

CyberPower

User's Manual

EXTENDED BATTERY MODULE (EBM)

BP36V60ART2U

BP72V60ART2U

Cyber Power Systems (USA), Inc.

4241 12th Avenue East Suite 400 Shakopee, MN 55379

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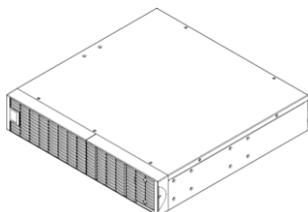
<http://www.cyberpowersystems.com>

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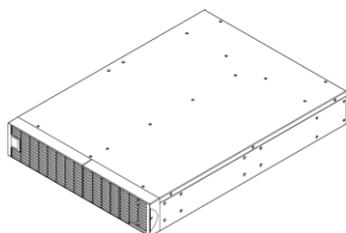
OVERVIEW

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



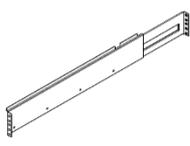
User's manual



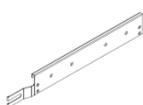
Register card



Rackmount left rail



Rackmount right rail



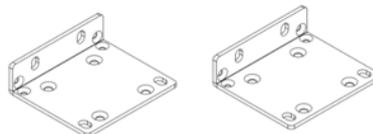
Left hanging bracket



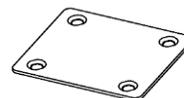
Right hanging bracket



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.

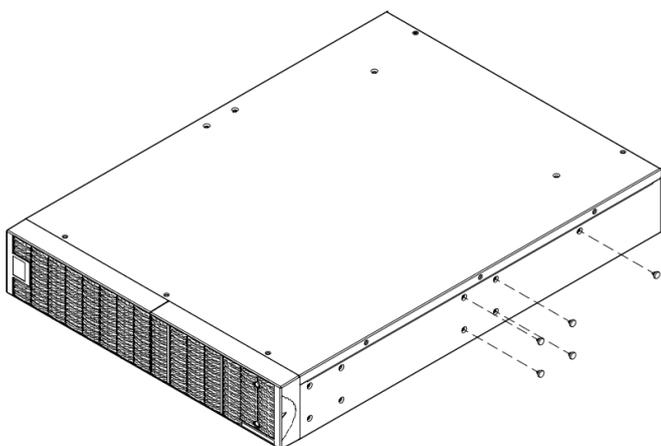
SAFETY PRECAUTIONS

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

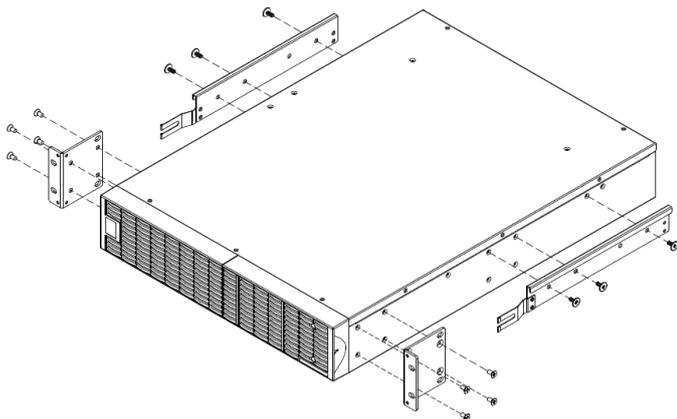
Step 1: Remove the dust covers

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



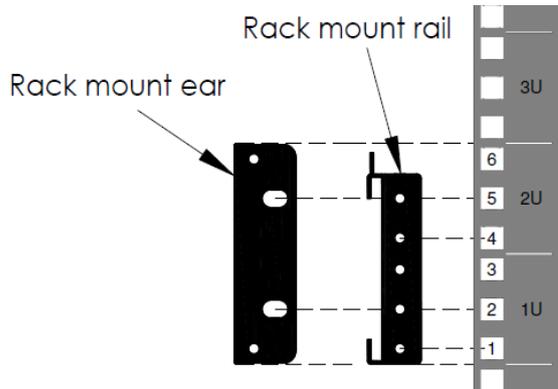
Step 2: Rackmount ears & hanging brackets installation

