User's Manual

UPS

Model: UPS1000VA Pro/600W

Thank you for choosing our UPS power supply!
Please carefully read this manual before use.

User's Manual

Disclaimer:

Before using our product, please carefully read this user manual to ensure you fully understand its contents and ensure correct usage. After careful reading, please keep the manual in a safe place for future reference. Failure to use this product properly in accordance with the manual may result in serious injury to you or others, product damage, or property loss. Using this product implies that you have read, understood, agreed to, and accepted all the terms and conditions stated in the entire document. Users are responsible for the consequences of their own actions while using this product. We hold no liability for losses resulting from users not adhering to this manual. In accordance with laws and regulations, we retain the right to finalize the interpretation of this document and all associated documents concerning this product. This document is subject to change, revision, or termination without prior notice. Kindly visit the official GOLDENMATE website for the latest product information.

I. Safety Precautions

1) Please ensure that you have thoroughly read this manual before operating the product as instructed.

2) Disconnect the switch before moving or reconnecting the product to prevent the risk of electric shock.

3) Children are prohibited to touch or operate the product to avoid potential danger.

4) Do not pile up other items on top of the product.

5) Do not bump, step on, drop, impact on, violently vibrate, or disassemble the product, to prevent unnecessary damage.

6) Do not immerse the product in water. If the product comes into contact with water or experiences water ingress, immediately isolate it and seek professional help.

7) Do not transport or store the product with conductive objects such as hairpins and necklaces.

8) Do not overload the product.

9) Do not disassemble the product to prevent unnecessary damage.

10) Avoid using organic solvents to clean the product shell.

11) If the product emits a strange odor or heat, undergoes discoloration or deformation, or exhibits any abnormalities during use, storage, or charging, immediately stop charging and usage. Remove it from the device and isolate it with safety. In the event of an accidental fire, use dry powder fire extinguishers or sand to extinguish the fire.

12) Do not deform the product forcefully, as it may damage electronic components or wiring sections, leading to unstable performance.

13) Use the original charging cable for charging purposes. We do not assume responsibility for any consequences resulting from the use of non-original charging cables.

14) If any liquids from the internal battery pack leak and come into contact with your eyes or skin, refrain from rubbing your eyes and rinse them thoroughly with water. Then promptly consult a doctor.

15) Please use the product within the specified temperature range, as the performance of the internal battery pack is greatly affected by temperature. This is evidenced by changes in backup time, which is a normal phenomenon.

16) Avoid condensation resulting from sudden changes in ambient temperature during use or storage, as it can lead to the failure of internal electronics or rusting of metal parts.

17) Do not use this product outdoors in rain or snow, as it may lead to an electric shock hazard.

18) Do not expose this product to fire, heat sources, water sources, direct sunlight, or temperatures exceeding 60℃, as this may result in an explosion.

19) Maintenance and replacement of lithium batteries must be conducted by professionals. Non-professionals are prohibited from performing these tasks. Ensure that batteries with the same specifications are installed during the process. Do not add additional batteries or attempt to expand the battery capacity.

20) For scrapped products, please adhere to local regulations regarding recycling and disposal.

21) The switch, LCD screen, and battery pack of the product are considered wear-and-tear parts, and after-sales service can be provided for a fee.

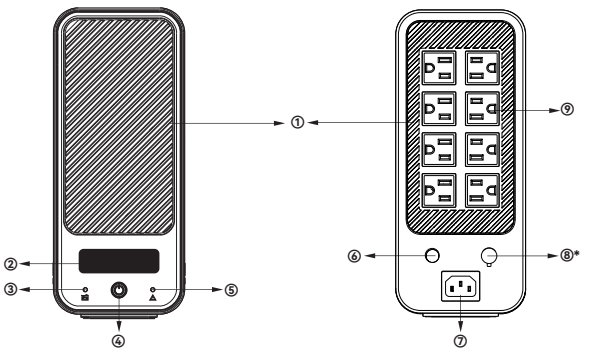
22) Avoid using the product in the following operating environments:

- Narrow spaces that impede heat dissipation.
- Places with temperatures and humidity levels exceeding the specified range.
- Places prone to vibration and collision.
- Places with strong static electricity or powerful magnetism.
- Places with metallic dust, corrosive substances, salts, or flammable gases.

