

1 Introduction

This instruction manual is intended for users of the Trust Energy Protector 650 (UPS). Prior knowledge of computers is not necessary to install this product. If you have any questions, please contact one of the Trust Customer Care Centres. You can find more information at the back of this instruction manual.

Note: Turn off the computer before connecting the device.

1.1 Contents of the package

Check the contents of the package. It should contain the following:

- Energy Protector 650 (UPS)
- Wound power cable (x2).
- This instruction manual

If anything is missing or damaged, please contact one of the Trust Care Centres. You can find more information at the back of this instruction manual.

1.2 Minimum system requirements

The Trust Energy Protector 650 (UPS) can be used with every computer, as well as with other electrical equipment. However, attention should be given to the maximum capacity that may be connected to the UPS.

1.3 Functionality of the Energy Protector 650

The Energy Protector protects your electrical equipment against faults in the mains voltage, such as peak voltages and drops in voltage, voltages that are permanently too high or too low (varying from 75% to 125%), contamination of the mains supply or even the total loss of power.

This means that the Energy Protector maintains the voltage level at a constant rate.

2 Safety

2.1 General information

Please read the following instructions carefully:

1. Disconnect the power plug from the mains supply before cleaning the device. Do not use a liquid cleaner or a spray. Clean the device with a damp cloth.
2. Do not use the device in damp environments, such as bathrooms, damp basements, swimming pools, etc.
3. Make sure the UPS is placed on firm ground, for example on the floor or on your desk.
4. Make sure nothing is placed on the power cable. Do not place the device in an area where the lead can become worn or damaged by walking on it.
5. Never stick anything into the slots on the outside of the device. You may touch live components. This may cause a fire or give you an electric shock.

6. Do not try to repair this device yourself. When you open or remove the casing, you may accidentally touch live components. There are also other risks. This device must only be repaired by specially qualified technicians.
7. The outputs on the device carry a high charge, even when it is turned off.
8. Only replace blown fuses with a fuse of the same type and value. This will prevent damage.
9. If any of the following circumstances occur, remove the plug from the power socket and have the device repaired by qualified personnel:
 - The cable or plug is damaged or worn.
 - Liquid has entered the device.
 - The device has come into contact with rain or water.
 - The device has fallen and/or the casing is damaged.
 - The performance of the device is clearly becoming worse.



Battery:

Only have the battery replaced by qualified personnel.

The battery must not be opened or damaged. Electrolyte may be released. This is harmful to skin, eyes and the environment.

Do not expose the battery to an open fire. This may cause an explosion.

Remember once the UPS reaches the end of its life span after having been used for a long time, it contains a lead battery that is filled with chemical acid. Ask your local authority where you can dispose of the UPS so that the battery and other components will be processed correctly.

Warning:

Ensure that the UPS is not over loaded. Pay attention to the maximum capacity that can be connected (650VA) as well as to the capacity of the devices to be connected.

3 Connections

Note: Turn off the computer before connecting the device.

3.1 Charging the battery

The UPS charges the battery as soon as the plug is inserted into a wall socket. Charge the battery for 4 hours before using the UPS.

1	Current input for mains supply
2	Current output for electrical equipment
3	Fuse holder
4	Telephone / Modem connection (IN)
5	Telephone / modem connection (OUT)

Table 1 Explanation pertaining to Fig. 1

1. Connect your electrical equipment to the UPS current output (2).
2. Connect the power cable (not supplied) to the UPS current input (1).
3. Insert the power cable into the power socket.

The Trust Energy Protector 650 can also protect your telephone and modem against peak voltages in the telephone network.

1. Connect the Telephone / modem connection IN (4) to the telephone wall outlet (cable not supplied).
2. Connect the telephone / modem cable for your telephone or modem to the UPS telephone / modem connection OUT (5).

4 Use

A	On / Off button
B	LED indicator for 'normal use' (green). This is lit if there is sufficient mains voltage and the battery is charged up.
C	LED indicator for 'Battery voltage' (yellow). This is lit if there is no longer a mains voltage and your electrical equipment is powered by the UPS.
D	LED indicator for 'Empty battery' (red). This is lit if the battery is empty or if the battery should be replaced because it is faulty.

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Table 2 Explanation pertaining to Fig. 2

4.1 Taking the UPS out of use

When the UPS is not used for a longer period of time, ensure that the battery is fully charged. This guarantees the full capacity of the UPS for the next time it is used. Ensure that the UPS is no longer turned on using the ON / OFF button (A) after it has been disconnected so as not to reduce the life span of the battery.

5 Maintenance

This device has been designed so that you can enjoy years of carefree use. You, therefore, do not have to spend too much time on maintenance work. Please give attention to the following points:

- Turn the UPS off before cleaning it.
- Do not use liquid cleaning materials or a spray. Clean the outside using a damp cloth.
- Regularly remove dust that collects near the ventilation openings.
- Read chapter 2 for information regarding safety.

Advice: *In order to enjoy the full capacity of your UPS, we advise you to fully unload the UPS once a year and charge it up again.*

6 Technical specifications

Input voltage	165 VAC - 280 VAC
Frequency	50 or 60 Hz +/- 5%
Output voltage [VA]	650
Type of battery	Lead-acid maintenance free
Battery capacity	5 Ah
Charging time	8 hours
Peak current protection [kJ]	0.320
RFI filter	Yes
Number of outputs	2

Table 3 Technical specifications

7 Troubleshooting

Problem	Possible cause	Solution
The UPS is not on or the light does not come on.	The On / Off button has not been pressed or not been pressed for long enough.	Press the On / Off button for more than 3 seconds.
	The battery voltage is too low.	Recharge the UPS.
The UPS remains in the battery mode.	The power cable has come loose.	Connect the power cable.
	The fuse has blown.	Replace the fuse.
	The mains voltage is too high, too low or there is a power cut.	This is normal. Contact your electricity company if this happens for a long period of time.
The back-up time is too short.	The battery has not been fully charged.	Recharge the UPS.
There is a constant beeping noise.	The load is too great.	Disconnect the less important electrical equipment.
	The battery voltage is too low.	Recharge the UPS.
The red LED is lit.	The battery is empty.	Fully recharge the UPS. If this does not work, replace the battery.

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

- The article number. This is: 12513;

TRUST ENERGY PROTECTOR 650

- A good description of exactly what is not functioning;
- A good description of when exactly the problem occurs.

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