MICROTEK

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INTELLIGENT PREMIUM SERIES

UPS NEW 850, 12V DG | UPS NEW 1050, 12V DG & UPS NEW 1250, 12V DG



USER MANUAL

ISO CERTIFIED COMPANY ISO CERTIFIED 9001:2015

ISO 14001:2015

CE

3 YEARS ON SITE WARRANTY

www.microtek.in

MICRO CONTROLLER / Micro Computer Inside: Micro Computer based INTELLI Simulated Sinewave iMERLYN NEW UPS is designed using latest state-of-the-art Technology for Better Performance and High Reliability. The INTELLI Simulated Sinewave Technology used enhances the life of the battery and minimum effort has to be put for maintenance.

- Digital Signal Controller / Micro Computer Inside: Micro Computer based Intelligent Control Design.
- Simulated Sinewave Output.
- PWM Controlled multistage ATM (Automatic Trickle Mode) Charging.
- Display Indications (Status & Fault).
- Smart Overload Sense and Short Circuit Protection.
- Easily Serviceable and Auto Reset Feature.
- Mains Input Voltage Range Selection.

Over Voltage Protection: The UPS will switch to Backup mode & offers power from the battery when the mains voltage is too high.

Over Load / Short Circuit Protection : If the UPS is excessively overloaded in Backup mode or encounters a short circuit, it will go into protection mode. The output will be shut down in this case.

Battery Deep Discharge / Over Charge Protection : The UPS has in-built electronic protection circuit which protects the batteries from getting deep discharged or over charged.

TECHNICAL SPECIFICATIONS

Product	**UPS NEW 850, 12V DG**	**UPS NEW 1050, 12V DG**	**UPS NEW 1250, 12V DG**
VA/Wattage	715VA/590W	925VA/760W	1115VA/925W

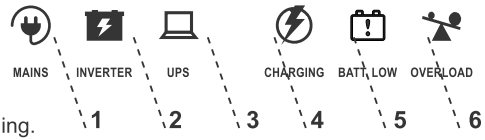
Input voltage	(INV) (UPS)	80V~290V 180V~265V
Output Voltage on Mains mode		Same as input
Output Voltage on Backup mode		230Vac ± 10% @DC = 12V
Output frequency on Backup mode		50 Hz ± 1 Hz
Switching from Mains to UPS and from UPS to Mains		Automatic
Output waveform on Mains mode		Same as Input
Output waveform on Backup mode		Simulated Sinewave
Battery Charging Current		10A/12A/15A/20A variety of current types can be Selected
Battery Type Selection Options		TUB/SMF/FLA-LC/Lithium
Protections		Overload/Short Circuit/Over Charge/ DC High Voltage/Over Temp./Backfeed
UPS Transfer Time		≤ 15msec.
Browns Out Mains Voltage		80V ± 10V
Technology		Micro Computer Based Intelligent Control Design.
Auto Reset Feature		Yes
Operating Temperature		0~45°C

NOTE: *Power Factor may vary depending upon the Load. * Because of a policy of continuous product improvement, specifications are subject to change without notice.

FRONT PANEL

I. LED Indications

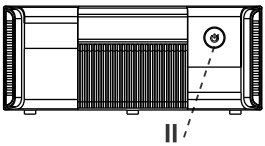
1. Mains ON.
2. Inverter Mode.
3. UPS Mode.
4. Battery Charging LED
   LED will Flash when Charging.
   Full LED Glows when fully Charged.
5. Battery Low LED.
6. UPS Overload LED.
   If UPS Overload/OTP/Short Circuit/Over Charging/DC High the LED will Flash or Glow.



II. Power Button

(a) To changeover from UPS mode to Inverter mode: Press Power Button for 2 sec.

(b) To Flick ON/OFF operation: Press power button for 500 ms.



BACK PANEL

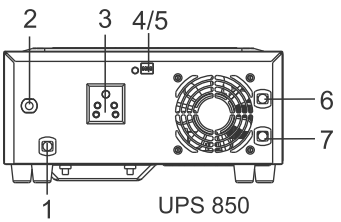
1. Mains Input Lead for AC input.
2. Circuit Breaker for Mains Overload, Short Circuit & Charger Protection.
3. Output socket for Load.
4. Charging Current Selection.

