



# **XPC-EBP64**

External Battery Pack

User & Installation Manual

**Table of Contents**

**Introduction.....5**

**Product Description.....5**

    Extended Battery Pack Configurations.....6

    Safety Information.....7

    Storage and Transportation.....7

**Battery Wiring Within Cabinet.....7**

    Basic Wiring Diagram.....7

    Specific Battery Wiring.....8

**Cabinet Installation Guide.....11**

    Cabinet Wiring.....11

**Batteries.....16**

    Replacing The Battery.....16

**Troubleshooting.....16**

**Specifications.....17**

**Shipping List..... 17**

**Obtaining Service.....18**

**Xtreme Power Conversion Limited Warranty.....19**

Thank you for selecting this Extended Battery Pack designed specifically to be used with the Gamatronic SA unit. **Please read this manual** before installing the XPC-EBP641 or XPC-EBP642 as it provides important information that should be followed during installation and maintenance of the cabinet and batteries, allowing you to correctly set up your system for the maximum safety and performance. Included is information on customer support and service, if it is required. If you experience a problem with the EBP, please refer to the Troubleshooting section in this manual to correct the problem. If the problem is not corrected, please collect information so that the Technical Support personnel can more effectively assist you.

**IMPORTANT SAFETY INSTRUCTIONS: (SAVE THESE INSTRUCTIONS)**

**CAUTION! (EBP64 having Internal Batteries):** Risk of electrical shock – Hazardous live parts inside this unit are energized from the battery supply even when the input AC power is disconnected.

**CAUTION! (No User serviceable Parts):** Risk of electrical shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

**CAUTION! (Non-isolated Battery supply):** Risk of electric shock, battery circuit is not isolated from AC input, hazardous voltage may exist between battery terminals and ground. Test before touching.

**WARNING! (Fuses):** To reduce the risk of fire, replace only with the same type and size of fuse.

**WARNING!** Unit intended for installation in a controlled environment.

**CAUTION!** Do not dispose of batteries in a fire, the battery may explode.

**CAUTION!** Do not open or mutilate the battery, released electrolyte is harmful to the skin and eyes.

**CAUTION!** A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed when working on batteries:

- Remove watches, rings or other metal objects.
- Use tools with insulated handles.

Servicing of batteries should be performed or supervised by personnel with knowledge of batteries and the required precautions. Keep unauthorized personnel away from batteries.

These EBP64 units are extremely heavy, use caution when moving.

The instructions contained within this safety manual are deemed important and should be closely followed at all times during installation and follow-up maintenance of the EBP64 and batteries.

**CAUTION**

Care should be taken to undertake installation indoors, free from electrically-conductive particles which are under temperature and humidity control, in order to reduce the risk of electric shock.

All servicing on this equipment must be carried out by qualified service personnel.

Before conducting any maintenance, repair, or shipment, first ensure that everything is turned off completely and disconnected.

## Introduction

The information provided in this manual covers the Extended Battery Packs, their basic functions, operating procedures, options available and emergency situations. It also includes information on how to ship, store, handle, and install the equipment. Only detailed requirements of the EBP units are described herein, and installation must be carried out in accordance with this manual. Electrical installation must also carefully follow local legislation and regulations. Only qualified personnel should conduct these installations as failure to acknowledge electrical hazards could prove to be fatal.

## Product Description

Many different kinds of sensitive electrical equipment can be protected by an Uninterruptible Power Supply (UPS) including computers, workstations, process control systems, telecommunications systems, sales terminals, other critical instrumentation, etc. The purpose of the UPS is to protect these systems from poor quality utility power, complete loss of power, or other associated problems.

Electrical interference exists in many forms, causing problems in AC power, from lightning, power company accidents and radio transmission motors, air conditioners, and vending machines. Protection of sensitive electrical equipment is vital to protect against power outages, low or high voltage conditions, slow voltage fluctuations, frequency variations, differential and common-mode noise, transients, etc.

To prevent power line problems from reaching critical systems causing damage to software, hardware, and equipment malfunctions, the UPS maintains constant voltage, isolating critical load output and cleaning the utility AC power.



**XPC-EBP64 Front View**

## Extended Battery Pack Configurations

There are two different Extended Battery Packs that will be used in conjunction with the Gamatronics SA unit.

