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ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL

1994 Mustang Electrical and Vacuum Trouble-Shooting Manual (EVTM)

EAN: 978-1-60371-429-7
ISBN: 1-60371-429-4

Forel Publishing Company, LLC
Woodbridge, VA 22192

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ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL
FPS-12121-94

FORD PARTS and SERVICE DIVISION

Quality is Job 1

Ford Parts and Service Division has developed a new format for the1994 Mustang. EVTM. Our goal is to provide accurate and timely electrical and vacuum service information.

1994 EVTM FEATURES

- **Schematic pages** now contain **COMPONENT LOCATION** references to full-view illustrations and description notes have been added to various components to describe their operation.
- **"COMPONENT TESTING"** procedures (CELL 149) that tell the user how to perform diagnostic tests on various circuits.
- **Component Connector End Views** are located at the end of individual cells and are shown for connectors with five or more cavities; for connectors with ten or more cavities, a circuit function chart is provided.
- Both halfs of the In-line connectors (CELL 150) with 10 cavities or more are shown and have pin numbers assigned.
- **NOTES, CAUTIONS and WARNINGS** that contain important safety information.
- Full view **"COMPONENT LOCATION VIEWS"** (CELL 151) to help locate on-vehicle components.
- Circuit voltages on schematic pages help simplify troubleshooting.
- **Cellular Pagination:** A specific section (or cell) in all EVTMs is numbered by cell and starts with page 1. For example: **"HOW TO USE THIS MANUAL"** is CELL 2 and begins with page 2-1.
- **"C"** numbers are used for all electrical connectors. **"C"** numbers are listed in numerical order in the **"LOCATION INDEX"** (CELL 152).
- Harness Causal Part Numbers add to aid in identifying warranty concerns (CELL 153).

ORDERING INFORMATION

Information about how to order additional copies of this publication or other Ford publications may be obtained by writing to Helm Incorporated at the address shown below or by calling 1-800-782-4356. Other publications available include:

- Service Manuals
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Helm Incorporated
P.O. Box 07150
Detroit, Michigan 48207

1-1 TABLE OF CONTENTS/INDEX

Table of Contents

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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.

2-1 HOW TO USE THIS MANUAL

The purpose of this manual is to show electrical and vacuum circuits in a clear and simple fashion to make troubleshooting easier. **NOTES, CAUTIONS** and **WARNINGS** contain important information.

- **NOTES** describe how switches and other components operate to help complete a particular procedure.
- **CAUTIONS** provide information that could prevent making an error that may damage the vehicle.
- **WARNINGS** provide information to prevent personal injury.

The **WARNINGS** list on page 2-2 contains general warnings to follow when servicing a vehicle.

Components that work together are shown together. All electrical components used in a specific system are shown on one diagram. The circuit breaker or fuse is shown at the top of the page. All wires, connectors, components and splices are shown in the flow of current to ground at the bottom of the page. If a component is used in several different systems, it is shown in several places. For example, the Main Light Switch is electrically a part of many systems and is repeated on many pages.

In some cases, a component may seem (by its name) to belong to a system where it has no electrical connection. For example, Radio Illumination is electrically part of Instrument Illumination, but because it has no electrical connection to the Radio system, it is not shown on the Radio diagram.

Schematic pages contain references to full-view illustrations and description notes for various components. The references are reverse-text blocks located next to each component and connector and refer the user to the appropriate illustration page and zone. The description notes describe the operation of the component.

Schematic pages contain circuit voltages to help simplify troubleshooting hints. 12V is used to imply battery voltage on a component connector terminal, and 0V is used to show that there should be continuity to ground on that particular terminal. Conditional voltages such as "12V with the ignition switch in RUN" will also be provided. Troubleshooting hints that can't be simplified with circuit voltages will be shown at the end of each cell.

Component connector face information specific to a certain cell is found at the end of that cell. A Connector Face Reference List is provided to locate connector faces that are shown in different cells. Component connectors with five or more terminals are illustrated. Component Connectors with 10 or more terminals are accompanied by a pinout chart that lists the function of all circuitry associated with that component.

"GROUNDS" (Cell 10) contains ground circuitry shown in complete detail. This information is useful for checking interconnections of the ground circuits of different systems.

"POWER DISTRIBUTION" (Cell 13) contains power distribution circuitry shown in complete detail. This section displays how the various fuses are powered and, in turn, how each system is powered.

"COMPONENT TESTING" (Cell 149) contains testing procedures for various switches. This information includes schematics, component terminal locations and step-by-step procedures.

"IN-LINE CONNECTOR FACES" (Cell 150) contains illustrations of all the in-line connectors that have 10 or more terminals. The terminals have pin numbers assigned to them.

"COMPONENT LOCATION VIEWS" (Cell 151) contains full-view illustrations which show the location of all components and connectors in the vehicle.

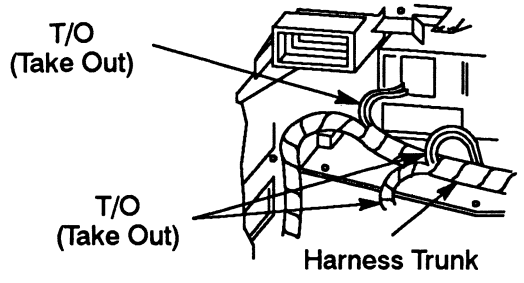
The **"LOCATION INDEX"** (Cell 152) provides the base part numbers, locations, connector face references and illustration references for all components, connectors, splices and grounds.

HELPFUL REMINDERS

Before using the EVTM for troubleshooting, refer to these HELPFUL REMINDERS:

1. The abbreviation T/O, for take out, used in the Location Index (Cell 152), refers to the point at which a group of wires branch off the harness trunk. Refer to the wiring harness illustration.

Wiring harness at back of Instrument Panel, showing typical T/O (Take Out) locations



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 schematics provide a 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
GN	Green	T	Tan
GY	Gray	W	White
LB	Light Blue	Y	Yellow
LG	Light Green		

Note: 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 park 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, especially the fan and belts, when the engine is running.*
- *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.*

HOW TO FIND ELECTRICAL CONCERNS

TROUBLESHOOTING STEPS

These six steps present an orderly method of troubleshooting.

Step 1. Verify the concern.

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

Step 2. Narrow the concern.

- Using the EVTM, narrow down the possible causes and locations of the concern to pinpoint the exact cause.
- Read the description notes at the components and study the wiring schematic. You should then know enough about the circuit operation to determine where to check for the trouble. Further information can be found by referring to the Service Manual pages listed in the box at the top of the page.

Step 3. Test the cause.
- Use electrical test procedures to find the specific cause of the symptoms.
- The component location reference bars and the pictures will help you find components. The Location Index (at the end of the manual) 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 temporarily installing a known good component and operating the circuit.

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 *Service Manual* and other service books for details. You will find the circuits in this manual to be helpful with those special test procedures.

TROUBLESHOOTING TOOLS

JUMPER WIRE

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

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

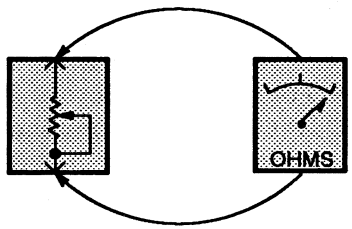


Figure 1–Resistance Check

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

TEST LAMP

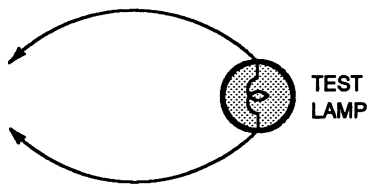


Figure 2–Test Lamp

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

Uses: Voltage Check, Short Check.

SELF-POWERED TEST LAMP

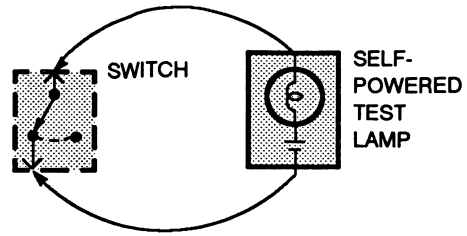


Figure 3–Continuity Check

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.

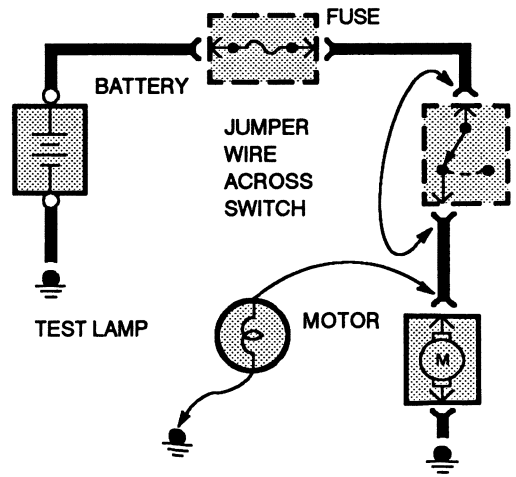


Figure 4—Switch Circuit Check and Voltage Check

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).

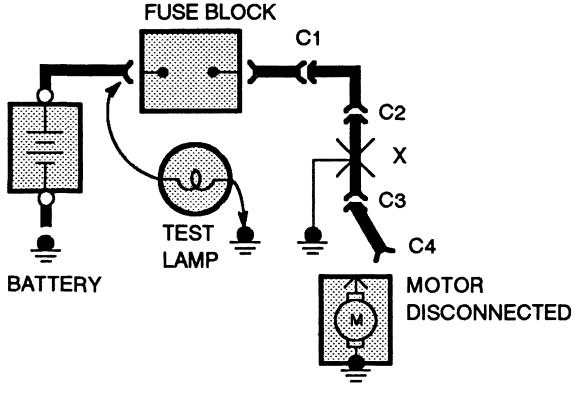


Figure 5—Short Check

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.)*
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 not after disconnecting C3. This means the short is between C2 and C3.

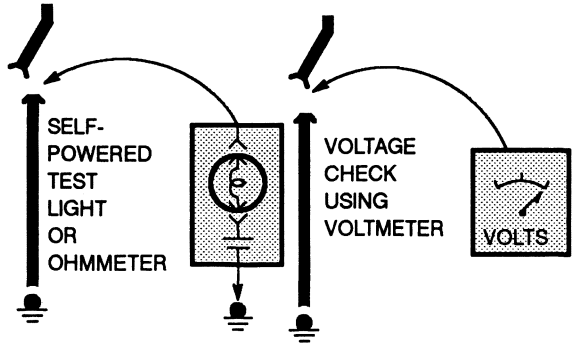


Figure 6—Ground Check

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 (Figure 6).