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

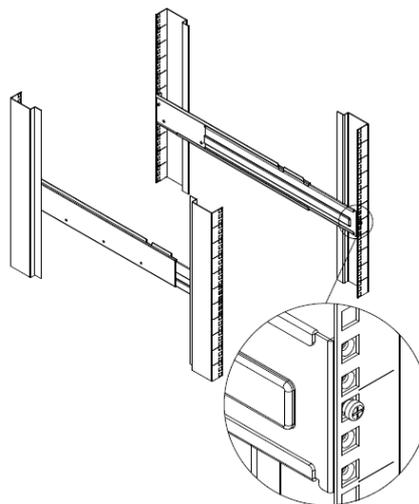


Step 3: Rackmount rail Installation

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.



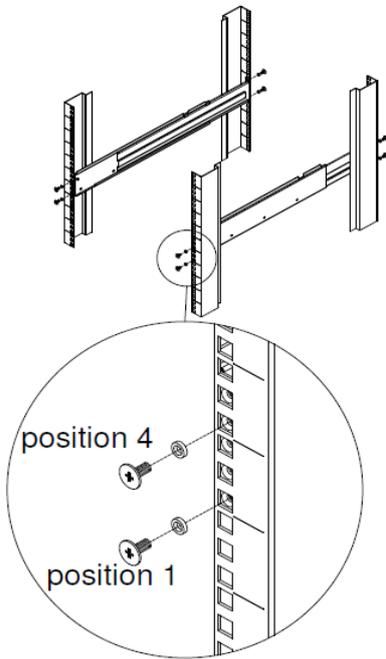
Position the guide screws on the rails into the rear rack square holes to temporarily support the rails in place. Tighten the front rail screws on the rack.



HARDWARE INSTALLATION

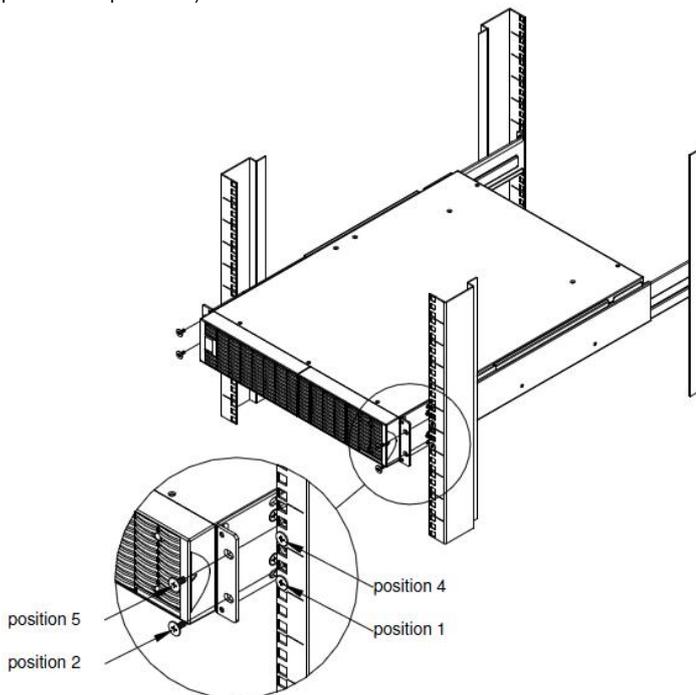
Step 4: Adjust rackmount rails to fit your rack

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.