- XPC-EBP641 contains (32) 12V9AH UPS batteries
- XPC-EBP642 contains (64) 12V9AH UPS batteries

Each cabinet is equipped with a set of 30A Battery Fuses – one for each string of batteries that can be installed in the basic cabinet.

Each cabinet is equipped with a 30A Circuit Breaker so that the cabinet can be safely removed from the UPS and/or other EBP64 cabinets for service.

Input and Output Wiring for the cabinet is connected to the Terminal Block in the bottom rear of the cabinet.



EBP64 Rear Panel

## Safety Information

Information presented here is vital to all personnel. Please read all Safety information.



### WARNING!

It is strongly recommended that the EBP64 cabinet not be opened as components have very high voltage and touching those components may be fatal. Only a qualified technician or authorized agent may service the unit.

The EBP64 unit's output terminal block carries live voltage even when not connected to an input voltage source. The EBP64 has its own internal energy source.

### Storage and Transportation

Please handle the UPS and associated equipment with extreme caution since a high amount of energy is contained in the batteries. Always keep the unit in an upright position as marked on the packaging, and never drop the unit.

Please adhere to the following instructions if the EBP64 is not installed immediately:

- Store the equipment as is in its original packing and shipping carton.
- Do not store in temperatures outside the range of -15°C to +25°C
- Ensure that the equipment is fully protected from wet or damp areas and from moist air.

In order to maintain the batteries, the EBP64 should be recharged every 6 months for at least 8 hours.

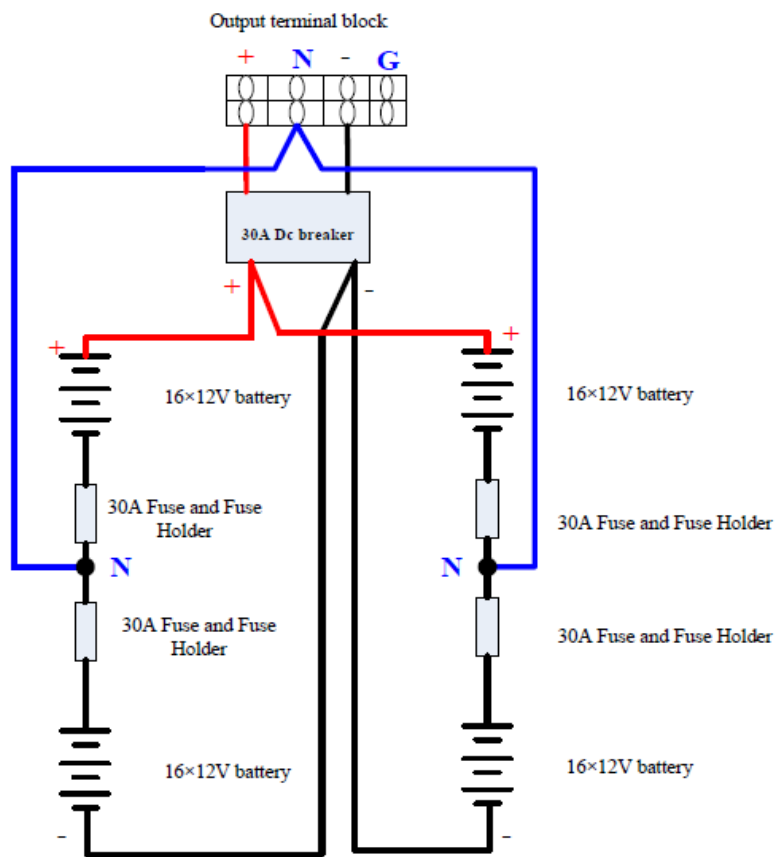
If flammable substances such as gases or fumes are present, or if the room is airtight, a hazardous situation may exist in which no electrical equipment should be operated.

The instructions in this manual explain how to install the EBP64 safely. Not acknowledging such electrical hazards may be fatal – keep this manual for future reference.

### Battery Wiring Within Cabinet

This section describes the basic Assembly Process for the batteries installed in the EBP641 and EBP642 Cabinets. In most cases, the batteries will already be installed and wired within the cabinet. These instructions only apply if new batteries are being installed into a cabinet.

