MEDALPOWER

INVERTER

1500VA

Medal Power Inverter

MPi-1500VA#24VT

www.medal-power.com

1. Preface

Thank you for purchasing this series of products.
This series of uninterruptible power supply systems can effectively suppress lightning strikes, surges, pulses and filter noise when the mains voltage is normal, and automatically adjust the output voltage when the mains is too high or too low. When the mains is abnormal, the output electricity will be immediately converted to battery power and it is the power patron of personal computers and other over-sensitive electronic devices.

2. Safety instructions

(1)This system product is not recommended for other special important equipment for life support systems.
(2)Even if it is not connected to the mains, its power outlet can still have 220 V.

(3)If the power cord needs to be replaced, please purchase raw materials from our service station or dealer to avoid fire caused by heat caused by insufficient capacity.
(4)To avoid the risk of electric shock, please DO NOT open the cover by yourself.

CAUTION !

Please be caution of the high pressure inside the machine.In order to avoid personal injury,if you have queries,please consult the dealer professional or repair centor,but do not repair it by yourself.

There are no repair parts in the machine

3. Installation notes

Unpacking inspection
Please check the attached accessories after opening the package, including external power cord, manual, warranty card, and certificate. Please also check if the machine is damaged during transportation. If damages could be found or the attachment was missing, do not switch it on and inform the carrier and dealer.
Installation precautions:

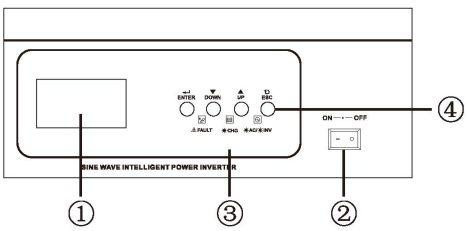
(1) The placement area must be well ventilated, away from water, flammable gases and corrosives.(2)The ambient temperature should be maintained between 0 ℃ and 40 ℃.

(3)When using the machine, please do not connect to the mains through other regulated filter power supply or power board. Please plug the power cord directly into the mains socket. And the machine should be placed near the mains input socket, so that the mains input plug can be unplugged in case of emergency and the power supply can be cut off.

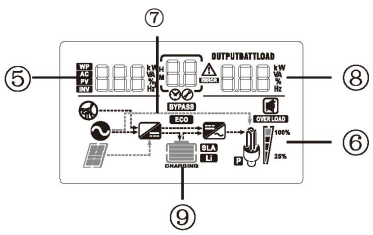
(4)Due to the influence of the electromagnetic field of the transformer, the distance from the display must be more than 25 cm, otherwise the display will flash.

4. Illustrations of panel appearance

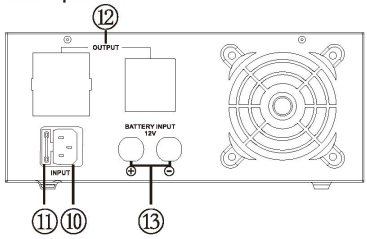
Front panel



LCD display



Back panel



Panel descriptions:

①LCD display

②Power switch

(1)Battery on

Press the left to turn on, you will hear a beep and notice the LCD screen lights up, the battery working mode lights up when the output voltage value is displayed at the upper right of the display. Those actions indicate that the machine enters the battery operation and outputs voltage to the load;

(2)Mains on

Press the left to turn on, you will hear a beep and notice the LCD screen lights up, the mains work mode lights up. The upper left side of the display shows the current mains voltage value, and the upper right shows the output voltage value. Those actions indicate that the machine enters the battery and outputs to the load voltage;

(3)Power off

Press the right to turn off, you will hear a beep and notice the LCD screen goes out,indicating that the machine is turned off and the output is stopped.

③LED Indicator

LED Indicator			Messages
☀AC/☀INV	Green	Solid On	Output is powered by utility in Line mode.
		Flashing	Output is powered by battery or PV in battery mode
☀CHG	Yellow	Solid On	Battery is fully charged
		Flashing	Battery is charging.
⚠FAULT	Red	Solid On	The inverter is in the fault waming status

④Function Keys

Function Key	Description
ESC	To exit setting mode
UP	To go to previous selection
Down	To go to next selection
DOWN ENTER	To confirm the selection in setting mode or enter setting mode

Setting Mode/Error Codes for reference

Enter setting mode, Press "ENTER" button for 10 seconds.

Exit setting mode, Press "ESC" button repeatedly.

