



UPS ENERGY PROTECTOR 400, 500, 600, 800

UK

User's manual



V1.0

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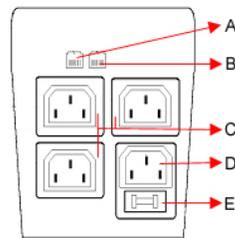
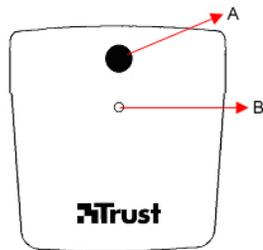
UPS ENERGY PROTECTOR 400, 500, 600, 800

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<u>Instructions when using for the first time</u>	Chapter	
1. Connecting and use	(4.1)	!
2. Functions	(5.1)	



1 Introduction

This instruction manual is for users of the TRUST UPS ENERGY PROTECTORS, models 400, 500, 600 and 800. These energy protectors can be used as a back-up power supply for your PC during power cuts. These energy protectors also provide protection against extreme power surges and filter the mains supply, so that your devices receive a constant voltage.

2 Safety

Carefully read the following instructions before use.

- Disconnect the power plug from the mains supply before cleaning the device. Do not use a liquid cleaner or a spray to clean the device. Clean the device with a dry cloth.
- Do not use aggressive substances, such as white spirit, to clean the device. These may harm the material.
- Do not submerge the device in liquid. This may be dangerous and will damage the device.
- Keep this device away from liquids, such as water.
- Do not use this device in a damp environment, such as a bathroom, damp basement or swimming pool.
- Do not use this device in combination with non-computer related items, such as medical equipment, microwave ovens, vacuum cleaners, etc.
- Make sure the UPS is placed on a firm surface, such as your desk or the floor.
- ALWAYS use the UPS with an earthed plug socket.
- Do not connect a multiple socket to the UPS input.
- Make sure nothing is placed on the cable. Do not use this device in an area where the cable can become worn or damaged as a result of people walking over it.
- Never cover the UPS to avoid overheating. Keep the UPS out of the reach of heat sources, such as the sun, heaters, etc.
- Never insert objects into the slits on the front of the UPS, because you may touch live components. This may cause a fire or give you an electric shock.
- The outputs may have a high voltage, even when the device is turned off.
- Keep the UPS at least 20 cm from your monitor.
- Do not repair this device yourself. If you open this device, you may touch live components.
- Under the following circumstances, remove the plug from the power socket and have the device repaired by qualified personnel:
 - The cable or plug is damaged.
 - The device has been dropped or the casing has been damaged.
 - The device is clearly not operating correctly.

BATTERY:

- Do not expose the battery to a naked flame. This may cause the battery to explode.
- Never drill holes into the battery.
- Keep the battery out of the reach of small children.
- The battery may only be replaced by qualified personnel.
- The battery must not be opened or damaged. If the battery is opened or damaged, electrolyte may be released, which is harmful to skin, eyes and the environment.
- When the battery is empty, ask your local authority where you can dispose of it.

3 Approval



This device meets the essential requirements and other relevant conditions of the applicable European directives.

The Declaration of Conformity (DoC) is available at www.trust.com/13504/ce (model 400), www.trust.com/13505/ce (model 500), www.trust.com/13506/ce (model 600) and www.trust.com/13987/ce (model 800).

4 Installation

4.1 Connecting and use

Note: Turn your computer off before connecting the device.

See Figure 1:

A	ON / OFF button
B	Voltage indicator (green/continuous). Empty battery indicator (green/flashing).

See Figure 2:

A	Telephone/modem connection OUT.
B	Telephone/modem connection IN.
C	Electricity output for the connected device.
D	Electricity input for the mains supply.
E	Fuse holder.

Table 1: Connections

1. Connect your device to the power output on the UPS (C, figure 2) using the daisy-chain leads.
2. Connect the power cable to the electricity input on the UPS (D, figure 2) using your computer's power cable.
3. Connect the power cable to an earthed plug socket.
4. Connect the telephone/modem connection IN (B, figure 2) to the telephone socket.



5. Connect the telephone/modem cable for your telephone/modem to the telephone/modem OUT connection on the UPS (A, figure 2). Note: these cables are not supplied with this device.
6. Turn the UPS on using the ON/OFF button (A, figure 1). A beep will be heard for approximately 2 seconds.
7. Your device is now protected against a power surge and the loss of power.

Note: *The battery is being charged when the plug is inserted into the plug socket. Charge the battery for 8 hours before using it with, for example, a computer without a mains supply.*

Note: *This UPS doesn't provide you dial-up function, the RJ-11 jacks are provided for phone line surge protection only.*

5 Use

You can test the UPS after 8 hours by unplugging the power cable. The green LED will flash and a beep will be heard.

Note: *The back-up time for these devices is between 5 and 45 minutes, depending on the model, the load it is placed under and the condition of the battery.*

5.1 Functions

Indicator	Sound	Output	Char	Description	What to do?
-	-	-	No	UPS is turned off.	Turn the UPS on using the ON/OFF button (A, figure 1).
Green (continuous)	-	230 V	Yes	Normal use.	No action.
Green (flashing)	A beep every 10 seconds	230 V	No	No input voltage.	No input voltage. Is now using the battery voltage. Save your data and turn off your computer.
Green (flashing quickly)	Beep every second	230 V	No	Battery empty. UPS will turn off soon.	Save your data immediately and turn off your computer.
-	Continuous beep	No	No	Too high load connected.	Reduce the load. Turn off the UPS and wait 2 minutes before turning it back on.