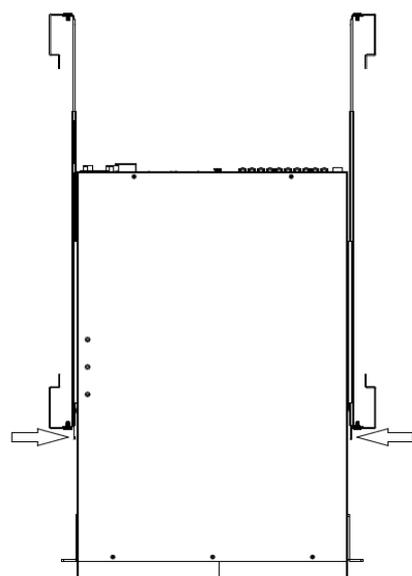
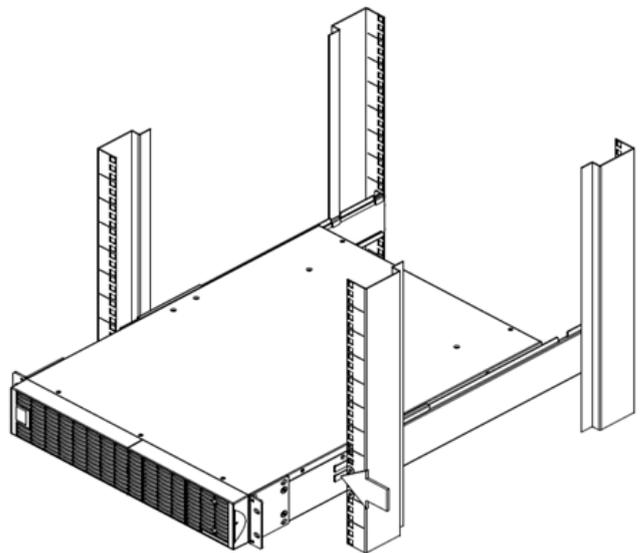
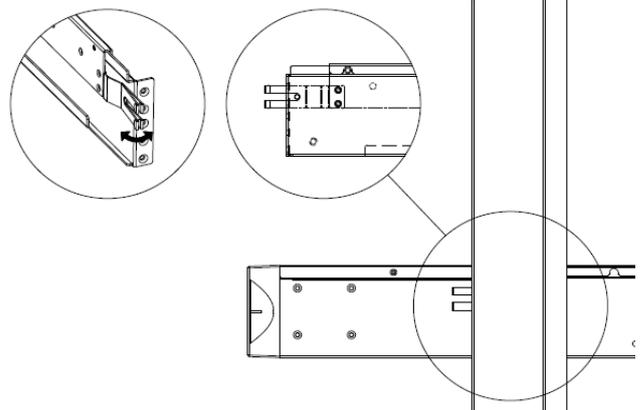
Step 5: Place and secure the EBM on the rails

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)



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.



HARDWARE INSTALLATION

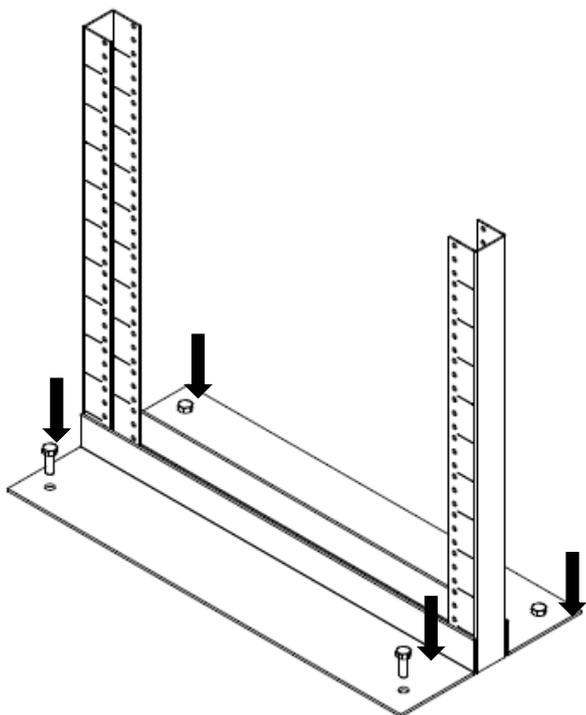
RACKMOUNT INSTALLATION FOR 2-POST RACK

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.

