

CyberPower

User's Manual

EXTENDED BATTERY MODULE (EBM)

BP36V60ART2U

BP72V60ART2U

Cyber Power Systems (USA), Inc.

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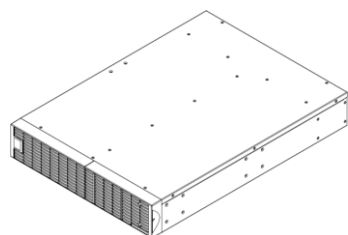
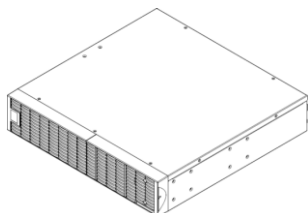
<http://www.cyberpowersystems.com>

K01-0000515-03

OVERVIEW

The CyberPower extended battery modules (BP36V60ART2U / BP72V60ART2U) support 60A polarized plugs, and are designed for variety of Cyber Power UPS systems. When combining with the UPS, the EBM provides extended runtime with a 36VDC/72VDC external connection. Additional parallel-connected EBM provide the UPS for a longer extended runtime operation.

UNPACKING



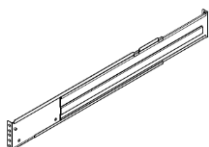
1K/1.5KVA or 2K/3KVA extended battery module



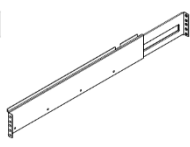
User's manual



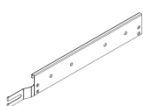
Register card



Rackmount left rail



Rackmount right rail



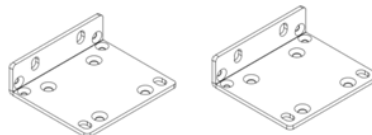
Left hanging bracket



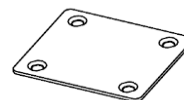
Right hanging bracket



IEC320 C14 to NEMA 5-15P power cord



Rackmount ears (Stands) (2)



Tie plate (1)



M5X7L black flat head screws (8)



M5X12L black pan head screws (12)



M5X6L silver pan head screws (6)



Plastic washers (8)



Screw hole dust covers (12)



Rubber feet (12)

HARDWARE INSTALLATION

HARDWARE INSTALLATION

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

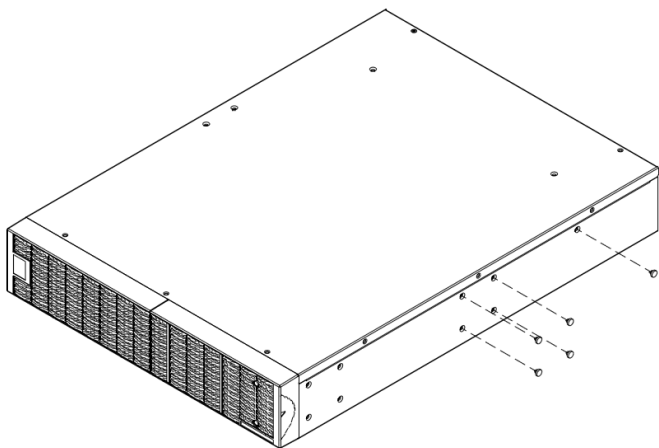
SAFETY PRECAUTIONS

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

RACKMOUNT INSTALLATION FOR 4-POST RACK

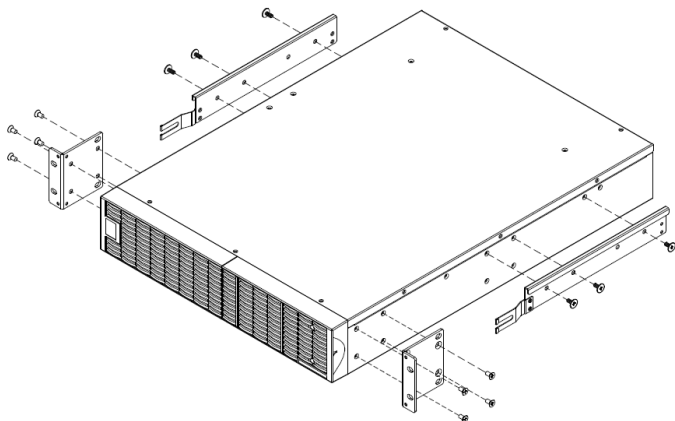
Step 1: Remove the dust covers

Remove the dust covers *5 pcs from the screw holes.



