

# Alpha Sentra: 750/ 1000/ 1500/ 2200/ 3000

# Indoor Line Interactive UPS

User Manual

Part # 0170000-J0 *Effective: 03/2017* 



# Alpha Sentra: 750/ 1000/ 1500/ 2200/ 3000 Indoor Line Interactive 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.

#### NOTE:

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#### **1.1 Important Information**

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.
- Make sure that the input voltage to the UPS matches its name plate rating.
- Install the UPS indoors only as it is not designed for outdoor use.
- 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—0 to 40°C (32 to 104°F), and 30 to 90% relative humidity (non-condensing). Ensure the maximum ambient temperature does not exceed 40°C.
- Do not install the UPS in direct sunlight. Failure of the batteries under these conditions may void the warranty.
- 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.
- The entrance of liquids or foreign objects into the UPS will void the warranty.
- The battery will gradually discharge if the system is unused for extended periods.
- If unused, recharge the UPS every 2 to 3 months. Neglecting to do so will void the warranty. The batteries charge automatically and are kept in good condition if the UPS is installed and used.
- A battery can present a risk of electrical shock and high short circuit current. Observe the following precautions 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 the 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).
- 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.
- Do not open the UPS—there are no serviceable parts inside. Opening the UPS will void the warranty.
- Do not repair the UPS yourself. Contact your local supplier. Opening the UPS will void the warranty.

#### 1.2 Storage Instruction

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

For extended storage in moderate climates, charge the batteries 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).

#### 1.3 Introduction

The Sentra Series UPS features a tower/rack convertible design, a single boost and single buck Automatic Voltage Regulation (AVR), 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 provides a flexible back-up system for critical file servers, minicomputers, network switches and hubs, and many other applications.

- 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 to swap internal batteries.
- 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 shutdown in a controlled manner 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 user 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 USB / RS232 interface provides convenient plug and play with other IT products powered by the UPS.

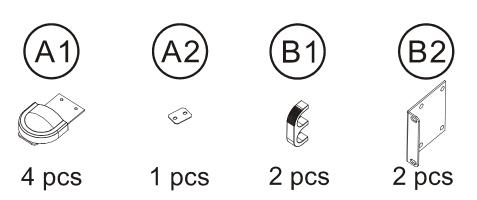
### 2. Set up

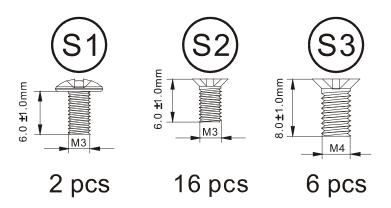
#### 2.1 Inspection

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.

#### 2.2 Unpacking

- 1. Take the UPS out of the 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:



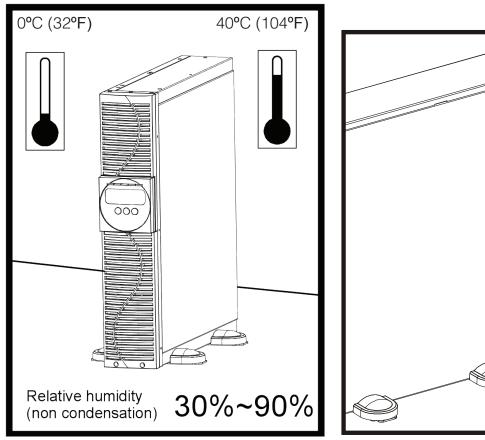


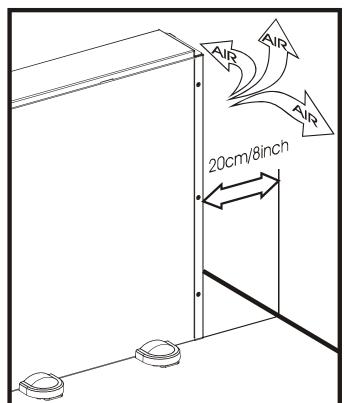
### 2.3 Selecting an Installation Location

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 socketoutlet 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.



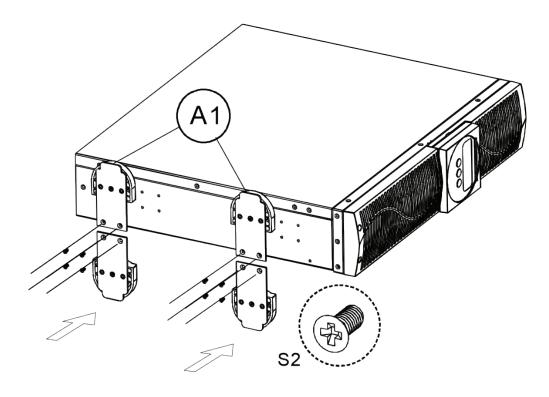




#### 2.4 UPS Position

The UPS can be installed in two different orientations: tower mount (stand alone) or rack mount. To install the UPS as a tower, see next section. For rack mount, see Section 2.4.2.

