# USER MANUAL
# UPS / NO BREAK INTERACTIVE LINE

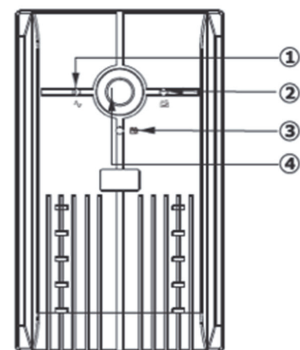## For models EPU500L, EPU850L and EPU1500L

**epcom**
POWER ⚡ LINE

### Content:

- UPS unit.
- User manual.
- 2 cilyndircal fuses.
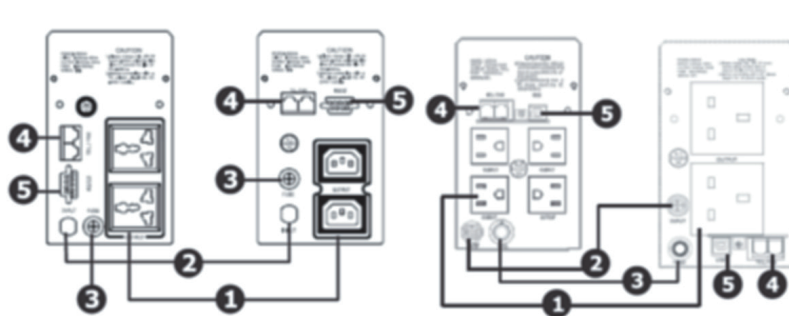- Interface cable and CD ROM disc (only on models with USB / RS232 port).



**Product description**

Front view, device with LED:

1.- Green: UPS operating.
2.- Yellow: connected and charging.
3.- Red: inversor mode.
4.- Power-on and power-off button (ON/OFF).

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**Tower type UPS rear view**


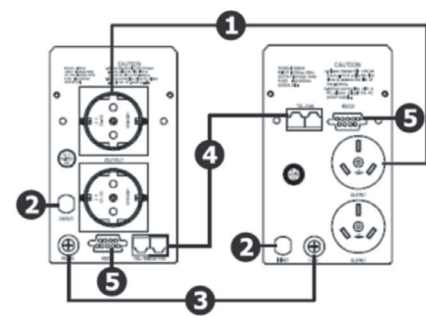
Type Universal          Type IEC          Type NEMA          Type UK          Type Schuko

Type Australia

1.- Power outlet
2.- AC input
3.- AC fuse
4.- Surge protector for connectors RJ-11/ RJ-45 (optional).
**5.- Communication ports RS-232/ USB**          (optional) **.**

Note: The characteristics may vary depending on the model of the equipment

**Installation and initial ignition**

Conditions for its position and / or storage

Install the UPS in a dust-free area that has adequate ventilation at least 20 cm away from any equipment or object to avoid interference. Take into account the operational temperature and humidity parameters of the UPS.

NOTE: Before installing and connection, verify the equipment is not damaged.

**Connect to a wall outlet**
Plug the AC power cord of the UPS into the socket (110 Vac) of the wall. For best results, keep connected and operating for 8 hours before your initial application, in order to charge the battery.

**Connecting devices**
With the device turned off, connect the loads or electronic equipment to the back of the UPS, then turn it on with the ON / OFF button. The equipment will be protected and backed up in the event of a power failure.

*CAUTION:*
*Never connect the printer or scanner to the UPS to avoid damage to the UPS*

· **Connect the telephone line, modem or fax only to the RJ-11 / RJ-45 inputs.**
· **Connect a single line that comes from the modem or telephone to the input port of surge suppressor "IN" and with another cable connect the output "OUT" to the computer.**
· **Connect the communication cable interface in models with port USB/RS-232.**
· **It allows the UPS station to be independent in its function of turning on, off and monitoring.**
· **Connect the interface cable to their respective ports and install the program so that you can perform the UPS on and off times, as well as its monitoring**
  **through the computer.**

**Unit power (ON/OFF)**
Press and hold the ON button until the green LED stays on, repeat to turn OFF.
**Activate the LCD screen by pressing the ON/OFF button for 3 seconds, repeat this process to turn off.**

**Power-on function without energizing**
When the UPS is off and there is no power supply, it is possible to start the UPS to power the computer equipment.

**Alarm function**
When the electrical network fails, the battery is in charge of supplying the current to the computer equipment, by means of the inverter of the UPS and a sound will be heard every 6 seconds, for a lapse of 40 seconds. When the battery is about to reach the lower operational limit, it will emit an alarm sound every 2 seconds.
When it reaches the lower limit, the inverter circuit of the UPS will protect the battery to prolong its useful life. Then, it will issue a constant alarm for a long period of time and the UPS will shut down.

Note: The characteristics may vary depending on the model of the equipment

**Protection**
When the battery reaches its lower limit of operational voltage, the UPS will automatically shut off, when the power is restored, the UPS will automatically energize to continue its operation.