Pin1	Pin2	Charger Current
OFF	OFF	10A
OFF	ON	12A
ON	OFF	15A
ON	ON	20A

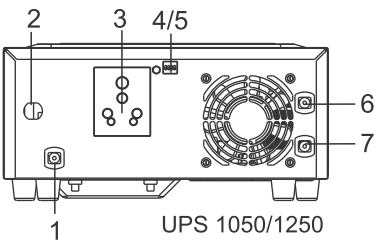
5. Battery Type Selection.

Pin3	Pin4	Battery Type
OFF	OFF	LITHIUM
OFF	ON	SMF
ON	OFF	FAL-LC
ON	ON	TUB

6. Positive “+” Battery Lead (12V DC).
7. Negative “-” Battery Lead (12V DC).



UPS 850



UPS 1050/1250

CAUTION: Proper selection of switch position is recommended based on the battery manufacturers specifications, for proper backup and also to avoid any damage to the battery due to wrong selection.

TROUBLE SHOOTING

Problem	Possible Cause / Action Suggested
1. **Main Supply is Normal but**	
a) UPS is working on battery **(INV. LED or UPS LED Glows)**	a) Dead wall socket, Line AC input Connections are loose/not proper.
b) CB Trip **(MAINS LED Flash)**	b) Check Circuit Breaker at the Rear Panel. Push the CB. Reset to Switch on the output. If trips again, call auth. service personnel to check short/overload in the output circuit.
2. **UPS trips freq. at Backup mode**	The load is more. Reduce the load & reset the UPS.
3. **Backup Mode but no power**	
a) Overload **(Overload Red LED Glows)**	a) Reduce the load and reset the UPS.
b) Low Battery **(Low Battery Red LED Glows)**	b) Battery has discharged. Recharge the battery after the mains restoration. Check the battery type selection pin location, reset to right setting.
c) Short Circuit **Overload Red LED Glows)**	c) Remove the load & reset the UPS, if working normally, may be wrong wiring or load abnormal. If still short circuit, call auth. service personnel.
d) OTP **(Low Battery and (Overload Red LED Glows)**	d) Reduce the load & reset the UPS. Check working status of fan, if fan working abnormally call auth. service personnel.
e) Other Faults **(Overload Red LED Glows)**	e) Reset the UPS, if still alarm buzzing, call auth. service personnel.
4. **Backup Time is Less**	Check battery water & charge the battery with mains, min. for 8-12 hours. If still the backup time is less, get the battery checked up by auth. service personnel.
5. **UPS does not Operate**	Check the battery & the mains connections. Internal problem. Bypass UPS as explained in the next section and call auth. service personnel.

BATTERY - INSTALLATION & CONNECTIONS

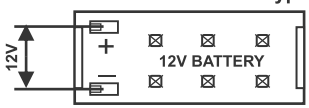
CAUTION: Battery Polarity must be checked before connections. Wrong Polarity connection with UPS will Cause Reverse Protection Fuse Blown and may lead to Fire Hazards.

Installation shall be done by a knowledgeable person.

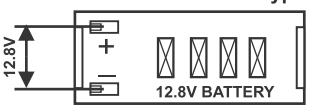
- Take precautions while connecting the thimble of battery cable to the battery post, avoid short circuit by spanner etc.

BATTERY CONNECTIONS:

Lead Acid Type



Li-ion Type

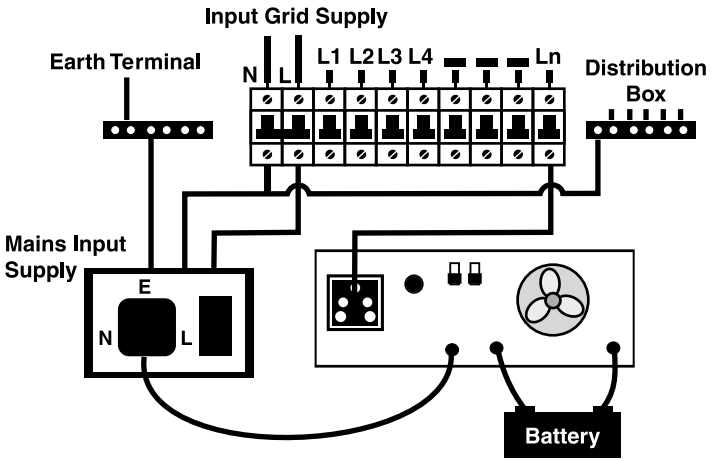


NOTE: Recommended Battery (Lead Acid Type): 12V System: 1x12V / 100AH-200AH

NOTE: Recommended Battery (Li-ion Type): 12.8V System: 1x12.8V / 120AH

CONNECTION DIAGRAM FOR INSTALLATION

TO BE DONE BY A COMPETENT & KNOWLEDGEABLE PERSON.