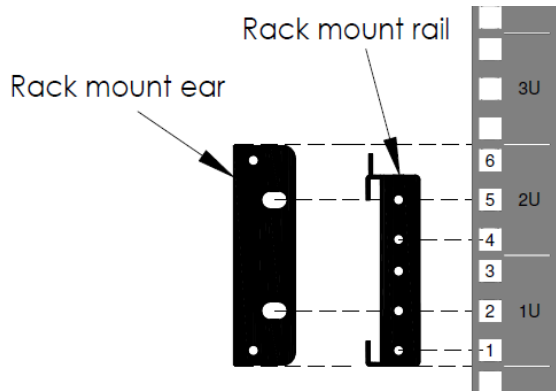
Step 2: Rackmount ears & hanging brackets installation

Attach two rackmount ears to the EBM using the provided M5X7L*8pcs screws and tighten two hanging brackets with the M5X6L*6pcs screws.

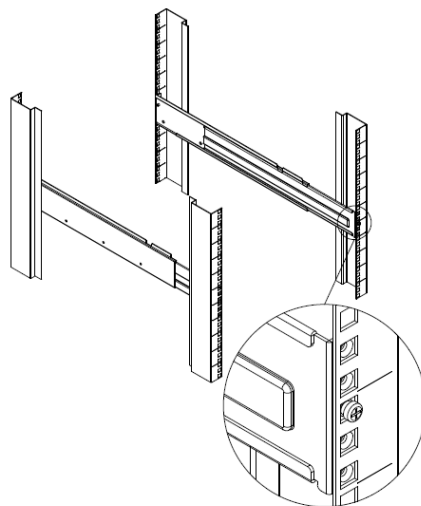


Step 3: Rackmount rail Installation

The rails adjust to mount in 48-cm (19-inch) wide 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 2 rack units.



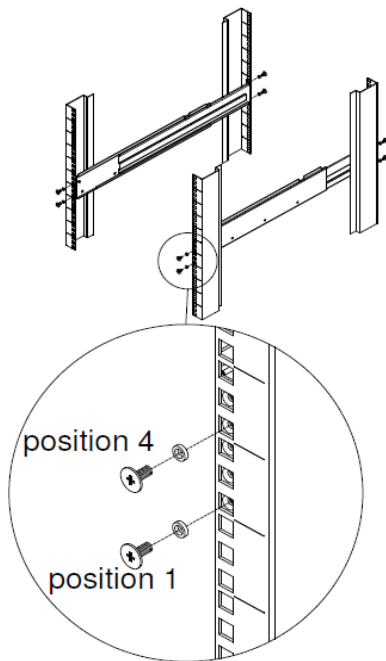
Position the guide screws on the rails into the rear rack square holes to temporarily support the rails in place. Tighten the front rail screws on the rack.



HARDWARE INSTALLATION

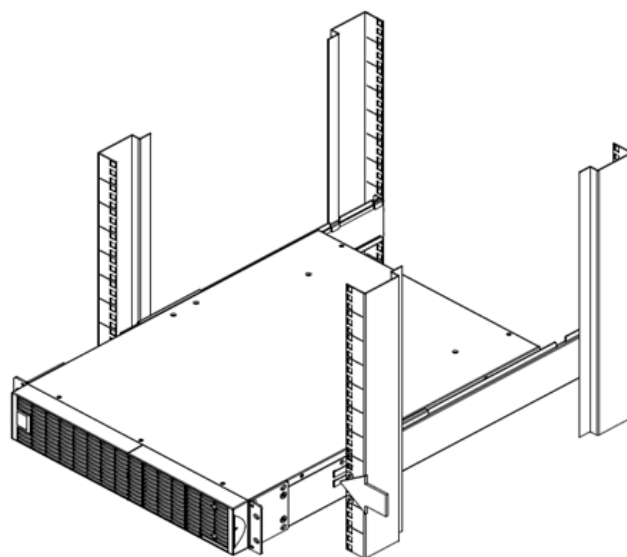
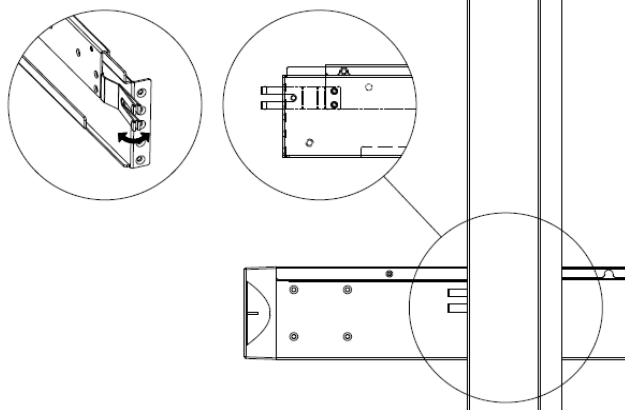
Step 4: Adjust rackmount rails to fit your rack

