A Plus 800 VA Line Interactive UPS User Manual

Contents

1 A Plus 800 VA Line Interactive UPS
2 INTRODUCTION
3 Features
4 OVERVIEW
5 OPERATION
6 INDICATION TABLE
7 TROUBLESHOOTING
8 SPECIFICATION
9 SAFETY/REGULATORY
10 Documents / Resources
10.1 References
11 Related Posts

A Plus 800 VA Line Interactive UPS

This manual provides safety, installation and operation instructions that will guide you to the best performance of your equipment. Please read and keep this manual.
APLUS® is a trademark of APLUS POWER CORP. and is manufactured under its authority.

INTRODUCTION

System Description
The Product is line interactive UPS provides guaranteed battery backup power during outages and unsafe fluctuations, along with full protection from damaging surges and spikes. The UPS is integrated with a microprocessor controller and voltage stabilizer, in a stand-alone unit, to provide the perfect protection to safeguard your critical devices and valued data.

Features

- Equipped with 2-Steps Boost & 1-Step Buck AVR to provide stable utility voltage.
- Off-mode charging enable UPS charge itself even power switch is OFF.
- Built-in CC/CV battery charger and battery over-drain protection.
- DC start function enable UPS started without AC power supplied.
- Provide lightning, surge, overload, and short circuit protection.
- Line interactive design with microprocessor controlled.
- 5VDC USB Charging Port (Optional).
- Auto restart upon AC recovery.

CAUTION

- The UPS contains electricity that is potentially hazardous. Qualified or certified technicians should proceed all repairs, maintenance and installation.
- The UPS has its own internal energy source (battery). The output receptacles may be active even when the UPS is not connected to an AC supply.
- The UPS is suitable for computers and electronic equipment with linear loads, not suitable for electronic equipment with non-linear loads, such as motors & fluorescent lamps.
- Be sure to operate within the power rating of the UPS. Below 1/2 or 1/3 of the rated power is recommended for longer backup time.
- The UPS must be installed in a protected environment away from heating appliances such as a radiator or heater. DO NOT place the UPS near excessive humidity, under sunshine, or close to heating sources.

- If the UPS is out of order, disconnect the power cord and contact with your dealer right away.
- The unit should be supplied by a grounded source. DO NOT operate the unit without a ground source.
- The UPS should be installed near to wall socket and equipment and be easily accessible.
- DO NOT plug the UPS's power cord into UPS's output socket. That will result in a safety hazard.
- DO NOT connect a laser printer or plotter to the UPS. A laser printer or plotter periodically draw significantly more power than its idle status and may overload the UPS.