#### Basic Wiring Diagram



### Specific Battery Wiring

Steps 1-4 are for the first string of 32 batteries, Steps 5-8 are for the second string of 32 batteries

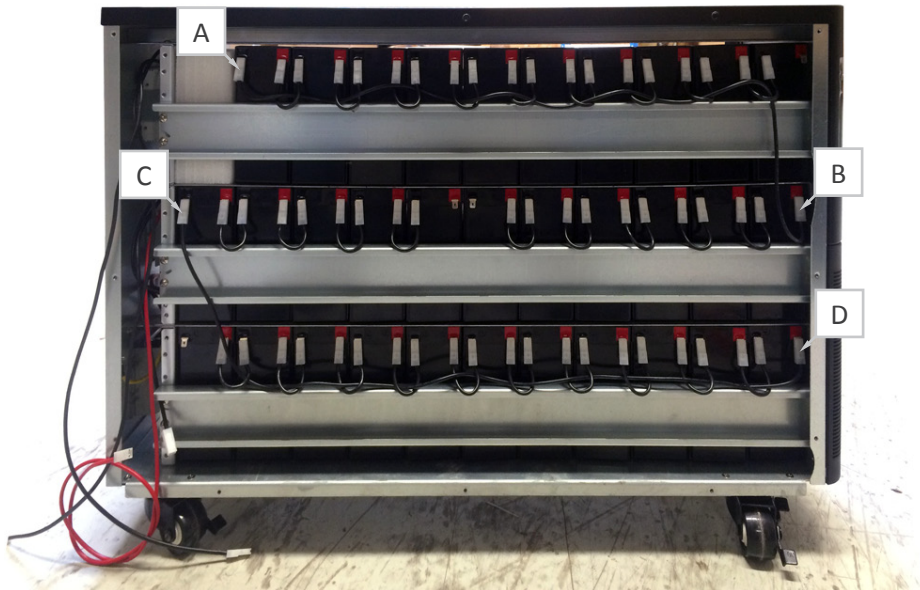
**Step 1:** Use short black connect wiring (28 pcs) to connect the batteries as shown below.



