WINNER - SMART LIVING & EFY AWARDS

MICROTEK

TECHNOLOGY WE LIVE

CERTIFIED ISO 9001 : 2000 MILLENNIUM COMPANY

SINEWAVE INVERTER

USER'S MANUAL

5.5KVA-8KVA-10KVA

AN ISO 9001:2000 COMPANY

Congratulations on selecting MICROTEK Sinewave Inverter & subsequently joining the family of the millions of satisfied users of Microtek Products.

Before using this inverter, Please read this manual carefully to familiarize yourself with all its features, controls and safety precautions.

Enjoy Uninterrupted Power !

SINEWAVE
INVERTER

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TABLE OF CONTENTS

THE COMPANY

MICROTEK - A MASTER IN ITS CHOSEN FIELD

MICROTEK INTERNATIONAL P. LTD., is the country's largest Power Products manufacturer. Six manufacturing plants, each specialising in different sphere of Power industry has made it possible for Microtek to harness the World's latest technology, perfect it and incorporate it in its product range, for the user's benefit. It is this dedication of mastering its chosen field by continuously upgrading and investing that has won Microtek national awards and international recognition.

OVER 10 MILLION DELIGHTED CUSTOMERS

Microtek's commitment to maxim “Better products through better technology” and “Providing total customer satisfaction through internationally recognised quality” has transformed into business excellence. Microtek has now the largest installation base, which is growing at the fastest pace month after month & year after year.

THE PRODUCT

Inverter is a electronic power source which stores the energy in batteries connected to it when the AC source is present and converts this energy automatically to AC power when the Input AC source fails and automatically feeds generated AC power to the loads connected & returns to mains when the AC source comes back on the input side.

FRONT PANEL

I. LED Indications

1. Mains ON.
2. Inverter ON.
3. Battery Charging.
[LED Blinks when Battery is Charging.]
4. MCB Trip.
5. Battery Low.
6. Overload.

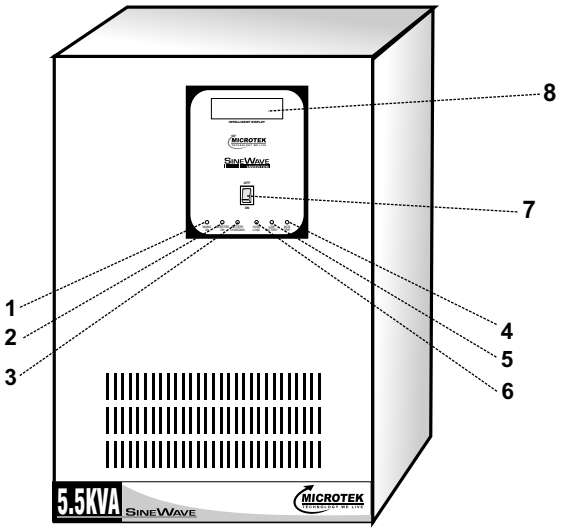
II. Switch

7. Power On / Off & Reset.

III. LCD Panel

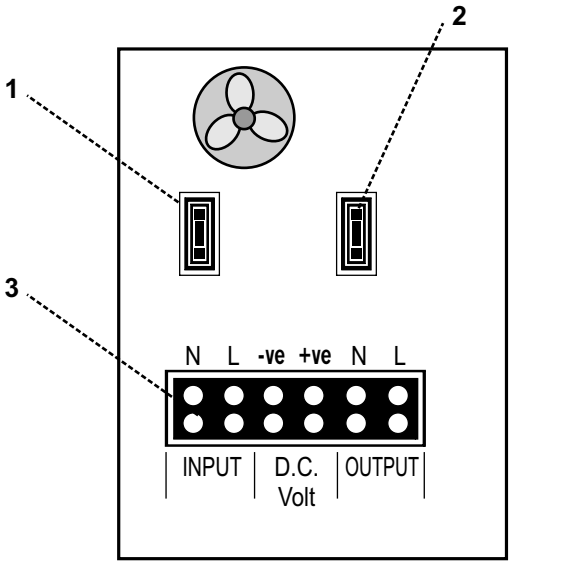
8. LCD Indications

a) Input Voltage.
b) Output Voltage.
c) Input/Output Frequency.
d) Load Level.
e) DC Voltage.



