NEWCASTLE SYSTEMS

POWER PACK SYSTEM PP-42 PP45

Owner's Manual

NEWCASTLE SYSTEMS

Important Safety Instructions

SAVE THESE INSTRUCTIONS!

This manual contains important instructions and warnings that should be fallowed during the installations and operation of this product.

Battery Connections Warnings

The battery should be connected before operating the cart and the remote voltage meter.
Spark may result during final battery connection. Always observe proper polarity as batteries are connected.
Do not allow objects to contact the two DC inputs terminals. Do not short or bridge these terminals together. Serious personal injury or property damage could result.

Equipment Connection Warnings

You may experience uneven performance result if you connect a surge suppressor, line conditioner or UPS system to the power stripe or the output of the inverter/charger.
Connect your Power Swap System only to a properly grounded AC power outlet or hardware source. Do not plug the unit into itself; this may damage the inverter/charger.

Operation Warning

Your unit does not required routine maintenance. Do not open the inverter/charger for any reason. There are not serviceable parts inside.
Do not connect or disconnect batteries while the unit is operation in either inverting or charging mode. Operating mode should be in the DC OFF position; Dangerous arcing may result.

⚠ WARNING!

LIMITATIONS ON USE

Do not use in connection with life support systems,

⚠ Caution

Fire Hazard

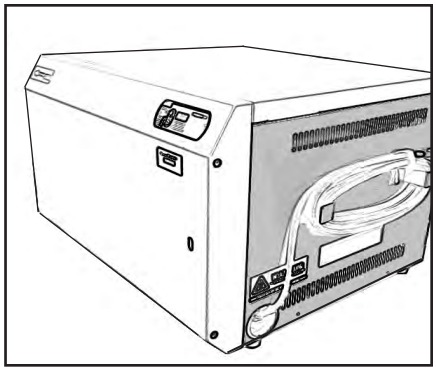
- Do not install the inverter / charger or any part of it supplies wiring in engine components.
- Never charge a frozen battery
- When installing or removing the batteries, always remove the negative terminal from the battery first for systems with grounded negative
- Make sure all loads and accessories connected to the unit are off so you don't cause an arc.
- Use extra caution to reduce risk short-circuit, batteries can produce a short circuit current high enough to weld a ring or metal bracelet or the like to the battery terminal, causing a severe burn.

⚠ **Failure to fallow the instructions can damage the unit or damage other equipment.**

Important Information

Features Include:

- Integrated (6) outlet Power-strip
- Digital meter with color coded LED display that provide the status of the battery and power source
- Visual and audible low voltage alert
- Integrated side handles and cord reel holder
- Easy access to slide batteries in and out cabinet
- Optional wheel-base tote system for true portability
- Optional bracket system to secure unit to Cart, Vehicle, or other surfaces,



POWER PACK

PowerPack Series Configurations:

Power System Components:	PowerPack 42 1-Battery System	PowerPack 45 2-Battery System
Battery; (Sealed Lead Acid):	100 AH	200 AH
Inverter/Charger Package:	Supports up to 1,000 watts (UL & CSA Approved)	Supports up to 1,000 watts (UL & CSA Approved)
Approximate Charge Time:	3-5 hours	8-10 hours
Overall Weight:	120 lbs.	190 lbs.
Typical Hardware/Run Time:	Laptop/tablet & large printer for 8-10+ hours	Desktop PC & large printer for 8-10+ hours

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Typical Power Pack Applications

1. Non-Powered equipment carts
2. Outdoor mobile concessions
3. Remote Display Area
4. Areas where power is not available such as far corners of the warehouse, loading docks, remote storage areas, and much more

