



Alpha Sentra XL: 1000/1500/2200/3000

Indoor Line Interactive Extended Run Time UPS User Manual

Part # 0170005-J0

Effective: 05/2012



Alpha Sentra XL: 1000/1500/2200/3000

Indoor Line Interactive

Extended Run Time UPS



NOTE:

Photographs contained in this manual are for illustrative purposes only. These photographs may not match your installation.



NOTE:

Operator is cautioned to review the drawings and illustrations contained in this manual before proceeding. If there are questions regarding the safe operation of this powering system, contact Alpha Technologies or your nearest Alpha representative.



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1. Important Safety Instructions

1.1 Important Notice

SAVE THIS MANUAL – This manual contains important Instructions that must be followed during the installation and maintenance of the UPS.

- The UPS has its own internal energy source (battery). A voltage may be present at the output terminals even when no AC input power is available.
- Make sure that the AC utility outlet is correctly grounded.
- Do not open the UPS, as there are no serviceable parts inside and your warranty will be void.
- Do not repair the unit yourself. Contact your local supplier or your warranty will be void.
- Make sure that the input voltage of the UPS matches the supply voltage.
- To prevent the UPS from overheating, keep all ventilation openings unobstructed. Do not place anything on top of the UPS. Keep the UPS rear panel at least 20 cm away from the wall or other objects.
- Make sure the UPS is installed in an appropriate environment where the ambient temperature is 0 to 40°C (32 to 104°F), and humidity is 30 to 90% non-condensing.
- Do not install the UPS in direct sunlight. Your warranty will be void if the batteries fail.
- Install the UPS in a temperature controlled indoor area that is free of conductive contaminants (not designed for outdoor use).
- Dusty, corrosive, or salty environments can damage the UPS.
- Install the UPS away from objects that give off excessive heat and areas that are excessively wet.
- Do not install the UPS in an environment with sparks, smoke or gas. Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data processing Equipment, ANSI/NFPA 75.
- If liquids enter into the UPS or foreign objects are dropped into the unit, the warranty will be void.
- The battery will gradually discharge if the system is unused for extended periods.
- If unused, recharge the UPS every 2 to 3 months. If this is not done, the warranty will void. The batteries will automatically be recharged and kept in good condition if the UPS is installed and used.
- Do not install the UPS in an environment with sparks, smoke or gas. Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data processing Equipment, ANSI/NFPA 75
- Make sure the UPS is completely switched off when moving the UPS from one place to another. It may cause electrical shocks if the output is not completely switched off.
- A battery can present a risk of electrical shock and high short circuit current. The following precautions should be observed when working on batteries:
 - a. Remove watches, rings, or other metal objects.
 - b. Use tools with insulated handles.
 - c. Wear rubber gloves and boots.
 - d. Do not lay tools or metal parts on top of batteries.
 - e. Disconnect charging source prior to connecting or disconnecting battery terminals.
 - f. Determine if battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).
- Do not dispose of batteries in a fire. The batteries may explode.

- Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

1.2 Storage Instruction

Store the UPS in a location where the temperature ranges between -15°C to 40°C (+5°F to 104°F).

For extended storage in moderate climates, the batteries should be charged for 12 hours every 3 months. Connect the UPS to the utility supply and switch on the input breaker located at UPS rear panel. Repeat this procedure every 2 months if the ambient storage temperature is above 30°C (86°F).

2. Introduction

The UPS features a tower/rack convertible design, a single AVR boost and single buck, pure sine wave output, a user friendly LCD display, a built-in customer option slot, hot swappable batteries, and a USB/RS232 communication interface. It can be connected to external batteries to extend run time as much as needed and provides a flexible back-up system for critical file servers, minicomputers, network switches and hubs, and many other applications in tower or rack mount formats.

- The sine wave output is compatible with the requirements of many types of loads.
- A user friendly LCD panel displays the system status including the load level, battery level, AVR-boost/buck, and fault status.
- 90% efficiency in the normal mode meets high energy saving standard and reduces noise and heat.
- Easy swappable batteries lets the end user swap the batteries instead of sending the unit back to the factory.
- A cold start function enables the UPS to be switched on without being connected to the utility power.
- Optional communication software allows the UPS to be controlled and gracefully shut down when the utility power fails. It also allows the user to remotely test the major operating functions of the UPS, communicate via an SNMP/web/network optional card, access the UPS functions via the web, and alert the users via SMS messages.
- The user-friendly plug and play design allows the unit to be easily installed by the end user. All units up to 3 kVA are supplied with input cables and output sockets.
- The plug-and-play USB/RS232 interface conveniently offers a plug-and-play USB or an RS232 port for connecting with other IT products.

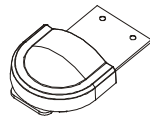
3. Set up

3.1 Inspection

Inspect the UPS upon receipt. Notify the carrier and dealer if there is any damage. The packaging is recyclable; save it for reuse or dispose of it properly.

3.2 Unpacking

1. Take the UPS out of the PE foam.
2. Remove the packing materials.
3. A standard unit includes:
 - One (1) user manual.
 - One (1) AC input power cord (not supplied with hard wired models).
 - Two (2) IEC output cables (for UPS models with IEC sockets only).
 - One (1) RJ11 phone jack cable.
 - The accessories shown below for tower and rack mounting:



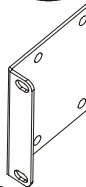
4 pcs



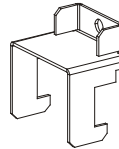
1 pcs



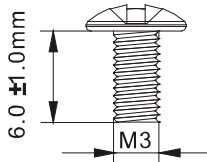
2 pcs



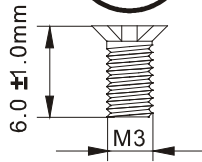
2 pcs



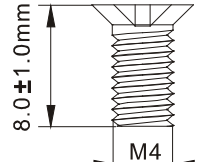
1 pcs



2 pcs



16 pcs

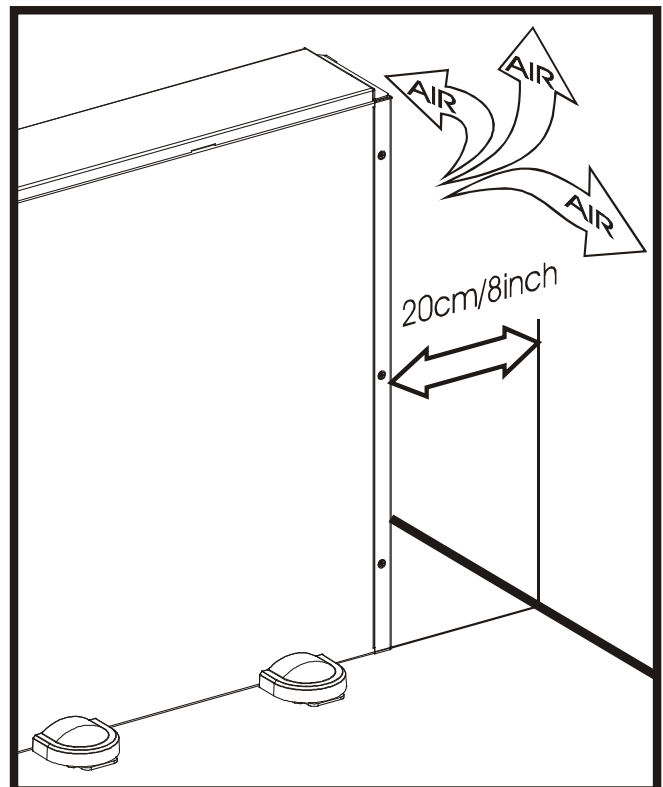
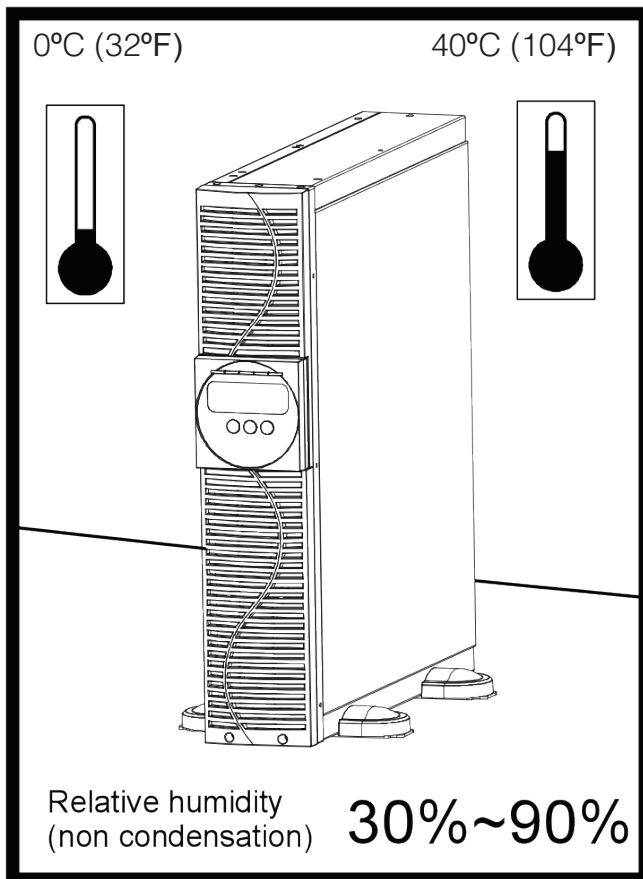


6 pcs

3.3 Selecting an Installation Position

The UPS contains a microprocessor, which must be installed in a well-ventilated and humidity controlled environment. Select an environment that minimizes the possibility of damage to the UPS and extends the life of the UPS. Follow the instructions below:

1. Ensure there is at least 20 cm (8 inches) of clearance between the rear panel of the UPS and the wall or other obstructions.
2. For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.
3. Do not block the air-flow to the ventilation openings of the unit.
4. Ensure that the environmental conditions of the installation site are within the specified temperature and humidity limits. Avoid excessive heat and moisture.
5. Do not place the UPS in a dusty or corrosive environment or near any flammable objects.
6. This UPS is not designed for outdoor use.