BACK PANEL

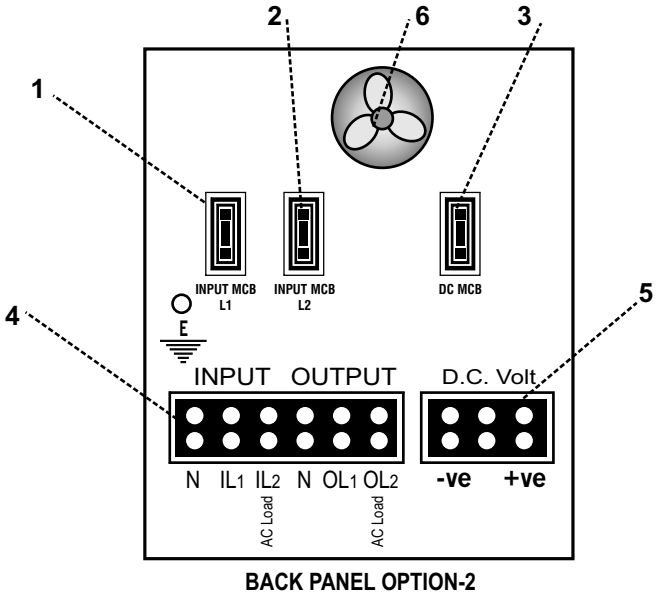
1. Mains Charger MCB
2. DC MCB
3. Terminal Block for
   AC INPUT
   BATTERY CONNECTION
   AC OUTPUT



BACK PANEL OPTION-1

BACK PANEL

1. MCB for Normal Load Input - L1
2. MCB for Air-Conditioner Input - L2
3. DC MCB
4. AC INPUT/OUTPUT Terminal Block
   - IL_1 - Input Line for Normal Load
   - IL_2 - Input Line for Air-Conditioner
   - OL_1 - Output Line for Normal Load
   - OL_2 - Output Line for Air-Conditioner
   - E - Earth
   - N - Input/Output Neutral
5. Battery Terminal Block
6. Cooling Fan



BACK PANEL OPTION-2

LOAD CHART

The following Data should be used for calculating the total load in VA, while using the Inverter.

LOAD	STANDARD RANGE	GENERAL RANGE
1. Tube light new / good choke	75 VA	60 VA ~ 75 VA
2. Tube light with old / inferior choke	105 VA	75 VA ~ 105 VA
3. Electric bulb	As per actual Wattage (eg. 60 W Bulb as 60 VA)	
4. Fan below 48” size	100 VA	75 VA ~ 100 VA
5. Fan above 48” size	125 VA	100 VA ~ 125 VA
6. Television 14” / 21”	150 VA	125 VA ~ 150 VA
7. C. F. L. 9 W / 11 W	40VA	25 VA ~ 40 VA
8. Air-Conditioner 1Ton	4KVA	3KVA~4KVA
9. Air-Conditioner 1.5Ton	5KVA	4KVA~5KVA
10. Air-Conditioner 2Ton	7.5KVA	6KVA~7.5KVA

Note: LOAD may vary for different Brands. The above mentioned values are just indicative.

TROUBLE SHOOTING

	Problem	Possible Cause / Action Suggested
1.	Main Supply is Normal but:-	
	a) Inverter is working on battery with **Mains ON** LED OFF and **Inverter ON** LED ON.	a) Dead wall socket. Line AC input connections are loose.
	b) **Mains ON**, **Inverter ON** and **Battery Charging** all LED Glow with flicker.	b) AC input line & neutral connections are reverse.
	c) No Output / MCB Trip LED ON.	c) Check MCB at rear, if OFF, Turn it ON. If MCB trips again call electrician to check shorting / Overload in the load wiring.
2.	Inverter trips frequently at inverter mode.	The load is more. Reduce the load and reset the inverter.

