EAT•N

Powering Business Worldwide

USER MANUAL

Eaton ENV400L/H, Eaton ENV600L/H, Eaton ENV800L/H
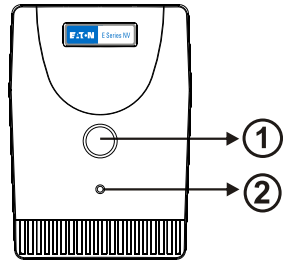
EAT•N E Series NV
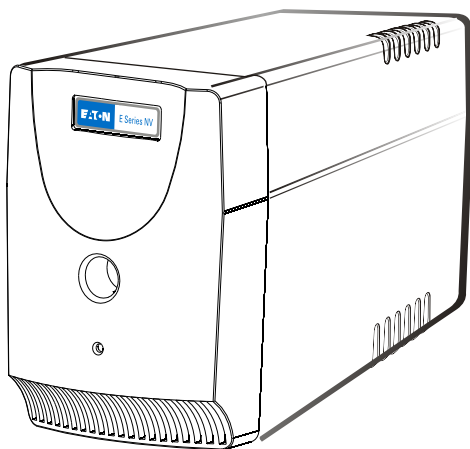
www.eaton.com/nvups
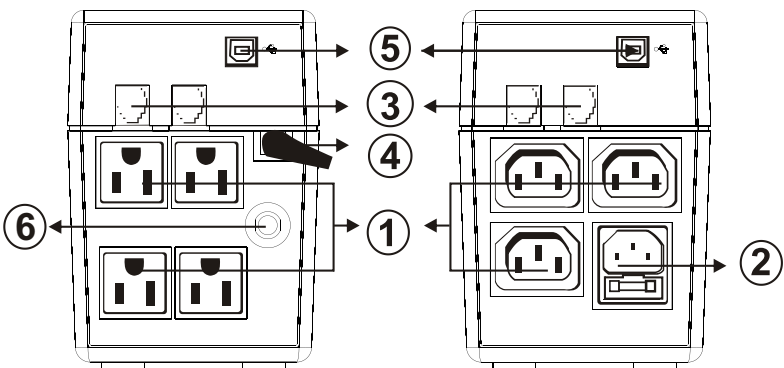
System Description

Front Panel --

1. Power Switch
2. LED Indicators --
   AC Mode: Green Lighting
   Battery Mode: Green Flashing

Back Panel --

1. Output

2. AC fuse

3. Modem/Phoneline Surge Protection

4. AC Input

5. USB Communication Port

6. Breaker

NEMA   **IEC**

Specification

MODEL		ENV400L/H	ENV600L/H	ENV800L/H
CAPACITY	VA	400VA	600VA	800VA
INPUT	Voltage	110/120VAC or 220/230/240VAC		
	Voltage Range	81-145VAC or 162-290VAC		
	Frequency	45 - 65Hz (Auto sensing)		
OUTPUT	Voltage	110/120VAC or 220/230/240VAC		
	Voltage Regulation (Batt. Mode)	+/- 10%		
	Frequency	50Hz or 60Hz		
	Frequency Regulation (Batt. Mode)	+/- 1Hz		
	Output Waveform	Modified Sinewave		
BATTERY	Battery Type	12V4.5Ahx1	12V7Ahx1	12V 9Ahx1
	Backup Time (at a PC load with 15" monitor)	8 min.	22 min.	30 min.
	Recharge Time	8 hours to 90% after complete discharge		
TRANSFER TIME	Typical	2-6 ms		
INDICATOR	AC Mode	Green lighting		
	Backup Mode	Green flashing		
AUDIBLE ALARM	Backup Mode	Sounding every 10 seconds		
	Low Battery	Sounding every second		
	Overload	Sounding every 0.5 seconds		
	Battery Replacement	Sounding every 2 seconds		
	Fault	Continuously Sounding		
PROTECTION	Full Protection	Discharge, overcharge, and overload protection		
PHYSICAL	Dimension (mm), DxWxH	330x100x140		
	Net Weight	5kgs	6kgs	6.5kgs
ENVIRONMENT	Operating Environment	0-40℃, 0-90% relative humidity (non-condensing)		
	Noise Level	Less than 40dB		
INTERFACE	USB	Windows 98/2000/ME/XP		

Trouble Shooting

Symptom	Possible Cause	Remedy
No LED display on the front panel.	1. Missing battery.	1. Charge battery up to 8 hours.
	2. Battery defect.	2. Replace with the same type of battery.
	3. Power switch is not pressed.	3. Press the power switch again.
Alarm buzzer beeps continuously when AC supply is normal.	Overload of the UPS.	Verify that the load matches the UPS capability specified in the specs.
When power failure, backup time is short.	1. Overload of the UPS.	1. Remove some noncritical load.
	2. Battery voltage is too low.	2. Charge battery 8 hours or more.
	3. Battery defect due to high temperature operation environment, or improper operation to battery.	3. Replace with the same type of battery.
Mains normal but LED is flashing.	1. Fuse is blown.	1. Replace the same type of fuse.
	2. Power cord is loose.	2. Reconnect the power cord properly.