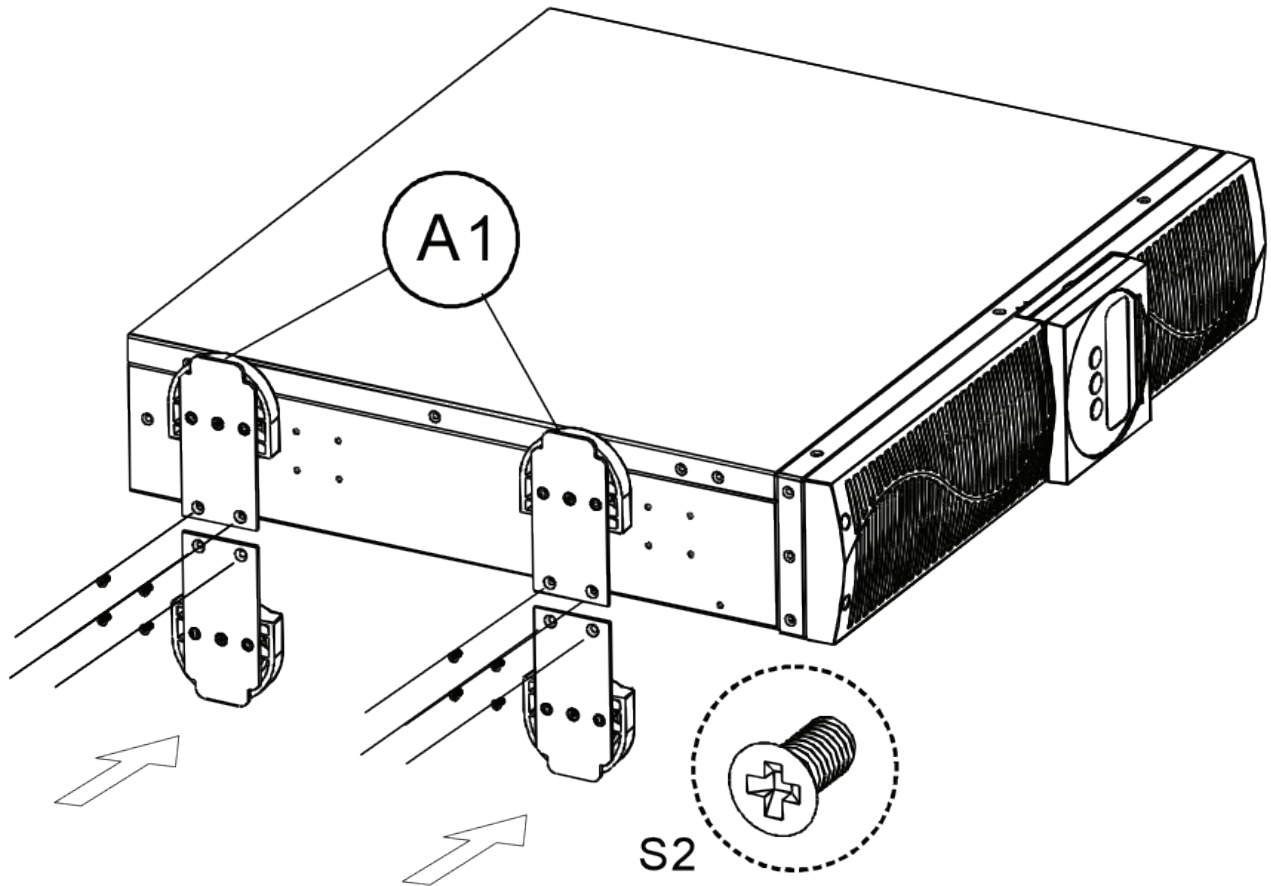


3.4 UPS Position

The UPS can be installed in two different orientations: tower mount (stand alone), or rack mount. To install the UPS as a tower, see Section 3.4.1. For rack mount, see Section 3.4.2.

3.4.1 Tower Mount (Stand Alone)

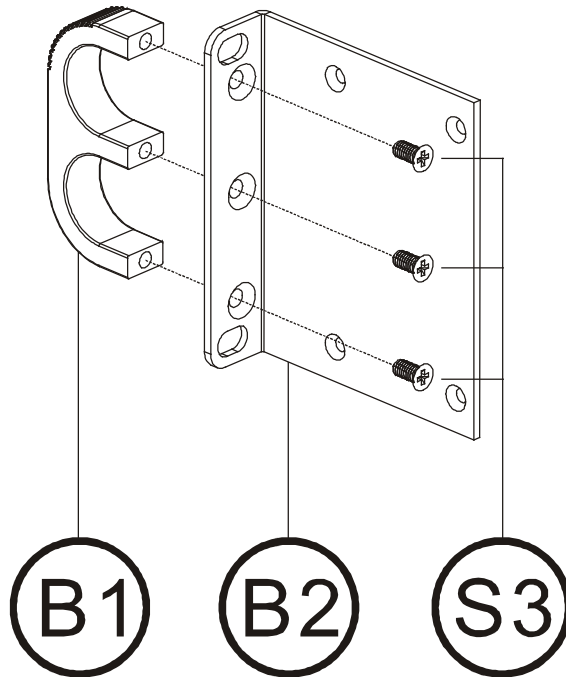
Stand alone unit



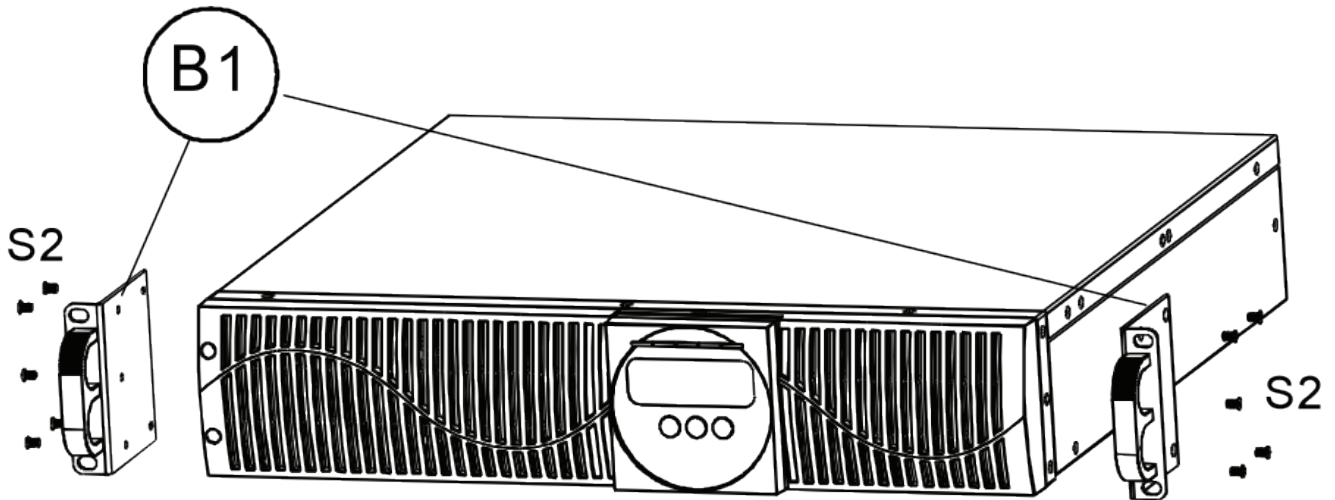
 **NOTE:**
See Section 3.5 to rotate the LCD display to match the physical orientation of the unit.