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 1 & position 4) Tighten the M5X12L screws on the front bracket. Secure the rail to the rear of the rack with two M5X12L screws and two plastic washers.



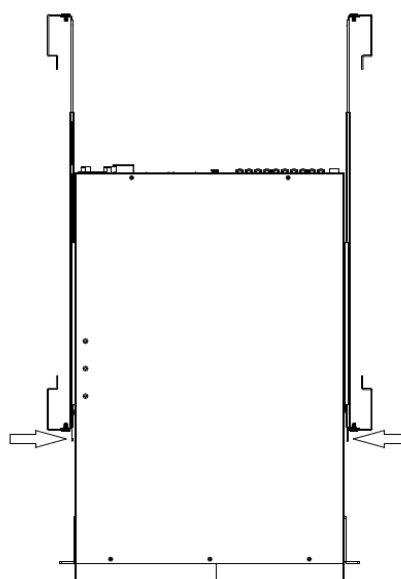
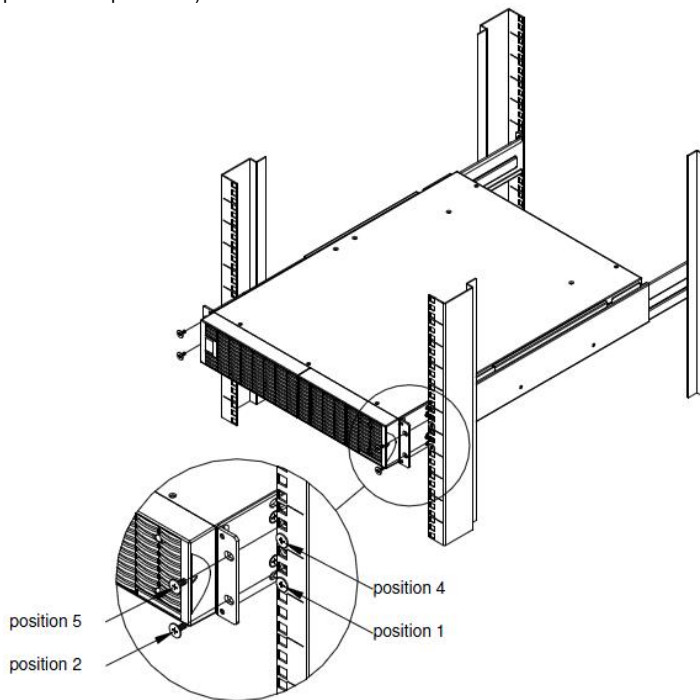
How to slide the EBM out from the rack

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



Step 5: Place and secure the EBM on the rails

Slide the hanging brackets on the EBM into the rails mounted in the rack with the front of the unit facing toward you. Secure the EBM to your rack with four M5X12L*4pcs screws at the front of the rack. (Located in position 2 & position 5)



