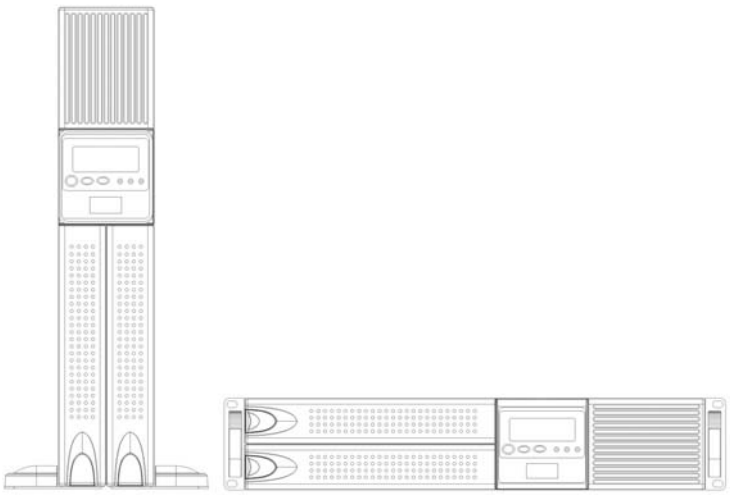
Jupiter-Pro XL Convertible

Line-interactive Sine Wave UPS

User's Guide

JP-Pro XL 1000/1500/2000/3000



Contents

CHAPTER 1

Introduction

The JP-Pro XL Convertible UPS series, featured with Tower/Rack Convertible design, Double AVR Boost and Double Buck, Pure Sine Wave Output, User's Friendly LCD Display, Built-in customer Option Slot, Hot Swappable Battery, and USB/RS232 Communication interface, provides a flexible from factor for most of business critical file server, minicomputers, network switches and hubs, etc. in tower or rack mount formats.

- Sine Wave Output provides assurance of compatibility with all kinds of loads.
- User's Friendly LCD panel may display system status including load level, battery level, AVR-Boost/Buck and fault status for easy service.
- 90% High Efficiency in Normal Mode meets high energy saving standard and reduces noise and heat generated by other topology UPS.
- Easy Swappable Battery Function may save the time and money by swapping the batteries by end-user without sending it back for a factory service.
- Cold Start Function enables to turn on the UPS without connecting to the Utility.
- Optional Communication Software allows not only the control of the UPS and graceful shutdown when the Utility Fails, but also allows the user to remotely test the major operating functions of the UPS, communicate via SNMP/web/network optional card, access UPS functions via the web and alert users via SMS messages against specific events.
- User-friendly Plug and Play design can easily be installed by end user. All units up to 3Kva are supplied with input cables and output sockets as standard.
- Plug-and-play USB/RS232 interface conveniently offers a plug-and-play USB or RS232 port for connecting with nowadays IT products.

CHAPTER 2
IMPORTANT SAFETY INSTRUCTION

An Important Notice

1. The UPS has its own internal energy source (battery). Should the battery be switched on when no AC power is available, there could be voltage at the output sockets.
2. Make sure that the AC Utility outlet is correctly grounded.
3. Do not open the case, as there are no serviceable parts inside. Your Warranty will be void.
4. Do not try to repair the unit yourself; contact your local supplier or your warranty will be void.
5. Please make sure that the input voltage of the UPS matches the supply voltage.
6. To eliminate any overheating of the UPS, keep all ventilation openings free from obstruction, and do not store "things" on top of the UPS. Keep the UPS 30 cm away from the wall.
7. Make sure the UPS is installed within the proper environment as specified. (0-40℃ and 30-90% non-condensing humidity)
8. Do not install the UPS in direct sunlight. Your warranty may be void if the batteries fail.
9. Install the UPS indoors as it is not designed for installation outdoors.
10. Dusty, corrosive and salty environments can do damage to any UPS.
11. Install the UPS away from objects that give off excessive heat and areas that are excessively wet.
12. If liquids are split onto the UPS or foreign objects dropped into the unit, the warranty will be null and void.
13. The battery will discharge naturally if the system is unused for any length of time.
14. It should be recharged every 2-3 months if unused. If this is not done, then the warranty will be null and void. When installed and being used, the batteries will be automatically

recharged and kept in top condition.

15. This UPS supports electronic equipment in offices, telecommunications, process control, medical and security applications. Non-authorized technician is not allowed to install the UPS in the following areas.
    a. Medical equipment directly related to human life
    b. Elevator, Metro (Subway) system or any other equipment related to human safety.
    c. Public system or critical computer systems.
16. Do not install the UPS in an environment with sparks, smoke or gas.
17. Make sure the UPS is completely turned off when moving the UPS from one place to another. It might cause electrical shock if the output is not cut completely.

Storage Instruction

For extended storage through moderate climate, the batteries should be charged for 12 hours every 3 months by plugging the UPS power cord into the wall receptacle. Repeat this procedure every 2 months under high temperature environment.

CHAPTER 3
SETUP

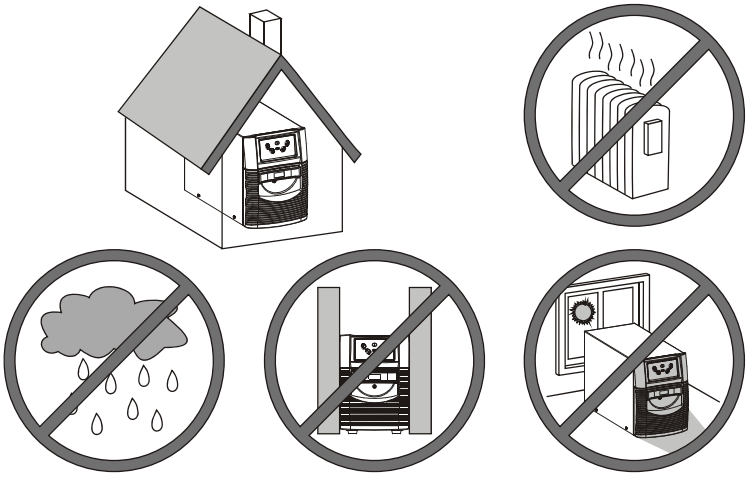
Inspection

Inspect the UPS upon receipt. Notify the carrier and dealer if there is damage.

