

User's Manual

OL6000ERT3UD OL8000ERT3UD OL10000ERT3UD

Cyber Power Systems, Inc. www.cyberpower.com

IMPORTANT SAFETY INSTRUCTIONS

This manual contains important instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate the UPS.

CAUTION! The UPS must be connected to a grounded AC power outlet with fuse or circuit breaker protection. DO NOT plug the UPS into an outlet that is not grounded. If you need to power-drain this equipment, turn off and unplug the unit.

CAUTION! The battery can power hazardous components inside the unit, even when the AC input power is disconnected.

CAUTION! The UPS should be placed near the connected equipment and easily accessible.

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area, free of conductive contaminants. (Please see specifications for acceptable temperature and humidity range).

CAUTION! (No User Serviceable Parts): Risk of electric 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 power source; hazardous voltage may exist between battery terminals and ground. Test before touching.

CAUTION! To reduce the risk of fire, connect the UPS to a branch circuit with 40 amperes (OL6000) / 50 amperes (OL8000) / 60 amperes (OL10000) maximum over-current protection in accordance to CE requirement.

CAUTION! The AC outlet where the UPS is connected should be close to the unit and easily accessible.

CAUTION! Please use only VDE-tested, CE-marked mains cable, (e.g. the mains cable of your equipment), to connect the UPS to the AC outlet.

CAUTION! Please use only VDE-tested, CE-marked power cables to connect any equipment to the UPS.

CAUTION! When installing the equipment, ensure that the sum of the leakage current of the UPS and the connected equipment does not exceed 3.5mA.

CAUTION! The OL6000 / OL8000 / OL10000 models are permanently-connected equipment and only qualified maintenance personnel may carry out installations.

CAUTION! Do not unplug the unit from AC Power during operation, as this will invalidate the protective ground insulation.

CAUTION! To avoid electric shock, turn off and unplug the unit before installing the input/output power cord with a ground wire. Connect the ground wire prior to connecting the line wires!

CAUTION! Do not use an improper size power cord as it may cause damage to your equipment and cause fire hazards.

CAUTION! Wiring must be done by qualified personnel.

CAUTION! DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT! Under no circumstances this unit should be used for medical applications involving life support equipment and/or patient care.

CAUTION! DO NOT USE WITH OR NEAR AQUARIUMS! To reduce the risk of fire, do not use with or near aquariums. Condensation from the aquarium can come in contact with metal electrical contacts and cause the machine to short out.

CAUTION! Do not dispose of batteries in fire as 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

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

CAUTION! The unit has a dangerous amount of voltage. When the UPS indicators is on, the units may continue to supply power thus the unit's outlets may have a dangerous amount of voltage even when it's not plugged in to the wall outlet.

CAUTION! Make sure everything is turned off and disconnected completely before conducting any maintenance, repairs or shipment.

CAUTION! Connect the Protection Earth (PE) safety conductor before any other cables are connected.

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

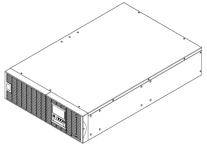
DO NOT INSTALL THE UPS WHERE IT WOULD BE EXPOSED TO DIRECT SUNLIGHT OR NEAR A STRONG HEAT SOURCE!

DO NOT BLOCK OFF VENTILATION OPENINGS AROUND THE HOUSING!

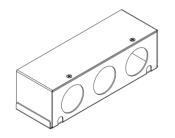
DO NOT CONNECT DOMESTIC APPLIANCES SUCH AS HAIR DRYERS TO UPS OUTPUT SOCKETS!

SERVICING OF BATTERIES SHOULD BE PERFORMED OR SUPERVISED BY PERSONNEL KNOWLEDGE OF BATTERIES AND THE REQUIRED PRECAUTIONS. KEEP UNAUTHORIZED PERSONNEL AWAY FROM BATTERIES!

UNPACKING



Power module



Input / Output terminal block cover



User's manual



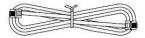
Register card



Rackmount left rail * 2 sets



Rackmount right rail * 2 sets



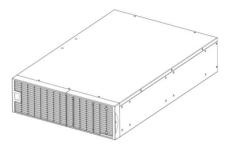
Phone line



USB communication cable



Serial Interface Cable (RS-232)



Battery module





Rackmount ears (Stands) (2) * 2 sets



Tie plate (1) * 1 set



Flat head screws: M5X8L (8) * 2 sets



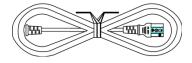
Pan head screws: M5X12L (12) * 2 sets



Plastic washers (8) * 2 sets



Screw hole dust covers (10) * 2 sets



Power cords



PowerPanel® Business Edition software CD

HARDWARE INSTALLATION

HARDWARE INSTALLATION

These versatile UPS systems 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 UPS on a floor or in a rackmount system. Please follow the instructions below for the respective mounting methods.

SAFETY PRECAUTIONS

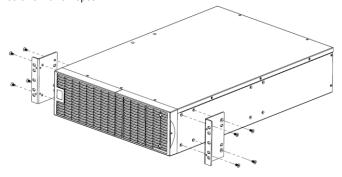
CAUTION! To prevent the risk of fire or electric shock, only use the supplied hardware to attach the mounting brackets.

RACKMOUNT INSTALLATION

Step 1: Remove the internal battery trays from the Battery module (See page 16)

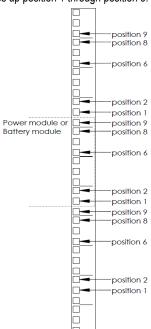
Step 2: Rackmount ears installation

Attach the two rackmount ears to the Battery module using the provided screws M5X8L*8pcs.



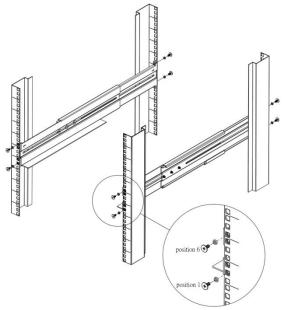
Step 3: Rackmount rail Installation

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 Battery module in the rack. The Power module or the Battery module takes up position 1 through position 9.