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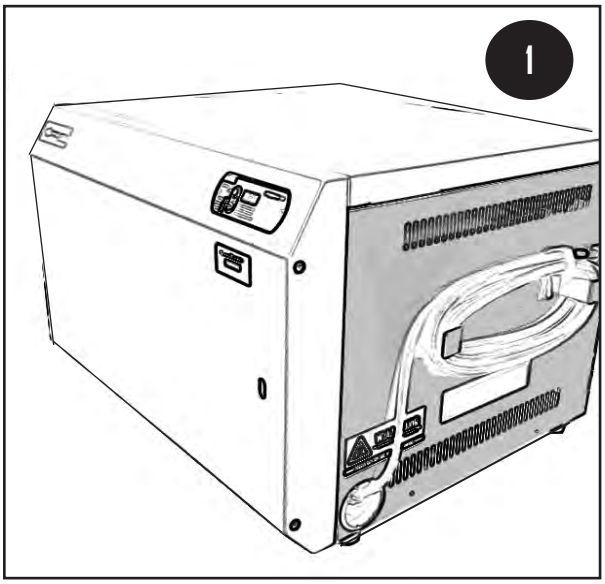
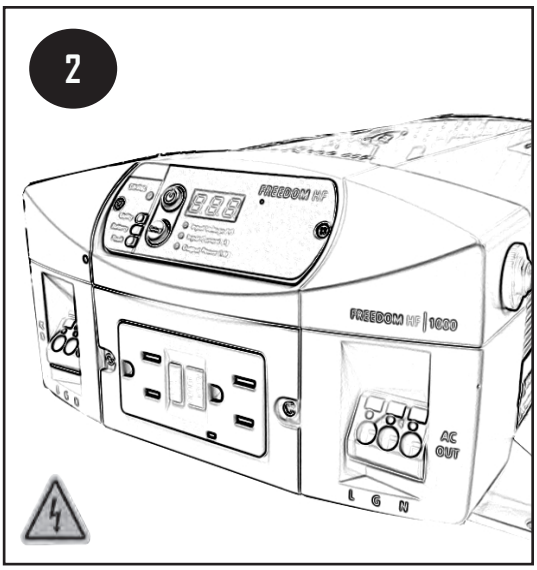
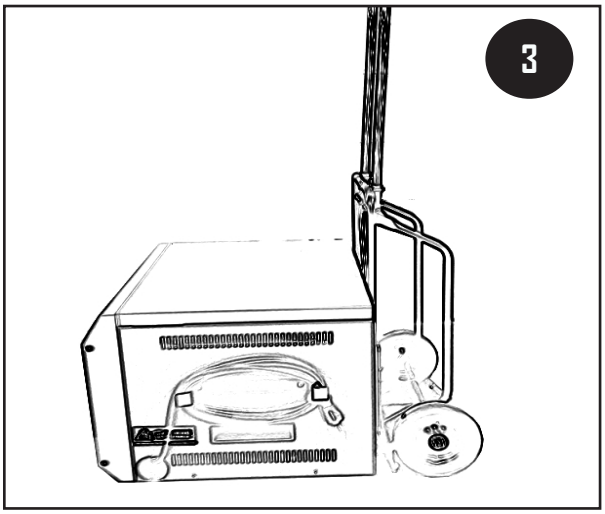
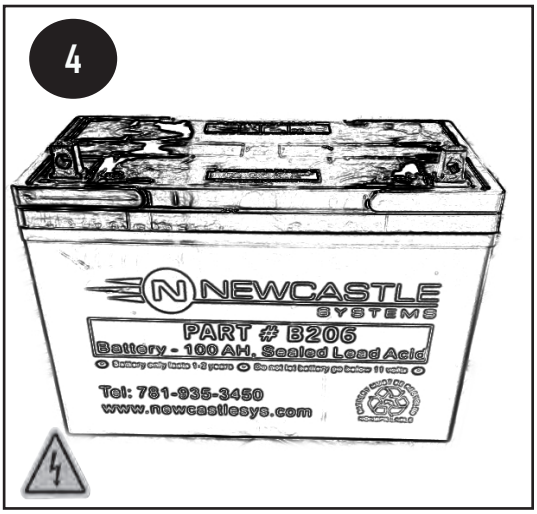
Unit Components







