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MUSTANG

ELECTRICAL VACUUM AND TROUBLESHOOTING MANUAL

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1998 Mustang Electrical and Vacuum Trouble-Shooting Manual (EVTM) EAN: 978-1-60371-433-4 ISBN: 1-60371-433-2

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# ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL FCS-12121-98

### FORD CUSTOMER SERVICE DIVISION

### **Quality is Job 1**

Ford Customer Service Division has developed a new format for the 1998 Mustang EVTM. Our goal is to provide accurate and timely electrical and vacuum service information.

#### **1998 EVTM FEATURES**

- Schematic pages now contain **Component Location** references to full—view illustrations and **Component Descriptions** that describe the system function of a component.
- "COMPONENT TESTING" procedures (CELL 149) that tell the user how to perform diagnostic tests on various circuits.
- Connector End Views are now located at the end of individual cells and are shown for connectors with five or more cavities; a circuit function chart is provided.
- NOTES, CAUTIONS and WARNINGS contain important safety information.
- Full view "COMPONENT LOCATION VIEWS" (CELL 151) to help locate on-vehicle components.
- Circuit voltages have been added to schematic pages to help simplify troubleshooting. Nonessential troubleshooting hints have been deleted.
- 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.
- "IN-LINE CONNECTOR FACES" (CELL 150) has been added for in-line connectors with six or more terminals, to aid in servicing electrical wiring.
- "C" numbers have been assigned for all electrical connectors. "C" numbers are listed in the "LOCATION INDEX" (CELL 152).
- "HARNESS CAUSAL PART NUMBERS" (CELL 153) has been added to aid in identifying warranty concerns.
- In-line connector numbers contain a suffix to denote connector "gender" type (F-socket, M-prior blade).

#### 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
- Service Specification Books
- Car/Truck Wiring Diagrams
- Powertrain Control/Emissions
   Diagnosis Manuals

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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

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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 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.

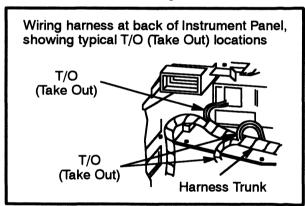
"COMPONENT LOCATION VIEWS" (Cell 151) contains full-view illustrations which show the location of all components and connectors in the vehicle.

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 EVTM 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.

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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**

BL	Blue	N	Natural
BK	Black	0	Orange
BR	Brown	PK	Pink
DB	Dark Blue	Р	Purple
DG	Dark Green	R	Red
GN	Green	Т	Tan
GY	Gray	W	White
LB	Light Blue	Y	Yellow
I G	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 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 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 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

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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**

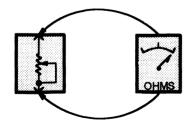


Figure 1 - Resistance Check

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

#### **TEST LAMP**

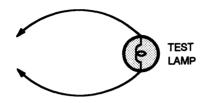


Figure 2 - Test Lamp

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

Uses: Voltage Check, Short Check.

#### **SELF-POWERED TEST LAMP**

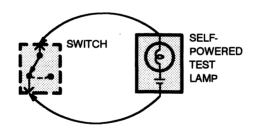


Figure 3 - Continuity Check

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.

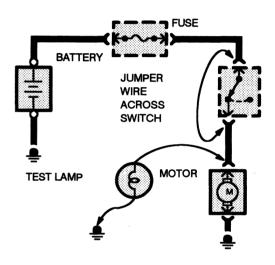


Figure 4 – Switch Circuit Check and Voltage Check

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.

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#### **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).

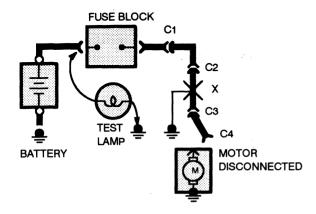


Figure 5 - Short Check

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.
- 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.

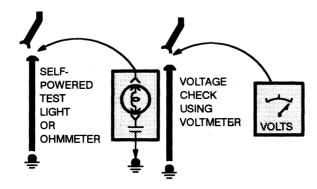


Figure 6 - Ground Check

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.

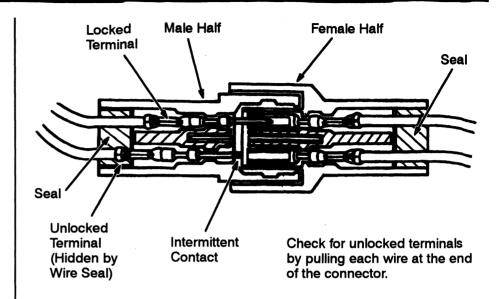
### 2-5 HOW TO USE THIS MANUAL

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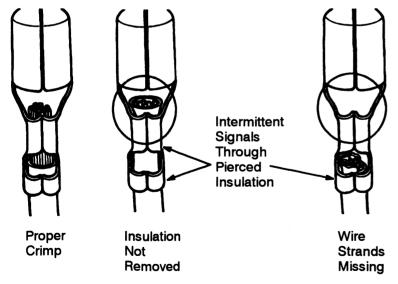
### TROUBLESHOOTING WIRING HARNESS AND CONNECTOR HIDDEN CONCERNS

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.

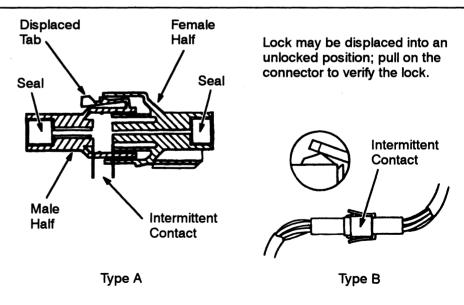
NOTE: Several components, such as the PCM, utilize gold plated terminals in their connections to the wiring harness. If those terminals need to be replaced, they must be replaced with a gold plated terminal.



#### **TERMINAL NOT PROPERLY SEATED**

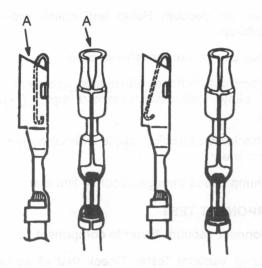






**PARTIALLY MATED CONNECTORS** 

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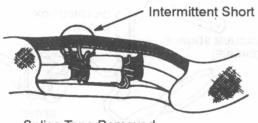


Any probe entering the terminal may enlarge the contact spring opening creating an intermittent signal. Insert the correct mating terminal (Location A) from the service kit and feel for a loose fit.

