

# energenie

**USER MANUAL • HANDBUCH • HANDLEIDING • MANUALE D'USO •  
MANUAL DE USUARIO • MANUAL DO USUÁRIO • MANUEL DESCRIPTIF •  
INSTRUKCJA OBSŁUGI • UŽIVATELSKÝ MANUÁL • ІНСТРУКЦІЯ  
КОРИСТУВАЧА • POUŽÍVATEĽSKÁ PRÍRUČKA • VARTOTOJO VADOVAS  
• MANUAL DE UTILIZARE**



**EG-UPS0-6000  
EG-UPS0-10000**

**ONLINE UPS, 6000/10000 VA, USB + SNMP SLOT  
ONLINE-UPS, 6000/10000 VA, USB + SNMP-STECKPLATZ  
ONLINE UPS, 6000/10000 VA, USB + SNMP SLOT  
UPSONLINE, 6000/10000 VA, RANURA USB + SNMP  
UPS ONLINE, 6000/10000 VA, SLOT USB + SNMP  
UPS ONLINE, 6000/10000 VA, USB + SLOT SNMP  
ONDULEUR UPS, 6000/10000 VA, PORT USB + SNMP  
ONLINE UPS, 6000/10000 VA, USB + SNMP SLOT  
ONLINE UPS, 6000/10000 VA, GNIAZDO USB + SNMP  
ОНЛАЙН UPS, 6000/10000 ВА, USB + SNMP СЛОТ  
TIEŠSAISTES UPS, 6000/10000 VA, USB + SNMP SLOTS  
UPS ONLINE, 6000/10000 VA, SLOT USB + SNMP**

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## Important Safety Instructions

## Save these instructions

This manual contains important safety instructions. Read all safety and operating instructions before operating the uninterruptible power systems (UPS). Adhere to all warnings on the unit and in this manual. Follow all operating and user instructions. This equipment can be operated by individuals without previous training.

This product designed for commercial/industrial use only. It is intended for use with lift support and other designated "critical" devices. Maximum load must not exceed that shown on the UPS rating label. The UPS is designed for data processing equipment. If uncertain, consult your dealer or local representative.

This UPS is designed for use on a properly grounded (earthed), 220/230/240Vac, 50 or 60Hz supply. The factory default setting is 220Vac/50Hz. Installation instructions and warning notices are in this manual.

The UPS 06 –20 kVA@220/230/240Vac is designed for use with a three-wire input (L,N,G).



## WARNING

**The battery can present a risk of electrical shock and high short circuit current. Following precautions should be observed before replacing the battery.**

- Wear rubber gloves and boots.
- Remove rings, watches and other metal objects.
- Use tools with insulated handles.
- Do not lay tools or other metal objects on the batteries.
- If the battery is damaged in any way or shows signs of leakage, contact your local representative immediately.
- Do not dispose of batteries in a fire. The batteries may explode.
- Handle, transport and recycle batteries in accordance with local representative.



## WARNING

**Although the UPS has been designed and manufactured to ensure personal safety, improper use can result in electrical shock or fire. To ensure safety, observe the following precautions:**

- Turn off and unplug the UPS before cleaning it.
- Clean the UPS with a dry cloth. Do not use liquid or aerosol cleaners.
- Never block or insert any objects into the ventilation holes or other openings of the UPS.
- Do not place the UPS power cord where it might be damaged

## 1 Product Description

Congratulations on your choice of the UPS uninterruptible power system(UPS), the UPS comes in nominal power ratings of 6-20kVA. It is designed to provide conditioned power to computers and other sensitive electronic equipment.

This chapter gives a brief description of the UPS, including the UPS features, models, appearance, operating principle and specification.

### NOTICE:

Operated the UPS in an indoor environment only in an ambient temperature range of 0-40°C (32-104°F). Install it in a clean environment, free from moisture, flammable liquids, gases and corrosive substance.

This UPS contains no user-serviceable parts except the internal battery pack. The UPS “” push buttons do not electrically isolate internal parts. Under no circumstance attempt to gain access internally, due to the risk of electric shock or burn.

Do not continue to use the UPS if the panel indications are not in accordance with these operating instructions or the UPS performance alters in use. Refer all faults to your dealer.

Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the precautions. Keep unauthorized personnel away from the batteries. Proper disposal of batteries is required. Refer to your local laws and regulations for disposal requirement.

DO NOT CONNECT equipment that could overload the UPS or demand surge current from the UPS, for example: electric drills, vacuum cleaners, hair dryer, motors and so on.

DO NOT CONNECT equipment that is life related, for example: medical equipment, elevator and so on.

Storing magnetic media on top of the UPS may result in data loss or corruption.

Turn off and isolate the UPS before cleaning it. Use only a soft cloth, never liquid or aerosol cleaners.

### 1.1 Features

The UPS features include:

- ✧ Providing more highly efficient AC power, compared with the previous generation
- ✧ Full digital control technology based on DSP to achieve high reliability and power function
- ✧ Fan speed can be auto conditioned according to the loads, input voltage or working mode
- ✧ Digitally controlled charger current and voltage, compared with the previous generation which is fixed in hardware
- ✧ Super high-power density

### 1.2 Models

Available models are shown as Table 1-1:

Table 1- 1: Models

| Model         | Nominal Power | Type       |
|---------------|---------------|------------|
| EG-UPS0-6000  | 6kVA/6kW      | Online UPS |
| EG-UPS0-10000 | 10kVA/10kW    |            |

### 1.3 Appearance

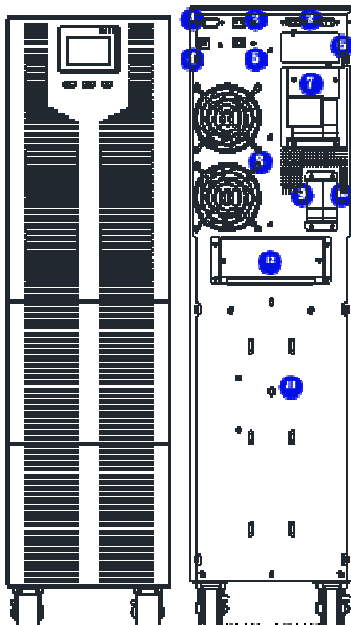


Fig 1- 1: Front View

Fig 1- 2: Rear View

As shown in Fig 1-2, the rear panel provides the following components and functions:

- ① RS232: DB9 type, used to connect monitoring software
- ② EPO: OFF
- ③ Parallel port: option
- ④ USB: B type, used to connect monitoring software
- ⑤ Battery temperature option
- ⑥ SNMP
- ⑦ Reserved: reserved for customer function, such as manual bypass, battery breaker, socket and so on
- ⑧ Fans: intelligent fan speed control
- ⑨ Bypass breaker: surge protection
- ⑩ Input breaker: surge protection
- ⑪ GND
- ⑫ Terminal cover

## 1.4 System Description

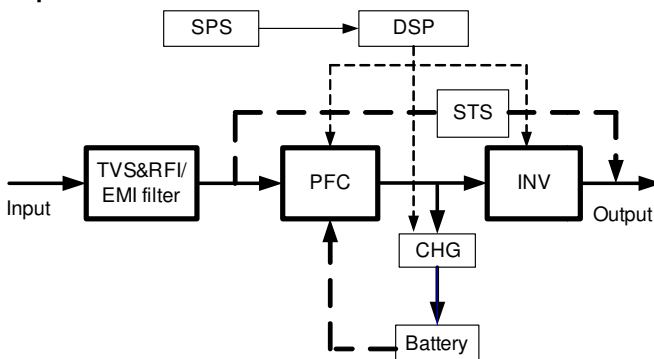


Fig 1- 3: UPS system

### 1.4.1 Transient Voltage Surge Suppression (TVSS) and EMI/FRI Filters

These UPS components provide surge protection and filter both electromagnetic interference (EMI) and radio frequency interference (RFI). They minimize any surge or interference present in the utility line and keep the sensitive equipment protected.

### 1.4.2 Rectifier/Power Factor Correction (PFC) Circuit

In normal operation, the rectifier/power factor correction (PFC) circuit converts utility AC power to regulated DC power for use by the inverter while ensuring that the waveform of the input current used by the UPS is near ideal. Extracting this sinewave input current achieves two objects:

- ✧ The utility power is used as efficiency as possible by the UPS.
- ✧ The amount of distortion reflected on the utility is reduced.

This results in cleaner power being available to other devices in the building not being protected by the UPS.

### 1.4.3 Inverter

In normal operation, the inverter utilizes the DC output of the power factor correction circuit and inverts it into precise, regulated sinewave AC power. Upon a utility power failure, the inverter receives its required energy from the battery through the DC-to-DC converter. In both modes of operation, the UPS inverter is on-line and continuously generating clean, precise, regulated AC output power.

### 1.4.4 Battery Charger

The battery charger utilizes energy from the DC bus and precisely regulates it to continuously charge the batteries. The batteries are being charged whenever the UPS is connected to utility power.

### 1.4.5 DC to DC Converter

The DC to DC converter utilizes energy from the battery system and raises the DC voltage to the optimum operating voltage for the inverter. The converter includes boost circuit which is also used as PFC.

## 1.4.6 Battery

The 6KS/10KS Standard includes value regulated, sealed lead acid, maintenance free batteries inside. To maintain battery design life, operate the UPS in an ambient temperature of 15-25°C.

## 1.4.7 Static Bypass

The UPS provides an alternate path for utility power to the connected load in the unlikely event of a UPS malfunction. Should the UPS have an overload, over temperature or any other failure condition, the UPS automatically transfers the connected load to bypass. Bypass operation is indicated by an audible alarm and illuminated amber Bypass LED. To manually transfer the connected load from the inverter to bypass, press the “◀ + ▶” button once.

**NOTICE:** The bypass power path does NOT protect the connected equipment from disturbances in the utility supply.

## 1.5 UPS Working Mode

Normally UPS working mode include normal mode, bypass mode, battery mode, ECO mode, frequency converter mode, self aging mode.

### Normal Mode

Shown as Fig 1-4, rectifier supply DC supply to inverter, the load is feed by inverter. Charger is charging the battery.

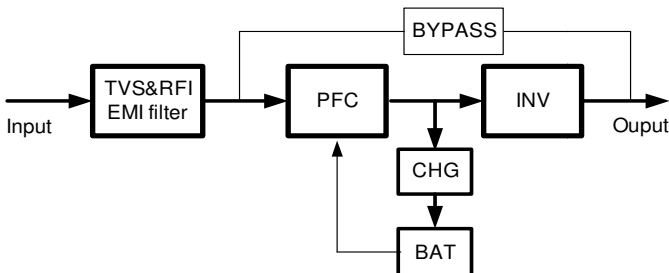


Fig 1- 4: Normal Mode

### Static Bypass Mode

If inverter is failure or overload, UPS will transfer to bypass mode. Or press “◀ + ▶” to transfer to bypass mode in normal mode. The load is feed by input power directly, and UPS cannot protect load from surge. Shown as Fig 1-5.

