

## Electrical - Terminals - Technician (continued)

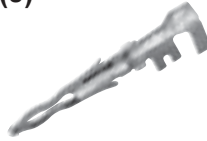
**85304 (5)**



**GM Weather Pack™ Series**

20-18 Gauge Tin Plated Brass Female.

**85307 (5)**



**GM Weather Pack™ Series**

16-14 Gauge Tin Plated Male.

**85305 (5)**



**GM Weather Pack™ Series**

Silicone Cable Seal.

**85308 (5)**



**GM Weather Pack™ Series**

16-14 Gauge Tin Plated Female.

**85309 (5)**



**GM Weather Pack™ Series**

Silicone Cavity Plug.

**85323 (5)**



**GM Weather Pack™ Series**

GM E.C.M. 20-18 Gauge.

**85324 (5)**



**GM Weather Pack™ Series**

GM E.C.M. 20-18 Gauge Pin Type.

**85326 (5)**



**GM Pack-Con™ Series**

16-14 Gauge Male.

**85327 (5)**



**GM Pack-Con™ Series**

16-14 Gauge Female.

**85328 (5)**



**GM Pack-Con™ Series**

22-18 Gauge Female.

**85329 (5)**



**GM Pack-Con™ Series**

22-18 Gauge Male.

**85330 (5)**



**GM Pack-Con™ HD**

12-10 Gauge Male Heavy Duty.

**85331 (5)**



**GM Pack-Con™ HD**

16-14 Gauge Female Heavy Duty.

**85333 (5)**



**GM Pack-Con™ II**

16-14 Gauge Female.

**85335 (5)**



**GM Metri-Pack™ 150 Series**

20-18 Gauge Female.

**85336 (5)**



**GM Metri-Pack™ 150 Series**

20-18 Gauge Male.

**85337 (5)**



**GM Metri-Pack™ 150 Series**

20-16 Gauge Female.

**85338 (5)**



**GM Metri-Pack™ 280 Series**

20-18 Gauge Male.

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## Electrical - Terminals - Technician (continued)

**85339 (5)**



**GM Metri-Pack™ 280 Series**

20-18 Gauge Female.

**85340 (5)**



**GM Metri-Pack™ 480 Series**

16-14 Gauge Male.

**85341 (5)**



**GM Metri-Pack™ 480 Series**

16-14 Gauge Female.

**85342 (5)**



**GM Metri-Pack™ 630 Series**

16-14 Gauge Female.

**85344 (5)**



**GM Metri-Pack™ 280 Series**

16-14 Gauge Female.

**85345 (5)**



**Ford Wedgelock Series - Pin Type**

20-18 Gauge Male.

**85346 (5)**



**Ford Wedgelock Series - Pin Type**

20-18 Gauge Female.

**85347 (5)**



**Ford Mini Series**

20-18 Gauge Male.

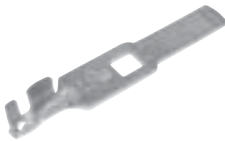
**85348 (5)**



**Ford Wedgelock Series - Box & Tab**

20-18 Gauge Female.

**85349 (5)**



**Ford Wedgelock Series - Box & Tab**

20-18 Gauge Male.

**85350 (5)**



**Ford Mini Series**

16-14 Gauge Male.

**85351 (5)**



**Ford Mini Series**

20-18 Gauge Male.

**85352 (5)**



**Ford Mini Series**

20-18 Gauge Female, 1/4\"/>

**85353 (5)**



**Ford Mini Series**

20-18 Gauge Female.

**85354 (5)**



**Ford Mini Series**

16-14 Gauge Female.

**85355 (5)**



**Chrysler - Tab Style**

20-18 Gauge Male.

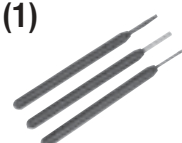
**85356 (5)**



**Chrysler - Tab Style**

20-18 Gauge Female.

