



# DT-UPS SERIES

DT-UPS-500

DT-UPS-1200










**DATA-TRONIX**

**For assistance, contact our DataTronix Technicians at: (610) 429-1511**

## 1. 1 Description of Commonly Used Symbols

Some or all of the following symbols may be used in this manual and may appear in your application process. Therefore, all users should read the form carefully and thoroughly.

Symbol & Description	
Symbol	Description
	Caution, danger
	Danger electric shock
	Alternating current (AC)
	Direct current (DC)
	Protective ground
	Recycle
	Do not dispose with ordinary trash

## 1. 2 Safety Instructions

1. Read this manual carefully and thoroughly before operation the UPS and save this manual properly for future reference.
2. Do not tear up or shatter the alarm table on the UPS and pay attention to it.
3. Please do not overload the UPS.
4. The UPS contains large capacity batteries. The case of the UPS must not be opened by untrained personnel. Otherwise, it may cause electric shock.
5. Do not short the positive and negative electrodes of battery. Otherwise, it may cause electric shock or fire.
6. Do not plunge or insert any objects into the air vents and other inlets.
7. Do not store or use the device in the following environment:
  - Where there is inflammable gas, corrosive agents or heavy dust
  - Where the temperature is very high or low (above 40°C/ 104°F or below 0°C/ 32°F ) or the humidity is very high (more than 90%)
  - Under direct sunlight or close to heating facilities
  - Place of strong vibrations
8. In the event of fire occurring in the vicinity, please use dry powder fire extinguishers .The use of liquid fire extinguishing agents may cause electric shock.

## INSTALLATION AND OPERATION

Before installation, please read and understand the following instructions.

Inspect the following items inside box:

User's Manual

UPS

## UNPACKING AND INSPECTION

Examine the packing carton for damage. Notify your dealer immediately if damage is observed. Store the packing in a safe place for possible future shipment of the UPS.

## PLACE THE UPS

Position the UPS on a sturdy, dry surface in a well-ventilated area away from direct sources of heat. Leave at least 100mm clearance all around the UPS to provide adequate ventilation (Reference figure 1).

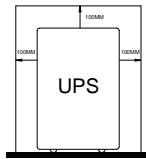


Figure 1

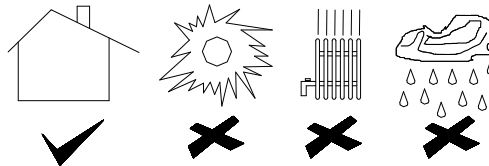


Figure 2

The UPS is intended for indoor use only. Although your UPS is very rugged, its internal components are not sealed from the environment. Please kindly note the following (Reference figure 2).

Avoid direct sunlight

Avoid excessive heat

Avoid excessive humidity or liquids

Avoid excessive dust

## CONNECT THE UPS TO A 110VAC POWER OUTLET

Connect the Power Cord to a verified grounded 3-wire receptacle. Do not power the UPS using a surge suppressor or power strip. Switch the main supply SWITCH ON (Reference figure 3).

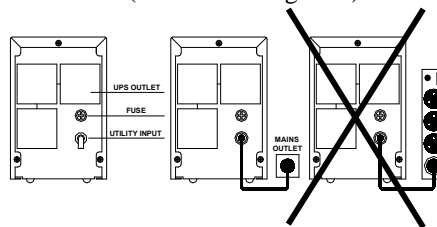


Figure 3

## CONNECT EQUIPMENT TO UPS

Now connect your load to be protected (computer, monitor etc.) to the AC Output receptacles at the rear of the UPS (Reference the figure 4).

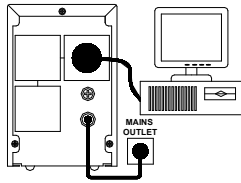


Figure 4

Enable the UPS by turning on the Power ON/OFF switch, which is situated on the front panel.

The UPS is now ready to use. Switch on your equipment.