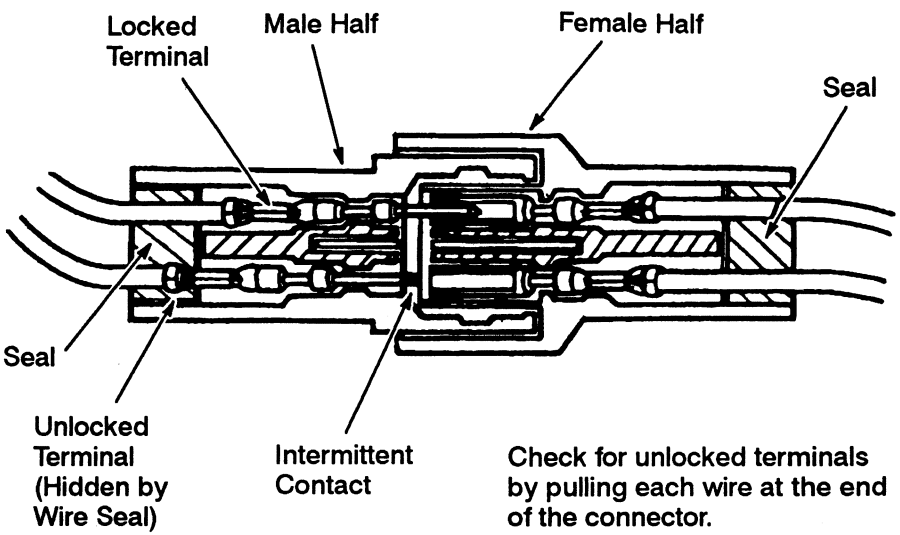
Turn off power to the circuit. Connect one lead of a Self-Powered Test Lamp or Ohmmeter to the wire in question and the other lead to a known ground. If the bulb glows, the circuit ground is OK (Figure 6).

The circuit schematics in this manual make it easy to identify common points in circuits. This knowledge can help narrow the concern 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.

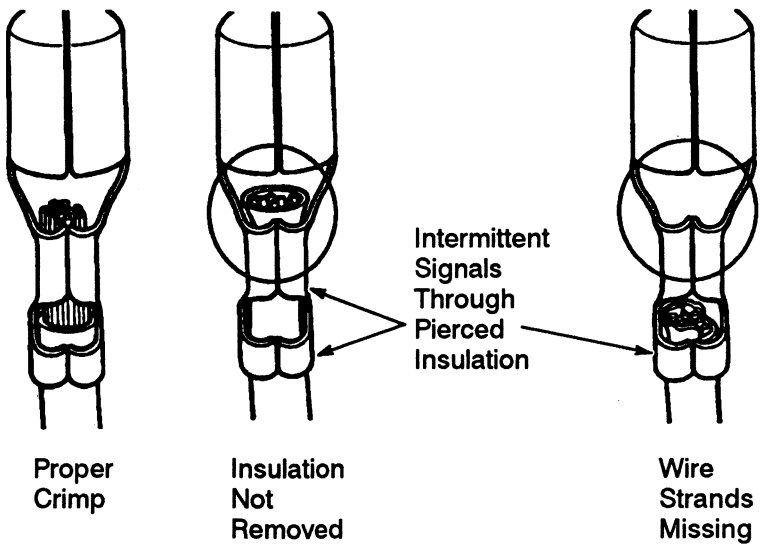
For example, if the lo beam headlamps work, but the high beams and the indicator lamp don't work, then power and ground paths must be good. Since the dimmer switch is the component that switches this power to the high beam lights and indicator, it is most likely the cause of failure.

TROUBLESHOOTING WIRING HARNESS AND CONNECTOR HIDDEN CONCERNS

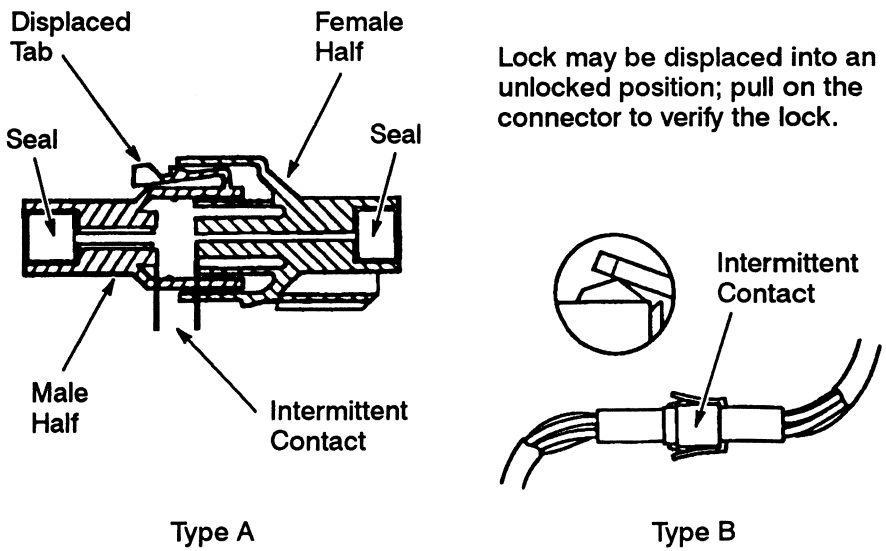
The following illustrations are known examples of wiring harness, splices and connectors that will create intermittent electrical concerns. The concerns are hidden and can only be discovered by a physical evaluation as shown in each illustration.



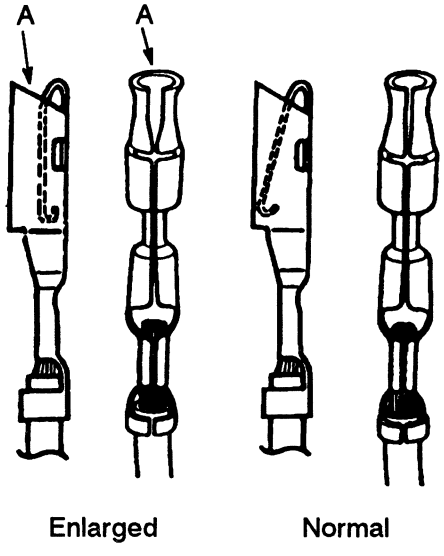
TERMINAL NOT PROPERLY SEATED



DEFECTIVE INSULATION STRIPPING

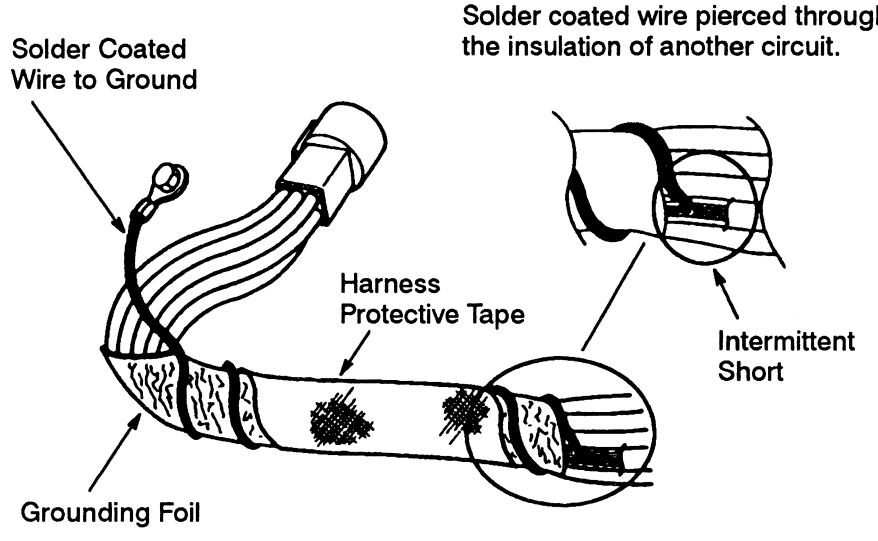


PARTIALLY MATED CONNECTORS

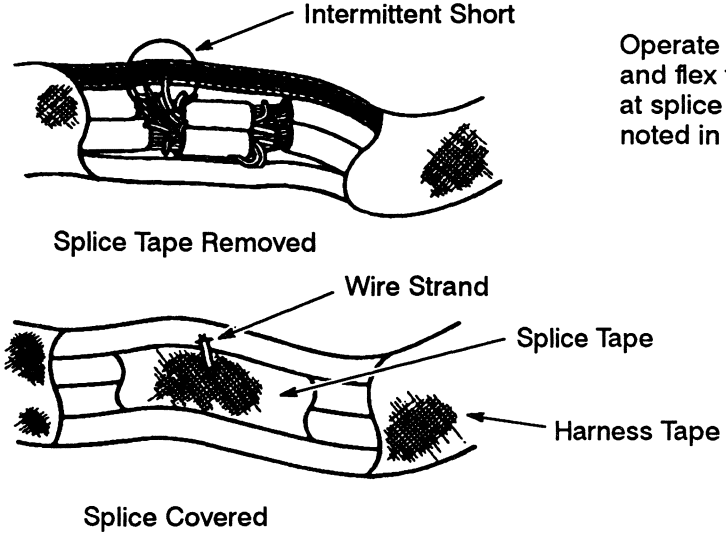


Any probe entering the terminal may enlarge the contact spring opening creating an intermittent signal. Insert the correct mating terminal (Location A) from the service kit and feel for a loose fit.

DEFORMED (ENLARGED) FEMALE TERMINALS

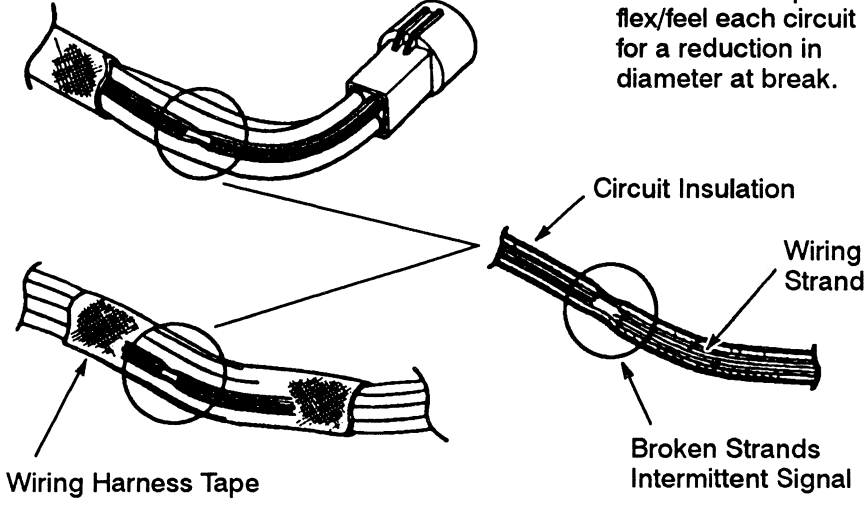


ELECTRICAL SHORT INSIDE THE HARNESS



Operate the system and flex the harness at splice location noted in Section 152.

ELECTRICAL SHORT WITHIN THE HARNESS



Remove the tape and flex/feel each circuit for a reduction in diameter at break.

BROKEN WIRE STRANDS IN HARNESS

HOW TO FIND THE VACUUM CONCERNS

These six steps present an orderly method of troubleshooting.

Step 1. Verify the concern.