Enlarged

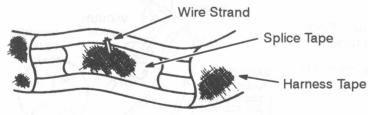
Normal

### **DEFORMED (ENLARGED) FEMALE TERMINALS**



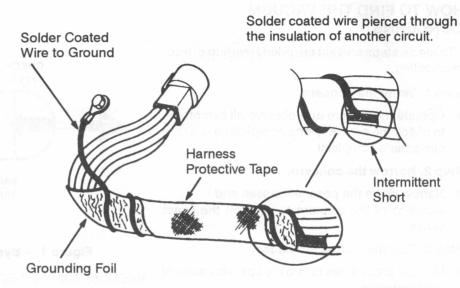
Operate the system and flex the harness at splice location noted in Section 152.



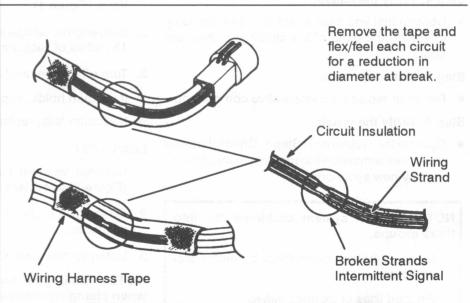


Splice Covered

**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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## 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 suspected 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.

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

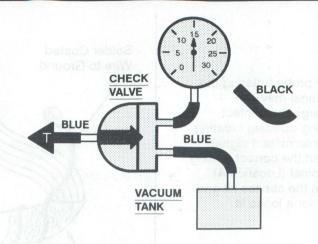


Figure 1 - System Supply Test

#### **VACUUM SUPPLY TEST**

- Connect Vacuum Tester to system side of Check Valve (Figure 1).
- 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.
- 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:

- Turn on Vacuum Pump and check vacuum build-up.
- 2. Stop pump; vacuum should drop.
- 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.
- Pump Vacuum Tester. Check that all components operate correctly and vacuum holds.
- 3. Replace component if vacuum does not hold.

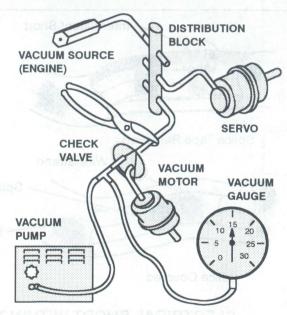


Figure 2 – Testing For Leaks In Typical Vacuum System

#### **ELECTRICAL SYMBOLS**



DASHED COMPONENT

BOX

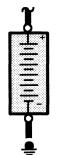
ONLY PART OF THE COMPONENT IS SHOWN ON THE PAGE; THE COMPONENT IS SHOWN COMPLETE IN ANOTHER LOCATION



COMPONENT

WITH

**CONNECTORS** 



**BATTERY** 



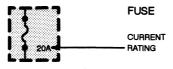
SCREW TERMINAL ON COMPONENT



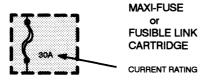
**SEALED ELECTRONIC** COMPONENT ANY CIRCUITRY SHOWN INSIDE THE **BOX IS A FUNCTIONAL EQUIVALENT ONLY** AND IS NOT EXACT



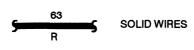
GROUND CONNECTION



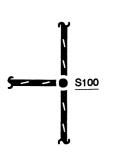




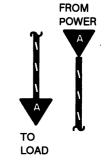








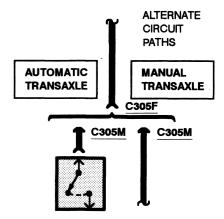
SPLICE OR **CRIMP TERMINAL** 



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



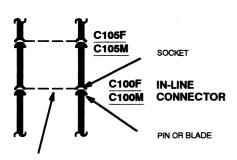
"REFERENCE" **WIRES** COMPLETE WIRING SHOWN ON ANOTHER PAGE



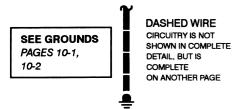
### 2-9 HOW TO USE THIS MANUAL

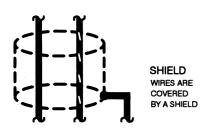
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#### **ELECTRICAL SYMBOLS**



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



OR (



TRANSISTOR



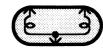
**GAUGE** 



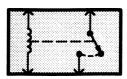
LIGHT EMITTING DIODE (LED)



LIGHT BULB



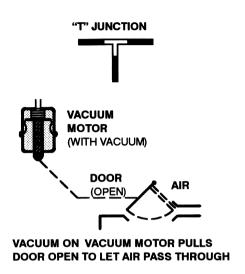
DUAL FILAMENT LIGHT BULB



RELAY
CONTACTS
CHANGE POSITION
WITH CURRENT
THROUGH COIL

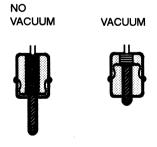
### **HOW TO USE THIS MANUAL 2-10**

#### **VACUUM SYMBOLS**

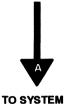


#### **VACUUM MOTOR OPERATION**

#### SINGLE DIAPHRAGM MOTOR



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.



"CUT" HOSES REFERENCED **BETWEEN PAGES** 

ARROW SHOWS FROM MANIFOLD FITTING TO COMPONENT



FROM VACUUM DISTRIBUTION



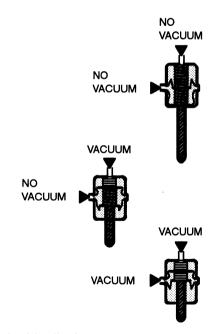


Some vacuum motors can position the actuating arm at any position between fully extended and fully retracted. The Servo is operated by a control valve that applies varying amounts of vacuum to the motor. The higher the vacuum level, the greater the retraction of the motor arm. Servo Motors work nearly 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.



Note: Other vacuum symbols used on vacuum system diagrams are fully explained on the pages where they appear.

