

OPERATOR'S MANUAL

MODEL #201107 1600 EXPANSION BATTERY



REGISTER YOUR PRODUCT ONLINE

at championpowerequipment.com











or visit championpowerequipment.com

READ AND SAVE THIS MANUAL. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

Using APP Port

TABLE OF CONTENTS Introduction 3 Safety Definitions 3 **Important Safety Instructions** 4 Lithium-ion Battery Safety... Safety and Dataplate Labels 8 Safety Symbols 9 Operation Symbols 11 Controls and Features 12 Expansion Battery 12 Intelligauge - Expansion Battery 13 Parts Included Parts Not Included 17 **Assembly** Unpacking Grounding Pairing with Power Station 18 Using Included Easy Connect DC Solar Charge Harness 19 Recommended Solar Panels 19

Operation	20
Using the Expansion Battery	20
Do Not Overload Expansion Battery	21
Expandable Capacity	21
Turning Off the Expansion Battery	21
Moving the Expansion Battery	21
Maintenance	21
Cleaning the Expansion Battery	21
Storage	22
Specifications	22
Expansion Battery Specifications	22
Battery Specifications	22
AC Charger Specifications	22
DC Charger Specifications	22
Temperature Specifications	22
Troubleshooting	23
Power Station Fault Indicator Codes	25

♥I FOR PARTS BREAKDOWN

Search by model number at championpowerequipment.com

INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

Every effort has been made to ensure the accuracy and completeness of the information in this manual at the time of publication, and we reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

CPE highly values how our products are designed, manufactured, operated, and serviced as well as providing safety to the operator and those around the Expansion Battery. Therefore, it is IMPORTANT to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table below

CPE TECHNICAL SUPPORT TEAM 1-877-338-0999 MODEL NUMBER 201107 SERIAL NUMBER DATE OF PURCHASE PURCHASE LOCATION

SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

A DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

IMPORTANT SAFETY INSTRUCTIONS

A WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

A WARNING

Read all safety warnings and all instructions. Failure to follow the warnings and instruction may result in electric shock, fire and cause serious injury. Save all warnings and instruction.

A DANGER

Expansion Battery generates powerful voltage.

Keep your Expansion Battery in a dry, well-ventilated area when in use.

Do not operate the Expansion Battery with a damaged cord, plug, or a damaged output cable. Use only Champion electrical cords for proper application.

Do not allow children or unqualified persons to charge, operate or service the Expansion Battery.

Do not operate Expansion Battery in wet conditions. To avoid short circuits or electric shock do not allow unit to get wet. In the event the unit does get wet, let the unit dry completely before using.

Always use a ground fault circuit interrupter (GFCI) in damp areas and areas containing conductive material such as metal decking.

Do not allow fluids to flow into Expansion Battery. Corrosive or conductive fluids, such as seawater, industrial chemicals, bleach or bleach containing products can cause a short circuit.

This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors or liquids.

A WARNING

To avoid fire or electrical shock hazard, observe all ratings on the Expansion Battery and accessory products you intend to use.

A CAUTION

In outdoor conditions, this device is intended for temporary outdoor use only. Reasonable care should always be exercised when using this device outdoors in damp conditions, but should never be used in wet conditions.

A WARNING

Do not use Expansion Battery for medical and life support

In case of emergency, call 911 immediately.

NEVER use this product to power life support devices or life support appliances.

Inform your electricity provider immediately if you or anyone in your household depends on electrical medical equipment to live.

Inform your electrical provider immediately if a loss of power would cause you or anyone in your household to experience a medical emergency.

A WARNING

Expansion Battery produces heat. Skin burns can occur on contact.

Do not touch hot surfaces.

Allow equipment to cool before touching.

A WARNING

Exceeding the Expansion Battery's running capacity can damage the Expansion Battery and/or electrical devices connected to it.

DO NOT overload the Expansion Battery.

DO NOT tamper or modify the Expansion Battery in any way.

A WARNING

Improper treatment or use of the Expansion Battery can damage it, shorten its life or void the warranty.

Use the Expansion Battery only for intended uses.

DO NOT expose Expansion Battery to moisture, dust, or dirt.

DO NOT allow any material to block the cooling slots.

If connected devices overheat, turn them off and disconnect them from the Expansion Battery.

DO NOT use the Expansion Battery if:

- Electrical output is lost
- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

Lithium-ion Battery Safety

A DANGER

Electrolyte inside the battery is harmful to skin and eyes. Electrolyte may pose an increased risk of harm if not handled properly.

Under abusive conditions, liquid may be ejected from the battery; avoid contact. Liquid ejected from the battery may cause irritation or burns. If contact accidentally occurs, flush with water. If the battery leaks and electrolyte gets in your eyes, do not rub them, immediately flood eye with running cold water for at least 10 minutes and seek medical help. If left untreated, electrolyte can cause permanent eye injury. Keep away from children.