If any abnormal situations occur that are not listed above, please call service people immediately.

IMPORTANT SAFETY INSTRUCTION

SAVE THESE INSTRUCTION-This manual contains important instructions for models ENV400L／H, ENV600L／H, ENV800L／H that should be followed during installation and maintenance of the UPS and batteries.

Safety -- Caution!!

● This UPS utilizes voltage that may be hazardous. Do not attempt to disassemble the unit. The unit contains no user replaceable parts. Only factory service personnel may perform repairs.

● Internal battery voltage is 12Vdc.Sealed, lead-acid, 6 cells battery.

● Connection to any other type of receptacle other than a two-pole, three-wire grounded receptacle may result in shock hazard as well as violate local electrical codes.

● In the event of an emergency, press the "OFF" button and disconnect the power cord from the AC power supply to properly disable the UPS.

● Do not allow any liquids or any foreign object to enter the UPS. Do not place beverages or any other liquid-containing vessels on or near the unit.

● This unit intended for installation in a controlled environment (temperature controlled, indoor area free of conductive contaminants). Avoid installing the UPS in locations where there is standing or running water, or excessive humidity.

● Do not plug the UPS input into its own output.

● Do not attach a power strip or surge suppressor to the UPS.

● Do not attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners to UPS.

● To reduce the risk of overheating the UPS, do not cover the UPS' cooling vents and avoid exposing the unit to direct sunlight or installing the unit near heat emitting appliances such as space heater or furnaces.

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

● Attention, hazardous through electric shock. Also with disconnection of this unit from the mains, hazardous voltage still may be accessible through supply from battery. The battery supply should be therefore disconnected in the plus and minus pole at the connectors of the battery when maintenance or service work inside the UPS is necessary.

Safety -- Caution!!

- Do not dispose of batteries in a fire as they may explode.

- A battery can present a risk of electrical shock and high short circuit current. The following precautions should be observed when working on batteries:
  1) Remove watches, rings, or other metal objects from the hands.
  2) Use tools with insulated handles.
  3) Wear rubber gloves and boots.
  4) Do not lay tools or metal parts on top of batteries.
  5) Disconnect charging source prior to connecting or disconnecting batteries terminal.

- Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the required precautions. Keep unauthorized personnel away from batteries.

- When replacing batteries, replace with the same number and type of sealed lead-acid battery.

- This pluggable type A equipment with battery already installed by the supplier is operator installable and may be operated by laymen.

- The mains socket outlet that supplies the UPS shall be installed near the UPS and shall be easily accessible.

- During the installation of this equipment it should be assured that the sum of the leakage currents of the UPS and the connected loads does not exceed 3.5mA.

- Unplug the UPS prior to cleaning and do not use liquid or spray detergent.

✪ Wichtige Sicherheitshinweise

Bitte lesen Sie diese Hinweis sorgfaltig durch.

■ Vor jedem rcinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie Keine Flüssig-oder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.

■ Das Gerät ist vor Feuchtigkeit zu schutzen.

■ Öffncn Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisicrtem Servicepersonal geoffnct Wcrdcn.

■ Bei der Installation is darauf zu achten, das der Gesamtableitstrom der USV und der and der USV angeschlossenen Verbraucher den. Maximalwert von 3.5mA nicht ubershreiten.

■ VORSICHT: Explosionsgetahr bei unsachgemäßen Austausch der Batterie. Ersatz nur durch denselben order einem wom Hersteller empfoblenem ähnlichen typ. Entsorgung gebrauchter Batterien nach Angaben des Hertellers.

Introduction

This UPS is specially designed for Personal Computer with multi-functions. Its light weight, compact design perfect fits to the limited working environment. The line of UPS is equipped with boost and buck AVR to stabilize input voltage range. It is also built-in with DC start function. This function enables the UPS to be started up without AC power supplied.The download software helps users monitor UPS inside status. The main features of this UPS are listed below:

● Microprocessor control guarantees high reliability.