#### 2.4.1 Tower Mount (Stand Alone)

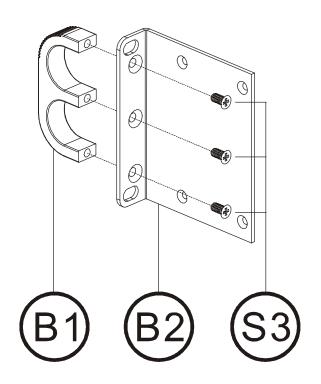


NOTE:

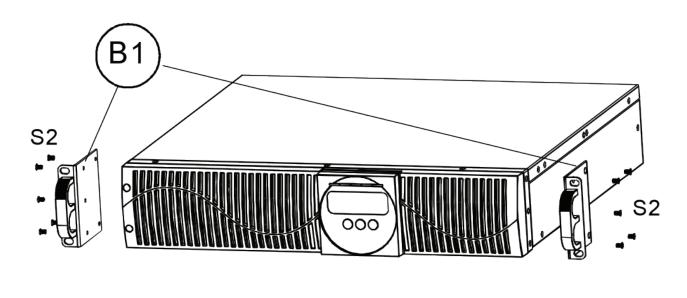
See Section 2.5 to rotate the LCD display to match the physical orientation of the unit.

#### 2.4.2 Rack-Mount Setup

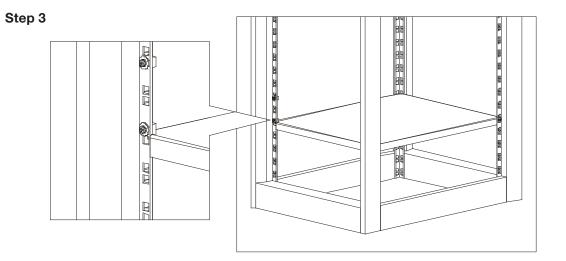
Step 1



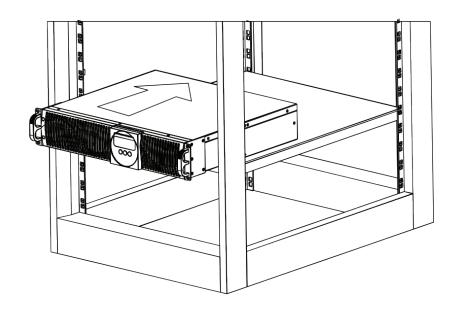
Step 2



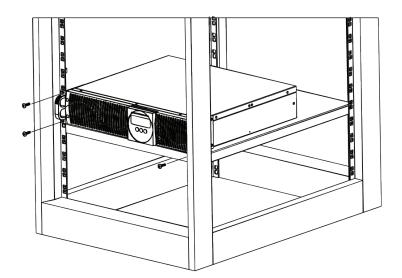




Step 4

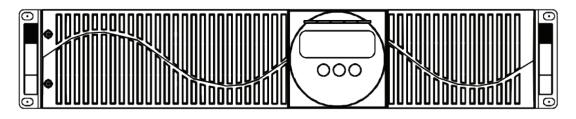


Step 5



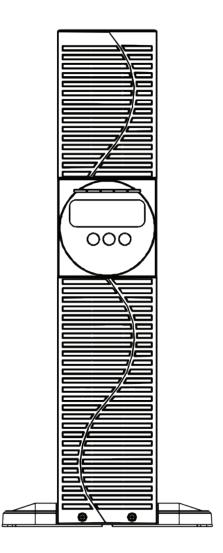
### 2.5 UPS Front Panel

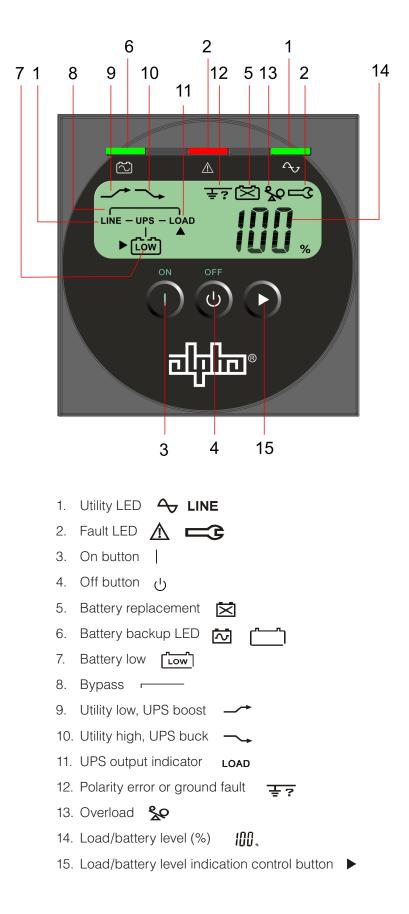
The front panel can be rotated to accommodate the orientation of the UPS.



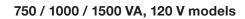
#### NOTE:

To position the display to match the physical orientation of the unit pull the display out, rotate it and then push it back in.





#### 2.6 UPS Rear Panel



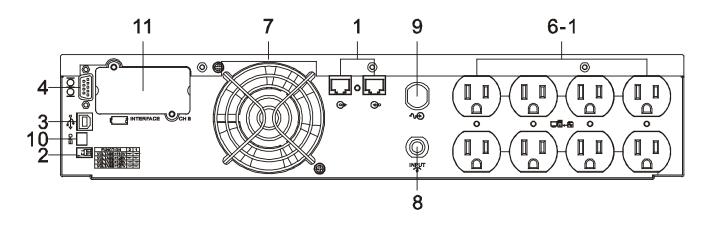


Table A — 750 / 1000 / 1500 VA, 120 V				
Item Description				
1	Data line connectors			
2	Voltage configuration switch			
3	USB Port			
4	4 RS232 (DB-9) port			
6-1	NEMA 5-15R output receptacles			
7	Cooling vents			
8	12 A input circuit breaker (750 and 1000 models) 15 A input circuit breaker (1500 model only)			