Rear of Cabinet

Front of Cabinet

**Step 2:** Use long black wiring (2 pcs) to connect A to B and C to D.

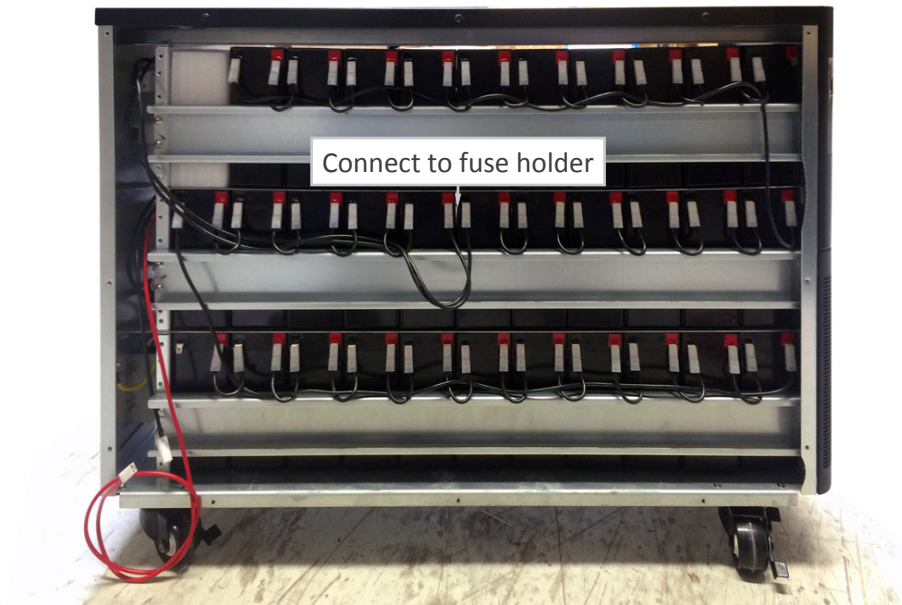


Rear of Cabinet

Front of Cabinet



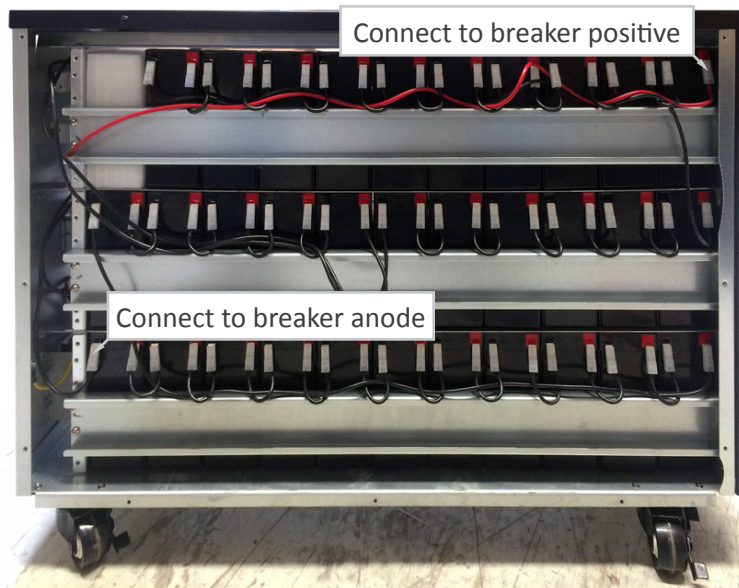
**Step 3:** Connect long black wiring (2 pcs) to fuse holder.



Rear of Cabinet

Front of Cabinet

**Step 4:** Connect short black wiring (1 pc) to breaker anode. Connect long red wiring (1 pc) breaker positive.



Rear of Cabinet

Front of Cabinet

**Step 5:** Use short black connect wiring (28 pcs) to connect the batteries as shown below.



Front of Cabinet

Rear of Cabinet

**Step 6:** Use long black wiring (2 pcs) to connect A to B and C to D.



Front of Cabinet

Rear of Cabinet

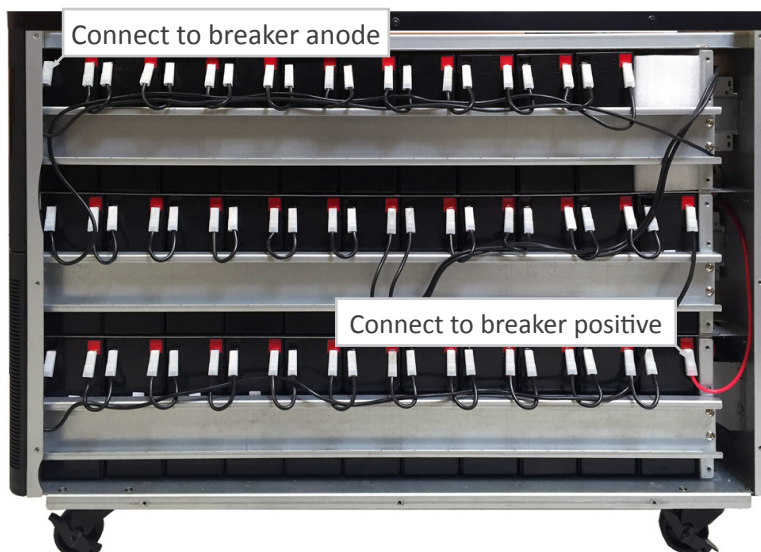
**Step 7:** Connect long black wiring (2 pcs) to fuse holder.



Front of Cabinet

Rear of Cabinet

**Step 8:** Connect short red wiring (1 pc) to breaker positive. Connect long black wiring (1 pc) breaker anode.



Front of Cabinet

Rear of Cabinet

## Cabinet Installation Guide

Inspect the EBP64 upon receipt. The packaging is recyclable; keep it for reuse or dispose of properly.

### *Cabinet Wiring*



**EBP64 Rear Cabinet Terminal Block**

1. Insure the UPS is off, and is disconnected from the AC source. Also insure that the battery cabinet(s) fuses are removed, and the battery breaker(s) are open. Check each UPS and battery cabinet terminal to insure no DC voltage is present prior to each connection.