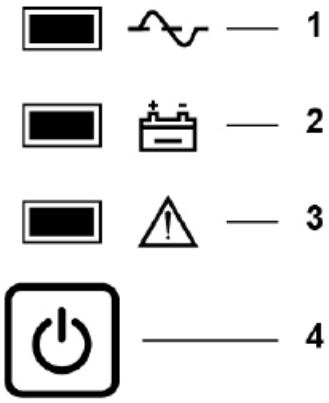
OVERVIEW

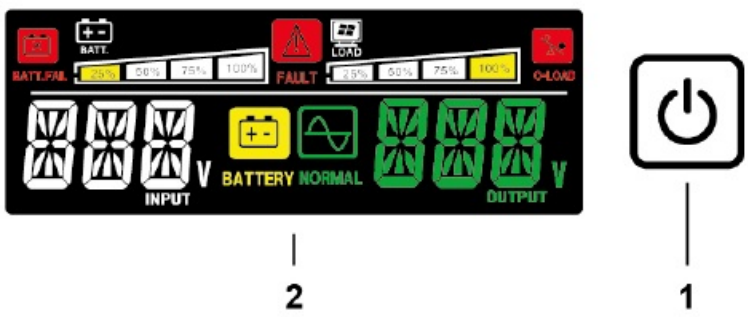
LED Model Front Panel

1. Power Switch: ON/OFF or Silence button
2. On-line LED
3. Back-up LED
4. Cut-off LED

LCD Model Front Panel

1. Power Switch: ON/OFF or Silence button
2. LCD screen

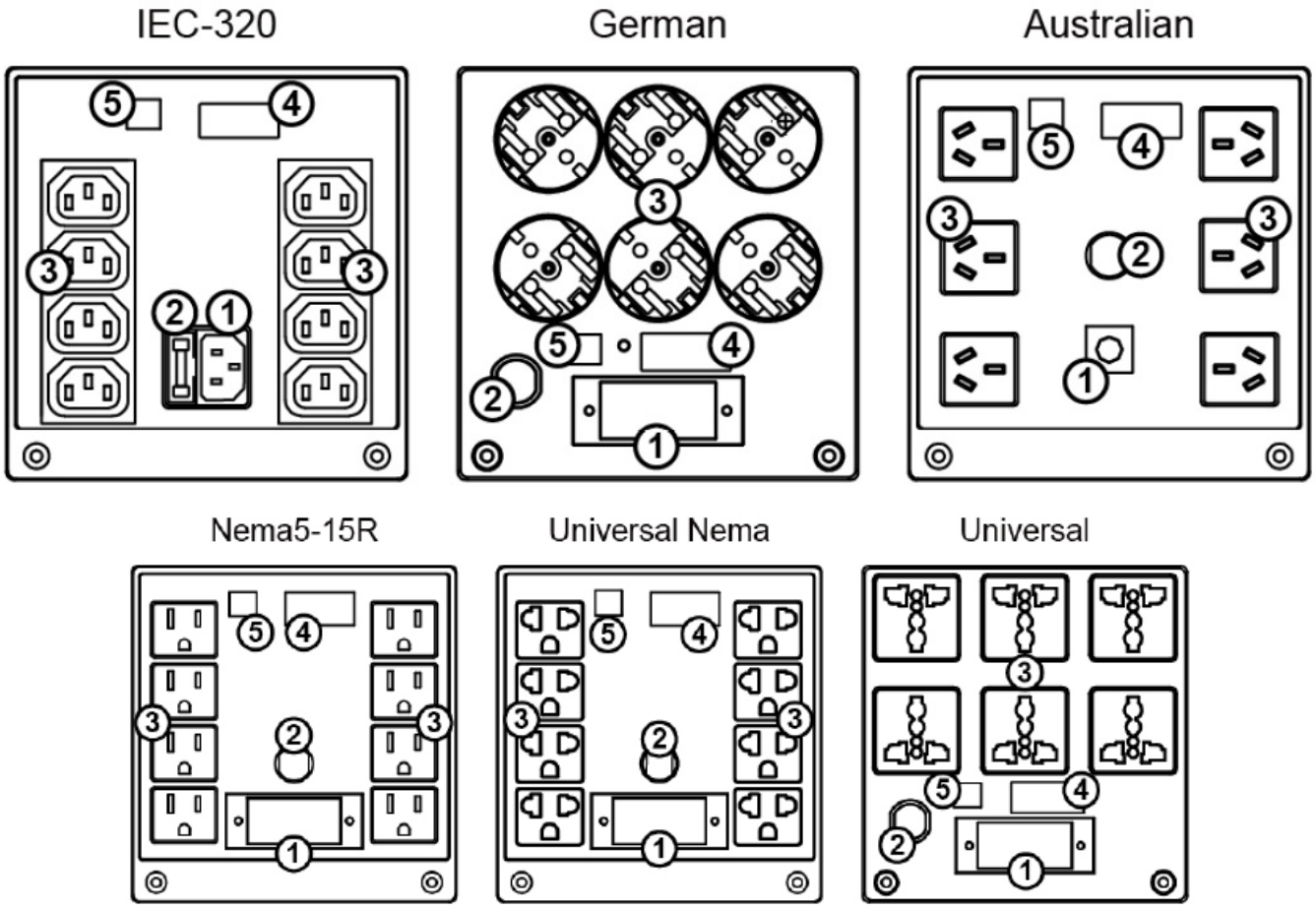




Rear Panel

1. AC input line cord
2. AC circuit breaker/AC fuse

3. Backup/AVR/surge protection outlet
4. Tel/Line/Modem surge protection RJ-45 or RJ-11 port (Optional)
5. Smart USB communication port (Optional)



OPERATION

Turn On/Off the Unit
Turn on the UPS unit on AC mode by pressing the power switch for 1 second. Turn off the UPS unit on AC mode by pressing the power switch for 4 seconds.