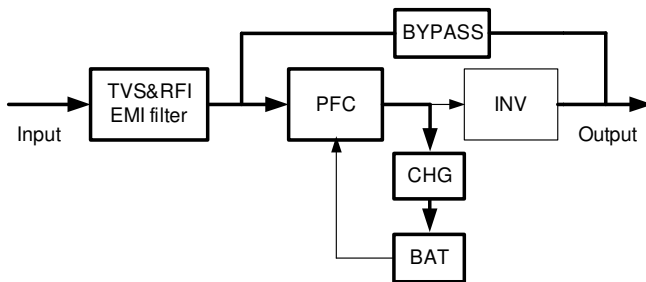


Fig 1- 5: Bypss Mode

## Battery Mode

If input power is failure when in normal mode, UPS will transfer to battery mode. In this mode, the battery provide power to inverter. Shown as Fig 1-6.

NOTICE: press“ ◀ + ▶ ”in battery mode will shutdown UPS completely.

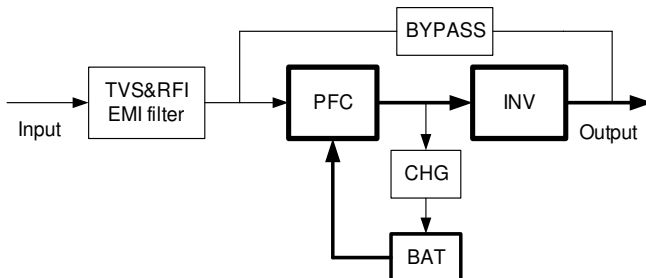


Fig 1- 6: Battery Mode

## ECO Mode (only available for single unit)

When UPS works in ECO mode, load is feed by bypass. Inverter is standby, charger is working normally. The efficiency is up to 98%, but UPS can protect the load from surge disturb. If input power is failure, UPS transfer to battery mode. Shown as Fig 1-7.

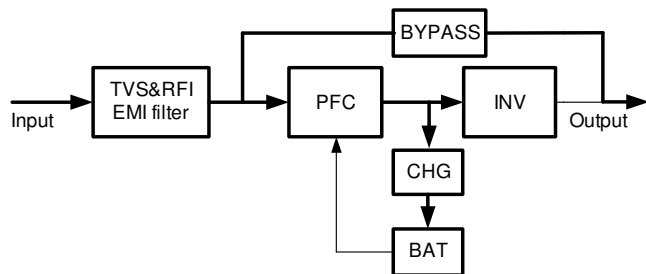


Fig 1- 7: ECO Mode

## Frequency Converter Mode

In this mode, input and output nominal frequency is different, and the bypass is forbidden to use.

**NOTICE:** if overload timeout, UPS will shutdown output.

**NOTICE:** the load should be derated to 50% and below.

## Self Aging Mode

If users want to burn in UPS without load, could set the UPS as Self Aging Mode, in this mode, the current flow through rectifier, inverter, and back to input through bypass. It needs only 5% loss to burn in UPS with 100% load. Shown as Fig 1-8.

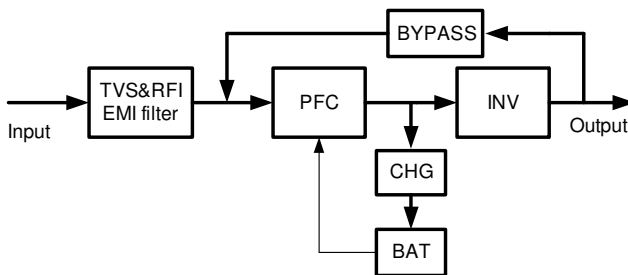


Fig 1- 8: Self Aging Mode

## 1.6 Product Specifications

| Model                     |         | 6KVA                     | 10KVA           |
|---------------------------|---------|--------------------------|-----------------|
| Power Rating              |         | PF=1, kVA=kW             |                 |
| Frequency (Hz)            |         | 50/60                    |                 |
| Input                     | Voltage | (176-288)Vac             |                 |
|                           | Current | Max. 36A                 | Max. 60A        |
| Battery                   | Voltage | 192Vdc                   |                 |
|                           | Current | Max. 40A                 | Max. 67 A       |
| Output                    | Voltage | 220(default) /230/240Vac |                 |
|                           | Current | 27 A                     | 45.5A           |
| Efficiency                |         | Max. 94.5%               | Max. 95%        |
| Dimension (WxDxH)<br>(mm) |         | 310 x 685 x 941          | 310 x 685 x 941 |
| Weight (kg)               |         | 53                       | 62              |

## 2 Installation

The system should be installed and wired only by qualified electricians in accordance with applicable safety regulations.

**NOTICE:** UPS operation in sustained temperature outside the range of 15-25°C (59-77°F) reduces battery life.

### 2.1 Unpacking and Inspection

1. Unpack the packaging and check the package contents. The shipping package contains:
  - 1 UPS
  - 1 user manual
2. Inspect the appearance of the UPS to see if there is any damageduring transportation. Do not turnon the unit and notify the carrier and dealer immediately if there is any damage or lacking of some parts.

### 2.2 Connect Input/Output Power

#### 1. Notes for installation

(1) The UPS must be installed in a location with good ventilation, far away from water, inflammable gas and corrosive agents.

(2) Ensure the air vents on the front and rear of the UPS are not blocked. Allow at least 0.5m of space on each side.

(3) Condensation to water drops may occur if the UPS is unpacked in a very low temperature environment. In this case it is necessary to wait until the UPS is fully dried inside out before proceeding installation and use. Otherwise there are hazards of electric shock.

(4) The circuit breaker (CB) with residual current device (RCD) should not be used in the input of UPS.

#### 2. Installation

Installation and wiring must be performed in accordance with the local electric code and the following instructions by professional personnel.

For safety, please cut off the mains power switch before installation. Open the battery breaker for long backup time model ("H" model).

(1) Open the terminal block cover located on the rear panel of the UPS, please refer to the appearance diagram.

(2) For 6/10kVA UPS, it is recommended to select the UL1015 10/8 AWG(6/10 mm<sup>2</sup>) wire or other insulated wire which complies with AWG Standard for the UPS input and output wirings.

**NOTICE:** Do not use the wall receptacle as the input power source for the UPS, as its rated current is less than the UPS's maximum input current. Otherwise the receptacle may be burned and destroyed. For the long backup time modes, make sure that the capacity of batteries is larger than 24Ah to avoid over charging. If not, please confirm the charge current and set the charge current according to battery capacity.

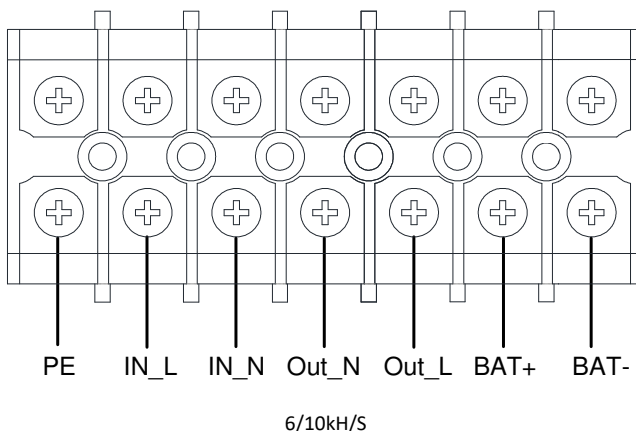


Fig 2- 1: Terminal Block Wiring Diagram

**NOTICE:** Make sure that the input and output wires and the input and output terminals are connected tightly.

(4) Connect the input, output and battery wires to the terminals as Fig2-1.

(5) The protective earth ground wire refers to the wire connection between the equipment which consumes electric equipment and the ground wire. The wire diameter of protective earth ground wire should be at least as above mentioned for each model and green wire or green wire with yellow ribbon wire is used.

(6) After having completed the installation, make sure the wiring connection is correct.

(7) Please install the output breaker between the output terminal and the load.

(8) To connect the load with the UPS, please turn off all the loads first, then perform the connection and finally turn on the loads one by one.

(9) No matter the UPS is connected to the utility power or not, the output of the UPS may have electricity. The parts inside the unit may still have hazardous voltage after turning off the UPS. To make the UPS have no output, power off the UPS, and then disconnect the utility power supply.

(10) Suggest charging the batteries for 8 hours before use. After connection, turn the input breaker in the "ON" position, the UPS will charge the batteries automatically. You can also use the UPS immediately without charging the batteries first, but the backup time may be less than the standard value.

(11) If it is necessary to connect the inductive load such as a motor or a laser printer to the UPS, the start-up power should be used for calculating the capacity of the UPS, as its start-up power consumption is too big when it is started.

## 2.3 Connect Parallel Cables

### 1. Brief introduction

As long as the UPS is equipped with parallel cables, up to 4 UPS can be connected in parallel to realize output power sharing and power redundancy. The unit ID in paralleled system must be set to be different.

## **2. Parallel installation**

(1) Users need to opt two standard 15-pin communication cables which length is appropriate to be less than 3m.

(2) Strictly follow the stand-alone wiring requirement to perform the input wiring of each UPS.

(3) Connect the output wires of each UPS to an output breaker panel.

(4) Each UPS needs an independent battery pack.

(5) Please refer to the wiring diagram in the next page, and opt suitable breaker.

The requirement of the output wiring is as follows:

- It's recommended that the wires of output of the UPS to be less than 20m.
- The difference between the wires of input & output of the UPS is required to be less than 10%.

The wiring diagram is shown as follows:

Fig 2- 2: Parallel Wiring Diagram

## 2.4 Connect Communication Cables

Connect communication cables:

If there are 2 UPS are paralleled, connect communication cables as Fig2-3.

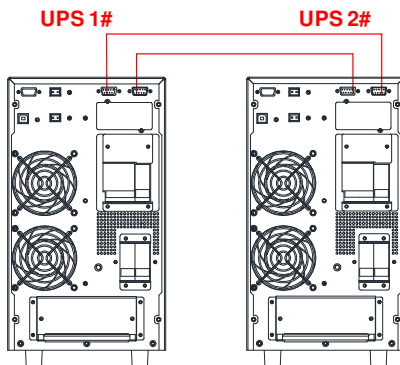


Fig 2- 3: 2 UPS Paralleled System

If there are 3 UPS are paralleled, connect communication cables as Fig 2-4.