3.4.2 Rack-Mount Setup

Step 1

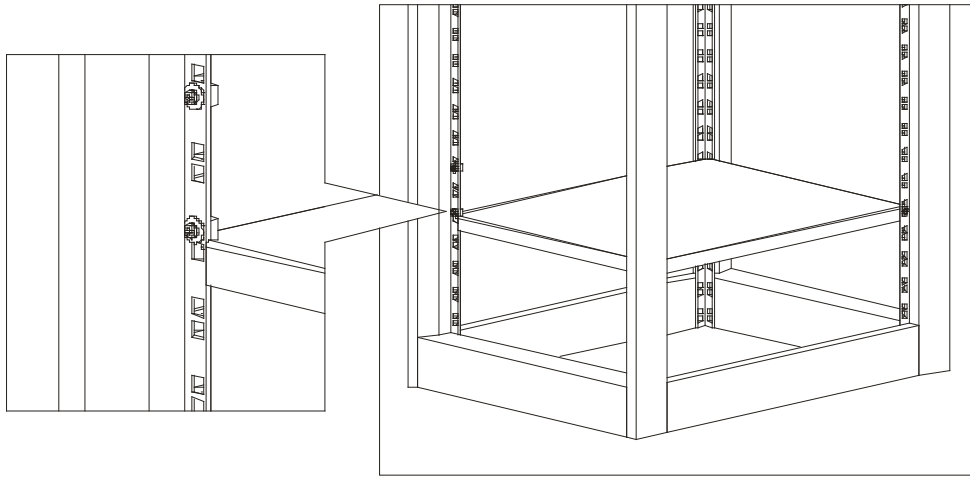


Step 2

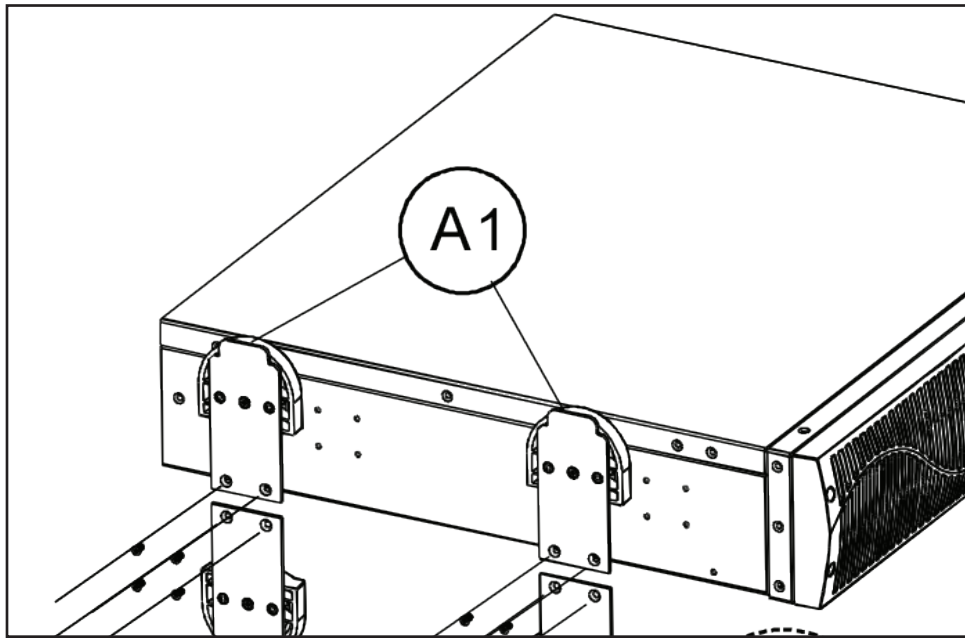


 **NOTE:**
See Section 3.5 to rotate the LCD display to match the physical orientation of the unit.

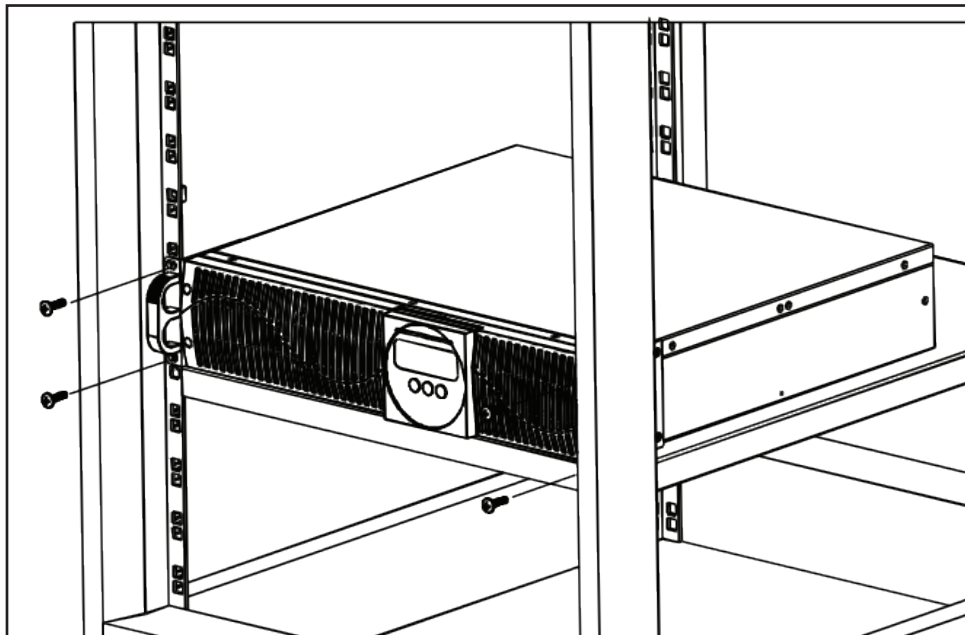
Step 3



Step 4

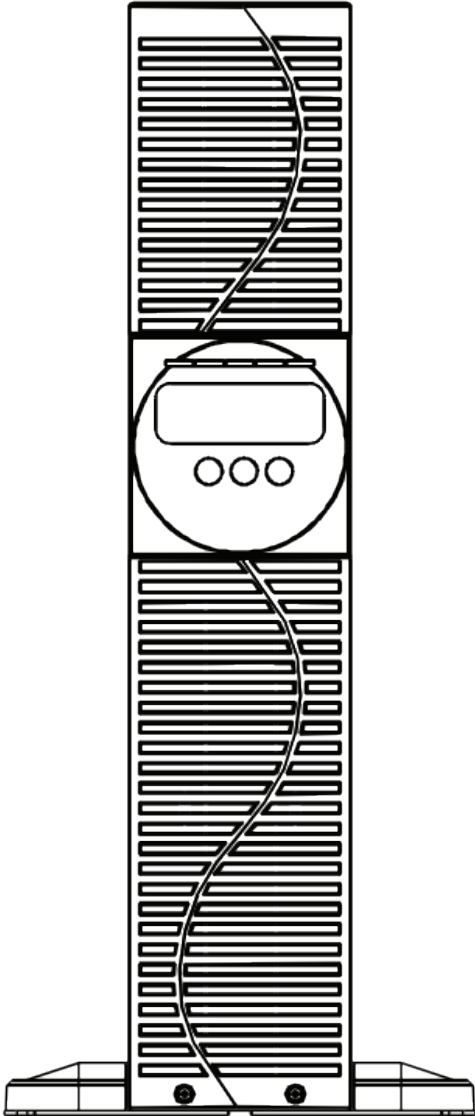
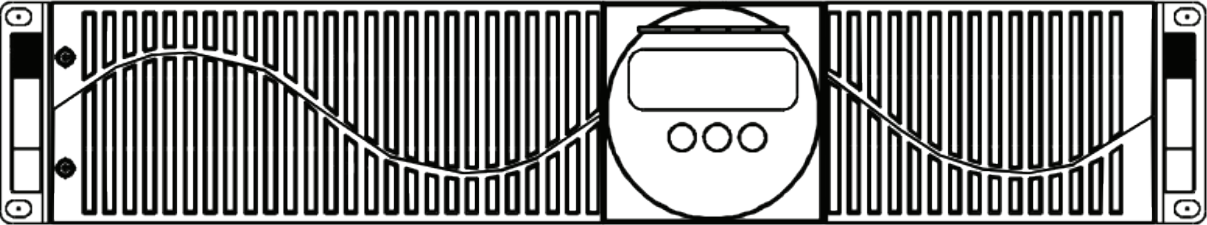


Step 5

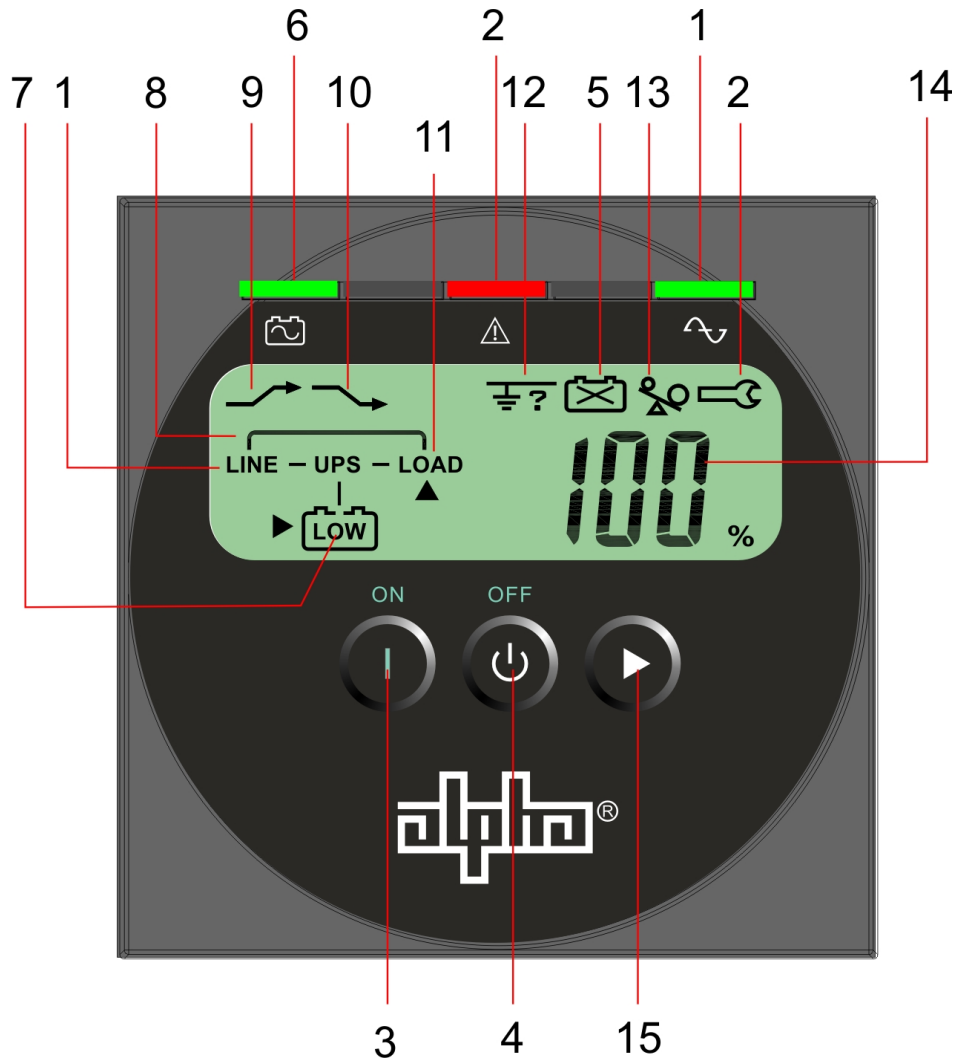















3.5 UPS Front Panel

The front panel can be rotated to accommodate the orientation of the UPS. To position the display to match the physical orientation of the unit pull the display out, rotate it and then push it back in.



