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MUSTANG



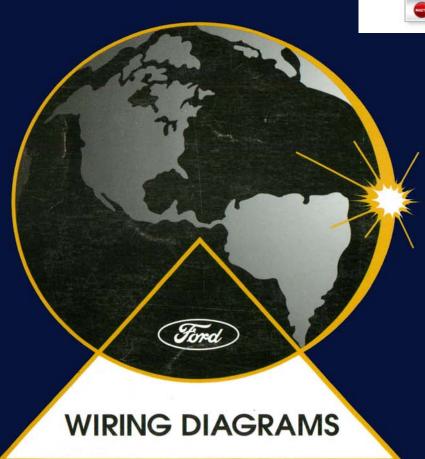
DEMO

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

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

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- Searchable text
- Printable pages
- Bookmarked for easy navigation
- High Resolution images
- Zoom to see exact details
- Money back Guarantee
- Transfer to USB flash drive support





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WIRING DIAGRAMS FCS-12121-99

FORD CUSTOMER SERVICE DIVISION

Quality is Job 1

Ford Customer Service Division has continued with the existing format for the 1999 MUSTANG Wiring Diagrams. Our goal is to provide accurate and timely electrical service information.

1999 WIRING DIAGRAMS FEATURES

- Schematic pages contain Component Location references to full-view illustrations and Component Descriptions that describe the system function of a component.
- "COMPONENT TESTING" procedures (CELL 149) tell the user how to perform diagnostic tests on various circuits.
- 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.
- NOTES, CAUTIONS and WARNINGS contain important safety information.
- Full view "COMPONENT LOCATION VIEWS" (CELL 151) help locate on-vehicle components.
- Circuit voltages are included on schematic pages to help simplify troubleshooting.
- Cellular Pagination: A specific section (or cell) in all Wiring Diagrams 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.
- "IN-LINE CONNECTOR FACES" (CELL 150) are included for in-line connectors with six or more terminals, to aid in servicing electrical wiring.
- "C" numbers are assigned for all electrical connectors. "C" numbers are listed in the "LOCATION INDEX" (CELL 152).
- "HARNESS CAUSAL PART NUMBERS" (CELL 153) are included to aid in identifying warranty concerns.
- "HARNESS CAUSAL PART NUMBERS" contain a suffix to denote connector "gender" type (F-socket, M-prior blade).

ORDERING INFORMATION

To obtain information about ordering additional copies of this publication or to order any other Ford or Lincoln/Mercury publications, call 1-800-782-4356. Available publications include workshop manuals, wiring diagrams, PC/ED Manuals and Owner Guides.

In addition, you can obtain a publications order form by writing to: Ford Publications, care of Helm Inc., P.O. Box 07150, Detroit, MI 48207.

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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 the choice of methods, tools, or parts does not compromise personal safety or the vehicle integrity.

2-1 HOW TO USE THIS MANUAL

1999 MUSTANG

The purpose of this manual is to show electrical 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 and 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 6 or more terminals. The terminals have pin numbers assigned to them.

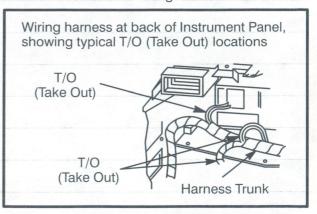
"COMPONENT LOCATION VIEWS" (Cell 151) contains full-view illustrations which show the location of all components and connectors in the vehicle.

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 wiring diagrams for troubleshooting, refer to these HELPFUL REMINDERS:

 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.



2. If a connector serves the same purpose in two separate versions (e.g., Automatic/Manual), but is physically different, two connector numbers are used. However, if a connector serves the same purpose in two separate versions (e.g., Automatic/Manual) 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 as follows (standard Ford color abbreviations are used):

COLOR ABBREVIATIONS

BU	Blue	NA	Natural
BK	Black	OG	Orange
BN	Brown	PK	Pink
DB	Dark Blue	VT	Purple
DG	Dark Green	RD	Red
GN	Green	SR	Silver
GY	Gray	TN	Tan
LB	Light Blue	WH	White
LG	Light Green	ΥE	Yellow

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 Customer 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, 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 when working on a vehicle.
- To avoid injury, always remove rings, watches, loose hanging jewelry and avoid wearing 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 wiring diagrams, 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 suspected 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.

2-3 HOW TO USE THIS MANUAL

1999 MUSTANG

Some engine circuits may need special test equipment and special procedures. See the *Workshop 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

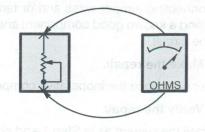


Figure 1 - Resistance Check

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

TEST LAMP

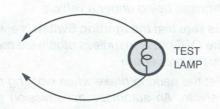


Figure 2 - Test Lamp

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

Uses: Voltage Check, Short Check.

SELF-POWERED TEST LAMP

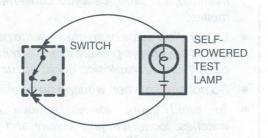


Figure 3 - Continuity Check

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.

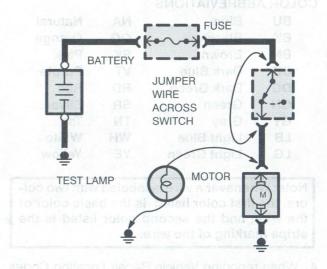


Figure 4 – Switch Circuit Check and Voltage Check

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).

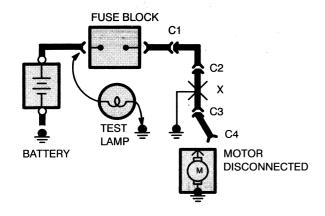


Figure 5 - Short Check

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.

- 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.

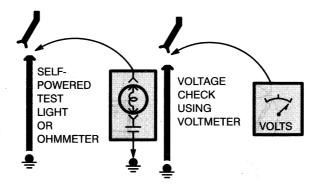


Figure 6 - Ground Check

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.

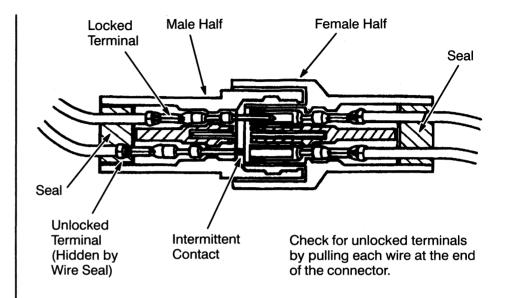
2-5 HOW TO USE THIS MANUAL

1999 MUSTANG

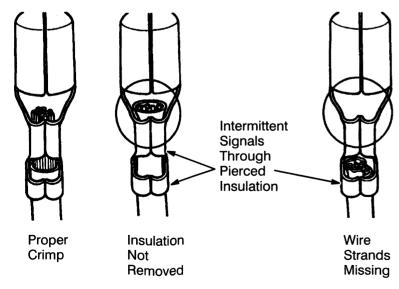
TROUBLESHOOTING WIRING HARNESS AND CONNECTOR HIDDEN CONCERNS

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.