**85360 (1)**



**Tool Extractor - OEM Technician Terminals**

**NEW PRODUCT HOTLINE - 1-800-336-3575**

**E**

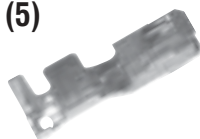
## Electrical - Terminals - Technician (continued)

85363 (1)



Tool Crimper - OEM Technician Terminals

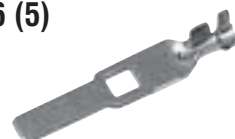
85365 (5)



Ford Mini Series

12-10 Gauge Female.

85366 (5)



Ford Mini Series - Standard Block

16-14 Gauge Male.

85367 (5)



Ford Mini Series - Standard Block

16-14 Gauge Female.

85368 (5)



Ford Mini Series - Micro

16-14 Gauge Female.

85370 (5)



Chrysler - Pin Type

20-18 Gauge Male.

85371 (5)



Chrysler - Pin Type

20-18 Gauge Female.

85372 (5)



Chrysler - Pin Type

20-18 Gauge Female, 1/16".

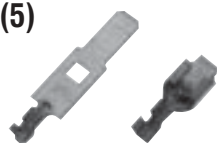
85373 (5)



Chrysler - PC Board

20-18 Gauge Female.

85374 (5)



Chrysler - 1/4" Blade

16-14 Gauge Male.

85375 (5)



Chrysler - 1/4" Blade

16-14 Gauge Female.

85376 (10)



Tech Terminal Assortments

GM - 2 each of 85300, 85303, 85304, 85326, 85327.

85377 (10)



Tech Terminal Assortments

Ford - 2 each of 85345, 85346, 85347, 85348, 85353.

85378 (10)



Tech Terminal Assortments

Chrysler - 2 each of 85370, 85371, 85373, 85374, 85375.



Conduct-Tite! offers OE replacement Technician Terminal components and complete harness assemblies, see pages 76-77.

## Electrical - Terminals - Technician Components

Conduct-Tite!

85391 (1)



2-Terminal Male Shroud

85315 (1)



GM Weather Pack™ Series - Single

Male Shroud Housing.

85316 (1)



GM Weather Pack™ Series - Single

Female Tower Housing.

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# Electrical - Terminals - Technician Components (continued)



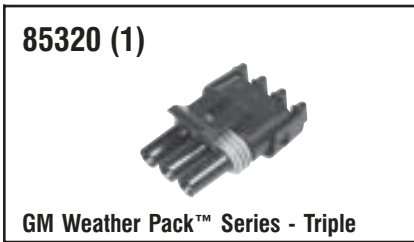
Male Shroud Housing.



Female Tower Housing.



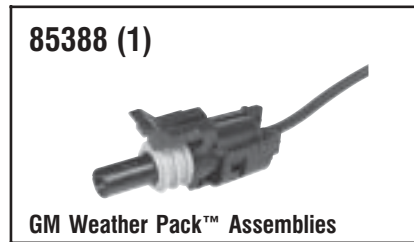
Male Shroud Housing.



Female Tower Housing.



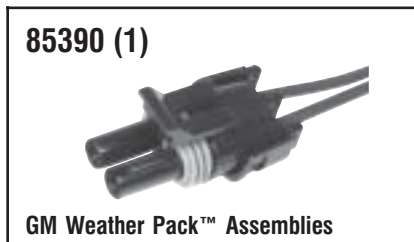
4-Cavity Male (ICS) Housing.



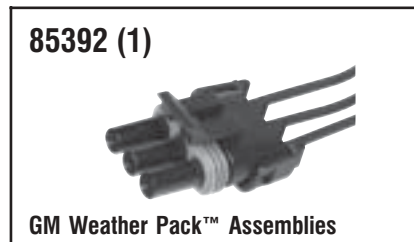
1-Terminal Female Tower.



1-Terminal Male Shroud.



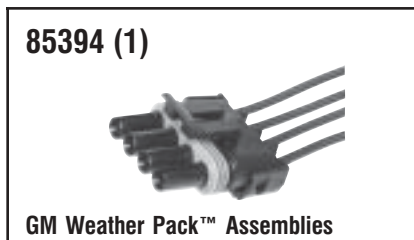
2-Terminal Female Tower.