The package is recyclable; save it for reuse or dispose of it properly.

Place the UPS Properly

The UPS is with microprocessor control, which shall be placed in a well-ventilated & low humid environment.



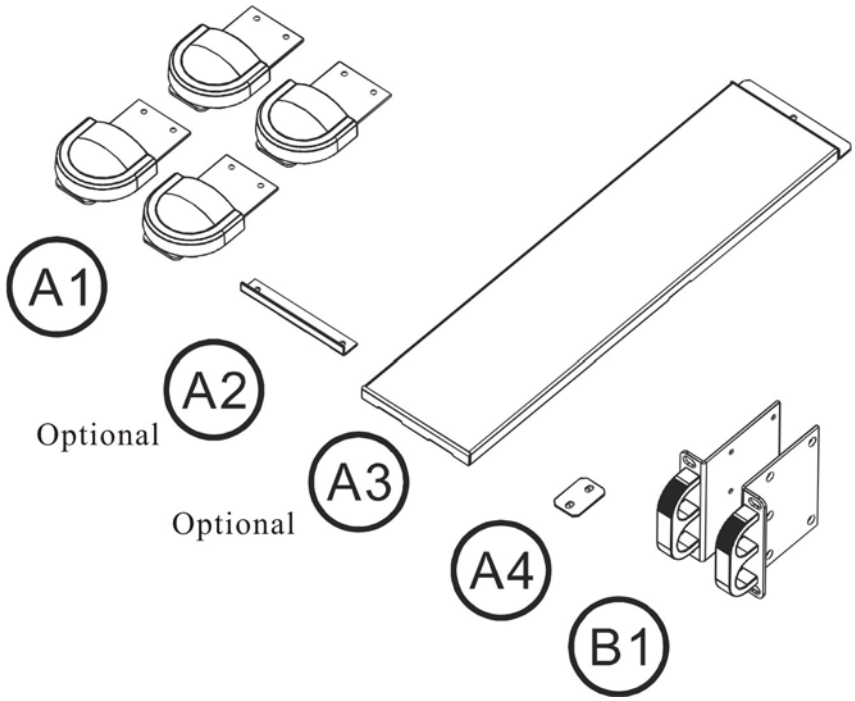
Unpacking

1. Take the UPS out of the export carton.

2. Remove the packing materials.

3. Standard Package includes:
   a. User's Manual
   b. 1pce x AC Input Power Cord
   c. 2pcs x IEC output cables (for the UPS with IEC sockets only)
   d. 1pce x RJ11 Phone Jack Cable
   e. 1set x UPS communication kit (optional)

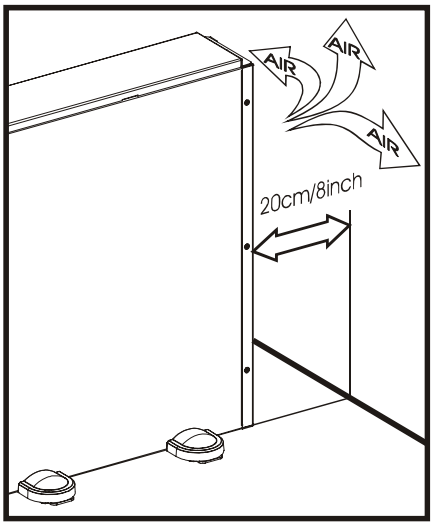
Accessories for Tower and Rack Mount



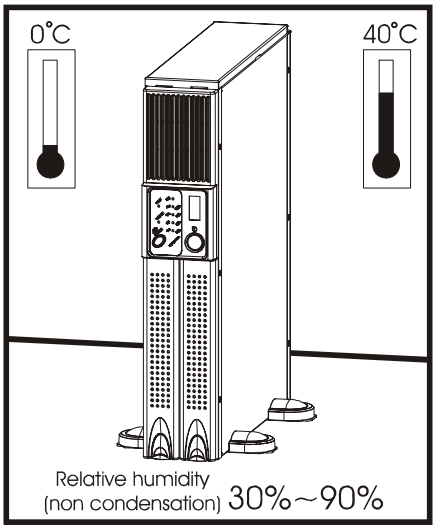
Selecting Installation Position

It is necessary to select a proper environment to install the unit, in order to minimize the possibility of damage to the UPS and extend the life of the UPS. Please follow the instructions below:

1. Keep at least 20cm(8 inches) clearance from the rear panel of the UPS from the wall or other obstructions.
2. Do not block the air-flow to the ventilation openings of the unit.
3. Please ensure the installation site is in accordance with the UPS working specifications to avoid from overheat and excessive moisture.



4. Do not place the UPS in a dusty or corrosive environment or near any flammable objects.
5. This UPS is not designed for outdoor use.



UPS Setup

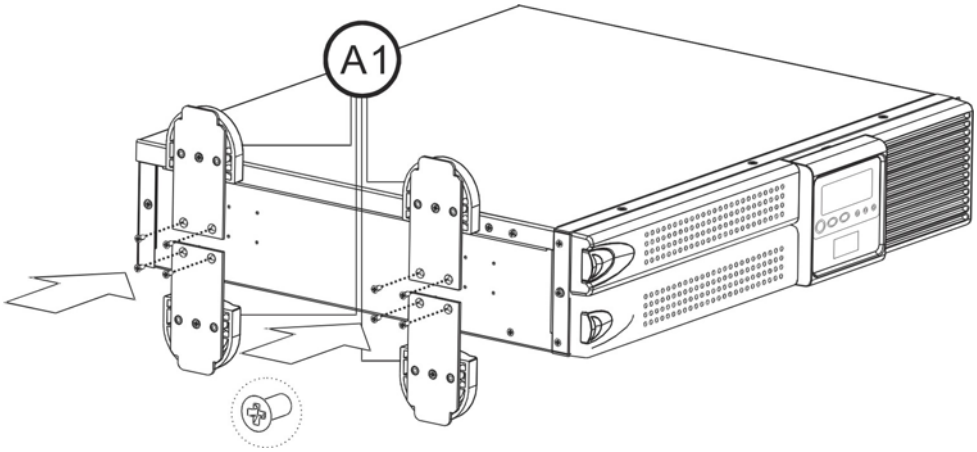
The JP-Pro XL offers a flexible form factor enabling integration into a wide variety of environments. The Jupiter-pro XL series with space-saving design only occupy 2U for 1000 to 3000VA.