II. Product Introduction

This product is an intelligent pure sine wave uninterruptible power supply powered by a lithium iron phosphate battery. It features a small size, lightweight design, and long service life, along with efficient energy conversion and reliable performance. In addition, this product effectively addresses common issues encountered with electrical appliances, including power outages, high and low mains voltage, instantaneous voltage drops, amplitude reduction oscillations, high voltage pulses, voltage fluctuations, surge voltages, harmonic distortion, electromagnetic interference, and frequency fluctuations. Moreover, it is well-suited for a wide range of applications, from computer equipment to automated systems in the communication industry.

1. Front/Rear Panel Description



① Ventilation holes
② LCD display
③ Status indicator (Green)
④ Switch
⑤ Status indicator (Red)
⑥ Overload protector switch
⑦ AC input socket
⑧ Communication interface (Note: This interface is for debugging purposes only and cannot communicate with the server.)
⑨ AC output socket

2. Start-up/Shutdown Instructions

2.1 Start-up

Press and hold the switch button for 3S, and the LCD display will light up. Then release the switch, and wait for the display to show the data normally. The start-up process is now complete.

2.2 Shutdown

Press and hold the switch button for 5S, and the LCD display will turn off. Then release the switch, and the shutdown process is complete.

3. LCD Display Description

3.1 Turning On/Off LCD Display

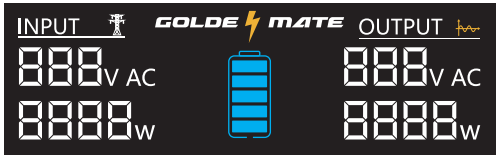
3.1.1 Mains mode

When the product is connected to the mains and there is no abnormality, the LCD display will turn off automatically but can be turned on by pressing the switch button. In case of any abnormalities, the LCD display will show a fault code, and turn off automatically after a period of time. If nothing is displayed, please press the switch button to check.

3.1.2 Battery mode

If the product is connected to abnormal mains power, the LCD display lights up automatically and remains on. If a product fault occurs, the LCD display shows the fault code and then turns off automatically.

3.2 LCD Display Description



	Product status display An illuminated icon indicates that the product is in mains mode.
	Product status display An illuminated icon indicates that the product is in battery mode.
	Battery level (SOC) display:

SOC ≤ 5%	No display
5 < SOC < 9%	Bar 1 blinks
10 ≤ SOC < 19%	Bar 1 is lit
20 ≤ SOC < 39%	Bars 1 and 2 are lit
40 ≤ SOC < 59%	Bars 1, 2 and 3 are lit
60 ≤ SOC < 79%	Bars 1, 2, 3 and 4 are lit
80 ≤ SOC ≤ 90%	Bars 1, 2, 3 and 4 are lit, and bar 5 blinks
90 < SOC ≤ 100%	Bars 1, 2, 3 , 4 and 5 are lit

	Input/output voltage display: Input voltage is displayed on the left. Output voltage is displayed on the right.
	① Input/output power display: Input power is displayed on the left. Output power is displayed on the right. ② See 4.2 for fault display and details description of the faults.
	Mains access/power input (charging) status
	Load access/power output (discharging) status

3.3 LCD Display Faults and Display Instructions

3.3.1 Fault code

No.	Fault code	Failure description	Troubleshooting
1	U1*	Product low voltage protection	**Mains returns to normal or restart the product**
2	U2*	Product high voltage protection	Contact after-sales service for assistance
3	U3*	Product short circuit protection	Switch off the product, disconnect all devices connected to the product's socket and restart it: ① Reconnect one device at a time; if the fault occurs again, disconnect the device causing the fault. ② Do not connect any devices, and if the fault occurs, contact after-sales service.
4	U4*	Product temperature protection	Turn off the product and set it aside for 4-6 hours; restart it, and if the fault recurs without triggering overload protection, contact after-sales service for assistance.

No.	Fault code	Failure description	Troubleshooting
5	U5*	Product overload protection	Switch off the product, disconnect all devices connected to the product's socket and restart it: ① Reconnect one device at a time; if the fault occurs again, disconnect the device causing the fault. ② Do not connect any devices, and if the fault occurs, contact after-sales service.
6	U6*	Product communication fault	Contact after-sales service for assistance
7	U9*	Product high output voltage protection	Contact after-sales service for assistance

Note: * indicates numbers 0-9

3.3.2 Display position of fault codes

Lower left corner of the display (picture above)