3.5.1 LCD Display Panel



- | | |
|--|--|
| 1. Utility LED  LINE | 9. Utility low, UPS boost  |
| 2. Fault LED  | 10. Utility high, UPS buck  |
| 3. On Switch  | 11. UPS output indicator LOAD |
| 4. Off Switch  | 12. Polarity error or ground fault  |
| 5. Battery replacement  | 13. Overload  |
| 6. Battery backup LED  | 14. Load/battery level (%) 100% |
| 7. Battery low  | 15. Load/battery level indication control button  |
| 8. Bypass  | |

3.6 UPS Rear Panel

1000 / 1500 VA 120 V models

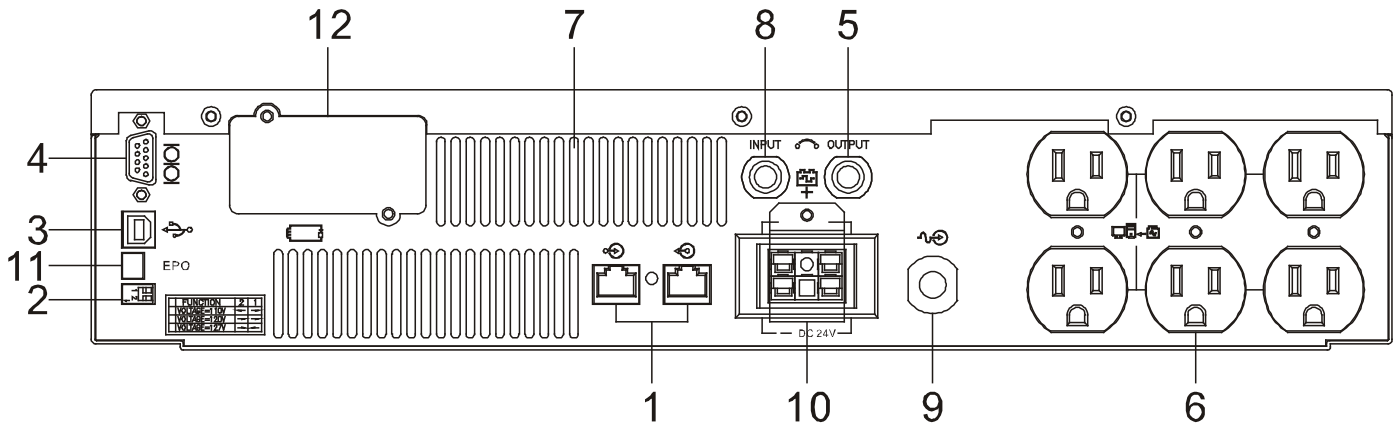


Table A — 1000 / 1500 VA 120 V

Item	Description
1	Data line connectors
2	Voltage configuration switch
3	USB Port
4	RS232 (DB-9) port
5	8A Output Circuit Breaker for 6(1000 model only) 15A Output Circuit Breaker for 6(1500 model only)
6	NEMA 5-15R Output Receptacles
7	Cooling vents
8	12 A input circuit breaker (1000 model only) 15 A input circuit breaker (1500 model only)
9	NEMA 5-15P input power cord
10	External battery cabinet connector
11	REPO: Rear Emergency Power Off
12	Intellislot port (see Section 7.2)

2200 VA 120 V (1920 VA / 1920 W for UL) models

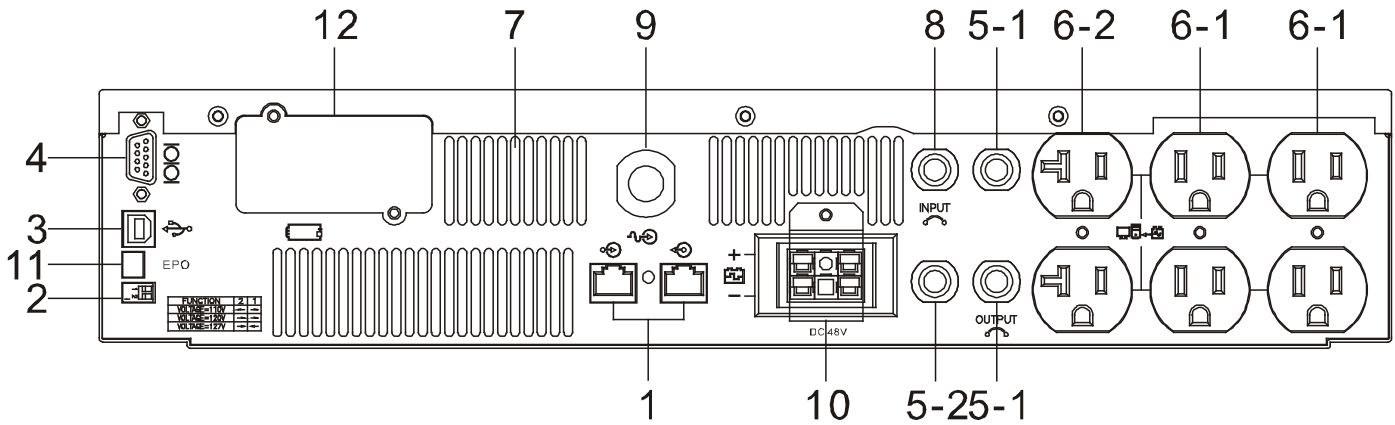


Table B — 2200 VA 120 V (1920 VA / 1920 W for UL)

Item	Description
1	Data line connectors
2	Voltage configuration switch
3	USB port
4	RS232 (DB-9) port
5-1	15 A output circuit breaker for 6-1
5-2	20 A output circuit breaker for 6-2
6-1	NEMA 5-15R output receptacles
6-2	NEMA 5-20R output receptacles
7	Cooling vents
8	30 A input circuit breaker
9	NEMA 5-20P input power cord
10	External battery cabinet connector
11	REPO: Rear Emergency Power Off
12	Intellislot port (see Section 7.2)

3000 VA 120 V models

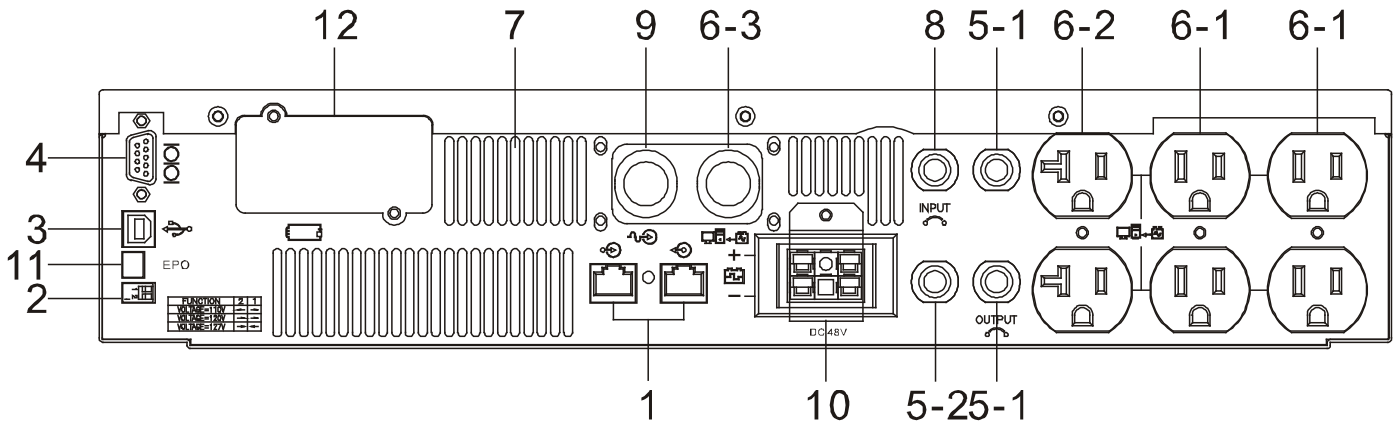


Table C — 3000 VA 120 V

Item	Description
1	Data line connectors
2	Voltage configuration switch
3	USB port
4	RS232 (DB-9) port
5-1	15 A output circuit breaker for 6-1
5-2	20 A output circuit breaker for 6-2
6-1	NEMA 5-15R output receptacles
6-2	NEMA 5-20R output receptacles
6-3	NEMA 5-30R output receptacles
7	Cooling vents
8	30 A input circuit breaker
9	NEMA L5-30P input power cord
10	External battery cabinet connector
11	REPO: Rear Emergency Power Off
12	Intellislot port (see Section 7.2)

1000/ 1500 VA 230 V models

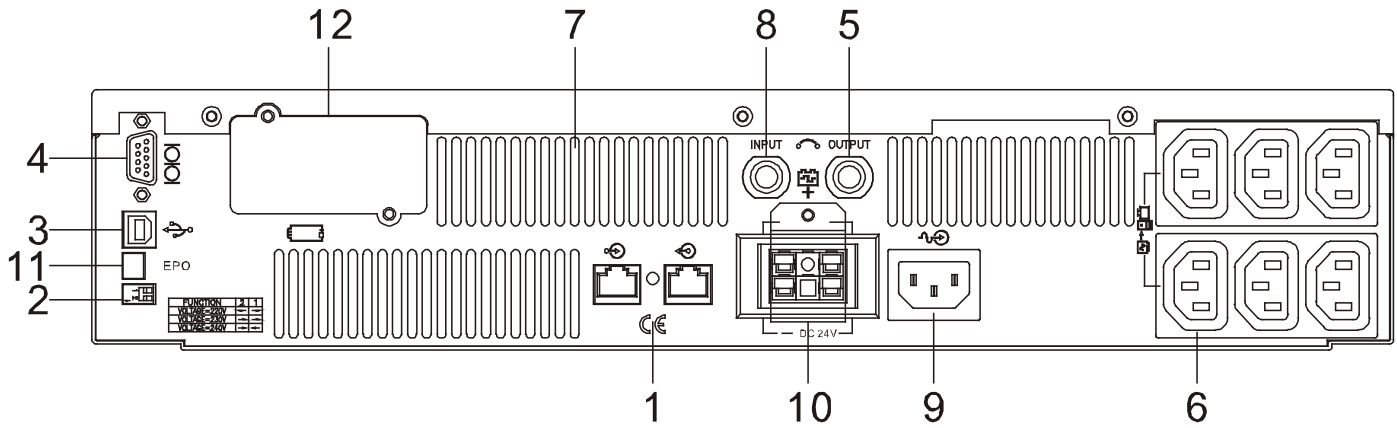


Table D — 1000/ 1500 VA 230 V

Item	Description
1	Data line connectors
2	Voltage configuration switch
3	USB port
4	RS232 (DB-9) port
5	8 A output circuit breaker for 6 (1000 model only) 10 A output circuit breaker for 6 (1500 model only)
6	IEC-320-C13 output receptacles
7	Cooling vents
8	8 A input circuit breaker (1000 model only) 10 A input circuit breaker (1500 model only)
9	IEC-320-C14 input socket
10	External battery cabinet connector
11	REPO: Rear Emergency Power Off
12	Intellislot port (see Section 7.2)