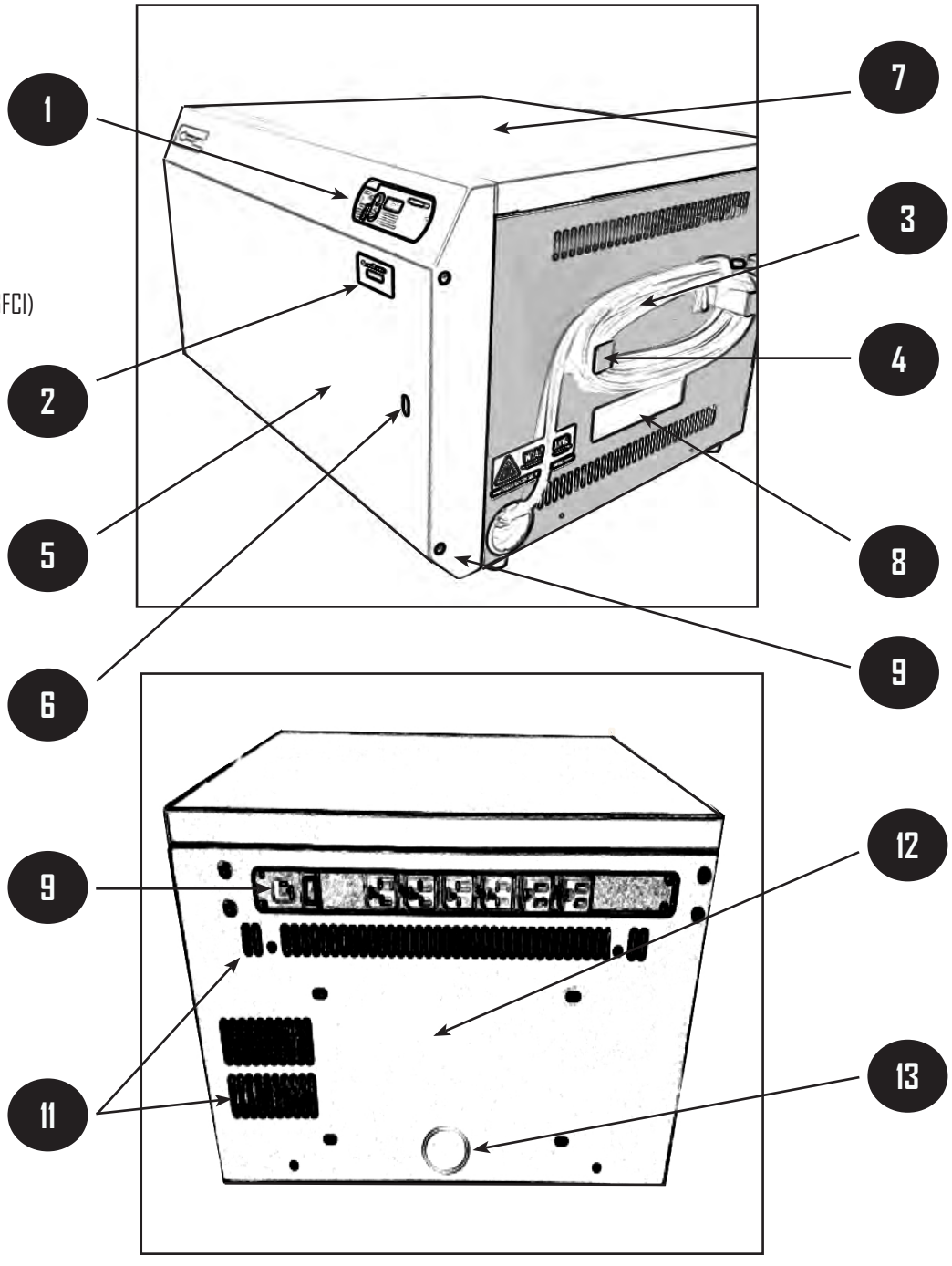


1. Fully ventilated Steel Cabinet
2. 100 watts 960 model Inverter / Charger
3. Optional Wheel-Base Tote
4. Battery

NEWCASTLE SYSTEMS

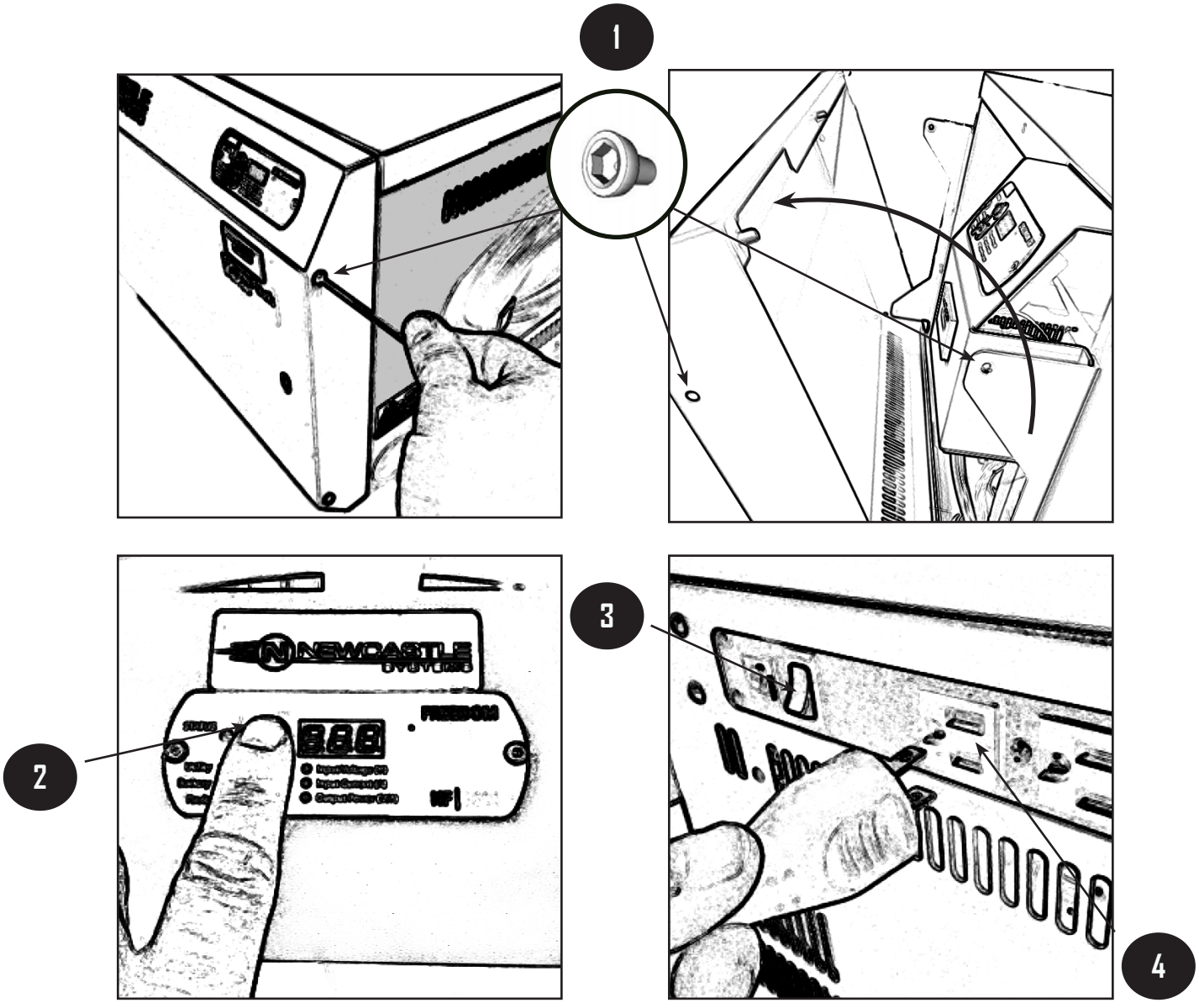
Feature Identification

1. 960 Volt Meter
2. 9-3000 Volt Meter
3. Power Cord
4. Cord Reel
5. Removable Front Cover
6. Access to reset Inverter (GFCI)
7. Removable Top Cover
8. Handle
9. Screw 10/32-10 Hex Nut
10. Power Strip
11. Box Ventilation
12. Back
13. Knock-out