- Operate the system and observe all symptoms to check the accuracy and completeness of the customer's complaint.

Step 2. Narrow the concern.

- Narrow down the possible causes and locations of the concern to pinpoint the exact cause.

Step 3. Test the cause.

- Use test procedures to find the specific cause of the symptoms.

Step 4. Verify the cause.

- Confirm that you have found the right cause by operating the parts of the circuit you think are good.

Step 5. Make the repair.

- Repair or replace the inoperative component.

Step 6. Verify the repair.

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

NOTE: Vacuum system problems fall into three groups.

1. Leaks in hoses, connectors or motor diaphragms.
2. Pinched lines or clogged valves.
3. Inoperative parts driven by vacuum motors.

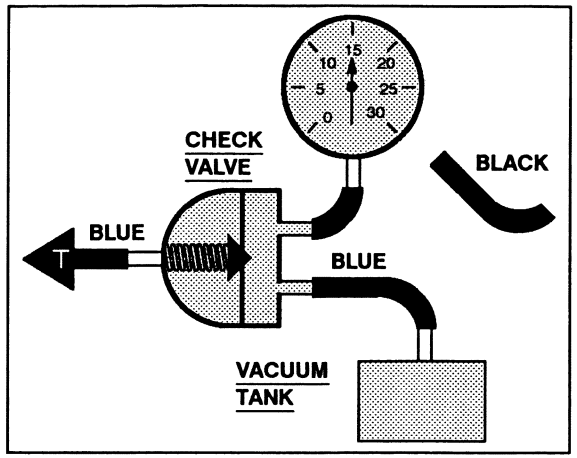


Figure 1 – System Supply Test

Vacuum Supply Test

1. Connect Vacuum Tester to system side of Check Valve (Figure 1).
2. Start engine. Gauge should show approximately 15 inches of vacuum.
3. Turn off engine, and observe gauge:
   - If vacuum holds, supply OK.
   - If vacuum fails, replace Check Valve or Tank.

Leak Test

1. Connect Vacuum Gauge and Vacuum Pump (Figure 2) to system hose in place of tank.
2. Open valve and start pump. Operate control in all modes.
3. Listen for hiss and observe gauge.

NOTE: Hissing is normal at Function Control when changing modes.

If system hisses or loses vacuum, find system leak as follows:

1. Turn on Vacuum Pump and check vacuum build-up.
2. Stop pump; vacuum should drop.
3. Clamp supply hoses with needlenose pliers, one at a time, until vacuum stops dropping (Figure 2).
4. Check vacuum schematic to find components in that line.
5. Clamp hoses through circuit to find leak.

Component Test

1. Connect Vacuum Tester to component.
2. Pump Vacuum Tester. Check that all components operate correctly and vacuum holds.
3. Replace component if vacuum does not hold.

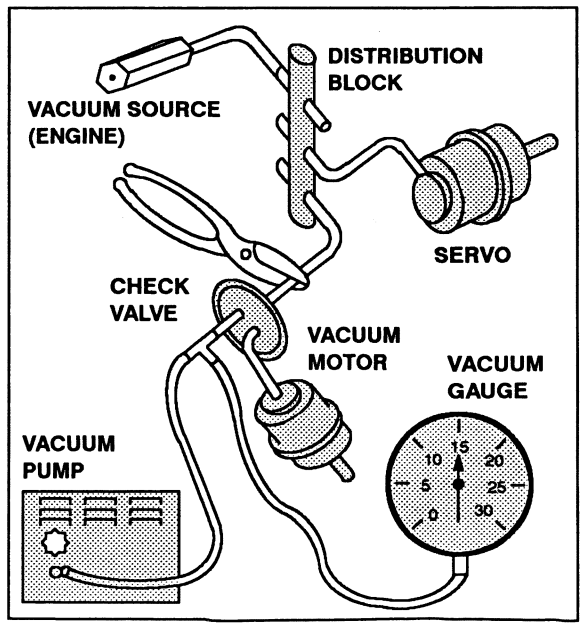
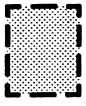
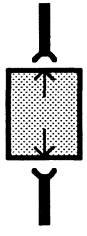


Figure 2 – Testing For Leaks In Typical Vacuum System

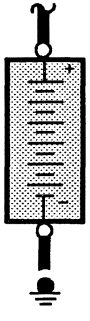
ELECTRICAL SYMBOLS



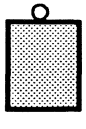
DASHED COMPONENT BOX
ONLY PART OF THE COMPONENT IS SHOWN ON THE PAGE; THE COMPONENT IS SHOWN COMPLETE IN ANOTHER LOCATION



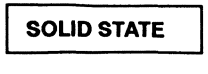
COMPONENT WITH CONNECTORS



BATTERY

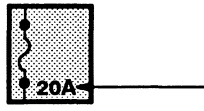


SCREW TERMINAL ON COMPONENT



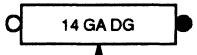
SEALED ELECTRONIC COMPONENT
ANY CIRCUITRY SHOWN INSIDE THE BOX IS A FUNCTIONAL EQUIVALENT ONLY AND IS NOT EXACT

GROUND CONNECTION



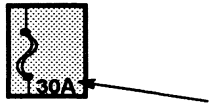
FUSE

CURRENT RATING



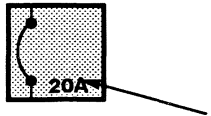
FUSIBLE LINK

WIRE SIZE AND COLOR



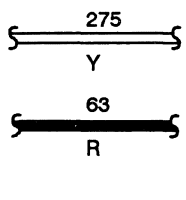
MAXI-FUSE
or
FUSIBLE LINK CARTRIDGE

CURRENT RATING

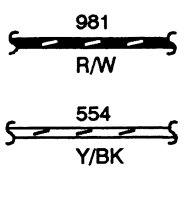


CIRCUIT BREAKER

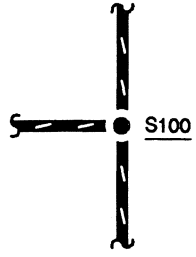
CURRENT RATING



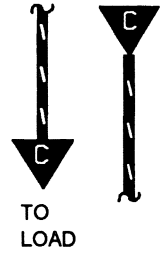
SOLID WIRES



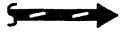
STRIPED WIRES



SPLICE OR CRIMP TERMINAL

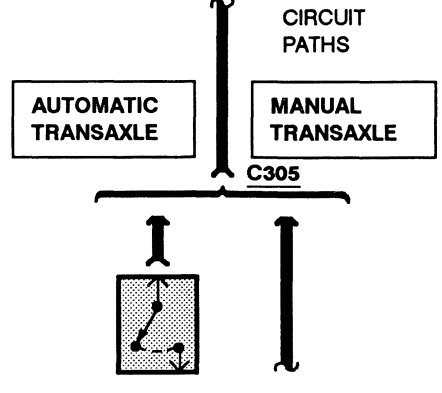


"CUT" WIRES REFERENCED BETWEEN PAGES
ARROWS SHOW CURRENT FLOW FROM POWER TO GROUND



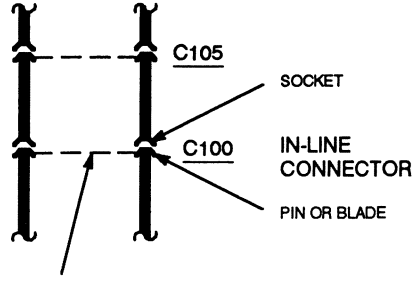
BACKUP LIGHTS

"REFERENCE" WIRES
COMPLETE WIRING SHOWN ON ANOTHER PAGE

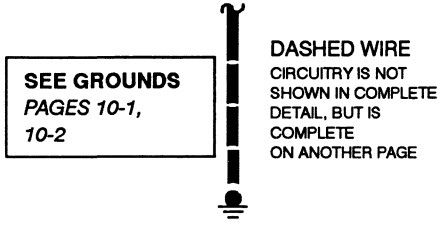


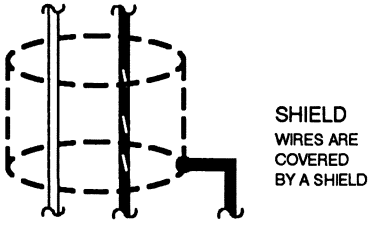
ALTERNATE CIRCUIT PATHS

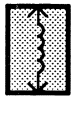
ELECTRICAL SYMBOLS

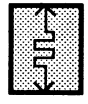


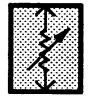
SINGLE DASHED LINE INDICATES THAT WIRE ON LEFT ALSO PASSES THROUGH THE SAME CONNECTOR

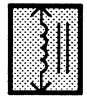


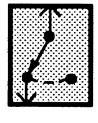


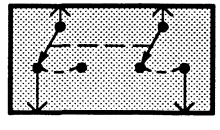


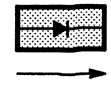


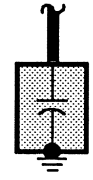


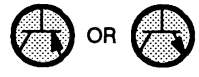


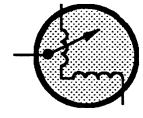


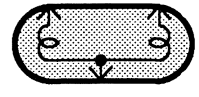


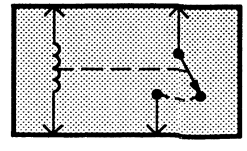




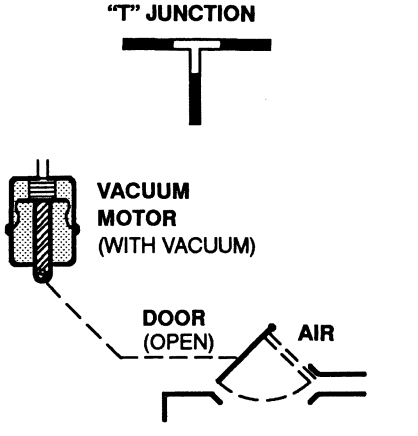




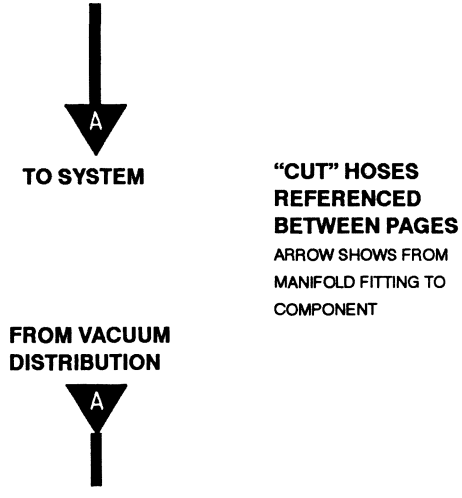


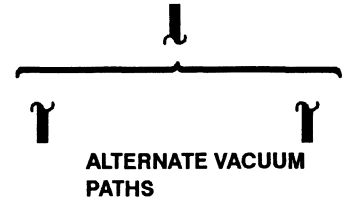


VACUUM SYMBOLS



VACUUM ON VACUUM MOTOR PULLS DOOR OPEN TO LET AIR PASS THROUGH

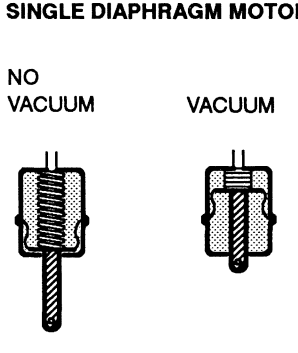




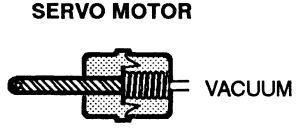
NOTE

Other vacuum symbols used on vacuum system diagrams are fully explained on those pages.