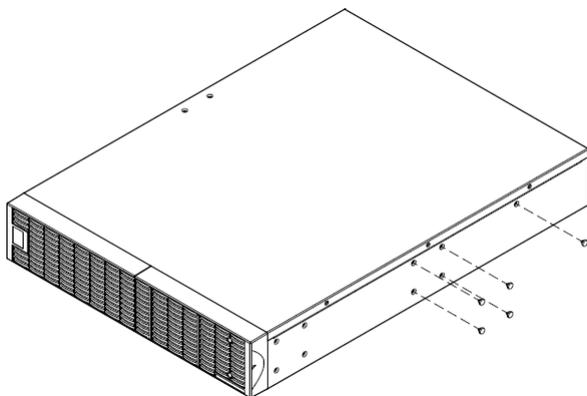
CAUTION! It is strongly recommend having 2-3 people assist during the installation process.

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



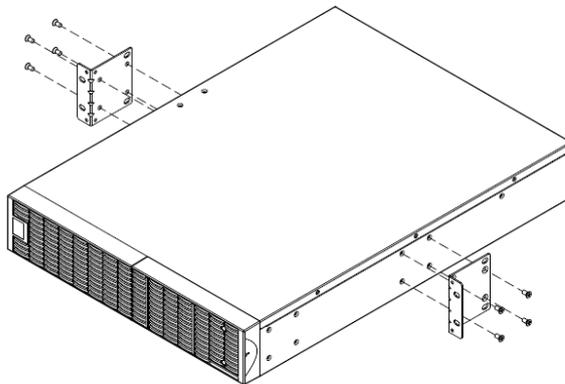
Step 1: Remove side dust covers

Remove seven dust covers from screw holes as shown below.



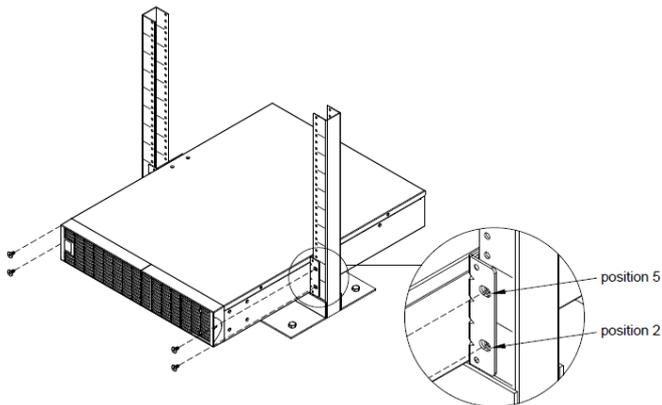
Step 2: Rackmount ears installation

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)

