GENERAL INFORMATION
Using Wiring Diagrams

All Models

INTRODUCTION

Mitchell obtains wiring diagrams and technical service bulletins, containing wiring diagram changes from the domestic and import manufacturers. These are checked for accuracy and are all redrawn into a consistent format for easy use.

In the past, when cars were simpler, diagrams were simpler. All components were connected by wires and diagrams seldom exceeded 4 pages in length. Today, some wiring diagrams require more than 16 pages. It would be impractical to expect a service technician to trace a wire from page 1 across every page to page 16.

Removing some of the wiring maze reduces eyestrain and time wasted searching across several pages. Today the majority of Mitchell diagrams follow a much improved format, which permits space for internal switch details.

Wiring diagrams are drawn in a "top-down" format. The diagrams are drawn with the power source at the top of the diagram and the ground point at the bottom of the diagram. Components locations are identified on the wiring diagrams. Component locations are identified on the wiring diagrams. Any wires that don't connect directly to a component are identified on the diagram to indicate where they go.

COLOR ABBREVIATIONS

COLOR ABBREVIATIONS TABLE

<table>
<thead>
<tr>
<th>Color</th>
<th>Normal</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
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<td>CLR</td>
<td>CR</td>
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<tr>
<td>Dark Green</td>
<td>DK GRN</td>
<td>DK GN</td>
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<tr>
<td>Green</td>
<td>GRN</td>
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<tr>
<td>Gray</td>
<td>GRY</td>
<td>GY</td>
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</tr>
<tr>
<td>Light Green</td>
<td>LT GRN</td>
<td>LT GN</td>
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</table>
Orange  ...............  ORG  ..........................  OG
Pink  .................  PNK  ..........................  PK
Purple  ...............  PPL  ..........................  PL
Red  ..................  RED  ..........................  RD
Tan  ..................  TAN  ..........................  TN
Violet  ...............  VIO  ..........................  VI
White  ...............  WHT  ..........................  WT
Yellow  ...............  YEL  ..........................  YL

IDENTIFYING WIRING DIAGRAM ABBREVIATIONS

NOTE: Abbreviations used on Mitchell diagrams are normally self-explanatory. If necessary see ABBREVIATIONS article in GENERAL INFORMATION.

IDENTIFYING WIRING DIAGRAM SYMBOLS

NOTE: Standard wiring symbol are used in Mitchell diagrams. The illustration below will help clarify any symbols that are not easily understood at a glance. Most components are labeled "Motor", "Switch" or "Relay" in addition to being drawn with the standard symbol.
Fig. 1: Identifying Wiring Diagram Symbols
WIRING DIAGRAM COMPONENT LOCATIONS

When trying to locate a component in a wiring diagram and you don't know the specific system where it is located, use this handy component locator to find the system wiring diagram in which the component is located. Then, go to that system and locate the component within the wiring diagram.

For example, if you don't know the specific system in which the ignition switch is located, look up ignition switch in the wiring diagram component location tables and go to the appropriate wiring diagram(s) which contain either full or partial views of the ignition switch. The full view of the ignition switch is located in Power Distribution.

The first listing for the component will be the full or most complete view of the component. Additional listings will be partial views of the component. Not all components are used on all models.

All components will have a partial view in Ground Distribution and Power Distribution. Data Link Connectors show connecting circuits between modules. Alternate names for components may be listed in wiring diagram component locations tables.

WIRING DIAGRAM COMPONENT LOCATIONS TABLE

<table>
<thead>
<tr>
<th>Component</th>
<th>Wiring Diagram</th>
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<tbody>
<tr>
<td>ABS Electronic Control Unit</td>
<td>Anti-Lock Brakes</td>
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<tr>
<td>ABS Hydraulic Unit</td>
<td>Anti-Lock Brakes</td>
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<td>Acceleration Sensor</td>
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<td>Accessory Delay Relay</td>
<td>Power Windows</td>
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<td>A/C Compressor Clutch Relay</td>
<td>Engine Performance</td>
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<tr>
<td>A/C Sensor</td>
<td>Engine Performance</td>
</tr>
<tr>
<td>A/C Pressure Switch</td>
<td>Engine Performance</td>
</tr>
<tr>
<td>Adaptive Lamp Control Module</td>
<td>Exterior Lights</td>
</tr>
<tr>
<td>Air Bag(s)</td>
<td>Air Bag Restraint System</td>
</tr>
<tr>
<td>Air Bag Module</td>
<td>Air Bag Restraint System</td>
</tr>
<tr>
<td>Air Bag Sensor(s)</td>
<td>Air Bag Restraint System</td>
</tr>
<tr>
<td>Air Injection Pump Relay</td>
<td>Engine Performance</td>
</tr>
<tr>
<td>Air Temperature Sensor</td>
<td>Overhead Console</td>
</tr>
<tr>
<td>Alternator (Generator)</td>
<td>Generators &amp; Regulators</td>
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<tr>
<td>Anti-Theft Control Module</td>
<td>Anti-Theft System</td>
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<tr>
<td>Autolamp Control Relay</td>
<td>Headlight Systems</td>
</tr>
<tr>
<td>Automatic Shutdown (ASD) Relay</td>
<td>Daytime Running Lights</td>
</tr>
<tr>
<td>Auxiliary Battery Relay</td>
<td>Generators &amp; Regulators</td>
</tr>
</tbody>
</table>

