# **CyberPower**®

# **User's Manual**

# **EXTENDED BATTERY MODULE (EBM)**

BPE240V30ART3U BPE240V50ART3U

Cyber Power Systems, Inc. www.cyberpower.com

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# **OVERVIEW**

The CyberPower Battery modules (BPE240V30ART3U / BPE240V50ART3U) support 30A/50A polarized plugs, and are designed for variety of Cyber Power UPS systems. When combining with the UPS, the Battery module provides extended runtime with a 240VDC external connection. Additional parallel-connected Battery modules provide the UPS for a longer extended runtime operation.



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# HARDWARE INSTALLATION

These versatile EBM can be mounted in a rackmount or vertical tower orientation. This versatility is especially important to growing organizations with changing needs that value having the option to position a EBM on a floor or in a rackmount system. Please follow the instructions below for the respective mounting methods.

# SAFETY PRECAUTIONS

**CAUTION!** To prevent the risk of fire or electric shock, only use the supplied hardware to attach the mounting brackets.

# **RACKMOUNT INSTALLATION**

Step 1: Remove the dust covers Remove the dust covers \*10pcs from the screw holes.



# Step 3: Rackmount rail Installation

The rails adjust to mount in 48-cm (19-inch) panel racks from 52 to 91.5cm (20.5 to 36 inches) deep. Select the proper holes in the rack for positioning the EBM in the rack. The EBM takes up position 1 through 9.



Position the guide screws on the rails into the rear rack square holes to temporarily support the rails in place. Tighten the front rail screws on the rack.



Step 2: Rackmount ears & hanging brackets installation Attach two rackmount ears to the EBM using the provided M5X7L\*8pcs

screws and tighten two hanging brackets with the M5X6L\*6pcs screws.



# HARDWARE INSTALLATION

### Step 4: Adjust rackmount rails to fit your rack

Adjust the rail depth to match your rack depth. Attach the rackmount rail to your rack with two screws and two plastic washers at the front of the rack. (Located in position 4 & position 8) Tighten the M5X6L screws on the front bracket. Secure the rail to the rear of the rack with two M5X6L screws and two plastic washers.



# Step 5: Place and secure the UPS on the rails

Slide the hanging brackets on the UPS into the rails mounted in the rack with the front of the unit facing toward you. Secure the UPS to your rack with four M5X12L\*4pcs screws at the front of the rack. (Located in position 5 & position 7)



# How to Slide out UPS from rail

The Battery pack will be secured by a safety locking mechanism midway of pulling it out of the rack. Use both hands to hold the Battery pack and press the safety locking tab to pull the Battery pack out.



# VERTICAL/TOWER INSTALLATION

Step 1: Adhere the rubber feet on the bottom side of base stands Adhere the protective rubber feet on the bottom side of UPS and EBM.



Step 2: Attach the base stands and attach the dust covers Secure the tie bracket with the screws (M5X7\*4pcs). Insert dust covers into the screw holes that are not being used.



# Step 3: Rotate the Multifunction LCD Module

Unscrew the upper panel of the UPS. Separate the upper panel from the UPS. Gently lift the LCD module out. Rotate it to the tower orientation. Reinstall it for a tower configuration.



# **ELECTRICAL INSTALLATION**

After completing the hardware installation of the UPS, you are now ready to plug in the UPS and connect your equipment.

<u>SAFETY PRECAUTIONS</u> CAUTION! Installation environment should be in a temperature and humidity controlled indoor area free of conductive contaminants. Do not install this EBM where excessive moisture or heat is present (Please see specifications for acceptable temperature and humidity range).

CAUTION! Never install an EBM, or associated wiring or equipment, during a lightning storm.

CAUTION! Do not work alone under hazardous conditions.

CAUTION! In case of the risk of electric shock, do not remove the top cover.

CAUTION! The battery can energize hazardous live parts inside even when the AC input power is disconnected.

# **BASIC OPERATION**

# BATTERY MODULE FRONT/REAR PANEL DESCRIPTION

1. On-board Replaceable Fuse Cover Replaceable fuse is accessible from the rear panel. It must be done by qualified personnel. 2. AC Circuit Breaker Provides overload and fault protection. 3. AC Output Outlet Use this outlet to connect to the AC Input Inlet of a downstream Battery module. 0 0 0 4. AC Input Inlet (Charge Only) AC power connectivity to wall receptacle. (T g 5. Input Connector AC NPU Use this input connector to daisy chain the next Battery 0.0 module. Remove the connector cover for access. 0 6. Output Cable Use this output cable to connect the Battery module to the Power module or to the next Battery module. (1) (2) (3) (4) (5) (6)

BPE240V30ART3U / BPE240V50ART3U

# **CONNECTION #1 : POWER MODULE WITH ONE BATTERY MODULE**

- Step 1: Loosen the two screws to remove the battery cable retention bracket of the power module.
- Step 2: Use the output cable of the Battery module to connect the Battery module to the Power module.
- Step 3: Rotate the battery cable retention bracket and tighten the two screws to fix battery cable.
- Step 4: Use a power cord to plug AC input inlet of the battery module into a wall receptacle.





# **CONNECTION #2 : POWER MODULE WITH MULTIPLE BATTERY MODULES**

- Step 1: Connect the 1<sup>st</sup> Battery module to the Power module using the instructions above.
- Step 2: Loosen the two screws to remove the battery cable retention bracket of the 1<sup>st</sup> battery module.
- Step 3: Use the output cable of the 2<sup>nd</sup> Battery module to connect the 2<sup>nd</sup> Battery module to the 1<sup>st</sup> Battery module.
- Step 4: Rotate the battery cable retention bracket and tighten the two screws to fix battery cable.
- Step 5: Use a power cord to plug AC input inlet of the 2<sup>nd</sup> battery module into AC output outlet of the 1<sup>st</sup> Battery module.