## BATTERY MAINTENANCE/BATTERY CHARGING.

AFTER SHIPMENT FROM THE FACTORY, THE BATTERY WILL NEED A FULL RECHARGING OF AT LEAST 12 HOURS. IF NOT USED FOR A LONG PERIOD OF TIME, THE BATTERY WILL START SELF-DISCHARGING, WHICH MAY RESULT IN A SHORTER SERVICE LIFE OF THE BATTERY OR MAY EVEN CAUSE DAMAGE TO IT DURING THE WARRANTY PERIOD. CARE SHOULD BE TAKEN TO AVOID EXCESSIVE TEMPERATURE AROUND THE UPS, WHICH COULD ALSO RESULT IN REDUCING SERVICE LIFE OF THE BATTERY. TO ACHIEVE MAXIMUM SERVICE LIFE FROM THE BATTERY THE ABOVE INSTRUCTIONS SHOULD BE FOLLOWED.

The UPS battery charges whenever the UPS is connected to utility power & is switched ON. It typically requires twelve hours to charge fully. Operating runtime is reduced until the battery is fully charged.

## TEST THE UPS

To test UPS on battery back-up, disconnect the power cord and observe backup Indicator lights. Your PC or other connected equipment should continue to function normally until the UPS battery is drained of power.

UPS Indicators and Controls

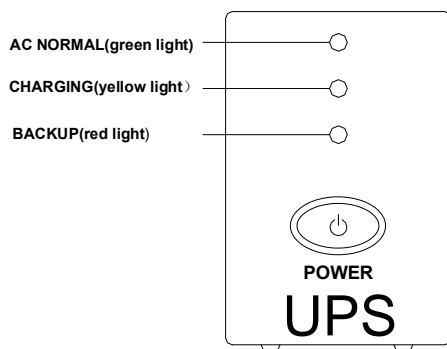


Figure 8 (LED display mode 1)

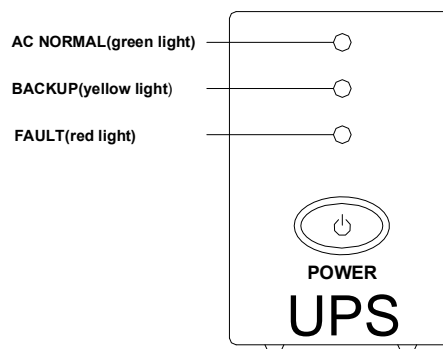


Figure 9 (LED display mode 2)

■ **Operating by the LED display mode 1 ((Reference the figure 8):**

1. ON/OFF BUTTON---- Turn ON this button to supply power to the UPS outlets. To switch off power to the UPS outlets turn OFF the switch. This switch is situated on the front panel of the UPS.
2. AC NORMAL INDICATOR (Green light continuous) ---The UPS is supplying conditioned utility power to its outlets.
3. CHARGING INDICATOR (yellow light continuous) ---The UPS is supplying conditioned utility power to its outlets and the battery is charging.
4. BACKUP INDICATOR (red light slow blinking) ---The indicator starts slow blinking when utility power is outside acceptable limits. The battery is powering the UPS outlets.
5. SLOW BEEPPING----A one second duration tone is sounded two seconds after utility power loss has occurred. The UPS will continue to run with an audible alarm until a low battery condition is reached.
6. LOW BATTERY INDICATOR (Red light fast blinking) ---The indicator starts fast blinking whenever the battery is near the end of its runtime.
7. FAST BEEPING----The UPS is near the end of its battery runtime promptly save your data and exit all applications and shutdown the operating system.

■ **Operating by the LED display mode 2 ((Reference the figure 9):**

1. ON/OFF BUTTON ----Turn ON this button to supply power to the UPS outlets. To switch off power to the UPS outlets turn OFF the switch. This switch is situated on the front panel of the UPS.
2. AC NORMAL INDICATOR (Green light continuous) ---The UPS is supplying conditioned utility power to its outlets.
3. BACKUP INDICATOR (yellow light slow blinking) ---The indicator starts slow blinking when utility power is outside acceptable limits. The battery is powering the UPS outlets. The expected runtime for a typical personal computer (PC) is about 10 to 20 minutes.
4. SLOW BEEPPING----A one second duration tone is sounded two seconds after utility power loss has occurred. The UPS will continue to run with an audible alarm until a low battery condition is reached.
5. FAULT INDICATOR (Red light fast blinking) ---The indicator starts fast blinking whenever the battery is near the end of its runtime.
6. FAST BEEPING----The UPS is near the end of its battery runtime promptly save your data and exit all applications and shutdown the operating system.