HARDWARE INSTALLATION

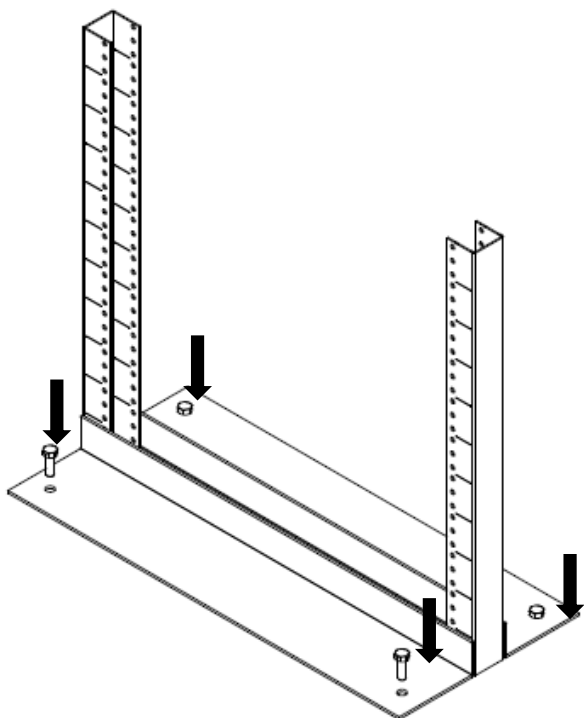
RACKMOUNT INSTALLATION FOR 2-POST RACK

CAUTION! Due to the weight of this unit, it is strongly recommended to install it at the bottom of the rack.

CAUTION! Prior to installing the unit, remove internal batteries to reduce the weight of the unit. Refer to the battery replacement section in this user manual for instructions.

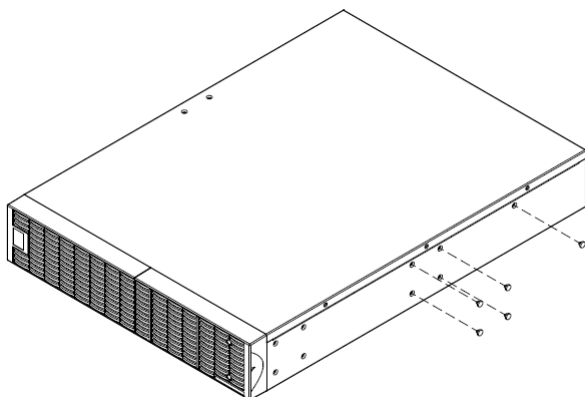
CAUTION! It is strongly recommend having 2-3 people assist during the installation process.

CAUTION! It is strongly recommended that the 2 post rack be bolted to the floor prior to the installation of the EBM.



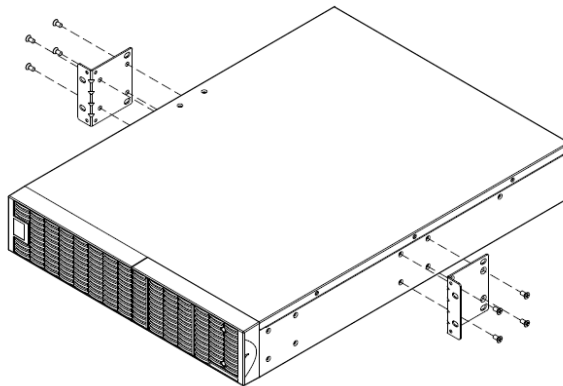
Step 1: Remove side dust covers

Remove seven dust covers from screw holes as shown below.



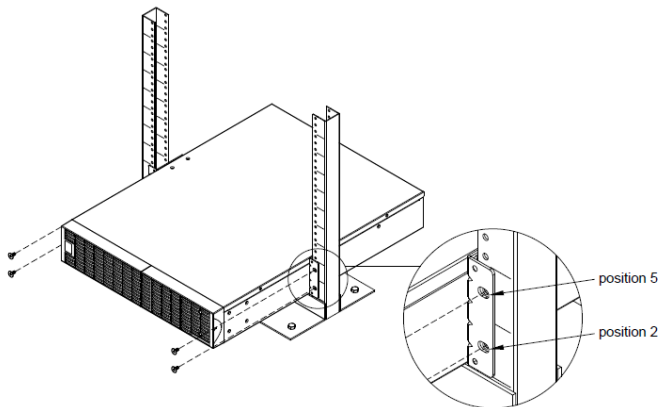
Step 2: Rackmount ears installation

Attach the included rackmount ears to the center holes on the sides of the EBMEBM using eight black M5X7L screws as shown below.