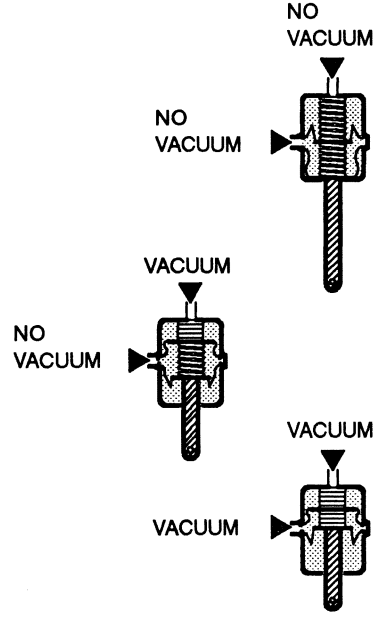
VACUUM MOTOR OPERATION



Vacuum motors operate like electrical solenoids, mechanically pushing or pulling a shaft between two fixed positions. When vacuum is not applied, the shaft is pushed all the way out by a spring.



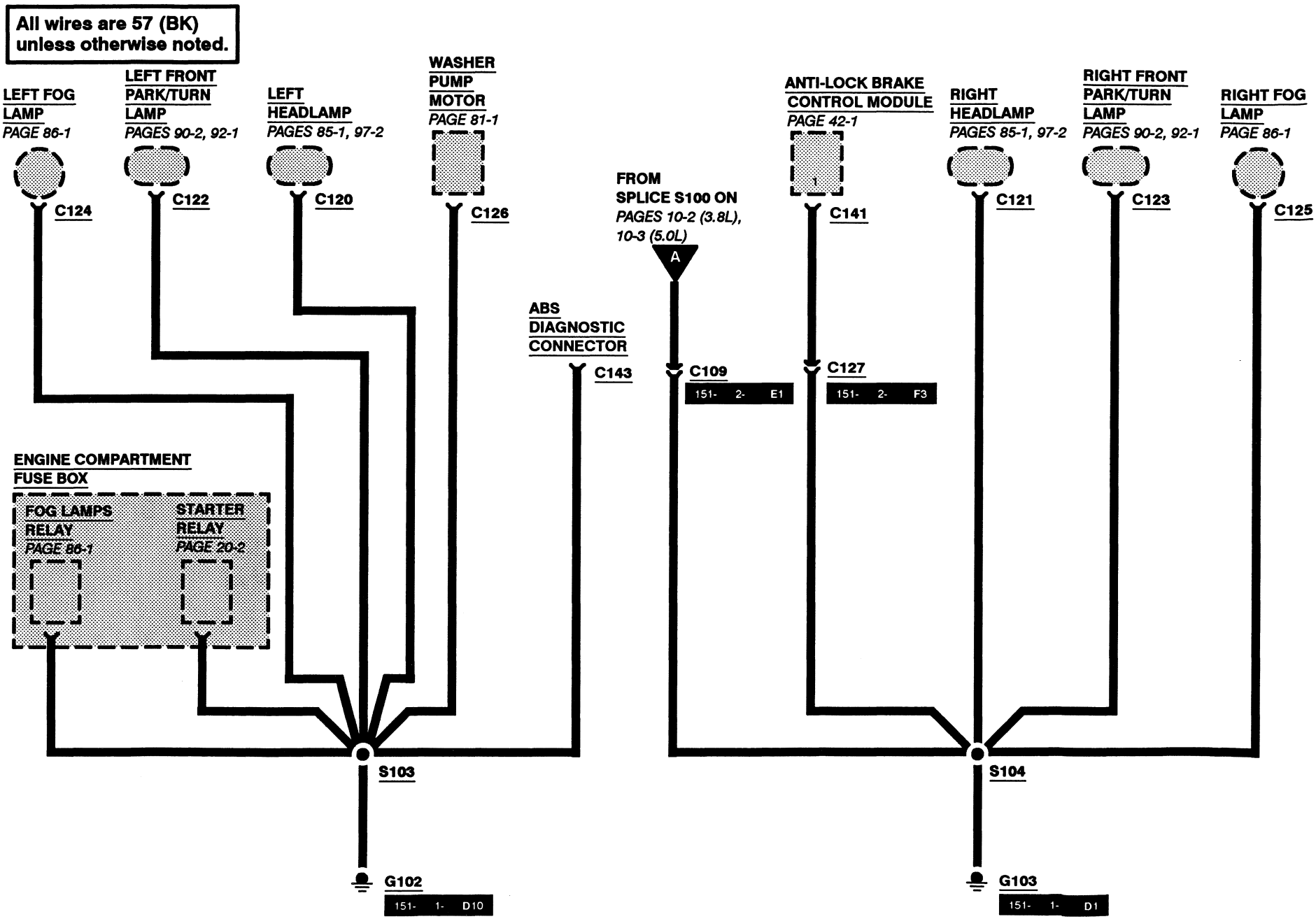
Some vacuum motors, such as the Servo Motor in the Speed Control, can position the actuating arm at any position between fully extended and fully retracted. The Servo is operated by a control valve that applies varying amounts of vacuum to the motor. The higher the vacuum level, the greater the retraction of the motor arm. Servo Motors work nearly the same way as two-position motors, except for the way the vacuum is applied. Servo Motors are generally larger and provide a calibrated control.



A double diaphragm motor has three positions (it is actually two motors in one housing). When the top port gets vacuum, the shaft pulls halfway in. When both ports get vacuum, the shaft pulls all the way in.

10-1 GROUNDS

1994 MUSTANG



All wires are 57 (BK) unless otherwise noted.