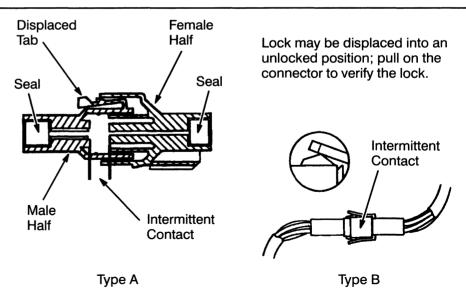
NOTE: Several components, such as the PCM, utilize gold plated terminals in their connections to the wiring harness. If those terminals need to be replaced, they must be replaced with a gold plated terminal.



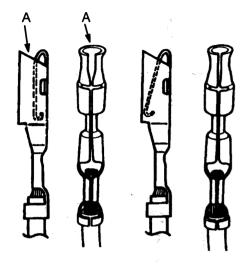
TERMINAL NOT PROPERLY SEATED



DEFECTIVE INSULATION STRIPPING



PARTIALLY MATED CONNECTORS

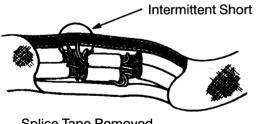


Any probe entering the terminal may enlarge the contact spring opening creating an intermittent signal. Insert the correct mating terminal (Location A) from the service kit and feel for a loose fit.

Enlarged

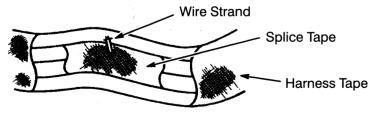
Normal

DEFORMED (ENLARGED) FEMALE TERMINALS



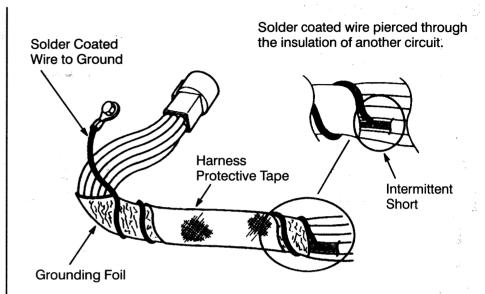
Operate the system and flex the harness at splice location noted in Section 152.



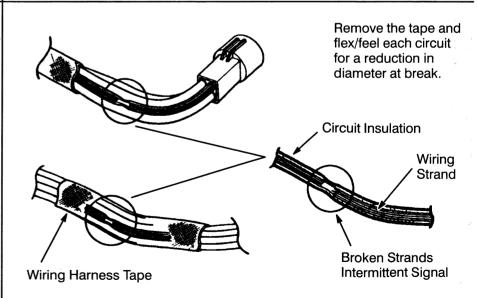


Splice Covered

ELECTRICAL SHORT WITHIN THE HARNESS



ELECTRICAL SHORT INSIDE THE HARNESS



BROKEN WIRE STRANDS IN HARNESS

2-7 HOW TO USE THIS MANUAL

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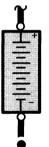
ELECTRICAL SYMBOLS



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

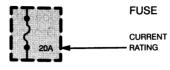


SCREW TERMINAL ON COMPONENT

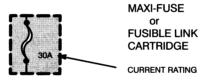


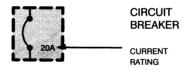
SEALED
ELECTRONIC
COMPONENT
ANY CIRCUITRY
SHOWN INSIDE THE
BOX IS A FUNCTIONAL
EQUIVALENT ONLY
AND IS NOT EXACT

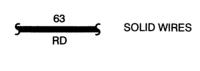




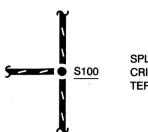




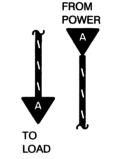








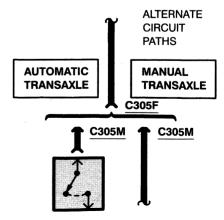
SPLICE OR CRIMP TERMINAL



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



"REFERENCE"
WIRES
COMPLETE WIRING
SHOWN ON
ANOTHER PAGE

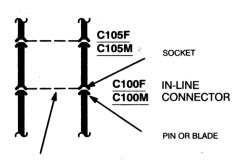


HOW TO USE THIS MANUAL

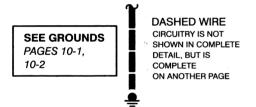
2-8

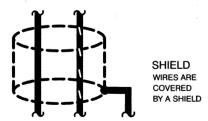
1999 MUSTANG

ELECTRICAL SYMBOLS



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









MOTOR



HEATING ELEMENT



THERMISTOR



RHEOSTAT OR POTENTIOMETER



SOLENOID



SWITCH



GANGED SWITCHES CONTACTS MOVE AT THE SAME TIME



DIODES CURRENT FLOWS IN DIRECTION OF ARROW ONLY



CAPACITOR



(A)

TRANSISTOR



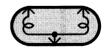
GAUGE



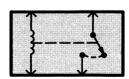
LIGHT EMITTING DIODE (LED)