A WARNING

When using the Expansion Battery:

- Always use in a dry well ventilated area while in use and do not obstruct fan openings on unit. Inadequate ventilation may cause excessive heat and damage the unit.
- Always keep the unit clean and dry and inspect for dirt, dust, or moisture prior to every use.
- Power cord plugs must always match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.
- Connect only to properly grounded outlets.
- To reduce risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the Expansion Battery. Never use the cord for carrying, pulling or unplugging the tool.
- Do not use this Expansion Battery if the power cord or the battery cables are damaged in any way.
- Always use a suitable extension cord to reduce the risk of electric shock.
- Always keep the cord away from heat, oil, sharp edges or moving parts.
- Always position cords carefully to avoid hazardous conditions. Tripping or snagging on cords can cause injury or cause product damage. Never allow cords to run through puddles or across wet ground.
- Use of an accessory attachment not recommended or sold by the Expansion Battery manufacturer may result in a risk of fire, electric shock, or injury to persons.
- To reduce the risk of electric shock always unplug the cord from outlet when not in use and before servicing or cleaning.
- Do not insert foreign objects into outputs or ventilation holes.

A WARNING

- Do not overload the Expansion Battery capacity. Exceeding the wattage/amperage capacity may damage the power supply and/or electrical devices connected to it.
- Do not connect Expansion Battery output to a building's electrical system.
- Do not use this unit if you do not understand these operating instructions.
- Maintain the labels and nameplates on this Expansion Battery. These carry important information. If unreadable or missing, contact our Champion Technical Support Team for a free replacement.

A WARNING

- Do not use a Expansion Battery or appliance that is damaged or modified. Damaged or modified internal batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Do not remove cover. No user serviceable parts inside.
- Do not tamper or disassemble the Expansion Battery to attempt service or replace the battery. Incorrect reassembly may result in a risk of fire, electric shock or personal injury.
- Never place fingers or hands inside the product.
- For service information please contact our Champion Technical Support Team at 1-877-338-0999. Please have your serial number and model number available when service, repair or replacement is required.

A WARNING

- To reduce the risk of injury or damage, avoid contact with any hot surface.
- Do not use the Expansion Battery near sources of high heat or fire. Exposure to fire or temperature above 266°F (130°C) may cause explosion.
- Do not discharge the Expansion Battery battery in temperatures below 5°F (-15°C) or above 104°F (40°C).
- Do not allow fluids to flow into the Expansion Battery.
 Corrosive or conductive fluids, such as seawater, certain industrial chemicals, and bleach or bleach containing products, etc., can cause a short circuit.
- Follow all charging instructions and do not charge the Expansion Battery outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

A CAUTION

When charging the Expansion Battery:

- Always charge the Expansion Battery's internal battery in a well-ventilated area.
- Do not charge the internal battery below 32°F (0°C) or above 113°F (45°C).
- Do not charge Expansion Battery in rain, snow, damp or wet locations.
- Always connect to properly grounded outlets.
- Never use Expansion Battery or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials).
- Never leave the Expansion Battery unattended while charging. If the internal battery smokes, or gives off an odor during charging, terminate charging immediately.
- During charging, if the Expansion Battery battery becomes hot to the touch, stop charging. Allow battery to cool before resuming.
- Always unplug charger when not in use.
- To reduce the risk of electric shock, always unplug charger before cleaning or maintenance. Do not allow water to flow into plug. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.

NOTICE

The Expansion Battery must be fully charged after purchase of the product prior to the first initial use and at least once every 6 months (180 days) thereafter when in storage to keep the battery in good operating condition.

Grounding Information:

- This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. There are ground terminals on the panel of this product. The ground terminal must be connected to the ground reliably with a ground conductor.
- Do not modify the plug provided with the Expansion Battery –
 if it will not fit into the outlet, have a proper outlet installed by
 a qualified electrician.

A CAUTION

When storing the Expansion Battery:

- This Expansion Battery is to be stored indoors and must not be stored or left outdoors when not in use.
- Do not stack any items on top of the Expansion Battery during storage.
- Store your Expansion Battery and charger in a cool, dry place between -4°F (-20°C) and 104°F (40°C).
- Do not store the Expansion Battery when battery level is at 20% or less state of charge (SOC). The ideal storage SOC is 40-60%.
- When storing the Expansion Battery for periods of one month or longer, store the Expansion Battery at an SOC of about 60%. Every three months, discharge the Expansion Battery to 40% and recharge back to 60% to extend the battery life.
- Lithium-ion batteries must be charged regularly to perform well. The Expansion Battery must be fully charged by you at least once every 6 months (180 days) when not in use.

A DANGER

- Do not store the Expansion Battery where temperatures may exceed 120°F (50°C) such as in direct sunlight, in a vehicle or metal buildings especially during the summer.
- Do not store the Expansion Battery near sources of high heat or fire.

A WARNING

In case of battery damage:

- If damaged, the internal battery may emit hazardous fumes. If fumes are present, move Expansion Battery to a well-ventilated area.
- Do not try to repair the Expansion Battery or replace the battery.

A CAUTION

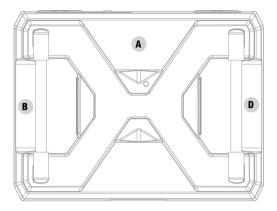
Safe disposal of Lithium-ion battery:

- Lithium-ion batteries contain elements that pose health risks to individuals if they are allowed to leach into the ground water supply. In many states and counties, it may be illegal to dispose of these batteries in standard household waste.
- To dispose the battery safely, apply tape over any exposed connectors to prevent accidental shorting of the positive and negative terminals of the battery during transport.
- Place the battery in a clear sturdy plastic bag, seal the bag and deposit the battery into the recycling container at your local municipal hazardous waste (HHW) recycling location.
- In the United States and Canada, a large network of over 30,000 battery drop-off locations may be found at www.call2recycle.org.
- Never dispose of the battery in a fire or incinerator, as the battery may catch fire and explode.