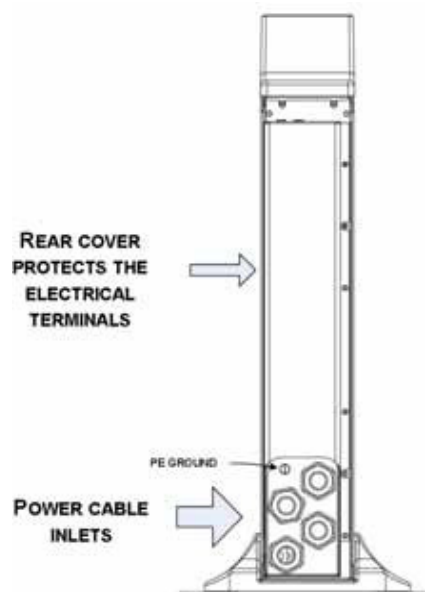
2. Remove the cover for the cabinet wiring terminal block.



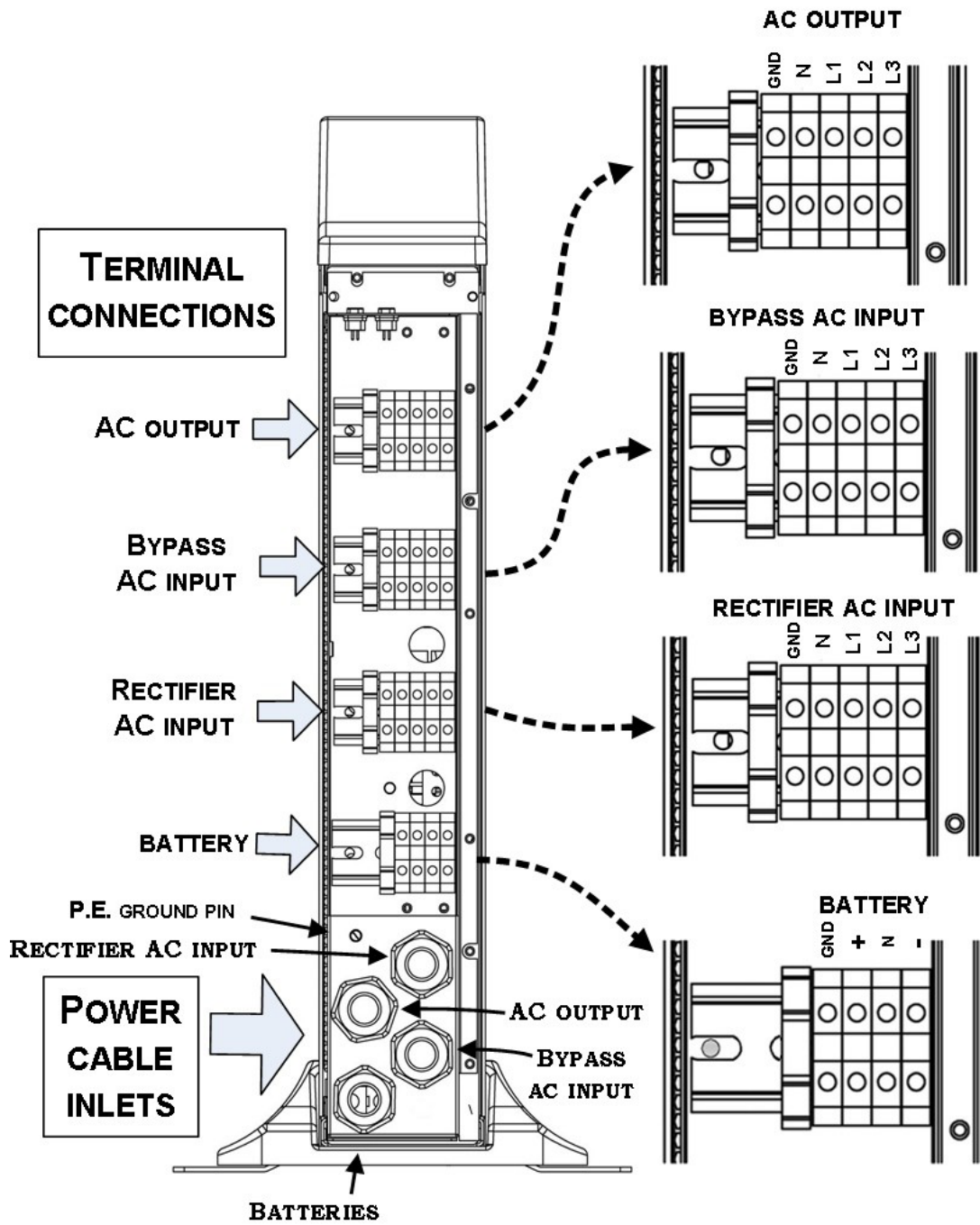
3. Connect the battery cable with the straight cable pin ends to the designated UPS terminals.



