

Twin Guard UPS

TG750 PRO
TG1250 PRO

User Manual

SANTAK®

AUTHORIZED MASTER DISTRIBUTOR OF SANTAK UPS PRODUCTS IN VIET NAM

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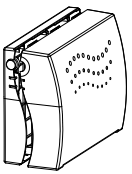
Introduction

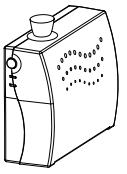
Thank you for your purchase of Santak TwinGuard uninterruptible power (UPS) Model TG750 PRO/TG1250 PRO. The TG Series UPS is specially designed for PC users. Please read these instructions carefully so as to avoid any mistakes in use.

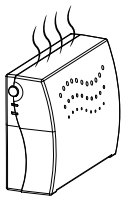
Cautions for Safe Operations

To ensure that the safe use of the device, please observe the following:

1. This product is specially designed for PCs and it is not recommended for use in any life-supporting system and other specific important equipment.
2. This equipment can be operated by any individual with no pre-vious training.
3. During the installation of this equipment it should be assured that the sum of the leakage current of the UPS and the connect-ed loads do not exceed 3.5mA.
4. Do not plug household appliances such as hair dryers to UPS receptacles.
5. The utility power outlet shall be near the equipment and easily accessible. To isolate UPS from AC input, remove the plug from the utility power outlet.
6. If UPS is to be stored for a long time, it is recommended to re-charge the batteries (by connecting the utility power to UPS, switch “ON”), once three months for at least 16 hours.
7. Please do not use the UPS in excess of the rated load capacity.
8. The UPS contains one/two large-capacity batteries. So the shell shall not be opened, otherwise such dangers as electric shock will be caused. If any internal overhaul or replacement of the battery is required, please contact Santak Service Centre or the distributor.
9. The internal short-circuiting of theUPS will lead to dangers such as electric shock or fire, therefore, no water containers (such as a water glass) shall be placed on the top of the UPS so as to aviod such dangers as electric shock.
10. In case smoke is found coming out from the device, please cut off the power supply quickly and contact Santak Service Centre or the distributor.







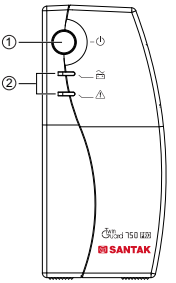
11.Do not keep or use this product in any of the following environ-ments:

- Any area with combustible gas, corrosive substance or heavy dust.
- Any area with extraordinarily high or low temperature (above 40°C or below 0°C) and humidity of more than 90%.
- Any area exposed to direct sunshine or near any heating appa-ratus.
- Any area with serious vibrations.
- Outdoor.

12.In the event that there is fire occuring in the vicinity, please use dry-powder extinguishers. The use of liquid extinguishers may give rise to the danger of electric shock.

Outward Appearance

1. Outward Appearance and Description of Parts:

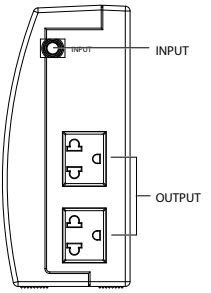


1.power on/off switch

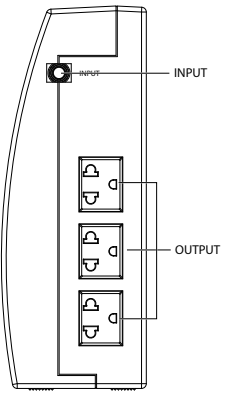
2.Indicator

Green : Mains Indicator Light (utility power or battery mode)

Red : Alarm Indicator Light (such troubles as output short-circuiting or battery power supply failure)



TG750 PRO



TG1250 PRO

2.Explanation of Beep sounds and Indicator Lights:

Indicator Light:◯Light On ●Light Off ★Flashing

Indicator Light	Beep	Output	Charging	Description	Status
● Green ● Red	nil	stop	stop	mains swith off and the UPS ceases to operate	stoppage
◯ Green ● Red	nil	on	on	utility power input normal and the UPS operates normally	normal
★ Green ● Red	1 beep every 4 sec.	on	stop (under discharge)	utility power cut and power is being supplied by the battery	power cut
★ Green ● Red	1 beep every per sec.	on	stop (under discharge)	utility power cut and power id being supplied by the battery, power is about to be exhausted and the output is about to stop	
● Green ◯ Red	Continuous beep	stop	stop	such troubles occurred with the UPS as overloaded, output short-circuiting or battery power supply failure	trouble
◯ Green ★ Red	1 beep every 2 sec.	on	on	battery is not fully changed	
◯ Green ★ Red	3 beeps every 2 sec.	stop	stop	battery aged and has to be replaced	

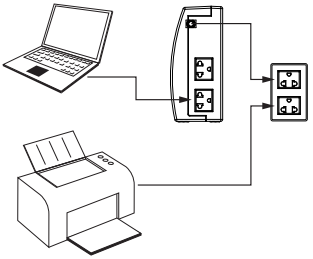
Installation and use

Please install the UPS in the following way:

1. Turn off the equipment which needs uninterruptible power systems (such as the mainframes of computers) and pull out the plug of power cord from the utility power outlet.
2. Put the UPS at a suitable place (see Clause 11 of “Cautions for Safe Operations”).
3. Connect the plug of power cord of the equipment which needs uninterruptible power system to the output socket of the UPS.