Step 3: Secure the EBM to the rack

Secure the EBM to your rack with four black M5X12L screws at the front of the rack (square holes 2 and 5 as shown below)

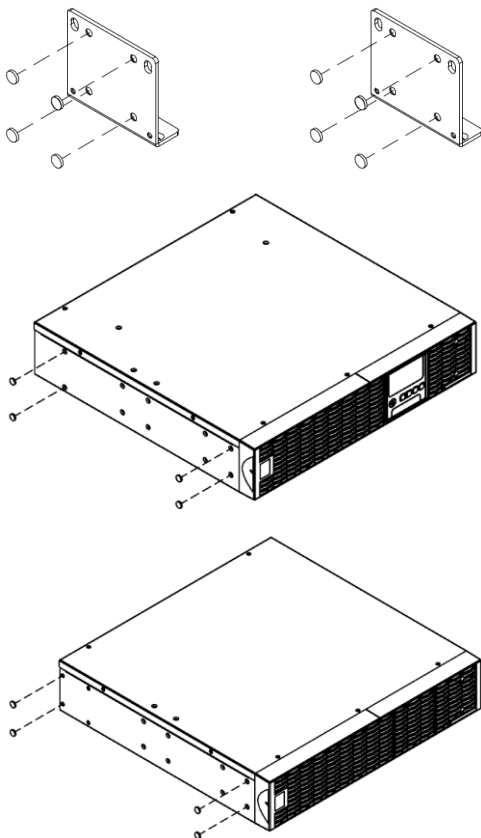


HARDWARE INSTALLATION

VERTICAL/TOWER INSTALLATION

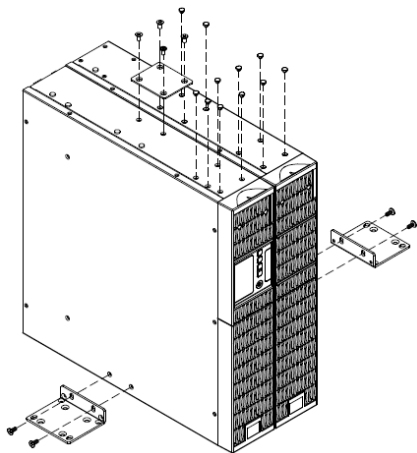
Step 1: Adhere the rubber feet on the bottom side of base stands

Adhere the protective rubber feet on the bottom side of base stands (rackmount ears) UPS system and EBM.



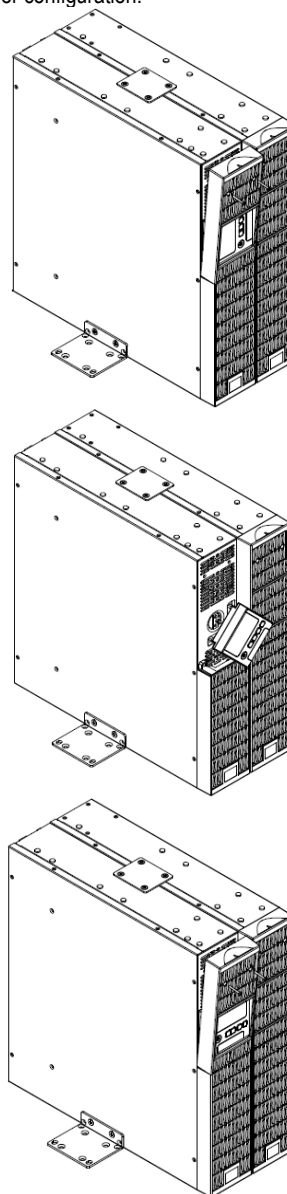
Step 2: Attach the base stands and attach the dust covers

Secure the tie plate with the screws (M5X7*4pcs). Tighten the screws (M5X12*4pcs) of the base stands (rackmount ears) onto the bottom of the UPS system and EBM. 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.



SAFETY PRECAUTIONS

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

EXTENDED BATTERY MODULE FRONT/REAR PANEL DESCRIPTION

1. On-board Replaceable Fuse Cover

Replaceable fuse is accessible from the rear panel. Service to be performed by qualified personnel only.

2. AC Circuit Breaker

Provides overload and fault protection.

3. AC Output Outlet (IEC320 C13 for optional Fast Charge function)

Use this outlet to connect to the AC Input Inlet of a downstream EBM.

