

1. Package Contents

You should have received the following items inside of package:

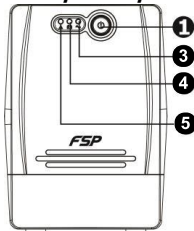
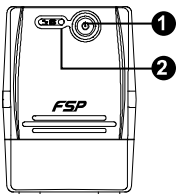
- UPS Unit
- Quick Guid

2. Product Overview

Front View:

FP450/650/850

FP1000/1500/2000



① Power Switch

② UPS status LED

AC Mode: green lighting

Battery Mode: green flashing

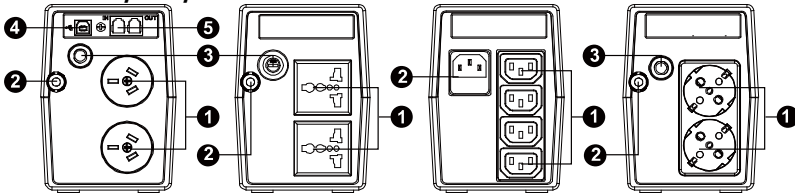
③ AC Mode: green lighting

④ Battery Mode: yellow flashing

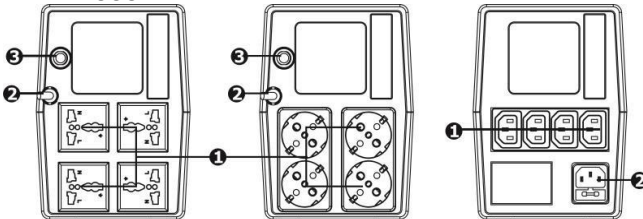
⑤ Fault LED: red lighting

Back View:

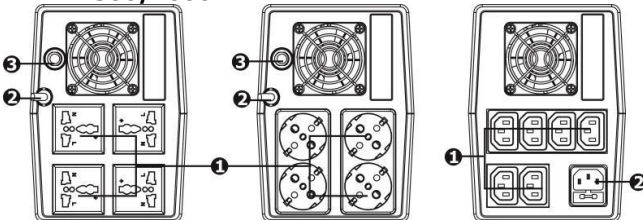
FP 450/650/850



FP 1000



FP 1500/2000



① Output receptacles

② AC input

③ Circuit breaker / Fuse

④ USB port

⑤ Modem/phone or

Network surge protection

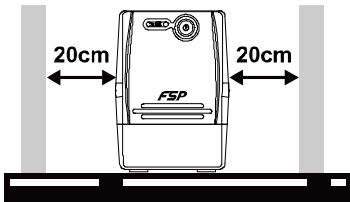
3. Installation and Initial Startup



NOTE: Before installation, please inspect the unit. Be sure that nothing inside the package is damaged.

Placement & Storage Conditions

Install the UPS in a protected area that is free of excessive dust and has adequate air flow. Please place the UPS away from other units at least 20 cm to avoid interference. Do NOT operate the UPS where the temperature and humidity is outside the specific limits. (Please check the specs for the limitations.)



Connect to Utility and Charging

Plug in the AC input cord to the wall outlet. For the best results, we suggest to charge the battery for at least 4-6 hours before initial use. The unit charges its battery while connecting to the mains.



4-6 hours

Connect the Loads

Plug in the loads to output receptacles on the rear panel of the UPS. Simply turn on the power switch of UPS unit, then devices connected to the UPS will be protected by UPS unit.

CAUTION: NEVER connect a laser printer or scanner to the UPS unit. This may cause damage to your equipment.



Turn On/Off the Unit

Turn on the UPS unit by pressing the power switch. Turn off the UPS unit by pressing again the power switch.

4. Important Safety Warning (SAVE THESE INSTRUCTIONS)

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area free of conductive contaminants. (See the specifications for the acceptable temperature and humidity range.)

CAUTION! To reduce the risk of overheating the UPS, do not cover the UPS's cooling vents

and avoid exposing the unit to direct sunlight or installing the unit near heat emitting appliances such as space heaters or furnaces.