● Equipped with Boost and Buck AVR to stabilize the input voltage.

● DC Start Function.

● Free Software Download from the Internet. (Please check Free Software Download for detail information.

● Green Power Function for energy saving.

● Auto restart while AC recovery.

● Compact size, Light weight.

● Provides Modem and Phoneline Surge Protection

● Provide AC Overload Protection.

● USB.

Installation and Operation

Installing this UPS is as easy as following the steps shown. Be aware of the Power Switch must be kept in the "ON" position, otherwise, the UPS will be disabled and your equipment will not be protected during a power failure.

1 Inspection

Remove the UPS from its package and inspect it for damage that may have occurred during shipping. If any damage is discovered, re-pack the unit and return it to the place of purchase.
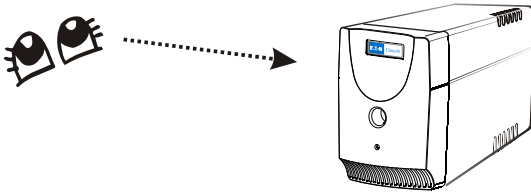
2 Placement

Install the UPS unit in any protected environment that provides adequate airflow around the unit, and is free from excessive dust, corrosive fumes and conductive contaminants. Do not operate your UPS in an environment where the ambient temperature or humidity is high.

On the other hand, place the UPS unit away from the monitor at least 20cm to avoid interference.

20 cm
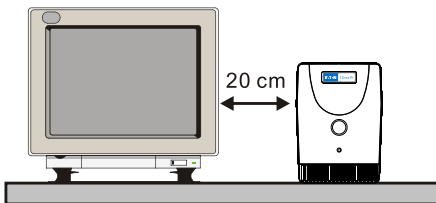
3 Charging

This unit is shipped from the factory with its internal battery fully charged, however, some charge may be lost during shipping and the battery should be recharged prior to use. Plug the unit into an appropriate power supply and allow the UPS to charge fully by leaving it plugged in for at least 8 hours.

8 hours
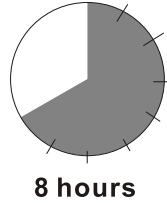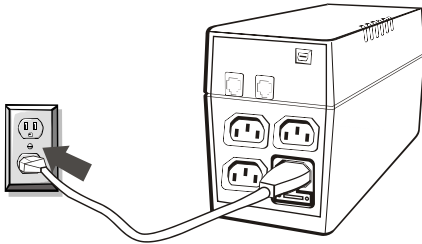
4 Computer Connection

Connect one computer-related device into each of the power receptacles supplied on the back of the UPS.
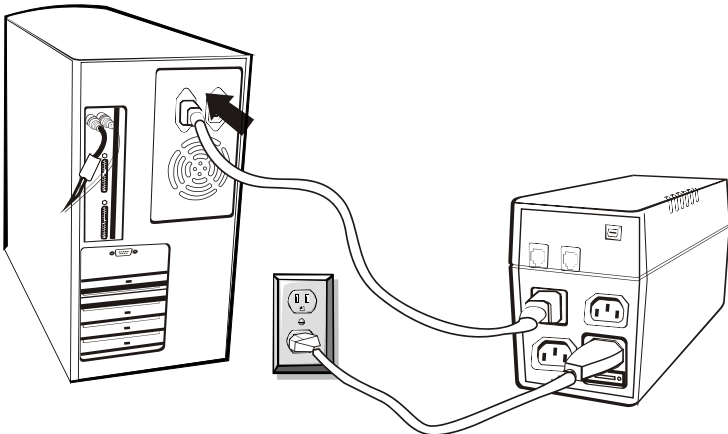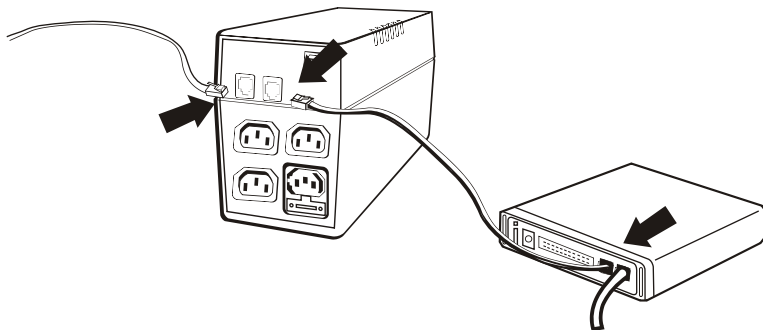
5 Modem/Phoneline Connection

Plug incoming internet line into the "In" socket at the back of the UPS. Use one more Internet line cable and plug one end of the Internet line cable to the "Out" socket at the back of the UPS. Plug the other end to the modem input socket as shown below.

