# USER MANUAL
# UPS YUNTO

## Models 500 – 1500

www.online-ups.com

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## Models 500 – 1500

## 1 Introduction

ONLINE USV-Systeme AG (ONLINE) is one of the leading manufacturers of uninterruptible power supplies (UPS). Since 1988, the German company has focussed on the development, production, sale and support of UPS systems. Based on unit numbers sold, ONLINE products are the German number one in the UPS market and internationally recognised because of their top quality and excellent support.

The power supply often fails when you least expect it. There can also be significant fluctuation in the quality of the power supply. Network problems can lead to the destruction of critical data, data which is not backed up can be lost and hardware damaged. This means expensive repairs and downtime.

With models from the YUNTO series from ONLINE, you are perfectly prepared for such eventualities. YUNTO protects sensitive applications from data loss and operating downtime, whether they are pricesensitive entry servers or high-end PCs, telephone systems, network peripherals or NAS boxes.

### YUNTO offers the following advantages:

- Compact design
- Silent operation
- Cold start function, starts the UPS system without network voltage
- Intelligent battery management, self test and fast charge function
- Surge protection for data and telephone wires
- Alarm function
- USB interface
- Built-in wall mount
- Inc. shutdown, management and monitoring software, DataWatch to download for all operating systems
- 24h advance replacement within warranty

Figure 1: YUNTO 500 - 800

Figure 2: YUNTO 1200 - 1500

# 2 Safety warnings

This manual contains important instructions that you must follow during the installation and maintenance of the UPS system and the batteries. Please read all the instructions in the manual before working with the device. Keep the manual in a safe place.

**CAUTION**

- The UPS system carries life-threatening voltages. All repair and maintenance work must be carried out by customer service personnel.
- The UPS system has its own energy source (batteries). The output of the UPS system can be live even when the UPS system is not connected to a wall outlet.
- In order to reduce the risk of fire or electric shock, the UPS system may only be installed in buildings with controlled temperature and air humidity in which there are no conductive contaminants. The ambient temperature must not exceed 40°C. The UPS system must not be operated near water or in extremely high air humidity (>90%).
- Before transporting the UPS system, make sure that it is disconnected from the power supply and switched off.
- Batteries can pose a risk of electric shock or catch fire as a result of high short circuit current. Please take the necessary precautionary measures. Maintenance must be carried out by qualified personnel who are trained in handling batteries and have good knowledge of the necessary precautionary measures, see Chapter 6 > Maintenance. Keep unauthorised personnel away from batteries.
- Batteries must be disposed of properly. Local regulations must be taken into consideration.
- Batteries must not be burnt. There is risk of explosion.



# 3 Installation

## 3.1 Checking the delivery

Keep the transport box and the packaging material for the carrier or sales point. If parts of the system have been damaged in transit, submit a transport damage complaint to your supplier within 24 hours. If you only discover damage after accepting the device, please submit a complain for concealed damage.

## 3.2 Unpacking the UPS system

**CAUTION**
Unpacking the UPS system at a low ambient temperature can lead to the formation of condensation inside and outside the casing. Only install the UPS system if the inside and outside are completely dry (risk of electric shock).

**PLEASE NOTE**
Move and open the packaged UPS system carefully. Leave the components in their packaging until they are installed.

**To unpack the UPS system and accessories:**

1. Open the external box and take the accessories packed with the UPS system out.
2. Carefully lift the UPS system out of the external box.
3. Place the UPS system in a protected, adequately ventilated position which is free of humidity, flammable gasses and corrosion.
4. In order to avoid interference with other devices, make sure to maintain a clearance of at least 20cm.

## 3.3 Checking the accessories

**Table 1: Package contents**

| Description | YUNTO 500 | YUNTO 800 | YUNTO 1200 | YUNTO 1500 |
|---|---|---|---|---|
| **USB interface cable** | 1 | 1 | 1 | 1 |
| **10A power extension cable** | 2 | 2 | 2 | 2 |
| **Quick start guide** | 1 | 1 | 1 | 1 |
| **DataWatch software*** | 1 | 1 | 1 | 1 |
| **Manual*** | 1 | 1 | 1 | 1 |

* Download from > www.online-ups.com

## 3.4 Installation and setup

The UPS system is delivered fully assembled.