LIGHT BULB



DUAL FILAMENT LIGHT BULB

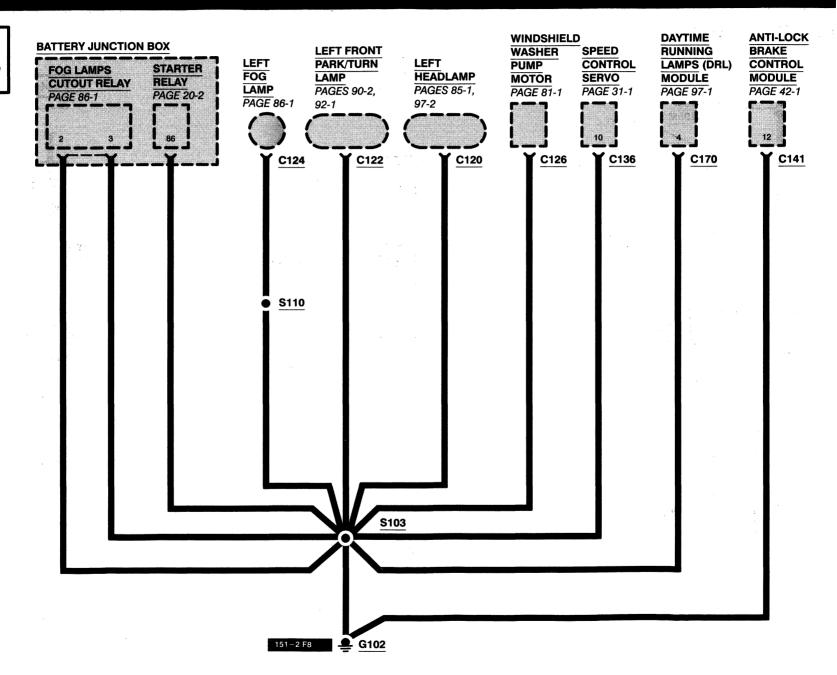


RELAY CONTACTS CHANGE POSITION WITH CURRENT THROUGH COIL

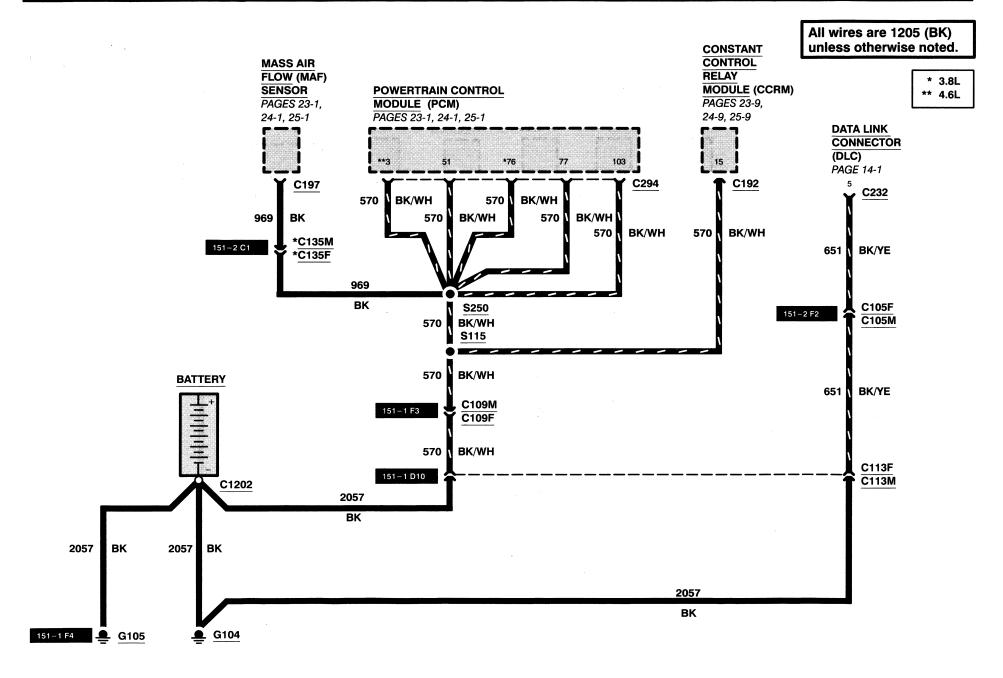
10-1 GROUNDS

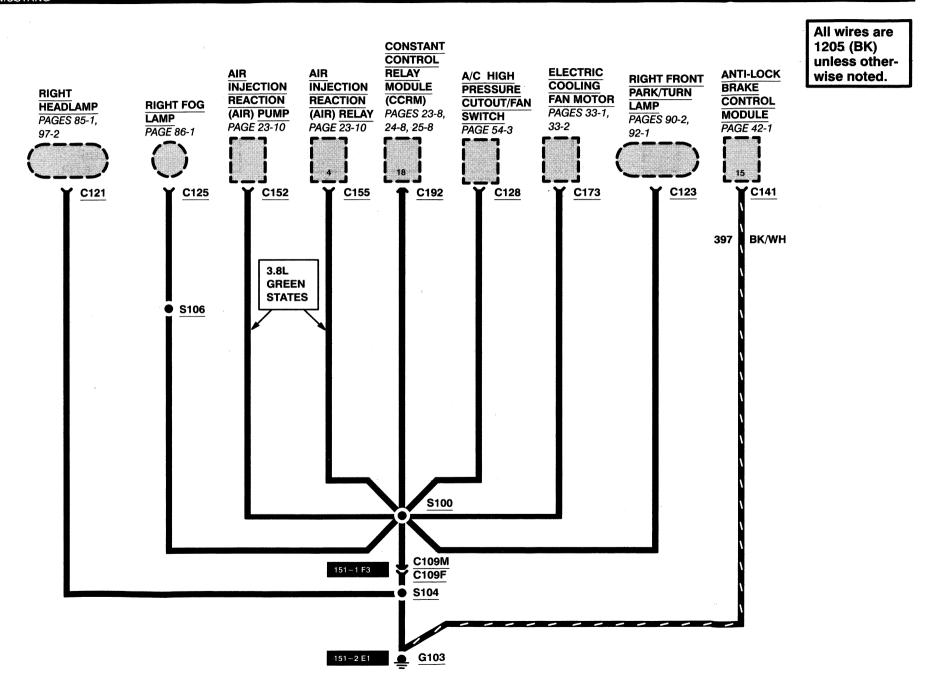
1999 MUSTANG

All wires are 1205 (BK) unless otherwise noted.