Our Suggestion

The so-called “equipment which needs uninterruptible power system” refers to the equipment whose data will be lost as soon as the power supply is interrupted, such as computer mainframes, displays, and modems. As the load capacity of the UPS and the power supply time of the battery is limited, equipment such as printers which do not need any uninterruptible power supply should not be connected to the UPS.



4. Please connect the equipment which does not need connecting to the UPS onto the ordinary utility power outlet.
5. Connect the input plug of the UPS onto the utility power outlet. Please ensure that the polarity of the power cord connected to the utility power is correct and the UPS is well earthed.
6. Press the switch of the UPS continuously for 2seconds and the UPS turns into its normal state (the green light is on and the beeper is off) after it performs a self-diagnosis (the beeper and the red and green indicator lights are on) for several seconds. At this time, user may turn on the PC and other loads.
7. As soon as the utility power supply is interrupted, the UPS goes promptly into a backup power supply state. Please make such emergency treatments as disk saving or others with regard to the PC and any other loads. After the utility power supply is resumed, please turn on the UPS for charging the battery in time.
8. How to turn the device off: Pressing the switch of the UPS con-tinuously for 2seconds will turn the device off.

Note:

- For the convenience of maintenance, please turn on the UPS first before turning on the PC and the other loads, and turn off the UPS after the loads are turned off.
- At ordinary times , we recommend to remain the UPS on with the battery charging (even if the loads are turned off), Which is benefit to the maintenance o f the battery.

Battery Check

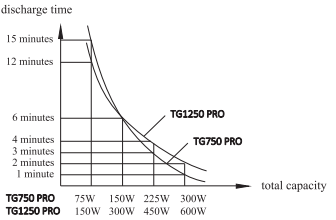
The sealed batteiy is used for the UPS. The service life varies with the keeping and use environment and battery discharge frequency. Even though the battery is not in use, its performance will also decline gradually. The increase in temperature will rapidly shorten the service life of the battery.
The following is a brief introduction to the checking method of the battery. When the battery approaches the end of its service life, its performance will decline drastically and it is important to remember the following checking and maintenance methods:

1. Connect properly to the utility power supply, turn on the UPS and charge the battery for more than 16 hours. Pay attention to the status of the loads connected to the UPS.
2. Maintain the load status and record the sum of power. Unplug the input plug of the UPS (in the simulation of the interruption of the utility power supply) and the UPS goes into the battery

mode until the automatic turn off. Record the discharge time. Keep the initial discharge time for future reference.

3. Compare the load power and discharge time with the following figure so as to confirm whether they are within the normal limits.

Battery Discharge Time Curve Diagram (Initial Discharge Time Value)



Note:

- The load (power consumption) capacity should be calculated in watts in a unified way.
- If only the VA value is indicated in the nameplate of the device, it is multiplied by the power factor (substitute 0.6 for it if it is not indicated) to obtain the wattage (W).

4. Under normal conditions of use, the life of the battery will last 2 to 3 years. At higher temperature and under the conditions that the discharge is rather frequent, the life of the battery may be reduced to 0.5 to 1 year.
5. After a period of time, the performance of the battery will decline gradually (with the discharge time as the sign). After the discharge time decreases to 80% of the initial value, the performance will decline more rapidly. Accordingly, the battery checking time shall be changed from once half a year to once a month.
6. When the discharge time decreases to 50% of the initial value, the battery shall be replaced.

How to Handle Abnormal Conditions

In case of abnormal operations of the UPS, please troubleshoot it after the symptom is confirmed by referring to the following table. If the problem cannot be solved properly, please contact Santak Service Centre or the distributor.