**CAUTION**
Make sure that the overall rated performance of the load connected does not exceed the capacity of the UPS system. The power consumption of inductive loads or laser printers can be very high, please take this into consideration when specifying your UPS system.

1. Connect the load with the UPS system without switching them on.
2. Connect the mains connection cable for the UPS system into a socket.
3. Press the ⏻ button on the UPS system until a short beep sounds and the status LED lights up.
4. The UPS system is now operating in normal mode and supplying the load with reliable power.
5. Switch the loads on one by one.

**PLEASE NOTE**
The internal batteries charge up to 90% of their full capacity in less than eight hours. ONLINE recommends charging the batteries for 48 hours after installation or extended periods of non-use.

The battery charging starts as soon as the UPS system is connected to the supply network and switched on.



**Starting in battery mode**

1. Press the ⏻ button on the UPS system until a short beep sounds and the status LED lights up.
2. The UPS system is starting, the display then shows the battery statues (see Chapter 4 > Battery statuses) and supplies the loads connected with reliable power.
3. If the ⚠ display is lit, fix all warnings (see Chapter 7 > Troubleshooting) and restart the UPS system.

**Switching off**

1. Press the ⏻ off switch on the UPS system. The UPS system switches off.
2. Disconnect the mains connection cable of the UPS system from the socket.

# 4 Functions and controls

Together with the beeps, the LEDs on the front of the device indicate the operating status of the UPS.

Figure 3: Control panel and display

**Table 2: Descriptions of display**

| Switch / LED | Function | Alarm |
|---|---|---|
| | Switch on/off | |
| | Normal operating mode:<br>Green LED permanently lit | |
| | Battery mode:<br>Green LED flashes every 10 seconds | Every 10 seconds |
| | Battery voltage low:<br>Green LED flashes every second,<br>red LED permanently lit | Every second |
| | Error:<br>Red LED permanently lit | Continuous tone |
| | Temperature too high:<br>Red LED flashes every 0.5 seconds | |



# 5 Communication and interfaces

## 5.1 USB interface

In order to establish communication between the UPS system and a computer, connect the computer using a suitable data cable (cable provided) to the USB interface on the UPS system (see Chapter 9.2 > Rear view).

The UPS system can then exchange data via the DataWatch software (see Chapter 5.3 > DataWatch software).

## 5.2 Surge voltage protection for data and telephone lines (DSL / telephone / fax / network)

The surge protection filters surge voltage from the data and telephone cables. This involves connecting the incoming cable to the IN connection on the reverse of the UPS system. Connect the OUT connection to the end device. The data connection protection cable protects networks with a transfer rate of 10 to 1000 Mbit/s.

## 5.3 DataWatch software

The YUNTO series is supplied as standard with DataWatch, the comprehensive software solution for shutdown and management of the PC or server system and for monitoring the YUNTO and the power supply network. To ensure you are always working with the latest version of DataWatch, please download it from the download area of > www.online-ups.com.

DataWatch works in the background and is in constant communication with the YUNTO via the USB protocol. The most famous of all functions: Automatic data backup including the shutdown of running applications and the proper shutdown of the whole system by means of a freely configurable shutdown routine. At the same time, DataWatch has a comprehensive messaging system, time-controlled test routines and event logging.

DataWatch supports all current operating systems. As a client/server application, DataWatch works in networks and on local workstations. Based on optional RCCMD agent (Remote Console Command), multiple servers connected to a UPS system can be addressed and controlled across the network without additional hardware.

# 6 Maintenance

## 6.1 Care and maintenance

To ensure a long service life of the system, the area around the UPS system should be kept clean and free of dust. If the area around the system is very dusty, clean the external surfaces of the system with a vacuum cleaner.

To ensure a long service life for the batteries, the ambient temperature should not exceed 25°C.