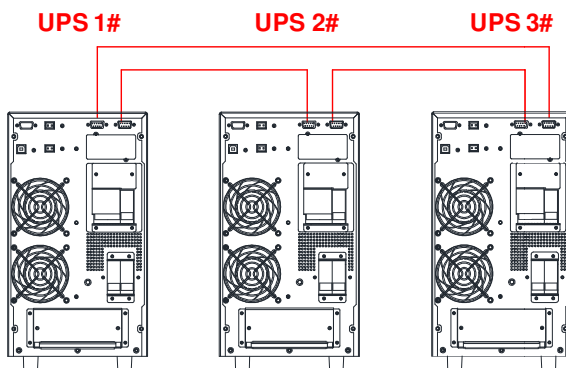


Fig 2- 4: 3 UPS Paralleled System

**NOTICE:** must set the UPS is parallel system as “**parallel work mode**” via software according to “**Annex A**” before start parallel system

## 3 Controls and Indicators

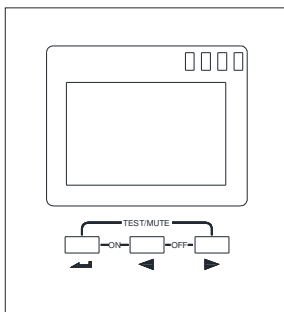


Fig 3- 1: Display Panel

### Description of Panel

| Controls | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | <p>1. Press “ ” to power on the UPS from battery without utility power.</p> <p><b>NOTE</b></p> <p>Not available when UPS is set in automatically start mode</p> <p>2. Press “ +  ”to start inverter when rectifier is OK</p> <p>3. Press “ +  ”to start the ups from battery without utility</p> <p>4. Press “ ”to confirm setting when in setting mode</p> <p>5. Press and hold “ ”to enter or exit the setting mode</p> <p>6. Press and hold “ +  ”to enter the self-test mode when ups is normal, otherwise to mute off the alarm, press and hold again to mute on.</p> |
|          | <p>1. Press “ ”to page up the LCD menu</p> <p>2. Press and hold “ ” to enter or exit the history inquiry interface</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|            | <p>3. Press “ ◀ + ▶ ” to shutdown inverter and transfer to bypass</p> <p>4. Press “ ◀ + ▶ ” to shutdown UPS completely when UPS is in battery mode</p>                  |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▶          | <p>1. Press “ ▶ ” to page down the LCD menu</p> <p>2. Press and hold “ ▶ ” to fault clear</p>                                                                           |
| Indicators | Description                                                                                                                                                             |
| 1. INV     | Inverter indicator: green--inverter is normal, green flicker—rectifier or inverter is starting or tracking with bypass(ECO), dark—rectifier and inverter is not working |
| 2. BAT     | Battery indicator: yellow—battery discharged, yellow flicker—No battery or battery alarm, dark—battery is connected                                                     |
| 3. BYP     | Bypass indicator: yellow—bypass is normal, yellow flicker—bypass is abnormal and alarm, dark—UPS is in normal mode and bypass is normal                                 |
| 4. FAULT   | FAULT indicator: red—UPS is abnormal, red flicker—UPS alarm, dark—UPS is normal                                                                                         |

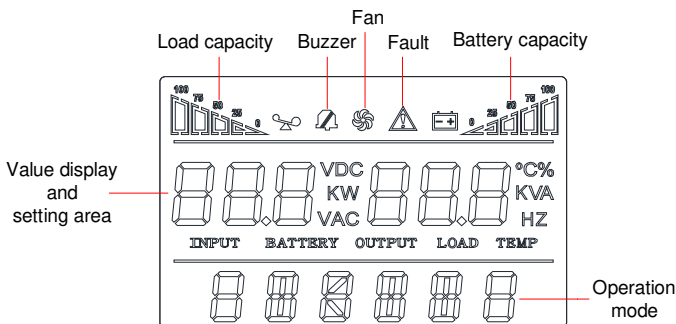


Fig 3- 2: LCD Menu

LCD display is divided into three areas: Icons display area, value display and settings area, and operation mode area.

❖ Icons display area:

◆ There are following contents in the area of display page

➤ Load and battery icons indicate load and battery capacity, and each square represents 25% of capacity. Load icon will flash when UPS is overloaded; battery icon will flash when battery capacity is too low or the battery is not connected.

➤ Fan icon indicates the working status of fans. Normally, the fan shows rotation status. The icon will flash if fans are disconnected or faulty;

➤ Buzzer icon indicates if the buzzer is mute. Normally, this icon doesn't display. Press and hold the "◀ + ▶" buttons in battery or fault mode or set monitoring software to set MUTE ON in any mode, the UPS will get into mute status and the buzzer icon will be illuminated.

➤ Fault icon is illuminated in fault mode, it doesn't display in other cases.

❖ Value display and settings area:

◆ The area of menu setting page showing the settable menu options

◆ The area of event log query page showing page number of history records

➤ In non-setting interface, it indicates the relevant information of UPS. Press the "◀" or "▶" button to display input voltage and frequency, output voltage and frequency, battery voltage and capacity, pieces of battery, load, temperature, software version, etc.

➤ The fault code will be displayed in fault mode.

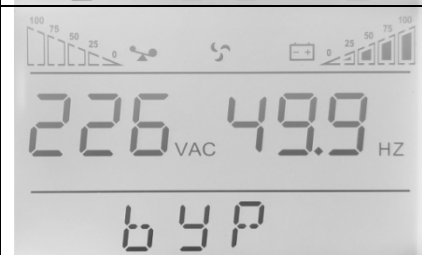
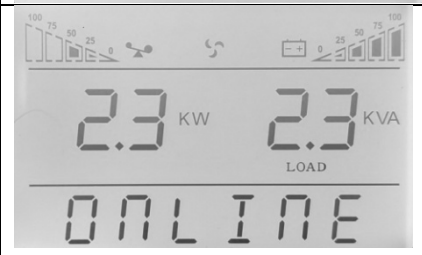
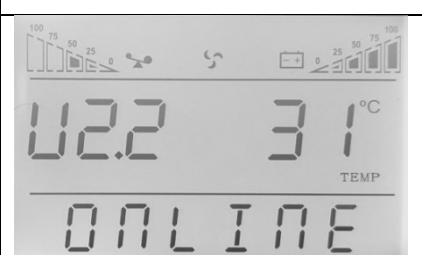
➤ In menu setting interface, include rate voltage value (OPU), physical address(Id), parallel Enable (PAL), Expert mode (EP), Battery numbers(PCS), Emergency power off (EPO), etc.

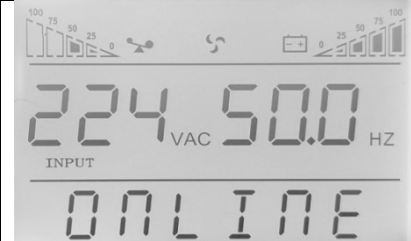
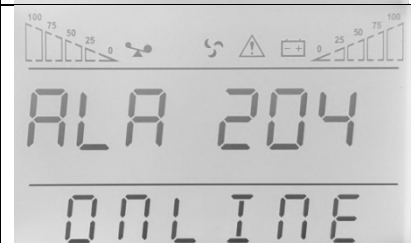
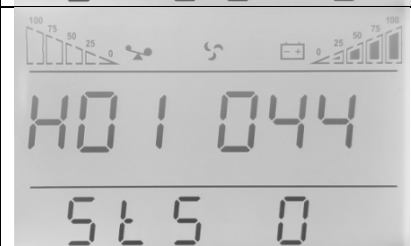
❖ Operation mode area:

➤ After starting up in 5 seconds, this display area mainly indicates the UPS power rating. This function is settable.

➤ This display area mainly indicates the UPS operation mode in 20 seconds after starting up, such as stdby (Standby mode), bypass (Bypass mode), online (Utility mode), bat (Battery mode), batt (Battery self test mode), fault (Fault mode), cucf (Frequency conversion mode), ECO (economy mode).

Description of LCD Menu:

| Page                                                                               | Description                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------|
|    | Page 1 (output interface): Display UPS output information        |
|    | Page 2 (bypass interface): Display UPS output information        |
|   | Page 3: Display UPS load information                             |
|  | Page 4: Display UPS software version and temperature information |

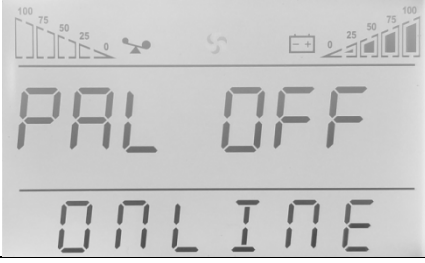
|                                                                                    |                                                                                                                                                                                   |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Page 5: Display UPS input information</p>                                                                                                                                      |
|    | <p>Page 6: Display UPS battery voltage, battery capacity percentage</p>                                                                                                           |
|    | <p>Page 7: Display UPS battery numbers,</p>                                                                                                                                       |
|   | <p>Warning code Page: Display UPS warning code (ALA means alarm) All warning code information refer to "troubleshooting".</p>                                                     |
|  | <p>H - history, H01 - first history event. 044 - history event code.<br/>StS0-event appears. 1- event disappears<br/>History event query is for qualified personnel use only.</p> |

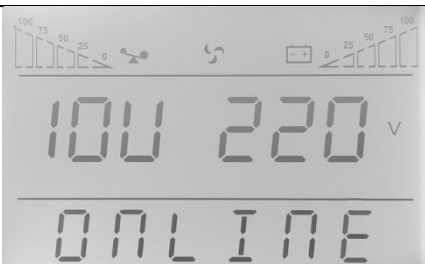
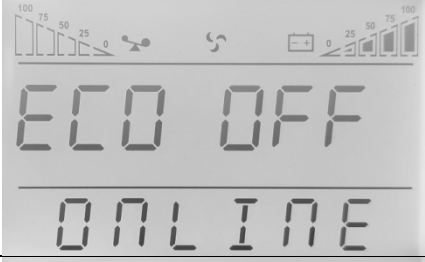
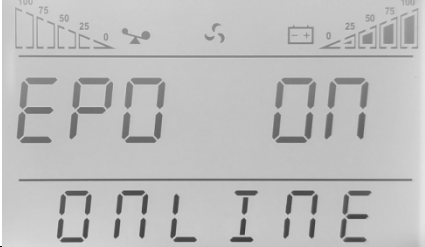
✧ History event query

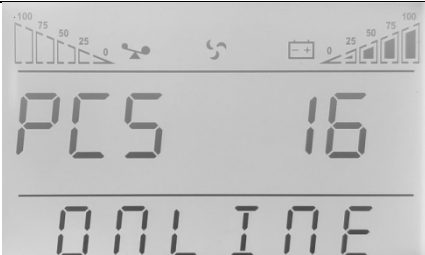
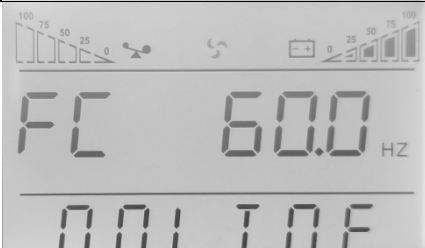
Press and hold the “◀” button to enter Event log query interface; Press inquiry button “◀” or “▶” to look over event logs with page turning. There are maximum 20 pages (600 pieces monitoring software) event logs records. Press and hold the “◀” button again to return to the home screen.