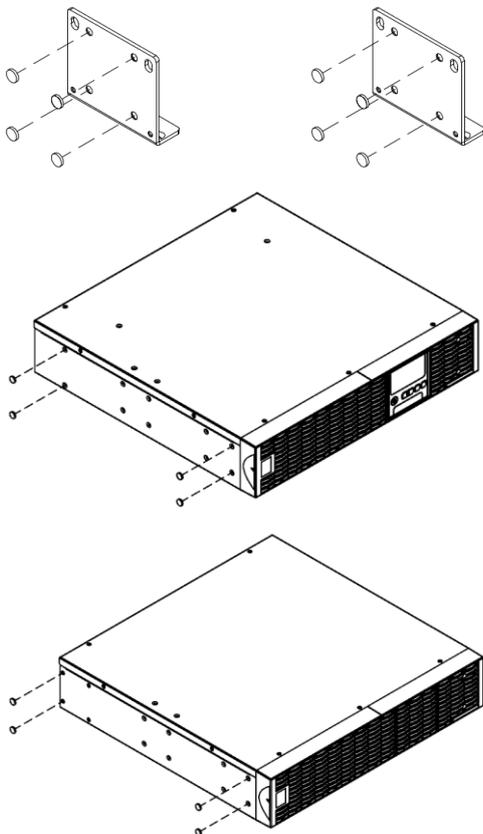


HARDWARE INSTALLATION

VERTICAL/TOWER INSTALLATION

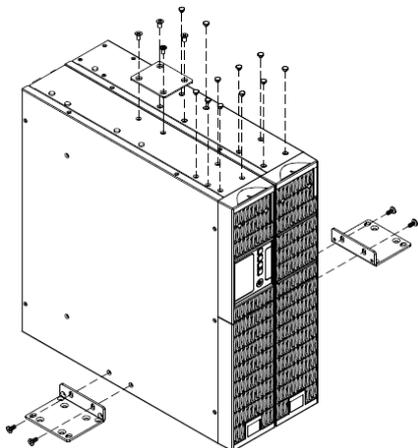
Step 1: Adhere the rubber feet on the bottom side of base stands

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



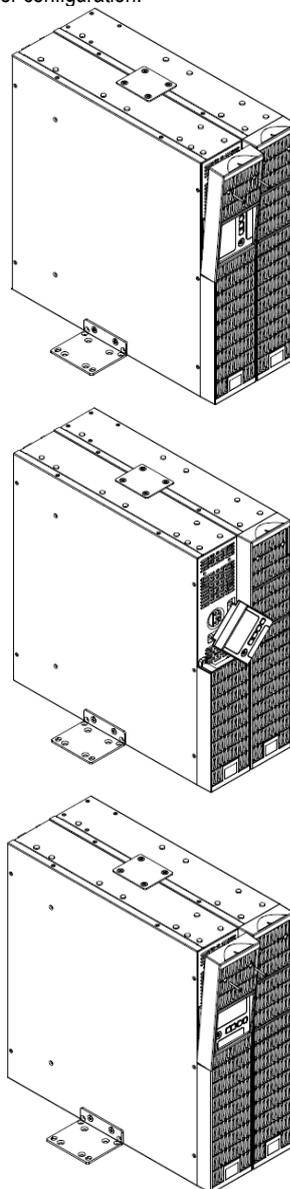
Step 2: Attach the base stands and attach the dust covers

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

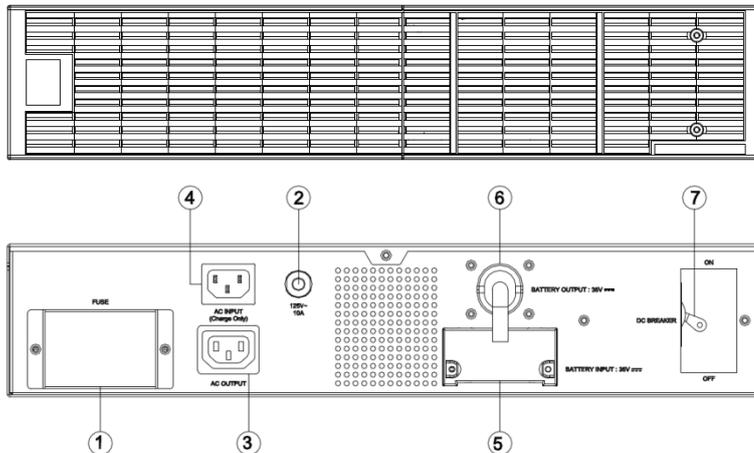
Use this input connector to daisy chain the next EBM. Remove the connector cover for access.

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.