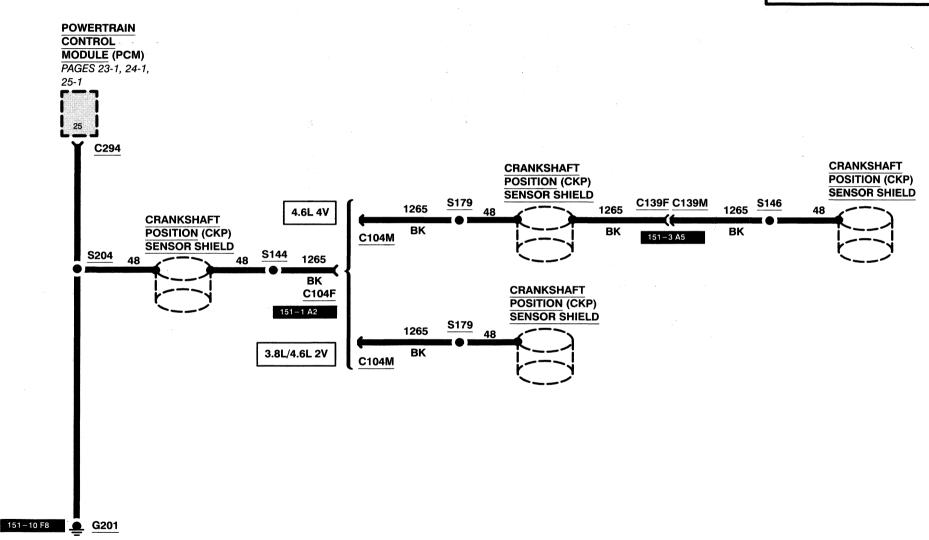


GROUNDS 10-2

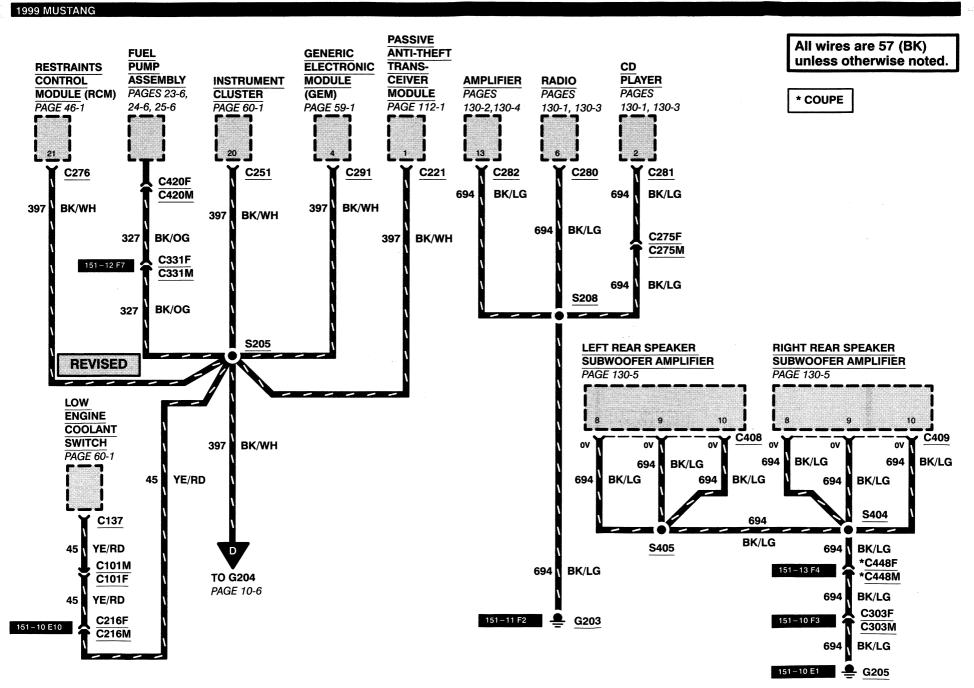


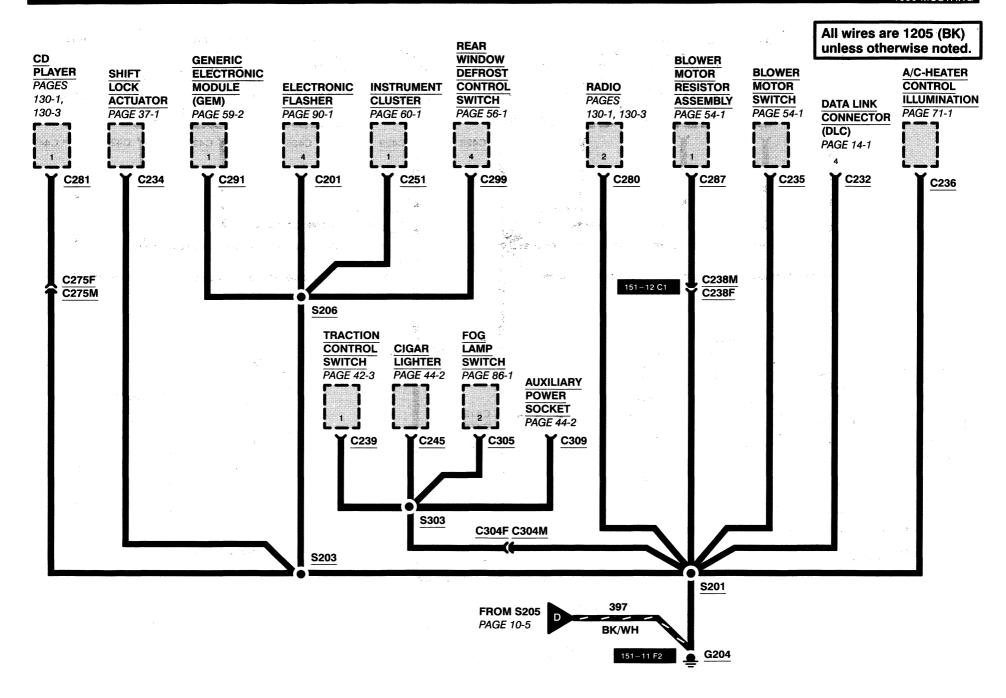


All wires are 1205 (BK) unless otherwise noted.