### Parameters setting

If want to set rated parameters, Press and hold “↵” in setting mode, the settable menu will flick.

|                         |                                                                                                                                                                                                                                                |                                                                                    |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Charger current setting | Charger current could be set as follow, Press “◀” or “▶” to select, press “↵” to confirm selection<br>Standard model:1A<br>Long backup model :1,2,3,4,5A<br>Optional charger 12A for 6-10kVA:1-12A<br>Optional charger 10A for 15-20kVA: 1-10A |   |
| Parallel ID setting     | 1- parallel Id1<br>In parallel mode, the parallel ID could be set as 1 to 19<br>press “◀” or “▶” to select, press “↵” to confirm selection                                                                                                     |   |
| Parallel mode setting   | Could select<br>ON: parallel mode<br>OFF: single mode<br>press “◀” or “▶” to select, press “↵” to confirm selection                                                                                                                            |  |

|                       |                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EP mode setting       | <p>Could select</p> <p>ON: enable, you can select EPO,ECO, Rated frequency, Battery number, Charger current setting</p> <p>OFF:disable (default doesn't work)</p> <p>Press" ◀ "or" ▶ "to select, press" ⏎ "to confirm selection</p> |  <p>The LCD display shows 'EP ON' on the top line and 'ONLINE' on the bottom line. Above the text are several status icons: a battery level indicator (0-100%), a fan speed indicator (0-100%), a temperature indicator (0-100%), a power switch icon, a battery icon, and a USB/SNMP slot icon.</p> |
| Rated voltage setting | <p>Could select rated voltage as 208Vac/ 220Vac/ 230Vac/ 240Vac, press " ◀ "or" ▶ " to select, press" ⏎ "to confirm selection. The setting will be activated after restart UPS.</p>                                                 |  <p>The LCD display shows '10U 220 V' on the top line and 'ONLINE' on the bottom line. The status icons are the same as in the first image.</p>                                                                                                                                                      |
| ECO mode setting      | <p>Could select</p> <p>ON: enable</p> <p>OFF: disable</p> <p>press " ◀ "or" ▶ " to select, press" ⏎ "to confirm selection</p>                                                                                                       |  <p>The LCD display shows 'ECO OFF' on the top line and 'ONLINE' on the bottom line. The status icons are the same as in the first image.</p>                                                                                                                                                        |
| EPO setting           | <p>Could select</p> <p>ON: enable</p> <p>OFF: disable (default doesn't work)</p> <p>Press" ◀ "or" ▶ "to select, press" ⏎ "to confirm selection</p>                                                                                  |  <p>The LCD display shows 'EPO ON' on the top line and 'ONLINE' on the bottom line. The status icons are the same as in the first image.</p>                                                                                                                                                        |

|                         |                                                                                                                                                                                                                        |                                                                                   |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Battery number setting  | Could select battery number as<br>16 blocks (192Vdc)<br>18 blocks (216Vdc)<br>20 blocks (240Vdc)<br>press "◀" or "▶" to select,<br>press "↵" to confirm selection.<br>The setting will be activated after restart UPS. |  |
| Rated frequency setting | Could select rated frequency as<br>50Hz/60Hz, press "◀" or "▶" to select, press "↵" to confirm selection. The setting will be activated after restart UPS.                                                             |  |

**NOTICE:** when rated voltage is 200/208Vac, the output PF is 0.9. If other parameters are needed to change, please set it via monitoring software.

## 4 Operation

### 4.1 Operation Mode

#### 4.1.1 Turn on the UPS in Normal Mode

(1) After you make sure that the power supply connection is correct, and then close the battery breaker (this step only for long backup time model), after that close the main input and bypass input breaker. At this time the fans rotate and the UPS operates in Bypass mode.

(2) After inverter LED start to flick, the BYPASS starts and bypass LED is yellow, now the output load is feed by bypass.

**NOTE:** In some application, UPS is set to start manually, you should press "↵" + "◀" to start inverter.

(3) The inverter LED is green, the UPS turn into normal working mode. If the utility power is abnormal, the UPS will operate in Battery mode without output interruption of the UPS.

#### 4.1.2 Turn on the UPS from Battery without Utility Power

(1) After you make sure that the breaker of the battery pack is in the "ON" position (this step only for long backup time model).

(2) Press "↵" button once to power on the UPS. Press "↵" + "◀" for 2s once buzzer is on.

(3) About 1 minute later, the UPS turns into Battery mode. If utility power recovers, UPS will transfer to normal mode.

## 4.1.3 Turn off the UPS in Normal Mode

- (1) Shutdown the connected load and open external output breaker
- (2) Press "◀ + ▶" button in condition of normal mode to transfer to bypass.
- (3) For long backup model, open the mains input breaker and bypass input breaker, then open the battery breaker to turn off UPS completely.
- (4) For standard model, open mains input and bypass input breaker, the UPS will shutdown completely after a few seconds.

## 4.1.4 Turn off the UPS in Battery Mode

- (1) To power off the UPS by pressing the "◀ + ▶" button for more than 1 second.
- (2) When being powered off, the UPS will turn into No Output mode. Finally not any display is shown on the display panel and no voltage is available from the UPS output.

**NOTICE:** Please turn off the connected loads before turning on the UPS and turn on the loads one by one after the UPS is working in INV mode. Turn off all of the connected loads before turning off the UPS.



**WARNING:** Internal DC bus still has hazardous high voltage in several minutes, please wait for at least 10 minutes to open UPS. And check the DC bus voltage before maintenance.

## 4.2 Parallel Operation

### 4.2.1 Turn on the UPS of Parallel System

Make sure the power cables and communication cables are correctly. Shown as Fig 2-2, Fig 2-3, Fig 2-4:

- (1) Close external output CB1 and CB2.
- (2) Close mains input breakers and bypass input breakers of UPS1 and UPS2, after about 2 minutes, UPS work in parallel mode.
- (3) Close external battery breakers.
- (4) Turn on load. The load is now powered by parallel system.

### 4.2.2 Turn off Parallel System

- (1) Turn off the connected load. Press the "◀ + ▶" button to transfer to bypass. Open output breakers. Open mains input and bypass input breakers of all UPS.
- (2) If is long backup model, open external battery breakers. After a few seconds, the UPS will shut down completely.

### 4.2.3 How to install a new parallel UPS system

- (1) Before installing a new parallel UPS system, user need to prepare the input and output wires, the output breaker, and the parallel cables.
- (2) Open the input and output breakers of each UPS. Connect the input wires, output wires and battery wires.
- (3) Connect each UPS one by one with the parallel cables.
- (4) Close the battery breakers and the input breakers of all of the UPS in the parallel system in turn.

(5) Turn on each UPS in turn and observe their display. Make sure that each UPS displays normal and all the UPS transfer to the INV mode normally.

#### 4.2.4 How to remove a single UPS from the parallel system

- (1) If you need to remove one UPS of the UPS parallel system which is in normal mode, press the "◀ + ▶" button of the UPS that is confirmed to be removed and the UPS will cut off its output immediately.
- (2) Turn off mains input breaker, bypass input breaker, the external mains input breaker, the output breaker and the battery breaker.
- (3) Press the others UPS's "◀ + ▶" button. All of them transfer to the Bypass mode.
- (4) Remove the parallel cables of the UPS that need to be removed.
- (5) Press "↶ + ▶" button of remained UPS to make the UPS transfer to INV output.

### 4.3 Maintenance Bypass Operation Mode

Maintenance bypass works when the inner of ups is cut off electric, output supply continuous electric for customer's loads.

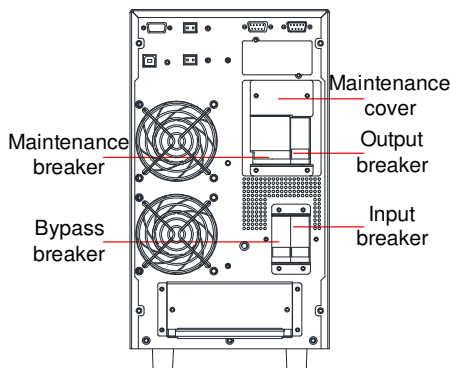


Fig 4- 1: Maintenance bypass

Maintenance bypass works under such procedures:

1. UPS works normally, no need to maintenance  
The input, bypass and output breakers are closed, but the maintenance bypass breaker is opened.
2. Maintenance bypass mode
  - (1) Take off the panel used to cover the maintenance bypass breaker, the ups turns into bypass mode and alarms.
  - (2) Close the maintenance bypass breaker. turn off the output breaker.
  - (3) Turn off the output breaker, then the input and bypass breaker
  - (4) Turn off the battery switch (the long backup UPS needs to turn off switch for external battery, standard ups needs to take off battery from positive and negative ports)
3. Maintenance is ok

- (1) Connect the battery lines from positive to negative ports for standard UPS. Turn on the external battery switch for long backup mode.
- (2) Close the input, bypass and output breaker.
- (3) While the ups is in bypass mode, Turn off the maintenance bypass breaker. Then recover the panel for the breaker.
- (4) Turn on the UPS.

## 5 Communication

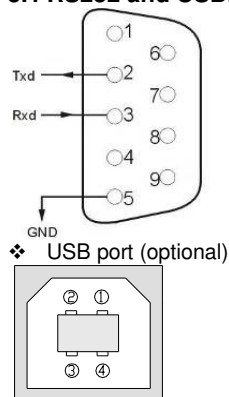
UPS includes several communication ports: RS232, EPO, SNMP card, USB, dry contact, RS485.

**NOTICE:** Only one of SNMP card, dry contact and RS485 can be at the same time. Only one of RS232 and USB is available at the same time.

Connect the UPS and monitoring equipment (computer) by standard RS232 port (standard configuration) and standard USB port (optional configuration) to make single unit communication.