**Manual Shutdown**

When the UPS is operating on battery the procedure below can be performed to conserve battery charge and not allow the connected equipment to have power removed without being properly shut down..

1. Save important working files.
2. Exit all applications
3. Exit the operating system
4. Shut down the connected equipment.
5. Turn off the UPS ON/OFF Switch which is situated on the front panel of the UPS.

## COLD START

When the UPS is "Off" and there is no utility power, it is possible to power essential equipment connected to UPS for a short period of time. Make sure that only the most necessary equipment is connected to the UPS at this time.

1. Turn ON the UPS ON/OFF switch.
2. Complete what you need to do with the powered equipment, before the UPS battery is fully discharged.
3. Shut off the connected equipment.
4. Turn OFF the UPS ON/OFF switch.

## Technical specification

Model	400	500/600	700	800	1000	1200
Power factor	0.6					
Load type	Personal computers and other PC peripheral devices					
Mains voltage range	(140~290) $\pm$ 5Vac or (70-145) $\pm$ 5Vac					
Mains frequency range	(40~70) $\pm$ 1Hz					
Output voltage range(Line mode)	110Vac/120Vac/220Vac/230Vac $\pm$ 10%(Sine wave)					
Output frequency range(Line mode)	Synch with mains input					
Output voltage range(battery mode)	110Vac/120Vac/220Vac/230Vac $\pm$ 5%(Square wave)					
Output frequency range(battery mode)	(50/60) $\pm$ 1Hz(frequency self-adapt system)					
Battery No-load protection	Auto protection. The UPS will automatically shut down after 2min no load detected					
Transfer time	10ms					
Battery backup time*	>6Min(half load)					
Battery protection	Auto protection. The UPS will automatically shut down when battery voltage is low or high.					
Battery charging time	8 hours to 90%					
Short circuit protection	Auto protection. Output shuts off and the buzzer beeps continuously					
Overload protection	110 % < load percentage $\leq$ 120% , buzzer beeps ; load percentage >120%, output shuts off, buzzer beeps continuously.					
Operating temperature	0°C~40°C					
Storage temperature	-15°C~45°C					
Relative humidity	0%~90%(No condensation water)					
Noise	55dB(1m from front panel)					
Size/L×W×H(mm)	230*90 *145	291*90 *145	330*90*145		340x122x190	
Net weight Kgs	4	4.5	4.5	5	5.2	8.4 9.4

*Note: The specification listed above is subject to change without notice.*

## SAFETY

THE UPS CONTAINS VOLTAGE WHICH IS POTENTIALLY HAZARDOUS. QUALIFIED SERVICE PERSONNEL SHOULD PERFORM ALL REPAIRS.

THE UPS HAS ITS OWN INTERNAL ENERGY SOURCE (BATTERY). THE OUTPUT RECEPTACLES MAY BE LIVE EVEN WHEN THE UPS IS NOT CONNECTED TO AN AC SUPPLY

## TROUBLE SHOOTING

The trouble shooting chart covers most of the difficulties that you may encounter under normal working conditions. If the UPS fails to operate properly, please review the following steps before calling the service center.

1. Is the UPS plugged into a correct working outlet?
2. Is the line voltage within the rating specified?
3. Is the fuse/circuit protector on back panel open?

Please submit the following information when you call for service.