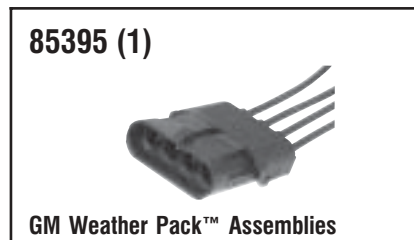
3-Terminal Female Tower.



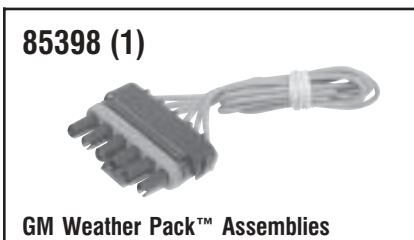
3-Terminal Male Shroud.



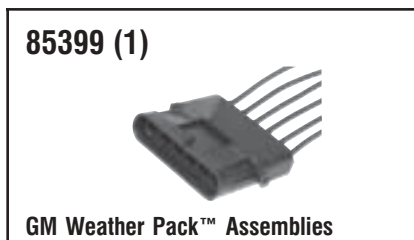
4-Terminal Female Tower.



4-Terminal Male Shroud.



6-Terminal Female Tower.



6-Terminal Male Shroud.



GM Weather Pack Assembly #85388 is an OE replacement oxygen sensor harness (see top of page).


**E**

# Electrical - Tools & Testers



- Most commonly needed, quality tools for most DIY and professional electrical jobs.


**85594 (1)**



**Crimper - Ignition Terminals**

Strips and crimps spark plug wires.

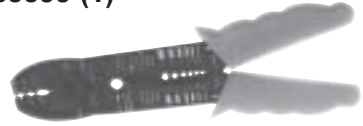
**86595 (1)**



**Crimper - Ratcheting**

Automatically provides a perfect crimp every time, preventing distorted, damaged, and loose terminal connections. Includes wire cut and terminal crimp feature. Includes extra jaws for ignition wire.


**85595 (1)**



**Crimper - Standard**

Cuts, strips and crimps - all in one tool.


**85359 (1)**



**Wire Stripper - Economy**

Great pocket-sized wire stripper for quick and easy jobs. Cuts, strips and crimps 22-10 AWG wire.


**85596 (1)**



**Wire Stripper/Crimper - Self-Adjusting**

Spring-loaded design strips wire quickly - adjusts automatically for different gauges.


**85361 (1)**



**Solder - Lead Free Rosin Core**

Handy dispenser for soldering electrical circuits.


**85362 (1)**



**Soldering Iron**

5/32" (4mm). 5' Cord and U.L. listed. 1 U.L. listed. 10V/30 Watt, 5/32" tip with 5' cord and stand. Great for soldering electrical circuits.


**84500 (1)**



**Tester - Auto and Strip Kit**

Contains wire stripper, 2 screw drivers and volt tester. DC volt tester checks 6 to 12 volts circuits. Wire stripper cuts and strips insulation from 10-24 gauge wire.


**84502 (1)**



**Tester - Auto Charging System Analyzer**

LED lights indicate condition of battery and alternator, quickly indicates charging system condition. Checks all ignition systems, including D.I.S.


**85598 (1)**



**Tester - Circuit Economy**

Tests 6 & 12 Volt with power ON.


**86599 (1)**



**Tester - Circuit Economy**

Great DIY tool, tests 6-12 volt circuits with power ON.

**86592 (1)**



**Tester - Circuit Professional**

Heavy duty clip connects to ground and tests for power. Retractable lead extends to 10' for difficult access jobs, prevents tangling.

## Electrical - Tools & Testers (continued)

85597 (1)



**Tester - Continuity**

Tests circuits with Power OFF. Small size ideal for stowing in glove box or shirt pocket. Requires 2 AAA batteries.

86598 (1)



**Tester - Continuity**

Tests 6-12 volt circuits for broken circuits with power OFF. Requires one "AA" battery.

85599 (1)



**Tester - Hi-Lo Voltage**

Dual bulbs permit high (spark plug wires) and low (6-12 volt) voltage.