- Connect RS232 (or USB) cable to the serial port of the computer (or USB port)
- Connect RS232 (or USB) cable to the serial port of the UPS (or USB port)

### 5.1 RS232 and USBPort



| Pins       | 1     | 2        | 3       | 4     | 5   |
|------------|-------|----------|---------|-------|-----|
| Definition | Empty | Transmit | Receive | Empty | GND |

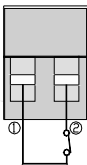
| Pins       | 6     | 7     | 8     | 9     |  |
|------------|-------|-------|-------|-------|--|
| Definition | Empty | Empty | Empty | Empty |  |

| Pins       | 1                     | 2     | 3      | 4   |
|------------|-----------------------|-------|--------|-----|
| Definition | Power source<br>+ 5 V | Data+ | Data - | GND |

## 5.2 EPO Port

The Emergency Power Off (EPO) is a feature that will immediately disconnect all connected equipment from mains power. The remoted EPO is located on the rear panel of UPS with green terminals shown as Fig 1-2. It's normal opened, if it's closed, it will activate EPO function, the UPS will be shutdown.

NOTE: The system default EPO doesn't work, if you want to use this feature, need to set the monitoring software function.



In normal condition, pins ① and pins ② are opened ;  
when perform Emergency Power Off, connect pins ① and pins ②.

## 5.3 Intelligent Cards (Optional)

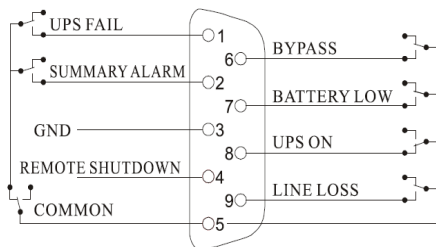
The UPS has one intelligent slot for SNMP card, dry contacts card and RS485 card. Intelligent cards are installed in the intelligent slots on the UPS rear panel, and there is no need to stop the UPS during installation. The installation procedure is as follows:

- Remove the cover plate of the intelligent slots
- Insert the required intelligent card into the slot
- Tighten the screws
- ✧ SNMP card (optional)

SNMP card is used to monitor the UPS via TCP/IP, user can check the UPS status, voltage and current on the internet. Please refer to the user manual of SNMP card to get more detailed information.

- ✧ Dry contacts card (optional)

Insert dry contacts card into the intelligent slot to monitor and manage the UPS.



| Pins | Definition                                   |
|------|----------------------------------------------|
| PIN1 | Close: UPS fault                             |
| PIN2 | Close: Alarm sounds (system fault)           |
| PIN3 | Grounding                                    |
| PIN4 | Remote shutdown                              |
| PIN5 | Common                                       |
| PIN6 | Close: bypass working                        |
| PIN7 | Close : low battery                          |
| PIN8 | Close : UPS working<br>Open : bypass working |
| PIN9 | Close : Mains power Off                      |

◇ RS485 card (optional)

RS485 is optional function for user to integrated monitoring and communication. RS485,SNMP and dry contact are installed in one intelligent slot A and B on the right side of ports are RS485 output, A is "+", B is "-".



## 6 Maintenance

This chapter includes battery maintenance, battery disposal and replacement, check UPS status and function.

### 6.1 Battery Maintenance

The UPS only requires minimal maintenance. The batteries used for standard models are value regulated, sealed lead-acid, maintenance free battery. When being connected to the utility power, whether the UPS is turned on or not, the UPS keeps charging the batteries and also offers the protective function of overcharging and over-discharging.

- (1) The UPS should be charged once every 4 to 6 months if it has not been used for a long time.
- (2) In the regions of hot climates, the battery should be charged and discharged every 2 months. The standard charging time should be at least 12 hours.
- (3) Under normal conditions, the battery life lasts 3 to 5 years. In case if the battery is found in bad condition, earlier replacement should be made.
- (4) Battery replacement should be performed by qualified personnel.
- (5) Replace batteries with the same number and same type of batteries.
- (6) Do not replace the battery individually. All the batteries should be replaced at the same time following the instructions of the battery supplier.

### 6.2 Battery Disposal

- (1) Before disposing of batteries, remove jewelry, watches and other metal objects.
- (2) Use rubber gloves and boots, use tools with insulated handles.
- (3) If it is necessary to replace any connection cables, please purchase the original materials from the authorized distributors or service centers, so as to avoid overheat or spark resulting in fire due to insufficient capacity.

- (4) Do not dispose of batteries or battery packs in a fire. The batteries may explode.
- (5) Do not open or mutilate batteries, released electrolyte is highly poisonous and harmful to the skin and eyes.
- (6) Do not short the positive and negative of the battery electrode, otherwise, it may result i electric shock or fire.
- (7) Make sure that there is no voltage before touching the batteries. The battery circuit is not isolated from the input potential circuit. There may be hazardous voltage between the battery terminals and the ground.
- (8) Even though the input breaker is disconnected, the components inside the UPS are still connected with the batteries, and there are potential hazardous voltages. Therefore, before any maintenance and repairs work is carried out, switch off the breaker of the battery pack or disconnect the jumper wire of connecting between the batteries.
- (9) Batteries contain hazardous voltage and current. Battery maintenance such as the battery replacement must be carried out by qualified personnel who are knowledgeable about batteries. No other persons should handle the batteries.

### 6.3 Battery Replacement Procedures

- (1) Press "◀ + ▶" button to transfer to bypass mode
- (2) Close the manual bypass breaker
- (3) Remove both side covers from the UPS.
- (4) Disconnect the battery wires one by one.
- (5) Remove metal bars which are used to fasten batteries.
- (6) Replace batteries one by one.
- (7) Screw metal bars back to UPS.
- (8) Connect the battery wires one by one. Take care of electrical shock while connecting the last wire.

### 6.4 Precaution

Although the UPS has been designed and manufactured to ensure personal safety, improper use can result in electrical shock or fire. To ensure safety, observe the following precautions:

- (1) Turn off the UPS before cleaning it;
- (2) Clean the UPS with a dry cloth. Do not use liquid or aerosol cleaners;
- (3) Never block or insert any objects into the ventilation holes or other openings of the UPS;

### 6.5 Checking UPS Status

It is recommended to check the UPS once every half year.

- (1) Check if the UPS is faulty: Are the LED indicators abnormal? Is there any alarm?
- (2) Check if the UPS is working in bypass mode: Normally, the UPS works in normal mode, if it's working in bypass mode, please check: overload, internal fault and so on.
- (3) Check if the battery is discharging: When the mains input is normal, the battery should not discharge, if the UPS is working in battery mode, please check: if mains input is failure, battery test, operator intervention and so on.

## 7 Troubleshooting

This chapter describes checking the UPS's status. This section also indicates various UPS symptoms a user may encounter and provides a troubleshooting guide in the event the UPS develops a problem. Use the following information to determine whether external factors caused the problem and how to remedy the situation.

If UPS alarms and buzzer sound, please press " ► " to get alarm code on the menu of alarm code on LCD. And press and hold" ► "to manually fault clear. If alarms is still existent, please check the problem follow the Table 7-1:

LCD display in fault mode is shown as below:



Fig 7- 1: Fault code

### Fault code informing:

| Fault Code | Cause              | Solution |
|------------|--------------------|----------|
| 35 - 39    | Inverter forbidden | /        |

|           |                       |                                                                                                                                                                                                                                                                               |
|-----------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 40 - 44   | over temperature      | Rectifier heat sink is over temperature or the temp sensor is not connected correctly.<br>Check if fans are working normally<br>Check if anything block ventilation<br>Check if the sensor is connected correctly<br>Check if the environmental temp is over the range of UPS |
| 45 - 49   | Output shorted        | Load is abnormal or output breaker is shorted.<br>Check if load is abnormal and the faulty load is shutdown<br>Check if output breaker is faulty<br>If the faulty load is removed, please manually fault clear to restart UPS.                                                |
| 50 - 54   | Overload              | Inverter is overload, please remove numbers of non-critical loads, or else UPS could transfer to bypass<br>If bypass overload, Check the load and remove some non-critical load until the load is below 95%                                                                   |
| 55 - 59   | Negative power fault  | Please contact your supplier.                                                                                                                                                                                                                                                 |
| 85 - 89   | Bus short             | Please contact your supplier.                                                                                                                                                                                                                                                 |
| 120 - 124 | Inverter fault        | Inverter voltage is abnormal, or inverter IGBT opened. Please manually clear the fault and if the fault is still on, please contact with local dealer                                                                                                                         |
| 130 - 134 | Inverter relay opened | Inverter relay is opened. Please contact with local dealer                                                                                                                                                                                                                    |
| 135 - 139 | Rectifier fault       | DC bus over voltage, low voltage, shorted or IGBT opened. Please manually clear the fault and if the fault is still on, please contact with local dealer                                                                                                                      |
| 145 - 149 | Fan fault             | One or more fans are faulty or blocked<br>Check if all fans working normally<br>Check if something blocks fan                                                                                                                                                                 |
| 150 - 154 | EPO                   | Check if EPO is closed correctly<br>Check if EPO is activated manually                                                                                                                                                                                                        |
| 155 - 159 | SPS abnormal          | Please contact your supplier.                                                                                                                                                                                                                                                 |

### Note:

Contact the supplier if display screen shows other fault information. After troubleshooting, please manually fault clear to restart UPS.

LCD display warning code is as shown below (ALA means alarm):



Fig 7- 2: Warning code

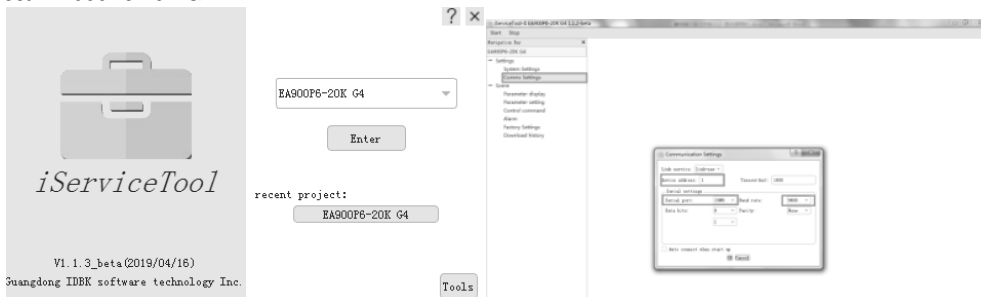
### Warning code informing:

| Warning code | Warning name                | Solutions                                                                                                                          |
|--------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 200          | Parallel cables error       | Check if all parallel communication cables are connected correctly                                                                 |
| 202          | Battery reversed            | Check if battery cables are connected correctly<br>Check if inverter cables of battery packs are connected correctly               |
| 203          | Overload                    | Remove non-critical devices to reduce the loads connected to UPS.                                                                  |
| 204          | No battery                  | Check if the battery cables are connected correctly<br>Check battery breaker or fuses are opened<br>Check if batteries are damaged |
| 205          | Input over current          | Check if rectifier IGBT is broken, DC bus is shorted, or IGBT drivers are lost, input voltage display is wrong.                    |
| 206          | Battery overcharged         | Switch off battery breaker, remove devices connected to UPS, shutdown UPS, and replace new charger.                                |
| 208          | Charger fail                | Charger is faulty or is not disconnected. Please contact with local dealer                                                         |
| 209          | EEPROM fault                | Clean the warning by LCD panel or using debug software. Or shutdown UPS and startup again.                                         |
| 210          | Input over current time out | Check the input voltage is abnormal                                                                                                |
| 211          | Battery voltage low         | Remove non-critical devices and charge the battery as soon as possible.                                                            |