3.8L

INSTRUMENT CLUSTER
PAGE 60-2
6
C250
676 PK/O

SPEED CONTROL AMPLIFIER
PAGE 31-2
2
C215
676 PK/O

VEHICLE SPEED SENSOR (VSS)
PAGE 64-1
6
C129
676 PK/O

CAMSHAFT POSITION SENSOR (CMP)
PAGE 23-3
C114
570 BK/W

MASS AIR FLOW (MAF) SENSOR
PAGE 23-1
C197
969 BK
C135
969 BK

POWERTRAIN CONTROL MODULE (PCM)
PAGE 23-1
51 76 77 103
C294
570 BK/W
570 BK/W
570 BK/W
570 BK/W
S250

S202
676 PK/O

POWERTRAIN CONTROL MODULE (PCM)
PAGE 23-1
33
C294
676 PK/O

C213
151- 8- F9
676 PK/O

C106
151- 1- A5
676 PK/O

C104
151- 2- A4
570 BK/W

S235

ELECTRIC COOLING FAN MOTOR
PAGE 23-7
C173

A/C HIGH PRESSURE CUTOUT/FAN SWITCH
PAGE 54-3
C128

676 PK/O

S100

BATTERY

CONSTANT CONTROL RELAY MODULE (CCRM)
PAGE 23-8
15
C192
570 BK/W

IGNITION CONTROL MODULE
PAGE 21-1
4
C115
570 BK/W

570 BK/W

151- 3- D10
151- 2- E1
C113 570 BK/W
C109 570 BK/W

S115

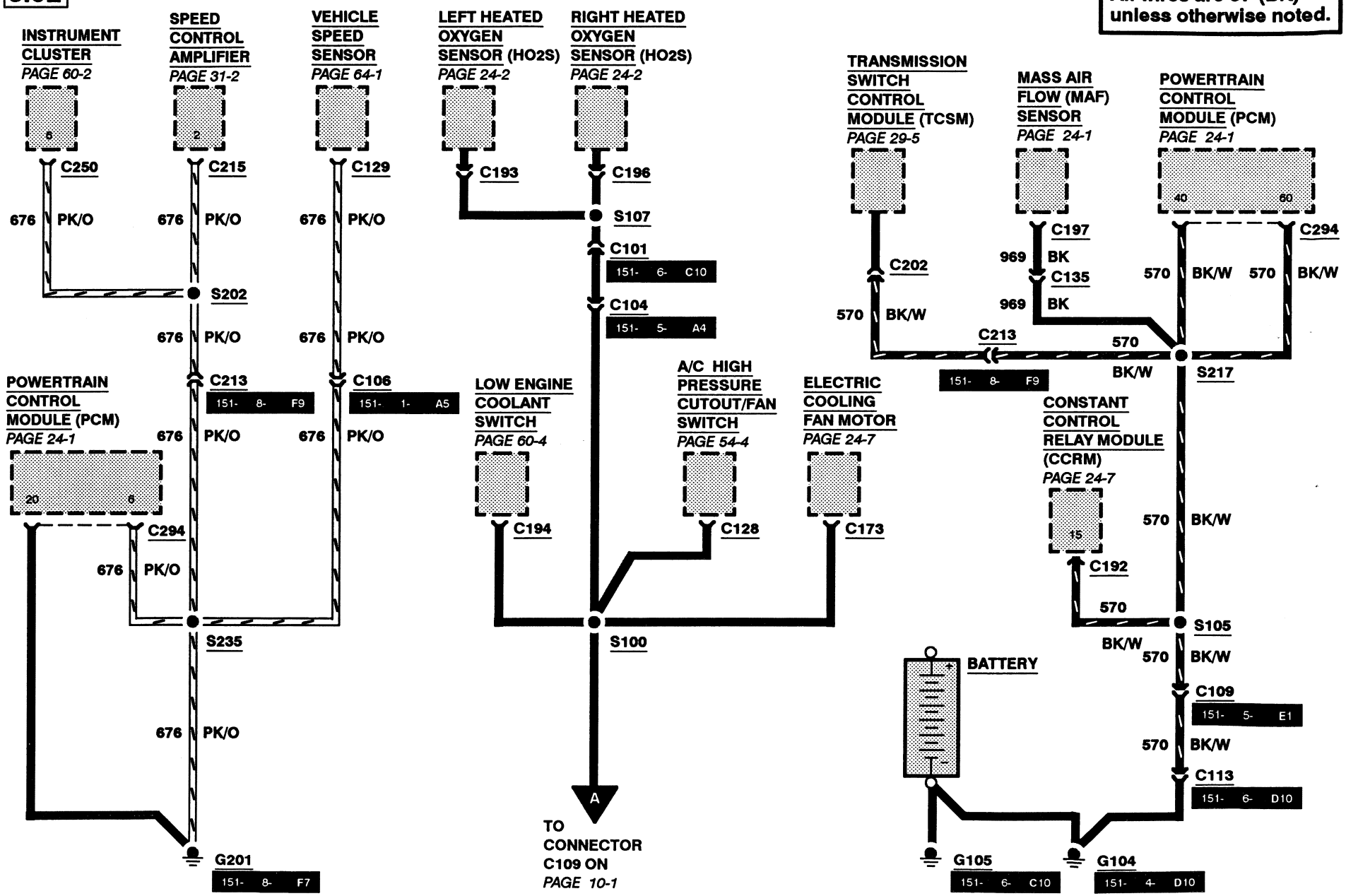
A
TO CONNECTOR C109 ON
