



Tech Dept.
(630) 957-4019

Tech@powermasterperformance.com

WIRING INSTRUCTIONS

GM CS144 Alternator (One Wire or OE Hookup)



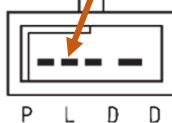
*The Following Units are OE hookup only:

38202
 48202
 58202
 68202

Charge Post Size
 M8 x 1.25 (Black Insulator)
 12-24 (Red Insulator)

Ground/Support Tab
 M10 x 1.5

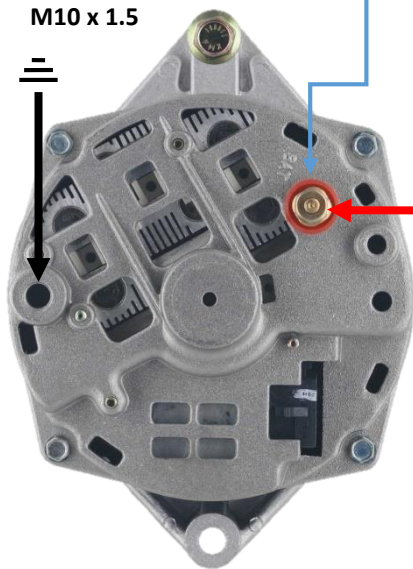
GM CS Style Plug



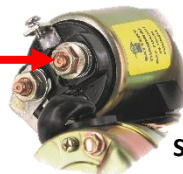
Charge Ind. Light



From Ignition Switch



BATTERY + ← OR



BATTERY + ON
 STARTER SOLENOID

Optional Charge Indicator Light Function: Your Powermaster Alternator is designed to work as a 1 wire without any connections to the plug in. The function of the plug is to run a charge indicator (Idiot Light) only. This plug also does not serve as a hookup point for a voltmeter, or help charging at idle. **This connection has no effect on charging performance.** If your vehicle was already equipped with a CS style connector, simply reattach the factory connector and follow grounding instructions.

Disconnect Battery Negative (-)

READ ALL INSTRUCTIONS IN BOX!

Charge Wires:

170 Amp Alt. use 4 gauge up to 6 ft.
 200 Amp Alt. use 4 gauge up to 6 ft.

Alternator Ground: Many mounting brackets are powder/clear coated, painted, or plated. The alternator will not ground properly without a ground wire from the Alt. housing to the engine block. (This wire should match charge wire size)

Battery must have a clean ground to engine block.

Wire Connections: Be sure all terminals are crimped securely, and connections are clean and tight.

Belt Tension: Inspect belt for signs of cracking or glazing. Replace if needed. **A loose belt will cause intermittent charging and generate excessive heat resulting in premature unit/bearing failure.**

For V belt units follow attached pulley tag.

A fully charged battery is at least 12.6V, not 12.0V. A weak/defective battery will cause premature failure. **Never disconnect the battery with engine running!** This causes voltage spikes that will damage the alternator.

DO NOT EXCEED 18,000 ALTERNATOR SHAFT RPM
 (See Catalog pg.45 for more info)

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID YOUR WARRANTY

Warranty void if unit is soaked in Oil or Mud



WIRE! RIGHT!

The Powermaster Cables are made up of hundreds and even thousands of strands of **pure copper** wire. This ensures that more current can be transferred efficiently with less heat build-up and loss.

The cables meet American Wire Gauge specs and are **made in the USA** and are finished with machine crimped ring lug terminals.

- *Fine strands of pure, oxygen-free copper wire*
- *Extremely flexible for easy routing*
- *Durable sleeve designed for underhood environments*
- *Available in 0-8 gauge diameters from 1-12 feet lengths*
- *Hydraulically terminated eyelet terminals*

630-957-4019 OR

TECH@POWERMASTERPERFORMANCE.COM



Custom Charge & Ground Cables

No matter what you're working on, we have a charge and ground cable available! Below are the different lengths and gauges of cable available. Each cable is finished with a 1/4" or 5/16" ring lug while ground cables feature a 5/16" and 3/8" combination.



Red Charge Wire	1'	2'	3'	4'	5'	6'	7'	8'	10'	12'
8-Gauge, 1/4" and 5/16" Terminals Installed		1-582-130	1-583-130	1-584-130	1-585-130	1-586-130	1-587-130	1-588-130		
6-Gauge, 1/4" and 5/16" Terminals Installed		1-562-130	1-563-130	1-564-130	1-565-130	1-566-130	1-567-130	1-568-130	1-5610-130	
4-Gauge, 1/4" and 5/16" Terminals Installed		1-542-130	1-543-130	1-544-130	1-545-130	1-546-130	1-547-130	1-548-130	1-5410-130	1-5412-130
2-Gauge, 1/4" and 5/16" Terminals Installed		1-522-130	1-523-130	1-524-130	1-525-130	1-526-130	1-527-130	1-528-130	1-5210-130	1-5212-130
0-Gauge, 1/4" and 5/16" Terminals Installed		1-502-130	1-503-130	1-504-130	1-505-130	1-506-130	1-507-130	1-508-130	1-5010-130	1-5012-130
8-Gauge, 5/16" Terminals on both ends Installed		1-582	1-583	1-584	1-585	1-586	1-587	1-588		
6-Gauge, 5/16" Terminals on both ends Installed		1-562	1-563	1-564	1-565	1-566	1-567	1-568	1-5610	
4-Gauge, 5/16" Terminals on both ends Installed		1-542	1-543	1-544	1-545	1-546	1-547	1-548	1-5410	1-5412
2-Gauge, 5/16" Terminals on both ends Installed		1-522	1-523	1-524	1-525	1-526	1-527	1-528	1-5210	1-5212
0-Gauge, 5/16" Terminals on both ends Installed		1-502	1-503	1-504	1-505	1-506	1-507	1-508	1-5010	1-5012
Black Ground Wire	1'	2'	3'							
8-Gauge, 5/16" and 3/8" Terminals Installed	1-781	1-782	1-783							
6-Gauge, 5/16" and 3/8" Terminals Installed	1-761	1-762	1-763							
4-Gauge, 5/16" and 3/8" Terminals Installed	1-741	1-742	1-743							
2-Gauge, 5/16" and 3/8" Terminals Installed	1-721	1-722	1-723							
0-Gauge, 5/16" and 3/8" Terminals Installed	1-701	1-702	1-703							
Ground Strap	1'									
Ground Strap, 1" wide, 1' long, 5/16" and 3/8" Terminal Installed	1-711									
		CHARGE WIRE LENGTH								
AMP LOAD	1'-6"	7'-13"	14'-20"							
50-100	8g	6g	4g							
100-150	6g	4g	2g							
150-220	4g	2g	0g							
220+	2g	0g	1/0g							

! WARNING: Cancer or Reproductive Harm
www.P65warnings.ca.gov