4. AC Input Inlet (IEC320 C14 for optional Fast Charge function)

AC power connectivity to wall receptacle, or AC output from EBM upstream

5. Input Connector

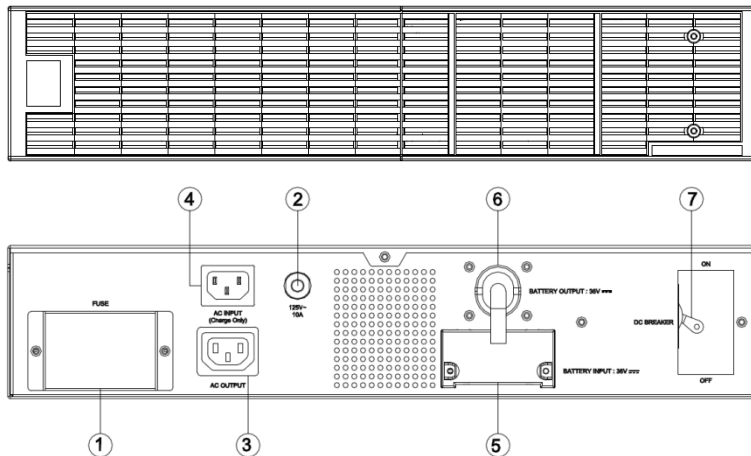
Use this input connector to daisy chain the next EBM. Remove the connector cover for access.

6. Output Cable

Use this output cable to connect the EBM to the UPS or to the next EBM.

7. DC Breaker

Use the DC breaker to disconnect battery output.



BP36V60ART2U / BP72V60ART2U

CONNECTION #1 : UPS WITH ONE EXTENDED BATTERY MODULE

Step 1: Turn off the DC breaker of the EBM.

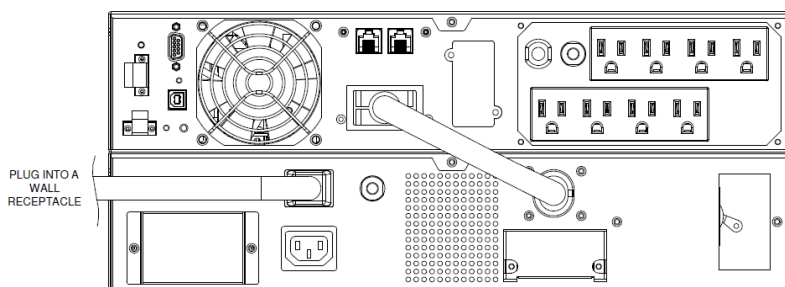
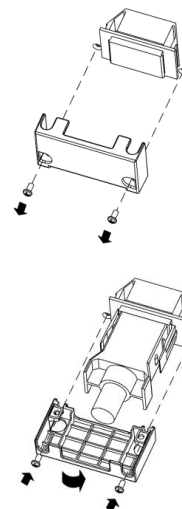
Step 2: Loosen the two screws to remove the battery cable retention bracket of the UPS.

Step 3: Use the output cable of the EBM to connect the EBM to the UPS.

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 EBM into a wall receptacle.

Step 6: Turn on the DC breaker of the EBM.



BASIC OPERATION

CONNECTION #2 : UPS WITH MULTIPLE EXTENDED BATTERY MODULES

Step 1: Connect the 1st EBM to the UPS using the instructions above.

Step 2: Turn off the DC breaker of the 2nd Battery module.

Step 3: Loosen the two screws to remove the battery cable retention bracket of the 1st EBM.

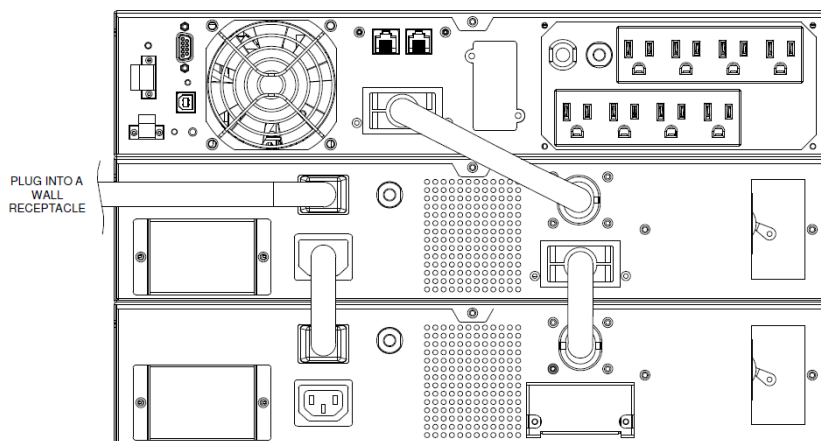
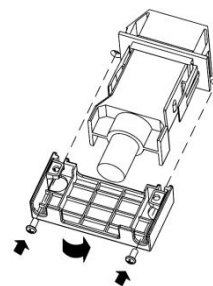
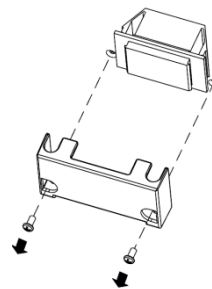
Step 4: Use the output cable of the 2nd EBM to connect the 2nd EBM to the 1st EBM.