Connect to Utility and Charging
When UPS is connected to AC power and power switch is on, UPS will charge battery automatically.
The UPS is designed with the function of OFF-Mode Charging, so UPS will charge battery continuously when power switch is off and AC power is supplied. To power off UPS completely on OFF mode, please remove the input of AC power.

DC Start
Turn on the UPS unit on Battery mode by pressing the power switch for 1 second. Turn off the UPS unit on Battery mode by pressing the power switch for 4 seconds, and UPS will be completely turned off in 10 seconds. Wait another 10 seconds to press power switch for 1 second if you want to turn on the UPS again.

Buzzer
Buzzer will beep when UPS is on Battery mode or having fault situations.
Mute the buzzer by pressing power switch once. Restart the Buzzer by pressing power switch once again.

BATTERY CHARGING AND STORAGE
The UPS is shipping from Factory with internal full-charged battery, but battery power might be lost during

transportation. So please plug in the AC input line cord to wall outlet. For best result, charge the battery for at least 10 hours before initial use.

Storage Temperature	Recharge Period	Charging Duration
-15°C to 30°C (5°F to 86°F)	Every 6 Months	10 Hours
30°C to 45°C (86°F to 113°F)	Every Month	10 Hours

INDICATION TABLE

- LED Model
- Battery Mode

Status	Back-up LED (Yellow)	On-line LED (Green)	Cut-off LED (Red)	Buzzer
Battery normal & Load normal	LED is ON when UPS is on Battery mode; LED flash twice every 4 seconds when battery and load are normal	LED is OFF	Depends on fault condition	Beeps twice every 8 seconds
Battery low voltage	LED flash 4 times every second			Beeps 4 times every second

AC Mode

Status	Back-up LED (Yellow)	On-line LED (Green)	Cut-off LED (Red)	Buzzer
Battery fully charged	LED is OFF	LED is ON	Depends on fault condition	Buzzer is OFF
Battery 70-90% charged		LED flash once every 8 seconds		
Battery 50-70% charged		LED flash once every 4 seconds		
Battery 30-50% charged		LED flash once every 2 seconds		
Battery 0-30% charged		LED flash once every second		

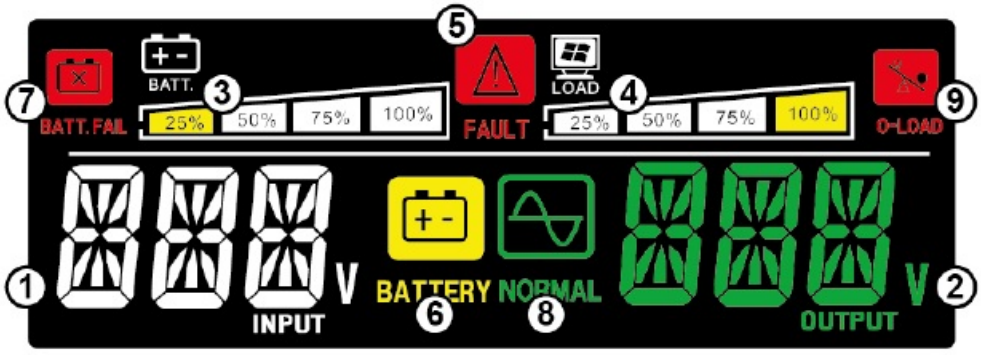
OFF Mode

Status	Back-up LED (Yellow)	On-line LED (Green)	Cut-off LED (Red)	Buzzer
AC input disconnected	LED is OFF	LED is OFF	LED is OFF	Buzzer is OFF
AC input normal: Battery is in charging		LED flash once every 2 seconds	Depends on fault condition	
AC input normal: Battery is fully charged		LED is OFF		
UPS working schedule: Set via Smart USB port	LED flash once every 2 seconds	Refer to On-line LED (Green) of AC mode	LED is OFF	