**PLEASE NOTE**

- Before transporting the UPS system, make sure that it is disconnected from the supply network and switched off.
- The service life of a battery varies as a function of how often it is used, intensity of use and ambient temperature. Batteries which are used beyond their expected service life often have reduced autonomy times. Replace the batteries in good time to ensure the system always runs at optimum performance.

## 6.2 Storage

If you intend to store the UPS system for an extended period, charge the battery every three months by connecting the UPS system to the supply network for five hours. The system should be stored in a cool, dry place.

## 6.3 Replacing the batteries

**PLEASE NOTE**
Do not replace the batteries while the UPS system is in battery mode.

To replace the batteries, the UPS system bust be switched off, disconnected from the power supply and opened. Batteries cannot be hot-swapped.

**CAUTION**

- Maintenance work must be carried out by a qualified technician who is familiar with batteries and the necessary safety measures. Do not allow unauthorised personnel to handle the batteries.
- Batteries pose the risk of an electric shock or injury due to high short circuit current. Take the following safety measures:
  - remove watches, jewellery and other metal items
  - only use tools with insulated handles
  - do not place tools or metal components on the batteries
- The batteries must only be replaced with the same number of batteries of the same type.
- Batteries must be properly disposed of. When disposing of batteries, comply with the statutory regulations applicable in your location.
- Batteries must not be burnt. There is risk of explosion.
- Do not open or damage the battery or batteries. Battery acid can damage the eyes and skin and cause poisoning.
- DANGER OF ELECTRIC SHOCK. Never make changes to the battery cabling or connections. Attempting to change the battery cabling yourself could lead to serious injury.
- The batteries of the UPS system are very heavy. Be careful when handling heavy batteries.

## 6.4 Disposing of the old batteries or UPS system

Find out from a local recycling centre how the old batteries or the UPS system should properly be disposed of. Old batteries can also be returned to ONLINE for disposal free of charge. Please contact Support (see Chapter 8 > Support).

**CAUTION**

- Batteries must not be burnt. There is risk of explosion.
- Batteries must be disposed of properly. Find out about the local disposal regulations.
- Do not open or damage the battery or batteries. Battery acid can damage the eyes and skin and cause poisoning.

# 7 Troubleshooting

The YUNTO is designed for autonomous operation and automatically reports any problems in the display.

**Table 3: Troubleshooting**

| Operating status | Possible cause | Measure |
|---|---|---|
| No LED display on the front panel. | The battery capacity is too low. | Charge the battery for at least 8 hours. |
| | The battery is worn through age or faulty. | Replace the battery (see > Chap. 6.3). |
| | The UPS system is not switched on. | Press the ON button. |
| Permanent alarm beep and red ⚠ LED while mains voltage is available. | The UPS system is overloaded. | Check whether the total load exceeds the capacity of the UPS system. Reduce the load as required. |
| | Error | Contact ONLINE support (see > Chapter 8). |
| Alarm sounds every 2 seconds while network voltage available. | The battery is worn through age or faulty. | Replace the battery (see > Chap. 6.3). |
| | Charger faulty. | Contact ONLINE support (see > Chapter 8) |
| Autonomy time is shorter than expected. | The UPS system is overloaded. | Check whether the total load exceeds the capacity of the UPS system. Reduce the load as required. |
| | The battery capacity is too low. | Charge the battery for at least 8 hours. |
| | The battery is worn through age or faulty. | Replace the battery (see > Chap. 6.3). |
| LED flashing with normal network voltage. | Mains cable not connected properly. | Check the mains cable and connect it properly. |



# 8 Support

ONLINE USV-Systeme AG (ONLINE) is one of the leading manufacturers of uninterruptible power supplies (UPS). Since 1988, the German company has focussed on the development, production, sale and support of UPS systems. Based on unit numbers sold, ONLINE products are the German number one in the UPS market and internationally recognised because of their top quality and excellent support.

As a German provider, ONLINE guarantees direct approachability, simple processing and short response times. Comprehensive support is a matter of course – before and after purchase.

