





1250VA | 12V

USER MANUAL

NOTE

1. INTRODUCTION

applications in the event of power failure.

INDEX

Orient Technology Holdings Inc.

P.O Box no.17255, ZD-03, Jebel Ali Free Zone, Dubai, U.A.E Tel no.:-+971-4-8837744, Fax no.:-+971-4-8838544

Introduction **Physical Description Display Introduction Back Panel Description** UnPacking & Placement Installation Dig. Steps for Installation 8 9 Troubleshooting Specification 10 Service 12 **Dealer Form** 13 Notes 14

NOTE

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charger uses the Mains power to keep the battery at an optimal level. When the power fails, the Inverter transfers the load to the battery and converts the battery's DC power to AC power. The load operate normally until the battery is exhausted. The load is automatically transferred back to the utility when the healthy Mains gets restored. 2. SAFETY GUIDELINES please go through these guidelines before connecting the Inverter. 1.) Always connect the Inverter to a two-pole, three-wire grounding Mains socket. The socket must be $connected \ to \ appropriately \ protected \ branch \ of the \ Mains \ (fuse/circuit \ breaker). \ Connection \ to \ any \ other \ type \ of \ branch \ other \ branch \ other \ branch \ of \ branch \ other \$ socket may result in a shock hazard. 2.) To Switch off the Inverter output in an emergency, use the switch on front panel to switch the Inverter off. Disconnect the power cord from the Mains and remove atleast one battery connector. 3.) Avoid Installing the Inverter in an excessively humid place or where there is water. Care must be taken to ensure that the Inverter 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 direct sunlight. The place of installation should be well-ventilated and easily accessible for servicing. 4.) Foreign particles and water must not enter the Inverter. Always ensure that no objects containing a liquid $5.) \quad \text{Don't allow any spark near battery. Be sure not to come in contact with battery acid by any means.} \\$ 6.) Place the battery compartment as near as possible to the Inverter. $7.) \quad \text{Always switch off the Inverter and disconnect mains when disconnecting the battery}.$ 8.) Do not open the Inverter there are dangerous high voltages inside even when power is off. Contact the company service engineer only if it is not working properly.

1.1 Welcome to the ever-increasing family of satisfied Power Maxma users. All Power Maxma by Luminous products like the one you have just purchased, undergo a stringent quality check. This instrument provides clean and reliable power to your equipments and protects them from blackouts, etc. The product is designed to provide you an efficient performance with only minimal care and maintenance at your end. This manual will facilitate you to not only understand the basic working of the Inverter but will also facilitate the ease of its

1.2 Power Maxma by Luminous iCruze SINE WAVE INVERTER provides power backup for commercial

1.3 Normally, the Inverter operates on Mains, supplying power to the Load from the utility input. The battery

This Portion to be filled by the dealer

Product Details: About the iCruze

10.) It is recommended that these points should not be touched after switching ON the Inverter.

DO'S & DON'TS

Don'ts related to Inverter

wash bowl, bath tub.

× Don't block the side ventilation slots by cloth or other

× Don't place the Inverter near radiation or heat source.

× Don't install the Inverter near kitchen sink, laundry,

material it may result in fire hazard.

9.) Replace the batteries and the fuse only with same rating and type.

3. PHYSICAL DESCRIPTION: 3.1 The front panel display indicators & ON-OFF Switch 1. Inverter On/Reset Switch 2. UPScrollSwitch This switch increase the settable parameter

This switch decrease the settable parameter.

By default, unit is in ECO mode when battery is reset.

Do's related to battery

Wear safety gloves and goggles.

✓ Keep out of reach of children.

with battery.

3. Down Scroll Switch

4. Enter Switch

5. Home Switch

6. LCD Display

should be adopted.

Power Maxma

1250VA | 12V

iCruze

Model

This switch sets the value in settable mode

Escape from particular setting mode

Install battery in proper ventilated area.

Use battery grade water only for battery refilling.

✓ Apply petroleum jelly to terminals of batteries.

✓ Place battery horizontally & handle with care.

✓ Connect correct polarity of wires from Inverter

This switch is works as reset in tandem with ON/OFF switch. If Mains is available, load & charging would continue even under switch OFF condition.