Step 5: Rotate the battery cable retention bracket and tighten the two screws to fix battery cable.

Step 6: Use a power cord to plug AC input inlet of the 2nd EBM into AC output outlet of the 1st EBM.

Step 7: Turn on the DC breaker of the 2nd Battery module.

Step 8: Set the EBM number to the respective setting to match the number of installed units. To do this via the LCD control panel, go to the Configuration Menu, then scroll to EBM Number setting, select the appropriate number and Save. This operation can also be done if there is an RMCARD installed in the UPS, or via PowerPanel® Business Edition Agent. Please see their respective User Manuals for instructions.



EXTENDED BATTERY MODULES CONFIGURATION

The UPS can be configured to reflect the correct estimated run-times for the number of EBM installed by using the LCD Control Panel to select the number of EBM installed.

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 “**EBM Number**” option.
5. Press the “**ENTER**” button to select the “**EBM 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 EBM.
7. Press the “**ENTER**” button to select the number of EBM 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

MAINTENANCE

Storage

To store your extended battery modules for a long period of time, turning DC breaker off, cover it and store with the batteries 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 EBM 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 EBM 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

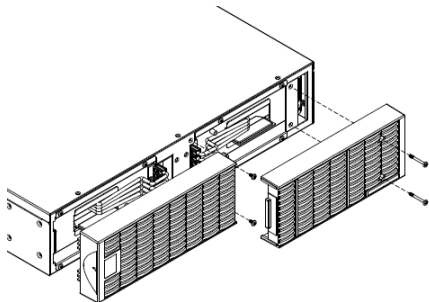
Please refer to the front side of the EBM for the model number of the correct replacement batteries. For battery procurement, log onto www.cyberpowersystems.com, or contact your local dealer.

Battery Disposal

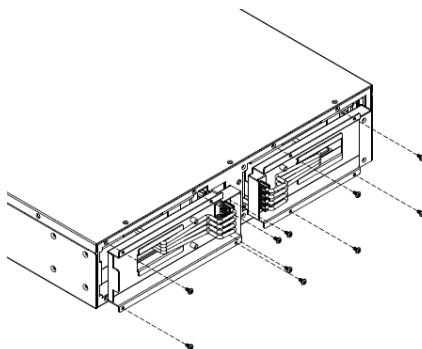
Batteries are considered hazardous waste and must be disposed of properly. Contact your local government for more information about proper disposal and recycling of batteries. Do not dispose of batteries in fire.

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 with local regulations.

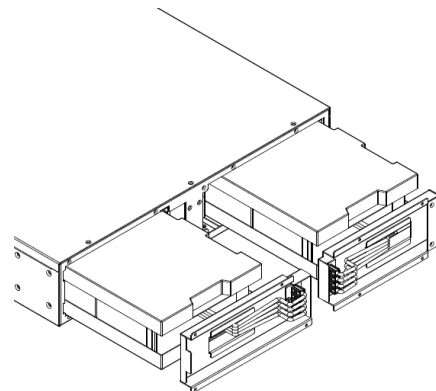
Battery Replacement



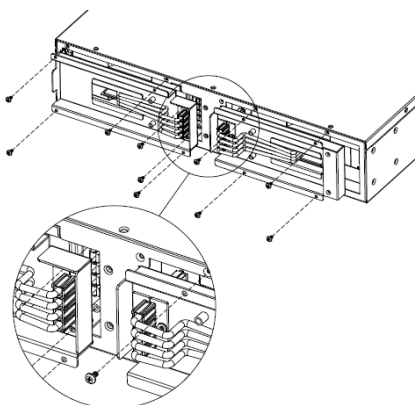
Step 1: Remove the front panels



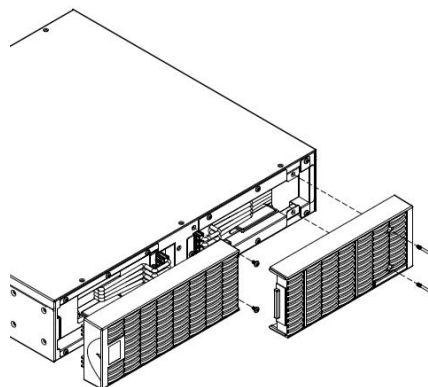
Step 2: Remove the retaining screws from the cable protection cover and then remove the cover itself