9	NEMA 5-15P input power cord			
10	REPO: Remote Emergency Power Off			
11	Intellislot port (See Section 6.2)			

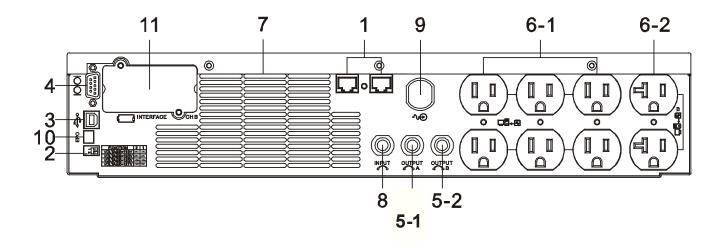


Table B — 2200 VA, 120 V (1920 VA / 1920 W for UL)				
Item	Description			
1	Data line connectors			
2	Voltage configuration switch			
3	USB port			
4	RS232 (DB-9) port			
5-1	15 A output circuit breaker for 6-1			
5-2	20 A output circuit breaker for 6-2			
6-1	NEMA 5-15R output receptacles			
6-2	NEMA 5-20R output receptacles			
7	Cooling vents			
8	30 A input circuit breaker			
9	NEMA 5-20P input power cord			
10	REPO: Remote Emergency Power Off			
11	Intellislot port (See Section 6.2)			

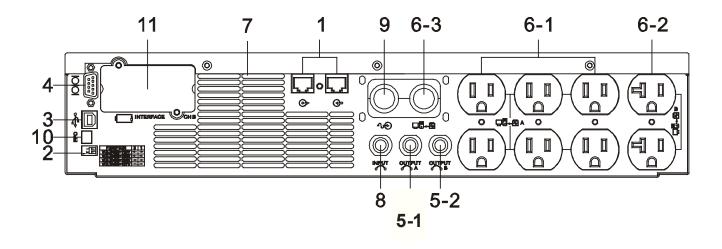


Table C — 3000 VA, 120 V				
Item	Description			
1	Data line connectors			
2	Voltage configuration switch			
3	USB port			
4	RS232 (DB-9) port			
5-1	15 A output circuit breaker for 6-1			
5-2	20 A output circuit breaker for 6-2			
6-1	NEMA 5-15R output receptacles			
6-2	NEMA 5-20R output receptacles			
6-3	NEMA 5-30R output receptacles			
7	Cooling vents			
8	30 A input circuit breaker			
9	NEMA L5-30P input power cord			
10	REPO: Remote Emergency Power Off			
11	Intellislot port (See Section 6.2)			