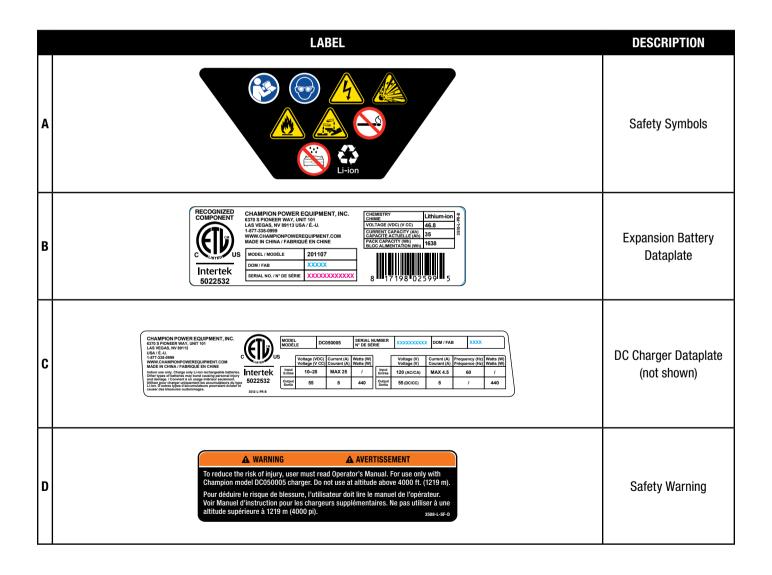
Safety and Dataplate Labels

These labels warn you of potential hazards that can cause serious injury. Read them carefully.

If a label comes off or becomes hard to read, contact Technical Support Team for possible replacement.



Top View



Safety Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
	Read Operator's Manual. To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye protection. Always wear eye protection with side shields marked to comply with ANSI Z87.1.
	Ground. Consult with local electrician to determine grounding requirements before operation.
<u>A</u>	Electric Shock. Failure to use in dry conditions and to observe safe practices can result in electric shock.
	Shield eyes. Explosive gases can cause blindness or injury. If damaged, battery may emit hazardous fumes. If fumes present, move battery to a well-ventilated area.
	Fire/Explosion. Batteries and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death. Keep Expansion Battery at least 5 feet (1.5m) from all objects to prevent combustion.
	Blindness or severe burns. Electrolyte solution can cause blindness or severe burns.

SYMBOL	MEANING
	Open Flame Alert. Keep away from fuel, smoking, open flames, sparks, pilot lights, heat, and other ignition sources.
	Wet Conditions Alert. Do not operate Expansion Battery in wet conditions.
Li-ion	This product uses lithium-ion (Li-ion) batteries. Local, state, or federal laws prohibit disposal of Li-ion batteries in ordinary trash. In the United States and Canada, a large network of over 30,000 battery drop-off locations may be found at www.call2recycle.org and/or consult your local waste authority for information regarding available recycling disposal options.

Operation Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

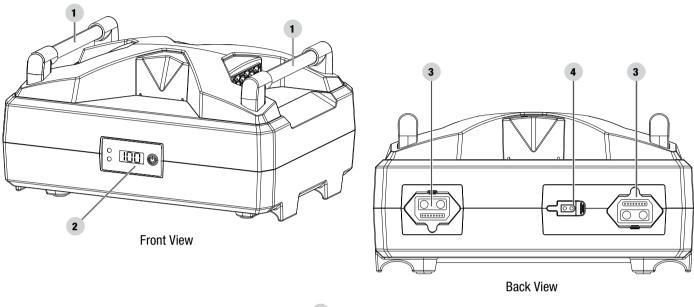
SYMBOL	MEANING
り	Press to power display ON/OFF
⋮	Expansion Battery discharging to power station
	Expansion Battery charging
₹	Expansion Battery Input/Output

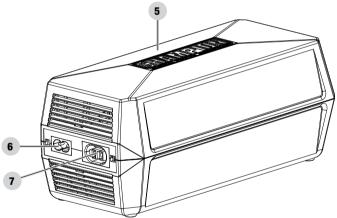
SYMBOL	MEANING
120V 60Hz	AC Charging Input
10-28V	APP DC Charging Input
===+	Charging Module Input

CONTROLS AND FEATURES

Read this operator's manual before operating your Expansion Battery. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

Expansion Battery





Charging Module Rear View

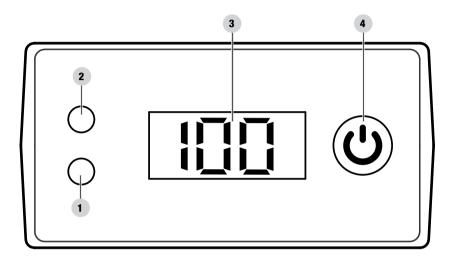
- 1. Carrying Handle(s) Used to lift or carry the unit.
- 2. Intelligauge See Intelligauge section.
- 3. **Battery Connection Port** Used to connect to the Power Station and/or chain up to 10 Expansion Batteries.
- 4. **Charging Module Input** Used to charge the Expansion Battery using the provided charging module.
- 5. **Charging Module** Used to charge the Expansion Battery from a regular wall outlet or solar panels.
- AC Fast Charge 120V AC, 60Hz, 4.5A MAX May be used to charge the Expansion Battery from a regular wall outlet. Uses included cord.
- APP DC Charging Input May be used to charge the Expansion Battery from solar panel(s). Uses included Easy Connect DC Solar Charge Harness from 1x APP (plug into the Expansion Battery) to 3x MC4 (connect to the solar panels) connectors -Solar panels (not included).