If you are installing the UPS in “Tower” type, please proceed Tower Setup; otherwise, proceed “Rack-Mount” Setup.

Tower Setup

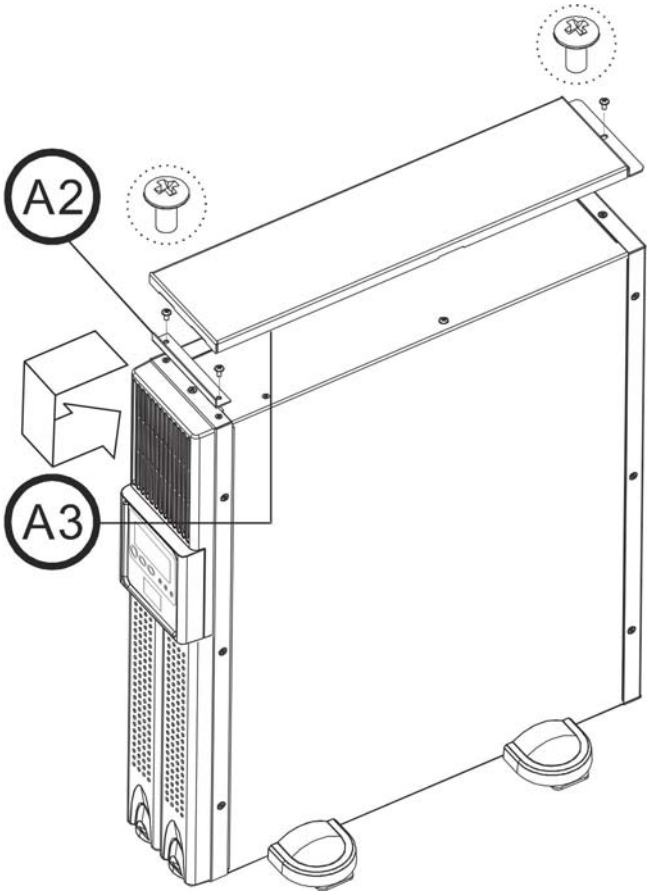
Stand Alone Unit

Step1



Fasten 4pcs “A1” onto the positions as indicated above.

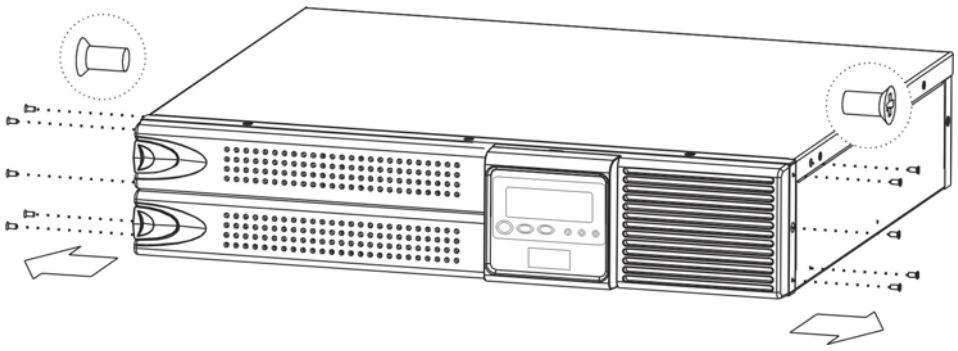
Step2



Fasten “A2” on the position shown then fix “A3” on the top of the A2 with screws as shown.

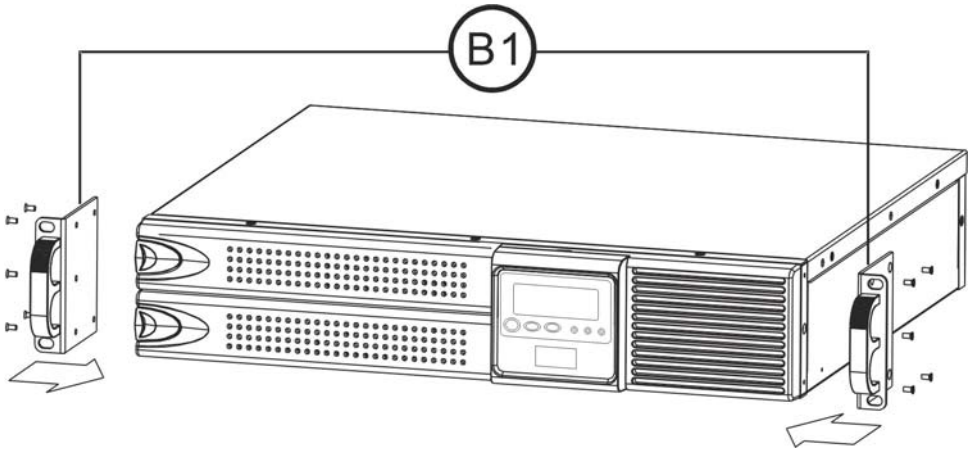
Rack-Mount Setup

Step1



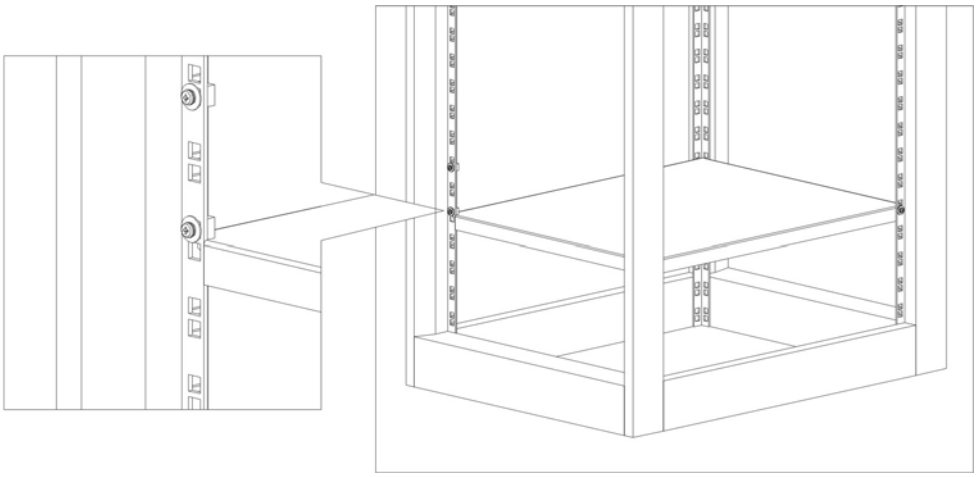
Choose 10 flat-head screws ready for the 10 positions shown.