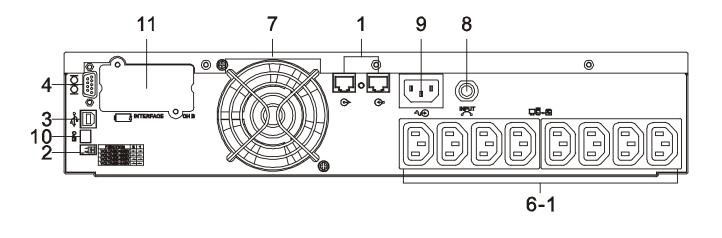


Table D — 750 / 1000/ 1500 VA, 230 V				
Item	Item Description			
1	Data line connectors			
2	Voltage configuration switch			
3	USB port			
4	RS232 (DB-9) port			
6-1	IEC-320-C13 output receptacles			
7	Cooling vents			
8	7 A input circuit breaker (750 model only) 8 A input circuit breaker (1000 model only) 10 A input circuit breaker (1500 model only)			
9	IEC-320-C14 input socket			
10	REPO: Remote Emergency Power Off			
11	Intellislot port (See Section 6.2)			

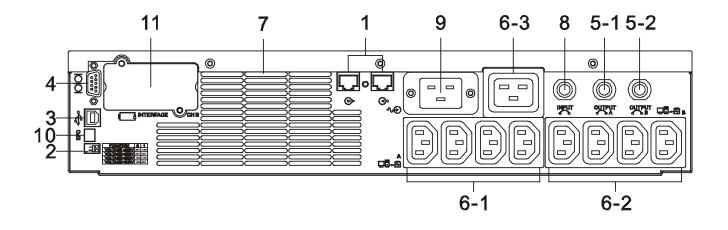


Table E — 2200 / 3000 VA 230 V				
Item	Description			
1	Data line connectors			
2	Voltage configuration switch			
3	USB port			
4	RS232 (DB-9) port			
5-1	10 A output circuit breaker for 6-1			
5-2	10 A output circuit breaker for 6-2			
6-1	IEC-320-C13 output receptacles			
6-2	IEC-320-C13 output receptacles			
6-3	IEC-320-C19 output receptacles			
7	Cooling vents			
8	15 A input circuit breaker(2200 model only) 20 A input circuit breaker(3000 model only)			
9	IEC-320-C20 input socket			
10	REPO: Remote Emergency Power Off			
11	Intellislot port (See Section 6.2)			

## 3. Installation

#### 3.1 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.



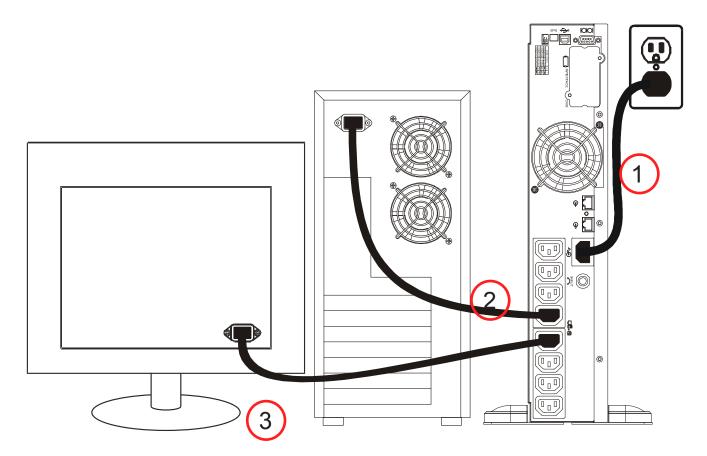
#### CAUTION!

For models 2200, 1500, 1000 and 750: 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!

For model 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"





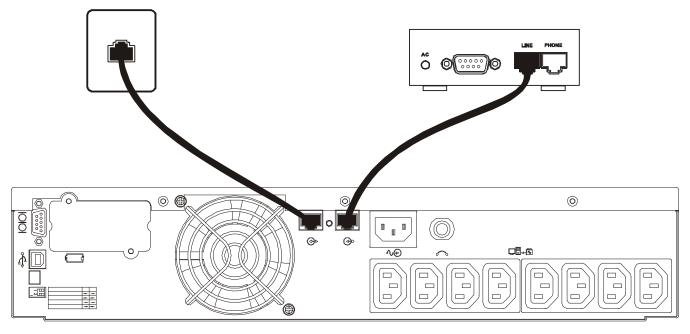
#### CAUTION!