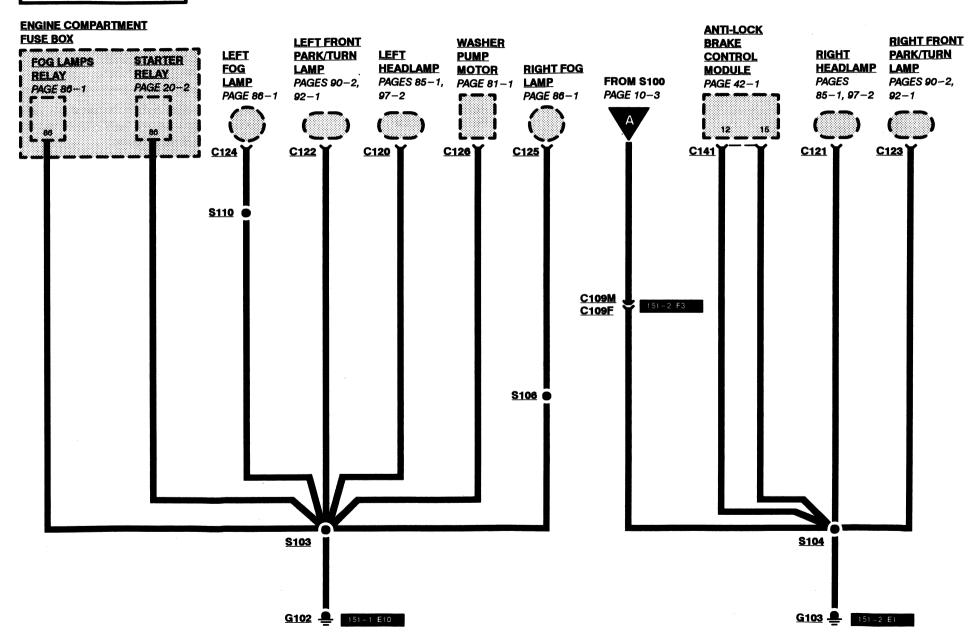
#### **DOUBLE DIAPHRAGM MOTOR**



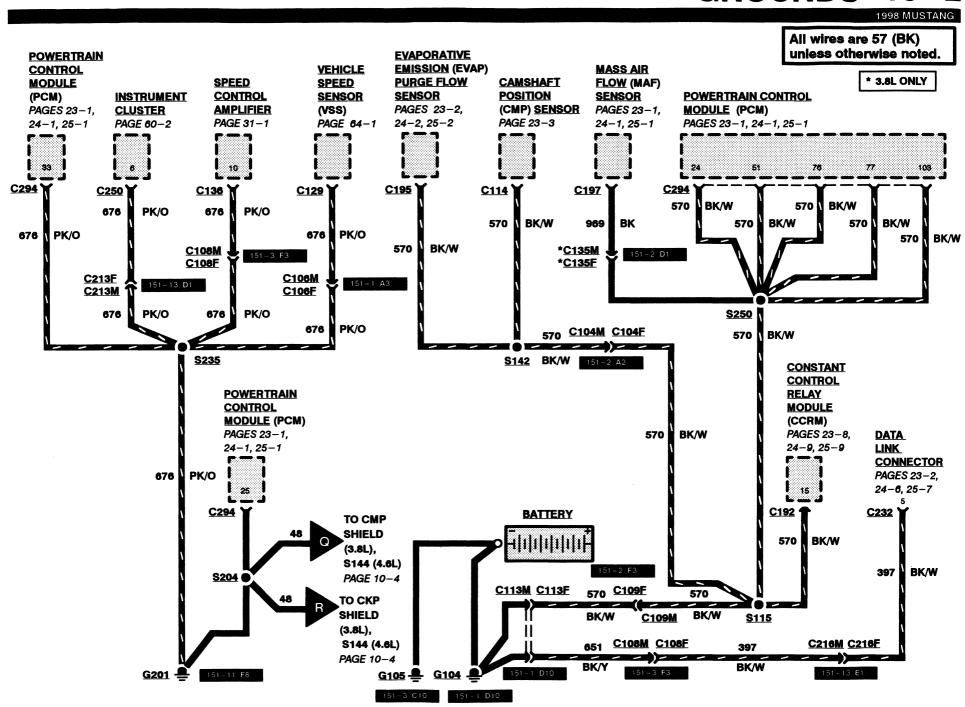
A double diaphragm motor has three positions (it is actually two motors in one housing). When the top port gets vacuum, the shaft pulls halfway in. When both ports get vacuum, the shaft pulls all the way in.

### 10-1 GROUNDS

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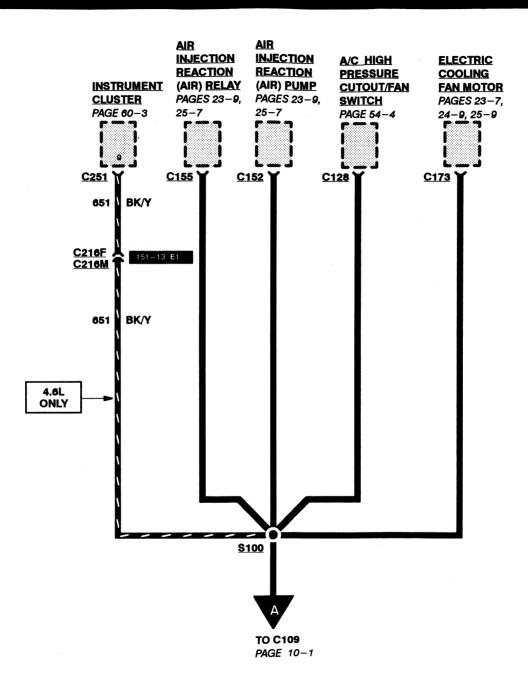