Step2



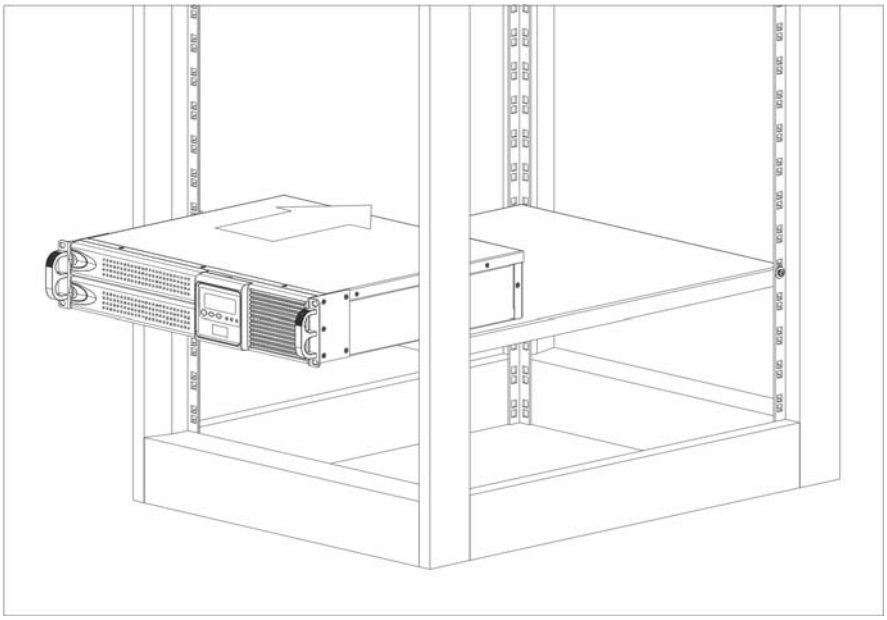
Fasten 2pcs x “B2” onto the positions with 10pcs flat-head screws as Shown.

Step3



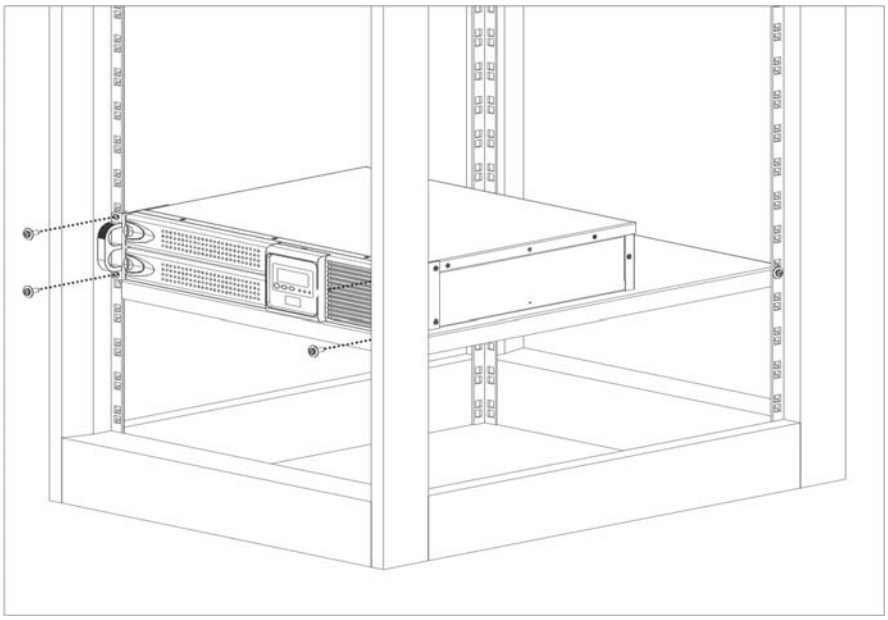
Select a proper position and fix a slide-in plate onto the Rack Cabinet.

Step4



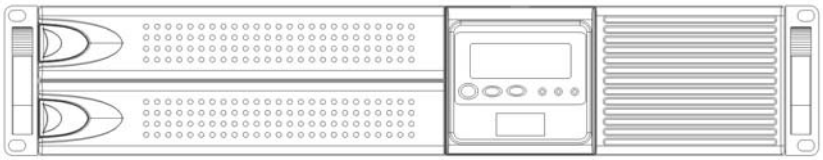
Put the UPS on the top of the slide-in plate.

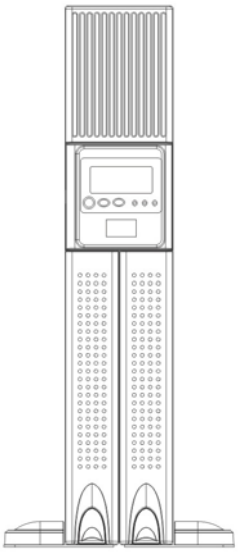
Step5



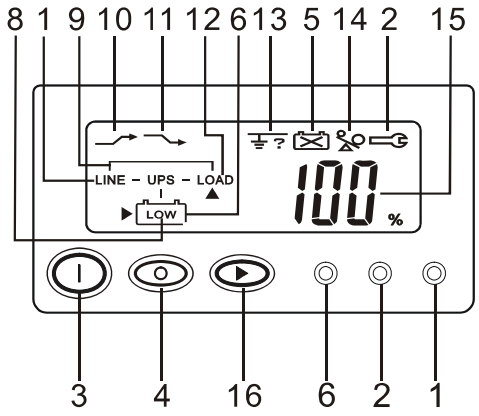
Fix the UPS with 4 screws as indicated as above.

