



# WIRING INSTRUCTIONS

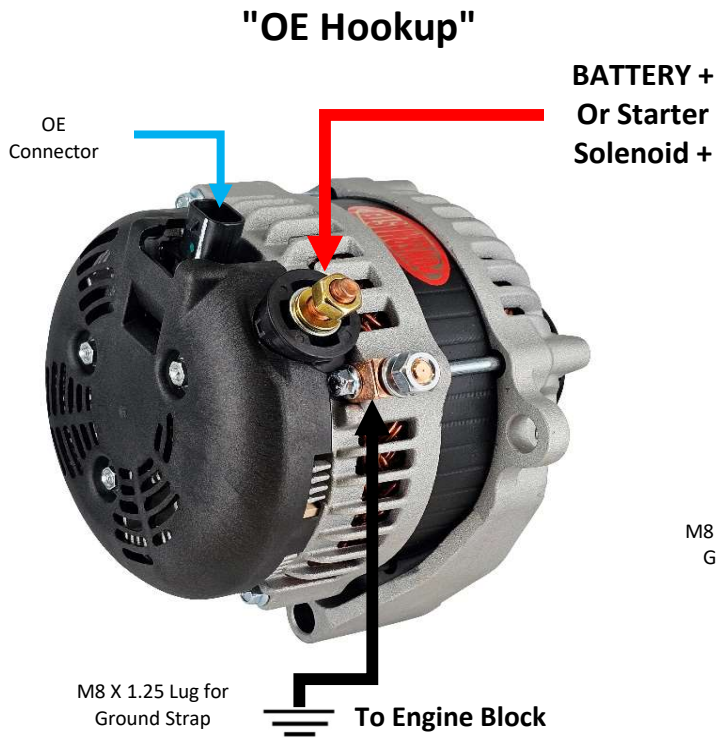
## HPR CCW Rotation 180/250 Amp Alternator

**Need Help, or Questions!**  
**Tech Dept.**  
**(630) 957-4019**  
 Tech@powermasterperformance.com

**"Counterclockwise" Rotation units are designed for proper Cooling with reverse airflow Fans, and reverse Rotor Shaft threads (Left Handed) for proper Pulley retention**

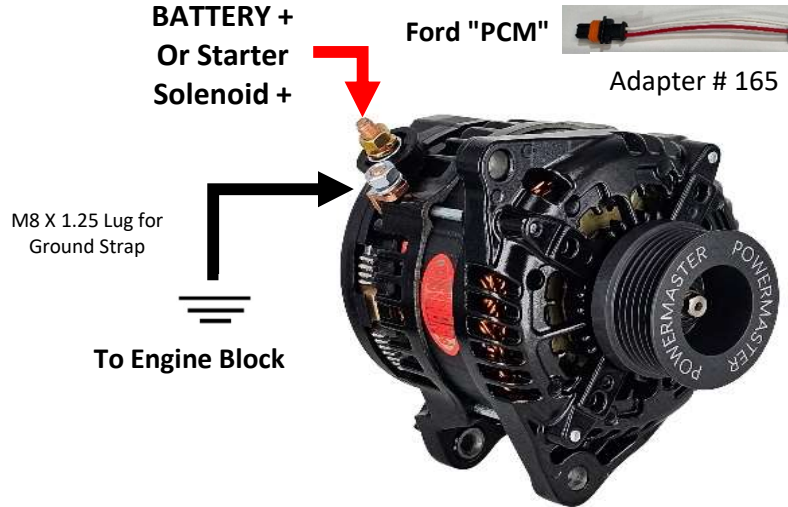
### "1-Wire Hookup And PCM Voltage Control Bypass"

If Vehicle is Equipped with PCM Voltage Control, Remove the Regulator Cover, For GM 2-Pin simply Plug the OE Connector, For Ford Use Adapter # 165, this will bypass the PCM Voltage Control and Eliminate the Dash Charging warnings



GM "RVC"  OE plug

Ford "PCM"  Adapter # 165



### Disconnect Battery Negative (-)

#### Charge Wires:

180 Amp Alt. use 4 gauge up to 6ft.  
 250 Amp Alt. use 2 gauge up to 6ft.

**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 the 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.**

**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