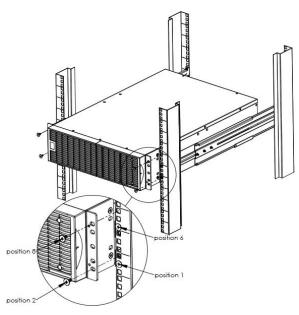


Step 4: Adjust rackmount rails to fit your rack

Attach the rackmount rail to your rack with two M5X12L screws and two plastic washers at the front of the rack. (Located in position 1 & position 6) Do not tighten the screws. Adjust the rail size on the rail assembly of your rack. Secure the rail to the rear of the rack with two M5X12L screws and two plastic washers. Tighten all screws at the front and rear of the rail. Once completed, perform the same steps for assembling the other rackmount rail.



Place the Battery module on a flat stable surface with the front of the unit facing toward you. Secure the Battery module to your rack with four M5X12L screws at the front of the rack. (Located in position 2 & position 8)



Step 5: Place the internal battery trays back into the Battery module (See page 16)

Once completed, perform the same steps for the Power module.

CAUTION! The Battery module must be installed below the Power module.

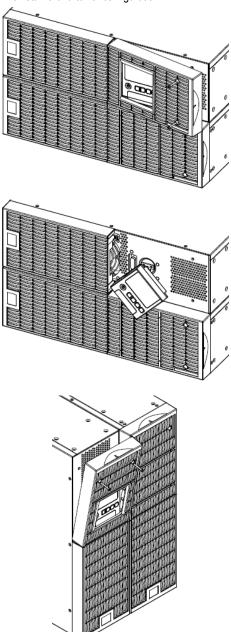
3

HARDWARE INSTALLATION

VERTICAL/TOWER INSTALLATION

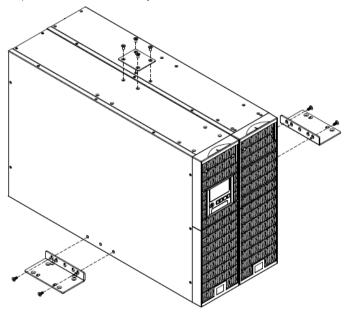
Step 1: Rotate the Multifunction LCD Module

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



Step 2: Attach the base stands

Secure the tie bracket with the screws (M5X8*4pcs). Tighten the screws (M5X12*4pcs) of the base stands (rackmount ears) onto the bottom of the power module and the battery module.



Step 3: Attach dust covers

Insert dust covers into the rackmount ear screw holes that are not being used.

ELECTRICAL INSTALLATION

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

SAFETY PRECAUTIONS

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

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

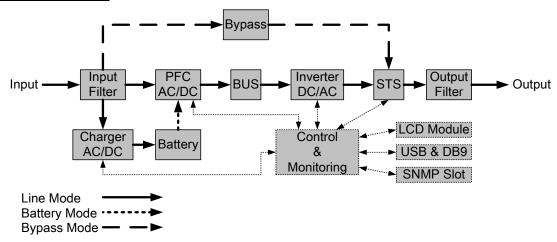
CAUTION! Do not work alone under hazardous conditions.

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.

INSTALLING YOUR UPS SYSTEM

SYSTEM BLOCK DIAGRAM



HARDWARE INSTALLATION GUIDE

- 1. Battery charge loss may occur during shipping and storage. Before using the UPS, it's strongly recommended to charge batteries for four hours to ensure the batteries' maximum charge capacity. To recharge the batteries, simply plug the UPS into an AC outlet.
- 2. When using the included software, connect either the serial or the USB cable between the computer and the corresponding port on the UPS. Note: If the USB port is used, the serial port will be disabled. They cannot be used simultaneously. After connecting to either the USB port or the Serial port on the UPS, a computer with the PowerPanel® Business Edition Agent software installed can control the operating schedule, battery test, outlets, as well as obtain UPS status information. However, other computers with PowerPanel® Business Edition Client software can only obtain UPS status information via LAN connection.
- **3.** Connect your computer, monitor, and any externally-powered data storage device (Hard drive, Tape drive, etc.) into the outlets only when the UPS is off and unplugged. DO NOT plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical device into the UPS. The power demands of these devices will overload and possibly damage the unit.
- **4.** To protect a fax machine, telephone, modem line or network cable, connect the telephone or network cable from the wall jack outlet to the jack marked "IN" on the UPS and connect a telephone cable or network cable from the jack marked "OUT" on the UPS to the modem, computer, telephone, fax machine, or network device.
- **5.** Press the ON/OFF switch to turn the UPS on. The Power-On indicator light will display when activated. If an overload is detected, an audible alarm will sound and the UPS will continuously emit two beeps per second. For resetting the unit, unplug some equipment from the outlets. Make sure your equipment carries a load current within the unit's safe range, (refer to the technical specifications).

- **6.** This UPS is equipped with an auto-charge feature. When the UPS is plugged into an AC outlet, the battery will automatically charge, even when the unit is switched off.
- **7.** To maintain an optimal battery charge, leave the UPS plugged into an AC outlet at all times.
- **8.** Before storing the UPS for an extended period of time, turn the unit OFF. Then cover it and store it with the batteries fully charged. Recharge the batteries every three months to ensure good battery capacity and long battery life. Maintaining a good battery charge will help prevent possible damage to the unit from battery leakage.
- **9.** The UPS has one USB port (default) and one Serial port that allows connection and communication between the UPS and any attached computer running the PowerPanel® Business Edition Agent software. The UPS can control the computer's shutdown during a power outage through the connection while the computer can monitor the UPS and alter various programmable parameters. Note: Only one communication port can be used at a time. The port not in use will automatically become disabled or the serial port will be disabled if both ports are attached.
- 10. EPO (Emergency Power Off) Port:

EPO ports allow administrators the capability to connect the UPS unit to customer-supplied EPO switches. These installations give operators a single access point to immediately power-off all equipment connected to the UPS during an emergency.

11. To avoid electric shock, turn the unit OFF and disconnect the unit from utility power before hardwiring the UPS (in/out power cord). The in/out power cord MUST be grounded.