UPS Front Panel





LCD Display Panel

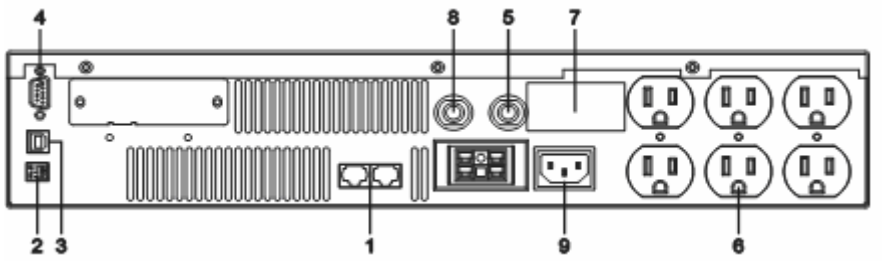


1. Utility LED LINE
2. Fault LED
3. On Switch
4. Off Switch
5. Battery Replacement LED
6. Battery Backup LED
7. Screw for Easy Swappable Battery Cover
8. Battery Low LOW
9. Bypass
10. Utility Low, UPS Boost
11. Utility High, UPS Buck
12. UPS Output Indicator LOAD
13. Polarity Error or Ground Fault
14. Overload
15. Load/Battery Level (%) 100、
16. Load/Battery Level Indication

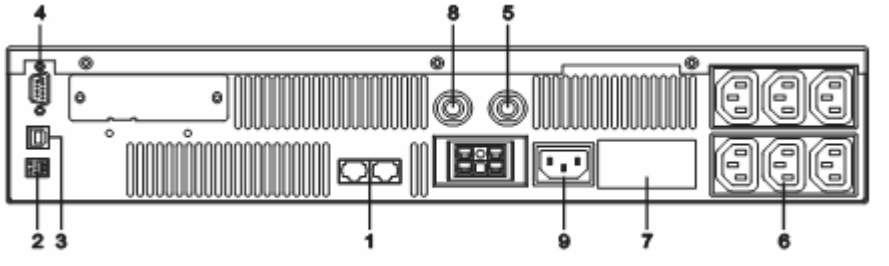
Control Button

UPS Real Panel

JP-Pro XL 1000 / 1500



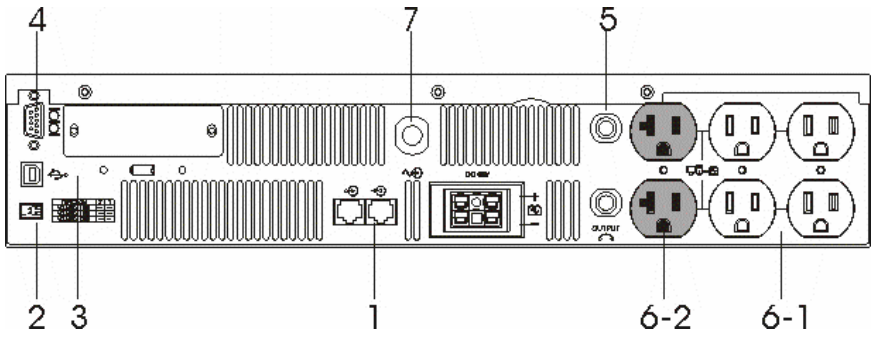
110/115/120V Rear Panel



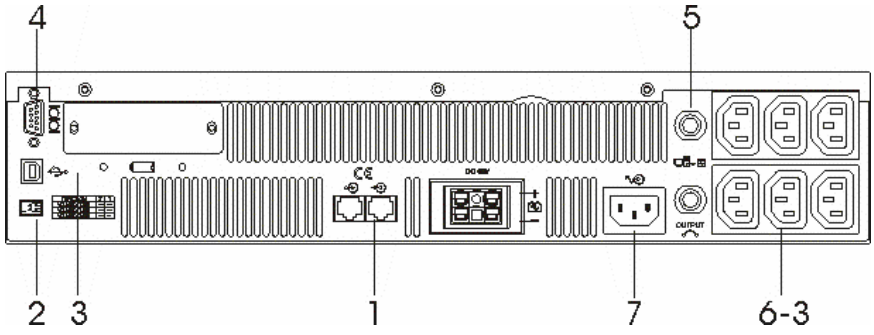
220/230/240V Rear Panel

1.RJ45 Port
2.DIP Switch
3.USB Communication Port
4.RS232 Communication Port
5.Output Breaker
6.Outlets
7.Rating Label
8.Input Fuse
9.Input Power Socket(Inlet)

JP-Pro XL 2000



110/115/120V Rear Panel

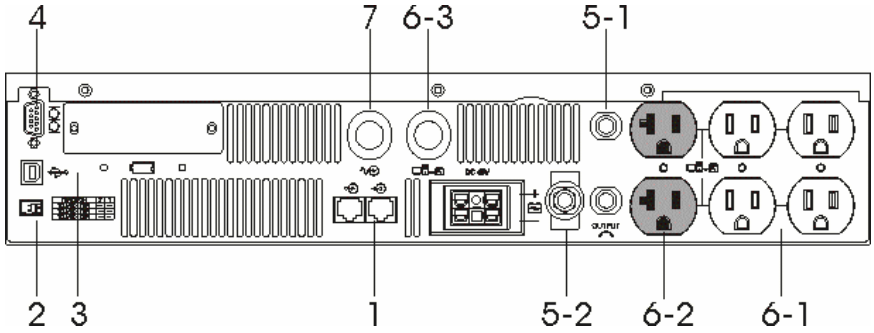


220/230/240V Rear Panel

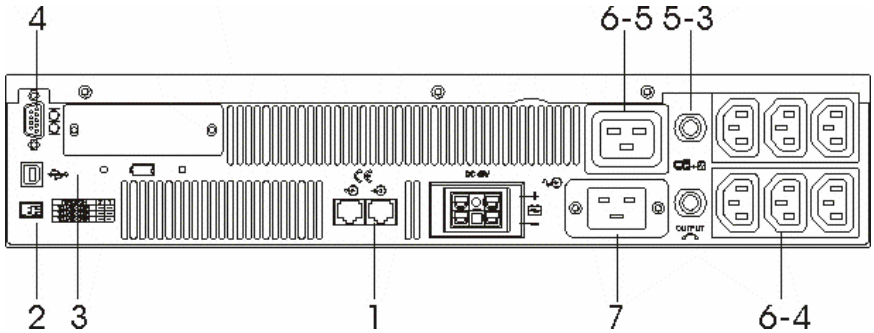
1.RJ45 Port
2.DIP Switch
3.USB Communication Port
4.RS232 Communication Port
5.Output Breaker for 6-1 and 6-3
6.Outlets
    6-1 NEMA 5-15 Receptacles
    6-2 NEMA 5-20 Receptacles
7.Input Power Socket(Inlet)