TROUBLE SHOOTING

	Problem	Possible Cause / Action Suggested
3.	Inverter Mode but no power:-	
	a) **Overload LED ON.**	a) Reduce the load and turn the reset switch on the front panel ON-OFF-OFF-ON.
	b) **Low battery LED ON.**	b) Battery has discharged. Recharge the battery after the mains restoration.
4.	Backup time less.	a) Check battery water & charge the battery with mains minimum for 8-12 hours. If still less back up, get the battery checked up from authorised service personnel.
5.	Inverter does not operate.	a) Check the battery connections and the mains connections. b) Internal problem. Call authorised service personnel.

TECHNICAL SPECIFICATIONS

Input voltage	110V~280V
Output Voltage on mains mode	Same as input
Output Voltage on inverter mode	220V ~ 240V ± 10%
Output frequency on inverter mode	50 Hz ± 0.1 Hz
Switching from mains to inverter and from inverter to mains	Automatic
Output waveform on mains mode	Same as Input
Output waveform on inverter mode	PURE SINE WAVE
Battery charging current	Constant charging approx 10% of the rated battery current in AH
Charger	Constant current, Constant Voltage
Efficiency	> 92%
Inverter Overload	110%
Inverter short circuit	300%
Browns out mains voltage	100V ± 40V
Technology	Modified PWM using IGBT
Auto Reset Feature on inverter mode	Optional

NOTE:- Because of a policy of continuous product improvement, the specifications are subject to change without notice.

SERVICING

In the unlikely event of your facing problem that has not been sorted out by troubleshooting, kindly contact your authorised dealer and give details of the problem along with the serial number and the date of installation. This would enable a prompt action on part of the authorised service personnel and cause minimum down time.

WARRANTY

Microtek International P. Ltd., warrants each instrument to be free from defects in materials and workmanship for a period of One year after initial delivery. 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 does not extend to any parts of the instrument which have been subjected to misuse or accident. Further, this warranty does not extend to any instrument which has been tampered with by any agency not authorized by the company.

The warranty will last for a period of 12 months from the date of initial delivery/dispatch of the instrument if used within its specifications. The warranty for the replaced components will lapse along with that of the main instrument.

WARRANTY

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 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.

Until superceded otherwise or in contractual form this warranty is made expressly in lieu of all other liabilities and obligations on part of MICROTEK International P. Ltd.

Title to the Instrument passes to the buyer upon delivery to the common carrier.

POST WARRANTY ANNUAL MAINTENANCE CONTRACT

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

For Details, Contact nearest Microtek Branch or e-mail at: power.support@microtekdirect.com

IMPORTANT

1. Ensure all Switch and MCB are in OFF position.
2. Properly Connect Input, Output and Batteries Bank with the inverter.
3. Connect Battery Wire First to the Inverter and Only after that to the Battery Bank.
4. Connect Normal Load Input to the IL1 of the Terminal Block.
5. Connect Stabilizer Output (for Air conditioner) to the Input IL2 of the Terminal Block (for 5.5 KVA & above).
6. Connect Air conditioner Load to the OL2 Output of the Terminal Block and Normal Load to the OL1 of the Terminal Block.
7. Switch ON DC MCB followed by MAINS MCB and Air conditioner MCB, then Switch ON the Front Panel Power On Switch of the Inverter.

In case of any "Customer Support" requirement kindly contact the nearest Microtek Authorised Dealer or Microtek Branch/Service Centre, 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 complaint.

Note:- (a) Refer all servicing queries to Microtek Authorised Dealer or Microtek Service Centres 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.

Service H.O. Tel: 011-25479982-85 **E-mail:** power.support@microtekdirect.com

*All disputes subject to Delhi jurisdiction only.

MICROTEK
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MICROTEK INTERNATIONAL P. LTD.
H-57, Udyog Nagar, Rohtak Road, New Delhi-110041. Sales Tel.: 011-25967345(5Lines)
Sales E-mail: sales@microtekdirect.com **Service E-mail:** power.support@microtekdirect.com

Form No.: QPN/003-119
Issue No.: 04, 16/10/2007

002-149-INV SW 5.5/8/10KVA V.4