1.Press "UP" or "DOWN" button to choose the parameter and then press "ENTER" button.

2.When parameter is flashing, press "UP" or "DOWN" to change it and then press "ENTER" button to confirm.

When setting: Setting icon is flashing

Setting succeed: Left-sided frame of the parameter will flash

Setting failed: FAULT light on

Settings	Display (Left)	Display (Mid)	Display (Right)	Setting range	Descriptions
Mains input voltage range	AIr	00	UPS	Narrow range	Mains input range is 180-265V
			APL	Wide range	Mains input range is 155-265V
Mains frequency oltage range	AFr	01	LO	Narrow range	Mains input frequency range is 45-65HZ
			HI	Wide range	Mains input frequency range is 45-65HZ
Working mode	None	02	UTI	Mains priority	The utility power will provide power to the load first. Only when the utility power is not enough to supply the load, the solar energy nd the battery will provide power to the load
			SOL	Solar priority	When solar energy is sufficient, solar energy will be preferentially provided to the load. When there is solar energy but not enough, the solar energy and battery power will provide power to the load at the same time. When there is no solar power, the utility will provide power to the load. At the same time, If the battery voltage drops to the low-battery warning voltage point or the set DC-to-AC voltage point, the mains will also provide power to the load.
			SBU	Battery priority	When solar energy is sufficient, solar energy will be preferentially provided to the load. When there is solar energy but not enough, the solar energy and battery power will provide power to the load at the same time. If the battery vo ltage drops to the low battery warning voltage point or the set DC to AC voltage point, the mains will provide power to the load.
Charging mode	None	03	CUT	Mains priority	The energy of the mains and the solar energy charge the battery at the same time.
			CSO	Solar priority	In the solar priority mode, when the PV meets the requirements, the battery is charged with Solar priority solar energy preferentially, and when the battery voltage is too low, the mains charge will be started
			OSO	Solar charging only	The machine simply uses the energy of solar energy to charge the battery
Mains charging current ratio	ACP	04	100%	10~100%	Adjustable charging current ratio of mains
Solar charging current ratio	SCP	05	100%	20~100%	You can adjust the charging current proportional solar
Boost charging voltage	CU	06	14.2V	13.5~15.0V	Bulk charging voltage setting, according to different types of batteries
Float charging voltage	FLU	07	13.6V	12.5~14.0V	Float voltage setting, according to different types of batteries
Battery lockdown voltage	COU	08	10.2V	9.5V~11.5V	Set the shutdown voltage point of battery protection voltage
Charging voltage of mains recovery	DTA	09	12.0V	11.5~12.5V	Set the battery voltage point when the mains power is involved in the solar energy priority charging mode
Charging voltage of mains off	ATD	10	13.5V	13.0V~14.0V	Select the voltage point of converting from mains to solar power in solar priority mode
Inv. output voltage OU		11	220V	200~240V	Set the inverter output voltage
Mains detection speed	CST	12	HI	High speed	Mains sensitivity settings: high medium low
			IDE	Mid. speed	
			LO	Low speed	

Settings	Display (Left)	Display (Mid)	Display (Right)	Setting range	Descriptions
Inv. output frequency	OF	13	50Hz		Set inverter output frequency
			60Hz		
Fault restart switch	RA	14	TE	On	Restart 3 times after short circuit or overload
			TD	Off	No restart after short circuit or overload
Backlight control	BLC	15	LON	Always on	The display backlight is always on
			LOF	Always off	The display backlight is always off
			LOD	Delay off	Display backlight smart switch
Buzzer control switch	BEC	16	AON	On	Allows beeping in fault state
			AOF	Off	No beeping in any state
Low battery alarm switch	BOL	17	OFF	Off	Intelligent battery protection function, it is not recommended to change
			ON	On	
Load limit	LL	18	OFF	Off	Intelligent transformer temperature protection function, it is not recommended to change
			ON	On	
Load alarm limit	LEL	19	OFF	Off	This setting does not adapt to this inverter. Setting not available.
			ON	On	
Baud rate	BAU	20	0	2400	Set the communication baud rate
			1	4800	
			2	9600	
Output display mode	ODT	21	220V	220V	Set display output voltage
			110V	110V	
Factory	RS		OFF	Off	All settings are restored to factory settings
			ON	On	No recovery process, keep existing settings

LCD display function descriptions:

⑤Mains input display: voltage and frequency are displayed alternately.

⑥Load capacity display: 0, 25%, 50%, 75%, 100%.