HARDWIRING THE INPUT/ OUTPUT TERMINALS

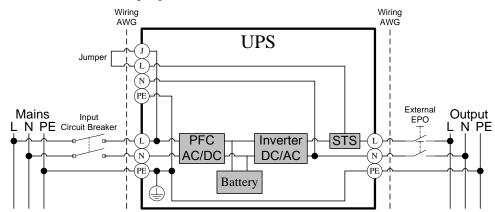
CHECK CIRCUIT BREAKER/WIRING

Check branch circuit breaker rating and wiring dimensions with the following table.

UPS Capacity	Branch Circuit Breaker	Wiring AWG	Wiring mm ²
6KVA	40A	10 AWG	5.5 mm ²
8KVA	50A	8 AWG	8.0 mm ²
10KVA	60A	6 AWG	14.0 mm ²

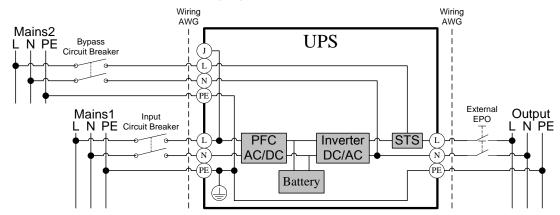
SINGLE INPUT CONFIGURATION

Hardwire the input/output terminals as shown in the following diagram.



DUAL INPUT CONFIGURATION

- 1. Remove the interconnection wires (Jumper) on bypass terminals.
- 2. Hardwire the input/output terminals as shown in the following diagram.



SAFETY PRECAUTIONS

CAUTION! Input and Output circuit breakers must be "OFF" during the building installation.

CAUTION! An additional two pole disconnect device is necessary during the building installation.

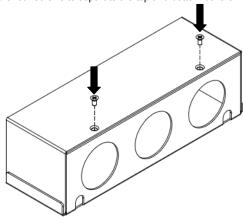
CAUTION! Disconnected EPO will immediately shut down the logic circuit output of the UPS. Wiring the EPO signal is optional.

CAUTION! Local safety rules may require a separate, external EPO to turn off output circuit breakers. Refer to local wiring rules, the EPO should use approved components.

HARDWIRING THE INPUT/ OUTPUT TERMINALS

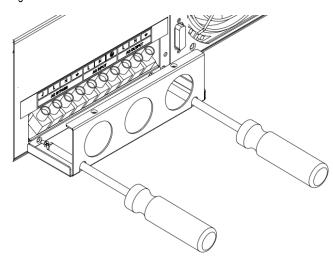
Step 1: Separate the top and bottom covers

Loosen the four screws to separate the top and bottom covers.



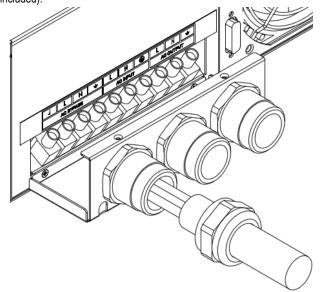
Step 2: Fix the bottom cover on the terminal block

Tighten the two screws to fix the bottom cover on the terminal block.

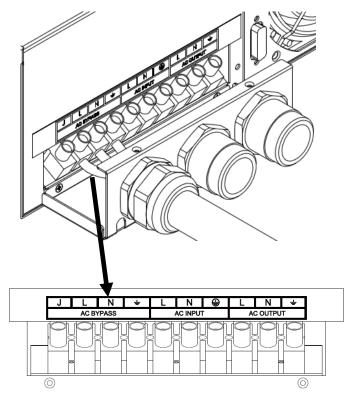


Step 3: Bypass configuration (for dual input configuration) Remove the interconnection wires (Jumper) on bypass terminals (J / L)

Remove the interconnection wires (Jumper) on bypass terminals (J / L and insert the bypass cable through the appropriate cable gland (not included).

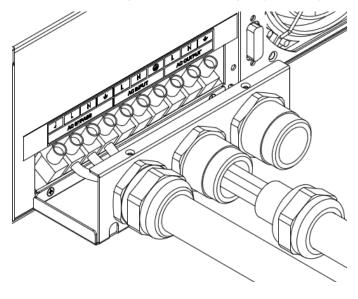


Connect the three wires to the bypass terminal block (L / N / G).



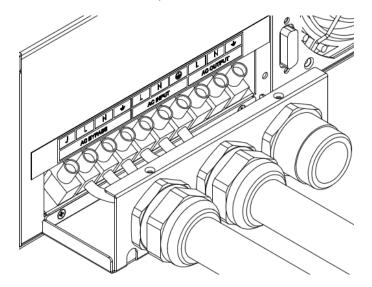
Step 4: Input configuration

Insert the input cable through the appropriate cable gland (not included).

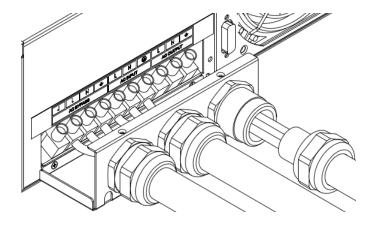


HARDWIRING THE INPUT/ OUTPUT TERMINALS

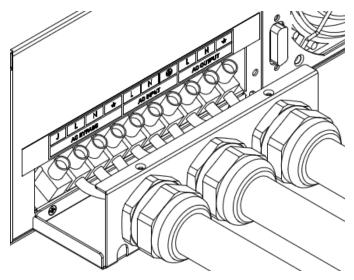
Connect the three wires to the input terminal block.



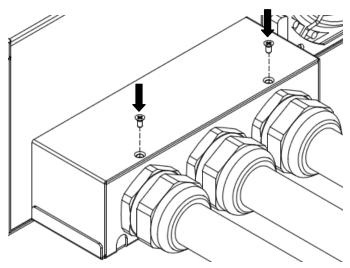
Step 5: Output configurationInsert the output cable through the appropriate cable gland (not included)



Connect the three wires to the output terminal block.



Step 6: Fix the top cover on the bottom coverTighten the six screws to fix the top cover on the bottom cover.