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



Step 4: Fasten back the connectors on the battery retaining cover. Then insert the battery connectors and tighten the screws of battery retaining cover



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	BP36V60ART2U	BP72V60ART2U
Configuration		
AC Input Voltage	100~125Vac	
DC Output Voltage	36Vdc	72Vdc
DC Output Current	60A	
Physical		
Dimensions (L x W x H =)	16.9 x 17 x 3.5in. (430 x 433 x 88mm)	23.6 x 17 x 3.5in. (600 x 433 x 88mm)
Net Weight	50.6lbs(23.0Kg)	96.8lbs(44.0Kg)
Battery		
Specifications	(6) (12V9AH) (2 x Banks of 3 Batteries)	(12) (12V9AH) (2 x Banks of 6 Batteries)
Replacement Battery Cartridge	(1) RB1290X3L + (1) RB1290X3R	(2) RB1290X6B
Recharge Time 0-90% (Typical)	4 hours	
Connector Type	PP45	
Sealed, Maintenance Free	Yes	
Hot-Swappable	Yes	
Built-in Charger	Yes (2A) max.	
Environment		
Operating Temperature	32°F to 104°F (0°C to 40°C)	
Operating Relative Humidity	0 to 90% Non-Condensing	
Certifications		
Safety	UL1778, CSA C22.2 NO.107.3, FCC Part 15 Class B	UL1778, CSA C22.2 NO.107.3, FCC Part 15 Class A
Environmental	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 a Battery Test.	1. Check battery connector and battery breaker. 2. Contact technical support to replace the battery.
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.	1. Remove battery connector and check charger voltage. 2. Contact CyberPower for repair.
Charger Failure	Charger has failed.	

CUSTOMER SERVICE

If the Battery module requires further service, please refer to the following information:

1. Call us at (877) 297-6937 or write to us at Cyber Power Systems (USA), Inc., 4241 12th Ave. E., STE 400, Shakopee, MN 55379 or submit a web ticket online at www.cyberpowersystems.com/support.
2. When you contact CyberPower, identify the Product, the Purchase Date, and the item(s) of Connected Equipment. Have information on all applicable insurance or other resources of recovery/payment that are available to the Initial Customer and Request a Claim Number.
3. You must provide a dated Proof-of-Purchase receipt (or other proof of the original purchase) and provide a description of the defect.
4. Pack and ship the product to CyberPower and, if requested, the item(s) of Connected Equipment, a repair cost estimate for the damage to the Connected Equipment, and all claim forms that CyberPower provides to you. Show the Claim Number on the shipping label or include it with the product.

You must prepay all shipping costs, you are responsible for packaging and shipment, and you must pay the cost of the repair estimate.

CONFORMANCE APPROVALS



FCC Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation.

For BP72V60ART2U Online EBM:

WARNING!! This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Shielded signal cables must be used with this product to ensure compliance with the Class A FCC limits.

The Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.

Cet appareil numérique de la class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

For BP36V60ART2U Online EBM:

WARNING!! This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help. Any special accessories needed for compliance must be specified in the instruction.

The Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.

Cet appareil numérique de la class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada

PRODUCT REGISTRATION

CyberPower requests that you complete and return the Warranty Registration card enclosed with the Product or register the Product at its website (www.cyberpowersystems.com/registration) to establish that you are the Initial Customer of the Product and therefore entitled to coverage under the Limited Warranty and Connected Equipment Guarantee. (Registration is not required for coverage, but note: if you do not register your purchase, you will be required to provide proof of purchase).

This document is believed to be accurate, but CyberPower reserves the right to change or correct the contents and does not assume any responsibility for omissions or errors.

Need Additional Help?

Feel free to contact our Tech Support department with installation, troubleshooting, or general product questions.

CyberPower Technical Support

Phone: 1-877-297-6937

Web: www.cyberpowersystems.com

Address: 4241 12th Avenue E, Suite 400 Shakopee, MN 55379, USA

Hours of Operation:

Monday – Friday, 7:00am – 6:00pm (CST)

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