**Incoming Internet line**

6 Serial cable Connection

To allow for unattended system shutdown for your operating system, For the USB serial cable (only available for the models with USB port) , just simply plug into the UPS and PC and it will be auto detected.
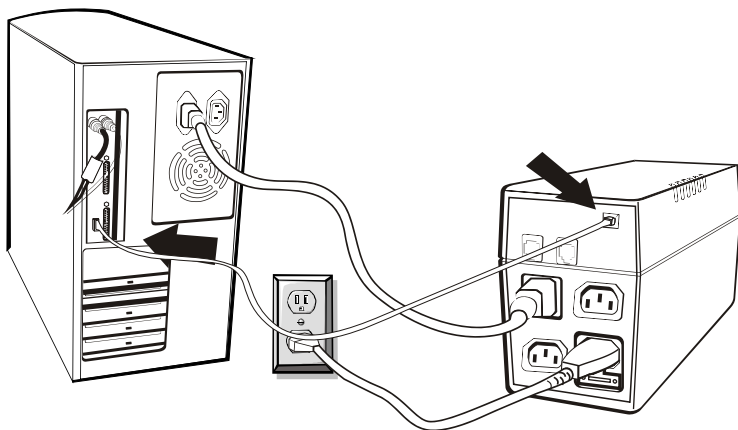
7 Turn On/Off

To turn on the UPS unit, press the power switch lightly. To turn off the UPS unit, press the power switch again.
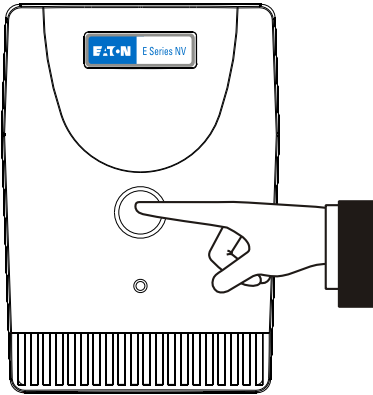
8 DC Start Function

DC Start Function enables UPS to be started up when AC utility power is not available and battery is fully charged. Just simply press the power switch to turn on the UPS.

9 Green Power Function

This Series are equipped with Green Power Function. For saving power and protecting battery, the method of deep discharging protection is adopted on inverter mode.

Free Software Download
-- WinPower --

WinPower is a brand new UPS monitoring software, which provides user-friendly interface to monitor and control your UPS. This unique software provides safely auto shutdown for multi-computer systems while power failure. With this software, users can monitor and control any UPS on the same LAN no matter how far from the UPSs.
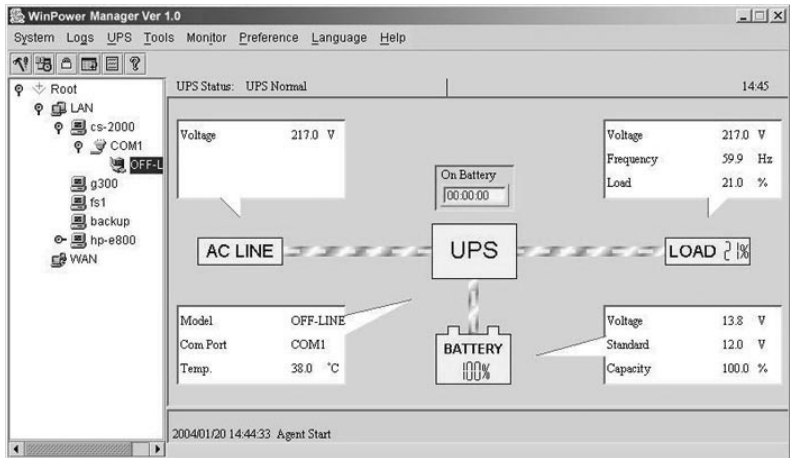
Installation procedure:

1. Go to the website:
   http://www.ups-software-download.com/winpower.htm
2. Choose the operation system you need and follow the instruction described on the website to download the software.
3. When downloading all required files from the internet, enter the serial No: 511C1-01220-0100-478DF2A to install the software.

When your computer restarts, the WinPower software will appear as a green plug icon located in the system tray, near the clock.