CAUTION! Do not attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners to UPS.

CAUTION! Do not plug the UPS input into its own output.

CAUTION! Do not allow liquids or any foreign object to enter the UPS. Do not place beverages or any liquid-containing vessels on or near the unit.

CAUTION! In the event of an emergency, press the OFF button and disconnect the power cord from the AC power supply to properly disable the UPS.

CAUTION! Do not attach a power strip or surge suppressor to the UPS.

CAUTION! If the UPS is with metal chassis, for safety purpose, grounding is a must during UPS installation in order to reduce leakage current below 3.5mA.

ATTENTION! Even when the UPS is disconnected from the mains, there may still be hazardous voltage from the battery. The battery should therefore be disconnected at the plus and minus terminals of the battery before maintenance or service work inside the UPS is performed.

CAUTION! Servicing of batteries should be performed or supervised by qualified service personnel. Keep unauthorized personnel away from batteries.

CAUTION! When replacing the batteries; use the same number and type of batteries.

CAUTION! Internal battery voltage is 12VDC. Sealed, lead-acid, 6-cell battery.

CAUTION! Do not dispose of batteries in a fire. The battery may explode. Do not open or mutilate the battery / batteries. Released electrolytes are harmful to the skin and eyes.

CAUTION! Unplug the UPS prior to cleaning and do not use liquid or spray detergent.

CAUTION! A battery can present a risk of electric shock and high short circuit current. The following precautions should be observed before replacing batteries:

- 1) Remove watches, rings, or other metal objects.
- 2) Use tools with insulated handles.
- 3) Wear rubber gloves and boots.
- 4) Do not lay tools or metal parts on top of batteries.
- 5) Disconnect charging source prior to connecting or disconnecting battery terminals.

5. Trouble Shooting

Use the table below to solve minor problems.

Problem	Possible Cause	Solutions
No LED display on the front panel.	Low battery.	Charge the UPS at least 6 hours.
	Battery fault.	Replace the battery with the same type of battery.
	The UPS is not turned on.	Press the power switch again to turn on the UPS.
Alarm continuously sounds when the mains is normal.	The UPS is overloaded.	Remove some loads first. Before reconnecting equipment, please verify that the load matches the UPS capability specified in the specs.

Problem	Possible Cause	Solutions
When power fails, back-up time is shorten.	The UPS is overloaded.	Remove some critical load.
	Battery voltage is too low.	Charge the UPS at least 6 hours.
	Battery defect. It might be due to high temperature operation environment, or improper operation to battery.	Replace the battery with the same type of battery.
The mains is normal but LED is flashing.	Power cord is loose.	Reconnect the power cord securely.

6. Specifications

Model	FP 450	FP 650	FP 850	FP 1000	FP 1500	FP 2000
CAPACITY	450 VA /240 W	650 VA /360 W	850 VA /480 W	1000VA /600W	1500 VA /900 W	2000VA/ 1200W
INPUT						
Voltage	220/ 230/ 240 VAC					
Voltage Range	140-290 VAC					
OUTPUT						
Voltage Regulation	+/-10%					
Transfer Time	Typical 2-6 ms			Typical 2-6 ms, 10ms max		
Waveform	Simulated Sine Wave					
BATTERY						
Type & Number	12 V/4.5 AH x 1	12 V/7 AH x 1	12 V/9 AH x 1	12 V/7 AH x 2	12 V/9 AH x 2	12 V/9 AH x 2
Charging Time	4-6 hours recover to 90% capacity					
PHYSICAL						
Dimension (DxWxH)	279 x 101 x 142 mm			320 x 130 x 182 mm		
Net Weight (kgs)	3.55	4.2	4.9	7.8	10.4	11.0
Environment						
Humidity	0-90 % RH @ 0-40° C (non-condensing)					
Noise Level	Less than 40 dB					