|     |                                       |                                                                                                                                                                                                                                                                                                                                                                |
|-----|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 214 | Synchronize signal loss               | Check whether the parallel wire connecting and parallel boards are abnormal or not.                                                                                                                                                                                                                                                                            |
| 215 | CAN communication fail                | Check whether the parallel wire connecting and parallel boards are abnormal or not.                                                                                                                                                                                                                                                                            |
| 217 | Bypass fault                          | Check whether bypass voltage is normal or not.                                                                                                                                                                                                                                                                                                                 |
| 220 | Over synchronization                  | Bypass voltage or frequency is over tracking range. There could be interruption if manually transfer to bypass or inverter is faulty                                                                                                                                                                                                                           |
| 221 | Over transfer times                   | Mains and battery or inverter and bypass transfer for 5 times in 1hour                                                                                                                                                                                                                                                                                         |
| 222 | End of discharge                      | Charge the battery as soon as possible.                                                                                                                                                                                                                                                                                                                        |
| 223 | Battery test ok                       |                                                                                                                                                                                                                                                                                                                                                                |
| 224 | Forbidden startup UPS                 | Check whether mains voltage and frequency is normal or not.                                                                                                                                                                                                                                                                                                    |
| 225 | Battery test is abnormal              | /                                                                                                                                                                                                                                                                                                                                                              |
| 226 | Parallel current unbalance            | Check whether the parallel wire connecting and parallel boards are abnormal or not.                                                                                                                                                                                                                                                                            |
| 228 | Battery maintenance ok                | /                                                                                                                                                                                                                                                                                                                                                              |
| 229 | Battery maintenance is abnormal       | /                                                                                                                                                                                                                                                                                                                                                              |
| 230 | Input current unbalance               | /                                                                                                                                                                                                                                                                                                                                                              |
| 233 | Over transfer times                   | Mains and battery transfer for 5 times in 1hour,while Bus is low                                                                                                                                                                                                                                                                                               |
| 234 | Utility abnormal                      | UPS mains input is abnormal.<br>Check if mains input is normal<br>Check if mains input voltage and frequency is over the working range<br>Check if mains input breaker or external input breaker is opened<br>Check if the input phase sequence against<br>Please recover mains input power, otherwise output will be shutdown if battery is discharged to EOD |
| 235 | Bypass abnormal                       | Check if bypass input power is abnormal<br>Check if bypass input breaker is opened<br>Please recover bypass input power, otherwise there will be no backup circuit when UPS is faulty                                                                                                                                                                          |
| 238 | Battery voltage is abnormal(reserved) | /                                                                                                                                                                                                                                                                                                                                                              |
| 241 | Manual bypass on                      | Manual bypass is closed, the UPS will transfer to bypass and forbidden to transfer back to inverter                                                                                                                                                                                                                                                            |

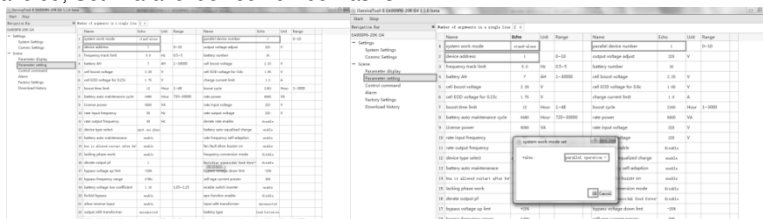
## Annex A Parallel Setting

1. Connect UPS1# with RS232 cable to PC. Connect UPS with monitoring software “i-ServiceTool”.  
Select “EA900P6-20K G4”.



2. Enter in menu “Settings”, set “device address” as “1” and “baud rate” as “9600”, select the right serial port in menu “Communication Setting”. Click “OK” to connect UPS

3. Enter in menu “Scene”, set “System Work Mode” as “Parallel Operation”, “Parallel device number” as “2”, “Parallel device address” as “1” in the menu “Parameter Setting”. Click “ok” to confirm setting. If there are 3 UPS are paralleled, Set “Parallel device number” as “3”.



4. Connect UPS2# and set “System Work Mode” as “Parallel Operation”, “Parallel device number” as “2”, “Parallel device address” as “2” in the menu “Parameter Setting”. Click “ok” to confirm setting. If there are 3 UPS are paralleled, Set “Parallel device number” as “3”.

Notice: Setting the “Parallel device address” as “2” will cause communication fail, please reset “device address” as “2” in menu “Communication Setting” to reconnect UPS.

5. Connect UPS3# and set “System Work Mode” as “Parallel Operation”, “Parallel device number” as “3”, “Parallel device address” as “3” in the menu “Parameter Setting”.

You also can set the “Parallel mode” and “Parallel ID” by the LCD.

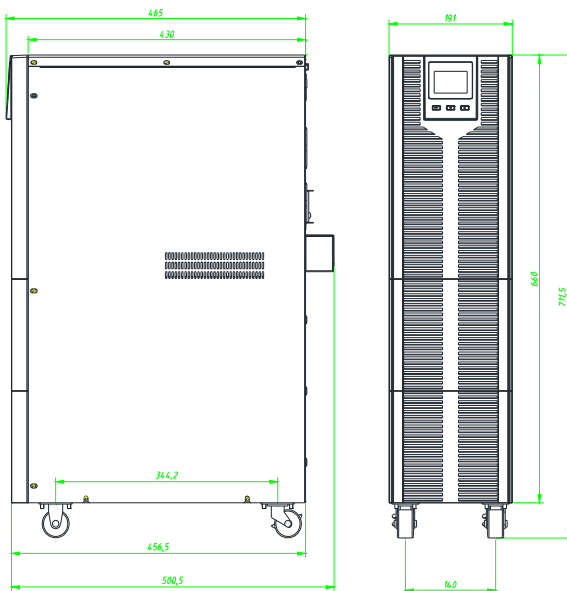
1. Power on the UPS1#, Press and hold “” to enter the setting mode, Press “” or “” to “PAR” and “Id”, Set “Parallel mode” as “ON” and “Parallel ID” as “1”. Press “” or “” to select, press “” to confirm selection

2. Power on the UPS2#, Press and hold “” to enter the setting mode, Press “” or “” to “PAR” and “Id”, Set “Parallel mode” as “ON” and “Parallel ID” as “2”. Press “” or “” to select, press “” to confirm selection



## Annex B Mechanical Size

6kVA / 10kVA model



## Annex C Battery Run Time

Standard battery pack includes 16 blocks 9Ah batteries. Please refer to the table below for the battery runtime to configure battery packs.

| Pack's number | UPS | Backup Time (mins) |     |     |     |     |     |     |     |     |      |
|---------------|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|
|               |     | 1KW                | 2KW | 3KW | 4KW | 5KW | 6KW | 7KW | 8KW | 9KW | 10KW |
| 1             | 6k  | 60                 | 25  | 16  | 10  | 6   | /   | /   | /   | /   | /    |
|               | 10k | 60                 | 25  | 16  | 10  | 6   | /   | /   | /   | /   | /    |
| 2             | 6k  | 180                | 60  | 30  | 24  | 20  | 16  | /   | /   | /   | /    |
|               | 10k | 180                | 60  | 30  | 24  | 20  | 16  | 13  | 10  | 8   | 7    |
| 3             | 6k  | 240                | 120 | 60  | 40  | 28  | 23  | /   | /   | /   | /    |
|               | 10k | 240                | 120 | 60  | 40  | 28  | 23  | 20  | 18  | 16  | 15   |
| 4             | 6k  | 360                | 180 | 110 | 60  | 42  | 30  | /   | /   | /   | /    |
|               | 10k | 360                | 180 | 110 | 60  | 42  | 30  | 26  | 23  | 21  | 20   |
| 5             | 6k  | 480                | 210 | 150 | 90  | 60  | 46  | /   | /   | /   | /    |
|               | 10k | 480                | 210 | 150 | 90  | 60  | 46  | 37  | 28  | 25  | 22   |

**NOTICE:** Backup time of batteries is depending on other facts such as battery brand, working temperature, working time and so on, the table is calculated according to ideal situation.

**NOTICE:** Set charger current according to battery capacity, the charger current should not be larger than 0.2C, normally the charger current is set as 0.1C. Too large charger current could damage the batteries.

## Software Download & Installation

### (Only for the model with communication port)

Please follow steps below to download and install monitoring software:

1. Go to the website <https://www.energenie.com/products.aspx?sg=88> , select you product model
2. Find and click software icon to download the software
3. Run it and follow the on-screen instructions to install the software



## **GENERAL INFORMATION**

This product has been manufactured by or on behalf of Gembird Europe B.V.. Inquiries to the EU Importer or related to product compliance in Europe should be sent to: Gembird Europe B.V., Wittevrouwen 56, 1358 CD, Almere, The Netherlands. [www.gmb.nl](http://www.gmb.nl)

**Warranty conditions:** [www.gmb.nl/warranty](http://www.gmb.nl/warranty)

**Product support:** [www.gmb.nl/service](http://www.gmb.nl/service) and/or [helpdesk@gembird.nl](mailto:helpdesk@gembird.nl)

## **SAFETY**

**(ENG)** To ensure safe handling of the product, follow the safety advice on: **(DE/AT)** HinweisezumsicherenGebrauch der Produktefinden Sie auf: **(NL/BE)** Vooreenveiliggebruik van het product volgt u dezealgemeneveiligheidsaanwijzingen op: **(ES)** Para garantizarunamanipulaciónsegura de losdispositivos, siga las advertencias de seguridaddisponiblesen: **(CZ)** Abystezajistilibežpečnoumanipulaci s výrobkem, dodržujtebezpečnostní pokynyna: **(FR/BE)** Pour garantirune manipulation sûre des appareils, suivez les consignes de sécurité sur: **(IT)** Per garantireunamanipolazione sicura del prodotto, seguireiconsigli di sicurezza: **(PT)** Para garantir o manuseioseguo do produto, siga as recomendações de segurançaem: **(PL)** Aby obchodzić się bezpiecznie z produktami, należyprzestrzegać wskazówekdotyczącychbezpieczeństwa: **(RO)** Pentruasiguraareaneimanipulăriîncondiții de siguranță a produsului, urmațirecomandările de securitate de pe: **(SK)** Na zaisteniebezpečnejmanipulácie so zariadeniamisariadtebezpečnostnýmipokynmina: **(SL)** Za zagotavljanjevarnegaravnjanja z napravami, upoštevajtevarnostnanavodila, ki jihnajdetena: **(HR)** Da bisteosiguralisigurnorukovanjeuređajima, pratitesigurnosnesavjetena web-mjestu: **(HU)** A készülékekbiztonságoskezelésénekérdekébenkövesse a biztonságitanácsokat**(BG)** Задаосигуритебезопаснаработанаустройствата, следвайтесъветитезабезопасностпо-долу: [www.gmb.nl/safety](http://www.gmb.nl/safety)