Operation

1. Detach the Front cover using the 10/32 HEX-KEY nut wrench to remove the front cover
2. Press and hold the Green ON bottom for ten second to start the unit
3. Make sure the switch is ON in the power strip attached to the unit
4. Connect your equipment according to the inverter power capacity

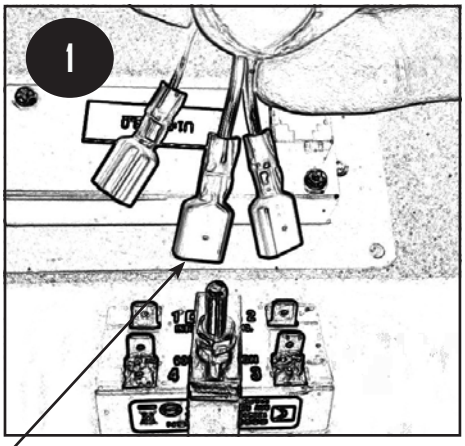


NEWCASTLE SYSTEMS

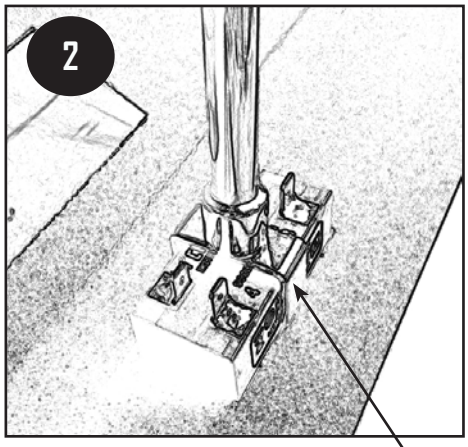
Assembly Instructions

Voltage Meter Installation

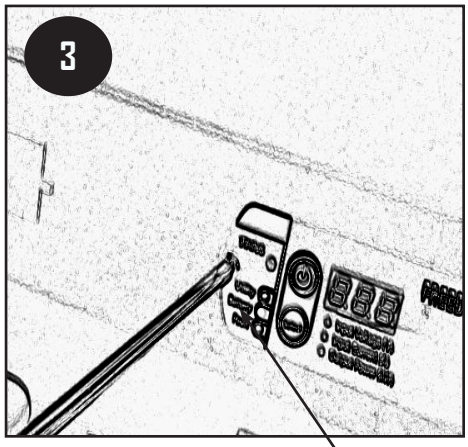
1. Connect in the appropriate order the wires from the battery to voltage meter
2. Attach and secure Bracket to the (9-3000) Voltage Meter
3. Attaching the Inverter Voltage Meter to the Battery Box
4. Connect the communication cable to the back of the voltage meter
5. Attaching to the battery box the safety bracket for the Inverter (960) voltage meter
6. Voltage Meters Display



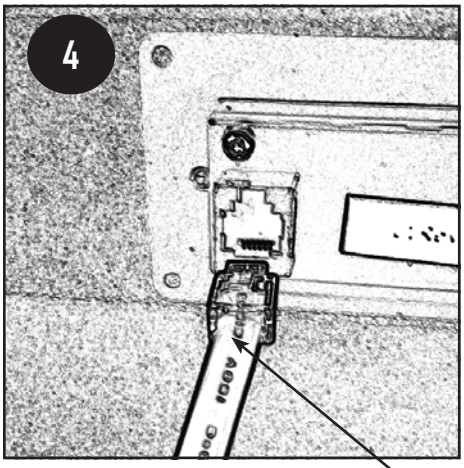
From Battery Terminals
(+) Red to number 1
(-) Black to number 2
(+) Green to number 4



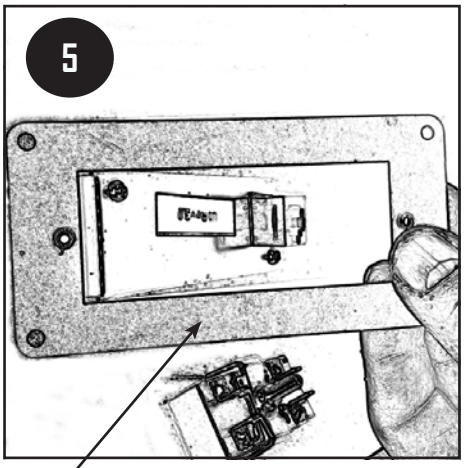
Attaching the 9-3000 volt meter safety bracket



