

# IDEAL INV-7112 UPS Line Interactive User Manual

## Contents

- [1 IDEAL INV-7112 UPS Line Interactive](#)
- [2 INTRODUCTION](#)
  - [2.1 Features](#)
- [3 CAUTION](#)
- [4 OVERVIEW](#)
- [5 OPERATION](#)
- [6 BATTERY CHARGING AND STORAGE](#)
- [7 INDICATION](#)
- [8 CHANGE BATTERY](#)
- [9 TROUBLESHOOTING](#)
- [10 SPECIFICATION](#)
- [11 Documents / Resources](#)



## IDEAL INV-7112 UPS Line Interactive



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.

## 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, voltage stabilizer, and LCD display in a stand-alone unit, to provide the perfect protection to safeguard your critical devices and valued data.

## Features

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

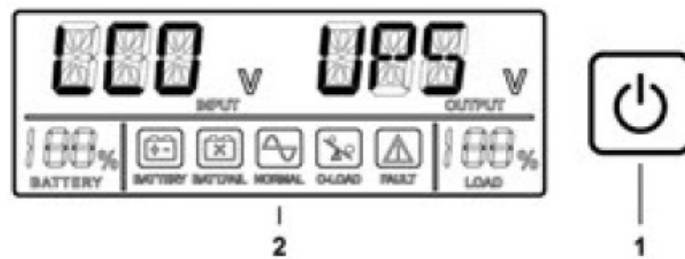
## CAUTION

- The UPS contains electricity that is potentially hazardous. Qualified or certified technicians should proceed with all repairs and maintenance.
- 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, but 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 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.
- A qualified technician or electrician in accordance with the local electrical code should perform the installation.
- DO NOT connect a laser printer or plotter to the UPS. A laser printer or plotter periodically draws significantly more power than its idle status and may overload the UPS.

## OVERVIEW

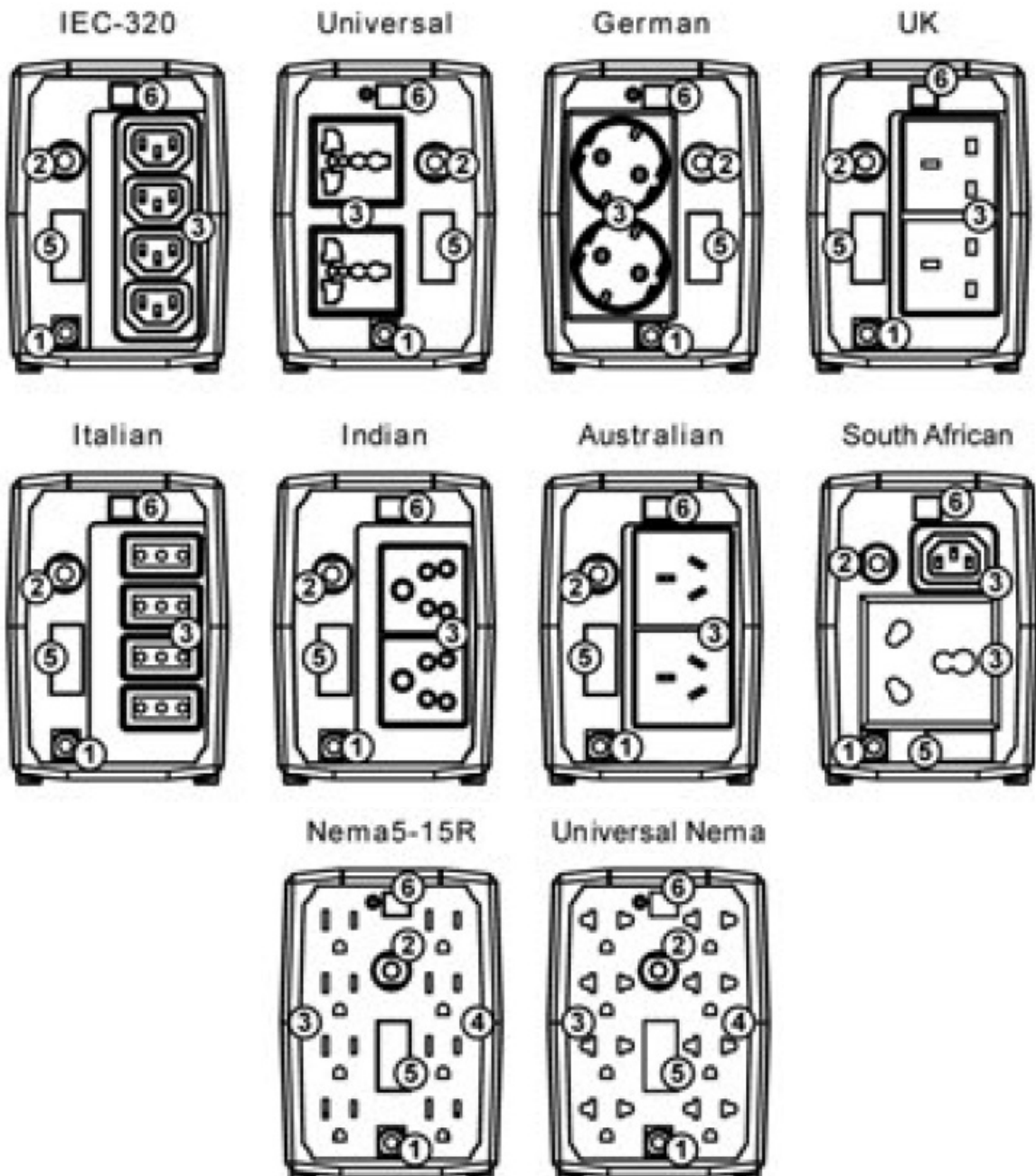
### Front Panel

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



## Rear Panel

1. AC input line cord
2. AC circuit breaker
3. Backup/AVR/surge protection outlet
4. Surge protection outlet
5. Tel/Line/Modem surge protection RJ-45 port (Optional)
6. 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 the power switch is on, UPS will charge the battery automatically. The UPS is designed with the function of OFF-Mode Charging, so UPS will charge the battery continuously when the 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 the power switch for 1 second if you want to turn on the UPS again.