2200 / 3000 VA 230 V models

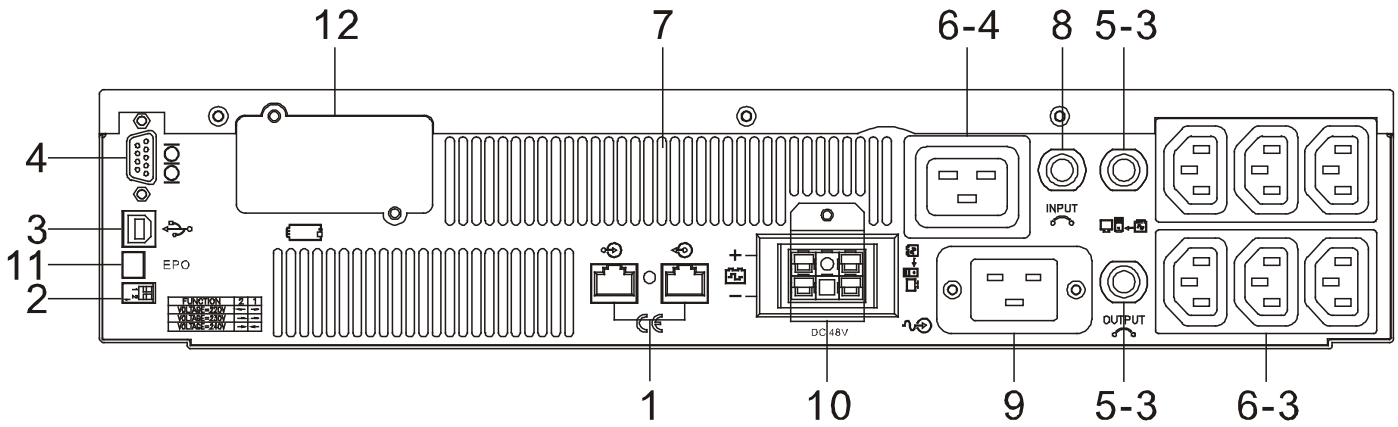


Table E — 2200 / 3000 VA 230 V

Item	Description
1	Data line connectors
2	Voltage configuration switch
3	USB port
4	RS232 (DB-9) port
5-3	10 A output circuit breaker for 6-3
6-3	Data line connectors
6-4	Voltage configuration switch
7	USB vents
8	RS232 (DB-9) port
9	IEC-320-C20 input socket
10	External battery cabinet connector
11	REPO: Rear Emergency Power Off
12	Intellislot port (see Section 7.2)

4. Installation

4.1 Connect Utility and Load

First, connect the UPS with the utility power, then plug the loads into 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.

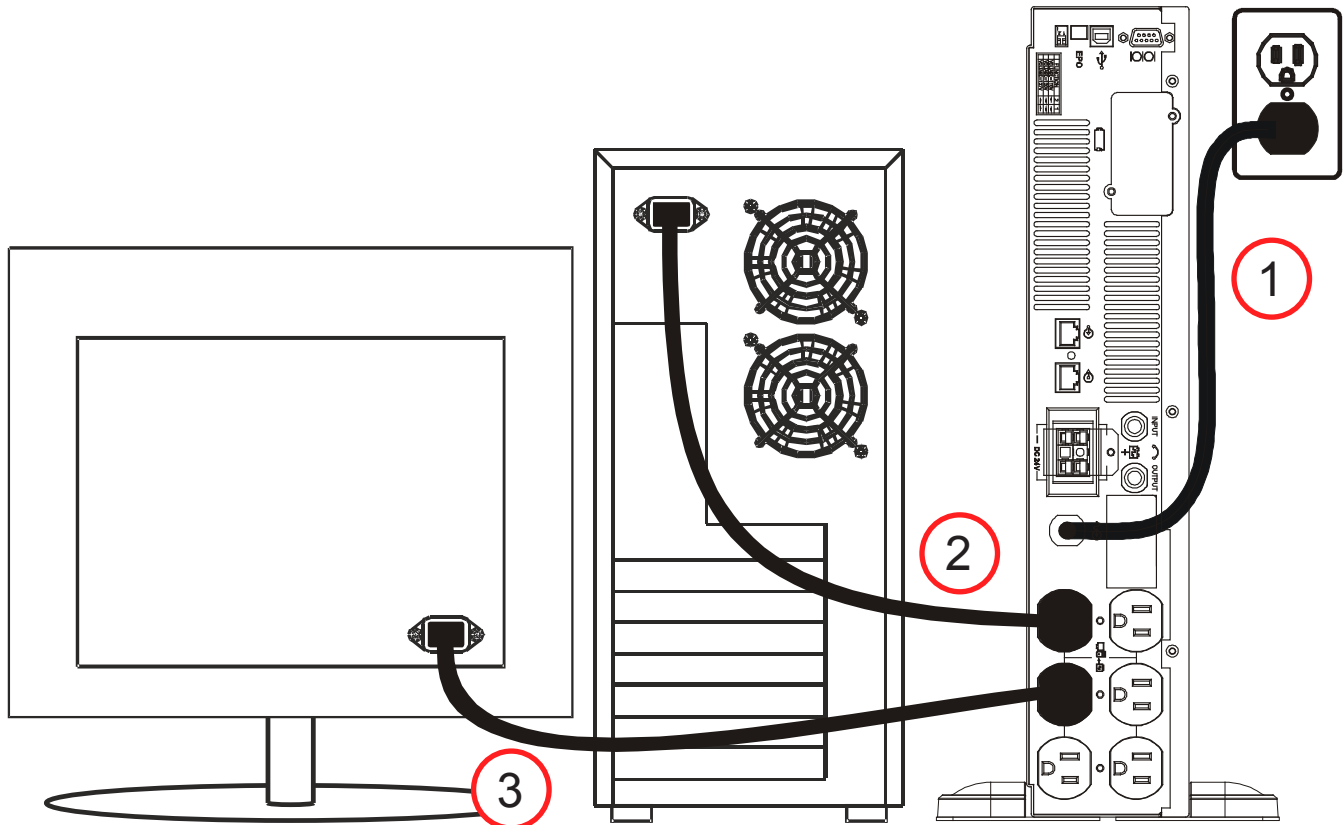
The UPS outlets provide battery backup and surge protection for the equipment when the utility voltage is out of range.



CAUTION!

For 120V series Model Sentra XL 3000, to reduce the risk of fire, connect only to a circuit provided with 30 amperes maximum branch circuit overcurrent protection in accordance with the National Electric Code, ANSI/NFPA 70

For 120V series Models Sentra XL 2200, Sentra XL 1500 and Sentra XL 1000, to reduce the risk of fire, connect only to a circuit provided with 20 amperes maximum branch circuit overcurrent protection in accordance with the National Electric Code, ANSI/NFPA 70

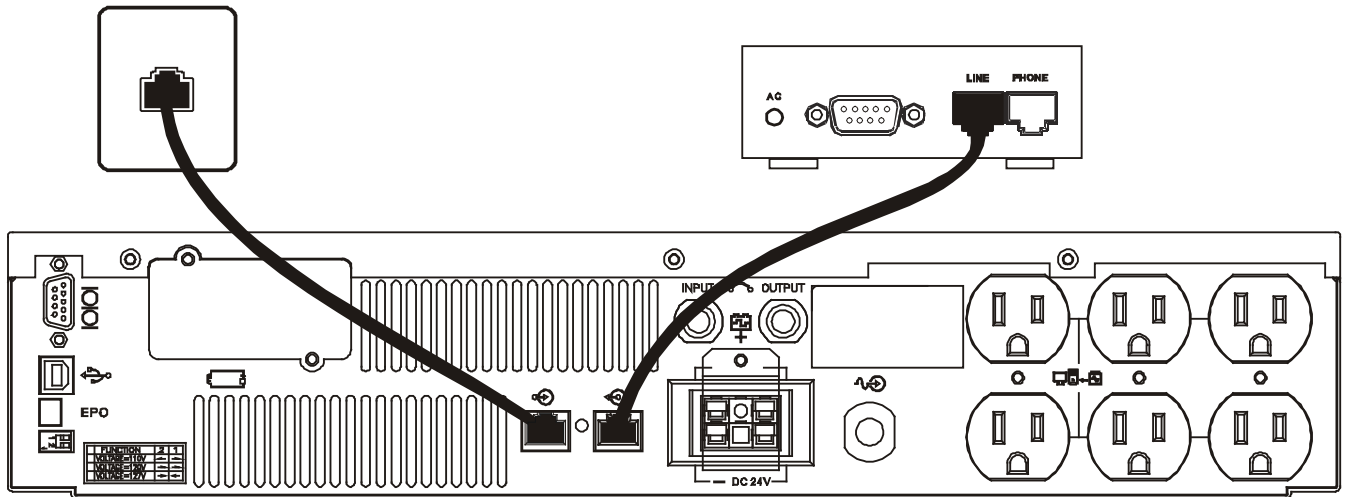


CAUTION!

Do not connect a laser printer to the UPS outlets! The printer may overload the UPS and shut it down.