### GROUNDS 10-2



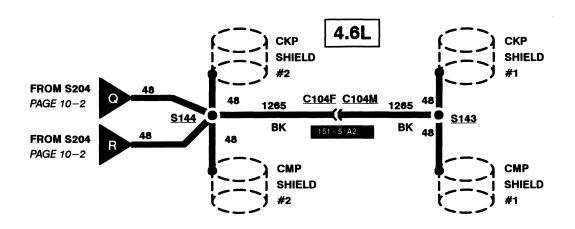
### 10-3 GROUNDS

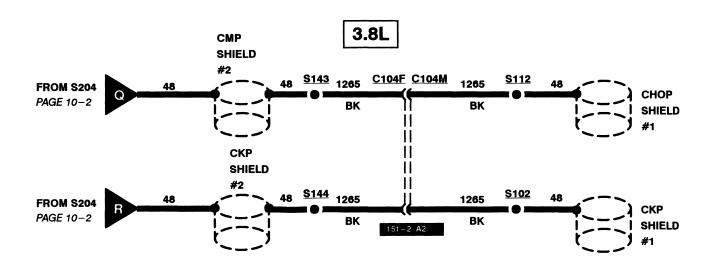
1998 MUSTANG



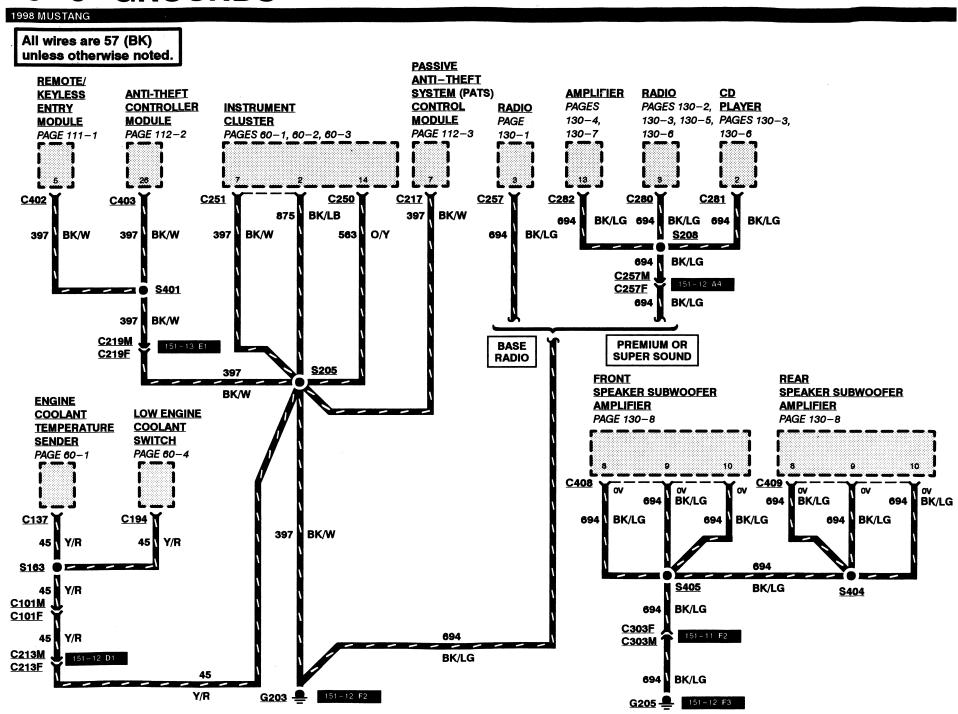
### GROUNDS 10-4

1998 MUSTANG



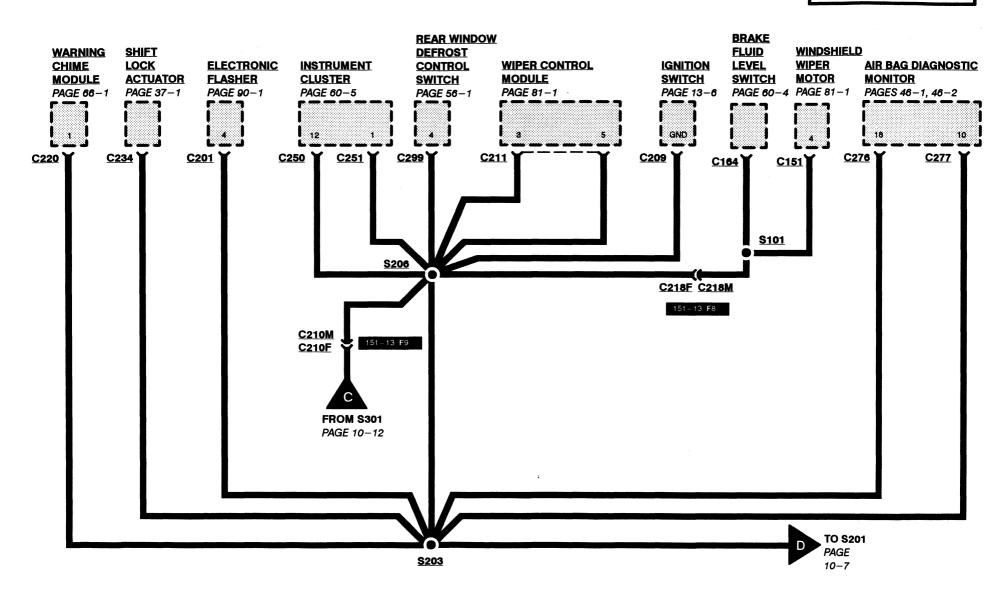


### 10-5 GROUNDS



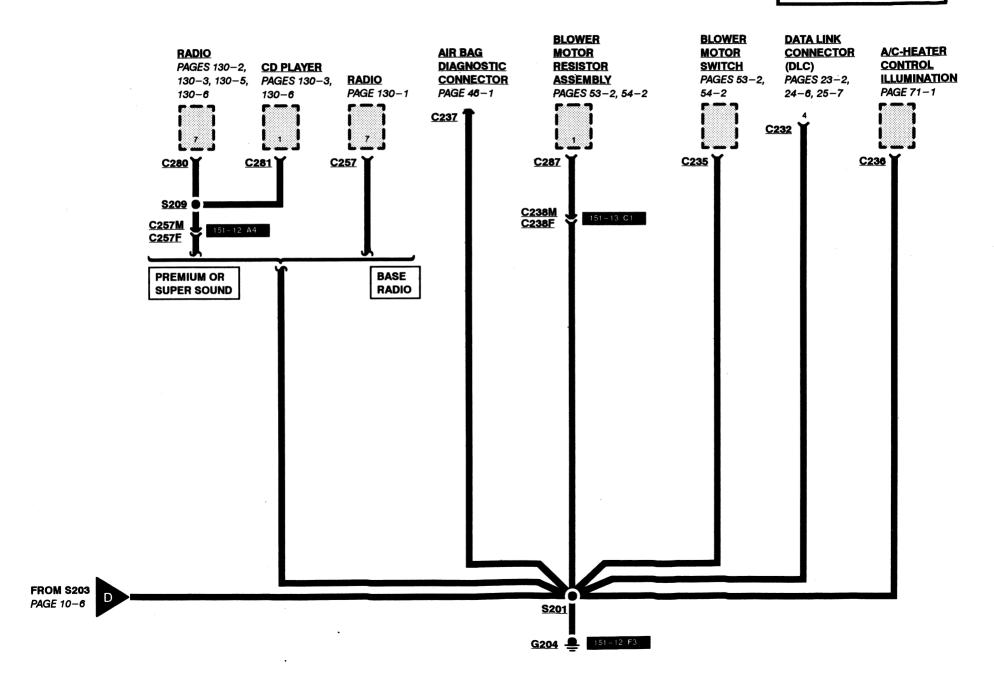