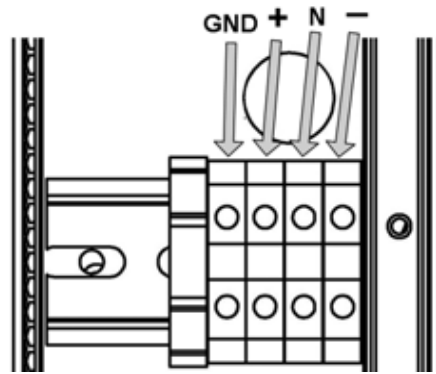
4. Connect the ring terminal ends to the first battery cabinet.
5. Repeat the process for each additional cabinet. (Example shown above)
6. Once all connections have been made, battery cabinet fuses can be inserted. Proceed with the installation and startup of the Gamatronic UPS and battery system in accordance with the Gamatronic user manual and startup instructions.



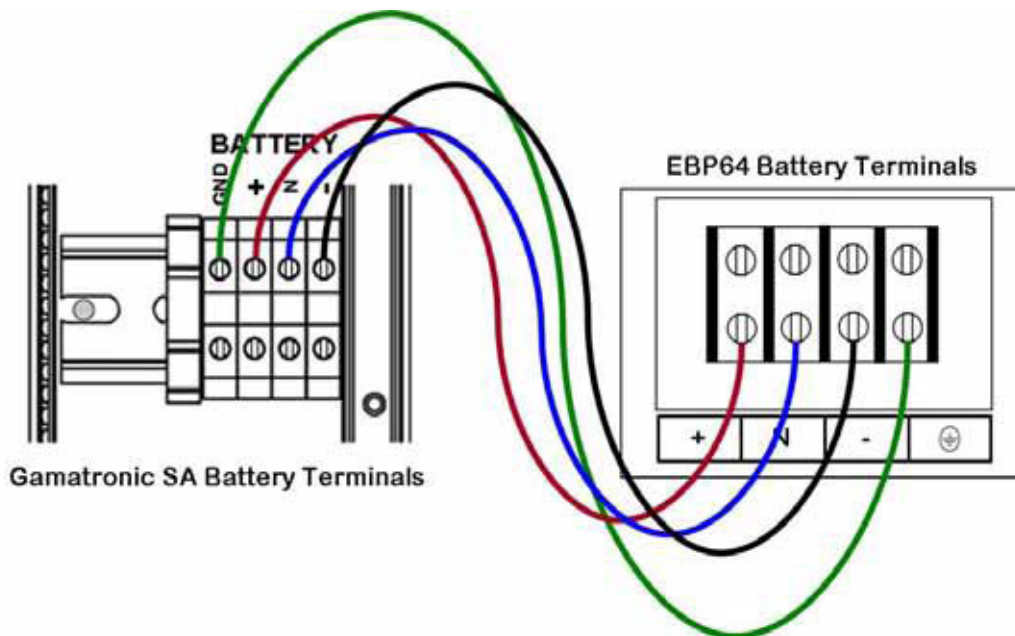
Gamatronic SA UPS Rear View with protective cover in place



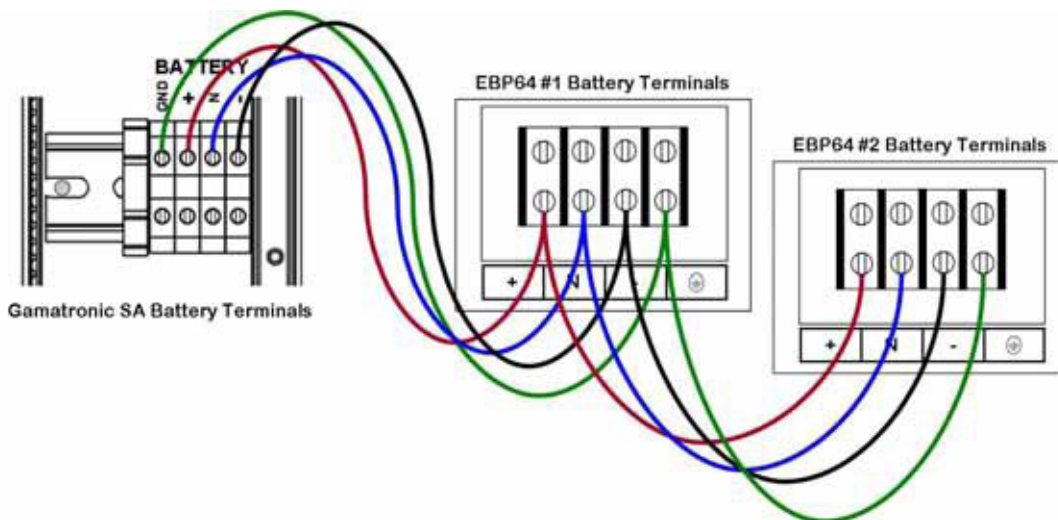
Gamatronic SA UPS Rear View with protective cover removed