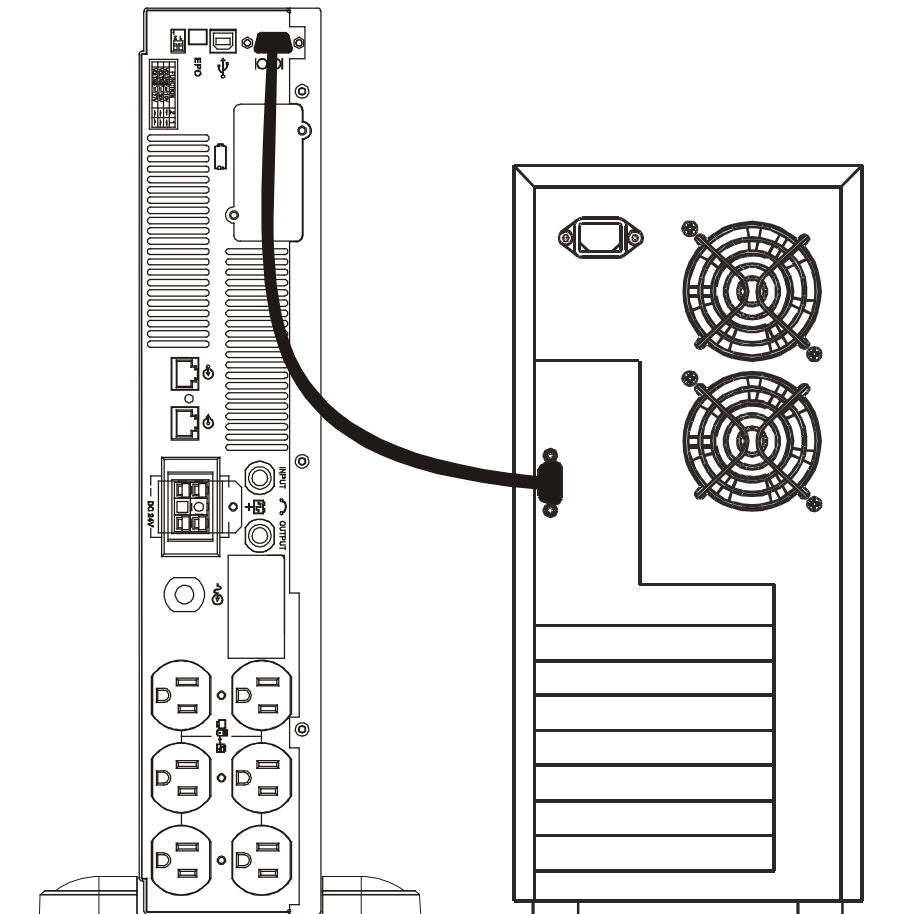
4.2 Connect Network Surge protection

Connect a 10 base-T / 100 base-T network cable to the RJ-45 network surge protection IN jack on the rear of the UPS. Use a network cable to connect the OUT jack to the network equipment.



4.3 Connect Computer Interface Port

Use the interface cable (RS-232, or USB optional) to connect the interface port on the rear of the UPS to the computer interface port. See the software installation guide in the CD-ROM (optional).



4.4 Connect Extended Battery Bank

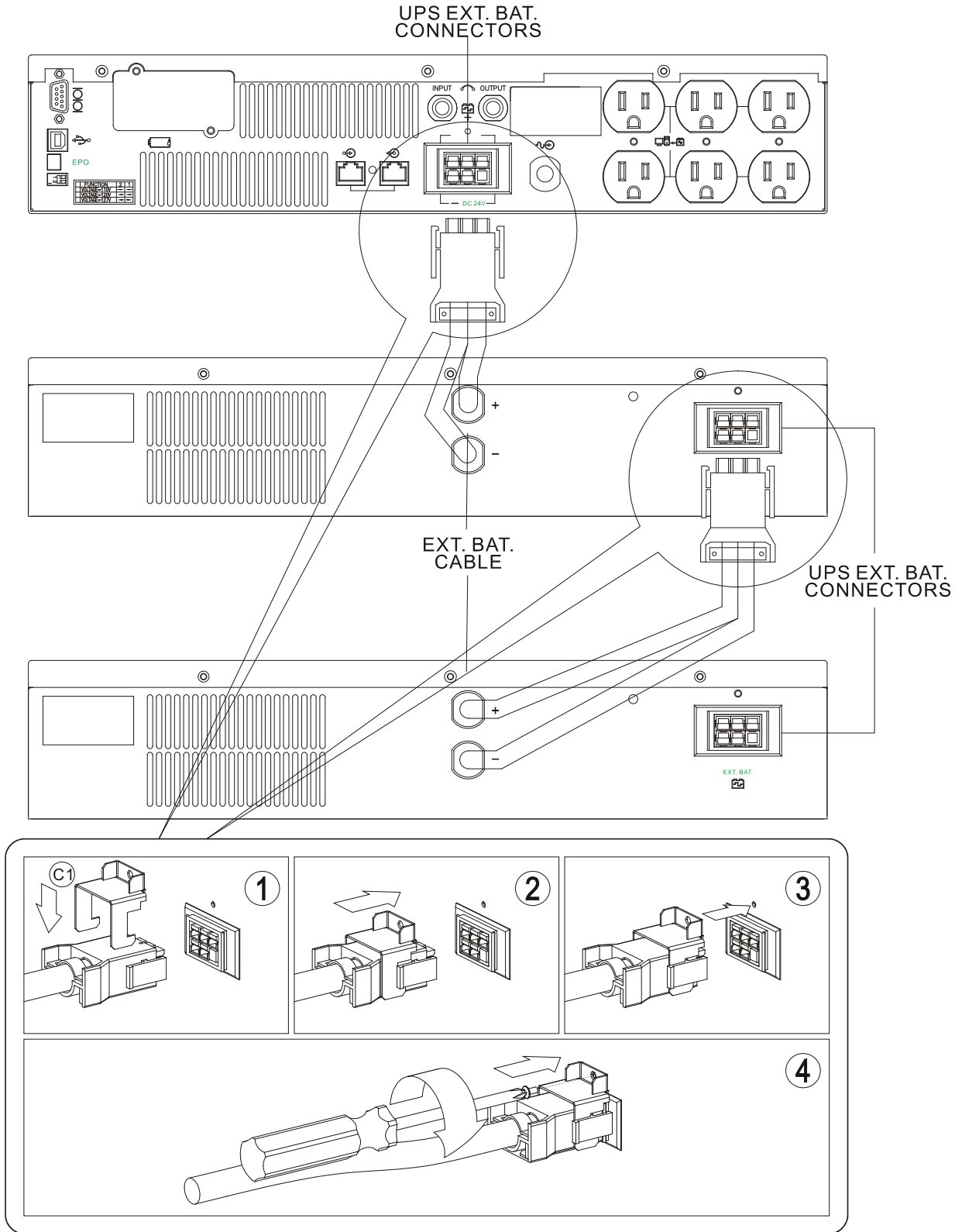


CAUTION!

The battery bank connectors are color coded as show below. Do not try to install a battery bank with connectors that are a different color from the battery bank connector in the UPS.

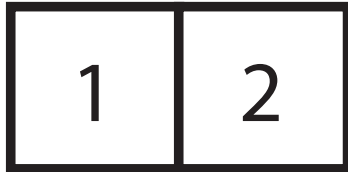
UPS model	Nominal system voltage (connector color)	Battery bank model
Sentra XL 1000 VA	24 VDC (red)	BP Sentra XL 1000
Sentra XL 1500 VA	24 VDC(red)	BP Sentra XL 1500
Sentra XL 2200 VA	48 VDC(Gray)	BP Sentra XL 2200
Sentra XL 3000 VA	48 VDC(Gray)	BP Sentra XL 3000

4.5 Connect Extended Battery Bank to UPS



4.6 REPO Switch

The UPS is equipped with a remote emergency power off (REPO) switch. The user must supply a means of interfacing with the REPO circuit so that the UPS input feeder breaker can be switched off to interrupt all sources of power to the UPS and connected equipment. This must be done to comply with national and local wiring codes and regulations.



1 = REPO+

2 = Ground

Short Pin 1 and Pin 2 to enable the REPO function

5. Operation

5.1 Switching On the UPS

1. Connect the UPS to the wall receptacle. The LCD displays OFF, when the utility power is normal. If the LCD is blank, go to step 3.
2. Press and hold the on button on the front panel for approximately 3 seconds until the buzzer sounds, then release the on button. The UPS starts and both the LCD and the utility LED (Green) illuminate. The start-up procedure is complete and the loads are supplied by the UPS..
3. To cold start the UPS, press and hold the on button on the front panel for approximately 3 seconds until the LCD illuminates and the buzzer sounds, then release the on button. The UPS starts and the battery backup LED (amber) illuminates. The cold start-up procedure is complete and the loads are supplied by the UPS.
4. The UPS runs in backup mode and the buzzer sounds every 2 seconds if there is a power outage or an over/under voltage. When utility power is restored, the UPS runs in utility mode and the buzzer is silenced.

5.2 Switching Off the UPS

1. Press and hold the off button for at least 3 seconds to switch off the UPS. If you press the off button less than 3 seconds, the UPS does not execute the shutdown command.
2. In some cases, the UPS will switch itself off because of an overload, an output short-circuit, or a battery cutoff point reached in the backup mode.
3. The UPS automatically switches off the output, beeps for 5 seconds, then completely switches off.

5.3 Plug-in Charge

1. If the input power cord is properly connected to the wall receptacle and the utility power is normal, the UPS automatically starts charging the batteries without processing the switch on procedure.
2. If the UPS isn't used for extended periods, charge the batteries for at least 8 hours every 3 months to prevent the batteries from becoming discharged. The batteries will slowly discharge when left idle.

5.4 Auto-Restart

If the input power cord is properly connected to the wall receptacle and the utility power returns to normal, the UPS automatically restarts and provides power to the output from utility.

5.5 Alarm Silence

1. The alarm can be switched off by pressing the on button for approximately 1 second when in backup mode.
2. Unless other warnings or faults appear, the alarm remains silent after the alarm silence has been switched off.

5.6 Self Test

1. In the normal utility mode, press the on button for 3 seconds to execute the battery self-test function.
2. If the battery is normal, it will enter into the battery backup mode for 10 seconds then return to the utility mode.
3. If the battery voltage drops below a set limit, the battery replacement symbol on the LCD panel flashes for 5 seconds, then extinguishes. The self-test procedure stops. If the batteries are weak or dead, the battery replacement symbol on the LCD panel appears steadily.



CAUTION!

The UPS will not provide any output power if the start-up procedure has not completed properly even though the input power cord is connected to the wall receptacle.



NOTE:

Plug the UPS into the wall receptacle to charge the UPS for more than 8 hours after the initial installation.



NOTE:

If stored at -15 to +30 °C (+5 to +86 °F), charge the UPS batteries every three months.
If stored at +30 to +40 °C (+86 to +104 °F), charge the UPS batteries every two months.

6. UPS Maintenance

6.1 Battery Replacement

Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.

When the UPS is started up or a self-test is executed, the battery replacement symbol on the LCD panel may appear because of a weak or dead battery.

1. If the battery replacement symbol on the LCD panel appears, charge the UPS for at least 8 to 10 hours. The symbol should disappear after the self-test function has executed.
2. If the battery replacement symbol stays on after charging, unscrew the battery cover, replace the battery with a suitable replacement from see Table F, and then press the ON button.



