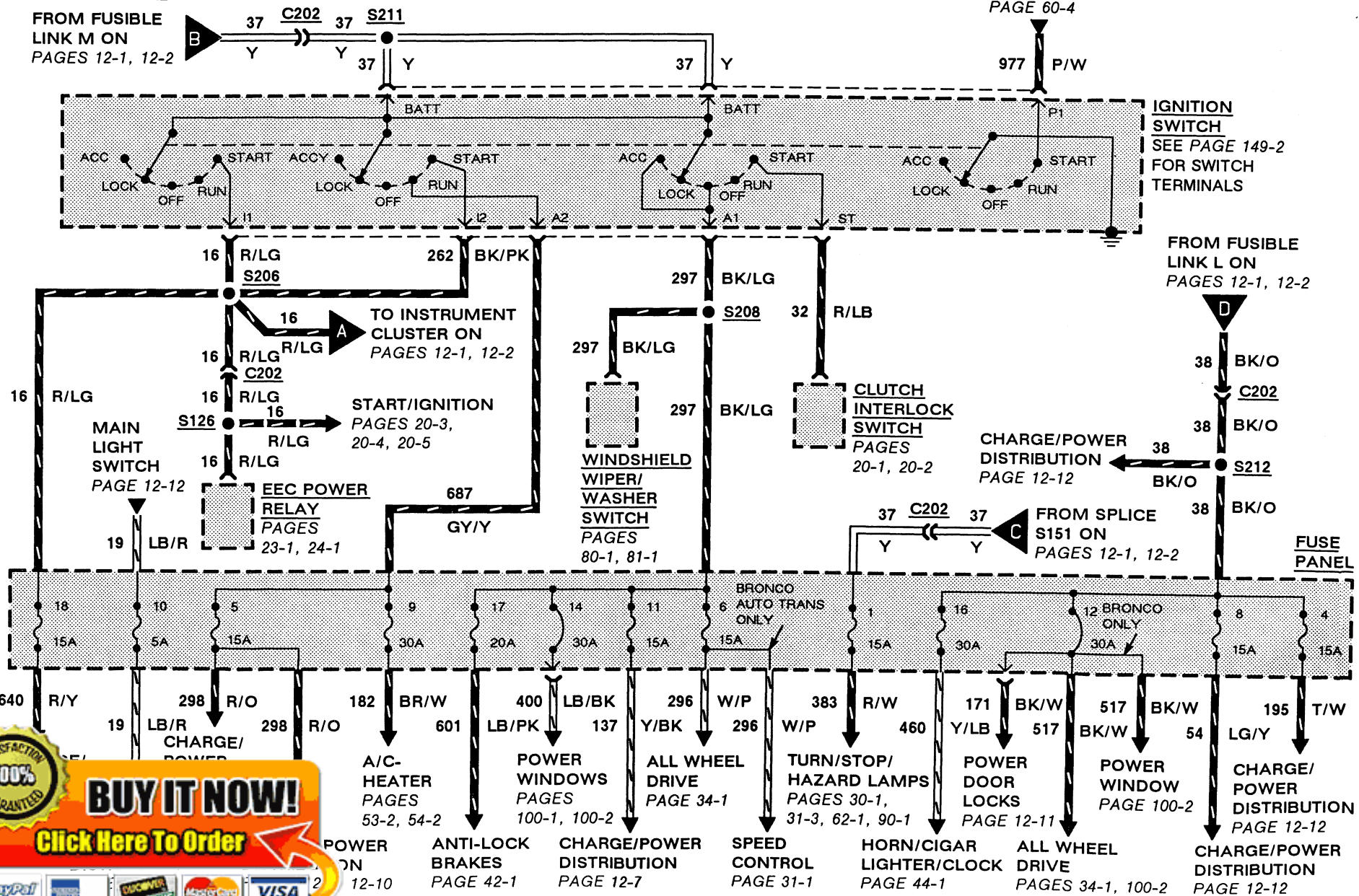
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12-3 CHARGE/POWER DISTRIBUTION

GASOLINE

FROM FUSIBLE LINK M ON PAGES 12-1, 12-2



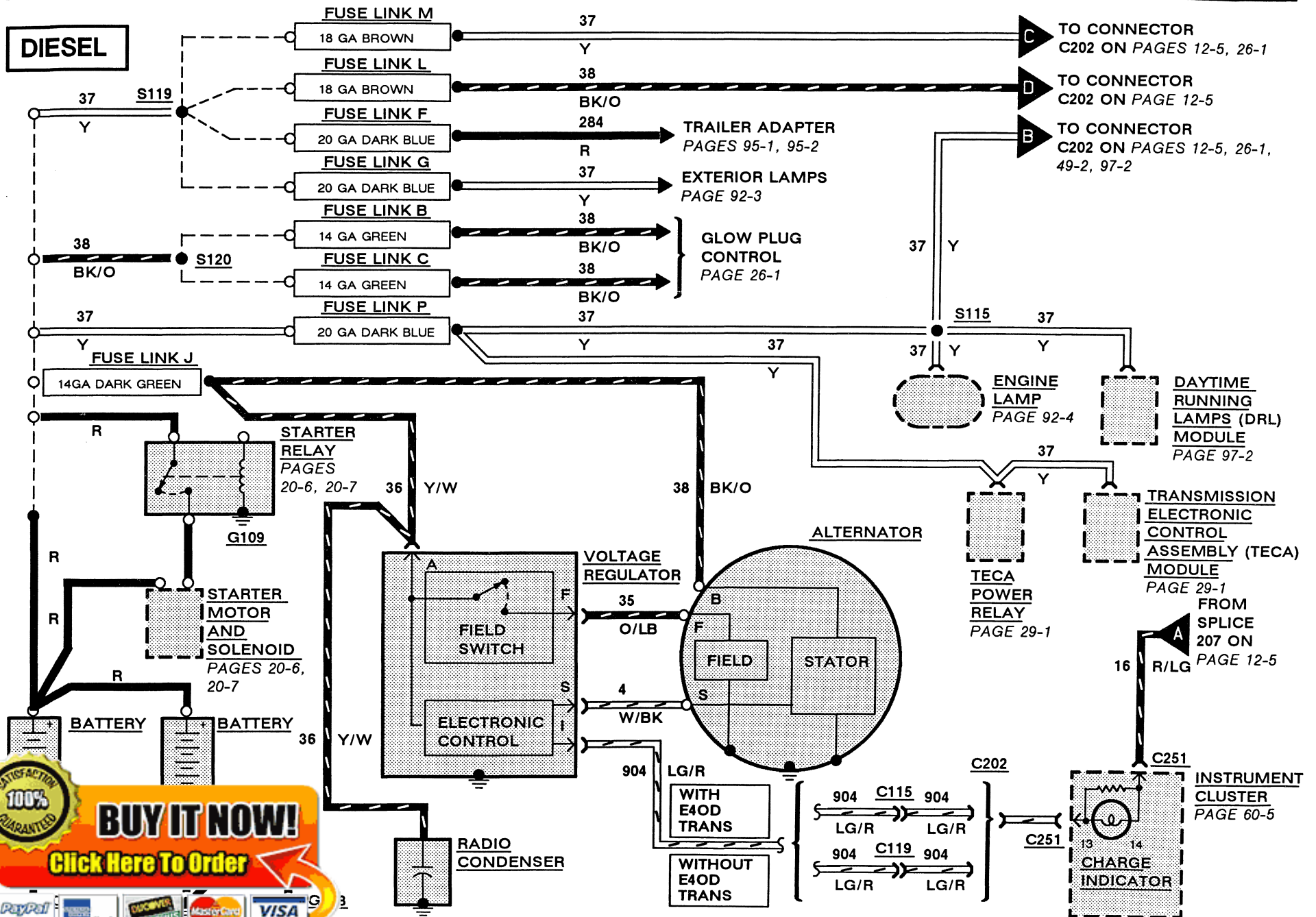
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CHARGE/POWER DISTRIBUTION 12-4