PAGE 10-1

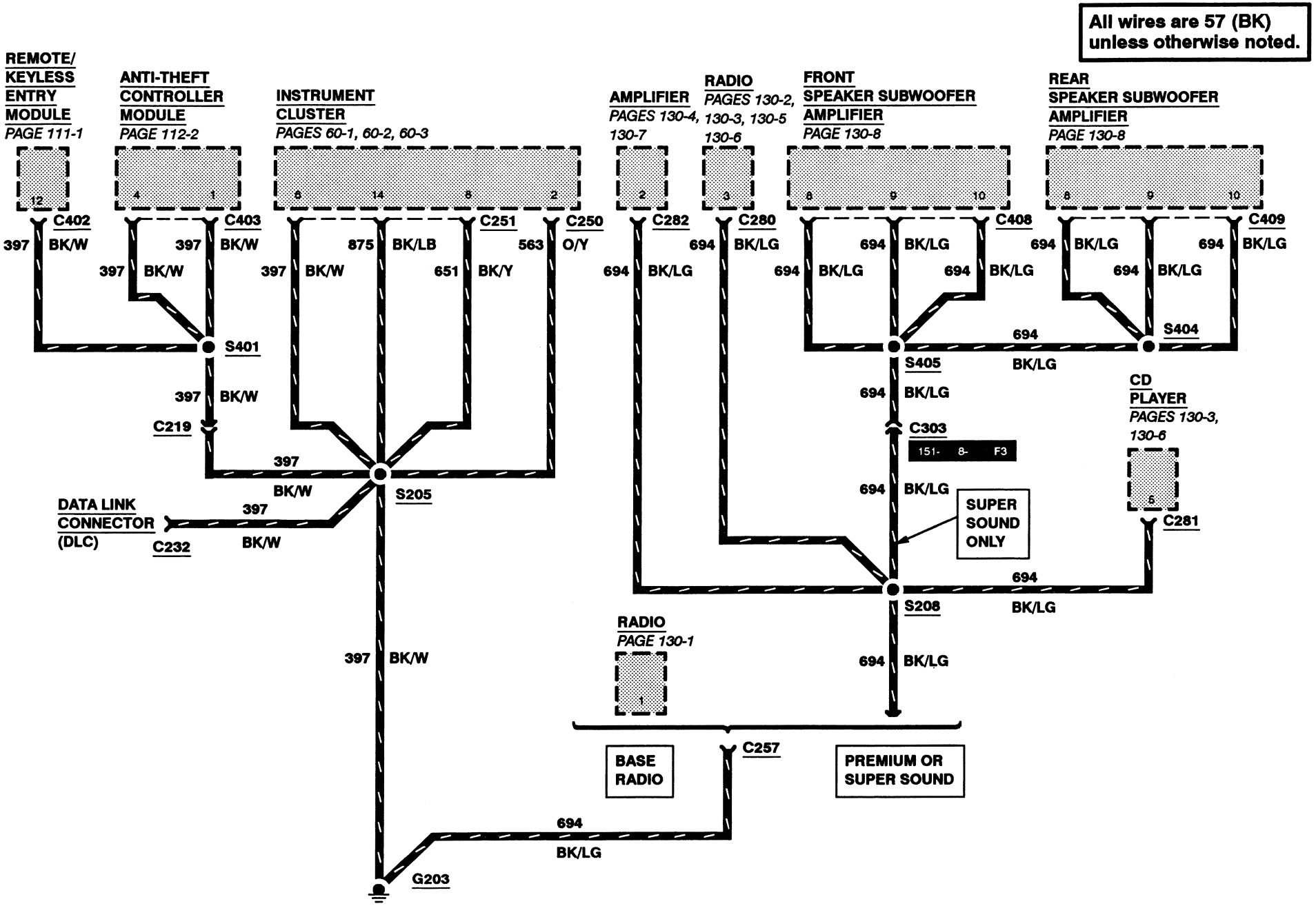
G105
151- 3- C10

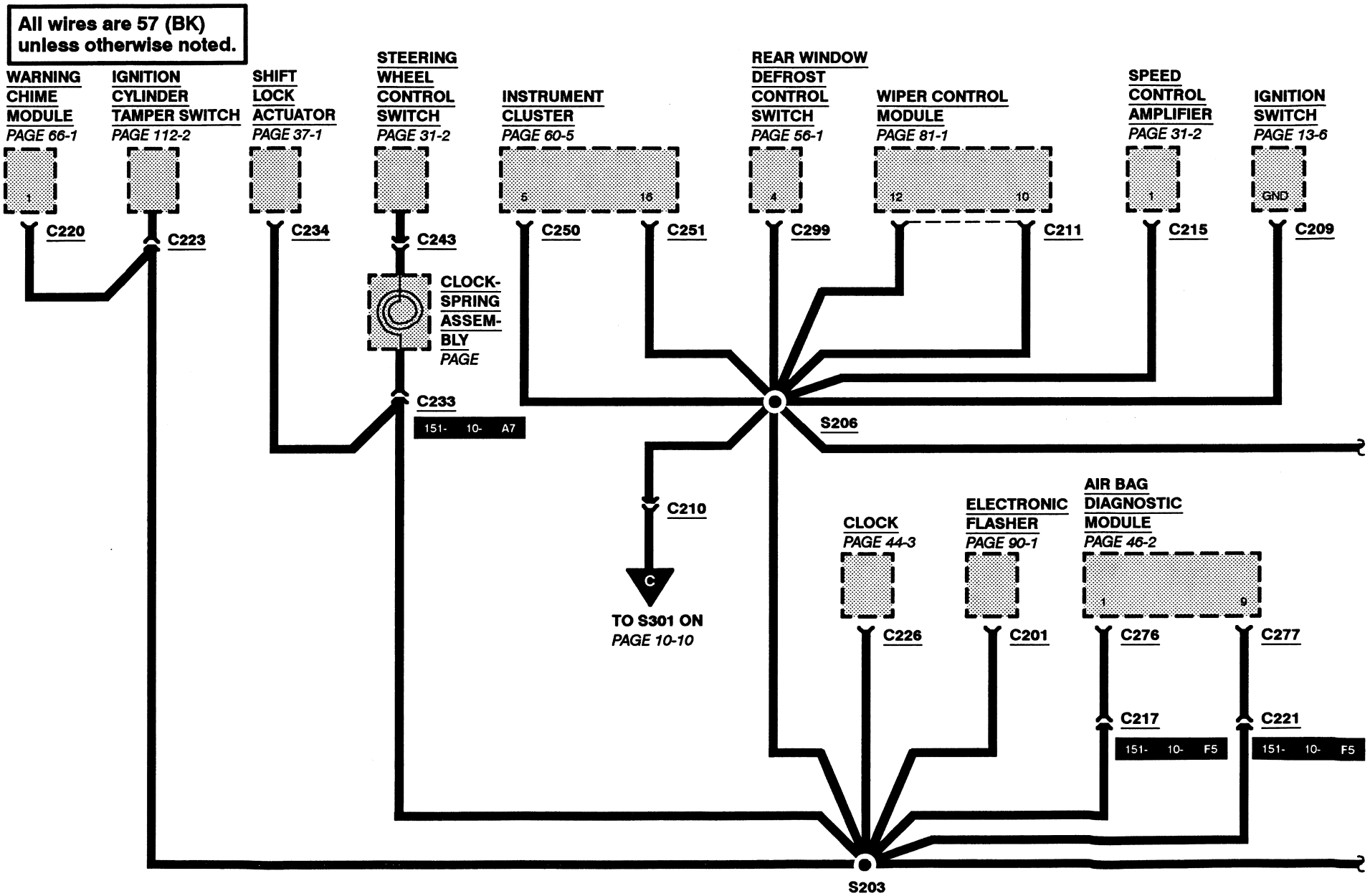
G104
15- 1- D10

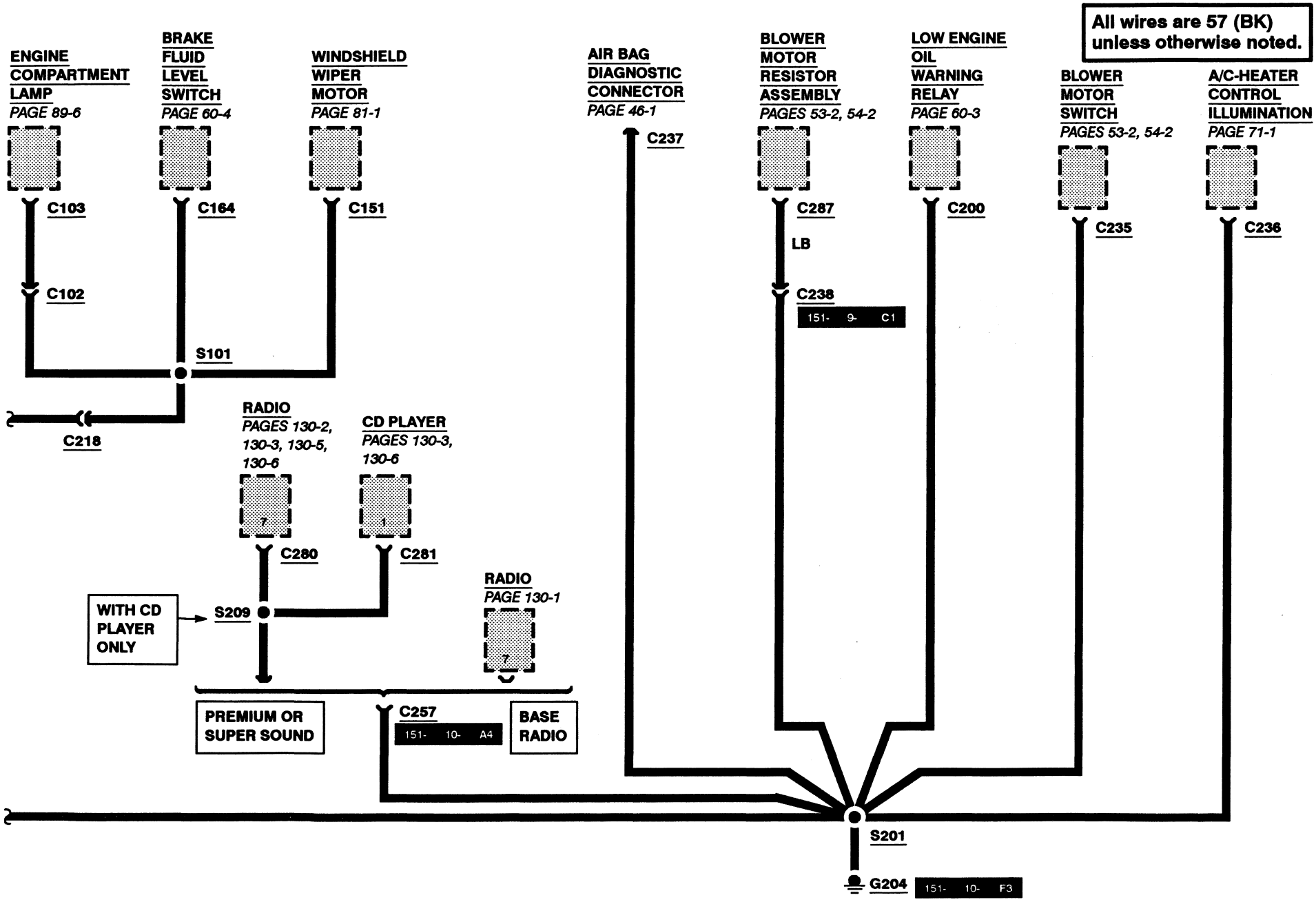
5.0L

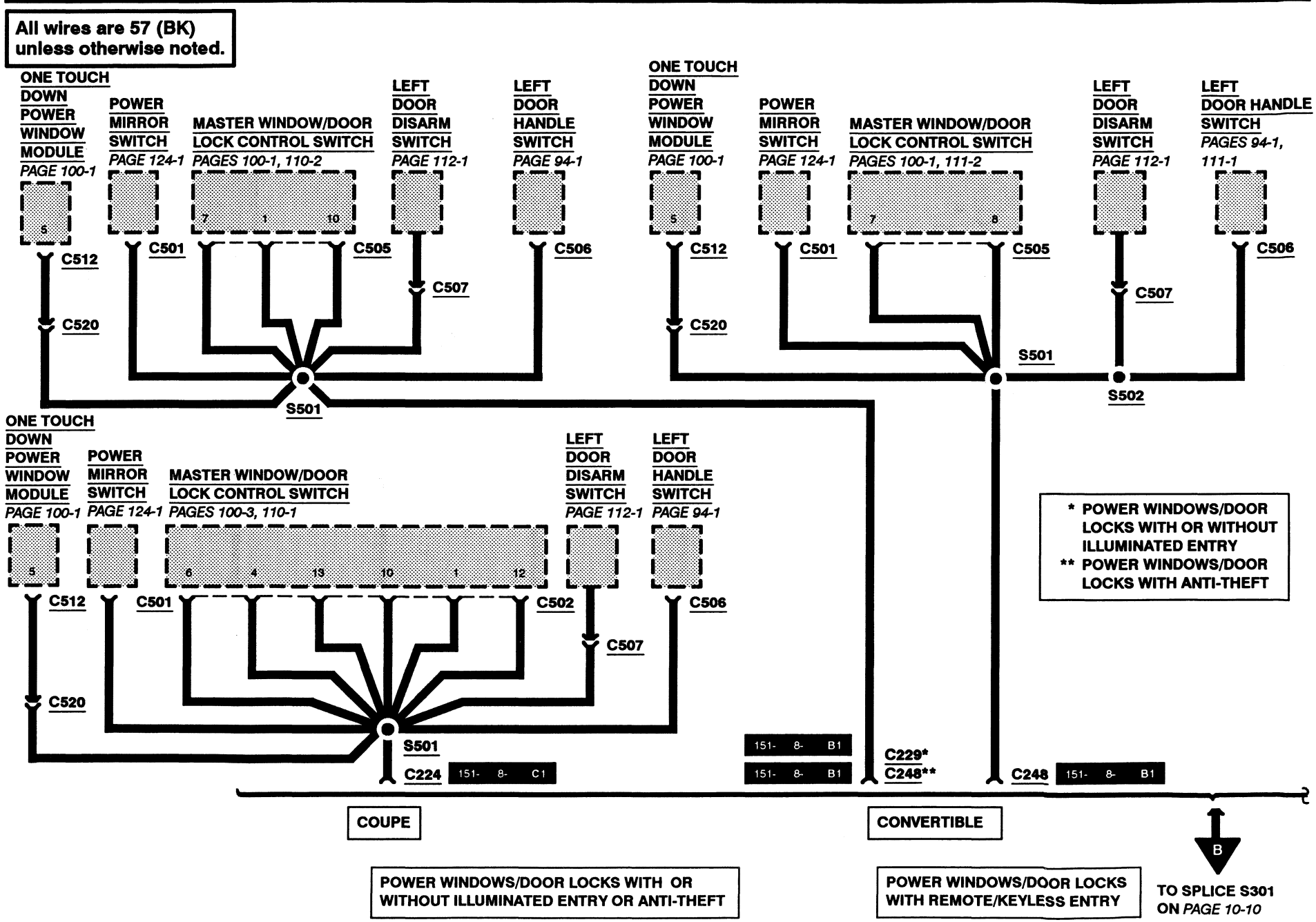
All wires are 57 (BK) unless otherwise noted.

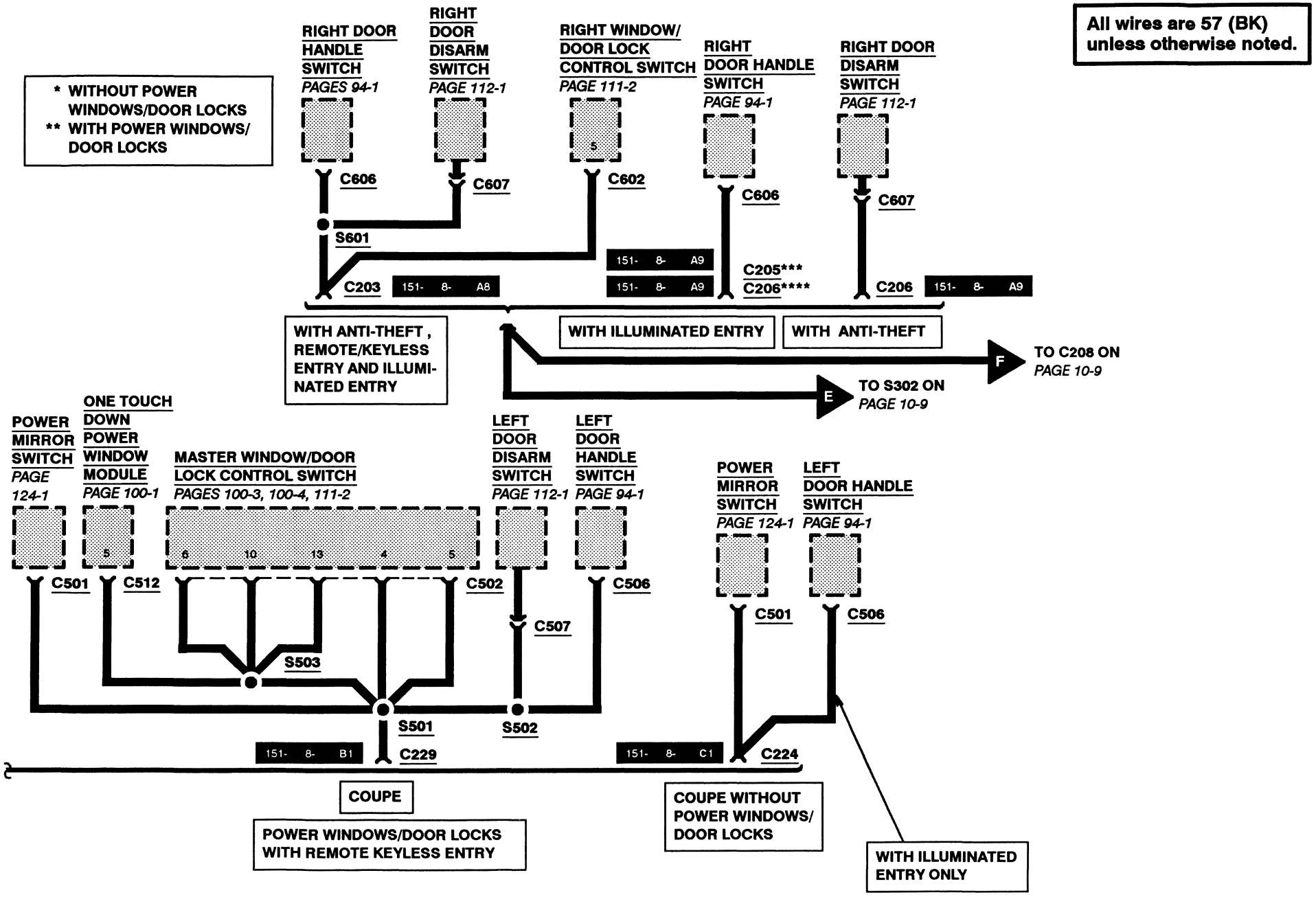



All wires are 57 (BK) unless otherwise noted.
REMOTE/ KEYLESS ENTRY MODULE
PAGE 111-1
ANTI-THEFT CONTROLLER MODULE
PAGE 112-2
INSTRUMENT CLUSTER
PAGES 60-1, 60-2, 60-3
AMPLIFIER
PAGES 130-4, 130-7
RADIO
PAGES 130-2, 130-3, 130-5
130-6
FRONT SPEAKER SUBWOOFER AMPLIFIER
PAGE 130-8
REAR SPEAKER SUBWOOFER AMPLIFIER
PAGE 130-8
C402
C403
C251
C250
C282
C280
C408
C409
S401
S404
S405
C219
C303
151- 8- F3
CD PLAYER
PAGES 130-3, 130-6
C281
S205
S208
DATA LINK CONNECTOR (DLC)
C232
SUPER SOUND ONLY
RADIO
PAGE 130-1
C257
BASE RADIO
PREMIUM OR SUPER SOUND
G203
397 BK/W
875 BK/LB
651 BK/Y
563 O/Y
694 BK/LG