CAUTION!

The UPS will not provide any output power if the start-up procedure has not completed 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.



CAUTION!

Use caution when replacing live batteries.



CAUTION!

See the user's manual for battery disposal instructions.



CAUTION!

Lead acid batteries can be a chemical hazard.



CAUTION!

The battery can be an energy hazard. Use maintenance free batteries.



CAUTION!

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



CAUTION!

Risk of shock. This UPS receives power from more than one source. Disconnection of the AC source and DtC source is required to de-energize this unit before servicing.

6.1.1 Alternates for internal Batteries

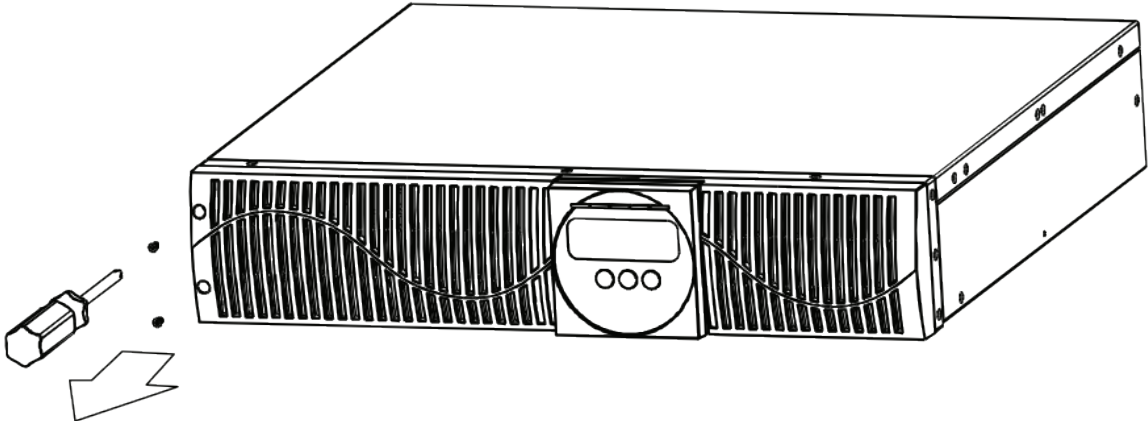
When replacing batteries, replace with the same type and number of batteries or battery packs.

The battery enclosure material must be rated HB and the following types may be used.

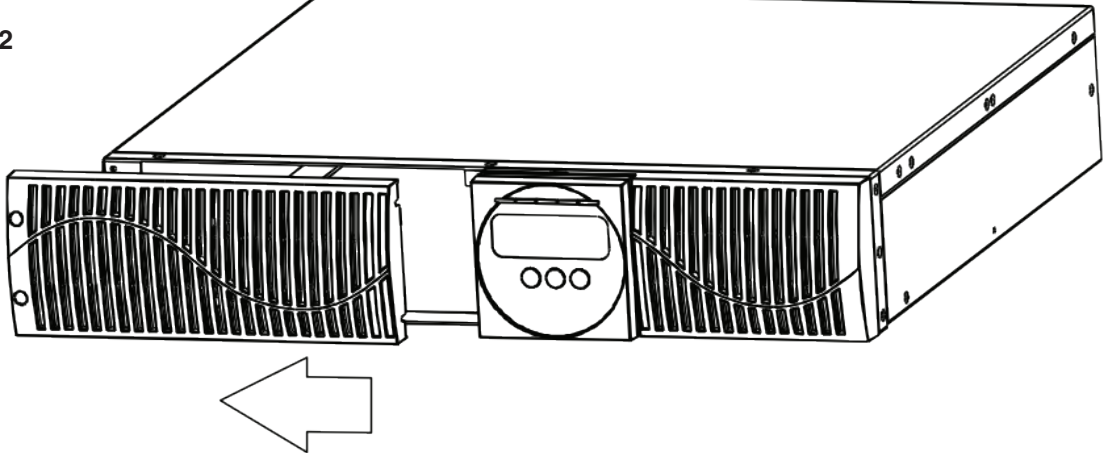
Table F — Battery Replacement Table		
Manufacturer	Type	Ratings
Japan Storage Battery Co., Ltd., (MH13567)	PX12090	12 VDC, 9.0 Ah
Toplite (Guangzhou) Technology Battery Co., Ltd. (MH29104)	NPW45-12	12 VDC, 9.0 Ah
Shenzhen Center Power Technology Co., Ltd. (MH25860)	CP1290	12 VDC, 9.0 Ah
	CP1290L	12 VDC, 9.0 Ah
B&B Battery (USA) INC. (MH19884)	HR9-12	12 VDC, 4.5 Ah
CSB Battery Co., Ltd. (MH14533)	GP1270	12 VDC, 7.2 Ah
Gs Yuasa International Ltd (MH13567)	PX12072	12 VDC, 7.2 Ah
GS Yuasa International Ltd. (MH12970)	NP7-12	12 VDC, 7.0 Ah
Taiwan Yuasa Battery Co., Ltd. (MH28947)	NPW36-12	12 VDC, 7.0 Ah
Toplite (Guangzhou) Technology Battery Co., Ltd. (MH29104)	NPW36-12	12 VDC, 7.2 Ah
First Power Technology Co., Ltd. (MH28204)	FP1270	12 VDC, 7.0 Ah
Shenzhen Center Power Technology Co., Ltd. (MH25860)	CP1272	12 VDC, 7.2 Ah
	CP1270L	12 VDC, 7.0 Ah
	CP1270	12 VDC, 7.0 Ah
Panasonic Corporation, Panasonic Corporation Of North America (MH13723)	UP-RW1245P1	12 VDC, 7.2 Ah
	LC-R127R2	12 VDC, 7.2 Ah
	LC-RA127R2	12 VDC, 7.2 Ah
	UP-RW1245	12 VDC, 7.2 Ah
Shenzhen Sunnyway Battery Tech Co., Ltd. (MH26669)	12V7AH	12 VDC, 7.0 Ah
	12V7.2AH	12 VDC, 7.0 Ah
B&B Battery (USA) Inc. (MH19884)	BP 7.2-12	12 VDC, 7.2 Ah
	HR1234W	12 VDC, 4.25 Ah
	BP 7-12(HB)	12 VDC, 7.2 Ah
	BP7.5-12(HB)	12 VDC, 7.5 Ah
	BPL7-12(HB)	12 VDC, 7.0 Ah
	BPL7.5-12(HB)	12 VDC, 7.5 Ah
	BPX7-12(HB)	12 VDC, 7.0 Ah
	EP7-12(HB)	12 VDC, 7.0 Ah
	BPS7-12(HB)	12 VDC, 7.0 Ah
	SHR7-12(HB)	12 VDC, 3.375 Ah
BC7-12(HB)	12 VDC, 7.0 Ah	
	BPG7-12(HB)	12 VDC, 7.0 Ah

6.2 Replacing Batteries

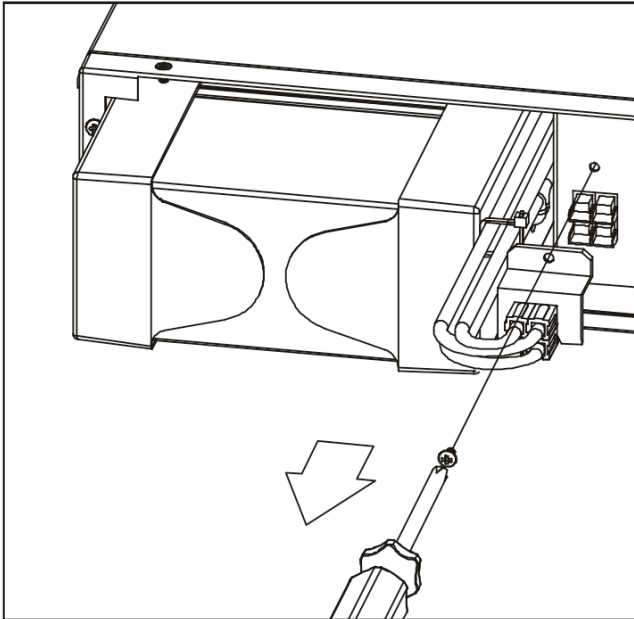
STEP 1



STEP 2

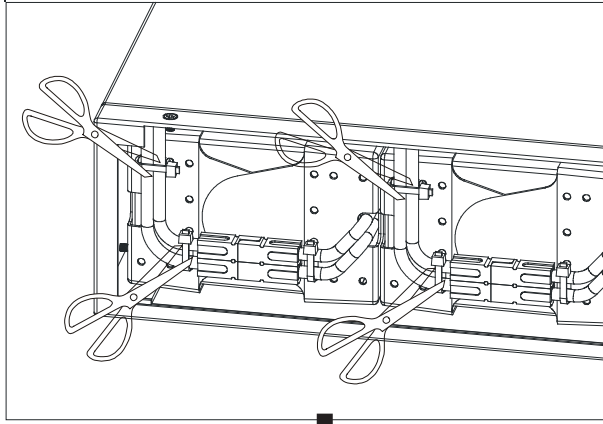


STEP 3

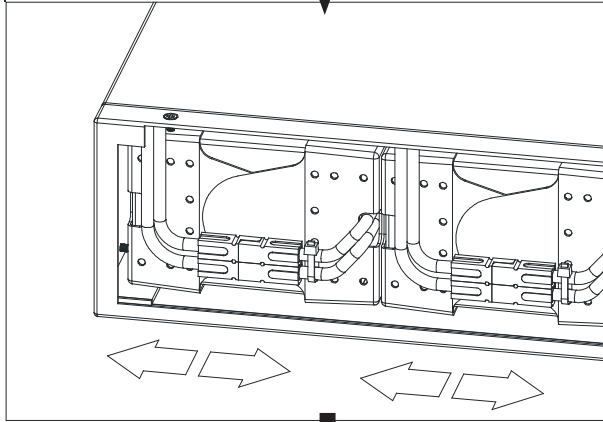


2200/ 3000 VA models

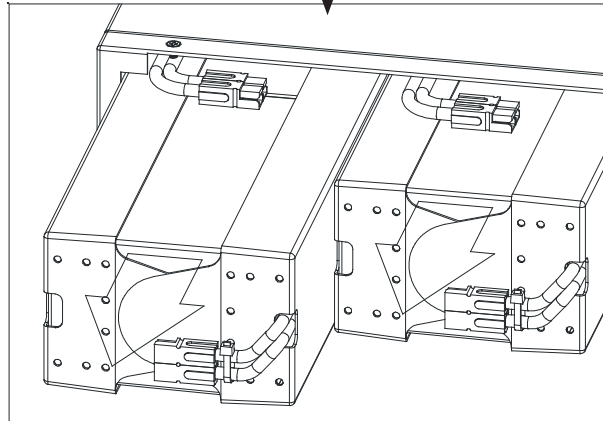
Use scissors to cut the tie wraps.