4. Indicator Light Description

No.	Indicator light	Buzzer	Input	Output	Description	Status
1	●Green●Red	No	No	No	No mains power, and the UPS is not turned on.	Shutdown
2	●Green●Red	No	No	Yes	Input mains power is normal, and the UPS is not turned on.	Charging
3	○Green●Red	No	Yes	Yes	Input mains power is normal, and the UPS is operating normally.	Normal
4	★Green●Red	Beep per 5 seconds	Yes	No	Input mains power is interrupted, and the product is powered by battery.	Abnormal mains power
5	★Green●Red	Beep per 2 seconds	Yes	No	Input mains power is interrupted, and the product is powered by battery. The power is low, and the product is about to shut down output.	Abnormal mains power
6	★Green★Red	Beep per 2 seconds	Yes	Yes	Input mains power is normal, with UPS output overload alarm. The load power needs to be reduced.	Alarm
7	★Green★Red	Beep per 2 seconds	Yes	No	Input mains power is interrupted, with UPS output overload alarm. The load power needs to be reduced.	Alarm
8	●Green○Red	Long whining	No	No	The UPS experiences output overload protection and short circuit protection.	Shutdown
9	★Green★Red	Long whining	No	No	The UPS experiences charging failure, battery failure, or temperature protection .	Shutdown

Note: ★ (blinking) ○ (lit) ● (off)

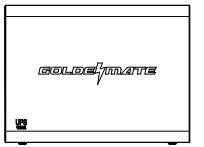
5. Buzzer Instructions

When the mains power is normal and the buzzer sounds an alarm, press the switch button after the LCD display shows the fault code, and the buzzer alarm will stop.

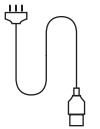
When the mains power is abnormal and the product switches to battery mode, a buzzer alarm will sound (check the indicator instructions for the alarm frequency). Press the switch button to turn off the buzzer alarm function.

III. Installation

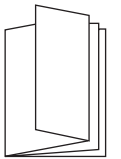
1. Product Packaging List



UPS



AC Line



User's Manual

2. Unpacking Inspection

Upon receiving the product, carefully inspect the package for any abnormalities and avoid impacts during handling. Check the product shell and accessories for damage, missing items, or any other abnormalities. If you notice any damage or missing components, please contact our after-sales service for assistance.

3. Preparation Before Installation

Installation Environment: This product is an electrically charged device, so it should be installed in a well-ventilated and dry environment, free from direct sunlight and high temperatures. Avoid outdoor usage.

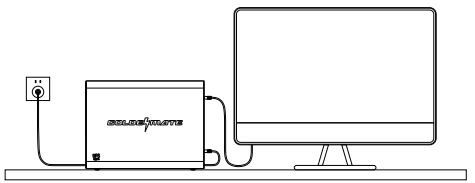
Installation Size Requirements: Since the product generates heat during operation, it is essential to allocate space for heat dissipation. The minimum reserved size on both sides of the product should be ≥ 100 mm, and for the front and back, it should be ≥ 250 mm. Note that the front of the product is where the heat dissipation fan exhausts heat, so blocking objects are prohibited.

4. UPS Installation

① Check the product specifications carefully before installation. Overpower usage is prohibited.

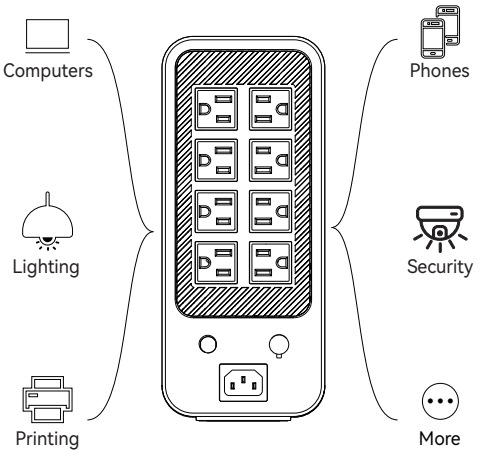
② Product start-up procedure: Connect the electrical equipment - connect the mains power - turn on the product's switch. Use the power cord provided with the product to connect to the mains power. Ensure proper grounding by using a 2-pole, 3-wire grounding cords to connect to the electrical equipment. Press and hold the product's switch button until the display lights up, then release the switch button. The product start-up is now complete. Refer to the following diagram for detailed product connection instructions.

③ Product shutdown procedure: Turn off the product's switch - disconnect the mains power - disconnect the electrical equipment. Press hold the product's switch button until the display turns off, then release the switch button, and the shutdown is complete.