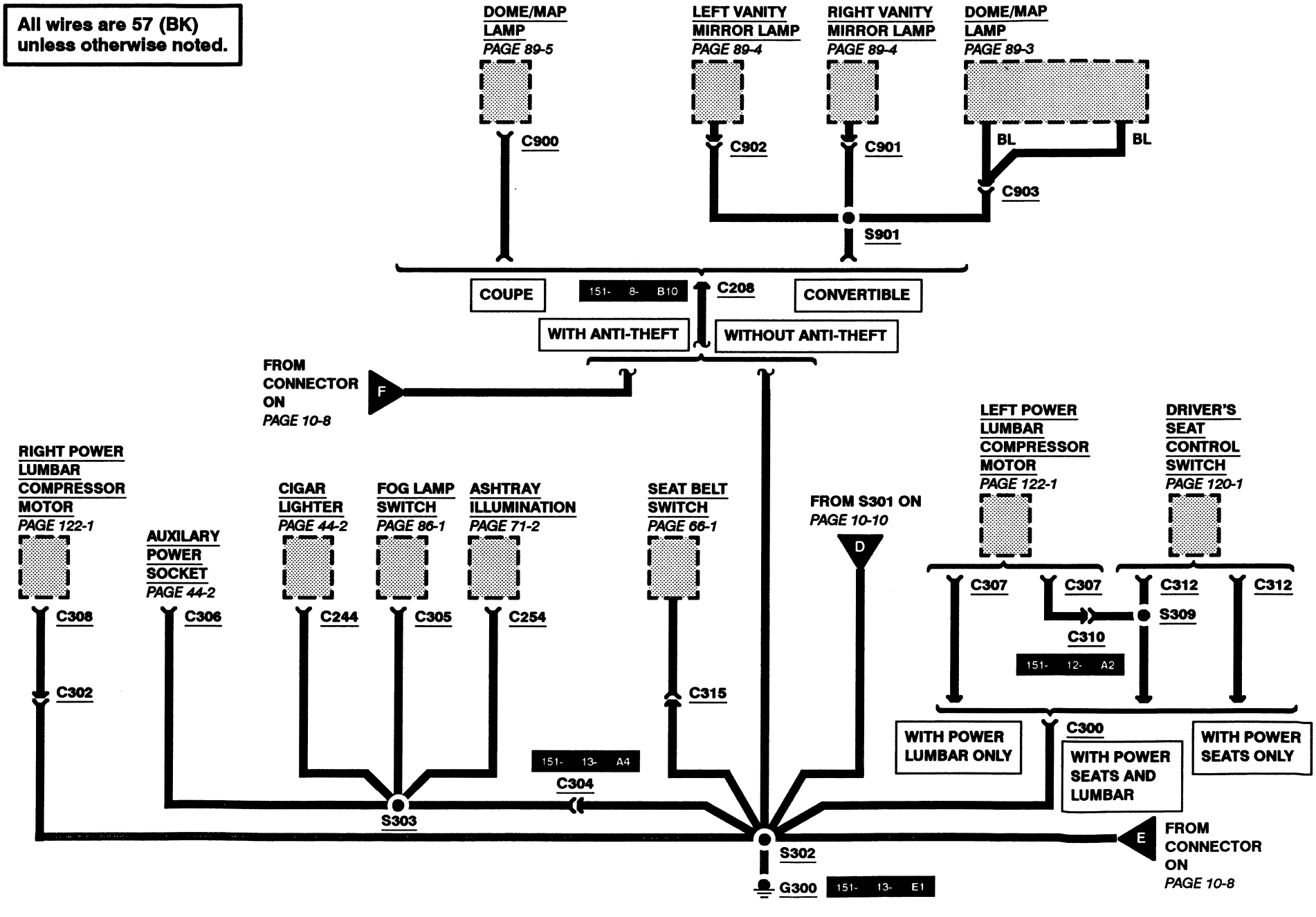

All wires are 57 (BK) unless otherwise noted.
WARNING CHIME MODULE
PAGE 66-1
1
C220
IGNITION CYLINDER TAMPER SWITCH
PAGE 112-2
C223
SHIFT LOCK ACTUATOR
PAGE 37-1
C234
STEERING WHEEL CONTROL SWITCH
PAGE 31-2
C243
CLOCK-SPRING ASSEM-BLY
PAGE
C233
151- 10- A7
INSTRUMENT CLUSTER
PAGE 60-5
6
16
C250
C251
REAR WINDOW DEFROST CONTROL SWITCH
PAGE 56-1
4
C299
WIPER CONTROL MODULE
PAGE 81-1
12
10
C211
SPEED CONTROL AMPLIFIER
PAGE 31-2
1
C215
IGNITION SWITCH
PAGE 13-6
GND
C209
S206
C210
C
TO S301 ON
PAGE 10-10
CLOCK
PAGE 44-3
C226
ELECTRONIC FLASHER
PAGE 90-1
C201
AIR BAG DIAGNOSTIC MODULE
PAGE 46-2
1
9
C276
C277
C217
151- 10- F5
C221
151- 10- F5
S203

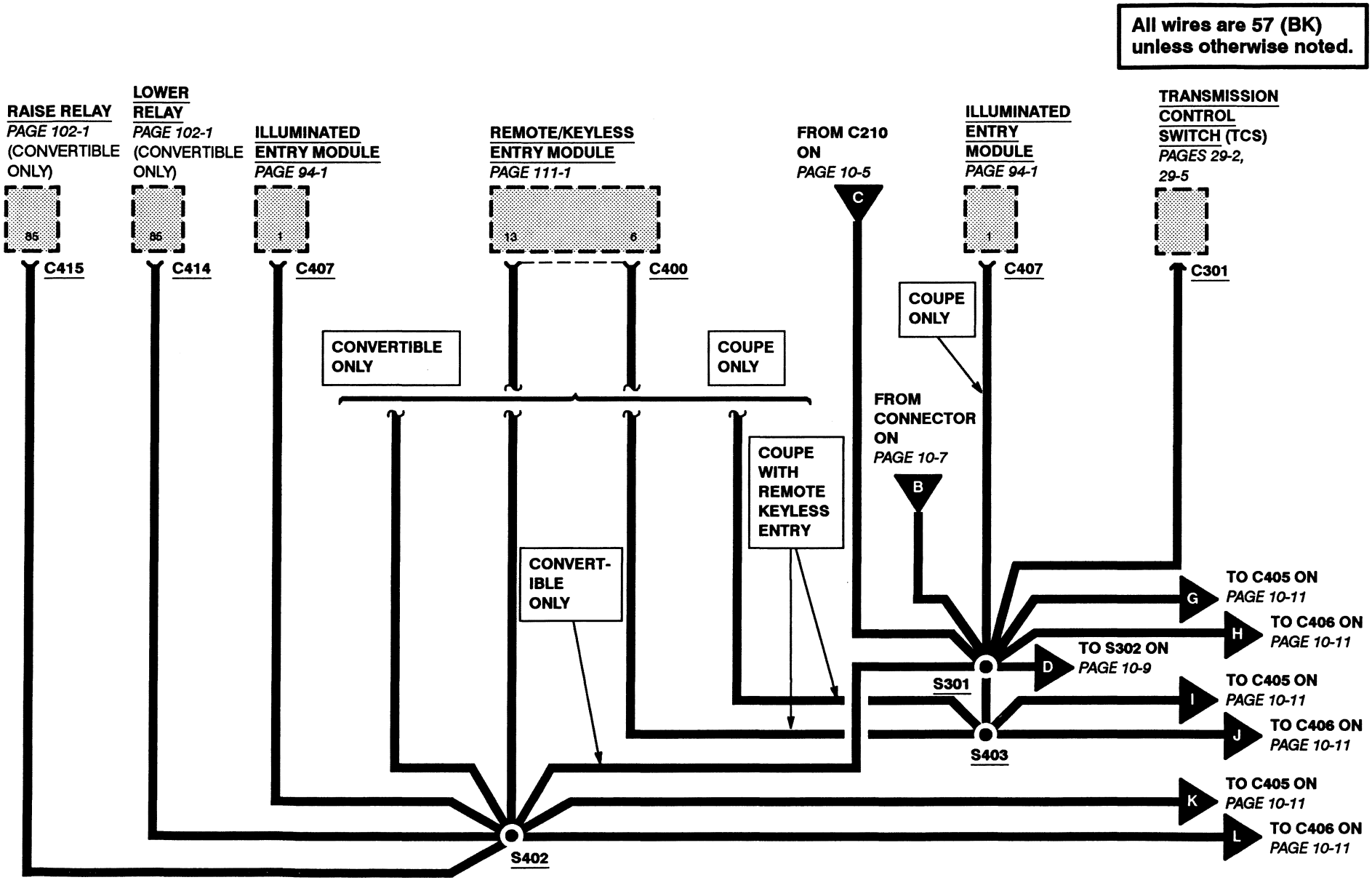

All wires are 57 (BK) unless otherwise noted.
ENGINE COMPARTMENT LAMP
PAGE 89-6
C103
C102
BRAKE FLUID LEVEL SWITCH
PAGE 60-4
C164
WINDSHIELD WIPER MOTOR
PAGE 81-1
C151
S101
C218
RADIO
PAGES 130-2, 130-3, 130-5, 130-6
7
C280
CD PLAYER
PAGES 130-3, 130-6
1
C281
WITH CD PLAYER ONLY
S209
RADIO
PAGE 130-1
7
PREMIUM OR SUPER SOUND
C257
151- 10- A4
BASE RADIO
AIR BAG DIAGNOSTIC CONNECTOR
PAGE 46-1
C237
BLOWER MOTOR RESISTOR ASSEMBLY
PAGES 53-2, 54-2
C287
LB
C238
151- 9- C1
LOW ENGINE OIL WARNING RELAY
PAGE 60-3
C200
BLOWER MOTOR SWITCH
PAGES 53-2, 54-2
C235
A/C-HEATER CONTROL ILLUMINATION
PAGE 71-1
C236
S201
G204
151- 10- F3


All wires are 57 (BK) unless otherwise noted.
ONE TOUCH DOWN POWER WINDOW MODULE
PAGE 100-1
POWER MIRROR SWITCH
PAGE 124-1
MASTER WINDOW/DOOR LOCK CONTROL SWITCH
PAGES 100-1, 110-2
LEFT DOOR DISARM SWITCH
PAGE 112-1
LEFT DOOR HANDLE SWITCH
PAGE 94-1
ONE TOUCH DOWN POWER WINDOW MODULE
PAGE 100-1
POWER MIRROR SWITCH
PAGE 124-1
MASTER WINDOW/DOOR LOCK CONTROL SWITCH
PAGES 100-1, 111-2
LEFT DOOR DISARM SWITCH
PAGE 112-1
LEFT DOOR HANDLE SWITCH
PAGES 94-1, 111-1
C512
C501
C505
C507
C506
C520
S501
S502
ONE TOUCH DOWN POWER WINDOW MODULE
PAGE 100-1
POWER MIRROR SWITCH
PAGE 124-1
MASTER WINDOW/DOOR LOCK CONTROL SWITCH
PAGES 100-3, 110-1
LEFT DOOR DISARM SWITCH
PAGE 112-1
LEFT DOOR HANDLE SWITCH
PAGE 94-1
C512
C501
C502
C507
C506
C520
S501
C224
151- 8- C1
151- 8- B1
151- 8- B1
C229*
C248**
C248
151- 8- B1
* POWER WINDOWS/DOOR LOCKS WITH OR WITHOUT ILLUMINATED ENTRY
** POWER WINDOWS/DOOR LOCKS WITH ANTI-THEFT
COUPE
CONVERTIBLE
POWER WINDOWS/DOOR LOCKS WITH OR WITHOUT ILLUMINATED ENTRY OR ANTI-THEFT
POWER WINDOWS/DOOR LOCKS WITH REMOTE/KEYLESS ENTRY
B
TO SPLICE S301 ON PAGE 10-10