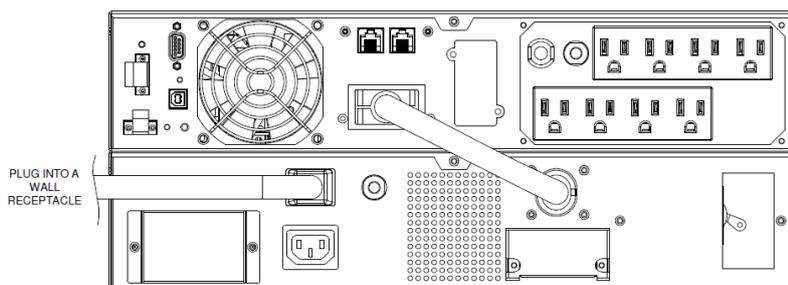
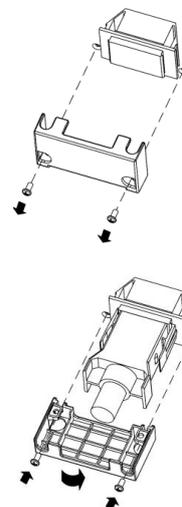
Step 2: Loosen the two screws to remove the battery cable retention bracket of the UPS.

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.

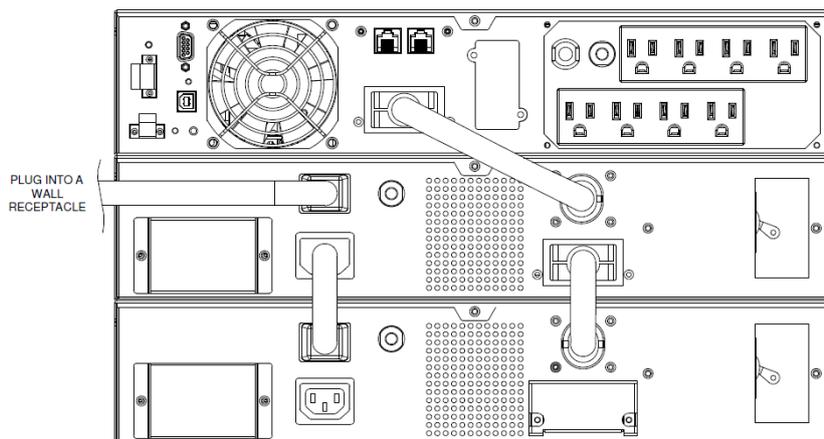
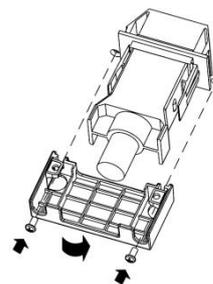
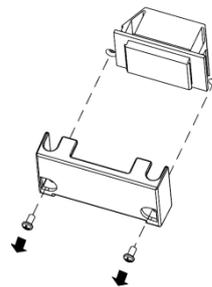
Step 4: Use the output cable of the 2nd EBM to connect the 2nd EBM to the 1st EBM.

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

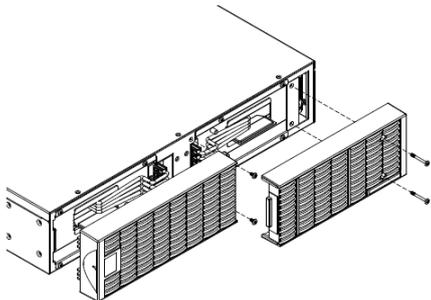
Please refer to the front side of the EBM for the model number of the correct replacement batteries. For battery procurement, log onto www.cyberpowersystems.com, or contact your local dealer.

Battery Disposal

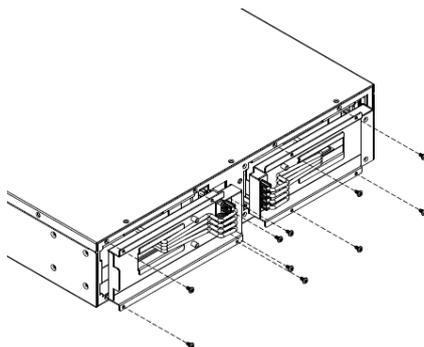
Batteries are considered hazardous waste and must be disposed of properly. Contact your local government for more information about proper disposal and recycling of batteries. Do not dispose of batteries in fire.

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.