Problem	comfirmation and Troubleshooting
The UPS can not turn into the utility power supply mode. Although the input plug of the UPS has been inserted onto the utility power outlet and the utility power supply is normal, the green light is flashing and the beeper is sounding when the power switch is pressed.	Make sure the input plug of the UPS is well-connected to the outlet of the utility power supply. You may change the input plug of the UPS to another utility power outlet, or contact service centre for further assistance

The battery has failed in power supply. Upon any power failure, the computer will stop working right then.	Is the battery not fully charged? When the utility power supply is normal, turn the UPS on and charge the battery for more than 16 hours.
The UPS changes over frequently between the utility power supply and battery modes. Without any power failure, the UPS changes over frequently between the utility power supply and battery modes. (the green light is on or flashing and the beeper is off or on.)	(1) If the utility power voltage is abnormal due to the existence of any large machine in the nearby power grid, no troubleshooting is needed if the above reason can be confirmed. (2)If the output of the UPS is connected to loads such as a printer, the instantaneous large current upon the activation of the printer will lead to the misoperation of the UPS. connect loads such as a printer which does not require any uninterruptible power system to the utility power supply.
The red light gives a flash every 2 seconds, while the beeper gives a beep every 2 seconds.	The battery has not been fully charged. When the utility power supply id normal, turn on the UPS and charge the battery for more than 16 hours.
The red light gives 3 flashes every 2 seconds, while the beeper gives 3 beeps every 2 seconds.	There is a roblem in the charging circuir or the life of the battery is over, so the battery shall be replaced. Please contact Santak Service Center or the distributor.
The red light is on, while the beeper is sounding continously.	(1)The output is short-circuited. Remove all the loads, turn the UPS on again. Its normal operation will show that there is a trouble in the loads. (2)There are internal problems. Please contact Santak Service Center or the distributor.

Technical Specification

Model	TG750 PRO	TG1250 PRO
Rated load Capacity	750VA/300W	1250VA/600W
Types of Loads	Personal computers and such periherals as monitors	
Input Voltage	AC165V~AC265V±7V	
Input Start Voltage	AC175V~AC225V±7V	
Output Voltage	AC220V±10%(Battery mode)	
Output Frequency	50Hz ± 1Hz(Battery mode)	
Backup Time*	6 min under half load	
Recharge Time	16 hours to 90% of battery capacity	
Overload Protection (Utility Power Mode)	Internal Fuse	
Overload Protection (Battery Mode)	Internal Current limiting	
Physical paramerters		
Dimension(mm)	80*232*177	91*283*240
Net Weight(Kg)	2.6	5.1
Cross Weight(Kg)	2.9	5.4
Environment		
Operating Temperature	0℃ ~ 40 ℃	
Relative Humidity	10% ~ 90%	
Audible noise	≤45dB	
EMC	GB 7260.2 / IEC 62040-2 Category C2	

*: The initial value of a new battery will vary with the future use environment and discharging frequency.

WARNING:

This is a category C2 UPS product. In a residential environment, this product may cause radio interference, in which case the user may be required to take additional measures.

Warranty

Santak Corporation offers to its customers the following limited warranty:

The UPS device and its components mentioned in this User Manual shall be provided with 3 years' warranty free of charge for normal use (man-made malfunctions excepted.), starting from the date the customer purchases the UPS from Santak or its distributor or retailer. In certain places where local laws have special provisions for the term of warranty, the foregoing term shall not be applicable. This warranty offers special legal rights. You are entitled to other rights pursuant to local laws. The Buyer/Customer is re-sponsible for certain service and maintenance expenses. The following situation is not covered by the warranty.

- finished goods lost or serial number manipulated;

- loss or damage due to force majeure or external reasons;
- misuse, accident, negligence, unauthorized alteration or repair;
- overuse;
- violation of operating stipulations.

Within the 3-year warranty period, if the UPS is out of order in the range covered by the warranty, Santak shall repair or replace the UPS in its own way. For warranty services, please contact Santak Service Centre or the distributor. The cost of delivery shall be borne by the customer.

THÔNG BÁO HÀM LƯỢNG GIỚI HẠN MỘT SỐ HOÁ CHẤT ĐỘC HẠI

TRONG SẢN PHẨM BỘ LƯU ĐIỆN SANTAK

(Theo Thông tư số: 30/2011/TT-BCT đề ngày 10/08/2011 của Bộ Công Thương)

SỐ THỨ TỰ	TÊN HÓA CHẤT	HÀM LƯỢNG GIỚI HẠN CHO PHÉP Theo T/T: 30/2011/ TT-BCT	HÀM LƯỢNG TRONG BỘ LƯU ĐIỆN SANTAK (Không xét đến ắcquy)
1	Pb	0.1% khối lượng	< 0.1% khối lượng
2	Hg	0.1% khối lượng	< 0.1% khối lượng
3	Cd	0.01% khối lượng	< 0.01% khối lượng
4	Cr 6+	0.1% khối lượng	< 0.1% khối lượng
5	PBB	0.1% khối lượng	< 0.1% khối lượng
6	PBDE	0.1% khối lượng	< 0.1% khối lượng

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