L - Mains Line I/p

N - Neutral

E - Earth

* When the Push switch is at OFF position then it By-Pass the mains AC supply & charges the Battery.

* When the Push switch is at ON position(Pressed) and is having alternating supply, It charges the battery and has mains By-Pass and when the alternating supply(mains) is not present at that instant it is ready for Backup.

STEPS FOR UPS INSTALLATION

TO BE DONE BY A COMPETENT & KNOWLEDGEABLE PERSON.

- Switch OFF the supply to the distribution point to which the UPS unit is to be connected.
- For extra safety also remove the fuses from the line. Make absolutely sure with measurement that there is no power.
- A readily accessible disconnect device must be incorporated in all fixed input wiring. The disconnect device shall have a contact separation of at least 3mm. The UPS has automatic backfeed isolation but for extra safety a warning label can be added on all primary power isolators installed remote from the UPS to warn electrical maintenance personnel.
- Check the building wiring, Improper wiring will not prevent the UPS from operating but will limit its protection capability. Improper building wiring could result in equipment damage that is not covered in warranty.
- Connect the Battery/Batteries to UPS as per its requirement.
- Keep the front switch of UPS on OFF position.
- Connect the Load wire to the right hole of Output Socket located on the rear panel of UPS.
- Switch ON the front Switch of the UPS.
- Connect AC input wire to commercial mains socket.

SERVICING / WARRANTY

Microtek International P. Ltd., warrants each instrument to be free from defects in materials and workmanship for a period of Three years after initial delivery and date of sale to end customer. This obligation is limited to servicing any instrument or part returned to the authorised service center for that purpose and to making good any parts thereof which shall, within the warranty period, be returned to the company or authorised Service center under a written intimation and which to the company's satisfaction be found defective. The company reserves the right to decide as to whether the repair work should be carried out in the company's service center or at site or at any other place.

The freight incurred for to and fro dispatch will have to be borne by the customer and the transit risk for the material will rest with the customer.The warranty shall be deemed void if any defect or failure arises due to accident, abuse, misuse, neglect, improper installation (if not carried out by the Company or its authorized representative), fire, flood, act of God, or any other natural calamity. All defects and failures shall be inspected, assessed, and conclusively determined solely by the Company's trained service engineers or authorized technical experts only.

This warranty shall not apply to any product that has been repaired, altered, or tampered with by any person or agency not authorized by the Company. Any service provided in such cases shall be treated as chargeable (paid) service.

The Warranty will last for a period of 36 months. The warranty begins from the date of purchase. However, for hassle free paperless warranty, Please Register the purchase either at our WhatsApp No., OR ask the Dealer to register in Microtek Partner APP. The warranty for the replaced components will lapse along with that of the main instrument.

MICROTEK International P. Ltd., reserves the right to make changes in design and specifications without notice and without any obligation to install such changes on units previously supplied.

In no event will MICROTEK International P. Ltd., its distributors / dealers be liable for any loss or injury or damage caused to life or property or death & disability caused to any form of life for any reasons whatsoever. The company, its distributors / dealers will also not be liable for consequential damages or for any expenses incurred by the buyer or user, due to use or sale of products sold by MICROTEK International P. Ltd., directly or through its authorised Distributors / dealers or any third party.

SAFETY INSTRUCTIONS

Always connect the UPS to a two pole, three-wire grounding mains socket, near by the product. The socket must be connected to appropriate branch protection (fuse/circuit-breaker). Connection to any other type of socket may result in a shock hazard.

To switch off the UPS output in emergency, use switch on the Front panel. Also disconnect the mains cord and battery wires.

Avoid installing the UPS in open, excessively humid place or where there is water or near flammable materials (plywood, chemicals, gasoline etc.). Care must be taken to ensure that the UPS is kept away from heat-emitting appliances such as a heater, blower, oven etc.