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

0170000-J0 Rev F

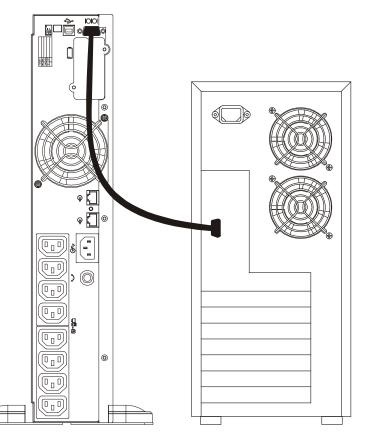
#### 3.3 Connect Network Surge protection

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.



#### 3.2 Connect Computer Interface Port

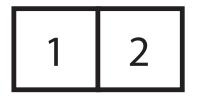
Use the interface cable (RS-232, or USB optional) to connect the interface port on the rear of the UPS to the computer interface port. See the software installation guide in the CD-ROM (optional)\*.



\*User Software provided under license from Ablerex Electronics Co. Ltd.

#### 3.4 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

#### 4.1 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.
- 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 the backup mode and the buzzer sounds every 2 seconds if there is a power outage or an over/under voltage. When the utility power is restored, the UPS runs in utility mode and the buzzer is silenced.

#### 4.2 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 will not execute the shutdown command.
- 2. In some cases, the UPS switches 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.

#### 4.3 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.

#### 4.4 Auto-Restart

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

#### 4.5 Alarm Silence

- 1. To switch off the alarm, press and hold the on button for approximately 1 second when in the backup mode.
- 2. Unless other warnings or faults appear, the alarm remains silent after the alarm has been switched off.

#### 4.6 Self Test

- 1. In the normal utility mode, press and hold the on button for 3 seconds to execute the battery self-test function.
- 2. If the battery is normal, it enters battery backup mode for 10 seconds and then returns 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.

#### <u>NOTE:</u>

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.

## 5. UPS Maintenance

#### 5.1 Battery Replacement Precautions

The following precautions apply when replacing batteries in a SERVICE ACCESS AREA:

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.
- When replacing batteries, replace with the same type and number of batteries or battery packs.



#### CAUTION!

See the user's manual for battery disposal instructions.



#### CAUTION!

Lead acid batteries can be a chemical hazard.



#### CAUTION!

Do not dispose of batteries in a fire. The batteries may explode.



CAUTION!

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



#### 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!

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

#### 5.2 Battery Replacement Procedure

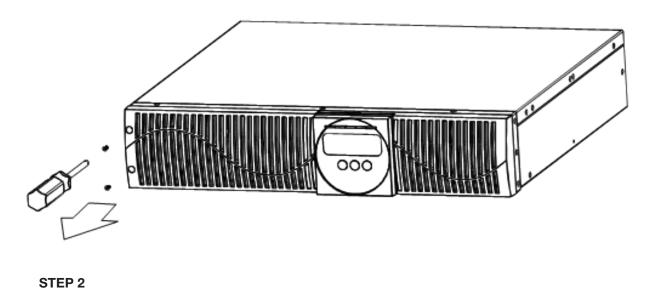
When the UPS is started up or a self-test is executed, the battery replacement symbol on the LCD panel may appear because of a weak or dead battery.

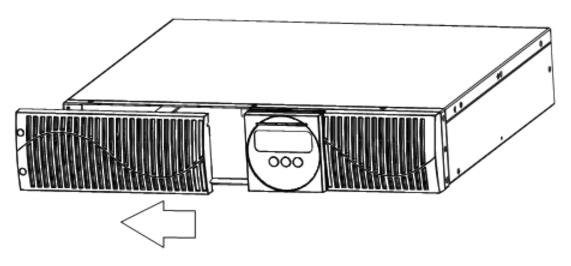
- 1. If the battery replacement symbol on the LCD panel appears, charge the UPS for at least 8 to 10 hours. The symbol should disappear after the self-test function has executed.
- 2. If the battery replacement symbol stays on after charging, unscrew the battery cover, replace the battery (follow the steps in the next section), and then press the ON button.



#### CAUTION!

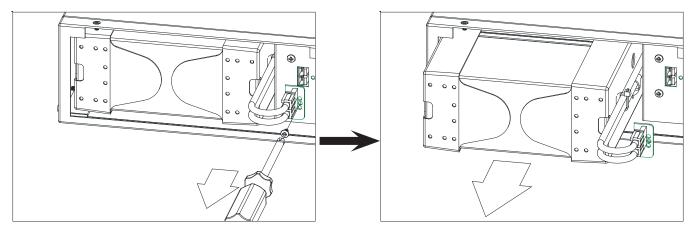
The UPS will not provide any output power if the start-up procedure has not completed properly even though the input power cord is connected to the wall receptacle.