86579 (1)



**Tester - In-Line Spark Checker**

Checks for bad spark plugs and weak plug wires - frequency and intensity of light indicates spark condition.

85358 (1)



**Tester - Low Voltage AC/DC**

Detects the presence of voltage between 90 & 300 volts. Ideal for home use.

85593 (1)



**Tester - Multi-Meter Compact Analog**

Analog meter performs basic volt and ohm tests.

86278 (1)



**Torch-Mini - Butane Powered**

Great for heat shrink tubing and waterproof terminals, loosening rusty, frozen nuts & bolts, light soldering/brazing.

86270 (1)



**Computer Safe Tester**

Will not damage sensitive circuits, LED to identify ground and power.

86274 (1)



**Tester - Digital Clamp**

Clamp permits quick one hand DC Amp tests.

86272 (1)



**Tester - Electronic**

Dual colored LED and tone to identify ground and power.

86271 (1)



**Tester - Hook Probe**

Tests 6/12/24 volt circuit as a probe or pierce tool.

86275 (1)



**Tester - Multi Digital**

Ergo design allows eye contact on test area and display.

86282 (1)



**Tester - Solder Iron Battery Powered**

Dual function—converts from soldering iron to flashlight.

86269 (1)



**Tool - Thermometer Laser**

Trouble shoot heat related repairs—underhood, chassis and electrical.



### 1. Testing for Power to a Component:

- Turn the power on
- Attach the clip end of a Circuit Tester (test light) to ground (a bolt that screws into metal) and probe the wire terminal supplying power to the component
- The Circuit Tester should glow. If not, continue probing each connector up the circuit (toward the power source) until the light glows.
- The problem is between this point and the last place the Circuit Tester did not glow
- **NOTE:** You can also use a multimeter switched to the DC Volts scale in place of the Circuit Tester.

### 2. Testing Component Ground:

- Turn the component on – using a multimeter on the DC Volts scale
- Attach one meter lead to ground (a bolt that screws into metal) and the other lead to wire terminal supplying ground to the component
- The "voltage drop" should be less than 0.2 Volts

**NEW PRODUCT HOTLINE - 1-800-336-3575**

**E**

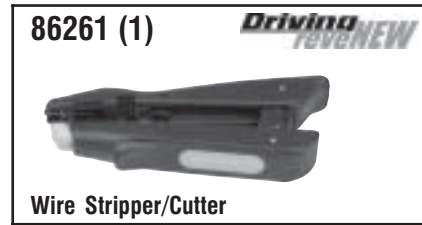
## Electrical - Tools & Testers (continued)



Tightens and cuts ties in one operation.



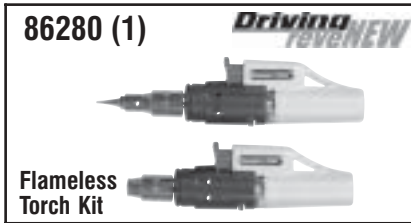
Tapered nose for use in confined areas.



Strips and cuts wires with single thumb/palm motion.



Precision wire stripper with cutter and plier feature.



Butane powered soldering iron and heat tool - includes solder and heat shrink tubing.



Tests AC/DC Volts, Amps, and Ohms.

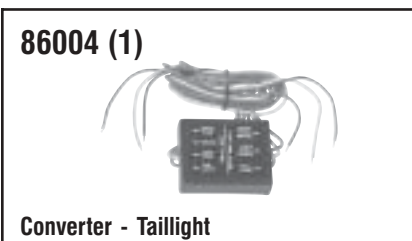
## Automotive Circuit Wire Guide

Circuit	Wire Gauge	Circuit	Wire Gauge	Circuit	Wire Gauge	Circuit	Wire Gauge
Amplifier	10	Hazard Flashers	16	Power Door Locks	14	Sun Roof	14
Backup Lights	18	Headlights	16	Power Mirror	14	Tail Lights	16
Brake Lights	16	Heated Seats	12	Power Seats	10	Temperature Control	14
Cigarette Lighter	14	Heater	16	Power Windows	14	Trunk Light	18
Clock	18	Horn	14	Radiator Cooling Fan	14	Turn Signals	16
Convertible Top	14	Ignition	16	Rear Window Defroster	12	Windshield Washer Pump	18
Cruise Control	18	Instrument Panel Lights	18	Side Markers	16	Windshield Wipers	14
Defroster Fan	16	Interior Lights	18	Starter Solenoid	10		
Fog Lights	16	Power Antenna	14	Stereo	16		