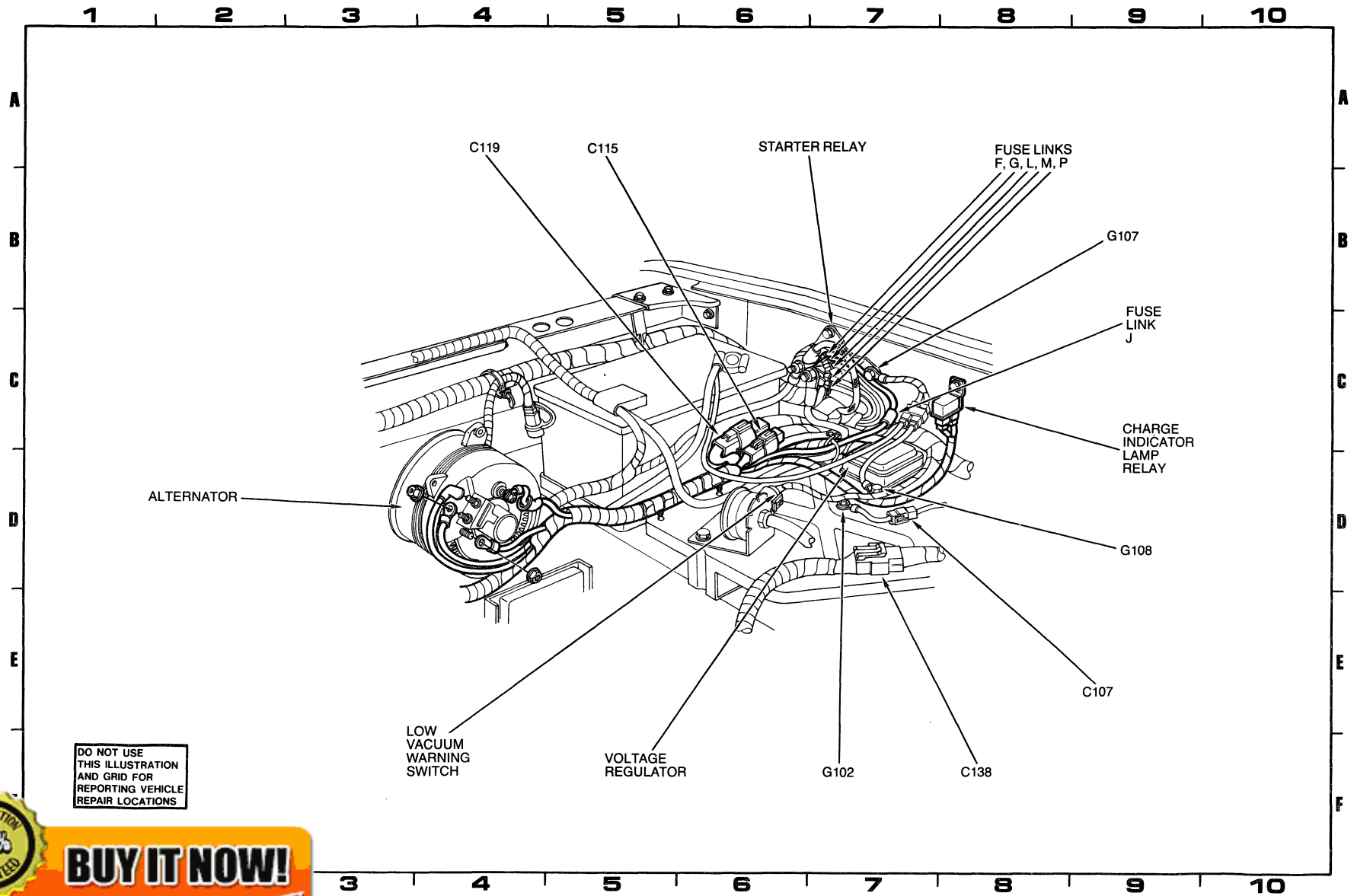


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COMPONENT LOCATION VIEW 151-12



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165 Amp Alternator

152-1 LOCATION INDEX

<u>Base Harness Number</u>	<u>Harness Name</u>	<u>Major Systems</u>
14401	Main	A/C Heater Anti-lock Brakes Courtesy Lamps Headlamps IMS/EUL Module Instrument Panel Speed Control Radio Turn/Stop/Hazard Lamps Warning Chime
14405	Rear Lamp	Anti-lock Brakes Auxiliary Fuel Tank Selector Fuel Tank Sender And Pump License Lamps Turn/Stop/Hazard Lamps Trailer Wiring
14406	Fuel Tank Sender	Fuel Tank Sender
14408	Right Rear Lamp Extension	Backup Lamp Rear Park/Stop/Turn Lamps
14630	Window Regulator Right Front Door	Power Door Locks Power Window Radio
14631	Window Regulator Left Front Door	Power Door Locks Power Window Radio
14K067	Warning Lamp Feed	Warning Indicators
14086	Right Rear Window Regulator Control	Tailgate Power Window
14289	Dash Panel To Engine Gauge Feed	A/C Heater Engine Controls Start/Ignition
	Engine Ground	Grounds
	System	A/C Heater Engine Controls Instrument Panel Start/Ignition Courtesy Lamps