**ONLINE sets great store by reliable support and service.**

- Free direct advice and support on:
  E-Mail: support@online-usv.de
  Phone: +49 (0)89 242 39 90-17
- Free 24 h advance exchange
- Interactive UPS configurator online or as app
- Optional extended warranty
- Unbureaucratic 14 day money-back guarantee
- Excellent product availability and wide network of distributors

**Further information: > www.online-ups.com**

# 9 Technical data

## 9.1 Specification

**Table 4: Specification**

| Model | | YUNTO 500 | YUNTO 800 | YUNTO 1200 | YUNTO 1500 |
|---|---|---|---|---|---|
| **Order no.** | | Y500 | Y800 | Y1200 | Y1500 |
| **Electrical characteristics** | | | | | |
| Rated power (VA / W) | | 500 / 300 | 800 / 480 | 1200 / 720 | 1500 / 900 |
| Input voltage and tolerance in normal mode | | 230V (180 – 270V) | | | |
| Frequency | | 50 / 60Hz (automatic detection) +/-5Hz | | | |
| Max. input current | | 3.3A | 5.2A | 7.8A | 9.7A |
| Cold-start function | | Yes | | | |
| Output voltage | | 230V +/-10% | | | |
| Output frequency Battery operation | | 50 / 60Hz +/-1Hz | | | |
| Wave form | | Simulated sine | | | |
| Efficiency | Normal operation | >95% | | | |
| | Battery mode | 70% | | | |
| Power loss, max. | | 15W | 24W | 36W | 45W |
| **Connections** | | | | | |
| Input | | 1x IEC320 C14 (10A) | | | |
| Outputs, 10A | | 3x IEC320 C13 (10A) | 3x IEC320 C13 (10A) | 5x IEC320 C13 (10A) | 5x IEC320 C13 (10A) |
| **Batteries** | | | | | |
| Typ. Autonomy times at 50 and 100% load and pf=0.6 | | 6 / 3 | 6 / 2.5 | 6 / 3 | 6 / 2.5 |
| Battery type | | 1x 12V / 7Ah | 1x 12V / 9h | 2x 12V / 7Ah | 2x 12V / 9Ah |
| Design | | Sealed, maintenance-free, valve-controlled, lead/acid, life expectancy 3 to 5 years in accordance with EUROBAT | | | |
| Charge current | | 0.5A | | | |
| Charging time | | < 8 hours to 90% | | | |
| **Communication** | | | | | |
| USB | | Yes | | | |
| Modem / Network Over-voltage protection | | Yes | | | |



| Model | YUNTO 500 | YUNTO 800 | YUNTO 1200 | YUNTO 1500 |
|---|---|---|---|---|
| **Operating conditions, standards and approvals** | | | | |
| Operating temperature | 0 – 40°C | | | |
| Storage temperature | -15 – 50°C | | | |
| Rel. air humidity | 0 – 90% | | | |
| Noise level | silent | | | |
| Safety | EN62040-1: 2008 +A1: 2013 | | | |
| EMC, Performance | EN62040-2: 2006 | | | |
| Approval | CE | | | |
| Protection class | IP20 | | | |
| **Dimensions / Weight** | | | | |
| Dimensions (W x H x D) | 80.1 x 177.5 x 232 | | 90.9 x 238.7 x 282 | |
| Weight | 3,3kg | 3,8kg | 5,7kg | 6,6kg |