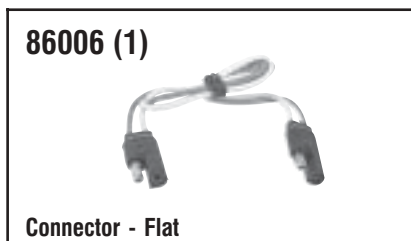
This guide is a generic reference - wire gauge for your vehicle may vary.

## Electrical - Trailer Wiring Accessories

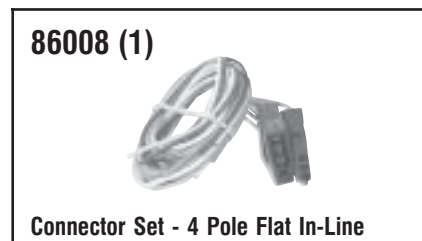
**Conduct-Title!**



Converts vehicles with amber turn signals to single trailer lamps.



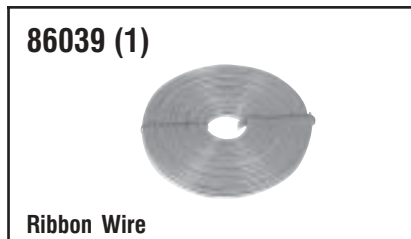
2-Way Flat Connector.



Male = 12" leads; Female = 48" leads. Use on vehicles w/combo stop & turn signal lamps. Hard rubber bodies. Solderless T-splice connectors included.



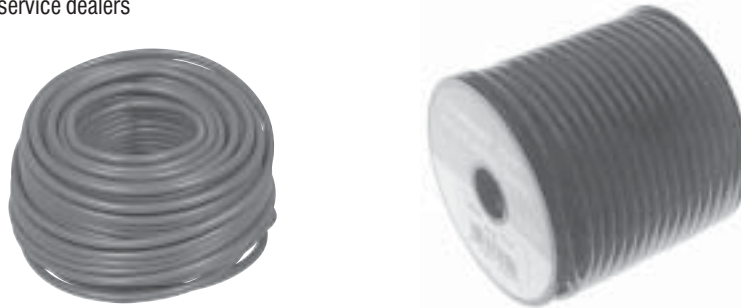
16 Ga. 100' 4WR



16 Ga. 4 Way 25' carded.

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- Short lengths are carded for easy merchandising in front of store for DIY customers
- Longer lengths are on convenient spools for mounting in a dispenser or for larger jobs - ideal for profession service dealers



## Primary Wire Gauge Selection Chart

Watts	Amps	Primary Wire Length in Circuit					
		1' - 10'	11' - 20'	21' - 30'	31' - 40'	41' - 50'	50' - 100'
18	1.5	20	20	20	20	20	18
24	2	20	20	20	20	18	16
36	3	20	20	18	18	18	14
48	4	20	20	18	16	16	12
60	5	20	18	18	16	14	12
84	7	20	18	16	14	14	10
96	8	20	16	16	14	12	10
120	10	18	16	14	12	12	10
144	12	18	16	14	12	12	8
180	15	18	14	12	12	10	8
216	18	16	14	12	10	10	8
240	20	16	12	10	10	10	6
288	24	14	12	10	10	8	6
360	30	12	10	10	10	6	4
480	40	10	10	8	6	6	2
600	50	8	8	8	6	6	2
1200	100	4	4	4	4	2	1/0
1800	150	2	2	2	2	1	2/0
2400	200	1/0	1/0	1/0	1/0	1/0	4/0

1. Select row representing total Watts or Amps in circuit.
2. Select column representing length of wire in circuit.
3. Use wire gauge in box where selected column and row merge.