Disconnect the cables.

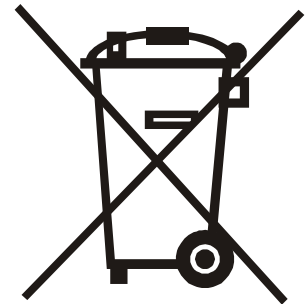


Remove the batteries.



6.3 Recycling Used Batteries

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



7. Communication

7.1 DB-9 Connector

The UPS has a DB-9 (9 pin female) connector on the rear panel that allows the UPS to communicate with a computer with UPS software. The connection provides serial communications for utility and battery signals.

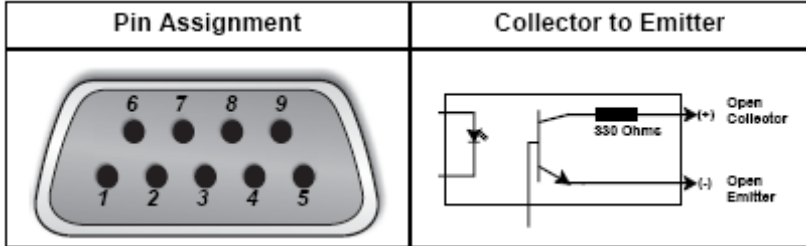


Table G — DB-9 pin assignment

DB-9 Pin	Assignment Description
1	Low battery (open collector)
2	UPS TxD
3	UPS RxD
4	N.C.
5	Common
6	N.C.
7	Low battery (open emitter)
8	Utility fail (open emitter)
9	Utility fail (open collector)

7.2 Options for Intellislot SNMP Card (Optional)

When this card is plugged in, it enables the user to communicate, monitor, manage and control the UPS remotely via standard network management protocol (SNMP) over the internet.

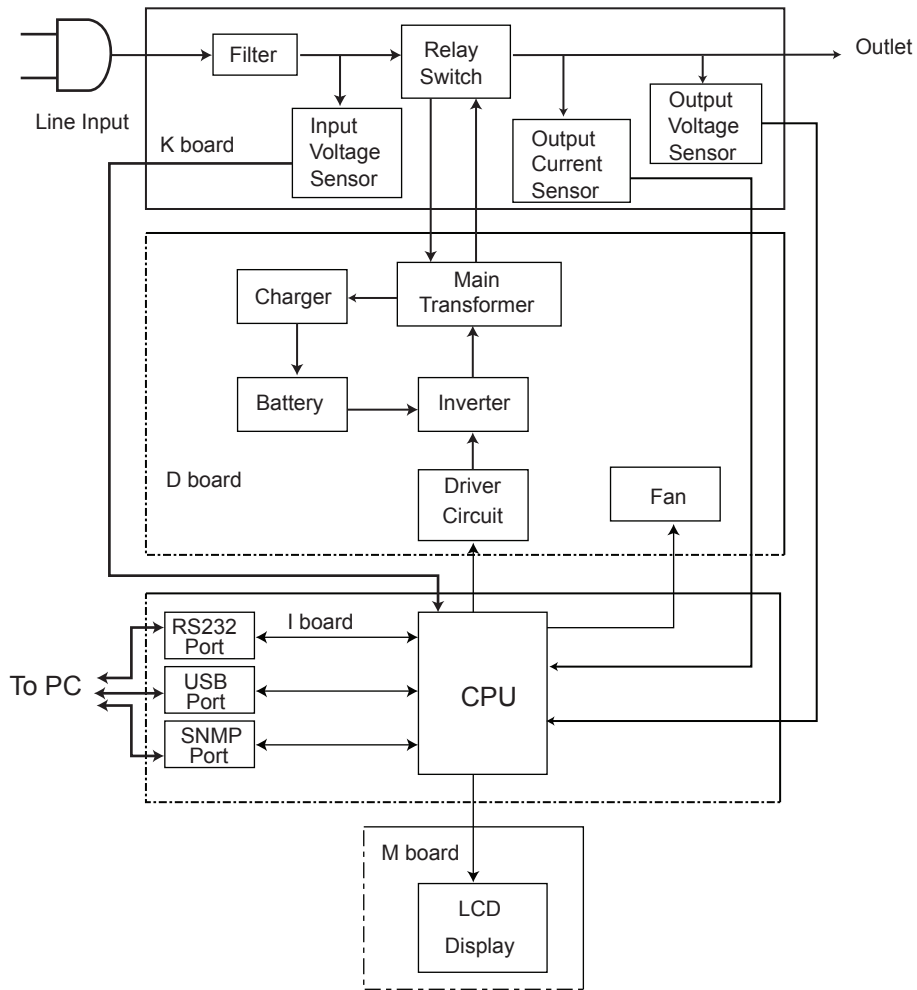
8. Specifications

Table H — Specifications				
Power Rating				
Model number	Sentra XL 1000 VA	Sentra XL 1500 VA	Sentra XL 2200 VA	Sentra XL 3000 VA
Voltage, V	110 / 120 / 127 220 / 230 / 240	110 / 120 / 127 220 / 230 / 240	110 / 120 / 127 220 / 230 / 240	110 / 120 / 127 220 / 230 / 240
Power rating, VA/W	1000 VA / 900 W	1500 VA / 1350 W	2200 VA / 1980 W 1920VA / W for UL (See Note below)	3000 VA / 2700 W
Input AC Parameters				
Frequency range	45-65 Hz \pm 0.5 Hz, auto sensing (normal mode) 50/60 Hz \pm 0.5 Hz, auto sensing (backup mode)			
Regulation (normal mode)	-9 to +9% of nominal voltage			
Regulation (backup mode)	Nominal output voltage \pm 5%			
Voltage waveform	Sine wave			
Efficiency	> 95% (normal mode) > 80% (backup mode)			
Overload Warning and Protection				
Normal mode	> 100% to 110%	Continuous overload alarm		
	> 110% to 120%	Buzzer continuously alarms & shutdown after 10 minutes		
	> 120%	Shutdown after 1 cycle minimum		
Backup mode	> 100% to 120%	Shutdown after EOD		
	> 120% to 130%	Buzzer continuously alarms & shutdown after 10 seconds		
	> 130%	Shutdown after 1 cycle minimum		
Battery Parameters				
Model number	Sentra XL 1000 VA	Sentra XL 1500 VA	Sentra XL 2200 VA	Sentra XL 3000 VA
Battery voltage	24 V	24 V	48 V	48 V
Quantity	4 pcs	4 pcs	8 pcs	8 pcs
Type	Sealed maintenance-free, valve-regulated, lead-acid			
Capacity	7.2 Ah	9 Ah	7.2 Ah	9 Ah
Recharge time	2 to 5 hours to 90%			
Autonomy	5 min	5 min	5 min	5 min

Note: The product has been approved by UL for a maximum power of 1920VA/W. However the product can be used up to 2200VA/1980W, in which case, the approval is void.

9. Signalling Circuit Connections

The Sentra XL circuit is made up of the three PCBs shown in the following schematic.



10. Warranty and Service Information

Technical Support

Free Technical Support 24/7/365 is part of the Alpha customer satisfaction commitment. The phone numbers below can also be used to access a wide range of service solutions both at your premise and at the Alpha facility nearest you.

In Canada and the USA, call toll free 1-888-462-7487 24 hours a day, seven days a week. Customers outside Canada and the USA, call +1-604-436-5547.

Warranty

Alpha Technologies Ltd. warrants its equipment to be free of manufacturing defects in material and workmanship, for a period of 36 months from the date of shipment from the factory. The warranty provides for repairing, replacing or issuing credit (at Alpha's discretion) for equipment shipped by it and returned by the customer to the factory or other authorized location during the warranty period.

There are limitations to this warranty coverage. The warranty does not provide to the customer or other parties any remedies other than the above. It does not provide coverage for any loss of profits, loss of use, costs for removal or installation of defective equipment, damages or consequential damages based upon equipment failure during or after the warranty period. No other obligations are expressed or implied. Warranty also does not cover damage or equipment failure due to cause(s) external to the unit including, but not limited to, environmental conditions, water damage, power surges or any other external influence.

The customer is responsible for all shipping and handling charges. Where products are covered under warranty Alpha will pay the cost of shipping the repaired or replacement unit back to the customer.

Battery Warranty

Battery warranty provided by Alpha is a three year full replacement warranty with a pro-rated warranty for the following two years. Pro rated warranty provides a credit applicable toward the purchase of new batteries from Alpha. The credit is calculated as the purchase price multiplied by the percentage of the battery life that was not available (in months). Battery warranty coverage is lost where the battery charge is not maintained for 6 months. Contact your Alpha sales representative or the Technical Support team at the above number to understand your entitlements under Battery Warranty.

Extended Warranty

The terms of warranty can be extended in time by purchase of an Extended Warranty. Warranty extensions are available on a per year basis and can be purchased during the initial warranty period.

Return of Material

Please contact Technical Support at the number above to obtain a Service Repair Order (or Return Material Authorization) number BEFORE sending material back. This will ensure that your service needs are handled promptly and efficiently.

On Site Services and Service Plans

A wide range of services are available at your location including installation, commissioning, preventative maintenance, remedial maintenance, battery replacement, battery delivery, etc. Preventative maintenance is recommended for Alpha products at least once per year. Customers can arrange to have these services provided automatically with one annual payment.

Service Centers

For a list of service centers, please visit the Alpha website:

<http://www.alpha.ca/web2/about-alpha/service-centers.html>

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Power