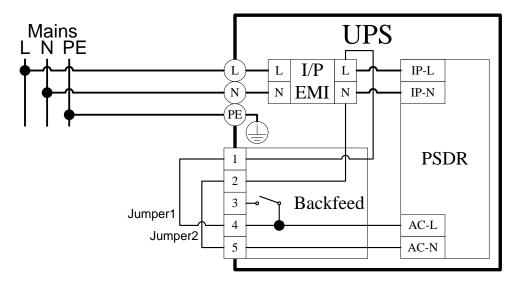
BACKFEED PROTECTION

BACKFEED PROTECTION OPERATION

- 1. If the Bypass circuit is shorted and the UPS is running in Line Mode or Battery Mode, backfeed protection will be active and the external isolation device (Magnetic Contactor) will open.
- 2. Save your data and perform a controlled shutdown.
- 3. Contact CyberPower for repair.

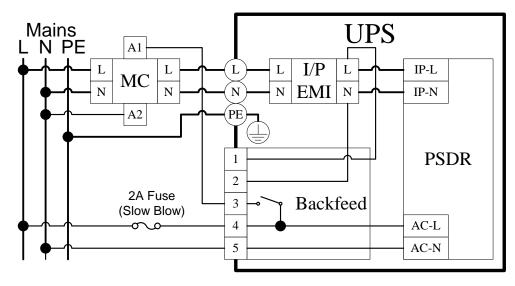
WITHOUT BACKFEED PROTECTION CONFIGURATION

- 1. Hardwire the input terminals as shown in the following diagram.
- 2. Do not remove the interconnection wires (Jumper1 / Jumper2) on "Backfeed Protection Connector".



WITH BACKFEED PROTECTION CONFIGURATION

- 1. Customers should provide an external isolation device (Magnetic Contactor) which is upstream and outside the UPS and capable of supporting the UPS input current.
- Remove the interconnection wires (Jumper1 / Jumper2) on "Backfeed Protection Connector".
- 3. Hardwire the input terminals and "Backfeed Protection Connector" as shown in the following diagram.
- 4. The external isolation device must be installed in the Mains path.



BASIC OPERATION

POWER MODULE FRONT/REAR PANEL DESCRIPTION

- 1. Power Button / Power on Indicator Master ON/OFF for the UPS. Indicates that the UPS is on and supplying power.
- 2. UPS Status / Fault / Replace Battery LED Indicator Indicates the status of the UPS whether is operating in Line, Battery or Bypass Mode, or the UPS has an internal fault and the battery need to be replaced.
- 3. Multifunction LCD Readout Shows UPS status, information, settings and events.
- 4. Function Buttons
 Scroll up, scroll down, select and cancel LCD menu.
- 5. Input Circuit Breaker Provides input overload and fault protection.
- 6. Input / Output Terminal Block Connect to utility power / your equipment.
- 7. Output Circuit Breaker Provides output overload and fault protection.
- 8. Battery Backup & Surge Protected Outlets
 Provides battery backup and surge protection. They
 ensure power is provided to connected equipment over a
 period of time during a power failure.

Critical / Noncritical Load

Allows the creation of load priorities to ensure that battery power reserves are transferred to specified outlets during a power outage. The unit can be programmed to provide additional runtime for equipment connected to the "CRITICAL" outlets, while stopping the power supply to equipment connected to "NONCRITICAL" outlets after a designated period of time.

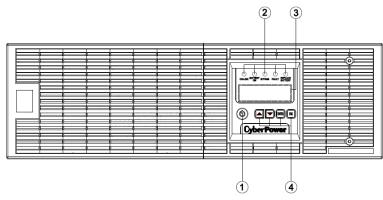
9. Serial Port

Serial port provides communication between the UPS and the computer. The UPS can control the computer's shutdown during a power outage through the connection while the computer can monitor the UPS and alter its various programmable parameters.

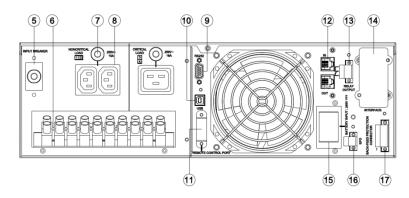
10. USB port

This is a connectivity port which allows communication and control between the UPS and the connected computer. It is recommended to install the PowerPanel® Business Edition Agent software on the PC/Server connected with the USB cord.

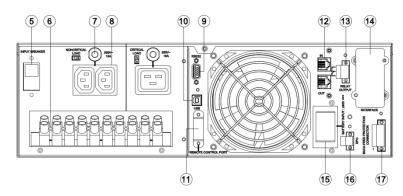
- 11. Remote Control Port Connects to remote LCD module to the UPS.
- 12. Surge Protected Communication Ports RJ-45/RJ-11 These ports are used to protect standard RJ-45/RJ-11 based products (ADSL, LAN, Phone/ Modem-Lines) and cabling systems from surges.



OL6KERT3UDPM / OL8KERT3UDPM / OL10KERT3UDPM



OL6KERT3UDPM



OL8KERT3UDPM / OL10KERT3UDPM

13. Relay Output Connector

Convert UPS signals into real potential-free Dry Contacts for industrial control.

14. SNMP/HTTP Network slot

Slot to install the optional SNMP card for remote network control and monitoring.

- 15. Extended Runtime Battery Module Connector Connection for additional CyberPower XL Battery modules.
- 16. EPO (Emergency Power Off) Connector Enables an emergency UPS Power-Off from a remote location.

17. Backfeed Protection Connector

Prevents power feedback from the inverter to utility power in case of power failure and a fault in the bypass circuit.

BASIC OPERATION

BATTERY MODULE FRONT/REAR PANEL DESCRIPTION

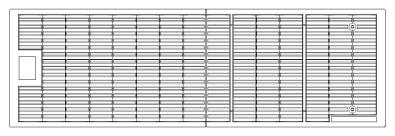
1. On-board Replaceable Fuse Cover Replaceable fuse is accessible from the rear panel. It must be done by qualified personnel.

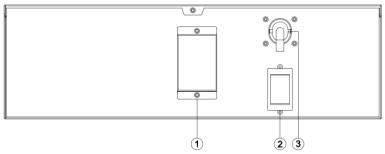
2. Input Connector

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

3. Output Cable

Use this output cable to connect the Battery module to the Power module or to the next Battery module.