Intelligauge - Expansion Battery

This meter displays the remaining battery level of the Expansion Battery from 0-100%. The display button must be pressed to illuminate the display, however, the Expansion Battery is fully operational as soon as it is plugged into and paired with the Power Station.

The top LED will illuminate red when the display is turned on and the Expansion Battery is discharging to the Power Station. The Expansion Battery will only begin discharging when its battery level is equal to or greater than the battery level of the Power Station.

The lower LED will illuminate green when the display is turned on and the Expansion Battery is charging.



- Charging Indicator LED Illuminates when Expansion Battery is charging.
- Discharging Indicator LED Illuminates when discharging to Power Station. The Expansion Battery will only begin discharging when its battery level is equal to or greater than the battery level of the Power Station.
- 3. **Fuel Gauge** Displays battery level remaining and fault codes when they occur.
- 4. **Display ON/OFF Button** Press to turn display on. Display shuts off automatically after 30 seconds.

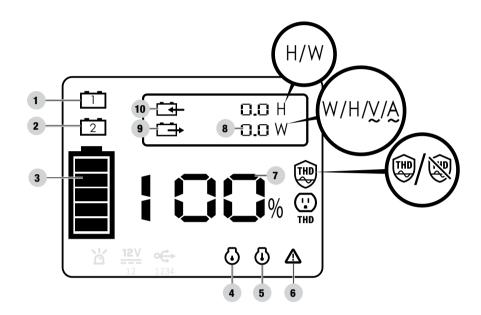
Intelligauge - Power Station

This meter displays a variety of info such as input/output power, charge/discharge times, as well as faults, errors, and protection codes to help diagnose malfunctions in the Power Station and Expansion Batteries.

The top displays input and output information along with if drawing power from Power Station or Expansion Batteries.

The bottom displays output percent (%), battery level, and icons related to which outlets are in use, specific warnings or other faults and functions.

When one or more Expansion Batteries are connected and paired to the Power Station, the Battery 2 icon will automatically toggle on and display info and faults from the Expansion Batteries. When multiple Expansion Batteries connected, the hours until empty and percentage of each battery is added together when Battery 2 icon is illuminated. The percentage can read higher than 100%. When Battery 1 icon is illuminated, the display will only show info and faults from the Power Station.



- 1. **Battery 1** Displays Power Station info when illuminated.
- Battery 2 Automatically toggles and illuminates to display Expansion Battery info when Expansion Batteries are paired and connected.
- 3. **Fuel Gauge** Each bar represents approximately 20% and will show as full when the sum of all Expansion Batteries is at 100% or more.
- Low Temperature Steady red if internal temperature too low.
- 5. **High Temperature** Steady red if internal temperature too high.
- Warning Flashes red when battery or circuitry communication fault has occurred. Steady red when BMS fault has occurred.

- Battery level in % When multiple Expansion Batteries connected, the percentage of each battery is added together and can read higher than 100% when battery 2 icon is illuminated.
- 8. **Output** Watts (W), Hours until empty (H), AC Volts (V), and AC Amps (A).
- 9. Battery Out Indicates battery is discharging.
- Battery In Indicates battery is charging. Do not charge either Power Station or Expansion Batteries while connected to each other.

^{*}Refer to your Power Station's Operator's Manual for a full description of the Power Station's Intelligauge functions and icons.

Indicators

MODE	DES	CRIPTION
Expansion Battery Discharging (Hours) – 2 Expansion Batteries and 1 Power Station at 100% each	Example: Battery 2 Icon illuminated, 8.0 Hours to empty, 0 watts in, Expansion Batteries are at 200%	□ □ □ 0.0 W □ □ □ 0.0 W □ □ □ 0.0 W □ □ 0.0 W □ □ 0.0 W □ 0.
Power Station Discharging (Hours)	Example: Battery 1 Icon illuminated, 2.0 Hours to empty, 0 watts in, Power Station battery is at 10%	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Expansion Battery High Temperature Warning	Example: Steady red when the Expansion Battery has experienced a high temperature event. The Expansion Battery with fault will display fault code E13 or E14. See troubleshooting section.	2 (h)
		© EIB ©
Expansion Battery Low Temperature Warning	I expendince a low temperature event.	2
	code E12 or E15. See troubleshooting section.	

MODE	DES	CRIPTION
Another Expansion Battery or Power Station detected during charging	Example: Steady red when the Expansion Battery and/or Power Station have experienced a communication fault. The Expansion Battery with fault will display fault code E2. See troubleshooting section.	

201107 - 1600 EXPANSION BATTERY ASSEMBLY

Industry Canada: ICES-003/NMB-003

This device complies with Industry Canada license - exempt RSS standard(s).