### GROUNDS 10-6

1998 MUSTANG



### 10-7 GROUNDS

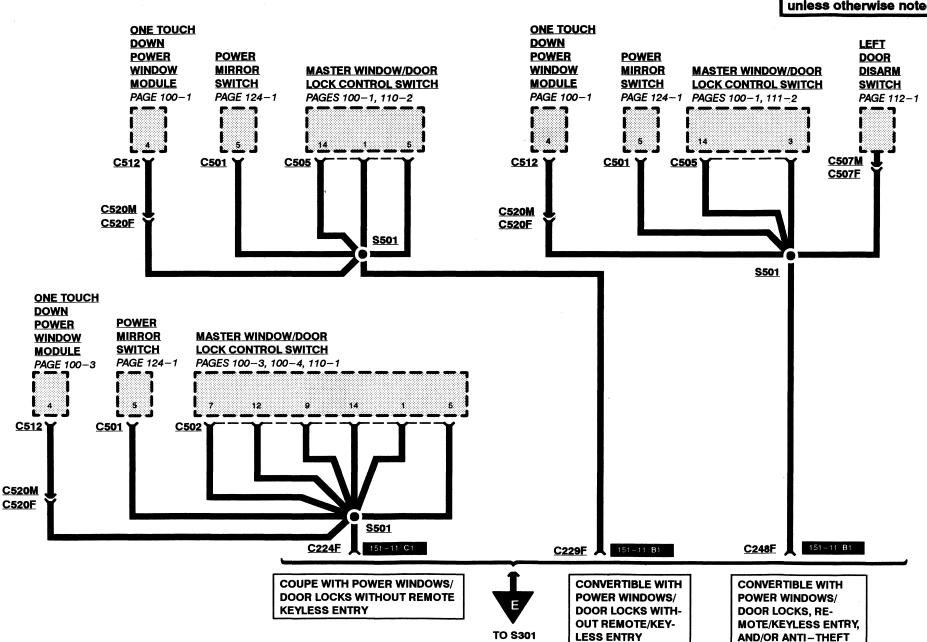
1998 MUSTANG



### GROUNDS 10-8

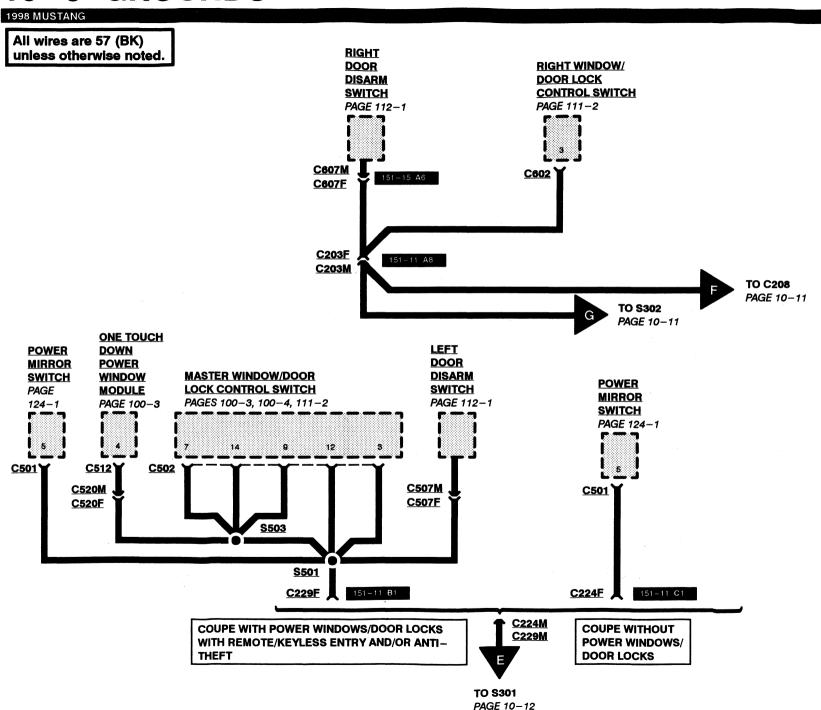
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All wires are 57 (BK) unless otherwise noted.