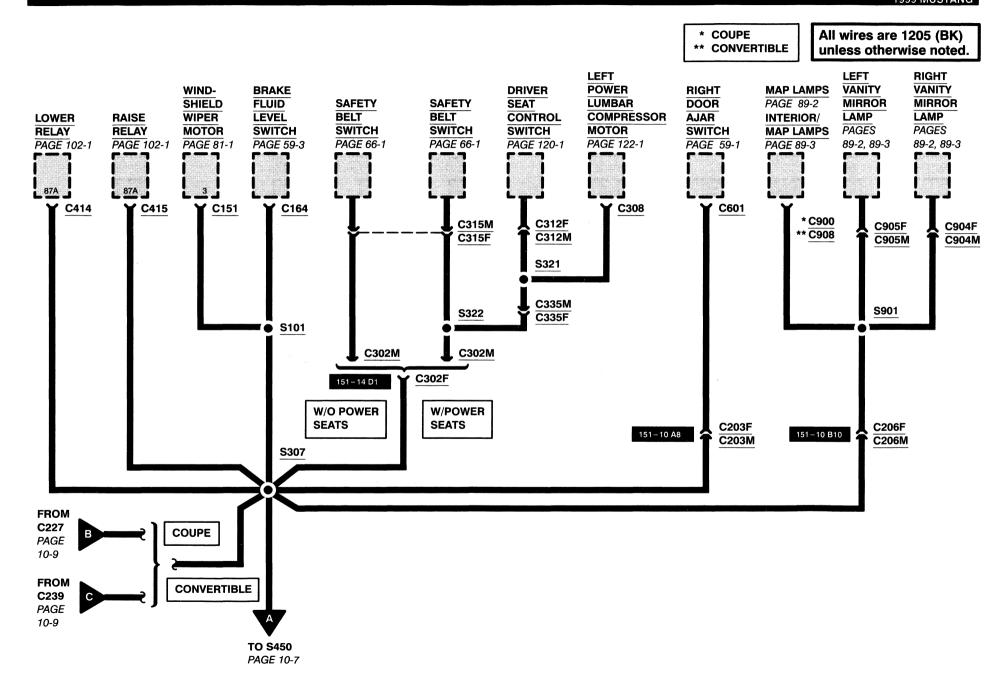
10-5 GROUNDS





10-7 GROUNDS

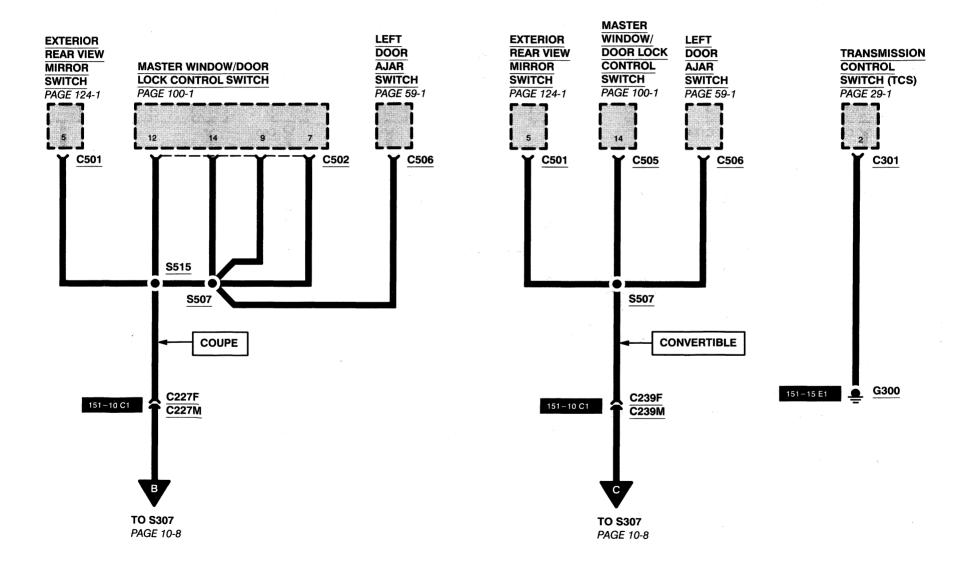
1999 MUSTANG RIGHT LEFT * COBRA **LEFT** REAR **LEFT REAR LEFT REAR LEFT RIGHT RIGHT REAR RIGHT REAR** REAR **RIGHT** TURN PARK/STOP/ PARK/STOP/ REVERSING REVERSING PARK/STOP/ PARK/STOP/ SIDE TURN SIDE LAMP LAMP LAMP **TURN LAMP #1 TURN LAMP #2** LAMP LAMP **TURN LAMP #1 TURN LAMP #2** LAMP PAGE 90-4 **PAGE** 93-1 **PAGE** 93-1 **PAGE** 90-4 PAGE 92-2 PAGES 90-3, 92-2 PAGES 90-3, 92-2 PAGES 90-3, 92-2 PAGES 90-3, 92-2 PAGE 92-2 C423 * C447 C429 C422 C424 C426 C428 C425 C427 S414 S415 • **HIGH MOUNTED** LUGGAGE C419F 151-13 C10 **FUEL PUMP** STOP/LUGGAGE C419M COMPARTMENT RIGHT LEFT DRIVER COMPARTMENT LID RELEASE LICENSE *C461F LICENSE MODULE LAMP ASSEMBLY SOLENOID LAMP *C461M LAMP PAGES 23-6. PAGE 90-1 PAGE 113-1 PAGE 92-1 **FUEL PUMP** PAGE 92-1 24-6, 25-6 **ASSEMBLY** C418F 151-13 F9 SHIELD C418M *C460F 2 C411 *C460M C413 C416 C451 S407 48 S451 C406F 151-15 A9 C406M **S450** FROM S307 PAGE 10-8 All wires are 1205 (BK) unless otherwise noted. 151-15 A7 **G**400



10-9 GROUNDS

1999 MUSTANG

All wires are 1205 (BK) unless otherwise noted.



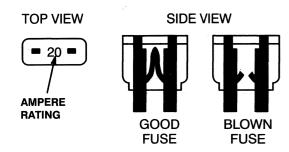
11-1 FUSE PANEL/CIRCUIT PROTECTION

1999 MUSTANG

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

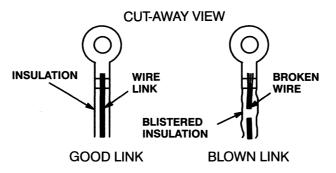


Blade type fuses have a transparent plastic housing. To check a fuse, pull it from the fuse panel and look at the fuse element through the housing. Always replace a blown fuse with a new fuse that has the same ampere rating.

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



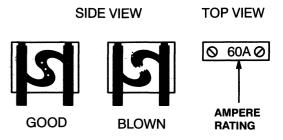
Fusible links are short lengths of wire that are smaller in diameter than the wires they are protecting. Fusible link wire is covered with a special thick, non-flammable insulation. An overload condition causes the insulation to blister. If the overload condition continues, the wire link will melt. To 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	

MAXI-FUSE CARTRIDGE



Maxi-fuse cartridges have a transparent colored plastic housing. To check a maxi-fuse cartridge, look at the fuse element through the side of the housing.

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

The ampere rating of a maxi-fuse cartridge can also be determined by following the color code shown here:

MAXI-FUSE CARTRIDGE COLOR CODING		
AMPERE RATING	HOUSING COLOR	
30	Green	
40	Orange	
50	Red	
60	Blue	

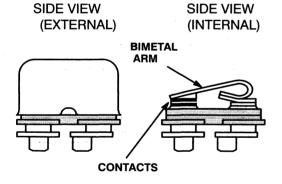
CIRCUIT BREAKER

Some circuits are protected by circuit breakers (abbreviated "c. b." in fuse chart).

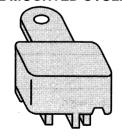
They can be Fuse Panel mounted or in-line. Like fuses, they are rated in amperes.

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. A circuit breaker can be the cycling or non-cycling type.

FUSE PANEL MOUNTED CYCLING TYPE

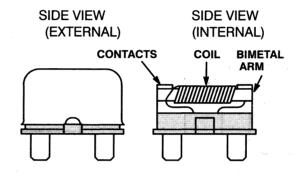


IN-LINE MOUNTED CYCLING TYPE

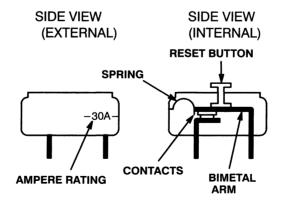


In the cycling type, the bimetal arm cools and straightens out. This cycle repeats as long as the overcurrent exists and power is applied.

FUSE PANEL MOUNTED NON-CYCLING TYPE



FUSE PANEL MOUNTED MANUAL RESET TYPE



Two types of non-cycling circuit breakers are used; one is reset by removing power from the circuit, and the other is reset by depressing a reset button.

In the first type, there is 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 bimetal arm. This keeps the arm in the open position until power is removed.

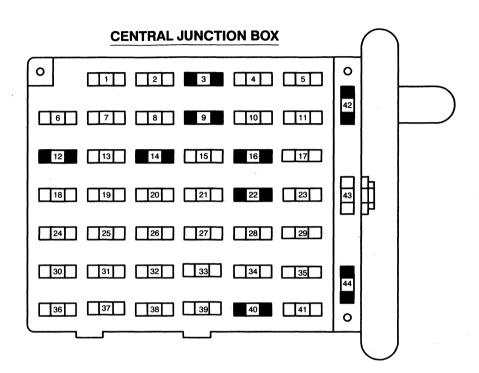
In the second type, a spring pushes the bimetal arm down and holds the contacts together. When an overcurrent condition exists and the bimetal arm heats up, the bimetal arm bends enough to overcome the spring and the contacts snap open. The contacts stay open until the reset button is pushed and the contacts snap together again.