6-3 IEC 320-C13 Receptacles

JP-Pro XL 3000



110/115/120V Rear Panel



220/230/240V Rear Panel

1.RJ45 Port
2.DIP Switch
3.USB Communication Port
4.RS232 Communication Port
5.Output Breakers
    5-1 Output Breaker for 6-1
    5-2 Output Breaker for 6-2
    5-3 Output Breaker for 6-4
7.Input Power Socket(Inlet)

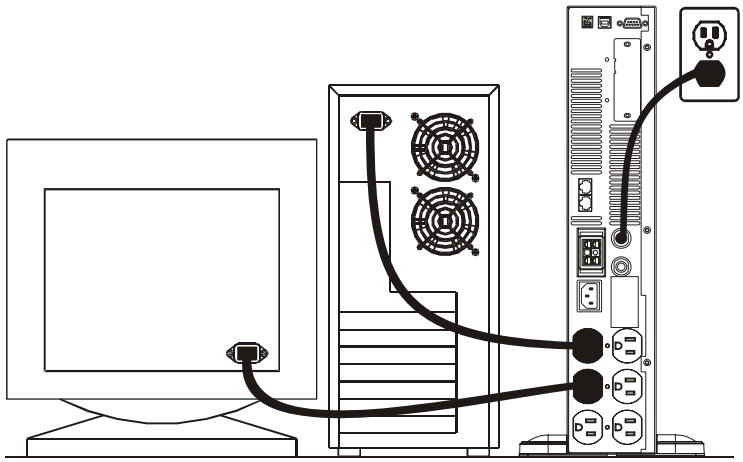
6.Outlet
- 6-1 NEMA 5-15 Receptacles
- 6-2 NEMA 5-20 Receptacles
- 6-3 Output Power cord L5-30R (Optional)
- 6-4 IEC 320-C13 Receptacles
- 6-5 IEC 320-C19 Receptacles (Optional)

CHAPTER 4
INSTALLATION

Connect Utility and Load

First, connect the UPS with Utility, then plug the loads onto the Outlets on the rear of the UPS. To use the UPS as a master "On/Off" switch, make sure that all of the loads are switched "on".

These UPS outlets provide battery backup and surge protection to the equipment when Utility voltage is out of window.

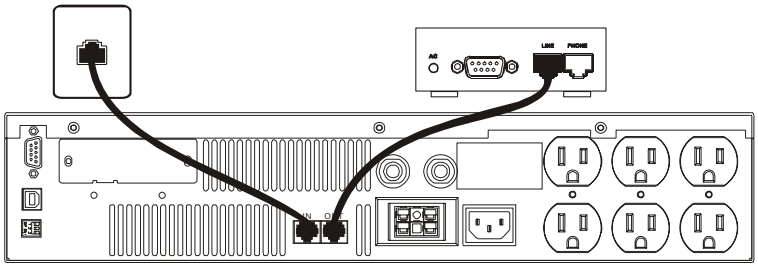


Caution

Do not connect a laser printer to the UPS outlets!

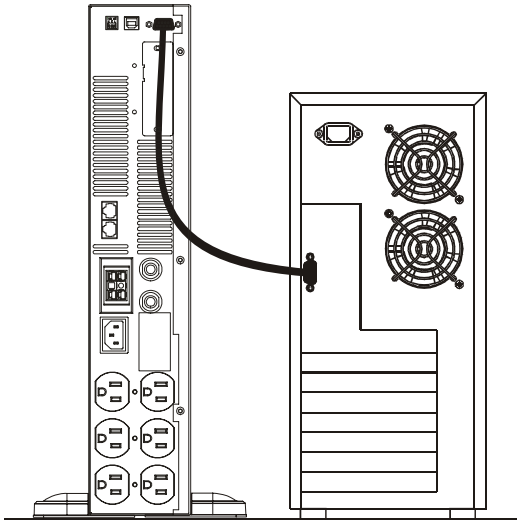
Connect Network Surge protection

Connect a 10 base-T / 100 base-T network cable with the RJ-45 network surge protection “IN” jack on the rear of the UPS. Connect from the “OUT” jack with network cabling to network equipment.



Connect Computer Interface Port

Connect the supplied interface cable (RS-232 or USB, Optional) between the interface port on the rear of the UPS and the computer interface port. See software installation guide in the CD-ROM (Optional) for installation purpose.



Use with Extended Battery Bank

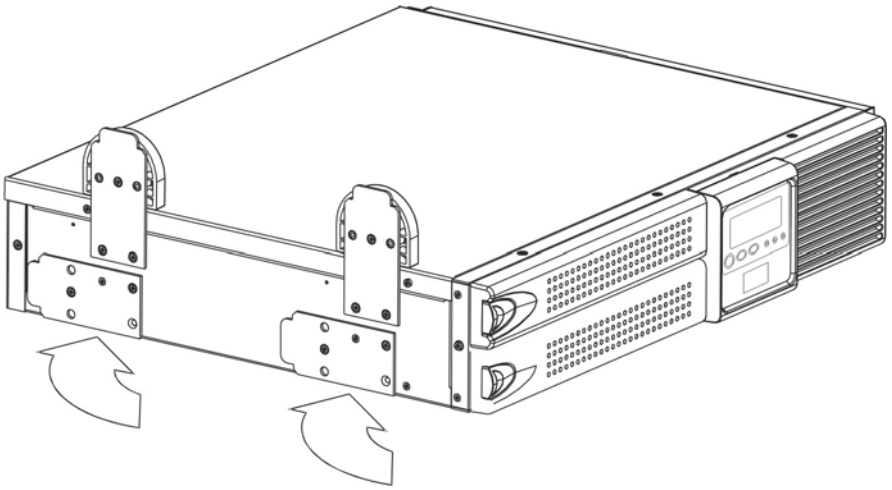
Caution

Battery bank connectors are color-coded as shown below. Do not try to install battery bank with connectors that are different from the battery bank connector in the UPS.