Battery Terminal connections on Gamatronic SA UPS



Gamatronic SA UPS to EBP64 Wiring Diagram



Gamatronic SA UPS to multiple EBP64 Wiring Diagram



## Batteries

The life of batteries used in these EBP64 products is estimated at 3-6 years depending on level of usage. Once the battery is no longer useful and must be replaced, please contact service personnel for assistance.

### *Replacing The Battery*

#### **(QUALIFIED SERVICE PERSONNEL ONLY)**

**CAUTION!** Read and follow the IMPORTANT SAFETY INSTRUCTIONS before servicing the battery. Service the battery under the supervision of Qualified Service Personnel knowledgeable of batteries and their precautions.

**CAUTION!** Use only the specified type of battery. See your dealer for replacement batteries.

**CAUTION!** The battery may present risk of electrical shock. Do not dispose of batteries in a fire as it may explode. Follow all local ordinances regarding proper disposal of batteries.

**CAUTION!** Do not open or mutilate the batteries. Released electrolyte is harmful to skin and eyes and may be toxic.

**CAUTION!** The battery string voltage in each string is 384VDC, and even if the string is made up of 12V batteries, the battery can present a high risk of short circuit current and electrical shock. The short circuit current capability of the battery is sufficient to burn wire or tools very rapidly, producing molten metal. Observe these precautions when replacing the battery:

1. Remove all watches, rings or other metal objects.
2. Only use tools with insulated handles.
3. Do not lay tools or metal parts on top of battery or any terminals.
4. Wear protective eye wear (goggles), rubber gloves, and boots.
5. Disconnect the charging source before connecting or disconnecting the battery terminals.
6. Determine if the battery is inadvertently grounded. If inadvertently grounded, remove the source of the ground. Contact with a grounded battery can result in electrical shock! The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance (applicable to a EBP64 and a remote battery supply not having a grounded circuit).

## Troubleshooting

Please refer to Gamatronic SA User Manual for Troubleshooting

## Specifications

EXTENDED BATTERY PACK MODELS		XPC-EBP641	XPC-EBP642
BATTERY	Battery Type	1 string (32) 12V 9AH	2 strings (32 each) 12V 9AH
PHYSICAL	Dimensions	W x D x H (inches)	
	Unit Dimensions	9.8" x 32.7" x 22.7"	
	Shipping Dimensions	14.5" x 38" x 31.5" (includes pallet)	
	Unit Weight	263 lbs	455 lbs
	Shipping Weight	293 lbs	485 lbs
	Included in box	EBP64, User Manual, 6 ft DC cable	
WARRANTY		One year	

ESTIMATED RUNTIME IN MINUTES WHEN USED WITH GAMATRONIC 10KVA SA UNIT										
QTY OF BATTERY STRINGS										
Load	1	2	3	4	5	6	7	8	9	10
4kW	24	58/	99	143	191	242	296	351	409	469
8kW	10	24	40	58	78	99	120	143	167	191

1 STRING = (1) XPC-EBP641
2 STRINGS = (1) XPC-EBP642
3 STRINGS = (1) XPC-EBP641 + (1) XPC-EBP642
4 STRINGS = (2) XPC-EBP642
5 STRINGS = (1) XPC-EBP641 + (2) XPC-EBP642
6 STRINGS = (3)XPC-EBP642
7 STRINGS = (1) XPC-EBP641 + (3) XPC-EBP642
8 STRINGS = (4) XPC-EBP642
9 STRINGS = (1) XPC-EBP641 + (4) XPC-EBP642
10 STRINGS = (5) XPC-EBP642

