ILLUMINO 850VA/1450VA STAR

USER MANUAL

Front of inverter

1. Switch to switch on the inverter for standby mode.
   If the switch is not pressed in, the inverter will still charge the battery and provide a mains output. The inverter will not provide an output when mains power falls away.
   If the switch is pressed in, the inverter will provide output to run appliances when the mains power falls away.
2. Isolator switch to connect and disconnect the battery from the inverter.
   The switch must be switched on, before powering on the inverter and for the inverter to act as backup power supply.

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1. Power button to switch on display.
   The display will switch off automatically after a while to save power.
2. Current going into or out of the battery.
3. Voltage of the battery.
4. Temperature of the battery.
5. Time till battery is fully charged.
   When acting as a UPS, this will show the time remaining until the battery is empty.
6. State of charge of the battery, how full the battery is.
7. Charging The battery is being charged
   Discharging Power is flowing out of the battery
   Standby Battery is not being charged or discharged.

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1. Toggles if the battery may discharge or not.
2. Toggles if the battery may be charged or not.
3. Remaining capacity of the battery.
4. How many cycles the battery has done.
5. The max temp and min temp of the cells.
6. This is used when testing, has no function or information that is usable.
7. Indicates if the battery is charging, discharging or normal.
8.

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Indicates the voltages of all the cells.
Green is the highest voltage.
Blue indicates the lowest voltage.

Back of inverter

1. Plug to connect your appliances
2. Reset switch if there was a short circuit or overload
3. NC Normal charge (Will take 6 - 7 hours)
   HC High charge(Will take 4 - 5 hours)
4. Function as a normal inverter, or a UPS (UPS has faster switching time)
5. Inverter information and serial number

SALIENT FEATURES

NO.	FEATURES	DETAILS
1	Output Wave Form	Low frequency Pure Sinusoidal Wave Form
2	Power Card Design	Microcontroller based, MOSFET Topology
3	Power Transformer Design	Aluminum Winding
4	Charging Technology	ASIC (Automatic Sense Intelligent Control)
5	Cooling	Air Cooled by in-built ventilation cooling fan
6	Mains Low Voltage Charging	Available (8 ~ 10 Amp Current at 120V Mains Inputif Battery Voltage Below 13V)
7	Wide Voltage Range	Wide Voltage Range From 90V - 300V For Charging
8	Display Type	LED Indicator
9	Protections	• Output Short Circuit Protection with Audio Alarm • Battery Reverse Protection Through DC Fuse • Short Circuit Protection at Mains Mode throughAC Fuse with Audio Alarm • Battery Under Voltage and Over Voltage Charge Protection • Intelligent Overload Sensing Circuitry with auto retries facility with Audio Alarm • Phase Reverse Protection as Short Circuit with Audio Alarm • Over Temperature Protection with Audio Alarm

TECHNICAL SPECIFICATIONS

NO	PARAMETERS	650VA	850VA	1050VA	1450VA
1	No Load Output Voltage	220V±7V			
2	Charging Current (±1A)	HC-15A NC-11A	HC-17A NC-12A	HC-18A NC-13A	HC-17A NC-12A
3	Transfer Time (UPS Mode)	< 10msec			
4	Battery Boost Voltage (±0.2V/ Batt.)	14.4V			28.8V
5	Battery Float Voltage (±0.2V/ Batt.)	13.7V			27.4V
6	Charging Voltage Range (Normal Mode)	90 VAC - 300 VAC			
7	Charging Voltage Range (UPS Mode)	180 VAC - 270 VAC			
8	Output Frequency (Back-up Mode)	50Hz ±1Hz			
9	Output Wave Form	Pure Sine Wave			
10	Total Harmonics Distortion (THD)	<5% at Linear Load			
11	Operating Temperature Range	0˚C to 45˚C			
12	Over Temperature Range	90˚C ± 5˚C			
13	Over Load Retries	6 Time Auto Retries			
14	Battery Low Retries	4 Time Auto Retries			
15	Battery Low Pre-Alarm (±0.2/Batt.)	10.8V			21.6V
16	Battery Low Cut-Off (±0.2/Batt.)	10.5V			21.0V
17	Short Circuit Retry	Available			
18	Overload/Short Circuit/BatteryLow Reset	Through ON/OFF Switchor Mains Input			

Picking up your ILLUMINO

Always pick up your ILLUMINO from the very bottom.
Do not try to pick it up from the inverter.