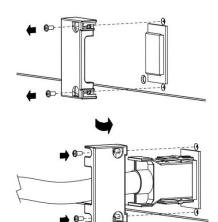


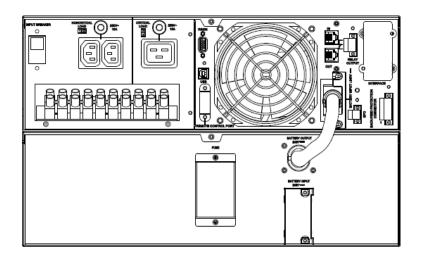


BPE240V30ART3US / BPE240V50ART3US

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.

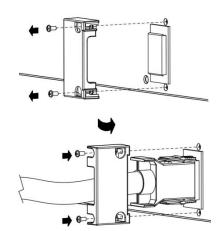


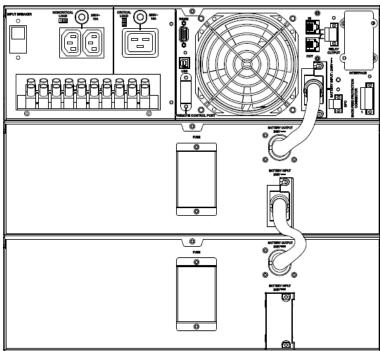


BASIC OPERATION

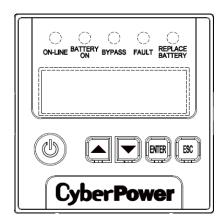
CONNECTION #2: POWER MODULE WITH MULTIPLE BATTERY MODULES

- Step 1: Connect the 1st 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 1st battery module.
- Step 3: Use the output cable of the 2nd Battery module to connect the 2nd Battery module to the 1st 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 2nd battery module into AC output outlet of the 1st Battery module.





OPERATION INSTRUCTIONS FOR LCD MODULE



LED INDICATORS – UPS STATUS

LED Indicators	Color	UPS Status Description
ON/OFF	White	UPS power is on.
ON-LINE	Green	UPS is operating in Line Mode.
BATTERY ON	Yellow	UPS is operating in Battery Mode.
BYPASS	Yellow	UPS is operating in Bypass Mode, Manual Bypass or ECO (Economy) Mode.
FAULT	Red	UPS has an internal fault. See "Trouble Shooting" for additional information.
REPLACE BATTERY	Red	Battery will soon need to be replaced due to insufficient runtime.

<u>LCD SCREEN – UPS STATUS</u>

LCD Screen	UPS Status Description	
Line Mode	UPS is operating in Line Mode.	
Battery Mode	UPS is operating in Battery Mode.	
Bypass Mode	UPS is operating in Bypass Mode.	
Manual Bypass	UPS is operating in Manual Bypass.	
ECO Mode	UPS is operating in ECO (Economy) Mode.	

BUTTON OPERATION

Button	Operation Description	
ON/OFF	Press this button to turn on or turn off UPS.	
A	Press this button to scroll up in the LCD menu.	
▼	Press this button to scroll down in the LCD menu.	
ENTER	Press this button to select an option.	
ESC	Press this button to cancel or return to previous LCD menu.	

LCD SETUP FUNCTIONS

MULTI-FUNCTION LCD MAIN MENU

Press "Enter" button to activate "MAIN MENU".

MAIN MENU submenu	Function Description		
Information	Displays the UPS information.		
Configure	Displays the UPS settings that can be configured by the user.		
Event Log	Displays the 3 most recent events, by event count, time (day/hour/minute), and event description.		

LCD INFORMATION READOUT

There are 19 types of UPS information available for display.

- 1. Press the "ENTER" button to activate the "MAIN MENU".
- 2. Press the "▲" and "▼" buttons to scroll to the "Information" option.
- **3.** Press the "ENTER" button to select the "Information" submenu.
- **4.** Press the "▲" and "▼" buttons to scroll through the "Information" submenu in the following table.
- 5. Press the "ESC" button to return to UPS Status.