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# **BASIC OPERATION**

# EXTERNAL BATTERY MODULES CONFIGURATION

External Battery Modules can be configured by the user to display correct estimated battery runtimes.

- 1. Press the "ENTER" button to activate the "MAIN MENU".
- 2. Press the "▲" and "▼" buttons to scroll to the "Configure" option.
- 3. Press the "ENTER" button to select the "Configure" submenu.
- 4. Press the "▲" and "▼" buttons to scroll to the "EBP Number" option.
- Press the "ENTER" button to select the "EBP Number" submenu.
   The first configuration number will be displayed on the second column of LCD display.
- 6. Press the "▲" and "▼" buttons to scroll through the number of attached Battery modules.
- Press the "ENTER" button to select the number of Battery modules installed.
   You may be prompted to save the selection, if so press the "ENTER" button to save the setting.
- 8. Press the "ESC" button to cancel or return to the previous LCD menu.

| Configure Submenu | Available Settings                             | Default Settings |
|-------------------|--|------------------|
| EBM Number        | = [0] [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] | 0                |

# Storage

To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the battery every three months to ensure battery life.

# Battery Replacement

Please read and follow the Safety Instructions before servicing the battery. Battery replacement should be performed by trained personnel who are familiar with the procedures and safety precautions. Make a note of the replacement Battery module number.

# Safety Precautions

**CAUTION!** Only use replacement batteries which are certified by Cyber Power Systems. Use of incorrect battery type is an electrical hazard that could lead to explosion, fire, electric shock, or short circuit.

**CAUTION!** Batteries contain an electrical charge that can cause severe burns. Before servicing batteries, please remove any conductive materials such as jewelry, chains, wrist watches, and rings.

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

**CAUTION!** To avoid electric shock, turn off and unplug the Battery module from the wall receptacle before servicing the battery. **CAUTION!** Only use tools with insulated handles. Do not lay tools or metal parts on top of the UPS or battery terminals.

# Replacement Batteries

Please refer to the front side of the Battery module for the model number of the correct replacement batteries. For battery procurement, log onto www.CPSww.com, or contact your local dealer.

# Battery Disposal

Batteries are considered hazardous waste and must be disposed of properly. Contact your local government for more information about proper disposal and recycling of batteries. Do not dispose of batteries in fire.

Cyber Power Systems encourages environmentally sound methods for disposal and recycling of its UPS products.

Please dispose and/or recycle your UPS and batteries in accordance to the local regulations of your state.



Step 1: Remove the front panels



Step 2: Remove the retaining screws from the cable protection cover and then remove the cover itself



Step 4: Insert the battery connectors and tighten the screws of battery retaining cover



Step 3: Pull the battery trays out slowly and then put the new battery trays back into the compartment



Step 5: Install the front panels, then to execute battery test via the LCD control panel, go to the Configuration Menu, then scroll to the UPS Diagnostic then select battery test and Activate, then scroll to Reset ReplaceBAT to reset the battery replacement date. This operation can also be done via PowerPanel® Business Edition Agent or RMCARD web interface if it is installed. Please see their respective User Manuals for detailed instructions.

# **TECHNICAL SPECIFICATIONS**

| Model                       | BPE240V30ART3U  | BPE240V50ART3U |
|-----------------------------|---|----------------|
| Configuration               |   |                |
| AC Input Voltage            | 180~280Vac  |                |
| DC Output Voltage           | 240Vdc  |                |
| Amperage                    | 33A   | 55A            |
| Physical                    |   |                |
| Dimensions                  | L x W x H = 26 x 17 x 5.2in. (660 x 433 x 132mm)  |                |
| Net Weight                  | 167.2lbs(76Kg)  | 171.6lbs(78Kg) |
| Battery                     |   |                |
| Specifications              | (20) 12V/7.2AH  | (20) 12V/9.0AH |
| Recharge Time (Typically)   | 4 hours   | 5 hours        |
| Interface                   | PP45  |                |
| Sealed, Maintenance Free    | Yes   |                |
| Hot-Swappable               | Yes   |                |
| Built-in Charger            | Yes   |                |
| Environment                 |   |                |
| Operating Temperature       | $32^\circ\mathrm{F}$ to $104^\circ\mathrm{F}$ ( $0^\circ\mathrm{C}$ to $40^\circ\mathrm{C}$ ) |                |
| Operating Relative Humidity | 0 to 90% Non-Condensing   |                |
| Safety                      |   |                |
| Conformance Approvals       | CE, C-tick  |                |
| RoHS                        | RoHS Compliant  |                |
| Warranty                    |   |                |
| Product Warranty            | 3-year limited warranty, Free Tech Support  |                |

# **TROUBLE SHOOTING**

| Problem          | Possible Cause   | Solution  |
|------------------|--|---|
| Warning          |  |   |
| BAT Disconnected | Missing battery power.   | Check battery connector and battery breaker.  |
| Battery Failure  | UPS has failed in Battery Test.                                    | <ol> <li>Check battery connector and battery breaker.</li> <li>Contact technical support to replace the<br/>battery.</li> </ol> |
| Replace Battery  | Battery will soon need to be replaced due to insufficient runtime. | Contact technical support to replace the battery.   |
| Fault            |  |   |
| Over Charge      | Battery is overcharged.  | <ol> <li>Remove battery connector and check<br/>charger voltage.</li> <li>Contact CyberPower for repair.</li> </ol>             |
| Charger Failure  | Charger has failed.  |   |

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