DIODE



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

11-3 FUSE PANEL/CIRCUIT PROTECTION

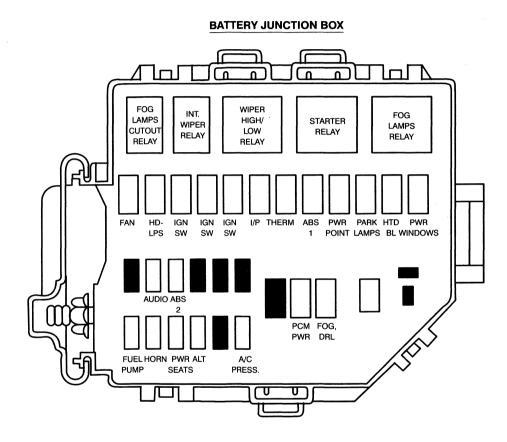


Fuse Value Amps	Color Code
4	Pink
5	Tan
10	Red
15	Light Blue
20	Yellow
25	Natural
30	Light Green

Fuse Position	Amps	Circuits Protected
1	20	Cigar Lighter
2	20	Engine Controls
3	-	NOT USED
4	10	RH Low Beam Headlamp
5	15	Instrument Cluster, Traction Control Switch
6	20	Starter Motor Relay
7	15	GEM, Interior Lamps
8	20	Engine Controls
9	_	NOT USED
10	10	LH Low Beam Headlamp
11	15	Reversing Lamps
12		NOT USED
13	15	Electronic Flasher
14	_	NOT USED
15	15	Power Lumbar Seats
16	_	NOT USED
17	15	Speed Control Servo, Shift Lock Actuator
18	15	Electronic Flasher
19	15	Power Mirror Switch, GEM, Anti-Theft Relay, Power Locks, Door Ajar Switches
20	15	Convertible Top Switch
21	5	PCM Instrument Cluster
22	_	NOT USED
23	15	A/C Clutch, Defogger Switch

Fuse Position	Amps	Circuits Protected
24	30	A/C Heater Control Assembly
25	25	Luggage Compartment Lid Release Switch
26	30	Wiper Motor, Wiper Relays
27	25	Radio
28	15	GEM, Overdrive Cancel Switch
29	15	ABS Module
30	15	DRL Module
31	10	Data Link Connector
32	15	Radio, CD Player, GEM
33	15	Stoplamp Switch, Speed Control Deactivator Switch
34	20	Instrument Cluster, CCRM, Data Link Connector, PATS Transceiver Module
35	15	Shift Lock Actuator, PCM, Speed Control Servo, ABS Module
36	15	Restraints Control Module
37	10	Radio, A/C-Heater Control Illumination, Rear Window Defrost Control Switch, Overdrive Cancel Switch, Instrument Cluster, Fog Lamp Switch
38	20	High Beam Headlamps
39	5	GEM
40		NOT USED
41	15	Multifunction Switch/Stoplamps
42	_	NOT USED
43	20	GEM, Master Window/Door Lock Control Switch
44		NOT USED

11-5 FUSE PANEL/CIRCUIT PROTECTION

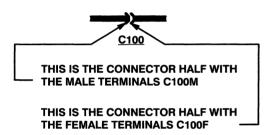


Fuse Position	Amps	Circuits Protected
FAN (3.8L)	30 (c.b.)	Constant Control Relay Module
FAN (4.6L)	50 (Maxi)	Constant Control Relay Module
HD-LPS	30 (Maxi)	Main Light Swtich, Multifunction Switch
IGN SW	40 (Maxi)	Starter Motor Relay, Intake Runner Control Module, GEM, Overdrive Cancel Switch, Instrument Cluster
IGN SW	40 (Maxi)	ABS Module, Instrument Cluster, Reversing Lamps, Speed Control Servo, GEM, Shift Lock Actuator, A/C-Heater, Power Windows, Radio, Raise Relay, Lower Relay, Windshield Wiper Motor, Intermittent Wiper Relay, Wiper HIGH/LOW Relay
IGN SW	40 (Maxi)	Restraints Control Module, DRL Module, A/C-Heater, Blower Motor, Electronic Flasher
I/P	40 (Maxi)	Instrument Cluster, PCM
THERM	30 (Maxi)	Secondary Air Injection
ABS1	50 (Maxi)	ABS Module
POWER POINT	20 (Maxi)	Auxiliary Power Point
PARK LAMPS	30 (Maxi)	Main Light Switch
HTD BL	30 (Maxi)	Rear Window Defrost Control
POWER WINDOWS	40 (Maxi)	GEM, Power Door Locks
AUDIO	10 (Mini)	Radio, CD Player
ABS2	20 (Mini)	ABS Module
FUEL PUMP	20 (Mini)	Fuel Pump Relay
HORN	20 (Mini)	Horns, Horn Relay
POWER SEATS	25 (Mini)	Power Seat Switch
ALT	20 (Mini)	Generator
A/C PRESS.	20 (Mini)	Constant Control Relay Module
PCM POWER	30 (Maxi)	Intake Manifold Runner Control

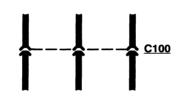
HOW TO IDENTIFY A BASIC HARNESS NUMBER BY USING A "C" NUMBER

Understand these symbols before you use the following listing:

THIS MEANS A HARNESS CONNECTION

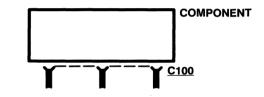


THE DASHED LINE MEANS THAT ALL OF THESE TERMINALS ARE IN THE SAME CONNECTION



THE UPPER FEMALE TERMINALS ARE IN C100F; THE LOWER MALE TERMINALS ARE IN C100M

THIS MEANS A COMPONENT CONNECTION



THE F AND M IS NOT USED WITH THE "C" NUMBER

Identify the basic harness part number by:

- 1. If the problem is in a connector, find the connector "C" number in the Wiring Diagram schematics. Then locate the "C" number in the following listing and read the basic harness part number.
- 2. If the problem is **not** in a connector (such as a short or broken wire), then choose a connector **located on the same harness** that has the problem. Identify the "C" number of that connector. Locate the "C" number in the following listing and read the basic part number of the harness that has the problem.