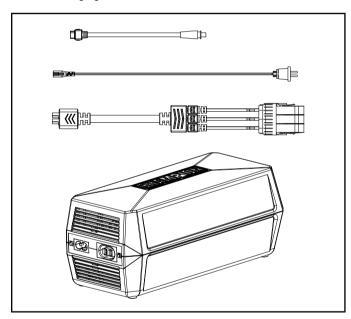
Operation is subject to the following two conditions:

- 1. This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Parts Included

Accessories

Battery Connection Cable
AC Charge Cable
Easy Connect DC Solar Charge Harness
AC/DC Charging Module



Parts Not Included

Solar Panels

ASSEMBLY

Your Expansion Battery must be charged before first use.

If you have any questions regarding the use of your Expansion Battery, call our Technical Support Team at 1-877-338-0999. Please have your serial number and model number available.

Unpacking

- 1. Set the shipping carton on a solid, flat surface.
- 2. Remove everything from the carton except the Expansion Battery.
- 3. Using the carrying handles of the unit, carefully remove the Expansion Battery from the box.

Grounding

A WARNING

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. There are ground terminals on the panel of this product. The ground terminal must be connected to the ground reliably with a ground conductor.

Surge Protection

Electronic devices, including computers and many programmable appliances use components that are designed to operate within a narrow voltage range and may be affected by momentary voltage fluctuations. While there is no way to prevent voltage fluctuations, you can take steps to protect sensitive electronic equipment.

Install UL1449, CSA-listed, plug-in surge suppressors on the outlets feeding your sensitive equipment.
 Surge suppressors come in single- or multi-outlet styles.
 They're designed to protect against virtually all short-duration voltage fluctuations.

Operation at High Altitude

▲ WARNING

Do not use at altitude above 1219 ft. (4000 m).

The density of air at higher altitudes is lower than at sea level.

The increase of higher altitudes causes the battery to ignite faster, while the mass loss, heat release rate and total heat release for batteries decrease at low pressure, thereby experiencing faster internal battery arcing, and greater energy consumption with the higher altitudes and thinner atmospheres.

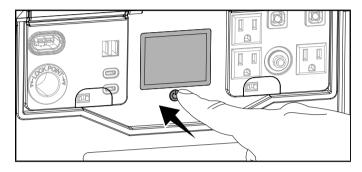
201107 - 1600 EXPANSION BATTERY ASSEMBLY

Pairing with Power Station

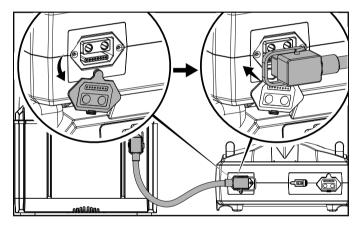
A CAUTION

The Expansion Battery and Power Station can not be used to charge each other in place of AC or DC input charge.

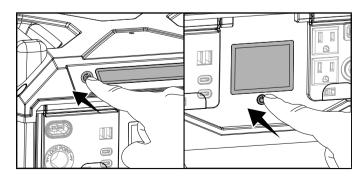
 Turn on the Power Station and unplug all devices and any other Expansion Batteries from the Power Station. Do not attempt to pair multiple Expansion Batteries at the same time.



2. Connect the fully charged Expansion Battery to the Power Station.



3. Hold down the overload reset button of the POWER STATION. While holding down the button, press the On/Off button of the POWER STATION two times.



- 4. The LED light on the POWER STATION will illuminate, then flash 3 times (if LED light does not turn on or flash 3 times, repeat steps 2 and 3, making sure no other Expansion Batteries are connected during the pairing process).
- 5. To pair additional Expansion Batteries, repeat steps 1-4.

Charging From Wall

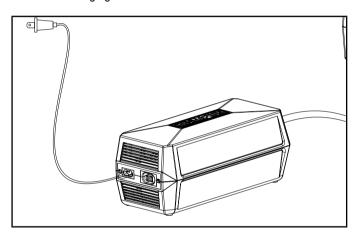
A CAUTION

Do not charge Expansion Battery or Power Station while they are connected to each other. Doing so will cause a fault condition. If fault occurs, disconnect Expansion Batteries from Power Station and charge each individually.

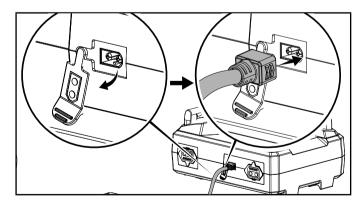
NOTICE

The Expansion Battery must be fully charged every 180 days when in storage, to keep the internal battery in good operating condition.

1. Plug the AC Charging Cable into the AC input port on the back of the charging module.



- 2. Plug the other end into a standard wall outlet.
- 3. Connect charging module to Expansion Battery.



201107 - 1600 EXPANSION BATTERY ASSEMBLY

Using Included Easy Connect DC Solar Charge Harness

(For solar panels with MC4 connector)

NOTICE

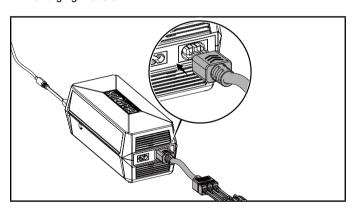
The Power Station's charging wattage is rated at 440W. However, depending on environmental conditions and solar panel efficiency, often times it will be necessary to use more than 440W of solar panels to achieve actual 440W of charging energy. Adding more than 440W of solar panels will not damage the battery.

The charging power and rate is reduced as the battery level gets closer to 100% to safely charge the internal battery.

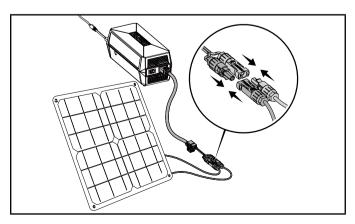
It is important to adjust your solar panels to face the sun as best as possible throughout the day to achieve maximum charging efficiency.