### Buzzer

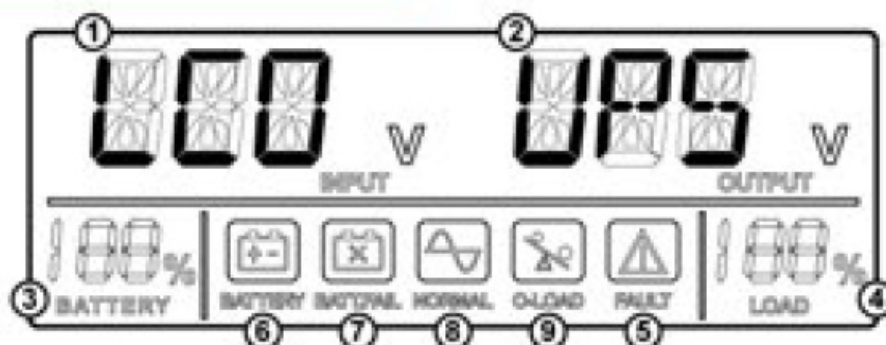
Buzzer will beep when UPS is in Battery mode or having fault situations. Mute the buzzer by pressing the power switch once. Restart the Buzzer by pressing the power switch once again.

## BATTERY CHARGING AND STORAGE

The UPS is shipping from Factory with an 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

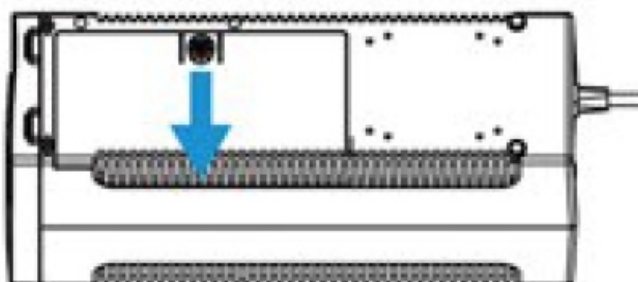


	Indicators	Description
1	Input Voltage	Indicate input line voltage.
2	Output Voltage	Indicate output voltage.
3	Battery Capacity	Indicate estimated battery capacity. The accuracy will be influenced by UPS operation mode and load capacity.
4	Load Capacity	Indicate load level, the percentage of UPS full 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.

## CHANGE BATTERY

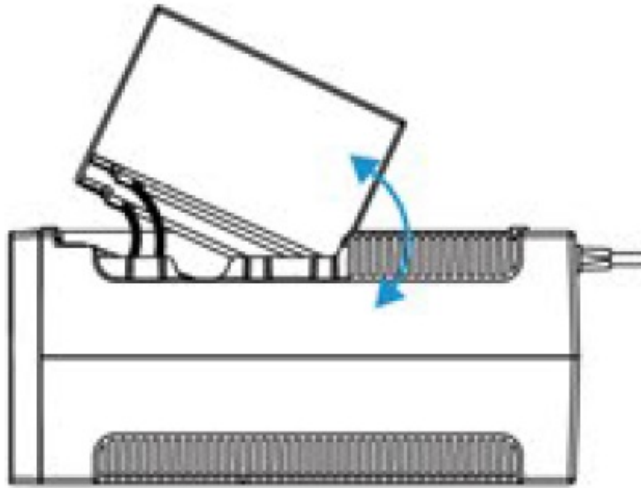
- **Remark:** Only available for battery easy replacement design model UPS.
- **Note:** Small sparks may occur during battery connection, this is normal.

1. Turn the UPS over, and slide the battery compartment cover off the battery housing.



2. LIFT the battery out of the compartment, and disconnect wires from battery positive (+) and negative (-)

terminals. Get a new battery and make sure to re-connect wires to positive and negative terminals correctly.



3. Aligned all arrow marks and slide the battery compartment cover back onto the battery housing. Double-check if the battery compartment is well-locked.

## **TROUBLESHOOTING**

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

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

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

Problem	Probable Cause	Solution
UPS will not turn on and 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 110/115/120VAC or 220/230/240VAC
- Voltage Range Label specified
- Frequency 50/60Hz auto-sensing

### OUTPUT

- Capacity Label specified
- Voltage Regulation (Battery Mode) +/-10%
- Frequency 50/60Hz +/-1Hz
- Waveform Simulated sinewave
- Transfer Time <6ms (typical)

### BATTERY

- Voltage 12VDC



- Recharge Time 5 hours to 90% after fully discharged
- Safety Protection Overcharge and over-discharge protection
- Advanced Battery Management Yes

## INDICATORS

- LCD 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 175 Joules


## SAFETY/REGULATORY

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

## PHYSICAL

- Operating Temperature 0°C to 40°C (5°F to 104°F)
- Related Humidity 0 to 95% non-condensing
- Audible Noise < 40dB at 1M
- Dimension(D°W°H) 315.5°100°141mm

## Documents / Resources

	<p><b><a href="#">IDEAL INV-7112 UPS Line Interactive</a></b> [pdf] User Manual  INV-7112, INV-7112 UPS Line Interactive, UPS Line Interactive, Line Interactive, Interactive</p>
---	---