



# WIRING INSTRUCTIONS

Ford 3G/4G Style Alternator "OEM Hookup"

3G



4G



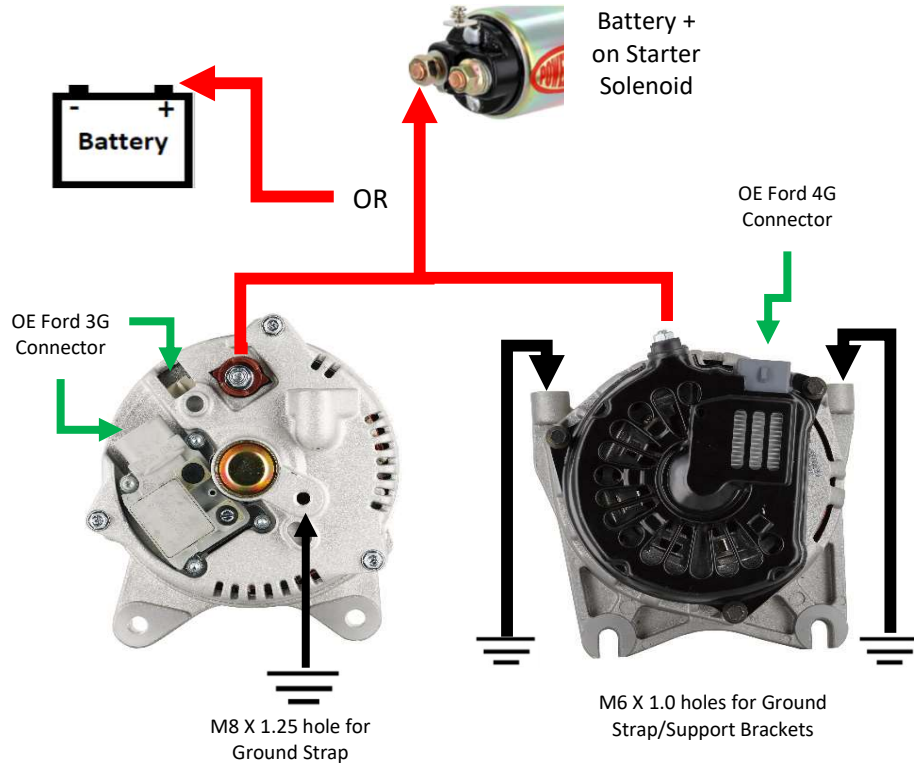
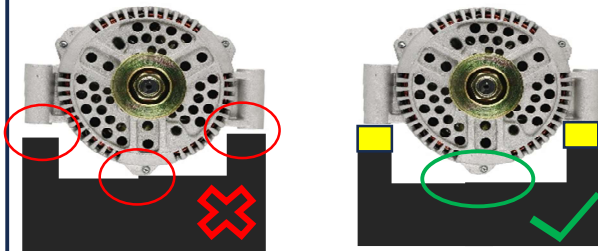
Need Help, or Questions!

Tech Dept.

(630) 957-4019

Tech@powermasterperformance.com

**Note:** This alternator is designed for vehicles already equipped with factory Ford 3G/4G wiring connections



## Diesel Applications with 3G Transverse Mount Alternators

When upgrading alternators it is required to check the clearance between the alternator body and the bracket. If the unit clears you are good to go, if the unit rubs and has a gap on the mounting surfaces, you must order **Spacers #145**  
**Failure to check this clearance can result in cracked housing**

## Disconnect Battery Negative (-)

### Charge Wires:

140 Amp Alt. use minimum 6 gauge up to 6ft.

200 Amp Alt. use minimum 4 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									

AMP LOAD	CHARGE WIRE LENGTH		
	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