TEMP =XX°C / XXX°F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time// Displays the present Date & Time Next BAT Change	Information Submenu	Description	
I/P Volt = XXX.XV Displays the Input Voltage I/P Freq = XX.XHz Displays the Input Frequency O/P Load = XXX% Displays the Output Load Percentage of Maximum load O/P Amp = X.XA Displays the Output Current O/P Watt = XXXXXW Displays the Output Wattage O/P VA = XXXXXVA Displays the Output VA BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP = XX°C / XXX°F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the UPS Model Name Date & Time Displays the Present Date & Time	O/P Volt = XXX.XV	Displays the Output Voltage	
I/P Freq = XX.XHz Displays the Input Frequency O/P Load = XXX% Displays the Output Load Percentage of Maximum load O/P Amp = X.XA Displays the Output Current O/P Watt = XXXXXW Displays the Output Wattage O/P VA = XXXXXVA Displays the Output VA BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP = XX°C / XXX°F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the UPS Rodel Name Date & Time //	O/P Freq = XX.XHz	Displays the Output Frequency	
O/P Load = XXX% Displays the Output Load Percentage of Maximum load O/P Amp = X.XA Displays the Output Current O/P Watt =XXXXXW Displays the Output Wattage O/P VA =XXXXXVA Displays the Output VA BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP =XX°C / XXX°F (Fahrenheit) for the UPS SBM = XXXXX Displays the Approximate inside Temperature in both °C (Celsius) and °T (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time /	I/P Volt = XXX.XV	Displays the Input Voltage	
O/P Amp = X.XA Displays the Output Current O/P Watt =XXXXXW Displays the Output Wattage O/P VA =XXXXXVA Displays the Output VA BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP =XX°C / XXX°F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the UPS Model Name Date & Time	I/P Freq = XX.XHz	Displays the Input Frequency	
O/P Watt =XXXXXW Displays the Output Wattage O/P VA =XXXXXVA Displays the Output VA BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number= X Displays the External Battery Module Number TEMP =XX°C / XXX°F Displays the Approximate inside Temperature in both °C (Celsius) and °F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time //: Displays the present Date & Time	O/P Load = XXX%	Displays the Output Load Percentage of Maximum load	
O/P VA =XXXXVA Displays the Output VA BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP =XX°C / XXX°F Displays the Approximate inside Temperature in both °C (Celsius) and °F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time//: Displays the present Date & Time Next BAT Change	O/P Amp = X.XA	Displays the Output Current	
BAT Volt = XXX.XV Displays the Battery Voltage BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP =XX°C / XXX°F Displays the Approximate inside Temperature in both °C (Celsius) and °F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time/	O/P Watt =XXXXXW	Displays the Output Wattage	
BAT Cap = XXX% Displays the Estimated Percentage of Battery Capacity BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number = X Displays the External Battery Module Number TEMP =XX°C / XXX°F Displays the Approximate inside Temperature in both °C (Celsius) and °T (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time	O/P VA =XXXXXVA	Displays the Output VA	
BAT Runtime=XXXM Displays the Estimated Battery Runtime in Minutes EBM Number= X Displays the External Battery Module Number TEMP =XX°C / XXX°F Displays the Approximate inside Temperature in both °C (Celsius) and °E (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Date & Time/	BAT Volt = XXX.XV	Displays the Battery Voltage	
EBM Number = X Displays the External Battery Module Number Displays the Approximate inside Temperature in both °C (Celsius) and °E (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Date & Time /	BAT Cap = XXX%	Displays the Estimated Percentage of Battery Capacity	
TEMP =XX°C / XXX°F Displays the Approximate inside Temperature in both °C (Celsius) and °E (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Displays the UPS Model Name Displays the present Date & Time /	BAT Runtime=XXXM	Displays the Estimated Battery Runtime in Minutes	
TEMP =XX°C / XXX°F (Fahrenheit) for the UPS SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time// Displays the present Date & Time Next BAT Change	EBM Number= X	Displays the External Battery Module Number	
SBM = XXXXX Displays the Stage of Smart Battery Management Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time/	TEMP -YY°C / YYY°E	Displays the Approximate inside Temperature in both $^{\circ}\! C$ (Celsius) and $^{\circ}\! F$	
Rating = XXK VA Displays the UPS Rating MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time/	IEWP =XX C/XXX F	(Fahrenheit) for the UPS	
MCU Ver = XXXX Displays the MCU Firmware Version Model Name Displays the UPS Model Name Date & Time/	SBM = XXXXX	Displays the Stage of Smart Battery Management	
Model Name Displays the UPS Model Name Displays the present Date & Time Displays the present Date & Time	Rating = XXK VA	Displays the UPS Rating	
Date & Time/	MCU Ver = XXXX	Displays the MCU Firmware Version	
Displays the present Date & Time Next BAT Change	Model Name	Displays the UPS Model Name	
Next BAT Change		Displays the present Date & Time	
XXX / XXXX Displays the next Battery Change Date & Time		Displays the next Battery Change Date & Time	

LCD SETUP FUNCTIONS

LCD EVENT LOG

3 Event Logs of UPS can be recorded.

- Press the "ENTER" button to activate the "MAIN MENU".
- 2. Press the "▲" and "▼" buttons to scroll to the "Event Log" option.
- 3. Press the "ENTER" button to select the "Event Log" submenu.
- **4.** Press the "▲" and "▼" buttons to scroll through the "Event Log" submenu in the following table.
- 5. Press the "ESC" button to return to UPS Status.

Event Log Submenu	Description	
(X)	XXDXXHXXM (without PowerPanel® Business or RMCARD302)	
	/ (with PowerPanel® Business or RMCARD302)	
Event Content		

MULTI-LANGUAGE INTERFACE

Users can configure 1 of the 4 available languages for display.

([English], [Español-Spanish], [Français-French], [Deutsch-German])

- 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 through the "Language" options.
- 5. Press the "ENTER" button to select the "Language" submenu.
- **6.** Press the "▲" and "▼" buttons to scroll to the language that you want to select.

You may be prompted to save the selection, if so press the "ENTER" button to save the setting.

7. Press the "ESC" button to cancel or return to previous LCD menu.

LCD SETTINGS CONFIGURATION

There are 24 UPS settings that can be configured by the user.

- 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 "Configure" submenu in the following table.
- **5.** Press the "**ENTER**" button to select the setting you want to configure.

The first configuration parameter will be displayed on the second column of LCD screen.

- **6.** Press the "▲" and "▼" buttons to scroll through the different parameters.
- **7.** Press the "ENTER" button to select the parameter you want to change.

You may be prompted to save the selection, if so press the "ENTER" button to save the setting. Some options are saved and started automatically. (See the following table for additional details.)

8. Press the "ESC" button to cancel or return to the previous LCD menu.

LCD SETUP FUNCTIONS

Configure Submenu	Available Settings	Default Setting	
Output Voltage	= [200V] [208V] [220V] [230V] [240V]	230V*	
Sync Freq Window	Range= [+/- 1%] [+/- 2%] [+/- 3%] [+/- 4%] [+/- 5%]	./ 50/	
	[+/- 6%] [+/- 7%] [+/- 8%] [+/- 9%] [+/-10%]	+/- 5%	
Bypass V Window	Range= [+10%/-10%] [+10%/-15%] [+10%/-20%]	1100//150/	
bypass v willdow	[+15%/-10%] [+15%/-15%] [+15%/-20%]	+10%/-15%	
Bypass Condition	[Check Freq/Volt] [Check Volt Only] [No Bypass]	Check Freq/Volt	
ECO Madatt	[Disable] [Enable]	Disable	
ECO Mode**	[V Range= +/-15%] [V Range= +/-10%] (for [Enable])	V Range= +/-10%	
Manual Bypass	[Disable] [Enable]	Disable	
Battery Test	[Activate?]	None	
Audible Alarms	[Disable] [Enable]	Enable	
EBM Number	= [0] [1] [2] [3] [4] [5] [6] [7] [8] [9] [10]	0	
Wiring Fault	[Disable] [Enable]	Disable	
NCL Control	[Outlet On] [Outlet Off]	Outlet On	
Language	[English] [Español-Spanish] [Français-French] [Deutsch-German]	English	
Generator Mode***	[Disable] [Enable]	Disable	
Communication	[Disable] [Enable]	Enable	
Dry Relay Set	[I/P Power Fail] [Battery Low] [Summary Alarm][UPS On Bypass] [UPS Fail]	I/P Power Fail	
Converter Mode****	[Converter Off] [O/P Freq = 50Hz] [O/P Freq = 60Hz]	Converter OFF	
Screen Saver	[Disable] [1 Minutes] [5 Minutes]	5 minutes	
Clear Event Log	[Activate?]	None	
Button OFF LOCK	[Disable] [Enable]	Disable	
Charger Function	[SBM] [Constant]	SBM	
Signal Inputs	[Disable] [EPO][ROO]	Disable	
Charger Check	[Disable] [Enable]	Disable	
With Transformer	[Disable] [Enable]	Disable	
Backfeed Check	[Disable] [Enable]	Disable	

^{*)} Output voltage default setting depends on different nation or order requested.