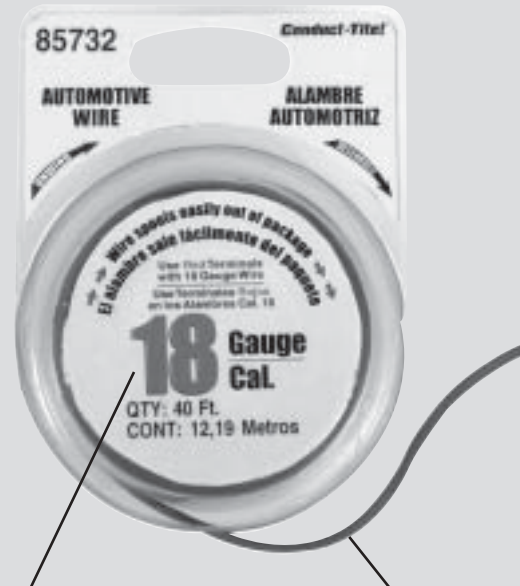
(continued on next page)

# Electrical - Wire & Cable (continued)

PRIMARY WIRE					
Gauge/Color	CARD	75' Spool	100' Spool	500' Spool	1000' Spool
<b>20 Ga. (Max 9 amp (108 watts) circuits)</b>					
Black	86752 (40')				
Blue	86754 (40')				
Brown	86751 (40')				
Green	86755 (40')				
Orange	86757 (40')				
Red	86750 (40')				
White	86753 (40')				
Yellow	86756 (40')				
<b>18 Ga. (Max 13 amp (156 watts) circuits)</b>					
Black	85734 (40')		85794		
Blue	85736 (40')		85796		
Brown	85733 (40')		85793		
Green	85737 (40')		85797		
Orange	85739 (40')		85799		
Red	85732 (40')		85792		
White	85735 (40')		85795		
Yellow	85738 (40')		85798		
<b>16 Ga. (Max 15 amp (180 watts) circuits)</b>					
Black	85726 (30')		85786		86726
Blue	85728 (30')		85788		86728
Brown	85725 (30')		85785		86725
Green	85731 (30')		85791		86731
Orange	85729 (30')		85789		
Red	85724 (30')		85784		
White	85727 (30')		85787		86727
Yellow	85730 (30')		85790		86730
<b>14 Ga. (Max 17 amp (204 watts) circuits)</b>					
Black	85718 (20')		85778		86718
Blue	85720 (20')		85780		86720
Brown	85717 (20')		85777		86717
Green	85723 (20')		85783	85765	86723
Orange	85721 (20')		85781		
Red	85716 (20')		85776		86716
White	85719 (20')		85779		86719
Yellow	85722 (20')		85782	85764	86722
<b>12 Ga. (Max 22 amp (264 watts) circuits)</b>					
Black	85710 (12')		85770		86710
Blue	85712 (12')		85772		86712
Brown	85709 (12')		85749		
Green	85713 (12')		85773		
Orange	85715 (12')		85775		
Red	85708 (12')		85748		86708
White	85711 (12')		85771		
Yellow	85714 (12')		85774		
<b>10 Ga. (Max 30 amp (360 watts) circuits)</b>					
Black	85702 (8')	85742			86702
Blue	85704 (8')	85744		85762	
Brown	85701 (8')	85741			
Green	85705 (8')	85745			
Orange	85707 (8')	85747			
Red	85700 (8')	85740		85761	86700
White	85703 (8')	85743		85763	
Yellow	85706 (8')	85746			86706
<b>8 Ga. (Max 39 amp (468 watts) circuits)</b>					
Black	86734 (6')	86742			
Blue	86736 (6')	86744			
Brown	86733 (6')	86741			
Green	86737 (6')	86745			
Orange	86739 (6')	86747			
Red	86732 (6')	86740			
White	86735 (6')	86743			
Yellow	86738 (6')	86746			

## New Primary Wire Clam Package

Package height and width now smaller—allows wire to be merchandised with terminals.