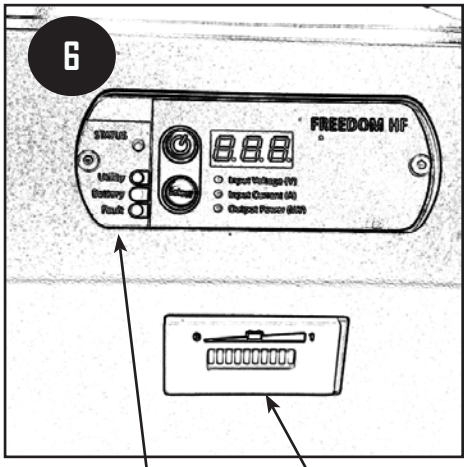
Attaching the 960 Volt meter



Connecting the communication cable to the 960 VT



Attaching the 960 volt meter safety bracket

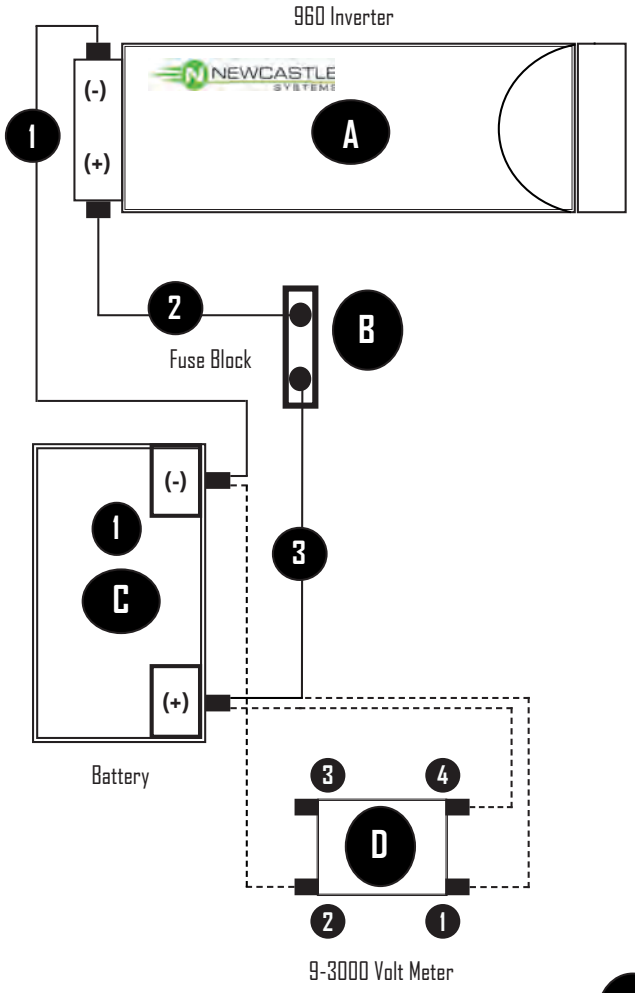


960 and 9-3000
Volt Meters Display

Battery Set-Up

ONE BATTERY SET-Up

- **A**-Inverter
- **B**-Fuse Block
- **C**-Battery **1**
- **D**-Volt Meter



One Batteries Set-up

1. Inverter Black wire **(-)** to Battery **(-)**
2. Inverter Red wire **(+)** to Fuse Block **A** terminal
3. Fuse Block **B** terminal Red Wire **(+)** to Battery **(+)**