Indicator	Sound	Output	Char	Description	What to do?
	Continuous beep	No	No	Low battery voltage.	Do not connect a load. Charge the battery for 8 hours or replace the battery.
				Battery or UPS faulty (internal error).	Contact your dealer.

Note: *If there is a power cut when using a PC, save your data immediately and turn off your PC to prevent losing any data.*

Note: *Trust is not directly or indirectly responsible for any loss of data and consequential damage.*

5.2 Replacing the fuse

Overloading may cause the fuse in the UPS to blow. The fuse must then be replaced. As standard, this UPS is fitted with a spare fuse. The fuses are located under the mains input (see figure 3).

Carry out the following to replace the fuse.

1. Turn the UPS off.
2. Make sure the power cable has been removed from the UPS's power input.
3. Remove the fuse compartment from the UPS using a screwdriver (see figure 4).
4. The compartment has now been removed from the UPS (see figure 5).
5. Remove the old fuse (A, figure 5) and replace it with the spare fuse (B, figure 5).
6. Put the compartment back in the UPS
7. Connect the power cable to the UPS's power input.
8. Turn the UPS on. Your UPS is now ready for use.

Note: *Save the old (broken) fuse and take it to your electrical shop to have it replaced. The type number is printed on the fuse.*

Note: *Always use a fuse with the same type number.*

The new fuse can be placed behind the holder (B, figure 5).

5.3 Maintenance of the battery

Below are two tips for increasing the life span of the battery.

- Recharge the battery as quickly as possible when it becomes empty.

TRUST 400 – 500 – 600 – 800 UPS ENERGY PROTECTOR

- If the UPS is not connected to the mains supply for a long period of time, recharge the UPS at least every three months.



5.4 Technical specifications

Model		400	500	600	800
Output capacity		400VA /240W	500VA /300W	600VA /360W	800VA /480W
Input	115 VAC/230 VAC				
	Voltage range	170 – 274 VAC			
	Frequency	47-63 Hz			
Output	115 VAC/230 VAC				
	Frequency	50 o 60 Hz			
	Freq. regulation	+/- 1 Hz			
Surge current protection (J)		Max. 150			
Max. surge current (Amp)		6,500 A			
Transfer time (typical)		Less than 3 ms			
Battery	Battery type & number	12 V/4,5 AH x 1 or 6 V/4 AH x 2 batteries.	12 V/7 AH 1 battery	12 V/7 AH 1 battery	12 V/9 AH 1 battery
	Backup time (min.)	12 ~ 30	24 ~ 35	26 ~ 45	34 ~ 60
	Charge time	8 hours to 90% after full discharge			
Surroundings	Working surroundings	0 – 40° C, 0-90% relative humidity			
	Sound level	Less than 40 dB			
Weight		4.9 kg	6.7 kg	6.7 kg	6.7 kg

6 Troubleshooting

Method	
1.	Read the solutions given below.
2.	Check for up-to-date FAQs, drivers and instruction manuals on the Internet www.trust.com/13504 for model 400, www.trust.com/13505 for model 500, www.trust.com/13506 for model 600 and www.trust.com/13987 for model 800).

Problem	Possible cause	Solution
The computer cannot be turned on.	The UPS has not been turned on.	Turn the UPS on by pressing the ON/OFF button on the UPS for at least 3 seconds.
	The battery voltage is too low.	Recharge the UPS.
	The mains cable has not been connected correctly or is loose.	Connect the power cable correctly.
The UPS remains in the battery mode (green LED flashes every 3-4 seconds and a beep is heard).	The power cable is loose.	Connect the power cable correctly.
	The fuse is faulty.	Replace the fuse (see chapter 4.2).
	The mains supply is too high, too low or there is a power failure.	This is normal. If this lasts for a long period of time, contact your electricity supplier.
There is a continuous beeping noise.	The UPS is placed under a heavy load.	Disconnect the less important devices.
	The battery voltage is too low.	Recharge the UPS.
The backup time is too short.	The battery has not been fully charged.	Recharge the UPS.
	The load is too great.	Reduce the connected load.

If you still have problems after trying these solutions, please contact one of the Trust Customer Care Centers. You can find more information at the back of this instruction manual. Please have the following information available.

- The article number: 13504 (Model 400), 13505 (Model 500), 13506 (Model 600) and 13987 (Model 800).
- A good description of what does not work.
- A good description of when the problem occurs.



7 Warranty conditions

- Our products have a two-year manufacturer's warranty which is effective from the date of purchase.
- If there is a fault, return the product to your dealer and include an explanation of the fault, the proof of purchase and all the accessories.
- During the warranty period, you will receive a similar model, if one is available. If no similar product is available, your product will be repaired.
- Please contact our help desk for missing components, such as the instruction manual, software or other components.
- The warranty becomes invalid if the product is opened, if there is mechanical damage, if the product has been misused, if alterations have been made to the product, if the product has been repaired by a third party, in the case of negligence or if the product has been used for a purpose other than that originally intended.
- Excluded from the warranty:
 - Damage caused by accidents or disasters, such as fire, flood, earthquakes, war, vandalism or theft.
 - Incompatibility with other hardware/software which is not stated in the minimum system requirements.
 - Accessories, such as batteries, fuses (if applicable).
- Under no circumstances will the manufacturer be held responsible for any incidental or consequential damage, including the loss of income or other commercial losses resulting from the use of this product.

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