Gauge of wire is color coded the same as the terminals. Example: "18" is red—same color as 22-18 gauge terminals.

Wire spools easily out of package.

## Electrical - Wire & Cable (continued)

SPEAKER WIRE				
	15' Card	20' Card	25' Card	100' Spool
20 Ga. (Max 9 amp (108 watts) circuits)			85750 (1)	85751 (1)
18 Ga. (Max 13 amp (156 watts) circuits)	85756 (1)	85760 (1)		85759 (1)

## Electrical - Wire Ties

**Conduct-Tite!**

Length	Color	CONDUCT-TITE! Part # (Qty.)
4"	Natural	85643 (25)
4"	Black	83741 (100)
4"	Natural	83740 (100)
4, 6, 8"	Wire Tie & Nylon Clamp Kit	85610 (35)
4, 8, 11"	Assorted Colors - Canister	83756 (300)
4, 8, 11"	Assorted Colors	83755 (50)
4, 8, 11"	Assorted Colors	83754 (150)
4, 8, 11"	Natural	83732 (300)
4, 8, 11"	Black	83731 (300)
4, 8, 11"	Black & Natural - Canister	83771 (700)
4, 9, 14"	Black	83850 (100)
8"	Natural	85645 (20)
8"	Black	83743 (100)
8"	Natural	83742 (100)
8, 11"	Natural	83753 (150)
8, 11"	Black	83752 (150)
8, 11"	Natural	83751 (50)
8, 11"	Black	83750 (50)
9"	Natural	83879 (100)
9"	Black	83877 (100)
10"	Natural Releasable	85647 (5)
11"	Black	83745 (100)
11"	Natural	83744 (100)
14"	White	83888 (100)
14"	Black	83897 (50)
14"	Gray	83886 (100)
14"	Blue	83885 (100)
14"	Green	83884 (100)
14"	Yellow	83883 (100)
14"	Orange	83882 (100)
14"	Red	83881 (100)
14"	Black	83747 (100)
14"	Natural	83746 (100)
14"	Natural	83899 (50)
15"	Natural	85649 (10)



**Do the  
COMPLETE  
JOB**

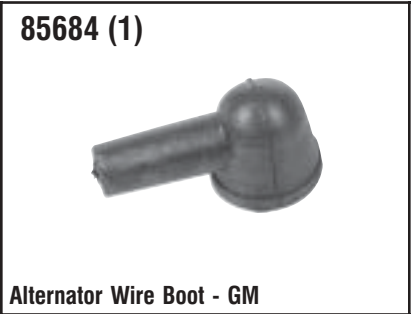
Pulse FX™ now offers red, blue, yellow and white wire ties, see page 93.

**E**

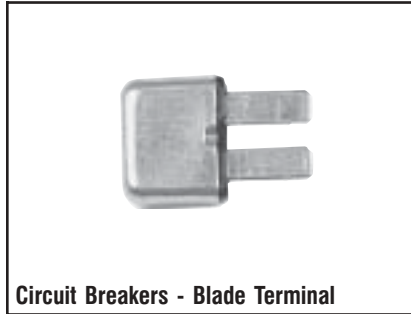
# Electrical - Wiring Accessories



- Excellent add on sales with any type of electrical job
- Cross merchandise throughout store with car audio components, performance parts, fuses, accessory lighting and trailer accessories

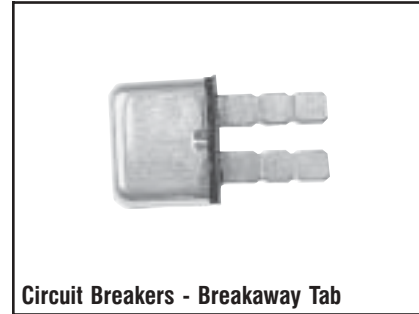


**85684 (1)**  
**Alternator Wire Boot - GM**  
 Rubber cover protects connection from corrosion and prevents short circuits between alternator and connection.