The unit must also be placed in a manner that it avoids exposure to sunlight. The place of installation should be well-ventilated & easily accessible for servicing. Ensure that ELCB/RCCB is not connected at either Input or Output, Only MCB upto 63A or MCCB above 100A to be used as per UPS capacity.

Foreign objects and water must not enter the UPS. Always ensure that objects containing liquid are avoided near the unit.

Place the Battery Compartment as near as possible to the UPS. Don't allow sparks near the Battery. Be sure not to come in contact with Battery Acid by any means.

Always Switch Off the UPS and disconnect mains when disconnecting the Battery.

Avoid connecting the stabilizer between Utility Power and UPS. The AVR of the stabilizer may cause rebooting of the Computer. The equipment must be earthed.

Do not open the UPS there are dangerous high voltages inside even when the power is OFF, Contact the Company only if it is not working properly.

Replace Batteries and the Fuse only with same Rating and Type.

Do not place UPS on a sloping shelf unless properly secured. Use perfect stand to hold the UPS.

Backfeed, See the warning label on the UPS.

IMPORTANT

In the event of any instrument requiring service at our authorised service centre, the following procedure should be adopted:-

1. The instrument must be securely packed, preferably in its original packing. Also ensure that nothing inside packing is damaged. Please transport the product in its original packing to protect against shock, damage & Impact.
2. We reserve the right to charge the consignee for any damage incurred during transit.
3. The output of the UPS should never be connected to a generator or incoming utility power source. This situation is far worse than a short-circuit. If the unit survives the condition, it will shutdown until correction is made.

GOING ON VACATIONS

1. Must put the UPS ON/OFF Switch in OFF Position.

DO'S & DON'TS RELATED TO UPS

Do's Related to UPS

- ✓ Unplug and Switch OFF the UPS before touching or cleaning the surface.
- ✓ Unplug the UPS from the wall outlet during a Lightening Strom.

Don'ts Related to UPS

- ☒ Don't block the bottom ventilation slots by cloth or other material it may result in fire hazard.
- ☒ Don't place the UPS near radiation or heat source.
- ☒ Don't Install near Kitchen Sink, Laundry, Wash Bowl, Bath Tub or Swimming Pool.

In case of any Service requirement kindly contact Microtek Customer Care, specifying following details:

(i) Model Number & Serial Number of the Product.

(ii) Name & phone no. of the contact person with full address & e-mail ID if any.

(iii) Reported problem/description of the complaint.

Note: (a) Refer all servicing queries to Microtek Customer Care only.

(b) Please take care that Serial Number is kept intact and that the product is not allowed to be fiddled (opened) by any unauthorised person; otherwise the warranty will be void.

MICROTEK CUSTOMER CARE:

ALL INDIA CALL/WHATSAPP: 7283838383

E-mail: cc@microtek.in

*All disputes subject to Delhi jurisdiction only.

MICROTEK INTERNATIONAL P. LTD.

H-57, Udyog Nagar, Rohtak Road, New Delhi-110041.

POST WARRANTY ANNUAL MAINTENANCE CONTRACT (AMC)

Microtek Offers Annual Maintenance Contract to save you from any inconvenience in case of a product failure post warranty. Various options are available in select cities for all models of Microtek Products:-

For Details, Contact nearest Microtek Branch or e-mail at: ho@microtek.in

INSTRUMENT DESCRIPTION

MICROTEK iMERLYN NEW ADVANCED DIGITYAL **EXTERNAL BATTERY** UPS

Single Battery (12V) System:

iMERLYN NEW 850, 12V DG (MTK310R850DG) ☐

iMERLYN NEW 1050, 12V DG (MTK310S1K50DG) ☐

iMERLYN NEW 1250, 12V DG (MTK310T1K250DG) ☐

SERIAL NO.

Authorised Dealer Stamp with Signatures

EPR INFORMATION: 1. Company Name: Microtek International Private Limited **2.** EPR Registration No.: BO-24-000-12-AAACM0092P-24. **3.** Category of Plastic Packaging: Cat-II Flexible Plastic Packaging. **4.** % of Recycled Plastic: 10 % Recyclable LDPE. **5.** Thickness of Plastic Packaging: Above 51 Micron. **6.** Registration Number for Compostable/Biodegradable Plastic: Not Applicable

Vend. C:
Form No.: QPN/003-448
Issue No.: 04, 01/02/2026 (Part Code: 902-954-N250)