HOW TO USE SYSTEM WIRING DIAGRAMS Article Text (p. 4)
Back-Up Lights ........................................ Back-Up Lights
Exterior Lights
Barometric (BARO) Pressure Sensor .................. Engine Performance
Battery .............................................. Power Distribution
Battery Temperature Sensor ........................ Engine Performance
Body Control Module ................................. Body Control Computer
Anti-Theft System
Daytime Running Lights
Engine Performance
Headlight Systems
Warning Systems
Boost Control Solenoid .............................. Engine Performance
Boost Sensor ......................................... Engine Performance
Brake Fluid Level Switch ............................ Analog Instrument Panels
Brake On/Off (BOO) Switch ......................... Cruise Control Systems
Engine Performance
Shift Interlock Systems
Buzzer Module ....................................... Warning Systems
Camshaft Position (CMP) Sensor .................. Engine Performance
Central Control Module ................................ Anti-Theft System
Clockspring ......................................... Air Bag Restraint System
Cruise Control Systems
Steering Column Switches
Clutch Pedal Position Switch ....................... Starters
Clutch Start Switch .................................. Starters
Combination Meter .................................. Analog Instrument Panels
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Convenience Center .................................. Power Distribution
Illumination/Interior Lights
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Convertible Top Switch ............................. Power Convertible Top
Crankshaft Position (CKP) Sensor .................. Engine Performance
Cruise Control Module ............................... Cruise Control Systems
Cruise Control Switch ............................... Cruise Control Systems
Condenser Fan Relay(s) ............................. Electric Cooling Fans
Data Link Connector (DLC) ......................... Engine Performance
Daytime Running Lights Module ................... Daytime Running Lights
Exterior Lights
Defogger Relay ....................................... Rear Window Defogger
Diagnostic Energy Reserve Module (DERM) .... Air Bag Restraint System
Discriminating Sensor (Air Bag) ................. Air Bag Restraint System
Distributor ........................................... Engine Performance
Door Lock Actuators ................................. Power Door Locks
Remote Keyless Entry
Door Lock Relay(s) .................................. Power Door Locks
Electrochromic Mirror .............................. Power Mirrors
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Height Sensor .................................. Electronic Suspension
Electronic Level Control (ELC) Module ....... Electronic Suspension
Engine Coolant Temperature (ECT)
  Sending Unit ................................. Analog Instrument Panels
Engine Coolant Temperature (ECT) Sensor .... Engine Performance
Engine Control Module .......................... Engine Performance
  Generators & Regulators
  Starters
ETACS ECU ........................................ Warning Systems
  Power Windows
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EVAP Canister Purge Solenoid .................. Engine Performance
EVAP Canister Vent Solenoid .................... Engine Performance
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  Daytime Running Lights
Fog Light Relay .................................. Headlight Systems
  Daytime Running Lights
Fuel Door Release Solenoid ..................... Power Fuel Door Release
Fuel Gauge Sending Unit ....................... Analog Instrument Panels
Fuel Injectors .................................. Engine Performance
Fuel Pump ...................................... Engine Performance
Fuel Pump Relay ................................ Engine Performance
  Power Distribution
Fuse/Relay Block ................................ Power Distribution
  Generators & Regulators
  Starters
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  Engine Performance
  Power Distribution
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  Electronic Suspension
Glow Plug Relay ................................ Engine Performance
Glow Plugs ..................................... Engine Performance
Grounds ......................................... Ground Distribution
Headlight Door Module ........................ Headlight Doors
Headlight Relay ................................ Headlight Systems
  Daytime Running Lights
Headlights ..................................... Headlight Systems
  Daytime Running Lights
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Heated Windshield Control Module ............ Heated Windshields
Height Sensor .................................. Electronic Suspension
Horns ........................................... Steering Column Switches
Horn Relay ......................................
Idle Air Control (IAC) Motor/Valve ................................... Engine Performance
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Ignition Key Lock Cylinder ........................................ Anti-Theft System
Ignition Module ................................................... Engine Performance
Ignition Switch .................................................... Power Distribution
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Ignition Switch .................................................... Power Distribution
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Inhibit Relay ........................................................ Starters
Instrument Cluster ....................................................... Starters
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Interlock Switch ..................................................... Starters
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Key Reminder Switch ............................................. Starters
Knock Sensor ........................................................ Engine Performance
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License Plate Lamp ................................................... Exterior Lights
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Mass Airflow (MAF) Sensor ....................................... Engine Performance
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Mirror Defogger ........................................................ Rear Window Defogger
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Moon Roof Relay .................................................... Power Moon Roof
Multi-Function Control Module ................................... Warning Systems
Neutral Safety Switch ................................................ Starters
Oil Level Switch .................................................... Engine Performance
Oil Pressure Switch/Sending Unit ................................. Analog Instrument Panels
Overhead Console .................................................... Overhead Console
Oxygen Sensor(s) (O2S) .......................................... Engine Performance
Parking Brake Switch ............................................ Analog Instrument Panels
Park Lights ........................................................... Exterior Lights
Park/Neutral Position Switch ...................................... Starters