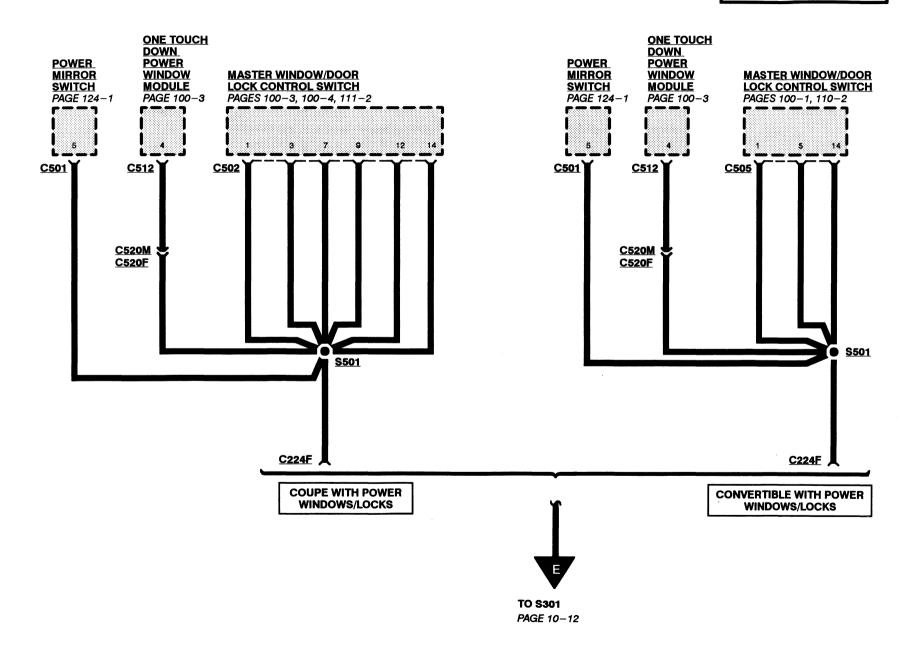
PAGE 10-12

### 10-9 GROUNDS



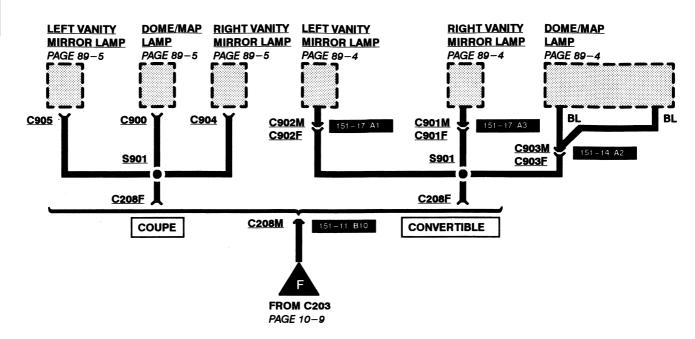
### GROUNDS 10-10

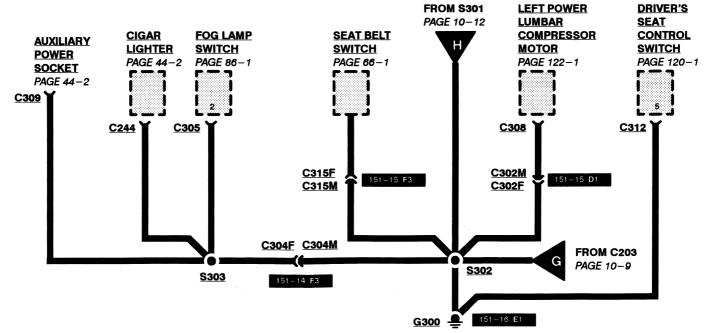
1998 MUSTANG



### 10-11 GROUNDS

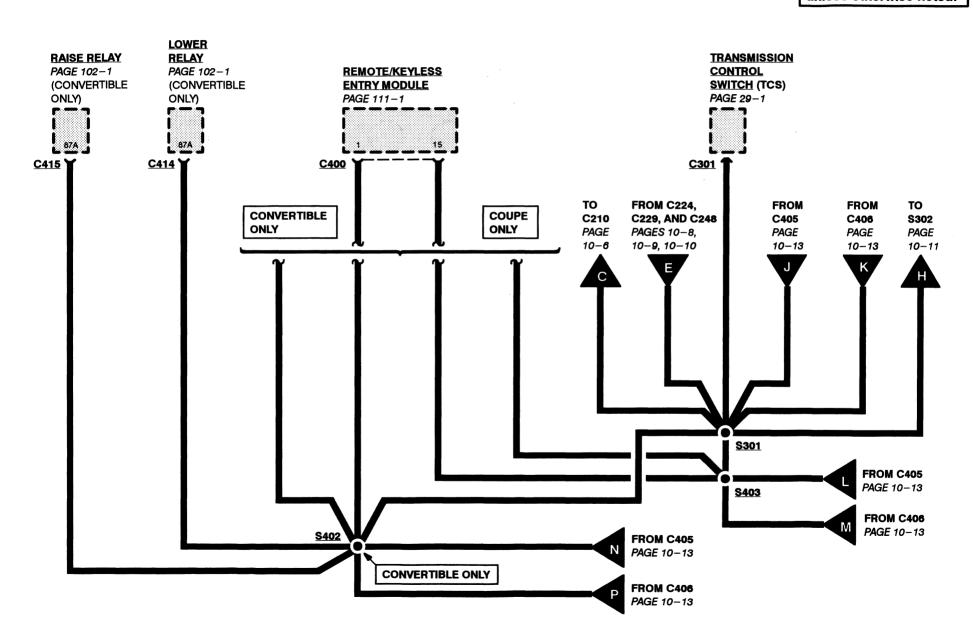
#### 1998 MUSTANG



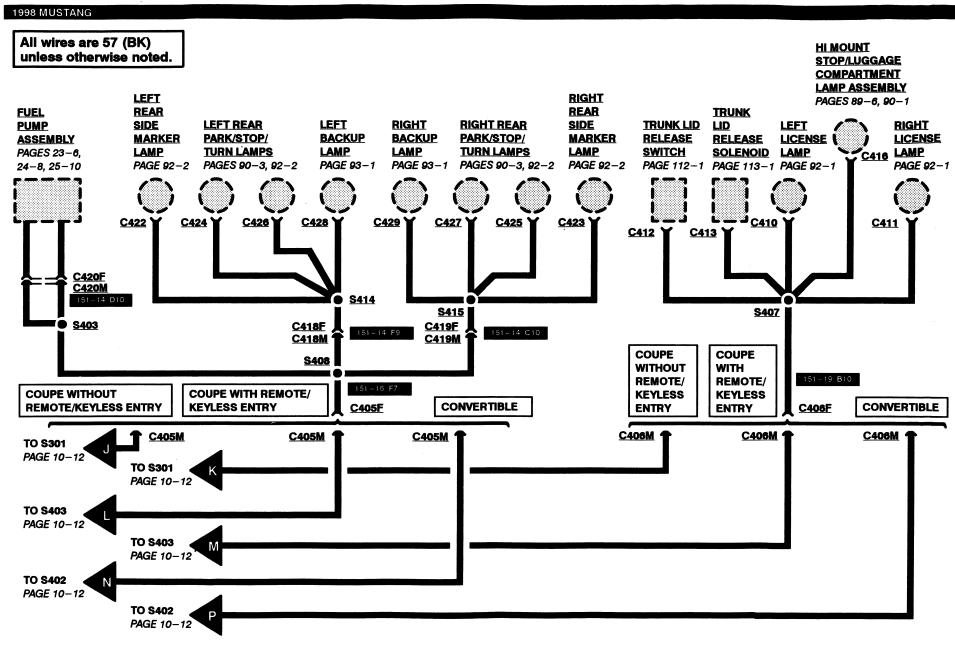


### **GROUNDS 10-12**

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### 10-13 GROUNDS



Refer to Location Index, Cell 152, for Component, Connector, Splice, Ground and Base Part Number descriptions and locations.