Connector Number	<u>Wire</u> Assembly	<u>Connector</u> <u>Number</u>	<u>Wire</u> Assembly	<u>Connector</u> <u>Number</u>	<u>Wire</u> Assembly	Connector Number	<u>Wire</u> Assembly
C100 (F)	-	C114 (3.8L)		C137 (4.6L)	•	C162 (4.6L 4V)	-
C100 (M) (3.8L)		C114 (4.6L)		C138 (3.8L)		C163	
C100 (M) (4.6L)		C115		C138 (4.6L)		C164	. 14A005
C101 (F)		C116		C139 (F)		C165 (3.8L)	9D930
C101 (M)		C118 (3.8L)	. 9D930	C139 (M)	12B559	C165 (4.6L 2V)	. 12B637
C102 (F)	12A581	C118 (4.6L 2V)	12B637	C140	PIA	C165 (4.6L 4V)	. 12B637
C102 (M)	15525	C118 (4.6L 4V)	12B559	C141	14290	C166 (4.6L 4V)	12B559
C103	12A581	C119 (F)	12A581	C143 (F)	14B060	C167	12A581
C104 (F)	12A581	C119 (M) (Automatic)	. 7C078	C143 (M)	12B637	C168 (3.8L)	. 9D930
C104 (M) (3.8L)	. 9D930	C119 (M) (Manual)	15525	C144	14290	C168 (4.6L)	12B637
C104 (M) (4.6L 2V) .	12B637	C120	14290	C145	12A581	C169 (4R70W)	. 7C078
C104 (M) (4.6L 4V) .	12B637	C121	14290	C147	. 9D930	C169 (T5OD)	15525
C105 (F)	14401	C122	14290	C148	14290	C169 (Automatic)	. 7C078
C105 (M)	14290	C123	12A581	C149	14290	C169 (Manual)	15525
C106 (F) (3.8L)	12A581	C124	14290	C150	14290	C170	14290
C106 (F) (4.6L 2V)	12A581	C125	12A581	C151	14A005	C171	12A581
C106 (F) (4.6L 4V)	12B637	C126	14290	C152 (3.8L)		C173	12A581
C106 (M) (Automatic)	. 7C078	C127	14290	(Green States)	12A581	C174 (4.6L 4V)	12B559
C106 (M) (Manual)	15525	C128	12A581	C153 (3.8L)	14305	C177 (3.8L)	. 9D930
C107 (F)	14290	C129 (4R70W)	. 7C078	C153 (4.6L)	12B637	C177 (4.6L 2V)	12B637
C107 (M)	14A005	C129 (T45)	15525	C154 (3.8L)	14305	C177 (4.6L 4V)	12B637
C108 (F)	12A581	C129 (T5OD)	15525	C154 (4.6L)	12B637	C178 (3.8L)	. 9D930
C108 (M)	14290	C130	12A581	C155 (3.8L)		C178 (4.6L 2V)	12B637
C109 (F)	14290	C131 (F)	10A998	(Green States)	12A581	C178 (4.6L 4V)	12B637
C109 (M)	12A581	C131 (M)	. 9D930	C156 (4.6L 4V)	12B637	C179 (3.8L)	. 9D930
C110	. 7C078	C132	. 7C078	C157	14290	C179 (4.6L 2V)	12B637
C111 (3.8L)	. 9D930	C133 (4R70W)	. 7C078	C158	14290	C179 (4.6L 4V)	12B637
C111 (4.6L)	12B637	C133 (Manual)	15525	C159 (3.8L)	12A581	C180 (3.8L)	. 9D930
C112 (F)	14B060	C135 (F) (3.8L)	12A581	C159 (4.6L 2V)	12B637	C180 (4.6L 2V)	12B637
C112 (M)	14290	C135 (M) (3.8L)	12B566	C159 (4.6L 4V)	12B559	C180 (4.6L 4V)	12B637
C113 (F)		C136		C160 (4.6L 4V)	12A581	C181 (3.8L)	. 9D930
C113 (M)	14B060	C137 (3.8L)	. 9D930	C161	15525		

153-3 HARNESS CAUSAL PART NUMBER

1999 MIISTANG

Connector Number	Wire Assembly	Connector Number	Wire Assembly	Connector Number	Wire Assembly	Connector Number	Wire Assembly
C181 (4.6L 2V)		C198 (3.8L)		C218 (F)		C245	-
C181 (4.6L 4V)		C198 (4.6L)		C218 (M)		C246	
C182 (3.8L)		C200 (F)		C219 (F)		C248 (F)	
C182 (4.6L 2V)		C200 (M)	14A005	C219 (M)		C248 (M)	14A005
C182 (4.6L 4V)		C201	14401	C220		C250	
C183 (3.8L)	. 9D930	C202 (F)	14A005	C221	14401	C251	14401
C183 (4.6L 2V)		C202 (M)	12A581	C222	PIA	C252 (F)	19B113
C183 (4.6L 4V)	12B637	C204 (F)	14630	C224 (F)	14631	C252 (M)	14401
C184 (3.8L)		C204 (M)		C224 (M)	14A005	C253 (F)	12638
C184 (4.6L 2V)	12B637	C205 (F)	19A041	C226	14401	C253 (M)	14A005
C184 (4.6L 4V)	12B637	C205 (F)	14630	C227 (F)	14631	C255	14A005
C185 (3.8L)	. 9D930	C205 (M)	14A005	C227 (M)	14A005	C257 (F)	14401
C185 (4.6L 2V)	12B637	C206 (F) (Convert.)	14335	C228	14401	C257 (M)	19B113
C185 (4.6L 4V)	12B637	C206 (F) (Coupe)	14334	C229 (F)	. 14631	C258 (F)	14401
C186 (3.8L)	. 9D930	C206 (M)	14A005	C229 (M)	14A005	C258 (M)	19B113
C186 (4.6L 2V)	12B637	C207 (F)	14630	C230	14401	C259 (F)	12A581
C186 (4.6L 4V)	12B637	C207 (M)	14A005	C231	. 14401	C259 (M)	14A005
C187 (4.6L 2V)	12B637	C208 (F) (Convert.)	14335	C232	. 14401	C260 (F)	9D821
C187 (4.6L 4V)	12B637	C208 (F) (Coupe)	14334	C233 (F)	. 14401	C260 (M)	14A005
C188 (4.6L 2V)	12B637	C208 (M)	14A005	C233 (M)	PIA	C261	14A005
C188 (4.6L 4V)	12B637	C209	14401	C234	. 14401	C262	PIA
C189	12A581	C210 (F)	14A005	C235	. 14401	C270 (F)	14401
C191	. 9D930	C210 (M)	14401	C236	. 14401	C270 (M)	PIA
C192	12A581	C211	14401	C238 (F)	. 14401	C271	14401
C193 (4R70W)	. 7C078	C212 (F)	14A005	C238 (M)	18C629	C272 (F)	PIA
C193 (T45)	15525	C212 (M)	14401	C239	14B079	C272 (M)	PIA
C193 (T5OD)	15525	C213 (F)	14401	C239 (F)	. 14631	C274	19B113
C194	12B637	C213 (M)	12A581	C239 (M)	. 14631	C275 (F)	19B113
C196 (4R70W)	. 7C078	C215	PIA	C240	13B319	C275 (M)	14401
C196 (T45)	15525	C216 (F)	14401	C241	13B319		
C196 (T5OD)	15525	C216 (M)	12A581	C242	14A005		
C197	12A581	C217	14401	C243	PIA		