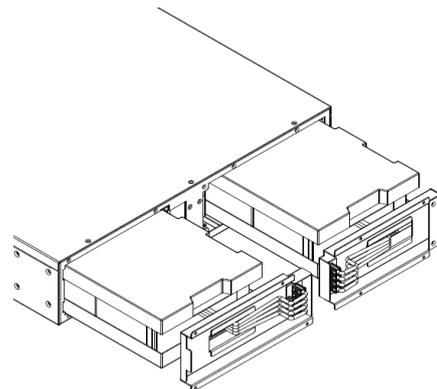
Battery Replacement



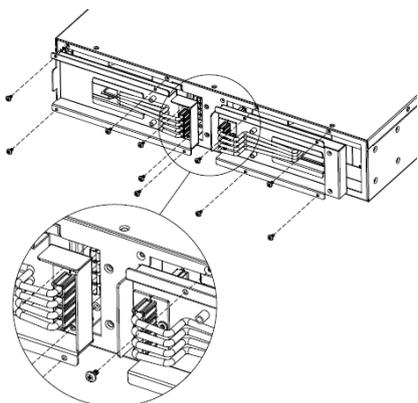
Step 1: Remove the front panels



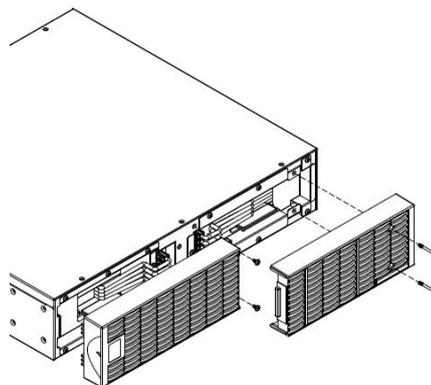
Step 2: Remove the retaining screws from the cable protection cover and then remove the cover itself



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 send us an e-mail message at tech@cpsww.com for instructions.
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.

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 coverage under the Limited Warranty. (Registration is not required for coverage, but note: if you do not register your purchase, you will be required to provide proof of purchase.)

LIMITED WARRANTY

Read the following terms and conditions carefully before using the CyberPower BP36V60ART2U / BP72V60ART2U. By using the Product you consent to be bound by and become a party to the terms and conditions of this Limited Warranty (together referred to as the "Warranty"). If you do not agree to the terms and conditions of this Warranty, you should return the Product for a full refund prior to using it.

Who is Providing this Warranty?

CyberPower Systems (USA), Inc. ("CyberPower") provides this Limited Warranty.

What Does This Warranty Cover?

This warranty covers defects in materials and workmanship in the Product under normal use and conditions.

What is the Period of Coverage?

This warranty covers the Product for three years.

Who Is Covered?

This warranty only covers the original purchaser. Coverage ends if you sell or otherwise transfer the Product.

How Do You Get Warranty Service?

1. Before contacting CyberPower, identify Your Product model number, and the Purchase Date.
2. Email us at tech@cpsww.com or Call us at (877) 297-6937.
3. If your product requires warranty service you must provide a copy of your dated purchase receipt or invoice.

How Do You Open A Warranty Claim?

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 send us an e-mail message to claims@cpsww.com for instructions, within 10 days of the occurrence.
2. When you contact CyberPower, identify the Product, the Purchase Date, and Request a Claim Number.
3. You must provide a dated purchase receipt (or other proof of the original purchase) for the Cyber Power unit.
4. Pack and ship the product to CyberPower 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.**

How Long Do I Have To Make A Claim?

All claims must be made within ten days of the occurrence.

What Will We Do To Correct Problems?

CyberPower will inspect and examine the Product.

If the Product is defective in material or workmanship, CyberPower will repair or replace it at CyberPower's expense, or, if CyberPower is unable to or decides not to repair or replace the Product (if defective) within a reasonable time, CyberPower will refund to you the full purchase price you paid for the Product (purchase receipt showing price paid is required).