(I)The mains working mode (UPS/INV) is displayed.

⑧Battery capacity display: 0, 25%, 50%, 75%, 100%.

⑨The battery working mode is displayed: the machine beeps every 6 seconds until the sound stops when it enters the mains working state.

Back panel descriptions:

⑤)Output socket: it is used to connect the output terminal to the output socket for external load. ⑪ Fuse: It can be used to protect the power short circuit or super-current action to reduce the load and eliminate the short-circuit fault. Replace the fuse to return to normal.

⑫External power socket: connect to the mains through the power cord.

⑤)External battery cable: the red wire connects to the battery positive "+",the black wire connects to the battery negative "-".

Normal mode

The display interface has only one page, and the left and right digital tubes display the input voltage and output voltage. Under normal conditions,the input voltage and output voltage are always displayed. If an alarm message is generated, the voltage parameter is displayed in the first 7s and the alarm message is displayed in the last 3s.

Left digitron	Alarm causes	Right digitron
ALA	Low battery voltage	235
	High battery voltage	234
	Overload	237
	Abnormal output	231

Failure display
Alarm display after failure shutdown.

Left digitron	Alarm causes	Right digitron
ERR	Low power shutdown	134
	Short circuit shutdown or incorrect phase	105
	Overload shutdown	102
	Overload shutdown	104

5. Troubleshootings

Abnormal occurrence	Posibilities	Solutions
No mains inputs	1.Mains voltage is too high or too low; 2.No-fuse switch pops up; 3.The power cord is not plugged in properly.	1.Save and exit on the computer and turn off the machine and wait for the utility to return to normal. 2.Press the no-fuse switch to reset. 3.Plug in the power cord.
No batteries inputs	1.Overload; 2.Insufficient battery power; 3.Battery damage.	1.Please reduce the load. 2.Charge continuously for 8 hours. 3.Replac the batteries.
No reactions after power on	1.Battery input cable is loose 2.Low battery voltage 3.Host internal failure	1.Check the battery and battery input cable. 2.Please send it to the repair center.
Mains/battery mode switch frequently	1.The chan11es of mains are too large, causing normal, steady voltage and buck-boost switching.	1.This is normal
In the case of normal operation of the machine the fuseless switch on the rear panel immediately pops up and shuts down when the load applied	1.Overload severely or short circuit.	1.Please check if the loaded device power is too high or short circuited. 2.Press the no-fuse switch to reset.

If the faulty still remains and cannot be eliminated,please contact the dealer and do not handle it yourself.

A. First turn off the power and unplug the mains input cable,then press no-fuse switch on the rear panel.
B. Replacement of the battery.

6. Service

(1) When there is a problem or damage to the machine, please contact the customer service center with the customer service card for assistance.
(2) Please contact the maintenance center or dealer about the relevant items.
If the battery is found to be defective (for example, the battery life is greatly reduced), it should be replaced in time. Please contact the local dealer to confirm if you need to replace the battery. Battery replacement must be performed by a qualified professional. Note: The replacement battery must be the same as the original model number. The battery may generate electric shock hazard and short-circuit current. When replacing the battery, please remove the watch, ring or other metal objects and use a tool with an insulated handle. Do not throw the old battery into the fire, it may explode,and do not open the battery. The old battery should be returned to the local recycling station for disposal or return it to our company to ensure proper recycling.

Specifications:

Capacity	1500VA/ 1200W
Input	
voltage	154~264VAC
Range of working voltage under INV mode	/
Frequency	50-60Hz Auto sensing
Output	
Voltage range (Battery mode)	220VAC±10%
Frequency range (Battery mode)	50/60 Hz
Transfer time	Normally 2~6 ms, not exceeding 10ms
Waveform (Battery)	Pure sine wave
Charging	
Battery numbers	12V*2
Charging voltage	27.5V±1%
Charging current	15A
LED instructions	
LCD display	Load size, battery capacity, mains mode, battery mode,malfunction indication
Audible alarm	
Low battery	The buzzer beeps once a second and stops after one minute
Overload	The buzzer keeps beeping and stops after one minute
Malfunction	The buzzer keeps beeping and stops after one minute
Protections	
Overall protections	Overload protection; Deep discharge and overcharge
Physical properties	
Dimensions, D X W X H (mm)	325x235x110mm
Working environment	
Humidity and temperature	Relative humidity 0-90 % and temperature 0- 40 C (non condensing)
Acoustic Noise (db)	<45dB

(Product technical changes are not subject to further notice)

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