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<u>Base Harness Number</u>	<u>Harness Name</u>	<u>Major Systems</u>
13A409	Rear Lamps	Backup Lamps License Lamp Park/Stop/Turn Lamps
13A576	Trailer Lamp Feed	Trailer Wiring
13A726	Ash Receptacle Lamp	Cigar Lighter Instrument Illumination
13N850	Diesel Starter Relay Ground	Ground
13412	Rear License Lamp	License Lamp
14A107	Rear Axle Control Jumper	Anti-lock Brakes
14A200	Window Regulator Relay Switch	Power Doors Power Windows
14A303	Relay Feed Wiring Assembly	Trailer Wiring
14A346	Trailer Battery Feed	Trailer Wiring
14A348	Trailer Brake Control Switch	Trailer Wiring
14A504	Right Seatbelt Retractor	Radio Seatbelt Retractor
6B0108	Engine Block Heater	Engine Block Heater
7A786	Transfer Case Four Wheel Drive Control	All Wheel Drive
9A124	Fuel Tank Selector Switch	Fuel Tank Selector Instrument Panel
9A840	Speed Control Wiring Assembly	Speed Control
9C887	Vehicle Speed Control Extension	Speed Control Vehicle Speed Sensor
9D353	Fuel Pump Motor Jumper	Engine Controls
9D930	Fuel Charge	Engine Controls
11A060	Starter Relay Ground	Grounds
12A581	Engine Control Sensor	Engine Controls Instrument Panel Start Ignition Windshield Wiper/Washer HEGO Sensor Lead
	Engine Control Sensor Extension	HEGO Sensor Lead
	Wiring Assembly	Trailer Wiring
	Trailer Wiring



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152-3 LOCATION INDEX

<u>Base Harness Number</u>	<u>Harness Name</u>	<u>Major Systems</u>
15A504	Marker Lamp To Switch	Exterior Lamps
15A702	Engine Compartment Lamp Feed	Exterior Lamps
15460	Marker Lamp Wiring Assembly	Exterior Lamps
15525	Backup Lamp Switch To Rear Lamp Feed	Backup Lamps
18A586	Heater Switch To Blower Motor	A/C Heater
19A123	Rear Speaker Extension	Radio



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LOCATION INDEX 152-4

<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
4x4 Hi/Low Indicator Switch		On transfer case	*	
A/C Clutch Cycling Pressure Switch ...	19E561	RH rear of engine compartment, on A/C accumulator	151- 1-B 1	
A/C Clutch Field Coil	11082	LH front of engine, on A/C compressor	151- 3-D 9	
A/C Clutch Resistor Diode		LH fender apron, near relay assembly	*	
A/C-Heater Function Selector Switch ...	18552	Center of I/P	151- 8-B 4	
ABS Rear Axle Sensor		Below rear of trunk, on differential	*	
Air Charge Temperature Sensor (4.9L)	12A697	Front RH side of engine, near intake runner No.1	151- 1-F 4	
Air Charge Temperature Sensor (5.0L and 5.8L)	12A697	Top front center of engine , near intake runner No. 6	151- 4-C 1	
Air Charge Temperature Sensor (7.5L)	12A697	Top front center of engine	151- 6-F 5	
Alternator	10346	RH front of engine	151- 5-F 4	
Backup Lamp Switch	15520	RH rear of transmission	*	
Backup Neutral Safety Switch	7A247	LH rear side of transmission	*	
Blower Motor	18527	RH side of safety wall	151- 1-C 1	.. 150- 1
Blower Resistors	18591	On heater housing assembly, near blower motor	151- 2-A 1	
Blower Switch	18578	Center of I/P	151- 8-A 6	.. 150- 1
Canister Purge Solenoid (4.9L)	9C915	Top of engine	151- 2-C 1	
Canister Purge Solenoid (5.8L)	9C915	RH side of engine, near throttle body	151- 4-F 4	
Canister Purge Solenoid (7.5L)	9C915	RH side of engine	151- 7-C 1	
Cargo Lamp Diode (Bronco)	14A604	Rear LH side of cargo area	151- 9-A 5	
Cargo Lamp Diode (F-Series)	14A604	Interior lamp feed harness, near T/O to cargo lamp, on rear of cab	151-10-A 5	
Charge Indicator Lamp Relay		RH fender apron, near starter relay	*	
Interlock Switch		Mounted on clutch pedal support	151- 8-F 7	.. 150- 1
Interlock Switch		Mounted on clutch pedal support	*	
Interlock Switch		Top center front of engine	151- 5-F 5	
Interlock Switch		Top LH side of engine	151- 5-F 6	
Interlock Switch	12A648	Front of engine, in thermostat housing	151- 2-B 1	

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152-5 LOCATION INDEX

<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
Coolant Temperature Sender (5.0L, 5.8L, 7.3L, and 7.5L)	12A648	Front LH side of engine	151- 3-D	9
Daytime Running Lamps (DRL) Module	15A272	LH front of engine compartment, near horns	151- 2-F	7 .. 150- 2
Diesel/Warning Lamp Module	10A936	Behind LH side of I/P	151- 8-A	6
Dimmer Switch	13A044	On floor, next to LH cowl panel	151- 8-E	9
Distributor		Top front of engine	*	.. 150- 2
Door Control Switch		On respective front door	151- 9-E	1 .. 150- 2
Door Jamb Switch	13A786	Inside respective front door jamb	151- 9-F	3
Door Lock Motor		Inside respective front door	151- 9-D	1
Driver's Seat Belt Switch		Below RH side of driver's seat	*	
Dual Brake Warning Diode/Resistor Assembly		Main harness, near anti-lock brake module	*	
Dual Brake Warning Switch	2B264	LH rear of engine compartment, on brake fluid reservoir	151- 1-A	10
EEC Power Relay	12A646	LH fender apron, on relay assembly	151- 1-D	9 .. 150- 3
EGR Control Solenoid (4.9L)	9D460	LH side of engine, on rear rocker cover bracket	151- 1-A	9
EGR Control Solenoid (5.0L and 5.8L)	9D460	LH rear side of engine, on coil support bracket	151- 4-A	5
EGR Vacuum Regulator (EVR) Solenoid	9J459	LH rear of engine	*	
EGR Valve Position Sensor (4.9L)	9G428	LH side of engine	151- 1-A	6
EGR Valve Position Sensor (5.0L and 5.8L)	9G428	Front RH side of engine, on EGR valve	151-3-C	1
EGR Valve Position Sensor (7.5L)	9G428	LH rear of engine	151- 6-A	6
Electric Brake Control Unit		Behind LH cowl	*	
Electronic Engine Control (EEC) Module	12A650	Lower LH side of safety wall	151- 2-A	9 .. 150- 4
Electronic Shift Control Module		Behind RH cowl panel	151- 9-A	5 .. 150- 8
Electronic Shift Control Switch		LH side of I/P	151- 8-D	10 .. 150-10
	7005	RH side of undercarriage, near transmission	*	.. 150- 9
	12A648	Front of engine, on thermostat housing	151- 2-F	4