UPS model	Nominal System Voltage (connector color)	Battery Bank
JP Pro XL 1000	24VDC (red)	BBCJPPXL0124
JP Pro XL 1500	24VDC(red)	BBCJPPXL0524
JP Pro XL 2000	48VDC(yellow)	BBCJPPXL0148
JP Pro XL 3000	48VDC(yellow)	BBCJPPXL0548

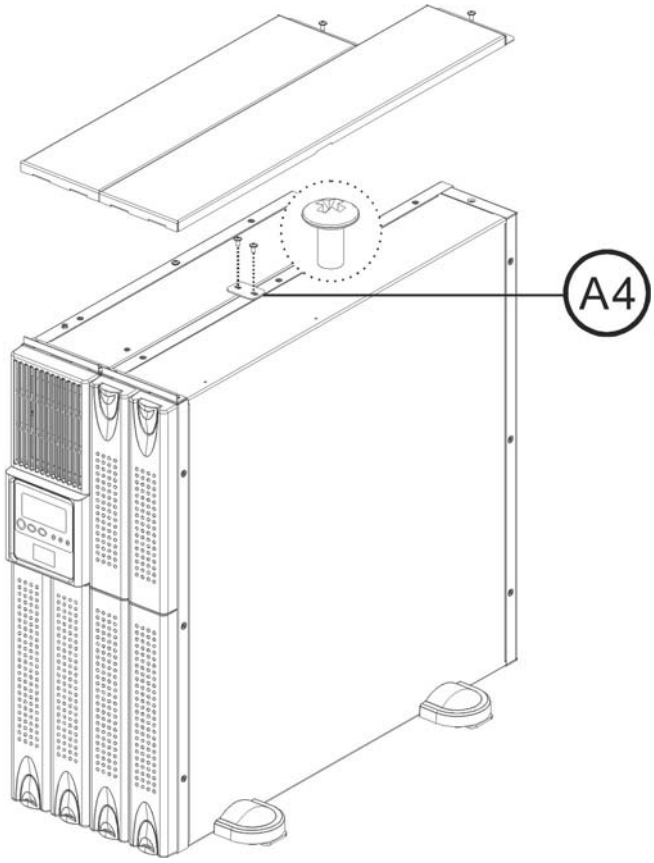
Installation the UPS with the Battery Bank

Step1



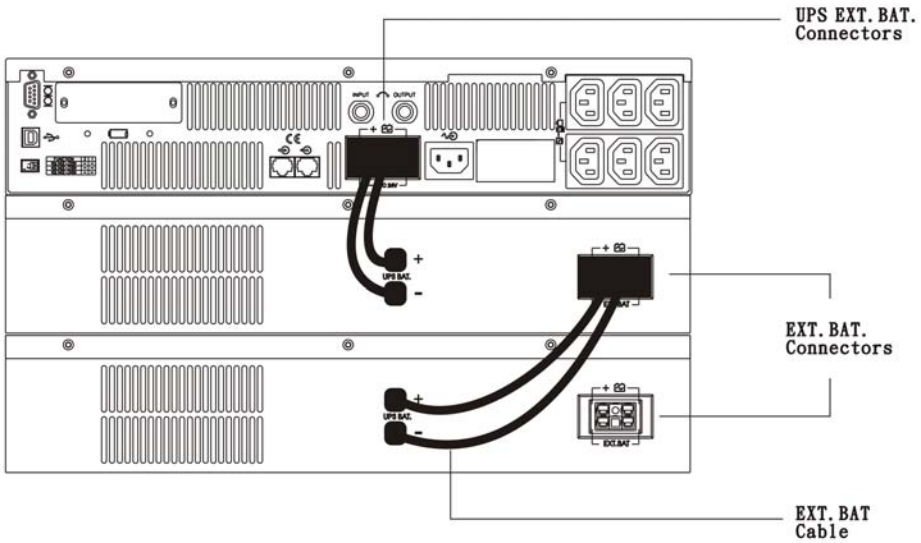
Change the direction of the “Feet” as shown.

Step2



Fasten the “A4” with Truss-head screws as shown above.

Connect the Extended Battery Bank to the UPS



CHAPTER 5
OPERATION

Turn on the UPS

1 Connect the UPS to the wall receptacle. LCD will display “OFF”, when Utility is normal. If there is nothing on the LCD, go to step 3.

2 Push the “On” Switch on the front panel to start the UPS. Both the LCD and Utility LED (Green) are lit. The start-up procedure is completed and the loads are supplied by the UPS.

3 To cold start the UPS, press the “On” Switch on the front panel for approximately 3 seconds until the LCD lights up and buzzer sounds, then release the “On” Switch. The UPS starts operating and Battery Backup LED (Amber) lights up. The cold start-up procedure is

completed and the loads are supplied by the UPS.

4 The UPS will run under Backup mode and the buzzer alarms every 2 seconds in case of blackout or over/under voltage. On the contrary, If Utility is back to normal and then the UPS will run under Utility mode and silence alarm.

Turn Off the UPS

1 Press the “Off” Switch for at least 3 seconds to turn off the UPS. If you press the “Off” Switch less than 3 seconds, the UPS will not execute shutdown command due to insufficient pressing time.

2 In some occasions, the UPS will shut itself down in case of overload, output short-circuited or battery cut-off point reached in the Backup mode.

3 The UPS will automatically shut off the output and beep for 5 seconds then completely shut itself down.

Plug-in Charge

1 If the Input Power Cord is connected to the wall receptacle properly and the Utility is normal, the UPS will start charging automatically without processing “Turn On” procedure.

2 You have to charge for at least 8 hours every 3 months to avoid from battery self over-discharge naturally, if the UPS is in an idle condition.

Auto-Restart

1 If the Input Power Cord is connected to the wall receptacle properly and Utility is back to normal, the UPS will automatically restart to provide energy to the output after battery cut.

Alarm Silence

1 The Alarm might be turned off by pressing the “On” Switch for

approximately 1 second in the “Backup” mode.

2 Unless any other warning or fault condition occurs, the alarm remains at Silence condition once the “Alarm Silence” is turned off.