For example, on a cloudy day, three 150W (450W total) rated solar panels may only produce 250-350W of charging power. It may be necessary, and will not harm your Power Station to add more solar panels to the harness until you reach 440W of charging power.

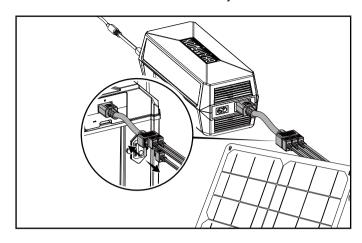
 Connect the APP end of the Easy Connect DC Solar Charge Harness (included) to the APP input port on the back of the charging module.



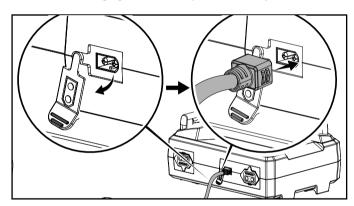
2. Connect up to three solar panels using the MC4 connectors.



3. If not using all 3 connections, you can remove any spare connectors and store in a safe and dry location.



4. Connect charging module to Expansion Battery.



Recommended Solar Panels

NOTICE

Often times it will be necessary to use more than 440W of solar panels to achieve actual 440W of charging energy. Adding more than 440W of solar panels will not damage the battery.

Always use panels with the same nominal voltage rating when using multiple solar panels.

Model	Watts	Connector Type
Renogy RNG-100D-SS	100	MC4
Renogy Solar Panel 200 Watt 12 Volt	200	MC4
Bluetti SP120	120	MC4
Bluetti SP200	200	MC4
ECOFLOW EFSOLAR 160W	160	MC4

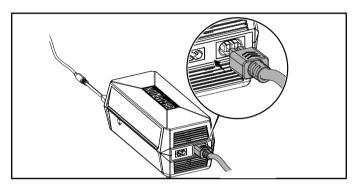
201107 - 1600 EXPANSION BATTERY OPERATION

Any solar panel rated between 10-28V with MC4 or APP connectors can be used. The Expansion battery's charging module has a built in MPPT so there is no need to buy an external charge controller, inverter, or worry about connecting more than 440W of solar panels to reach 440W of input on cloudy days.

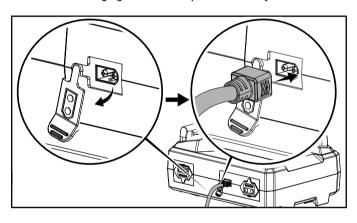
Using APP Port

(For Solar Panels with APP connector)

 Connect the solar panel to the APP input port on the back of the Charging Module. Be sure to connect the red lead to red side of port and black lead to black side of port.



2. Connect charging module to Expansion Battery.



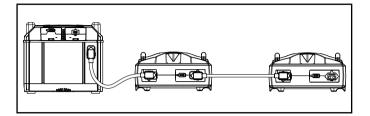
OPERATION

Using the Expansion Battery

NOTICE

When one or more Expansion Batteries are connected to a Power Station the Expansion Batteries or Power Station with the highest remaining battery level will discharge first until the remaining battery level is equal among all connected Expansion Batteries and Power Station. Once all remaining battery levels are the same, they will begin discharging at the same rate.

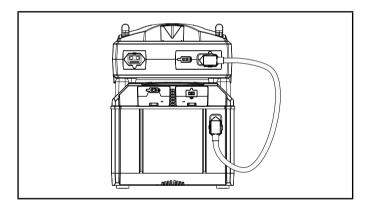
- Once paired, the Expansion Batteries can be unplugged from the Power Station or each other and remain paired until manually unpaired.
- The Expansion Batteries can be chained with the paired Power Station in any order.



A CAUTION

Do not charge Expansion Battery or Power Station while they are connected to each other. Doing so will cause a fault condition. If fault occurs, disconnect Expansion Battery from Power Station and charge each individually.

 An Expansion Battery can be stacked on top of Power Station to save space.



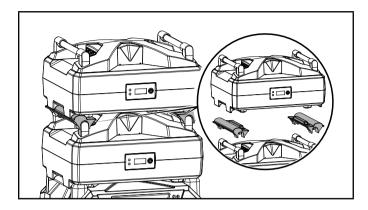
 To stack multiple Expansion Batteries, a stack adapter (PN SS11372) is needed. Contact customer service to receive your adapters free of charge.

A CAUTION

To avoid tipping hazard, do not stack more than 3 Expansion Batteries on top of Power Station or more than 5 Expansion Batteries on top of each other.

201107 - 1600 EXPANSION BATTERY MAINTENANCE

 Once received, snap the adapters onto the Expansion Battery handles, then place another Expansion Battery on top of the adapters. Make sure the feet of the top Expansion Battery are firmly seated in the adapter holes.



Do Not Overload Expansion Battery

Capacity

- The Expansion Battery does not increase the running or starting wattage of the power station. It only increases the capacity (Wh), or "run time".
- See your Power Station's operator's manual to calculate the running and starting wattage it can safely handle.