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LOCATION INDEX 152-6

<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
Engine RPM Sensor (with E4OD Transmission)	17630	LH front of engine	151- 5-F 7	
Engine RPM Sensor (without E4OD Transmission)	17630	Top front of engine	*	
Engine Temperature Switch	10884	Front LH side of engine	*	
Front Window Motor		Inside respective front door	151- 9-F 1	
Fuel Gauge Sender/Electric Fuel Pump	9H307	Mounted on top front of fuel tank	*	
Fuel Injection Pump Lever (FIPL) Sensor	9B989	LH side of engine	151- 5-F 7	
Fuel Injectors (4.9L)	9E593	RH side of engine, in lower intake manifold	151- 1-C 1	
Fuel Injectors (5.0L, 5.8L and 7.5L) ...	9F593	Top of engine, in lower intake manifold	151- 3-A 5	
Fuel Line Heater	9C330	Front RH side of engine, near fuel filter	151- 5-F 2	
Fuel Pump Relay	9C392	On LH fender apron	151- 2-D 9	.. 150-10
Fuel Shutoff Solenoid	9D278	Top of engine	151- 5-F 5	
Fuel Tank Selector Switch	9A050	LH side of I/P	151- 8-A 9	.. 150-10
Fuel Tank Selector Valve	9189	LH side of main frame, rear of cab	*	.. 150-11
Fuel Water Switch		Front RH side of engine, near fuel filter	151- 5-B 1	
Fuse Link A	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
Fuse Link B	14526	Front of RH fender apron, in engine control harness	151- 5-E 1	
Fuse Link C	14526	Front of RH fender apron, in engine control harness	151- 5-E 1	
Fuse Link F	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
Fuse Link G	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
Fuse Link J	14526	RH fender apron, at starter relay	151- 1-D 1	
Fuse Link L	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
.....	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	

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<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
Fuse Link N	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
Fuse Link P	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
Fuse Link W	14526	Front of RH fender apron, in engine control harness	151- 1-D 1	
Fuse Link X	14A526	Rear of RH fender apron, in engine control harness	*	
Fuse Link Z	14A526	Rear of RH fender apron, in engine control harness	*	
Fuse Panel	14A068	Behind LH side of I/P	*	
Glow Plug Controller	12B533	Top center rear of engine	151- 5-A 5	
Glow Plugs	12A342	On top of cylinder head	*	
Hazard Flasher	13350	Behind RH side of I/P	151- 8-D 1	
Heated Exhaust Gas Oxygen (HEGO) Sensor	9F472	In exhaust pipe, ahead of catalyst	*	
Heater Function Selector Switch	18578	Center of I/P	*	
Horn Relay	13853	Behind RH side of I/P, near hazard flasher	151- 8-C 1	.. 150-11
Horn Relay Jumper		Behind RH side of I/P, near hazard flasher	*	
Horn Switch	13A875	Inside steering wheel	*	
Horns	13832-3	Forward of LH radiator support	151- 1-F 8	
Idle Air Bypass Valve (5.0L and 5.8L)	12B526	Center front of engine, on throttle body	151- 3-F 6	
Idle Air Bypass Valve (7.5L)	12B526	Top center of engine	151- 7-F 5	
Idle Speed Control Solenoid	12B526	LH side of engine	151- 1-A 5	
Ignition Coil (4.9L) (70 AMP)	12029	LH side of engine	*	
Ignition Coil (4.9L) (75 AMP)	12029	Lower LH side of engine	151- 1-F 6	
Ignition Coil (5.0L and 5.8L)	12029	LH rear side of engine	151- 3-A 7	
Ignition Coil (7.5L)	12029	LH side of engine	151- 7-A 8	
Ignition Key Warning Switch	11A127	Inside steering column, part of ignition switch assembly	*	
	12250	LH side of engine, taped in harness	151- 1-D 9	
	11572	RH side of steering column	151- 8-F 7	.. 150-11
	9341	Behind LH cowl panel, near C202	151- 8-F 9	

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LOCATION INDEX 152-8

<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
Instrument Cluster (Diesel)		LH side of I/P	★	.. 150-13
Instrument Cluster (Gasoline)		LH side of I/P	★	.. 150-12
Integral Alternator Regulator Assembly		On rear of alternator	★	
Interval Governor	17C476	Behind LH side of I/P	★	
Knock Sensor	12A699	LH side of engine, near ignition coil	151- 2-F 6	
Low Vacuum Warning Switch	12A182	RH fender apron	151 -5-C 1	
Main Light Switch	11654	LH side of I/P	151- 8-C10	.. 150-14
Manifold Absolute Pressure Sensor	9F479	RH side of safety wall	151- 1-A 1	
Manual Lever Position Sensor	7A256	LH side of transmission	151- 6-A 7	.. 150-14
Master Tailgate Window Switch	14529	LH side of I/P	151- 8-A 8	.. 150-14
Master Window Control Switch	14529	On driver's door panel	151- 9-E 1	.. 150-23
Multi-function Switch	13341	Inside top of steering column	★	.. 150-15
Oil Pressure Switch (4.9L)	9278	LH side of engine	151- 2-C 9	
Oil Pressure Switch (5.0L and 5.8L)	9278	LH side of engine, near oil filter	151- 4-D 9	
Oil Pressure Switch (7.3L)	9278	Top rear of engine	151- 5-A 6	
Oil Pressure Switch (7.5L)	9278	Top RH rear of engine	151- 6-A 4	
Overdrive Switch		LH center of I/P	151- 8-A 7	.. 150-16
Overheat Warning Switch		LH front of engine	151- 5-D 9	
Parking Brake Switch	15A851	Mounted on parking brake bracket	151- 8-F 8	
Plugged Fuel Filter Switch		In fuel filter housing	151- 5-F 3	
Power Steering Pressure Switch		LH fender apron	★	
RABS Test Connector C143		LH fender apron, near EEC power relay	★	
Radio	18806	Center of I/P	★	.. 150-16
Radio Capacitor (4.9L and 7.3L)	18827	Front LH side of engine, near ignition coil	151- 1-F 5	
Radio Capacitor (5.0L, 5.8L and 7.5L)	18827	Rear LH side of engine, near ignition coil	151- 7-A 7	
Rear Anti-lock Brake (ABS) Module		Behind center of I/P, near radio	151- 8-F 5	.. 150-17
Rear Anti-lock Valve Assembly		On frame, near transmission	★	
Rear Window Defrost Switch	14529	LH side of I/P	151- 8-C10	.. 150-17
Right Window Control Switch	14529	Inside RH front door	151- 9-A 8	.. 150-23
Safety Belt Retractor Switch	10B924	Below RH side of driver's seat	★	
Speed Control Assembly	9D843	Behind center of I/P, near radio	★	.. 150-18
Brake Fluid Reservoir	9C735	LH rear of engine compartment, near brake fluid reservoir	★	.. 150-18
Lower RH front side of engine	11002	Lower RH front side of engine	★	