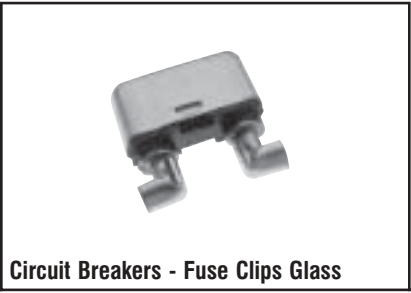
**Circuit Breakers - Blade Terminal**

10 Amp	<b>84694 (1)</b>
12 Amp	<b>84695 (1)</b>
15 Amp	<b>84696 (1)</b>
20 Amp	<b>84697 (1)</b>
25 Amp	<b>84698 (1)</b>
30 Amp	<b>85615 (1)</b>



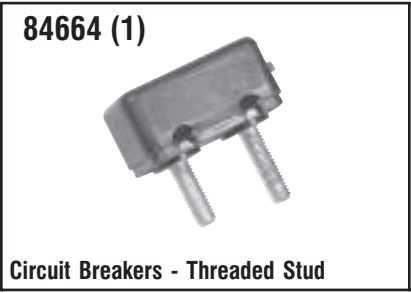
**Circuit Breakers - Breakaway Tab**

10 Amp	<b>84659 (1)</b>
15 Amp	<b>84660 (1)</b>
20 Amp	<b>84661 (1)</b>
25 Amp	<b>84662 (1)</b>
30 Amp	<b>84663 (1)</b>



**Circuit Breakers - Fuse Clips Glass**

10 Amp	<b>84684 (1)</b>
15 Amp	<b>84686 (1)</b>
20 Amp	<b>85616 (1)</b>
30 Amp	<b>85617 (1)</b>
40 Amp	<b>85618 (1)</b>
5 Amp	<b>84681 (1)</b>
6 Amp	<b>84682 (1)</b>
8 Amp	<b>84683 (1)</b>



**84664 (1)**  
**Circuit Breakers - Threaded Stud**  
 Manual Reset, 12 Amp. **84664 (1)**

## Protect your Wiring Circuit

CIRCUIT BREAKERS	FUSIBLE LINKS	RELAYS
<ul style="list-style-type: none"> <li>• Circuit breakers are used where power must be rapidly restored (example: windshield wipers, power windows, power seats, etc.)</li> <li>• Circuit breakers should only be used where designated by the OE manufacturer.</li> <li>• Do not increase the circuit breaker Amp rating beyond the original specification set for your specific vehicle.</li> </ul> <div style="background-color: #333; color: white; padding: 5px; font-size: small;"> <p style="text-align: center; margin: 0;"><b>TECH TIP</b></p> <p style="margin: 0;">If you notice an on-off cycle occurring or failure of circuit breaker - correct the problem before replacing the circuit breaker.</p> </div>	<ul style="list-style-type: none"> <li>• Fusible links are designed to protect the vehicle's entire electrical system.</li> <li>• They are typically installed between the battery and the ignition switch or between the battery and the fuse panel.</li> <li>• Fusible links have special burn resistant insulation that protects the wire.</li> <li>• When circuit is overloaded, the insulation will appear blistered or discolored.</li> <li>• Fusible links should always be four gauges smaller than the circuit it is protecting (example use a T4 gauge fusible link to protect a T0 gauge wire circuit).</li> </ul> <div style="background-color: #333; color: white; padding: 5px; font-size: small;"> <p style="text-align: center; margin: 0;"><b>TECH TIP</b></p> <p style="margin: 0;">Always find and fix the cause of the fusible link failure before you install a replacement. Install the new fusible link with UNDERHOOD CONNECTION™ terminals.</p> </div>	<ul style="list-style-type: none"> <li>• Relays allow a small amperage switch to drive a large amperage component.</li> <li>• Also used when a large amperage component remains on for a long period of time.</li> </ul> <div style="background-color: #333; color: white; padding: 5px; font-size: small;"> <p style="text-align: center; margin: 0;"><b>TECH TIP</b></p> <p style="margin: 0;">Always install a relay with fully insulated female disconnects and with UNDERHOOD CONNECTION™ terminals when mounting in a location that will be exposed to moisture.</p> </div>