SILENCING AUDIBLE ALARMS

- 1. Press any of four function buttons on the LCD module; Note: the alarm can not be turned off for a "Battery Low" condition. This condition will still result in an audible alarm.
- 2. Configure "Audible Alarms" as "Disable" on the LCD module and it will stop warning of any malfunction audibly.

MANUAL BATTERY TEST

Configure "Battery Test" as "Active" on the LCD module; and it will perform the "Manual Battery Test"

^{**)} This function can't be set when Manual Bypass, Generator Mode or Converter Mode is enabled.
***) UPS has no bypass when Generator Mode is enabled.

^{****)} UPS has no bypass when Converter Mode is enabled. This function can only be set before the UPS is on.

LCD MODULE REMOTE CONTROL and WALL-MOUNTING INSTRUCTIONS

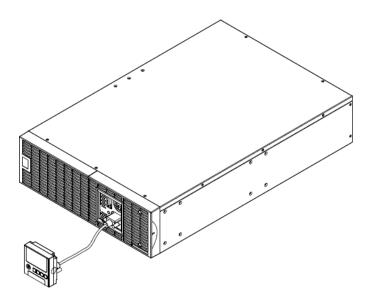
REMOTE CONTROL

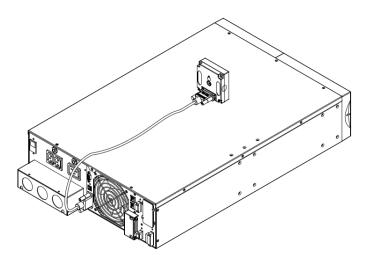
Step 1: Remove the Multifunction LCD Module

Unscrew the right panel of the Power module. Separate the right panel from the UPS. Gently lift the LCD module out. Reinstall the right panel.

Step 2: Connect the DB26 Cable

Connect the DB26 cable from LCD module to the "**Remote Control Port**" on the front panel or rear panel as shown in the following figure.





WALL-MOUNTING INSTRUCTIONS

Step 1: Remove the Multifunction LCD Module

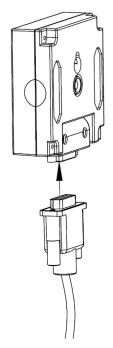
Unscrew the right panel of the Power module. Separate the right panel from the UPS. Gently lift the LCD module out. Reinstall the right panel.

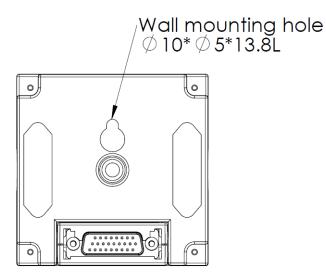
Step 2: Rotate the DB26 Connector of LCD Module

Step 3: Connect the DB26 Cable

Connect the DB26 cable from LCD module to the "**Remote Control Port**" on the front panel or rear panel as shown in the following figure.

Step 4: Mount LCD Module on the Wall





SAFETY PRECAUTIONS

CAUTION! It must be done by qualified personnel.

CAUTION! To avoid electric shock, turn off and unplug the unit before installing REMOTE CONTROL or WALL-MOUNTING INSTRUCTIONS.



MAINTENANCE

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 CyberPower 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 UPS 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.

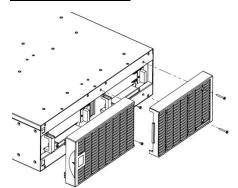
Replacement Batteries

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.

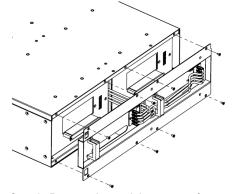
Battery Disposal

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.

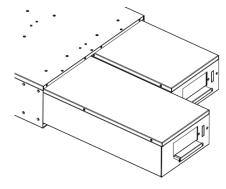
Battery Installation



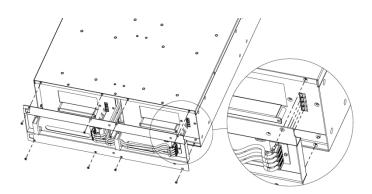
Step 1: Remove the front panels



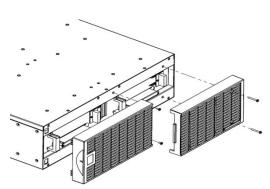
Step 2: Remove the retaining screws from the cable protection cover and then remove the cover itself