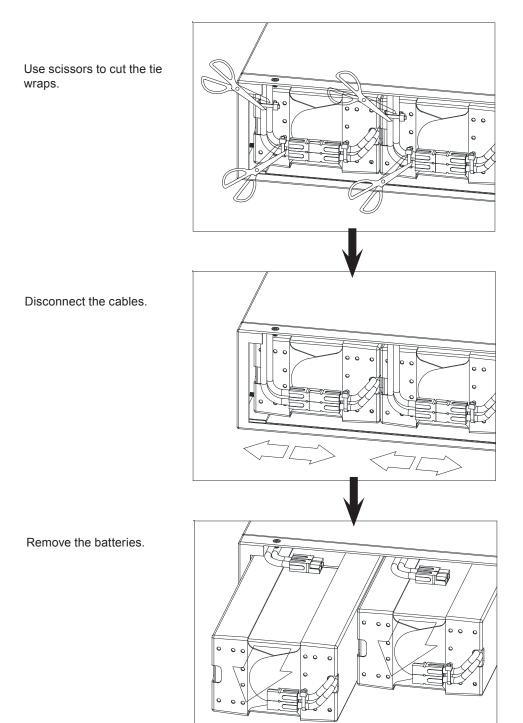




750 / 1000/ 1500 VA



2200/ 3000 VA



**Recycling Used Batteries** 

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



5.4

#### 6.1 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.

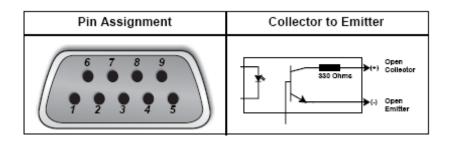


Table F — DB-9 pin assignment				
DB-9 Pin	DB-9 Pin Assignment Description			
1	Low battery (open collector)			
2	UPS TxD			
3	UPS RxD			
4	N.C.			
5	Common			
6	N.C.			
7	Low battery (open emitter)			
8	Utility fail (open emitter)			
9	Utility fail (open collector)			

### 6.2 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 simple network management protocol (SNMP) using the internet.

Table G — Specifications for 120 V models							
Model number	Sentra 750	Sentra 1000	Sentra 1500	Sentra 2200*	Sentra 3000		
Power rating, VA/W	750 VA 750 W	1000 VA 900 W	1500 VA 1350 W	1920 VA* 1920 W*	3000 VA 2700 W		
		Dimensions,	W x D x H (mm	)			
Unit	440 x 405 x 88			440 x 650 x 88			
Shipping		560 x 526 x 228		560 x	833 x 228		
		Weig	ht (kg)				
Unit	28	28	29	45	48		
Shipping	31	31	31	47	50		
		Input AC	Parameters				
Surge protection			570	J			
Voltage range without battery operation	83 to 159, configurable						
Frequency range			45 ~ 65 Hz,	(±0.5 Hz)			
Input power cord	10 ft (3 m) attached w/ NEMA 5-15P			10 ft (3 m) attached w/ NEMA 5-20P	10 ft (3 m) attached w/ NEMA L5-30P		
Output receptacles	(8) NEMA 5-15R			(6) NEMA 5-15R (2) NEMA 5-20R	(6) NEMA 5-15R (2) NEMA 5-20R (1) NEMA L5-30R		
Voltage (normal mode)		11	nfigurable) ±10%				
Voltage (battery mode)	110 / 120 VAC (configurable)						
Transfer time	4 to 6 ms typical						
Waveform	Sine wave						
Frequency (normal mode)	45 to 65 Hz, (±0.5 Hz)						
Frequency (battery mode)		50	) / 60 Hz, (±0.5 ⊢	lz), auto sensing			
		Overload	d Warning				
	> 100% to 109% Contin			ous overload alarm and power to the load			
Normal mode	> 110%	to 120%	Shutdown after 10 minutes				
	>1	20%		Shutdown UPS immediately			
	> 100%	to 119%	Continuous overload alarm until end of battery discharge				
Battery mode	> 120% to 130%			Shutdown after 10 seconds			
	>130% Shutdown UPS immediately				ediately		
		Battery P	arameters				
Model number	Sentra 750	Sentra 1000	Sentra 1500	Sentra 2200*	Sentra 3000		
Quantity	3 pcs	3 pcs	3 pcs	6 pcs	6 pcs		
Battery voltage	12 V	12 V	12 V	12 V	12 V		