### 152-31 LOCATION INDEX

1998 MUSTANG					
		Page	Connector		
<u>Connector</u>	<u>Location</u>	<u>Zone</u>	<u>Page</u>	<u>Color</u>	<u>Terminal</u>
C505 (Convertible)	On master window/door lock control switch	151-17 D1	100-5	. BK	16
	. In LH door, to left door disarm switch				
C507 (Coupe)	. In LH door, to left door disarm switch	151-15 E1	*	*	4
C508 (Convertible)	. On left courtesy lamp switch	151-18 A1	★	N	3
C508 (Coupe)	On left courtesy lamp switch	151-15 B1	*	N	3
C509 (Convertible)	On left door lock motor	151-17 E1	*	. BK	2
C509 (Coupe)	. On left door lock motor	151-14 E1	*	. BK	2
C510 (Convertible)	. In LH door, to left power mirror	151-17 B1	*	★	3
C510 (Coupe)	. In LH door, to left power mirror	151-14 B1	★	★	3
C511 (Convertible)	On left front super sound speaker	151-18 B1	*	. GY	2
C511 (Coupe)	On left front super sound speaker	151-15 B1	★	. GY	2
C512 (Convertible)	On one touch down power window module	151-19 D1	*	★	5
C512 (Coupe)	On one touch down power window module	151-16 D1	*	★	6
	. In LH door				
C602 (Coupe)	On right window/door lock control switch	151-14 A6	100-6	. BK	10
C602 (Convertible)	On right window/door lock control switch	151-17 A6	100-6	. BK	10
C603 (Convertible)	On right door speaker	151-18 A6	*	. GY	2
C603 (Coupe)	On right door speaker	151-15 A5	*	. GY	2
C604 (Convertible)	In RH door, to right door window motor	151-17 A4	★	★	2
C604 (Coupe)	In RH door, to right door window motor	151-14 A4	*	★	2
C607 (Convertible)	In RH door, to right door disarm switch	151-18 A7	*	N	2
C607 (Coupe)	In RH door, to right door disarm switch	151-15 A6	★	N	2
C608 (Convertible)	On right courtesy lamp switch	151-18 A4	*	N	3
C608 (Coupe)	On right courtesy lamp switch	151-15 A3	★	N	3
C609 (Convertible)	On right door lock motor	151-17 A7	*	. BK	2
C609 (Coupe)	On right door lock motor	151-14 A7	★	. BK	2
C610 (Convertible)	In RH door, to right power mirror	151-17 A5	*	★	3
C610 (Coupe)	In RH door, to right power mirror	151-14 A5	*	★	3
C611 (Convertible)	On right front super sound speaker	151-18 A5	*	. GY	2
C611 (Coupe)	On right front super sound speaker	151-15 A4	★	. GY	2
	ng ngangang ang ang ang ang ang ang ang				

**★ Not Available** 

### **LOCATION INDEX 152-32**

1998 MUSTANG

				19.	O WOSTANG
		Page	Connector		
Connector	<u>Location</u>	<u>Zone</u>	<u>Page</u>	<u>Color</u>	<u>Terminal</u>
C904	RH side of windshield header, to right vanity mirror lamp	. 151-14 A3	· ★	N	2
	LH side of windshield header, to left vanity mirror lamp				
	LH side of engine, ignition coil		*		
	LH side of engine, ignition coil		*		
•	RH side of engine, ignition coil		<b>*</b>		
	RH side of engine, ignition coil		· · · · ★ · · · · · ·		
•	By evaporative emission (EVAP) canister purge valve				
	On intake manifold runner control				
	Near knock sensors				
	Near engine oil pressure switch				
` ,					
•	Near engine oil pressure switch				
	On integral generator regulator				
	On integral generator regulator				
• •	Top RH front of engine, to radio interference capacitor	. 151–4 F6	★	★	1
★ Not Available					
		Page			
Ground	<u>Location</u>	<u>Zone</u>			
	Center rear of engine				
G102 (3.8L)	LH front of engine compartment	. 151-1 E10			
	LH front of engine compartment				
	LH front of engine compartment				
	RH front of engine compartment				
	RH front of engine compartment				
G103 (4.6L) 4V	RH front of engine compartment	. 151-5 F3			
G104 (3.8L)	LH front of engine compartment	. ★			
G104 (4.6L)	LH front of engine compartment	. ★			
	LH front of engine				
	LH front of engine				
	LH front of engine				
	Behind I/P, at RH cowl				
G203	Behind center of I/P	. 151-12 F2			
	Behind center of I/P				
	Behind center of I/P				
	Below rear of center console				4 A
	Below rear of center console				
C400 (Canyartible)	DLI front of twink	454 40 447	`		

# 152-33 LOCATION INDEX

Splice	Location
S100	. Engine control sensor harness, near T/O to C145
S101	. Body main harness, near T/O to C107
S102	. Engine control sensor harness, near T/O to C189
S103	. Dash panel to headlamp junction harness, near T/O to G102
S104	. Dash panel to headlamp junction harness, near T/O to G103
S105	. Engine control sensor harness, near T/O to C145
S106	. Dash panel to headlamp junction harness, near T/O to C120
S107	. Engine control harness, near T/O to C104
S108	. Engine control sensor harness, near T/O to C108
S109	. Dash panel to headlamp junction harness, near T/O to C100
	. Dash panel to headlamp junction harness, near T/O to C124
	. Dash panel to headlamp junction harness, in T/O to engine compartment fuse box
	. Engine control harness, near T/O to C104
	. Engine control sensor harness, near T/O to C145
	. Engine control sensor harness, near T/O to C145
	. Engine control sensor harness, near T/O to C128
	. Engine control sensor harness, near grommet
· · · · · · · · · · · · · · · · · · ·	Engine control sensor harness, in T/O to C173
	. Engine control sensor harness, near T/O to C128
	. Fuel charge harness, near T/O to C185
	Engine control harness, near T/O to C104
	. Fuel charge harness, near T/O to C182
·	. Transmission control selector neutral switch harness, near T/O to C132
•	. Back up lamp switch to rear lamp feed harness, near T/O to C196
•	Back up lamp switch to rear lamp feed harness, near T/O to C196
	. Back up lamp switch to rear lamp feed harness, near T/O to C196
	. Transmission control selector neutral switch harness, near T/O to C132
	. Back up lamp switch to rear lamp feed harness, near T/O to C119
	Engine control sensor harness, near grommet
	Fuel charge harness, near T/O to C180
•	Engine control harness, near T/O to C180
, ,	Fuel charge harness, near T/O to C186
1	Engine control harness, near T/O to C179
	Dash panel to headlamp junction harness, near T/O to C112
	. Fuel charge harness, near T/O to C137
	. Dash panel to headlamp junction harness, near T/O to C112 . Dash panel to headlamp junction harness, near T/O to C112
3130	. Dash panel to headlamp junction harness, near T/O to C127