Engine Performance
Anti-Theft System

Body Control Module
Perimeter Lighting Control Relay ...................... Exterior Lights
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Power Antenna Module .................................. Power Antennas
Power Antenna Motor .................................. Power Antennas
Power Distribution Center .......................... Power Distribution
Generators & Regulators
Starter
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Power Mirror Motors ..................................... Power Mirrors
Memory Systems
Power Sliding Door Controller .................... Power Sliding Side Door
Power Seat Motors ....................................... Power Seats
Memory Systems
Power Steering Pressure Switch .................. Engine Performance
Power Top Motor ........................................... Power Convertible Top
Power Top Relay(s) ........................................ Power Convertible Top
Powertrain Control Module ......................... Engine Performance
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Cruise Control Systems
Data Link Connectors
Generators & Regulators
Starters
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Power Window Relay(s) ................................. Power Windows
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Radiator Fan Relay(s) .................................... Electric Cooling Fans
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Raise Relay ................................................ Power Convertible Top
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Seat Belt Retractor Solenoid ............................ Passive Restraints
Seat Belt Switch ......................................... Air Bag Restraint System
Passive Restraints
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Shift Lock Actuator ....................................... Shift Interlock Systems
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Steering Column Switches
SRS Control Module ................................... Air Bag Restraint System
Starters
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Starter Interrupt Relay .................................. Starters
Starter Solenoid ............................................ Starters
Starter Relay .............................................  Starters
Steering Wheel Position Sensor .....................  Anti-Lock Brakes
Stoplights ..........................................  Exterior Lights
Stoplight Switch ...................................  Engine Performance

Cruise Control Systems

Anti-Lock Brakes

Sun Roof ECU ........................................  Power Sun Roof
Sun Roof Motor .....................................  Power Sun Roof
Sun Roof Position Sensor .........................  Power Sun Roof
Taillights ..........................................  Exterior Lights
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Traction Control Switch ...........................  Anti-Lock Brakes
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Trailer Tow Relay ..................................  Exterior Lights
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Starters

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Transmission Range Switch ........................ Back-Up Lights

Anti-Theft System

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Turn Signal Lights ..................................  Exterior Lights
Twilight Sentinel Switch ...........................  Headlight Systems

Daytime Running Lights

Vapor Canister Leak Detection Pump ..............  Engine Performance
Vehicle Control Module (VCM) ..................... Engine Performance
Vehicle Dynamic Module .......................... Electronic Suspension
Vehicle Speed Control Servo ...................... Cruise Control Systems
Vehicle Speed Sensor ................................ Data Link Connectors

Analog Instrument Panels

Cruise Control Systems

Electronic Suspension

Voltage Regulator ...................................  Generators & Regulators
Water-In-Fuel Sensor ..............................  Engine Performance

Analog Instrument Panels

Wheel Speed Sensors ..............................  Anti-Lock Brakes
Window Timer Module .............................  Power Convertible Top
Windshield Intermittent Wiper Relay ..........  Wiper/Washer Systems
Windshield Washer Motor .......................  Wiper/Washer Systems
Wiper Motor ......................................  Wiper/Washer Systems

END OF ARTICLE