Expandable Capacity

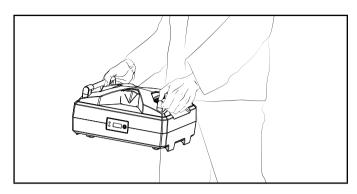
Your Champion Power Station is capable of connecting up to ten 1638 Wh Expansion Batteries. To order more Champion Expansion Batteries to increase your Power Station's capacity and run time please call customer service at 1-877-338-0999 or visit www.championpowerequipment.com.

Turning Off the Expansion Battery

If the Expansion Battery is being charged, it will not be able to be turned off. The internal fans will continue running periodically to ensure the unit does not overheat. The Expansion Battery will, otherwise, shut down on its own when not in use.

Moving the Expansion Battery

1. Pick up and move the Expansion Battery by the carrying handles as shown below.



2. Move to desired location.

MAINTENANCE

Cleaning the Expansion Battery

A WARNING

DO NOT spray Expansion Battery directly with water.

No user serviceable parts for maintenance required.

Water can enter the Expansion Battery through the cooling slots and damage the Expansion Battery electronics.

- 1. Use a damp cloth to clean exterior surfaces of the Expansion Battery.
- 2. Use a soft bristle brush to remove dirt and debris.
- 3. Use an air compressor (25 PSI) to clear dirt and debris from the Expansion Battery.
- 4. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

201107 - 1600 EXPANSION BATTERY STORAGE

STORAGE

A CAUTION

- This Expansion Battery is intended to be stored indoors and shall not be stored or left outdoors when not in use.
- Do not stack any items on top of the Expansion Battery during storage.
- Store your Expansion Battery and charger in a cool, dry place between -4°F (-20°C) and 104°F (40°C).
- Do not store the Expansion Battery when battery level is at 20% or less state of charge (SOC). The ideal storage SOC is 40-60%.
- When storing the Expansion Battery for periods of one month or longer, store the Expansion Battery at an SOC of about 60%. Every three months, discharge the Expansion Battery to 40% and recharge back to 60% to extend the battery life.
- Lithium-ion batteries must be charged regularly to perform well. The Expansion Battery must be fully charged by you at least once every 6 months (180 days).

A DANGER

- Do not store the Expansion Battery where temperatures may exceed 120°F (50°C) such as in direct sunlight, in a vehicle or metal buildings especially during the summer.
- Do not store the Expansion Battery near sources of high heat or fire.

SPECIFICATIONS

Expansion Battery Specifications

Expansion Battery Model	201107
Weight	24.9 lb. (11.3 kg)
Length	13.4 in. (34.1 cm)
Width	10.2 in. (26 cm)
Height	6.7 in. (17.1 cm)

Battery Specifications

Chemistry	Lithium-ion NMC
Pack Rated Output Voltage	46.8
Pack Max. Output Voltage	54.6
Pack Capacity	1638 Wh
Single Cell Equivalent Capacity	. Up to 455 Ah at 3.6V

AC Charger Specifications

Output Watts	440
Input Voltage	120
Output Voltage	55 DC
Max. Input Amps	4.5
Output Amps	8
Input Frequency	60

DC Charger Specifications

Output Watts	440
Input Voltage	10-28
Output Voltage	55
Max. Input Amps	25
Output Amps	8

Temperature Specifications

Charging Temperature Range (°F/°C)	32 to 113/0 to 45
Discharging Temperature Range (°F/°C)	5 to 104/-15 to 40

201107 - 1600 EXPANSION BATTERY TROUBLESHOOTING

TROUBLESHOOTING

Problem	Cause	Solution
Expansion Battery will not turn on.	Display does not automatically turn on	The display button must be pressed for the display to turn on. It does not turn on automatically. The Expansion Battery will charge and discharge regardless of whether the display is on.
	Battery not discharging	Press the display button and ensure the red discharging light is illuminated and battery connection cable is securely plugged into both ports. If red discharging light is still not illuminated, repeat the pairing instructions.
	Battery is faulty	Call Champion Support.
No power output.	DC Outlets overloaded	Check Power Station for flashing red 12V or USB warning light. Press Power Station Overload Reset button to restore power to outlets.
	AC outlets overloaded	Check Power Station display for flashing red 120V warning light. Check if Power Station AC Overload button flashing red. Check if Power Station circuit breaker tripped. Unplug devices from Power Station AC outlets. Press Power Station circuit breaker if tripped. Press Power Station Overload Reset button if Power Station warning light is flashing red. If power still not restored, turn both units OFF for 1 minute then restart the Power Station.
	Device is faulty	Check all plugged in devices for frayed or faulty wires. Never run any equipment in wet or humid environments
	Device not compatible with USB outlet.	Check your devices' charging capability and try different USB outlet.
	Unit is too hot	Check Power Station display for flashing red High Temperature warning light. Turn both units off, place in the shade or a cooler area and let cool down. Check that the Power Station is not overloaded.
	Unit is too cold	Check Power Station display for flashing red Low Temperature warning light. Turn both units off and bring them indoors. Allow the units to warm up.
	Battery fault	Check Power Station display for flashing red Warning light. Turn both units off for 5 minutes and restart. Call customer service if warning light does not go away.
Unit will not charge through wall.	Home circuit breaker tripped	Check your home's circuit breaker and reset if necessary.
	Faulty charging cable	Check that your charging cable is not frayed or faulty. Never charge your equipment in wet or humid conditions
	Charging while connected to Power Station.	Do not charge either Power Station or Expansion Batteries while connected to each other.