1. Model No. & Serial No.
2. Date of problem.
3. Full description of problem.

TROUBLE SHOOTING CHART		
SYMPTOMS	POSSIBLE CAUSE	ACTIONS TO TAKE
UPS can not turn ON & no indications no alarms	UPS front panel switch not turned ON	Turn ON UPS front panel switch
	No incoming utility line	Check input power at end of power cord and wall socket. Otherwise, call for service.
UPS suddenly turns to battery mode in spite of utility line present.	Rear panel input fuse open	Reduce the load and replace fuse with same rating
	Input utility line too high or too low	Check input line voltage
	Frequency out of range	Check input frequency
Single beep	Normal UPS operation	This is not a fault. The UPS is indicating that it is protecting the load during a momentary power loss.
Back-up time less than Specified	Battery is not fully charged	Recharge the battery for at-least 8 hours and re-lest the backup time if problem persists, call for service
UPS is normal but the computer won't turn-on	Computer input power cord is loose or not connected,	Reconnect computer input power cord.

## SERVICE

DO NOT ATTEMPT TO SERVICE THE SYSTEM YOURSELF, NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

### **Do not connect to Life Support systems:**

We do not recommend the use of our UPS products for life support equipment or direct care where failure of a UPS product could cause failure of or diminished effectiveness of the life support equipment of patient care.

## DATATRONIX 1-Year Limited Warranty

DATATRONIX. (the "Company") warrants to the Original Purchaser that the item purchased is free from defects in workmanship or material under normal use. This warranty starts on the date of shipment of the hardware to the Original Purchaser.

During the warranty period, the Company agrees to repair or replace, at its sole option, without charge to Original Purchaser, any defective component. To obtain service, the Original Purchaser must return the item to the Company properly packaged for shipping. All defective products must be returned to the Company within thirty (30) days of failure. Products must be returned with a description of the failure and Return Merchandise Authorization (RMA) number supplied by the Company. To receive a RMA number and a return shipping address on where to deliver the hardware, call 610-429-1821. The shipping, and insurance charges incurred in shipping to the Company will be paid by Original Purchaser, and all risk for the hardware shall remain with the Original Purchaser until such time as Company takes receipt of the hardware. Upon receipt, the Company will promptly repair or replace the defective unit, and then return said unit to Original Purchaser, shipping prepaid. The Company may use reconditioned or like-new parts or units, at its sole option, when repairing any hardware. Repaired products shall carry the same amount of outstanding warranty as from original purchase. Any claim under the warranty must include dated proof of purchase or invoice. In any event, the Company's liability for defective hardware is limited to repairing or replacing the hardware.

This warranty is contingent upon proper use of the hardware by Original Purchaser and does not cover: if damage is due to Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), accident, unusual physical, electrical, or electromechanical stress, modifications, neglect, misuse, operation with media not approved by the Company, tampering with or altering of the hardware, riot, war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or interruption or failure of electricity, air conditioning, or humidity control, internet, network, or telephone service

The warranties given herein, together with any implied warranties covering the hardware, including any warranties of merchantability or fitness for a particular purpose, are limited in duration to one year from the date of shipment to the Original Purchaser. Jurisdictions vary with regard to the enforceability of warranty limitations, and you should check the laws of your local jurisdiction to find out whether the above limitation applies to you.

The Company shall not be liable to you for loss of data, loss of profits, lost savings, special, incidental, consequential, indirect, or other similar damages arising from breach of warranty, breach of contract, negligence, or other legal action even if the Company or its agent has been advised of the possibility of such damages, or for any claim brought against you by another party. Jurisdictions vary with regard to the enforceability of provisions excluding or limiting liability for incidental or consequential damages. You should check the laws of your local jurisdiction to find out whether the above exclusion applies to you.

This warranty allocates risks of product failure between Original Purchaser and the Company. The Company's hardware pricing reflects this allocation of risk and the limitations of liability contained in this warranty. The warranty set forth above is in lieu of all other express warranties, whether oral or written. The agents, employees, distributors, and dealers of the Company are not authorized to make modification to this warranty, or additional warranties binding on the Company. Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by the Company and should not be relied upon.

This warranty gives you specific legal rights. You may also have other rights which vary from one jurisdiction to another.