**Battery overload protection**
When the mains supply is restored, the UPS charger will begin to charge the battery and will stop charging when it reaches the upper limit of the battery's operating voltage range in order to extend the battery life.
Short circuit protection: when the UPS is in battery mode and a short circuit occurs, the UPS will shut down immediately. When in AC mode, the protection fuse will blow so after the short circuit has been repaired, switch to battery mode.
Phase and frequency detector: in AC mode, the UPS system will automatically detect the waveform of the phase and input frequency to make sure that same waveform and frequency are preset in the output voltage, and which will energize to the computer equipment in order to minimize inferences and avoid damage to said equipment.

## Important security measures
KEEP THIS MANUAL

CAUTION:

· To prevent risks of fire or electric shock, install in areas free of conductive
 contaminants such as temperature and humidity.
· Do not cover the UPS vents to prevent overheating.Avoid exposing it
 directly to sunlight or near excessive sources of heat.
· Do not connect non-computer equipment, such as medical equipment,
 microwaves or vacuum cleaners.
· No conecte el UPS a su propia salida.
· Do not allow any liquid to spill or insert metallic objects into the UPS.
· In an emergency, press the off button and disconnect the UPS.
· Do not connect the UPS to a multiple outlet or surge suppressor.

· If the UPS is metal encapsulated, its physical ground connection is required to
 reduce the leakage current to less than 3 ma.
· To avoid possible electric shock, even with the UPS disconnected, considerable
 voltages may be present because the battery is connected to the circuit.
· It is required to disconnect the battery to be able to service or maintain it as many
 times as necessary by authorized personnel.
· When it is required to replace the battery, it must be of the same type and with
 the same characteristics. Recycle disposable batteries.
· When servicing the UPS: remove rings, watches and / or any metal object on your
 arms and hands, use tools with an insulating handle or gloves.
 · Do not leave tools on top of the battery.

## Installation and software operation
Only for models with communication port

Procedure for software installation and UPS monitoring:
1.- Connect the UPS and the computer to the communication ports via the interface cable.
2.- Insert the CD-ROM into the disk reader or run the program on the PC that you have downloaded for this model. Select the installation icon (installation or file.exe) and follow the
 command instructions that appear on the screen until the end

## Maintenance
Preventive maintenance that prolongs the useful life of the UPS

Perform monthly revisionof the following recommendations:
1.- Check the slits where the UPS air circulates are not blocked.
2.- Remove dust and objects from the UPS surface.
3.- Check the terminals of the battery that are well annealed and the insulator of the connector in good condition, replace it (s) if necessary.
4.- Check the humidity and temperature in the area where it is located.
5.- Periodically disconnect the UPS from the outlet for 5 minutes, if in this period of time there are no variations in the alarm tones during the 40 seconds and no tone after, the UPS
 is working normally. In case of any alarm, it is time to give service.

Battery maintenance
A maintenance-free battery made of lead and acid is electrically connected to the UPS. An adverse residential environment, continuous extreme discharges, high temperatures, etc., will dramatically reduce the battery life. It will also be reduced, even if it is not in service. That is why it is recommended to discharge the battery (leave it in battery mode until the UPS is turned off) every 3 months. When the battery life is about to expire, it will present a series of malfunctions.

Note: The characteristics may vary depending on the model of the equipment

## 7 problem solutions
Use the following table to solve minor problems

| Problem | Probable cause | Solution |
|---|---|---|
| The AC supply is normal, but it is in battery mode | The fuse is open | Disconnect the UPS power cord and replace the fuse on the back of the UPS with a fuse in good condition. |
| No AC and the UPS turns off | The battery reached its lower operational limit | Make sure the UPS charger is working and let it charge for 10 Hrs. Then turn it on and the computer equipment too. |
| No AC and the backup time is limisted | The UPS is overloaded | Disconnect excess load. |
| | The battery charge is low | Charge the UPS for 8 hours |
| | Battery problems can be due to high operational temperatures or adverse conditions to normal | Replace the battery with the same one, same model and features |

## Specifications

| Model | EPU500L | EPU850L | EPU1500L |
|---|---|---|---|
| Capacity | 500 VA / 300 W | 850 VA / 510 W | 1,500 VA / 900 W |
| **Input** | | | |
| Voltage | 110 V/120 V | | |
| Frequency | $\pm$25% (-35% optional) | | |
| Voltage range | 50 / 60 Hz$\pm$10% | | |
| **Output** | | | |
| Power factor | 0.6 | | |
| Regulated voltage | $\pm$10% | | |
| Transfer time | $\leq$ 10 ms | | |
| Waveform | Simulated sine wave | | |
| **Battery** | | | |
| Battery type and quantity | 7.0 AH (1) | 8.0 AH (1) | 8.0 AH (2) |
| Charge time | 8 hours to recover 90% of its capacity | | |
| Number of connectors | 4 connectors (3 backup and 1 protection) | 4 connectors (3 backup and 1 protection) | 6 connectors (5 backup and 1 protection) |
| **Environment** | | | |
| Humidity | 20 - 90%  RH @ 0 - 40 °C without condensing | | |
| Noise Level | Less than 45 dB | | |
| **Base, operational system** | | | |
| USB/RS-232 (optional) | S. O.  Windows 98/2000/2003/XP/VISTA 7 y 8 | | |

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