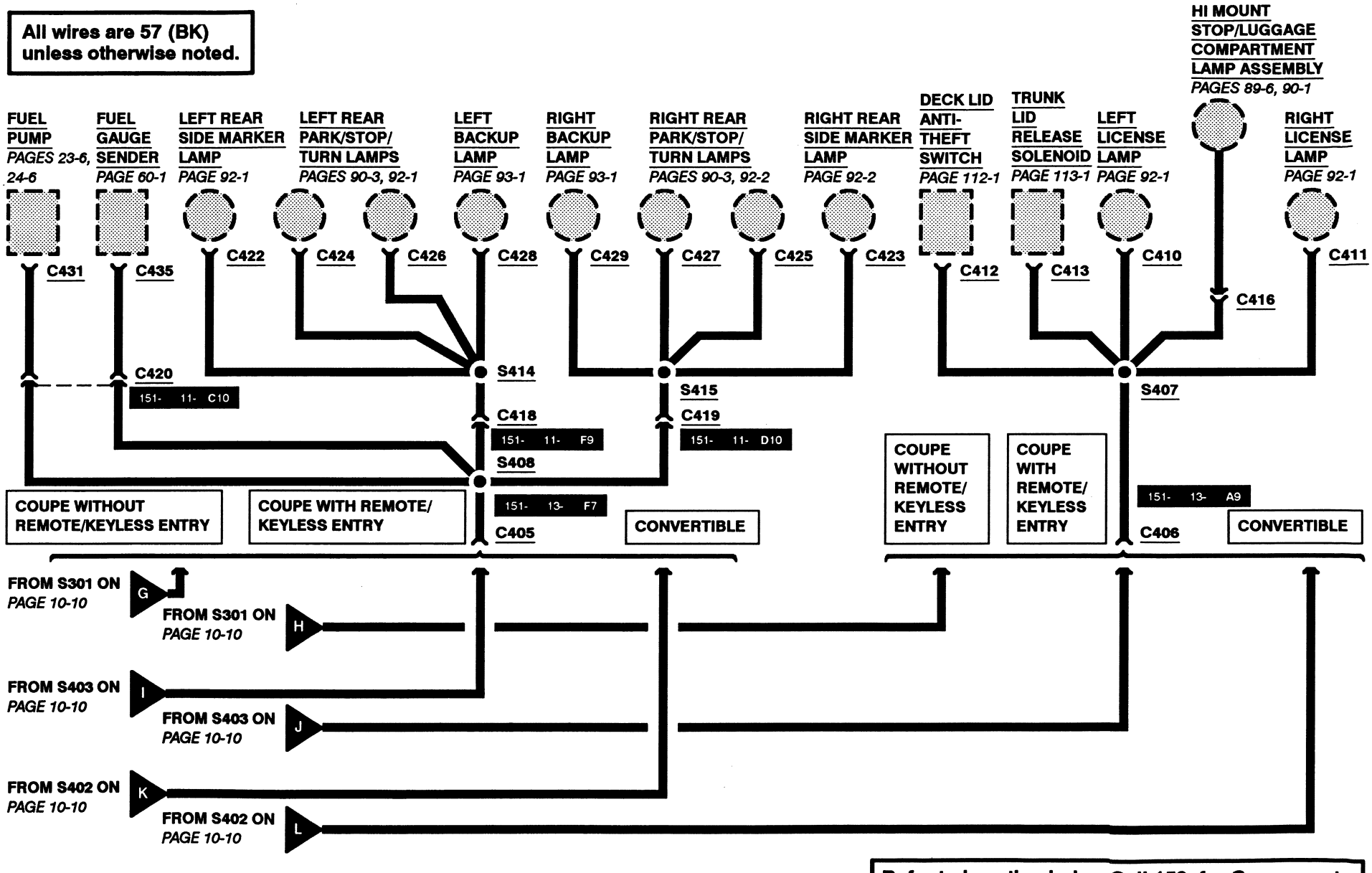

All wires are 57 (BK) unless otherwise noted.
* WITHOUT POWER WINDOWS/DOOR LOCKS
** WITH POWER WINDOWS/ DOOR LOCKS
RIGHT DOOR HANDLE SWITCH PAGES 94-1
RIGHT DOOR DISARM SWITCH PAGE 112-1
RIGHT WINDOW/ DOOR LOCK CONTROL SWITCH PAGE 111-2
RIGHT DOOR HANDLE SWITCH PAGE 94-1
RIGHT DOOR DISARM SWITCH PAGE 112-1
C606
C607
C602
S601
C203
151- 8- A8
151- 8- A9
C205***
C206****
C606
C607
C206
151- 8- A9
WITH ANTI-THEFT , REMOTE/KEYLESS ENTRY AND ILLUMI-NATED ENTRY
WITH ILLUMINATED ENTRY
WITH ANTI-THEFT
F
TO C208 ON PAGE 10-9
E
TO S302 ON PAGE 10-9
POWER MIRROR SWITCH PAGE 124-1
ONE TOUCH DOWN POWER WINDOW MODULE PAGE 100-1
MASTER WINDOW/DOOR LOCK CONTROL SWITCH PAGES 100-3, 100-4, 111-2
LEFT DOOR DISARM SWITCH PAGE 112-1
LEFT DOOR HANDLE SWITCH PAGE 94-1
POWER MIRROR SWITCH PAGE 124-1
LEFT DOOR HANDLE SWITCH PAGE 94-1
C501
C512
C502
C506
C507
S503
S501
S502
151- 8- B1
C229
151- 8- C1
C224
C501
C506
COUPE
POWER WINDOWS/DOOR LOCKS WITH REMOTE KEYLESS ENTRY
COUPE WITHOUT POWER WINDOWS/ DOOR LOCKS
WITH ILLUMINATED ENTRY ONLY

All wires are 57 (BK) unless otherwise noted.




All wires are 57 (BK) unless otherwise noted.
RAISE RELAY
PAGE 102-1
(CONVERTIBLE ONLY)
LOWER RELAY
PAGE 102-1
(CONVERTIBLE ONLY)
ILLUMINATED ENTRY MODULE
PAGE 94-1
REMOTE/KEYLESS ENTRY MODULE
PAGE 111-1
FROM C210 ON
PAGE 10-5
ILLUMINATED ENTRY MODULE
PAGE 94-1
TRANSMISSION CONTROL SWITCH (TCS)
PAGES 29-2, 29-5
85
85
1
13
6
C
1
C415
C414
C407
C400
C407
C301
CONVERTIBLE ONLY
COUPE ONLY
COUPE ONLY
FROM CONNECTOR ON
PAGE 10-7
B
COUPE WITH REMOTE KEYLESS ENTRY
CONVERT-IBLE ONLY
TO C405 ON
PAGE 10-11
G
H
TO C406 ON
PAGE 10-11
TO S302 ON
PAGE 10-9
D
S301
I
TO C405 ON
PAGE 10-11
J
TO C406 ON
PAGE 10-11
S403
K
TO C405 ON
PAGE 10-11
L
TO C406 ON
PAGE 10-11
S402

10-11 GROUNDS

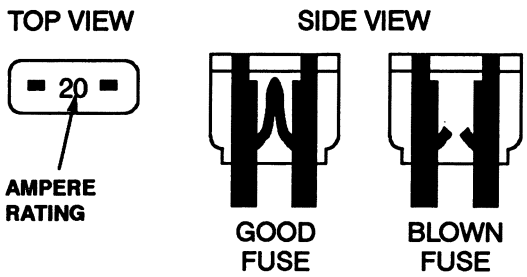


11-1 CIRCUIT PROTECTION/FUSE PANEL

CIRCUIT PROTECTION DEVICES

Electrical circuits on this vehicle may be protected by fuses, fusible links, fusible link cartridges, circuit breakers, or a combination of these devices.

BLADE TYPE FUSE

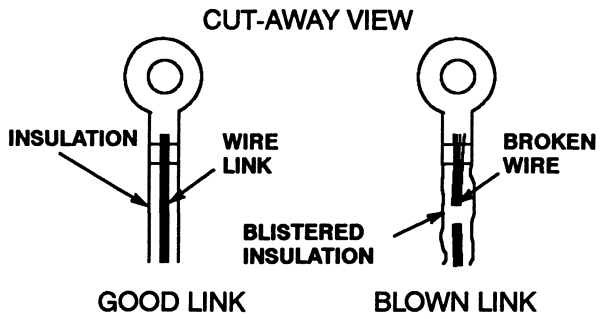


Blade type fuses have a transparent plastic housing. To check a fuse, pull it from the fuse panel and look at the fuse element through the housing. Always replace a blown fuse with a new fuse that has the same ampere rating.

The ampere rating of a blade type fuse can also be determined by following the color code shown here:

BLADE FUSE COLOR CODING	
AMPERE RATING	HOUSING COLOR
4	Pink
5	Tan
10	Red
15	Light Blue
20	Yellow
25	Natural
30	Light Green

FUSIBLE LINK



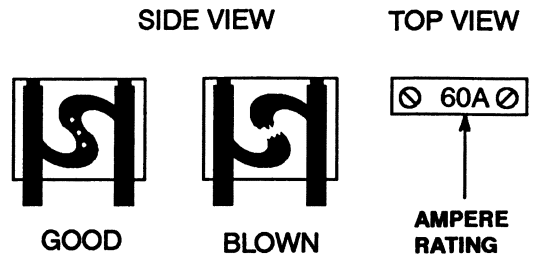
Fusible links are short lengths of wire that are smaller in diameter than the wires they are protecting. Fusible link wire is covered with a special thick, non-flammable insulation. An overload condition causes the insulation to blister. If the overload condition continues, the wire link will melt. To check a fusible link, look for blistered insulation. If the insulation is okay, pull lightly on the wire; If the fusible link stretches, the wire has melted.

When replacing fusible links, first cut the protected wire where it is connected to the fusible link. Then, tightly crimp or solder the new link to the protected wire.

Fusible links are often identified by color coding of the insulation, as shown here:

FUSIBLE LINK COLOR CODING	
WIRE LINK SIZE	INSULATION COLOR
20 GA	Blue
18 GA	Brown or Red
16 GA	Black or Orange
14 GA	Green
12 GA	Gray

FUSIBLE LINK CARTRIDGE



Fusible link cartridges have a transparent colored plastic housing. To check a fusible link cartridge, look at the fuse element through the side of the housing.

To replace a fusible link cartridge, pull it from the fuse box or panel. Always replace a blown fusible link cartridge with a new one having the same ampere rating.

The ampere rating of a fusible link cartridge can also be determined by following the color code shown here:

FUSIBLE LINK CARTRIDGE COLOR CODING	
AMPERE RATING	HOUSING COLOR
30	Light Green
40	Amber
50	Red
60	Blue