LIMITED WARRANTY

Who Pays For Shipping?

We pay when we send items to you; you pay when you send items to us.

What Are Some Examples Of What This Warranty Does Not Cover?

1. This Warranty does not cover any software that was damaged or needs to be replaced due to the failure of the Product or any data that is lost as a result of the failure or the restoration of data or records, or the reinstallation of software.
2. This Warranty does not cover or apply to: misuse, modification, operation or storage outside environmental limits of the Product or the equipment connected to it, nor for damage while in transit or in storage, nor if there has been improper operation or maintenance, or use with items not designed or intended for use with the Product, such as laser printers, appliances, aquariums, medical or life support devices, etc.

What Other Limitations Apply?

The sole and exclusive remedies of the Initial Customer are those provided by this Warranty.

1. This Warranty does not apply unless the Product and the equipment that was connected to it were connected to properly wired and grounded outlets (including compliance with electrical and safety codes of the most current electrical code), without the use of any adapters or other connectors.
2. The Product must have been plugged directly into the power source and the equipment connected to the Product must be directly connected to the Product and not "daisy-chained" together in serial fashion with any extension cords, another Product or device similar to the Product, surge suppressor, or power tap. Any such installation voids the Limited Warranty.
3. The Product must have been used properly in a suitable and proper environment and in conformance with any license, instruction manual, or warnings provided with the Product and the equipment connected to it.
4. The Product must have been used at all times within the limitations on the Product's VA capacity.

The Product was designed to eliminate disrupting and damaging effects of momentary (less than 1ms) voltage spikes or impulses from lightning or other power transients. If it can be shown that a voltage spike lasting longer than 1ms has occurred, the occurrence will be deemed outside the rated capabilities of the Product and the Limited Warranty is void. CyberPower Does Not Cover or Undertake Any Liability in Any Event for Any of the Following:

1. Loss of or damage to data, records, or software or the restoration of data or records, or the reinstallation of software.
2. Damage from causes other than AC Power Line Transients, spikes, or surges on properly installed, grounded and code-compliant 120 volt power lines in the United States and Canada; transients, surges or spikes on standard telephone land lines, PBX telephone equipment lines or Base 10T Ethernetlines, when properly installed and connected. (This exclusion applies, for example, to fluctuations in data transmission or reception, by CATV or RF transmission or fluctuations, or by transients in such transmission.)
3. Damage from any circumstance described as excluded above with respect to the Product.
4. Damages from fire, flood, wind, rain, rising water, leakage or breakage of plumbing, abuse, misuse or alteration of the product.
5. CyberPower excludes any liability for personal injury under the Limited Warranty. CyberPower excludes any liability for direct, indirect, special, incidental or consequential damages, whether for damage to or loss of property [EXCEPT FOR (AND ONLY FOR) the specific limited agreement of CyberPower to provide certain warranty benefits, loss of profits, business interruption, or loss of information or data. NOTE: Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.
6. The Product is not for use in high-risk activities or with aquariums. The Product is not designed or intended for use in hazardous environments requiring fail-safe performance, or for use in any circumstance in which the failure of the Product could lead directly to death, personal injury, or severe physical or property damage, or that would affect operation or safety of any medical or life support device (collectively, "High Risk Activities"). CyberPower expressly disclaims any express or implied warranty of fitness for High Risk Activities or with aquariums. CyberPower does not authorize use of any Product in any High Risk Activities or with Aquariums. **ANY SUCH USE IS IMPROPER AND IS A MISUSE OF THE PRODUCT.**

Where Can I Get More Information?

The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded.

CyberPower is the warrantor under this Limited Warranty.

For further information please feel free to contact CyberPower at

Cyber Power Systems (USA), Inc. | 4241 12th Ave E., STE 400, Shakopee, MN 55379

(877) 297-6937 | claims@cpsww.com

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 numerique de la class A respecte toutes les exigences du Reglement sur le materiel 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 numerique de la class B respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada

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

Email: tech@cpsww.com

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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