# **LOCATION INDEX 152-34**

<u>Splice</u>	Location
S137	. Engine oil pressure & engine coolant temperature indicator sender harness, near T/O to C131
	. Engine oil pressure & engine coolant temperature indicator sender harness, near T/O to C131
	Engine control sensor extension harness, near T/O to C168
	. Engine control sensor harness, near T/O to C128
	. Fuel change harness, between T/O to C186 and T/O to C177
	. Fuel charge harness, near T/O to C195
• •	. Engine control harness, near T/O to C104
	. Engine control sensor harness, near T/O to C130
	. Engine control sensor harness, near T/O to C152
	. Engine control harness, near T/O to C104
	Engine control harness, in T/O to C1003
	. Engine control harness, near T/O to C188
S151	. Engine control harness, near T/O to C165
S152	. Engine control harness, near T/O to C182
S153	. Engine control harness, near T/O to C160
S154	. Engine control sensor harness, near T/O to C152
S155	. Engine control sensor harness, near T/O to C152
S162	. Engine control harness, near T/O to C179
	. Engine control harness, near T/O to C186
	. Engine control sensor extension harness, near T/O to C1005
	. Engine control sensor harness, near T/O to C259
	. Main harness, near T/O to G203 & G204
S203	
	. Engine control sensor harness, near T/O to C259
S205	·
S206	
\$207	
	. Radio amplifier harness, in T/O to C257
	. Radio amplifier harness, near T/O to C280
S210	
	. Radio amplifier harness, near T/O to C252
S213	
S214	
S215	
S216	
S218	
S219	
S220	. Main narness, near 1/O to C288

# 152-35 LOCATION INDEX

<u>Splice</u>	Location
S221	. Main harness, near T/O to C299
S222	. Radio amplifier harness, near T/O to C280
S223	. Body main harness, near T/O to C253
S224	. Main harness, near T/O to C246
S225	. Main harness, in T/O to C211
S226	. Main harness, in T/O to C226
S227	. Main harness, near T/O to C246
S228	. Main harness, in T/O to C250
	. Main harness, near T/O to C226
S230	·
S231	
S232	
S233	
	. Engine control sensor harness, behind RH side of I/P, near grommet
	. Engine control sensor harness, in T/O to C213 & C216
\$237	· · · · · · · · · · · · · · · · · · ·
	. Radio amplifier harness, near T/O to C258
	Engine control sensor harness, near grommet
S241	
	Engine control sensor harness, near T/O to C294
\$246	
\$247	
S248	,
\$249	
	Engine control sensor harness, behind RH side of I/P, near grommet
	. Engine control sensor harness, T/O to C259
S252 S253	, , , , , , , , , , , , , , , , , , ,
S254	
S255	
	. Body main harness, near T/O to C300
S302	
	. Console panel harness, near T/O to C309
	. Console panel harness, in T/O to C305
S306	·
S311	· · · · · · · · · · · · · · · · · · ·
S313	
S314	
~	. Dody main namess, near 1/0 to obzo

# LOCATION INDEX 152-36 1998 MUSTANG

<u>Splice</u>	Location
S316	. Body main harness, near T/O to C304
S317	. Body main harness, near T/O to C319
S319	. Body main harness, near T/O to C320
\$320	. Body main harness, near T/O to C212
S401	. Body main harness, near T/O to C406
S402	Body main harness, near T/O to C406 & C432
S403	. Body main harness, near T/O to C445
S404	. Radio amplifier harness, near T/O to C409
S405	. Radio amplifier harness, near T/O to C408
S407	Luggage compartment lamp harness, near T/O to C421
S408	. Rear lamp harness, near T/O to C420
S409	
S410	
S411	
S412	Body main harness, in T/O to C404
S413	
	LH rear lamp harness, near T/O to C426
	RH rear lamp harness, near T/O to C425
\$416	
	Luggage compartment lamp harness, near T/O to C421
S418	
	RH rear lamp harness, near T/O to C427
	LH rear lamp harness, near T/O to C424
\$423	
\$424	
\$425 \$426	· · · · · · · · · · · · · · · · · · ·
	Body main harness, hear 1/O to C406  Body main harness, in T/O to C403 & C404
S428	· · · · · · · · · · · · · · · · · · ·
S429	
S430	
S431	Radio amplifier harness, near T/O to C441
	Radio amplifier harness, near T/O to C408
	Radio amplifier harness, near T/O to C409
	Radio amplifier harness, near T/O to C441
	Radio amplifier harness, near T/O to C325
	Radio amplifier harness, near T/O to C441
	Radio amplifier harness, near T/O to C325

# 152-37 LOCATION INDEX

<u>Splice</u>	<u>Location</u>
S437	. Radio amplifier harness, near T/O to C325
S501	. LH door window regulator harness, near T/O to C504
S502	. LH door window regulator harness, near T/O to C509
S503	. LH door window regulator harness, near T/O to C503
S504	. LH door window regulator harness, near T/O to C503
S505 (Convertible)	. LH door window regulator harness, near T/O to C503
S505 (Coupe)	. LH door window regulator harness, near T/O to C501
S506	. LH door window regulator harness, near T/O to C511
S510	. LH door window regulator harness, near T/O to C501
S602	. RH door window regulator harness, near T/O to C611
S603	. RH door window regulator harness, near T/O to C611
S901 (Convertible)	. Interior lamp feed harness, near T/O to C901
S901 (Coupe)	. Interior lamp harness, near T/O to C900
S902 (Convertible)	. Interior lamp feed harness, near T/O to C903
S902 (Coupe)	. Interior lamp harness, near T/O to C900