Connecting Method

5.Application Scenarios of Product



Application Scenarios

IV. Technical Parameters

Model	UPS1000VA Pro/600W
Rated capacity	1000VA/600W
Rated load power	600W
Load type	Devices such as computers, lighting, networks, and monitors.
Input voltage	90-140（±5）V~
Input frequency	50/60（±3）Hz
Overload protector	250V~/15A
Output voltage	120×(1±10%)V~
Output frequency	60（±3）Hz (frequency is the same as that of mains power)
Socket type	NEMA 5-15P
Output waveform	Pure sine wave
Noise	≤40dB@1 meter
Heat dissipation	Fan
Harmonic distortion	< 5%
Conversion time	≤20 ms
Backup time	≤25min（300W @25℃）
Battery type	Lithium iron phosphate battery
Battery specification	25.6V6Ah
Charging time	≤6h
Cycle life	3000+

Product size		W330*D250*H105mm
Color		Black/white
Product net weight		4.8Kg
Working environment		0~40℃
Storage condition		-15~40℃
Humidity		20%~90%RH，non-condensing
Overload protection	Mains mode	Load: 105% ~ 120%, continuous operation Load: ≥120%, 60s alarm triggers overload protection and cuts off the output Load ≥150%, 10s alarm triggers overload protection and cuts off the output
	Battery mode	Load: 105% ~ 120%, 180s alarm triggers overload protection and cuts off the output. Load: ≥120%, overload protection is immediately triggered, and the output is cut off.
Short-circuit protection	Mains mode	Overcurrent circuit breaker disconnects and short-circuit fault alarm, no output
	Mains mode	Short-circuit fault alarm, no output

*Note: ① The laboratory data provided above is based on standard test conditions. Actual data may vary from laboratory results due to differences in operating conditions and environments.
②Load power, accounting for 60-70% of the UPS-rated load power, is considered optimal.
③ To protect the service life of the UPS, please ensure it is used in accordance with the specified technical parameters.
④The standard test conditions for the cycle life of the battery pack inside the product are as follows: 25℃ temperature, 0.2C discharge rate, 80% depth of discharge (DOD), and a capacity retention rate of ≥70%.
⑤ Please note that the above information is subject to change without prior notice, and the actual product specifications should be considered the standard.

V. Maintenance and Care

1) When the product's power is low, please recharge it within 12 hours to help prolong the battery pack's life. Failure to do so may result in prolonged power insufficiency, affecting the battery pack's service life.

2) Shallow charging and discharging of the battery ensures economical usage of the product and helps improve its cycle life. Overcharging and over-discharging may result in overheating, fire, functional failure, a shortened life span of the internal battery pack, or even pose a safety risk.

3) Proper product discharge can extend its service life. The product needs to be discharged once every three months while in battery mode.

4) To safeguard the product's service life, the battery mode will automatically shut down after a prolonged period of non-use, requiring the product to be restarted.

5) As usage time increases, battery life diminishes. Regularly replacing the battery ensures adequate backup time for the product.

6) If there is any dirt on the product interface, please turn off the power and use a dry cloth to wipe it clean before use.

7) In the event of condensation on the product, wait until it is completely dry before turning it on to prevent the risk of electric shock.

VI. After-sales Service

If the product experiences a malfunction, please attempt to resolve the issue following the instructions provided in the manual. If the problem persists after troubleshooting, kindly contact our after-sales service personnel. Please provide the date of purchase, contact number, detailed address, and a description of the product failure when contacting the after-sales service personnel. We kindly request your cooperation in answering our personnel's detailed inquiries, including information on site conditions, fault manifestations, occurrences of accidents (frequent or occasional), and whether any operating procedures were performed incorrectly. Providing this information will assist our personnel in identifying the cause of the issue and providing appropriate assistance or guidance to the user. If the problem cannot be solved, please do not hesitate to contact us for further assistance.

For material defects, process defects, and non-human damage to the product, we provide free maintenance and part replacement within the warranty period. The replaced parts belong to our company.

However, the following conditions are not eligible for free repair service during the warranty period:

- Unauthorized disassembly of the product.
- Damage to the surface that is not covered by the warranty.
- Failure to follow the manual by users.
- Failure or damage caused by accidental, man-made, environmental, and other factors (such as operating errors, collisions, improper voltage, moisture).
- Product packaging and accessories are not covered by the warranty.
- Force majeure events such as lightning, storms, floods, fires, and earthquakes.

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