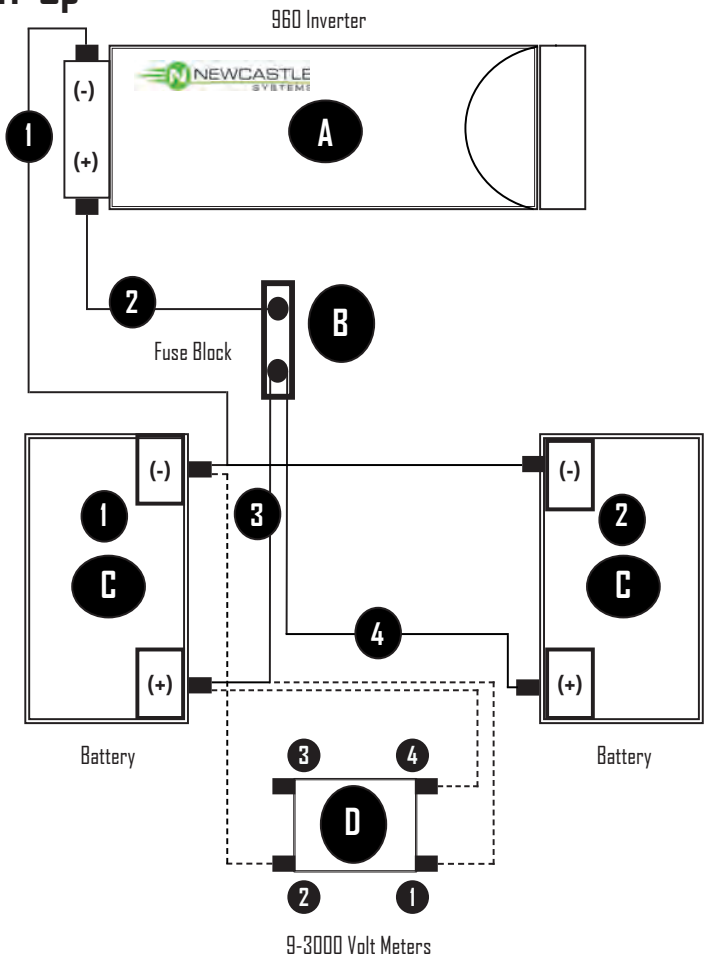
9-3000 Volt Meter Set-up **D**

1. Red wire on Meter **(1)** to Battery **(+)** terminal
2. Black wire on Meter **(2)** to Battery **(-)** terminal
3. No Connection
4. Green wire on Meter **(4)** to Battery **(+)** terminal

Two Batteries Set-Up

TWO BATTERY SET-Up

- **A**-Inverter
- **B**-Fuse Block
- **C**-Battery 1 And 2
- **D**-Volt Meter



Two Batteries Set-up

1. Inverter Black wire **(-)** to Battery **(-)**
2. Inverter Red wire **(+)** to Fuse Block **A** terminal
3. Fuse Block **B** terminal Red Wire **(+)** to Battery **(+)**
4. Fuse Block **B** terminal Extension wire **(+)** to Battery **(+)**
5. Black wire **(-)** on Battery **#1** to **(-)** terminal on Battery **#2**

9-3000 Volt Meter Set-up **D**

1. Red wire on Meter **(1)** to Battery **(+)** terminal
2. Black wire on Meter **(2)** to Battery **(-)** terminal
3. No Connection
4. Green wire on Meter **(4)** to Battery **(+)** terminal

Tips To Extend Battery Life

-1 Charge the Battery before using the NB-PS, to insure the NB-PS is fully charge

-2 Monitor the battery status meter on the cart volt meter.

-3 Batteries should not be stored in discharged below **11.5** volts as this will shorten the life of the battery

-4Batteries should not be stored in a discharged state for more than 1 or 2 days. They should be charged as soon as possible after each use **(Otherwise it can void the warranty)**

-5 Avoid exposing battery to heat, service life shortened at ambient temperature above 85 F

-6 Batteries always should be charged in a secured but ventilated enclosure

-7 When Powering equipment on the cart one can have the charger plugged-in if necessary. In case, the AC Power will pass throe the charger and power your equipment directly.

-8 When not in use, the system charger can be plugged into the AC power to ensure the battery remains in optimal state

-9b Charging system is trickle charger so leaving it plugged in will NOT damage the battery

-10 Make sure that the terminals on the battery are tight as are the screws holding the wires inside the inverter/ charger.