201107 - 1600 EXPANSION BATTERY TROUBLESHOOTING

Problem	Cause	Solution
Expansion Battery will not pair multiple batteries.	Batteries not paired individually	Each Expansion Battery must be paired individually to the Power Station. Do not chain Expansion Batteries and attempt to pair more than one at a time. See Pairing Instructions.
Unit will not charge through solar.	Solar panels are not within spec	Check that your solar panels are rated between 10-28V.
	Solar panels improperly connected	When connecting multiple solar panels, only use provided Easy Connect DC Solar Charge Harness and appropriately rated extensions. When plugging directly into APP port, only use one solar panel rated between 10-28V.
	Solar panels not receiving enough sunlight	Check that your solar panels are pointed directly at the sun and there is ample sunlight. Read your solar panel's instruction manual for proper placement and instructions.
	Charging while connected to Power Station.	Do not charge either Power Station or Expansion Batteries while connected to each other.
Unit not charging at Solar Panel rated wattage.	Charging wattage depends on environmental conditions and panel efficiency.	Adjust your solar panels to face the sun as best as possible throughout the day to achieve maximum charging efficiency.
		It may be necessary to connect more than any combination of 440W of solar panels to reach the full 440W of charging power.
		For example, on a cloudy day, three 150W (450W total) rated solar panels may only produce about 250-350W of charging power. It may be necessary, and will not harm your Power Station to add more solar panels to the harness until you reach 440W of charging power.

For other issues and technical support:

Technical Support Team
Toll Free 1-877-338-0999
support@championpowerequipment.com

POWER STATION FAULT INDICATOR CODES

If a problem arises with the Expansion Battery, a fault indicator code will flash on the Expansion Battery Intelligauge. To resolve the issue, follow the directions as indicated in the table below. For further information about Fault Codes, contact:

Technical Support Team
Toll Free 1-877-338-0999
support@championpowerequipment.com

Fault Code	Failure Description	Diagnosis
E1	Chip initialization error	Restart the Power Station.
E2	Other battery packs detected during charging	Disconnect the charger or unplug the Expansion Battery from the Power Station and any other expansion battery.
E3	Low-voltage protection	Unplug all devices. Charge the Expansion Battery.
E4	Overvoltage protection	Disconnect the charger and discharge the Expansion Battery by connecting a load to the power station while the Expansion Battery is paired and connected.
E5	Discharge - short circuit protection	Unplug all devices from Power Station. Restart the Power Station. Check all devices for frayed or faulty wires. Plug devices back in one by one and check if specific device is causing fault.
E6	Discharge - overcurrent protection	Restart the Power Station and lower load by unplugging one or more devices.
E7	Battery voltage out of range	Restart the Power Station.
E8	Internal communication failure	Restart the Power Station.
E9	Internal communication failure	Restart the Power Station.
E10	MOS high temperature protection	Unplug devices and disconnect charger, move to a shaded or cooler area. Wait for the internal temperature to drop.
E11	Charge - overcurrent protection	Use only provided charger and harness. Ensure solar panels meet the required current and voltage specifications.
E12	Battery low temperature protection	Unplug devices and disconnect charger, move to a warmer area. Wait for the internal temperature to rise.
E13	Battery high temperature protection	Unplug devices and disconnect charger, move to a shaded or cooler area. Wait for the internal temperature to drop.
E14	Charge - high temperature protection	Unplug devices and disconnect charger, move to a shaded or cooler area. Wait for the internal temperature to drop.
E15	Charging - low temperature protection	Unplug devices and disconnect charger, move to a warmer area. Wait for the internal temperature to rise.

WARRANTY*

CHAMPION POWER EQUIPMENT
3 YEAR or 1000 CYCLE LIMITED WARRANTY

Warranty Qualifications

To register your product for warranty and FREE lifetime call center technical support please visit:

https://www.championpowerequipment.com/register

To complete registration you will need to include a copy of the purchase receipt as proof of original purchase. Proof of purchase is required for warranty service. Please register within ten (10) days from date of purchase.

Repair/Replacement Warranty

CPE warrants to the original purchaser that the components will be free of defects in material and workmanship for a period of three (3) years or 1000 cycles (parts and labor), whichever occurs first, from the original date of purchase and 90 days (parts and labor) for commercial and industrial use. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Products with lithium batteries should be charged regularly to perform well. The Power Station must be fully charged by you at least once every 6 months (180 days). This warranty does not cover repair when normal use has exhausted the life of a part, like the batteries, or the equipment.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if the product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the product's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty and is not required to be performed at a facility or by a person authorized by CPE.

Other Exclusions

This warranty excludes:

- Items purchased from unauthorized resellers.
- Any defects or damages caused by exposure to excessive heat, cold, corrosive or conductive fluids, liquids such as water, seawater, industrial chemicals, bleach or bleach containing products or other external causes.
- Warranty claims on items taken outside the original country of purchase
- Cosmetic defects on plastic, labels, etc.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.
- Any battery cell or product containing a battery cell unless the battery cell has been fully charged after purchase of the product and at least once every 6 months (180 days) thereafter.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this product.

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state or province to province. Your state or province may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

Champion Power Equipment, Inc. 6370 S Pioneer Way, Unit 101 Las Vegas, NV 89113 USA www.championpowerequipment.com

Customer Service

Toll Free: 1-877-338-0999

support@championpowerequipment.com

Fax no.: 1-562-236-9429