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152-9 LOCATION INDEX

<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
Starter Motor And Solenoid	11450	Lower RH side of engine	*	
Starter Relay	11450	On RH fender apron	151- 1-D	1
Stop Lamp Switch	13480	Mounted on brake pedal support	151- 8-B	7
Tailgate Latch Switch		LH side of tailgate	*	
Tailgate Power Window Motor		Inside tailgate	151- 9-E	10
Tailgate Power Window Switch	14259	LH side of tailgate	151- 9-F	8
Tailgate Window Switch	14259	RH side of tailgate	*	
TECA Power Relay	12A646	Front of LH fender apron	151- 5-C	9 .. 150-19
TFI Ignition Module (4.9L)	12A199	LH side of engine, on the distributor	151- 1-F	7 .. 150-19
TFI Ignition Module (5.0L and 5.8L)	12A199	Front of engine, below distributor	151- 3-F	6 .. 150-19
TFI Ignition Module (7.5L)	12A199	LH rear of engine compartment	151- 6-B	8 .. 150-19
Thermactor Air Bypass Solenoid (4.9L)	9B289	LH side of engine, on rear rocker cover bracket	151- 2-A	5
Thermactor Air Bypass Solenoid (5.0L and 5.8L)	9B289	LH rear side of engine, on coil support bracket	151- 3-A	6
Thermactor Air Bypass Solenoid (7.5L)	9B289	LH rear of engine	*	
Thermactor Air Diverter Solenoid (4.9L)	9H465	LH side of engine	151- 1-A	8
Thermactor Air Diverter Solenoid (5.0L and 5.8L)	9H465	LH rear side of engine, on coil support bracket	151- 4-A	6
Throttle Position Sensor (4.9L)	9B989	LH side of engine, on throttle body shaft	151- 2-A	4
Throttle Position Sensor (5.0L and 5.8L)	9B989	Lower RH front of engine, on throttle body shaft	151- 3-F	5
Throttle Position Sensor (7.5L)	9B989	Top LH side of engine	151- 6-A	5
Timing Test Lead (4.9L, 5.0L and 5.8L)		LH side of engine	151- 2-F	6
Timing Test Lead (7.5L)		Rear of LH fender apron	151- 6-A	9
Wiper And Marker Lamps Relay	13A435	LH fender apron	*	.. 150-19
	12A650	LH side of safety wall, below brake fluid reservoir	151- 5-A	9 .. 150-20

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LOCATION INDEX 152-10

<u>Component</u>	<u>Base Part No.</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>
Turn Flasher	13350	Behind LH side of I/P, on fuse panel	*	
Vacuum Dump Valve		LH rear of engine compartment, on speed control servo	*	
Vehicle Speed Sensor	9E731	LH rear side of automatic transmission	*	
VIP Self-test Connector C128		LH fender apron	*	.. 150-22
Voltage Regulator	10316	Front of RH fender apron	151- 5-C 1	
Warning Chime Module	10D840	Behind center of I/P	151- 8-B 6	.. 150-22
Washer Pump	17664	LH fender apron, in windshield washer reservoir	151- 2-E 9	
Windshield Wiper/Washer Switch	17A553	LH side of I/P	151- 8-B10	.. 150-24
Wiper Motor Assembly	17B583	Center of safety wall	151- 2-A 6	.. 150-24
E4OD Transmission		Lower rear of engine	*	... 150- 9

* No Figure Available

<u>Connector</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>	<u>Color</u>	<u>Terminal</u>
C100	LH side of safety wall, above brake fluid reservoir	151- 2-A 8		GY	4
C101	Rear of LH fender apron	151- 2-B10		GY	8
C102	Rear of LH fender apron	151- 5-B 9		GY	4
C103	Rear of LH fender apron	151- 1-B10		BK	8
C104	RH rear of engine compartment, near blower motor	151- 2-B 1		BK	4
C105	LH fender apron	151- 1-C10		BK	4
C106	Rear of LH fender apron	151- 1-C10		BK	8
C107	Right fender apron, near voltage regulator	151- 5-B 1		BK	1
C108	Right fender apron, near battery	151- 5-D 1		GY	8
C110	Rear of LH fender apron	151- 2-B 9		BK	8
C113	Rear of LH fender apron	151- 1-C10		GY	8
	LH rear side of transmission	*		BK	4
	Right fender apron, near battery	151- 5-D 1		GY	4
	LH rear side of transmission	*		GY	4
	LH side of engine	151- 2-F 5		GY	2