Fault

Status	Back-up LED (Yellow)	On-line LED (Green)	Cut-off LED (Red)	Buzzer
Over temperature	Depends on AC input or load condition		LED is OFF	Rapid beeping
Overload			LED flash twice every second	Constant tone
Output short circuit			LED is ON	Rapid beeping

LCD Model



	Indicators	Description
1	Input Voltage	Indicate input line voltage.
2	Output Voltage	Indicate output voltage.
3	Battery Capacity	Indicate estimated battery capacity. The accuracy will be influenced by UPS operation mode and load capacity.
4	Load Capacity	Indicate load level, the percentage of UPS full load.
5	Fault Icon	Icon is ON when UPS is fault. Buzzer beeps constantly or rapidly.
6	Battery Icon	Icon is ON when AC power is abnormal and UPS is on Battery mode. Buzzer beeps twice every 8 seconds when battery and load are normal. Buzzer beeps 4 times every second when battery low voltage.
7	Battery Fail Icon	Icon is ON when UPS battery is abnormal.
8	Normal Icon	Icon is ON when UPS is normal.
9	Overload Icon	Icon is ON when UPS is overload. Buzzer makes constant tone.

TROUBLESHOOTING

Check UPS with the below steps when you face UPS failure problem:

- Is the power switch of UPS turned on?
- Is UPS plugged into a working wall outlet?
- Is line voltage within the rating specified?
- Is circuit breaker active or AC fuse blown out?
- Is UPS overloaded?
- Is UPS battery not fully charged?

Use the table below to solve the UPS operation problems. If the problems cannot be resolved, please provide model name, serial number, date of purchase, date of the problem occurred and full description of the problem including load status, UPS LED or LCD status, UPS buzzer status, and installation environment. .. etc. when call for service.

Problem	Probable Cause	Solution
UPS will not turn on and LED or LCD is not ON	Battery voltage is less than 10VDC	Charge the UPS at least 5 hours
	PCB is failure	Call for service to replace the PCB
UPS is always on Battery Mode	Power cord is loose	Reconnect the power cord properly
	Circuit breaker is tripped	Reset the circuit breaker on the UPS back panel
	PCB is failure	Call for service to replace the PCB
Backup time is shortening	Battery is not fully charged	Charge the UPS at least 5 hours
	Battery defect	Replace the battery with same type of battery
Buzzer continuously beeping when AC is normal	UPS is overloaded	Remove some loads first. Make sure the equipment plugged in to the UPS is not overloading the capacity of UPS

SPECIFICATION

INPUT

- Voltage 11 0/115/120VAC or 220/230/240VAC
- Voltage Range -30%, +25%
- Frequency 50/60Hz (Auto-sensing)

OUTPUT

- CapacityLabel specified
- Voltage Regulation +/— 1 00/0
- (Battery Mode)
- Frequency 50/60Hz +/-1 Hz
- WaveformSimulated sinewave
- Transfer Time <6ms (Typical)

BATTERY

- Type Sealed maintenance-free lead acid
- Recharge Time 5 hours to 90% after fully discharged

- Safety Protection Overcharge and over-discharge protection
- Advance Battery Yes
- Management

INDICATORS

- LED Model AC normal(Green), Backup(Yellow), UPS Cut-off(Red)
- LCD Model Programmed LCD
- Alarm Buzzer ON for battery mode, low battery, overload, fault

PROTECTION

- Short circuit Line Mode: AC breaker and electronic circuit Battery Mode: electronic circuit
- Over-temperature Thermal switch
- Over/Under Voltage yes
- Surge Protection 510 Joules

SAFETY/REGULATORY

- Safety Approvals EN 62040-1
- EMC Compliance EN 62040-2

PHYSICAL

- Operating Temperature OOC to (50F to 1040F)
- Related Humidity O to 95% (Non-condensing)
- Audible Noise <40dB at 1M
- Dimension(D*W*H) 360* 150* 160mm

*Product specifications are subject to change without further notice.

701-0071872 UPSAplusB-1543-N-01

Documents / Resources

	A Plus 800 VA Line Interactive UPS [pdf] User Manual 800 VA Line Interactive UPS, Line Interactive UPS, Interactive UPS

References

- User Manual