Туре	Valve-regulated, non-spillable, lead acid					
Capacity	7 Ah	7 Ah	9 Ah	7 Ah	9 Ah	
Recharge time	5 hours to 90% of rated capacity, after full discharge into resistive load					
Autonomy	3.5 min	3.5 min	3.5 min	3.5 min	3.5 min	
		Environ	mental			
Operating temperature		+32	2°F to + 104°F (0°C t	o + 40°C)		
Storage temperature		+5°	F to + 104°F (-15°C t	o + 40°C)		
Relative humidity		C	)% to 95%, non-cond	lensing		
Operating altitude	Up to 10,000 ft. (3000 m) at 95°F (35°C) without derating					
Audible noise	< 40 dBA, internal fan(s) off < 45 dBA, internal fan(s) on					
	Agency					
Safety	UL 1778, c-UL listed					
Surge	ANSI C62.41 CatA Lev3 (surges) IEC61000-4-5					
ESD			IEC61000-4-2			
Susceptibility			IEC61000-4-3			
Electrical fast transient	IEC61000-4-4					
Emissions	FCC Part 15, Class A					
Conducted immunity			EN61000-4-6			
Harmonics			EN61000-3-2			
Network surge			UL 497 B			
Transportation		IS	TA procedure 1A cer	tification		

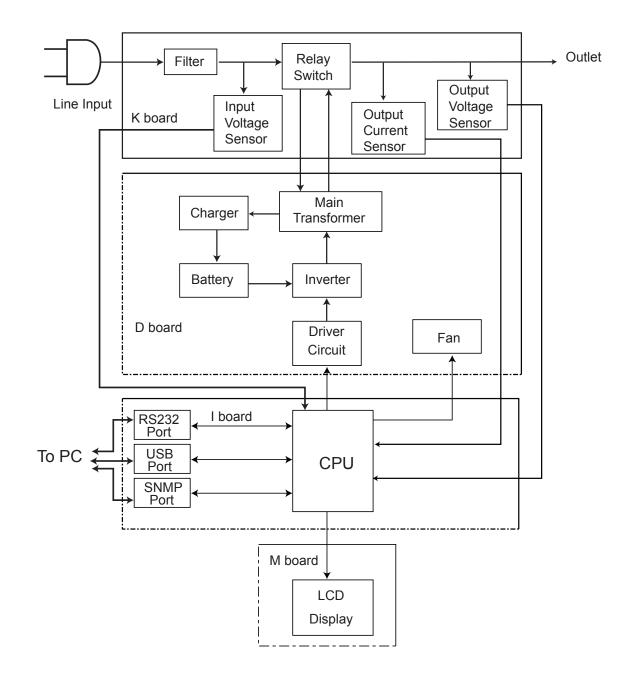


\*The Sentra 2200 model has been approved by UL for a maximum power of 1920VA/W. However the product can be used up to 2200VA/1980W in which case the approval is void.