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152-11 LOCATION INDEX

<u>Connector</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>	<u>Color</u>	<u>Terminal</u>
C119	RH fender apron, near battery	151- 5-D 1		GY	8
C121	Front of engine	*	.. 150- 2	BK	8
C122	Rear of LH fender apron	151- 2-B 9		BK	8
C125	LH side of engine, near oil pressure sender	151- 1-A 5		BK	8
C127	LH rear side of transmission	*		GY	8
C128	VIP Self-test Connector LH fender apron	151- 1-D10	.. 150-22	BK	6
C129	Rear of LH fender apron	151- 2-B 9		GR	8
C130	Front of LH fender apron	*		GY	1
C133	Rear of LH fender apron	151- 2-B10		BK	8
C134	Rear of LH fender apron	151- 1-B10		BK	8
C138	RH fender apron	151- 5-D 3		GY	12
C139	Front of RH fender apron	151- 2-D 1		GY	1
C143	RABS Test Connector LH fender apron, near EEC power relay	151- 2-C10		BK	2
C149	LH rear of engine compartment, near electronic engine control (EEC) module	*		BL	4
C150	Behind LH corner of I/P	*			
C151	Center of safety wall, on wiper motor assembly	151- 2-A 7	.. 150-24	BK	3
C152	Center of safety wall, on wiper motor assembly	151- 1-A 7	.. 150-24	BK	3
C153	RH front of engine, on alternator	151- 2-F 4		BK	3
C154	RH front of engine, on alternator	151- 1-F 3		W	3
C157	Top LH side of engine	*		BK	4
C158	On frame, near transmission	*		BK	4
C159	Behind LH cowl panel, near C202	151- 8-F 8		GY	1
C200	Behind LH cowl panel	151- 8-E10		BK	6
C201	Behind LH cowl panel	151- 9-F 2			
C202	LH rear of engine compartment, in safety wall	151- 1-A 9		GY	53
C203	Behind RH cowl panel	151- 3-A 4		BR	6
C204	Behind center of I/P, near radio	151- 8-F 6			
C206	Behind LH side of I/P, near windshield wiper/washer switch	*		Y	7
	Behind LH side of I/P, on fuse panel	*			
	Behind LH side of I/P, on fuse panel	*		BR	1
	Behind RH cowl Panel	151- 8-F 3		BK	8
	Behind LH cowl Panel	151- 8-E10		BK	2

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LOCATION INDEX 152-12

<u>Connector</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>	<u>Color</u>	<u>Terminal</u>
C212	Behind LH cowl Panel	151-9-A 2		BK	8
C213	Behind RH cowl Panel	151-9-A 6		BK	8
C214	Rear of LH fender apron	151-1-B10		GY	4
C215	On base of steering column	*		BK	11
C216	Behind center of I/P, near radio	151-8-F 6	150-18	GY	6
C217	Behind center of I/P, near radio	151-8-F 5	150-18	GY	8
C218	Behind LH side of I/P, near C202	151-8-F 8		BK	8
C219	Top of steering column	151-8-F 8	150-15	BK	11
C220	On side of transfer case	151-8-F 7	150- 9	BK	9
C221	Behind RH cowl panel, on electronic shift control module	151-9-E 5	150- 8	W	8
C222	Behind RH cowl panel, on electronic shift control module	151-9-A 5	150- 8	GY	8
C223	Behind RH cowl panel, on electronic shift control module	151-9-A 5	150- 8	BR	8
C224	Behind RH cowl panel	151-9-C 5		GY	2
C226	Behind LH side of I/P	*		BK	3
C227	Behind LH side of I/P	151-8-D10		GY	2
C228	Behind LH side of I/P	151-8-F 2		GY	2
C229	Behind LH side of I/P	151-8-F 9		GY	4
C230	On RH side of driver's seat, near floor	151-9-E 5		GY	2
C250 (Diesel)	Behind LH side of I/P, on rear of instrument cluster	151-8-B 8	150-13	GY	14
C250 (Gasoline)	Behind LH side of I/P, on rear of instrument cluster	151-8-B 8	150-12	GY	14
C251 (Diesel)	Behind LH side of I/P, on rear of instrument cluster	151-8-B 7	150-13	BR	14
C251 (Gasoline)	Behind LH side of I/P, on rear of instrument cluster	151-8-B 7	150-12	BR	14
C257	Behind center of I/P, on radio	151-8-F 5	150-16		
C258	Behind center of I/P, on radio	151-8-F 4	150-16		
C300	On base of LH pillar, near door	151-9-E 4		GY	4
C301	On base of LH pillar, near door	151-9-F 4		GY	4
C400	Below LH side of cargo area, near rear crossmember	151-10-E10		BK	4
C401	Below LH side of cargo area, near rear crossmember	*		GY	8
	Below LH side of cargo area, near center crossmember	*		BL	4
	Below RH side of cargo area, near rear crossmember	151-9-E10		GY	4
	LH side of cargo area, near rear light assembly	151-9-F 6		GY	8
	Below LH side of cargo area, near crossmember	*		GY	4
	Below RH side of cargo area, near rear crossmember	151-10-E10		BK	4



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<u>Connector</u>	<u>Location</u>	<u>Page Zone</u>	<u>Connector Page</u>	<u>Color</u>	<u>Terminal</u>
C409	Below LH side of cargo area, near rear crossmember	151-10-F 7		BK	4
C410	Center of rear bumper	*		BK	4
C411	Inside LH rear quarter panel	151-10-F 6		BK	4
C412	Behind left front marker lamp	151-10-F 4		BK	4
C413	Behind right rear marker lamp	151-10-E10		BK	4
C414	Near LH rear shock absorber	*		BK	2
C415	LH side of cargo area, near rear light assembly	151- 9-F 6		BK	1
C416	LH side of cargo area, near rear light assembly	151- 9-F 7		BK	1
C417	Below LH side of cargo area, near crossmember	*		GY	4
C418	LH side of cargo area, near rear light assembly	151- 9-F 6		GY	3
C419	Below LH side of cargo area, near rear crossmember	*		BK	1
C420	Inside RH rear quarter panel	151-10-C 8		BK	4
C421	Inside center of tailgate	151- 9-F 9			
C500	Inside driver's door	151- 9-F 2			
C900	Above RH side of windshield header	151- 9-A 6		BK	2
C901	Above RH center of windshield header	151- 9-A 5		BK	2
C902	Above center of windshield header	151- 9-A 5		BK	2
C903	Above LH center of windshield header	151- 9-A 4		BK	2
C904	Above LH side of windshield header	151- 9-A 4		BK	2

* No Figure Available

<u>Ground</u>	<u>Location</u>	<u>Page Zone</u>
G100	LH side of radiator support	151-1-F 7
G101	RH side of radiator support	151-2-F 3
G102	RH side of radiator support	151-2-E 3
G103	LH rear side of engine, near knock sensor	*
	LH rear of engine compartment, near electronic engine control (EEC) module	151-2-B10
	LH side of engine	151-2-A 7
	RH fender apron, near voltage regulator	151-5-B 1
	RH fender apron, at starter relay	151-5-C 1
	RH fender apron, at voltage regulator	151-5-B 1

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<u>Ground</u>	<u>Location</u>	<u>Page Zone</u>
G109	RH fender apron	★
G201	LH rear side of I/P	151-8-F 9
G202	Behind RH cowl panel	★
G203	RH rear side of radiator support	★
G204	On steering column	★
G205	Behind center of I/P, near speed control amplifier	151-8-F 4
G400	LH side of cargo area, near rear light assembly	★
G401	Below LH side of cargo area, near crossmember	★
G500	Inside driver's door, near left door speaker	151-9-A 2