## 9.2 Rear view

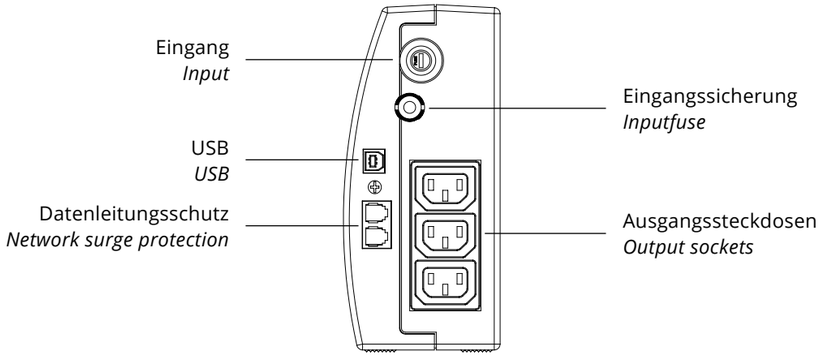


Figure 4: Rear view of YUNTO 500 - 800

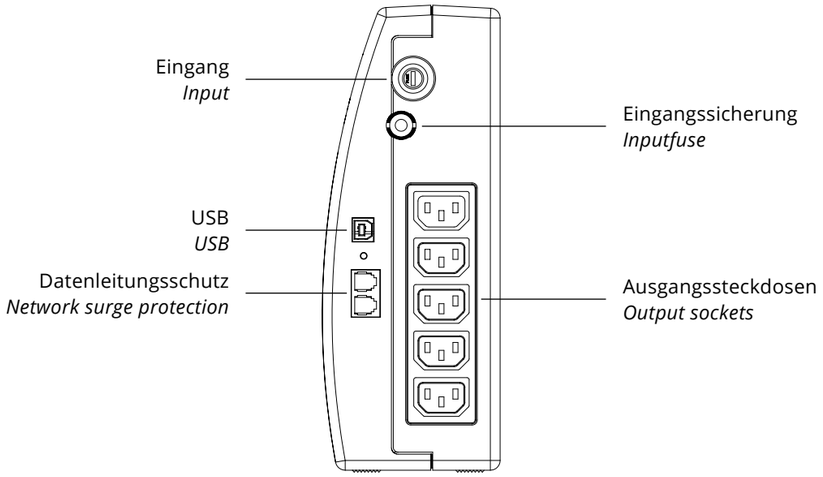


Figure 5: Rear view of YUNTO 1200 - 1500

## 9.3 CE confirmation

CE

# DECLARATION OF CONFORMITY

PREMIUM PRODUCT

Herewith we confirm,

**ONLINE USV-Systeme AG,**

that

**Product:** **Uninterruptible Power Supply**

**Typ:** **YUNTO 500 (Art.-Nr. Y500)**
**YUNTO 800 (Art.-Nr. Y800)**
**YUNTO 1200 (Art.-Nr. Y1200)**
**YUNTO 1500 (Art.-Nr. Y1500)**

corresponds to the provisions of following directives:

- 2014 / 35 / EU (Low voltage directive)
- 2014 / 30 / EU (EMC directive)

**For the evaluation of the compliance with these directives,**
**the following standards and specifications were applied:**

Low voltage directive:
EN62040-1: 2008 + A1: 2013
EN60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013 (just YUNTO 500, YUNTO 800)

EMC directive:
EN62040-2: 2006
EN61000-4-2: 2009, EN61000-4-3: 2006 + A1: 2008 + A2: 2010, EN61000-4-4: 2012,
EN61000-4-5: 2014, EN61000-2-2: 2002

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## 10 Warranty

ONLINE USV-Syteme AG (ONLINE) guarantees that this product will be free of material and production faults for a period of three years from the purchase date. ONLINE's obligation in accordance with this guarantee is restricted to the repair or replacement (at ONLINE's discretion) of any faulty products. Before warranty claims can be asserted, a Returned Material Authorization (RMA) number must be obtained from customer services. Products must be returned with the postage paid by the sender, a brief description of the problem and evidence of the place and date of purchase. This warranty does not apply to devices damaged by accidents, negligence or misuse or those which have otherwise been altered or modified.

Apart from the above exceptions, ONLINE accepts no explicit or tacit warranty, including a guarantee of conventional quality or suitability for a specific purpose. In some jurisdictions, the restriction or exclusion of tacit guarantees is prohibited, which means that the restrictions or exclusions above may not apply to the purchaser.

Irrespective of the above exclusions, ONLINE shall under no circumstances for direct, indirect, specific, auxiliary or subsequent damage caused as a result of the use of this product, even if ONLINE was informed about the possibility of such damage. In particular, ONLINE shall not be liable for costs of whatsoever nature, such as lost profit or revenue, loss of equipment, loss of the use of device, loss of software or data, replacement costs, third-party claims or other costs.



## Imprint

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