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



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



Step 5: Install the front panels

TECHNICAL SPECIFICATIONS

Model	OL6000ERT3UD	OL8000ERT3UD	OL10000ERT3UD	
Configuration			•	
Capacity (VA)	6000VA	8000VA	10000VA	
Capacity (Watts)	5400W	7200W	9000W	
Form Factor	Rackmount / Tower			
Energy-saving Technology	Yes, ECO Mode Efficiency > 95%			
nput				
Input Voltage Range	120~139Vac for 0~ 25% Load 140~159Vac for 0~ 50% Load 160~179Vac for 0~ 75% Load 180~280Vac for 0~100% Load			
Input Frequency Range		40~70Hz		
Input Power Factor		0.99		
Cold Start		Yes		
Output				
Output Waveform		Sine wave		
Output Voltage*	200, 208,	220, 230, 240Vac (Configu	rable) ±2%	
Output Frequency		(Auto-Sensing or Configural		
Transfer Time (Typically)		0ms		
Rated Power Factor		0.9		
Harmonic Distortion	THD < 3%	at Linear Load, < 5% at Nor	n-linear Load	
Crest Factor		3:1		
ECO Mode Voltage Regulation		±10%, ±15% (Configurable)	
UPS Outlets	(2) IEC	C13, (1) IEC C19, (1) Termi		
Protection				
Surge Protection		IEC 61000-4-5 Level 3		
Phone / Network Protection		RJ11/RJ45 (One In/One Ou	ut)	
Overload Protection	Line Mode: 105~125% Load for 1 min, 126~150% Load for 10 sec Battery Mode: 105~130% Load for 10 sec, 131~150% Load for 2 sec			
Short Circuit Protection		mediately or Input Fuse / C		
Battery				
Specifications	(20) 12V/7.2AH	(20) 1:	2V/9.0AH	
Recharge Time (Typically)	4 hours		hours	
Sealed, Maintenance Free		Yes		
Hot-Swappable		Yes		
Status Indicators	l			
LCD Screen	Multi-Function LCD Readout that Supports: Multi-Language Interface, (19) Types of Read Out, (24) Types of Function Setting, (3) Event Logs		t Logs	
LED Indicators	Power On (White), Bypass Mode (Yellow),	Fault (Red), R	attery Mode (Yellow), eplace Battery (Red)	
Audible Alarms	Battery Mode, Batt	tery Low, Overload, UPS Fa	ult, Replace Battery	
Environment	T			
Operating Temperature		$32^{\circ}\mathrm{F}$ to $104^{\circ}\mathrm{F}$ ($0^{\circ}\mathrm{C}$ to $40^{\circ}\mathrm{C}$		
Operating Relative Humidity				
Management				
On-Device Features	Self Test, Auto-C	harge, Auto-Restart, Auto-C	Overload Recovery	
	(1) Serial Port (RS232), (1) USB Port, (1) Remote Control Port, (1) Relay Out			
Connectivity Ports	(1) Seliai F Oit (183232), (1)	(1) Expansion Port (With optional SNMP card or RMCARD 302)		
SNMP/HTTP Capable			d or RMCARD 302)	
			d or RMCARD 302)	
SNMP/HTTP Capable Software	(1) Expansion Po		·	
SNMP/HTTP Capable Software Power Management Software	(1) Expansion Po	rt (With optional SNMP card	·	
SNMP/HTTP Capable Software Power Management Software Physical	(1) Expansion Po	rt (With optional SNMP card	on	
SNMP/HTTP Capable Software Power Management Software Physical DimensionsPower Module	(1) Expansion Po	rt (With optional SNMP card PowerPanel® Business Editi = 26 x 17 x 5.2in. (66 x 43.3	on 3 x 13.2cm)	
SNMP/HTTP Capable Software Power Management Software Physical DimensionsPower Module DimensionsBattery Module	(1) Expansion Po	PowerPanel® Business Editi = 26 x 17 x 5.2in. (66 x 43.3) = 26 x 17 x 5.2in. (66 x 43.3)	on 3 x 13.2cm)	
SNMP/HTTP Capable Software Power Management Software Physical DimensionsPower Module DimensionsBattery Module Net WeightPower Module	(1) Expansion Po	PowerPanel® Business Editi = 26 x 17 x 5.2in. (66 x 43.) = 26 x 17 x 5.2in. (66 x 43.) 53lbs(24Kg)	on 3 x 13.2cm) 3 x 13.2cm)	
SNMP/HTTP Capable Software Power Management Software Physical DimensionsPower Module DimensionsBattery Module	(1) Expansion Po	PowerPanel® Business Editi = 26 x 17 x 5.2in. (66 x 43.) = 26 x 17 x 5.2in. (66 x 43.) 53lbs(24Kg)	on 3 x 13.2cm)	

TROUBLE SHOOTING

Problem	Possible Cause	Solution	
Warning			
O/P Overload	Your equipment requires more power than the UPS can provide. If the UPS is in Line Mode then it will transfer to Bypass Mode; if the UPS is in Battery Mode it will shutdown.	Shut off non-essential equipment. If this solves the overload problem, the UPS will transfer to normal operation.	
Load Over XXX%	Your equipment requires more power than the setting in the Power Management Software (PowerPanel® Business) will allow.	Shut off the non-essential equipment or increase the level in the Power Management Software.	
Battery Mode	UPS is operating on battery power.	Save your data and perform a controlled-shutdown.	
Battery Low	UPS is operating on battery power and will be shutting down soon due to extremely low battery voltage.	UPS will restart automatically when acceptable utility power returns.	
BAT Disconnected	Missing battery power.	Check battery connector and battery breaker.	
Battery Failure	UPS has failed in Battery Test.	 Check battery connector and battery breaker. 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.	
EPO OFF	Missing the EPO connection.	Check the EPO connection.	
	Line and neutral wires are reversed.	Exchange line and neutral wires.	
Wiring Fault	Missing ground wire.	Connect ground wire.	
	No ground wire.	Disable Wiring Fault alarm on LCD panel.	
Line Abnormal	Wrong utility power backed up during UPS autorestart.	Check whether voltage or frequency of utility power is out of range.	
Output Short	Output short circuit.	Your attached equipment may have problems, please remove them and check again.	
Over Temperature	High ambient temperature.	Check the fan for operation and if the ventilation hole has been covered.	
Coldstart Lock	UPS is locked to prevent consuming battery power during shipping.	Plug into utility power for first-time operation.	
Autorestart Lock	"Automatic Restore" is disabled in Power Management Software (PowerPanel® Business)	Press "ON/OFF" button to turn on UPS	
Bypass Forbidden	Manual Bypass Forbidden when the LCD screen shows "Generator On" or "Converter On".	Slide the Interlock Bracket to the right. (For the PDU or HW PDU only)	
Fault			
Over Charge	Battery is overcharged.	Remove battery connector and check charger voltage.	
Charger Failure	Charger has failed.	Contact CyberPower for repair.	
High O/P V	Output voltage is too high.		
Low O/P V	Output voltage is too low.	Shut down UPS and turn off input breaker. Contact CyberPower for repair.	
Bus Fault	Internal DC bus voltage is too high or too low.	2. Contact Cysen ower for repair.	

Cyber Power Systems, Inc.

www.cyberpower.com

Entire contents copyright[®] 2011 Cyber Power Systems, Inc., All rights reserved. Reproduction in whole or in part without permission is prohibited. PowerPanel[®] Business Edition and PowerPanel[®] Personal Edition are trademarks of Cyber Power Systems, Inc.