## **DECLARATION OF CONFORMITY**

**(ENG)** Hereby, Gembird Europe B.V., declares that this equipment is in compliance with Directive LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). The full text of the EU declaration of conformity is available at the following internet address: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) **(DE/AT)** Hiermiterklärt Gembird Europe B.V., dassdieseFunkanlage der RichtlinieLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU)entspricht. Der vollständige Text der EU Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) **(NL/BE)** Hierbij verklaart Gembird Europe B.V. dat deze radioapparatuur conform is met Richtlijn LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) **(ES)** Por la presente, Gembird Europe B.V. declara que este equipo es conforme con la LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). El texto completo de la declaración UE de conformidad está disponible en la dirección de Internet siguiente: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) **(CZ)** Gembird Europe B.V. potvrzuje, že toto rádiové zařízení je v souladu se směrnicí LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Úplné znění EU prohlášení o shodě je k dispozici na následující internetové adrese: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) **(FR/BE)** Le soussigné, Gembird Europe B.V., déclare que cet équipement est conforme à la Directive LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Le textecomplet de la déclaration UE de conformité est disponible à l'adresse internet suivante: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) **(IT)** Con la presente, Gembird Europe B.V.

dichiarachequestoapparecchioè conformeallaDirettivaLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Il testo completodelladichiarazione di conformità UE è disponibile al seguenteindirizzo Internet: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (PT) A Gembird Europe B.V. certifica que esteequipamento de rádioestá emconformidade com a DiretivaLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). O textocompleto da Declaração de Conformidade da UE está disponível no seguinteendereço da Internet: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (PL) Gembird Europe B.V. zaświadcza, że to urządzenieradiowe jest zgodne z Dyrektywą LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). PełnytekstDeklaracjiZgodności UE jest dostępny pod następującymadreseminternetowym: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (RO) Gembird Europe B.V. certică că acestechipament radio respectă DirectivaLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Textul integral al Declarației de conformitate UE este disponibil la următoareaadresă de internet: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (SK) Gembird Europe B.V. potvrdzuje, že toto rádiové zariadenie je v súlade so smernicouLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Úplné znenievyhĺásenia o zhode EÚ je k dispozícii natejtointernetovej adrese: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (SL) Gembird Europe B.V. potrjuje, da je ta radijskaoprema v skladu z DirektivoLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Celotnobesediloizjave EU o skladnosti je navoljonanaslednjemspletnemnaslovu: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (HR) Gembird Europe B.V. potvrđuje da je ova radijskaoprema u skladu s DirektivomLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Potpunitekst EU Izjave o sukladnostidostupan je nasljeđećoj internet adresi: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (HU) A Gembird europe B.V. tanúsítja, hogyez a rádióberendezésmegfelel a LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU) irányelvnek. Az EU megfelelőséginyilatkozatteljesszövege a következő internetescímenérhető el: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (GR) Δια του παρόντος, η Gembird Europe B.V., δηλώνειότι αυτός ο εξοπλισμός συμμορφώνεται μετηνΟδηγία LVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Το πλήρεςκείμενοτηςδήλωσηςσυμμόρφωσης EE διατίθεται στην ακόλουθηδιεύθυνσηΔιαδικτύου: [www.gmb.nl/certificates](http://www.gmb.nl/certificates) (BG) Gembird Europe B.V. удостоверява, четоварадиооборудванеотговаряна ДирективаLVD (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU). Пълният текст на ЕС декларацията за съответствие е достъпен на следния интернет адрес: [www.gmb.nl/certificates](http://www.gmb.nl/certificates)

## (ENG) Waste disposal:



The symbol of the crossed-out wheeled bin means that this appliance must not be disposed of with household waste at the end of its useful life. The appliance must be disposed of in specially set-up collection points, recycling yards or disposal companies. Retailers of electrical appliances with a sales area of at least 400 m² for electrical appliances and grocers with an area of 800 m², which offer electrical equipment several times a year, are obliged to take back electrical equipment. Return and disposal are free of charge for you. When you purchase a new device, you have the right to

return a corresponding old device free of charge. Please delete all personal data before returning the appliance. Before

returning, please remove the batteries or re-chargeable batteries that are not enclosed by the old device, as well as lamps that can be removed without destruction, and dispose them to a separate collection. (DE/AT) **Entsorgungshinweise:** Das Symbol der durchgestrichenen Mülltonne bedeutet, dass dieses Gerät am Ende der Nutzungszeit nicht über den Haushaltsmüll entsorgt werden darf. Das Gerät ist bei eingerichteten Sammelstellen, Wertstoffhöfen oder Entsorgungsbetrieben abzugeben. Händler von Elektrogeräten mit einer Verkaufsfläche von mind. 400 m² für Elektrogeräte und ebensmittelhändler mit einer Fläche von 800 m², die mehrfach im Jahr Elektrogeräte anbieten sind verpflichtet Elektrogeräte zurückzunehmen. Rückgabe und Entsorgung sind für Sie kostenfrei. Beim Kauf eines Neugerätes haben Sie das Recht, ein entsprechendes Altgerät unentgeltlich zurückzugeben. Bitte löschen Sie vor der Rückgabe alle personenbezogenen Daten. Bitte entnehmen Sie vor der Rückgabe Batterien oder Akkumulatoren, die nicht vom Altgerät umschlossen sind, sowie Lampen, die zerstörungsfrei entnommen werden können und führen diese einer separaten Sammlung zu. (NL) **Afvalverwijdering:** Het symbool van de doorgekruiste afvalbak betekent dat dit apparaat aan het einde van zijn levensduur niet bij het huisvuil mag worden gegooid. Het apparaat moet worden afgevoerd naar speciaal daarvoor ingerichte inzamelpunten, recyclingbedrijven of afvalverwerkingsbedrijven. Detailhandelaren in elektrische apparaten met een verkoopoppervlakte van ten minste 400 m² voor elektrische apparaten en kruideniers met een oppervlakte van 800 m² die meerdere keren per jaar elektrische apparaten aanbieden, zijn verplicht elektrische apparaten terug te nemen. Retourneren en afvoeren is voor u gratis. Bij aanschaf van een nieuw apparaat heeft u het recht om een bijbehorend oud apparaat kosteloos te retourneren. Wis alle persoonlijke gegevens voordat u het apparaat retourneert. Verwijder voor het retourneren batterijen of oplaadbare batterijen die niet bij het oude apparaat zijn ingesloten, evenals lampen die zonder vernietiging kunnen worden verwijderd, en lever deze in bij een gescheiden