HARNESS CAUSAL PART NUMBER 153-4

Connector Number	<u>Wire</u> Assembly	Connector Number	<u>Wire</u> Assembly	<u>Connector</u> <u>Number</u>	<u>Wire</u> Assembly	<u>Connector</u> <u>Number</u>	<u>Wire</u> Assembly
C276	14401	C311	. 14C719		. 14A699	C421	. 19B516
C278	. 19B113	C312 (with power lun	nbar)	C335 (M) (without por	wer	C422	13410
C279	. 19B113		. 14B084	lumbar)	. 14B084	C423	13407
C280	14401	C312 (without power	lumbar)	C336	. 14A005	C424	13410
C281	. 19B113		. 14A699	C352	14401	C425	13407
C282	14401	C313	. 14B084	C355	. 14C719	C426	13410
C283	PIA	C315 (with power sea	ats)	C400	. 14A005	C427	13407
C284	PIA		. 14C719	C401	. 14A005	C428	13410
C285	14401	C315 (without power	seats)	C402	. 14A005	C429	13407
C286	. 18C629		. 14A546	C403	. 14A005	C430	14405
C288 (F)	. 13B319	C317	. 14B079	C404	. 14A005	C431	PIA
C288 (M)	14401	C318	. 14A005	C405 (F)	14405	C432 (F) (Convert.) .	. 18C619
C290	14401	C319	. 14A005	C405 (M)	. 14A005	C432 (F) (Coupe)	. 18C618
C291	14401	C320	. 14A005	C406 (F)	. 19B516	C432 (M)	. 14A005
C292	. 14A005	C321	. 14A005	C406 (M)	14A005	C433 (Convert.)	. 18C619
C294	. 12A581	C322	. 14A005	C407	14405	C433 (Coupe)	. 18C618
C299	14401	C323	. 14A005	C408 (Convertible) .	. 14A005	C434	. 18C620
C300 (F)	. 14A005	C324	. 14A005	C408 (Coupe)	. 19B113	C436	. 14A005
C300 (M)	. 14B084	C325 (F)	. 19B113	C409 (Convertible) .	. 14A005	C437	. 14A005
C301	. 14A005	C325 (M)	. 14A005	C409 (Coupe)	. 19B113	C438	. 14A005
C302 (F)	. 14A005	C326	. 14A005	C410	. 19B516	C439 (Convertible) .	. 14A005
C302 (M) (with power	r seats)	C328	. 14C719	C411	. 19B516	C439 (Coupe)	. 19B113
	. 14C719	C329 (F)	. 14A005	C413	19B516	C440 (Convertible) .	. 14A005
C302 (M) (without po	wer seats)	C329 (M)	. 14B079	C414	14A005	C440 (Coupe)	. 19B113
	. 14A546	C330 (F)	14401	C415	14A005	C441 (F)	. 19B113
C303 (F)	. 14A005	C330 (M)	. 14A005	C416	19B516	C441 (M)	PIA
C303 (M)	. 19B113	C331 (F)	. 14A005	C417	14A005	C442	PIA
C304 (F)	. 14B079	C331 (M)	14401	C418 (F)	13410	C443	PIA
C304 (M)	14401	C332 (F)	. 14A005	C418 (M)	14A005	C444	. 14A005
C305	. 14B079	C332 (M)	14401	C419 (F)	13407	C445	. 14A005
C308	. 14B084	C335 (F)	. 14C719	C419 (M)	14A005	C446	13410
C309	. 14B079	C335 (M) (with power	· lumbar)	C420	14A005		

153-5 HARNESS CAUSAL PART NUMBER

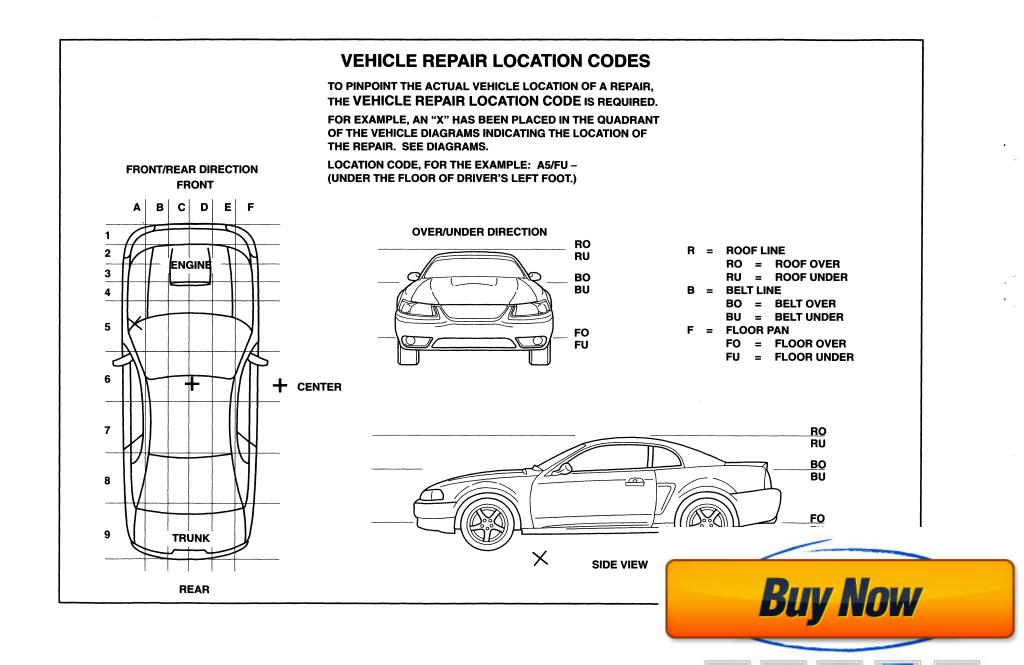
1999 MUSTANG

Connector Number	<u>Wire</u> Assembly	Connector Number	<u>Wire</u> Assembly	Connector Number
C447	13407	C905 (Coupe)	14334	
C448 (F)	19B113	C1000 (M)	12B237	
C448 (M)	14A005	C1001	19A041	
C450	14A005	C1003 (4.6L 4V)	12B637	
C451	14A005	C1004 (F) (4.6L 4V)	12B637	
C460 (F)	13410	C1004 (M) (4.6L 4V) .	12B559	
C460 (M)	14A005	C1004 (F) (4.6L 4V)	12B637	
C461 (F)	13407	C1005 (F) (4.6L)	12A690	
C461 (M)	14A005	C1005 (M) (4.6L 2V) .	12B637	
C501	14631	C1005 (M) (4.6L 4V) .	12B637	
C502	14631	C1006 (3.8L)	14305	
C503	14631	C1006 (4.6L 2V)	12B637	
C504		C1007 (F)		
C505		C1007 (M)		
C506		C1008 (M)		
C509		C1009		
C510		C1010		
C511		C1011 (F)		
C601		C1011 (M)		
C602		C1111		
C603		C1081		
C604		C1082		
C609		C1083		
C610		C1084		
C611		C1085		
C900		C1086		
C902		C1087		
C903		C1088		
C904 (Convertible)		C1200		
C904 (Coupe)		C1201		
C905 (Convertible)	14335	C1202	14B060	

Wire Assembly

160-1 VEHICLE REPAIR LOCATION CODES

1999 MUSTANG



DISCOVER

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