## Shipping List

1. (1) EBP64
2. (1) User and Installation Manual
3. (1) DC Battery Cable (6 ft)

## Obtaining Service

If the UPS requires Service:

1. Use the TROUBLESHOOTING section in this manual to eliminate obvious causes.
2. Verify there are no circuit breakers tripped.
3. Call your dealer for assistance. If you cannot reach your dealer, or if they cannot resolve the problem, call Xtreme Power Conversion Corp Technical Support at 800.582.4524. Technical support inquiries can also be made at [support@xpcc.com](mailto:support@xpcc.com). Please have the following information available BEFORE calling the Technical Support Department:
  - Your name and address.
  - The serial number of the unit.
  - Where and when the unit was purchased.
  - All of the model information about your UPS.
  - Any information on the failure, including LED's that may or may not be illuminated.
  - A description of the protected equipment, including model numbers if possible.
  - A technician will ask you for the above information and, if possible, help solve your problem over the phone. In the event that the unit requires factory service, the technician will issue you a Return Material Authorization number (RMA).

If you are returning the UPS to Xtreme Power for service, please follow these procedures:

1. Pack the UPS in its original packaging. If the original packaging is no longer available, as the Technical Support Technician about obtaining a replacement set of packaging material. It is important to pack the UPS properly in order to avoid damage in transit. Never use Styrofoam beads for a packing material.
2. Include a letter with your name, address, daytime phone number, RMA number, a copy of your original sales receipt, and a brief description of the problem.
3. Mark the RMA number on the outside of all packages. Xtreme Power cannot accept any package without the RMA number marked on the outside of the boxes.
4. Return the UPS by insured, prepaid carrier to the address provided by the Technician.
5. Refer to the Warranty statements in this manual for additional details on what is covered.

## Xtreme Power Conversion Limited Warranty

Xtreme Power Conversion (XPC) Corporation warrants Xtreme Power Conversion equipment, when properly applied and operated within specified conditions, against faulty materials or workmanship (excluding batteries) for a period of **one year for EBP64-Series products** from the date of purchase. XPC Corporation warrants **internal batteries for a period of one year** from the date of purchase. For equipment sites within the United States and Canada, this warranty covers repair or replacement, at the sole discretion of XPC Corporation. The customer is responsible for the costs of shipping the defective product to XPC Corporation. XPC Corporation will pay for ground shipment of the repaired or replacement product. This warranty applies only to the original purchaser.

If equipment provided by XPC Corporation is found to be **Dead-on-Arrival (DOA)**, XPC Corporation will be responsible for the costs of shipping product to and returning equipment from the customer in a timely manner as agreed to with the customer, once the customer has requested and received a **Return Material Authorization (RMA)** number. DOA equipment is defined as equipment that does not properly function according to user documentation when initially received and connected in conjunction with proper procedures as shown in the user documentation or via support provided by XPC Corporation personnel or authorized agents.

This warranty shall be void if (a) the equipment is repaired or modified by anyone other than XPC Corporation or a XPC Corporation approved third party; (b) the equipment is damaged by the customer, is improperly used or stored, is subjected to an adverse operating environment, or is operated outside the limits of its electrical specifications; or (c) the equipment has been used or stored in a manner contrary to the equipment's operating manual, intended use or other written instructions. Any technical advice furnished by XPC Corporation or a XPC Corporation authorized representative before or after delivery with regard to the use or application of Xtreme Power Conversion equipment is furnished on the basis that it represents XPC Corporations best judgment under the situation and circumstances, but it is used at the recipient's sole risk.

EXCEPT AS STATED ABOVE, XPC Corporation DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

EXCEPT AS STATED ABOVE, IN NO EVENT WILL XPC Corporation BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF Xtreme Power Conversion EQUIPMENT, including but not limited to, any costs, lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, cost of substitutes, or claims by third parties. Purchaser's sole and exclusive remedy for breach of any warranty, expressed or implied, concerning Xtreme Power Conversion equipment, and the only obligation of XPC Corporation under this warranty, shall be the repair or replacement of defective equipment, components, or parts; or, at XPC Corporations sole discretion, refund of the purchase price or substitution of an equivalent replacement product.