Self Test

1 Under Utility Normal condition, press the “On” Switch for 3 seconds to execute the Battery Self-test function.

2 In case the battery is normal, it will enter into the Battery Backup Mode for 10 seconds then return to Utility Mode.

3 If the battery voltage is detected lower than set limit, the Battery Replacement LED will blink for 5 seconds then extinguish to stop self-test procedure. And if the battery is detected weak or dead, the Battery Replacement LED will steadily illuminate.

Caution

The UPS will remain at “NO” output, if the start-up operation is not proceeded properly even though the Input Power Cord is connected to the wall receptacle.

Important Notice

Plug the UPS onto the wall receptacle to charge the UPS for over 8 hours after initial installation.

Storage

Store at -15 to +30 °C (+5 to +86 °F), charge the UPS battery every six months.
Store at +30 to +45 °C (+86 to +113 °F), charge the UPS battery every three months

CHAPTER 6
UPS MAINTENANCE

Battery Replacement

When the UPS is started up or a self-test is executed, the Battery Replacement LED might light up due to battery weak or battery dead.

1 When the Battery-Replacement (RED) lights up, you may leave the UPS to be re-charged for at least 8 ~ 10 hours to see whether the RED LED will be extinguished after the Self-test function is executed again.

2 In case the RED LED remains unchanged, you may unscrew the Easy Swappable Battery cover, replace a new battery then push the “On” Switch to disable the RED LED. Please follow the steps 1-3 to replace the new battery.

Caution

The UPS will remain at "NO" output, if the start-up operation is not proceeded properly even though the Input Power Cord is connected to the wall receptacle.

Caution

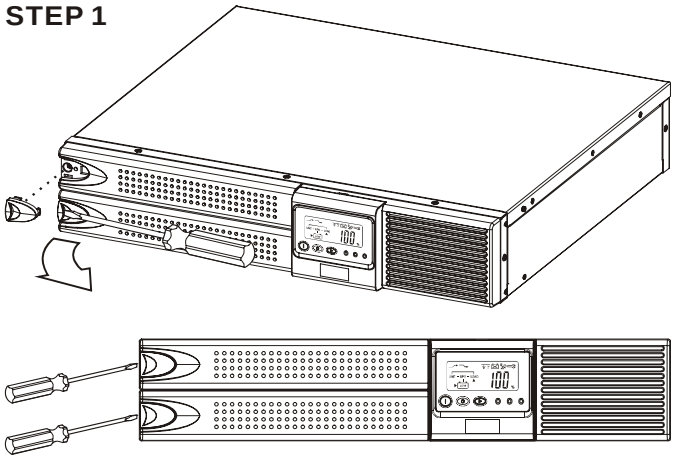
The battery is heavy, pull the battery out onto flat & stable surface.

Caution

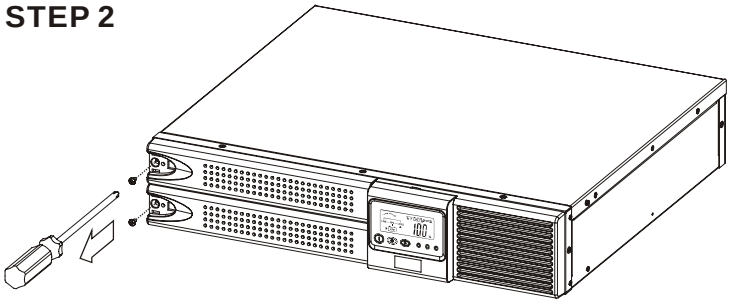
DO NOT DISCONNECT the batteries while the UPS is in the BACKUP mode.

How to Replace Battery

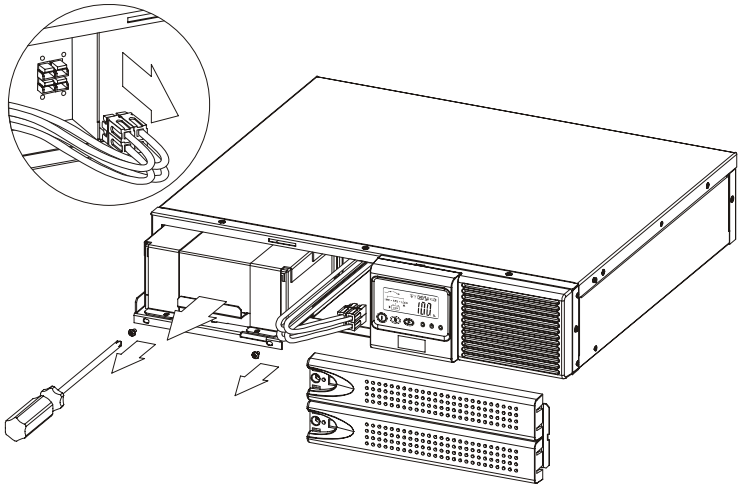
STEP 1



STEP 2



STEP 3



Recycling the Used battery

Contact your local recycling or hazardous waste center for information on proper disposal of the used battery.

CHAPTER 7
SPECIFICATIONS

Power Ranting

Model	Voltage	Power Level	Input Voltage Range
JP-Pro XL 1000	110/115/120 220/230/240	1000VA/600W	-32% to +35% of nominal Voltage
JP-Pro XL 1500	110/115/120 220/230/240	1500VA/900W	
JP-Pro XL 2000	110/115/120	2000VA/1200W	

	220/230/240		
JP-Pro XL 3000	110/115/120 220/230/240	3000VA/1800W	

Technical specification

Frequency Range	45-65Hz± 0.5Hz, Auto Sensing (Normal mode) 50/60Hz± 0.5Hz, Auto Sensing (Backup mode)
Regulation (Normal Mode)	-12 to +8% of nominal voltage
Regulation (Backup Mode)	nominal output voltage ± 0.5%
Voltage Waveform	Sine-Wave
Efficiency	>95%(Normal mode) >80%(Backup mode)
Over lode protection	>110% (Normal mode) >120% (Backup mode)

Battery

	JP-Pro XL 1000	**JP-Pro XL 1500**	**JP-Pro XL 2000**	**JP-Pro XL 3000**
Battery Voltage	24v	24V	48V	48V
Quantity	4pcs	4pcs	8pcs	8pcs
Type	Sealed maintenance-free, valve-regulated, Lead-acid			
Capacity	7.2AH	9Ah	7.2Ah	9Ah
Recharge time	>4 hours to 90%			
Autonomy	>10min.	>8min.	>10min.	>8min.