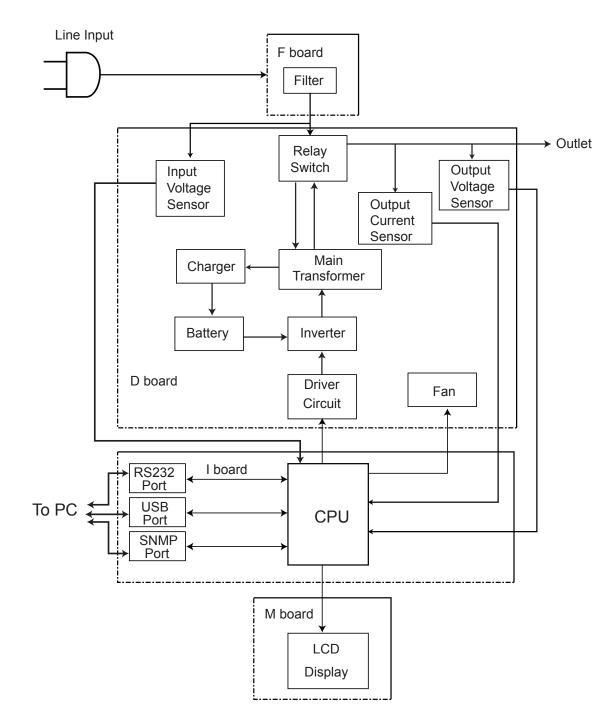
	Table H — Specifications for 230 V models				
Model number	Sentra 750	Sentra 1000	Sentra 1500	Sentra 2200*	Sentra 3000
Power rating, VA/W	750 VA 675 W	1000 VA 900 W	1500 VA 1350 W	2200 VA 1980 W	3000 VA 2700 W
	Diı	mensions, W x D	x H (mm)	· · · · · · · · · · · · · · · · · · ·	
Unit	440 x	405 x 88	440 x 405 x 88	440 x 650 x 88	440 x 650 x 88
Shipping	560 x 5	526 x 228	560 x 526 x 228	560 x 770 x 228	560 x 770 x 228
		Weight (kg	3)		
Unit	27	29	29	45	48
Shipping	29	31	31	47	50
		Input AC Paran	neters		
Surge protection			220 J		
Voltage range without battery operation	165 to 300, configurable				
Frequency range			45 to 65 Hz, (±0.5H	z)	
Input power cord	IEC-320-C14		IEC-320-C14	IEC-320-C20	IEC-320-C20
Output receptacles	(8) IEC-320-C13		(8) IEC-320-C13	(8) IEC-320-C13 (1) IEC-320-C19	(8) IEC-320-C13 (1) IEC-320-C19
Voltage (normal mode)	220 / 230 / 240 VAC (configurable) ±10%				
Voltage (battery mode)	220 / 230 / 240 VAC (configurable); ±5% before low battery warning				
Transfer time         4-6 ms typical					
Waveform	Sine wave				
Frequency (normal mode)	45 to 65 Hz, (±0.5 Hz)				
Frequency (battery mode)		50 / 60	Hz, (±0.5 Hz), auto	sensing	
		Overload War	ning		
_	> 100%	5 to 109%	Continuous ov	erload alarm and p	ower to the load
Normal mode	> 110% to 120%		Shutdown after 10 minutes		
	> ′	120%	Shutdown UPS immediately		
	> 100% to 119%		Continuous overload alarm until end of battery discharge		
Battery mode	> 120% to 130%		Shutdown after 10 seconds		
	> 130% Shutdown UPS immediately				iately
		Battery Param	eters		
Туре	Valve-regulated, non-spillable, lead acid				
Quantity x voltage x rating	2 x 24 x 7	3 x 36 x 7	3 x 36 x 9	6 x 72 x 7	6 x 72 x 9

Environmental				
Operating (ambient) temperature	+32°F to + 104°C (0°C to + 40°C)			
Storage temperature	+5°F to + 104°F (-15°C to + 40°C)			
Relative humidity	0% to 95%, non-condensing			
Operating altitude	Up to 10,000 ft. (3000 m) at 95°F (35°C) without derating			
Audible noise	< 40 dBA, internal fan(s) off < 45 dBA, internal fan(s) on			
Agency				
Safety	CE IEC61000-4-5			
Surge	IEC61000-4-2			
ESD	IEC61000-4-3			
Susceptibility	IEC61000-4-4			
Electrical fast transient	IEC/EN/AS 62040-2 2nd Ed class A			
Emissions	EN61000-4-6			
Conducted immunity	EN61000-3-2			
Harmonics	IEC61000-4-5			
Transportation	ISTA procedure 1A certification			

#### 8.1 Models Sentra 750/ 1000/ 1500 VA



#### 8.2 Models Sentra 2200/ 3000 VA



### 9. Warranty

#### **Technical Support**

In Canada and the USA, call toll free 1-888-462-7487.

#### Customers outside Canada and the USA, call +1-604-436-5547.

#### **Warranty Statement**

For full information details review Alpha's online Warranty Statement at www.alpha.ca/support.

#### **Product Warranty**

Alpha warrants that for a period of three (3) years from the date of shipment its products shall be free from defects under normal authorized use consistent with the product specifications and Alpha's instructions, the terms of the manual will take precedence. Alpha authorized Commissioning is mandatory for warranty coverage and shall be conducted by Alpha-trained personnel. Completed commissioning reports shall be submitted for Alpha's record keeping at support@alpha.ca.

The warranty provides for repairing, replacing or issuing credit (at Alpha's discretion) for any equipment manufactured 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**

Note that battery warranty terms and conditions vary by battery and by intended use. Contact your Alpha sales representative or the Technical Support team at the above number to understand your entitlements under Battery Warranty.

#### **Warranty Claims**

Any claim under this Limited Warranty must be made in writing to Alpha BEFORE sending material back. Alpha will provide Product return instructions upon approval of return request. A Service Repair Order (SRO) and / or Return Authorization (RA) number will be issued ensuring that your service needs are handled promptly and efficiently.

Claims must be made online at: www.alpha.ca/support.

#### **Service Information**

For a list of international service centers, refer to the Alpha website: www.alpha.ca/support



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