inzamelpunt. **(FR/BE) Traitement des déchets:** Le symbole de la poubelle barrée d'une croix signifie que cet appareil ne doit pas être jeté avec les ordures ménagères en fin de vie. L'appareil doit être déposé dans des points de collecte spécialement aménagés, des parcs de recyclage ou des entreprises d'élimination. Revendeurs d'appareils électroménagers disposant d'une surface de vente d'au moins 400 m<sup>2</sup> pour appareils électroménagers et épiciers d'une superficie de 800 m<sup>2</sup>, qui proposent du matériel électrique plusieurs fois par an, sont dans l'obligation de reprendre le matériel électrique. Le retour et l'élimination sont gratuits pour vous. Lorsque vous achetez un nouvel appareil, vous avez le droit de retourner gratuitement un ancien appareil correspondant. Veuillez supprimer toutes les données personnelles avant de retourner l'appareil. Avant de retourner, veuillez retirer les piles ou les piles rechargeables qui ne sont pas enfermées dans l'ancien appareil, ainsi que les lampes qui peuvent être retirées sans destruction, et les jeter dans une collecte séparée. **(PL) Utylizacja odpadów:** Symbol przekreślonego kosza na śmieci na kółkach oznacza, że tego urządzenia nie wolno wyrzucać wraz z odpadami domowymi po zakończeniu jego okresu użytkowania. Urządzenie należy zutylizować w specjalnie do tego wyznaczonych punktach zbiórki, punktach recyklingu lub firmach zajmujących się utylizacją odpadów. Sprzedawcy sprzętu elektrycznego o powierzchni sprzedaży co najmniej 400 m<sup>2</sup> sprzętu elektrycznego oraz sklepy spożywcze o powierzchni 800 m<sup>2</sup>, które oferują sprzęt elektryczny kilka razy w roku, są zobowiązane do odbioru sprzętu elektrycznego. Zwrot i utylizacja są dla Państwa bezpłatne. Kupując nowe urządzenie, masz prawo do bezpłatnego zwrotu odpowiedniego starego urządzenia. Przed zwrotem urządzenia należy usunąć wszystkie dane osobowe. Przed zwrotem należy wyjąć baterie lub akumulatory, które nie są dołączone do starego urządzenia, a także lampki, które można wyjąć bez zniszczenia i przekazać je do osobnej zbiórki. **(CZ) Likvidace odpadu:** Symbol přeškrtnutého konteneru na kolečkách znamená, že tento spotřebič nesmí být na konci své životnosti likvidován s domovním odpadem. Spotřebič musí být zlikvidován ve speciálně zřízených sběrných místech, recyklačních dvorech nebo společnostech pro likvidaci odpadu. Povinnosti zpětného odběru elektrozařízení jsou malobchodníci s elektrospotřebiči s prodejní plochou minimálně 400 m<sup>2</sup> u elektrospotřebičů a potraviný s plochou 800 m<sup>2</sup>, kteří nabízejí elektrozařízení několikrát ročně. Vracení a likvidace jsou pro vás zdarma. Při nákupu nového zařízení máte právo zdarma vrátit odpovídající staré zařízení. Před vrácením spotřebiče vymažte všechna osobní data. Před vrácením vymažte baterie nebo dobijací baterie, které nejsou přiloženy ke starému zařízení, stejně jako lampy, které lze vyjmout bez zničení, a odevzdejte je do odděleného sběru. **(SK) Likvidácia odpadu:** Symbol prečiarknutého odpadkového koša na kolieskach znamená, že tento spotrebič sa po skončení životnosti nesmie likvidovať s domovým odpadom. Spotrebič sa musí likvidovať na špeciálne zriadených zberných miestach, v recyklačných dvoroch alebo v spoločnostiach na likvidáciu odpadu. Maloobchod s elektrospotrebičmi s predajnou plochou najmenej 400 m<sup>2</sup> pre elektrospotrebiče a potraviný s plochou 800 m<sup>2</sup>, ktorí ponúkajú elektrozariadenia niekoľkokrát do roka, sú povinní prevziať elektrozariadenia. Vrátenie a likvidácia sú pre vás bezplatné. Pri kúpe nového zariadenia máte právo bezplatne vrátiť zodpovedajúce staré zariadenie. Pred vrátením spotrebiča vymažte všetky osobné údaje. Pred vrátením vyberte batérie alebo nabíjateľné batérie, ktoré nie sú priložené k starému zariadeniu, ako aj lampy, ktoré je možné vybrať bez zničenia, a odozdvajte ich na separovaný zber. **(ES) Depósito de basura:** El símbolo del contenedor con ruedas tachado significa que este aparato no debe desecharse con la basura doméstica al final de su vida útil. El aparato debe desecharse en puntos de recogida, vertederos de reciclaje o empresas de eliminación de residuos especialmente habilitados. Minoristas de electrodomésticos con una superficie de venta de al menos 400 m<sup>2</sup> de electrodomésticos y ultramarinos con una superficie de 800 m<sup>2</sup>, que ofrecen equipos eléctricos varias veces al año, están obligados a retirar equipos eléctricos. La devolución y la eliminación son gratuitas para usted. Cuando compra un dispositivo nuevo, tiene derecho a devolver el dispositivo antiguo correspondiente de forma gratuita. Elimine todos los datos personales antes de devolver el aparato. Antes de devolverlo, retire las baterías o las baterías recargables que no estén incluidas en el dispositivo antiguo, así como las lámparas que se puedan quitar sin destruirlas, y deséchelas en un lugar de recolección separado. **(PT) Eliminação de resíduos:** O símbolo do caixote do lixo com uma cruz significa que este aparelho não deve ser eliminado juntamente com o lixo doméstico no final da sua vida útil. O aparelho deve ser descartado em pontos de coleta especialmente estabelecidos, pontos de reciclagem ou empresas de descarte. Os retalhistas de electrodomésticos com uma área de venda de pelo menos 400 m<sup>2</sup> para electrodomésticos e mercearias com uma área de 800 m<sup>2</sup>, que oferecem material eléctrico várias vezes por ano, são obrigados a aceitar a devolução do material eléctrico. A devolução e eliminação são gratuitas para si. Ao comprar um novo dispositivo, você tem o direito de devolver gratuitamente um dispositivo antigo correspondente. Apague todos os dados pessoais antes de devolver o aparelho. Antes de devolver, remova as baterias ou baterias recarregáveis que não estão incluídas no dispositivo antigo, bem como as lâmpadas que podem ser removidas sem destruição e descarte-as em uma coleta seletiva. **(IT) Smaltimento rifiuti:** Il simbolo del bidone su ruote barrato significa che questo apparecchio non deve essere smaltito insieme ai rifiuti domestici al termine della sua vita utile. L'apparecchio deve essere smaltito in punti di raccolta appositamente predisposti, centri di riciclaggio o ditte di smaltimento. Rivenditori di elettrodomestici con una superficie di vendita di almeno 400 m<sup>2</sup> per elettrodomestici e alimentari con una superficie di 800 m<sup>2</sup>, che offrono apparecchiature elettriche più volte all'anno, sono obbligate a ritirare le apparecchiature elettriche. La restituzione e lo smaltimento sono gratuiti per te. Quando acquisti un nuovo dispositivo, hai il diritto di restituire gratuitamente un vecchio dispositivo corrispondente. Si prega di cancellare tutti i dati personali prima di restituire l'apparecchio. Prima della restituzione, rimuove le batterie o le batterie ricaricabili non incluse nel Vecchio dispositivo, nonché le lampade che possono essere rimosse senza distruzione, e smaltirle in una raccolta separata. **(HR) Odlaganje smeća:** Simbol prekižene kante za smeće na kotačima znači da se ovaj uređaj ne smije odlagati s kućnim otpadom na kraju njegovog životnog vijeka. Uređaj se mora oložiti na posebno postavljenim sabirnim mjestima, reciklažnim dvorištima ili tvrtkama za zbrinjavanje. Trgovci na malo električnim uređajima s prodajnom površinom od najmanje 400 m<sup>2</sup> za električne uređaje i trgovine mješovitom robom s površinom od 800 m<sup>2</sup>, koji nude električnu opremu nekoliko puta godišnje, dužni su preuzeti električnu opremu. Povrat i zbrinjavanje su za vas besplatni. Kada kupite novi uređaj, imate pravo vratiti odgovarajući stari uređaj bez naknade. Prije vraćanja uređaja izbrisajte sve osobne podatke. Prije povrata uklonite baterije ili punjive baterije koje nisu priložene starom uređaju, kao i svjetiljke koje se mogu izvaditi bez uništenja, te ih odozle u zasebno prikupljanje. **(SI) Odlaganje odpadkov:** Simbol prečrtanega smetnjaka na kolesih pomeni, da tega aparata po koncu njegove življenjske dobe ne smete zavreči med gospodinske odpadke. Napravo je treba oddati na posebej postavljenih zbirnih mestih, reciklažnih mestih ali v podjetjih za odstranjevanje odpadkov. Trgovci na drobno z električnimi aparati s prodajno površino najmanj 400 m<sup>2</sup> za električne aparate in živilske trgovine s površino 800 m<sup>2</sup>, ki ponujajo električno opremo večkrat letno, so dolžni prevzeti električno opremo. Vračilo in odlaganje sta za vas brezplačna. Ob nakupu nove naprave imate pravico do brezplačnega vračila pripadajoče stare naprave. Pred vračilom aparata izbrisite vse osebne podatke. Prosimo, da pred vračilom

odstranite baterije ali polnične baterije, ki niso priložene stari napravi, ter svetilke, ki jih je mogoče odstraniti brez uničenja, in jih odvrzite na ločeno zbirališče. **(HU) Hulladékkézelés:** Az áthúzott, kerek szemeteskuka szimbóluma azt jelenti, hogy a készüléket hasznos élettartama végén nem szabad a háztartási hulladékkal együtt kidobni. A készüléket speciálisan kialakított gyűjtőhelyeken, újrahaznosító telepeken vagy ártalmatlanító cégekben kell leadni. Elektromos készülékek kiskereskedői legalább 400 m<sup>2</sup>-es elektromos készülékek és élelmiszerboltok értékesítési területével 800 m<sup>2</sup> alapterületű, évente többször kínáló elektromos berendezéseket kötelesek visszavenni. A visszaküldés és a selejtezés ingyenes az Ön számára. Új készülék vásárlásakor jogában áll a megfelelő régi készüléket ingyenesen visszaküldeni. Kérjük, a készülék visszaküldése előtt töröljön minden személyes adatot. Kérjük, hogy visszaküldés előtt távolítsa el az elemeket vagy újratölthető elemeket, amelyeket nem zárt be a régi készülék, valamint a roncsolás nélkül eltávolítható lámpákat, és helyezze el a szelektív gyűjtőbe. **(RO) Eliminarea deșeurilor:** Simbolul coșului de gunoi tăiat cu roți înseamnă că acest aparat nu trebuie aruncat împreună cu deșeurile menajere la sfârșitul duratei sale de viață. Aparatul trebuie aruncat în puncte de colectare special amenajate, curți de reciclare sau companii de eliminare. Comercianții cu amănuntul de aparate electrice cu o suprafață de vânzare de cel puțin 400 m<sup>2</sup> pentru electrocasnice și băcăniile cu o suprafață de 800 m<sup>2</sup>, care oferă echipamente electrice de mai multe ori pe an, sunt obligați să recupereze echipamentele electrice. Returnarea și eliminarea sunt gratuite pentru dvs. Când achiziționați un dispozitiv nou, aveți dreptul de a returna gratuit un dispozitiv vechi corespunzător. Vă rugăm să ștergeți toate datele personale înainte de a returna aparatul. Înainte de a returna, vă rugăm să scoateți bateriile sau bateriile reincărcabile care nu sunt incluse în vechiul dispozitiv, precum și lămpile care pot fi îndepărtate fără distrugere și aruncați-le într-o colectare separată. **(GR) Απόρριψη απορριμμάτων:** Το σύμβολο του διαγραμμένου κάδου απορριμμάτων σημαίνει ότι αυτή η συσκευή δεν πρέπει να απορρίπτεται μαζί με τα οικιακά απορρίμματα στο τέλος της ωφέλιμης ζωής της. Η συσκευή πρέπει να απορρίπτεται σε ειδικά διαμορφωμένα σημεία συλλογής, ναυπηγεία ανακύκλωσης ή εταιρείες απόρριψης. Οι έμποροι ηλεκτρικών συσκευών με επιφάνεια πώλησης τουλάχιστον 400 m<sup>2</sup> για ηλεκτρικές συσκευές και τα παντοπωλεία επιφάνειας 800 m<sup>2</sup>, που προσφέρουν ηλεκτρικό εξοπλισμό πολλές φορές το χρόνο, υποχρεούνται να πάρουν πίσω τον ηλεκτρικό εξοπλισμό. Η επιστροφή και η διάθεση είναι δωρεάν για εσάς. Όταν αγοράζετε μια νέα συσκευή, έχετε το δικαίωμα να επιστρέψετε μια αντίστοιχη παλιά συσκευή χωρίς χρέωση. Διαγράψτε όλα τα προσωπικά δεδομένα πριν επιστρέψετε τη συσκευή. Πριν επιστρέψετε, αφαιρέστε τις μπαταρίες ή τις επαναφορτιζόμενες μπαταρίες που δεν περικλείονται από την παλιά συσκευή, καθώς και τις λάμπες που μπορούν να αφαιρεθούν χωρίς να καταστραφούν και πετάξτε τις σε ξεχωριστή συλλογή. **(BG) Изхвърляне на отпадъци:** Символът на зачеркнатия кош за боклук на колела означава, че този уред не трябва да се изхвърля заедно с битовите отпадъци в края на полезния му живот. Уредът трябва да се изхвърли в специално създадени пунктове за събиране, площадки за рециклиране или фирми за изхвърляне. Търговците на дребно с електроуреди с търговска площ най-малко 400 m<sup>2</sup> за електроуреди и бакалииите с площ 800 m<sup>2</sup>, които предлагат електрически уреди няколко пъти в годината, са длъжни да приемат обратно електрическо оборудване. Връщането и изхвърлянето са безплатни за Вас. Когато закупите ново устройство, имате право да върнете безплатно съответното старо устройство. Моля, изтрийте всички лични данни, преди да върнете уреда. Преди да върнете, моля, извадете батериите или презареждаемите батерии, които не са включени в старото устройство, както и лампите, които могат да бъдат премахнати без унищожаване, и ги изхвърлете в отделно събиране.