★ No Figure Available

<u>Splice</u>	<u>Location</u>
S100	Engine control harness, near T/O to right headlamp
S101	Engine control harness, near T/O to C202
S102	Engine control harness, near T/O to C113
S103	Engine control harness, near T/O to left headlamp
S106	Engine control harness, near T/O to right headlamp
S107	Engine control harness, near T/O to C110
S108	Engine control harness, near T/O to C113
S109 (5.0L AND 5.8L)	Dashed panel to engine gauge feed harness, near T/O to C113
S109 (7.5L)	Fuel charge harness, near T/O to distributor
S110 (7.5L)	Engine charge harness, near T/O to C113
S114	Engine charge harness, near T/O to washer pump
S115	Engine charge harness, near T/O to dual brake warning switch
S119	Engine charge harness, near T/O to starter relay
S120	Engine charge harness, near T/O to starter relay
S121	Engine charge harness, near T/O to electronic engine control (EEC) module
S122	Engine charge harness, near T/O to C106
S123	Dash panel to engine gauge feed harness, near T/O to TFI ignition module
S124	Fuel charge harness, near T/O to ignition coil
S125	Fuel charge harness, near T/O to distributor
S126	Dash panel to engine gauge feed harness, near T/O to oil pressure sender



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152-15 LOCATION INDEX

<u>Splice</u>	<u>Location</u>
S128 (5.0L)	Fuel charge harness, near T/O to fuel injector NO.7
S128 (7.5L)	Fuel charge harness, near T/O to fuel injector NO.6
S129	Fuel charge harness, near T/O to fuel injector NO.2
S130	Fuel charge harness, near T/O to fuel injector NO.4
S131 (4.9L)	Fuel charge harness, near T/O to fuel injector NO.5
S131 (5.0L)	Engine control harness, near T/O to G123
S131 (5.8L, 7.5L)	Fuel charge harness, near T/O to fuel injector NO.4
S132 (4.9L)	Fuel charge harness, near T/O to fuel injector NO.3
S132 (5.0L, 5.8L)	Fuel charge harness, near T/O to fuel injector NO.8
S132(7.5L)	Fuel charge harness, near T/O to fuel injector NO.4
S133	Dash panel to engine gauge feed harness, near T/O to EGR control solenoid
S134	Backup lamp harness, near T/O on RH side of transmission
S135	Fuel charge harness, near T/O to ignition coil
S136	Engine control harness, near T/O to C133
S137	Engine control harness, near T/O to C128
S138	Fuel charge harness, near T/O to engine coolant temperature sensor
S140	Engine control harness, near T/O to C133
S143	Rear lamp harness, near T/O to C102
S144	Dash panel to engine gauge feed harness, near T/O to EGR valve position (EVP) sensor
S145	Engine control harness, near T/O to EEC power relay
S146	Rear lamp harness, near T/O to E4OD transmission
S147	Engine control harness, near T/O to EEC power relay
S148	Engine control harness, near T/O to horns
S150	Main harness, near T/O to stoplamp switch
S150	Engine control harness, near T/O to C134
S150	Engine control harness, near T/O to C133
S152	Heater switch to blower motor harness, near T/O to blower motor
S153	Heater switch to blower motor harness, near T/O to blower motor
S154	Engine control harness, near T/O to washer pump
S155	Engine control harness, near T/O to washer pump
S156	Engine control harness, near T/O to horns
S157	Engine control harness, near T/O to washer pump
S158	Main harness, near T/O to horn relay
S159	Main harness, near T/O to fuse panel
S160	Engine control harness, near T/O to dual brake warning switch

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<u>Splice</u>	<u>Location</u>
S163	Engine control harness, near T/O to C133
S164	Engine control harness, near T/O to washer pump
S165	Engine control harness, near T/O to C133
S166	Main harness, near T/o to ignition switch
S167	Engine control harness, near T/O to electronic engine control (EEC) module
S168	Alternator rectifier harness, near T/O to G109
S200	Main harness, near T/O to fuse panel
S201	Main harness, near T/O to overdrive switch
S202	Main harness, near T/O to overdrive switch
S203	Main harness, near T/O to hazard flasher
S204	Heater switch to blower harness, near T/O to blower resistors
S205	Main harness, near T/O to master tailgate window switch
S206	Main harness, near T/O to C250
S207	Main harness, near T/O to diesel/warning lamp module
S208	Main harness, near T/O to main light switch
S209	Main harness, near T/O to fuse panel
S210	Main harness, near T/O to C250
S211	Main harness, near T/O to C250
S212	Main harness, near T/O to parking brake switch
S213	Main harness, near T/O to fuse panel
S214	Main harness, near T/O to main light switch
S215	Main harness, near T/O to windshield wiper/washer switch
S216	Main harness, near T/O to warning chime module
S217	Main harness, near T/O to main light switch
S218	Main harness, near T/O to C250
S219	Main harness, near T/O to fuse panel
S220	Main harness, near T/O to rear anti-lock brake module
S222	Window regulator and relay switch harness, near T/o to C211
S224	Main harness, near T/O to C202
.....	Main harness, near T/O to windshield wiper/washer switch
.....	Main harness, near T/O to warning chime module
.....	Main harness, near T/O to rear anti-lock brake (ABS) module
.....	Main harness, near T/O to rear anti-lock brake (ABS) module
.....	Main harness, near T/O to C250
.....	Main harness, near T/O to fuse panel



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152-17 LOCATION INDEX

<u>Splice</u>	<u>Location</u>
S231	Window regulator and relay switch harness, near T/O to C211
S232	Window regulator left front door harness, near T/O to master window control switch
S233	Window regulator left front door harness, near T/O to left door speaker
S236	Window regulator relay switch harness, near T/O to C211
S301	Interior lamp feed harness, near T/O to C301
S303	Interior lamp feed harness, near T/O to C301
S304	Interior lamp feed harness, near T/O to C300
S305	Interior lamp feed harness, near T/O to dome lamp
S306	Interior lamp feed harness, near T/O to dome lamp
S400	Rear lamp harness, near T/O to fuel gauge sender/electric fuel pump
S401	Rear lamp harness, near T/O to fuel gauge sender/electric fuel pump
S402	Rear license lamp harness, near T/O to C400
S403	Backup lamp switch to rear feed harness, near T/O on right side of transmission
S404	Rear lamp connector harness, near T/O to C419
S405	Rear lamp connector harness, near T/O to right backup lamp
S406	Right rear lamp extension harness, near T/O to C416
S409	Right marker lamp harness, near T/O to C412
S410	Right marker lamp harness, near T/O to C420
S412	Rear lamp harness, near T/O to C401
S413	Rear lamp harness, near T/O to fuel gauge sender and pump
S416	Rear lamp harness, near T/O to C401
S417	Rear lamp connector harness, near T/O to C419
S418	Rear license harness, near T/O to C400
S419	Rear lamp harness, near T/O to C401
S420	Rear lamp connector harness, near T/O to C419
S421	Right marker harness, near T/O to C411
S422	Right marker lamp harness, near T/O to C413
S423	Rear window regulator control harness, near T/O to master tailgate window switch
S424	Rear lamp harness, near T/O to C406
S425	Rear lamp harness, near T/O to C401

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160-1 VEHICLE REPAIR LOCATION CODE

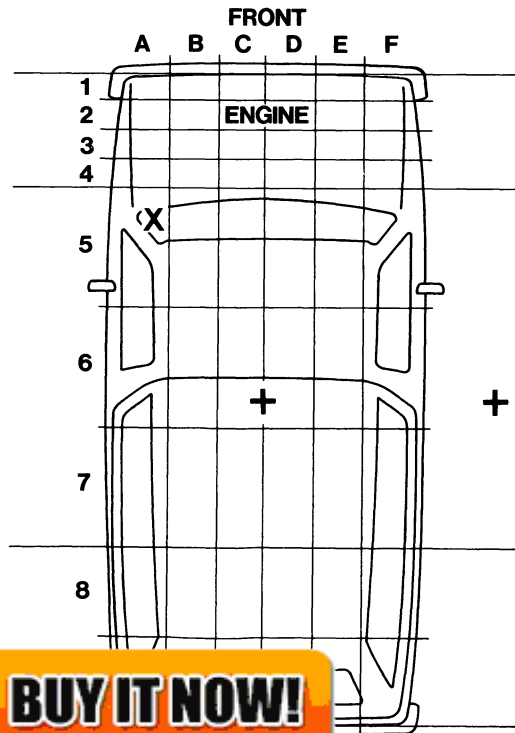
VEHICLE REPAIR LOCATION CODES

TO PINPOINT THE ACTUAL VEHICLE LOCATION OF A REPAIR, THE VEHICLE REPAIR LOCATION CODE IS REQUIRED.

FOR EXAMPLE, AN "X" HAS BEEN PLACED IN THE QUADRANT OF THE VEHICLE DIAGRAMS INDICATING THE LOCATION OF THE REPAIR. SEE DIAGRAMS.

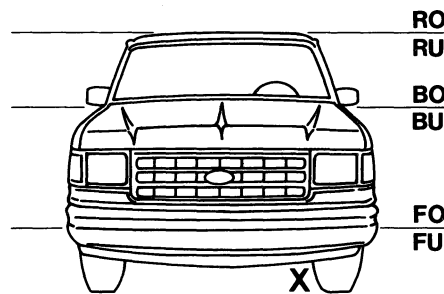
LOCATION CODE, FOR THE EXAMPLE IS: A5/FU — (UNDER THE FLOOR OF DRIVER'S LEFT FOOT.)

FRONT/REAR DIRECTION

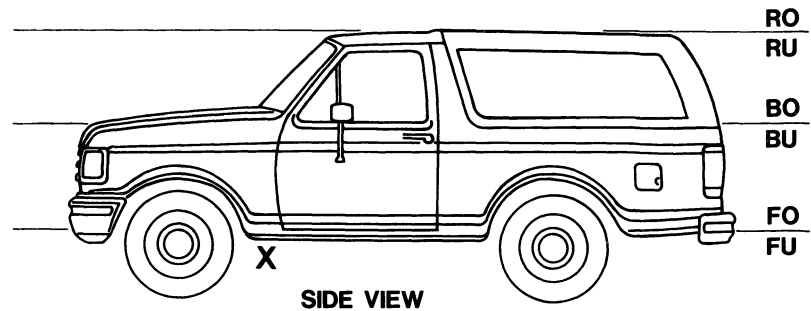


+ CENTER OF VEHICLE

OVER/UNDER DIRECTION



- R = ROOF LINE
- RO = ROOF OVER
- RU = ROOF UNDER
- B = BELT LINE
- BO = BELT OVER
- BU = BELT UNDER
- F = FLOOR PAN
- FO = FLOOR OVER
- FU = FLOOR UNDER



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DO NOT STAPLE — USE TRANSPARENT TAPE

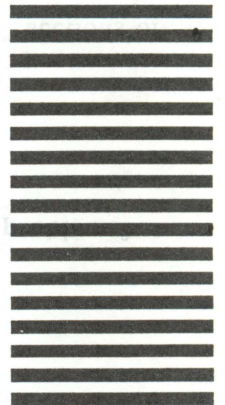


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Are you a: Ford Trained Technician Independent Technician Customer
 Other _____

1. Which section of the EVTMM do you use most frequently?
 Schematics Diagnostics Component Location Information

2. How often do you refer to this Ford Service Publication?
 For all electrical problems.
 For about 75% of electrical problems.
 Fewer than 25% of electrical problems.

3. Do the component location descriptions provide enough detail?
 Yes No

Suggestions: _____

4. Would you prefer to have the electrical information for one vehicle, in one publication (separate electrical publications for each vehicle)?
 Yes No

5. Are connector views and corresponding information helpful when diagnosing electrical problems?
 Yes No

6. Would you like to include more component switch test information?
 Yes No

7. Do you read the "How to Use this Manual" and "How to Find the Electrical Problems" sections of this manual?
 Yes No

What additional information would be helpful? _____

8. Rate the purpose for using the location index. (5 is high, 1 is low)
Connectors Splices Part Numbers Grounds

9. Are the full view, more comprehensive illustrations (located just prior to the Location Index) a helpful tool?
 Yes No

Comment: _____

10. Please rate the overall effectiveness of the revised radio schematics and diagnostics.
 Good Fair Poor

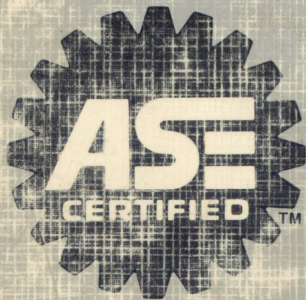
11. How helpful are the "equivalent circuits" of electrical components, as shown on schematics, when troubleshooting electrical circuits?
 Fair Poor



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