180 - 260V + 5V

Don'ts related to battery

× Don't add impure or mineral water in battery.

X Don't keep the cell caps loose or open.

X Don't place the battery at height.

X Don't over fill the battery cells.

X Don't increase the length of battery wire.

X Never short the terminals of the battery.

X Keep away flammable things to the battery. X Don't dispose of batteries in fire. X Don't open or mutilate batteries.

X Don't keep tools or metal parts on top of batteries.

X Don't add acid to the battery as it can cause damage.

X Don't keep near a moisture area or in direct sunlight.

c) Charging Current Selector: This selects the charging current within a range of 8 to 18Amp with a step of 2Amp. To increase the value press UP Scroll switch and for decrease the value press DOWN Scroll switch. After selecting the value press Enter Min Max d) Ouput Voltage: This selects the inverter output voltage within a range of 200V to 240V with a step of 10Volt. To increase the AC voltage press UP Scroll switch and for decrease the AC voltage press DOWN Scroll switch. After selecting the value press Enterswitch.

Note: press both UP & Down scroll switch to go into setting mode and hold both switch until single beep. a) Mode Selector: This switch selects as per the UPS/ECO mode. UPS mode is selected when computer is to be run.

Battery Type

Switch Selection

b) Battery Selector: This selects as per battery type. Battery Ah setting 80 to 200Ah. To increase the value press UP Scroll switch and for decrease the value press DOWN Scroll switch. After selecting the value press Enter switch.

Displays various parameters on the screen 10. SERVICE In the event of an instrument requiring servicing at our authorised service center, the following procedure

3. One of our Service/ Sales Executives should be informed of the Goods Receipt No. and date of despatch

Power Maxma by Luminous 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 Power Maxma

by Luminous, its Distributors / Dealers be liable for consequential or incidental damages or for any expenses

incurred by the buyer or user, due to use or sale of products sold by Power Maxma by Luminous directly or

4. The above procedure should only be adopted on the advise of one of our Service/Sales Executive or Dealer. 5. We reserve the right to charge the consignee for any damage incurred during transit. 6. In the unlikely if you are facing a problem that has not been sorted out by troubleshooting, kindly contact our authorised service centre / service engineer.

through its authorised Distributors / Dealers or any third party.

Sr. No. :

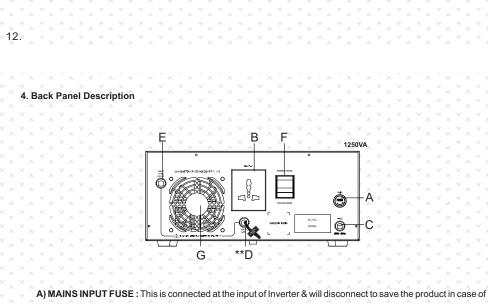
Title to the instrument passes to the buyer upon delivery to the common carrier.

along with the name of the carrier.

1. The instrument must be securely packed, preferably in its original packing.

2. The instrument should be despatched on Freight-prepaid basis duly insured.

EQUIPMENT DETAILS



Caution: In case this fuse blows, disconnect the Mains prior to replacing the fuse to avoid electrical shock.

Note: Inverter should be connected with 25A Class C MCB at building distribution wiring for 1250 model.

B) OUTPUT SOCKET: This socket is provided for connecting the output of the Inverter to the load.

C) MAINS LEAD: This is used to connect input AC supply (the commercial supply) to the Inverter.

D) NEGATIVE BATTERY LEAD: The negative end of the battery is connected to this lead.

About the battery

Battery Serial No. :

Battery Model & Capacity:

Serial No.:

11.DEALER FORM

Model: iCruze Inverter

Do's related to Inverter

during a lightening storm.

✓ Unplug and switch off the Inverter before touching or cleaning the surfaces.

✓ Unplug the Inverter from the wall outlet

Date Of Installation:	Signature of Service Personnel
DEALER DETAILS (Please fill / affix. your stamp)	
Name	
Address1	
Address2	
^ _ ^ Čity : ^^	State:
Pincode:	
^ ` ^ Ē-mail :	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
. * . * . * . * . * . * . * . * . * . *	Dealer Signature & Date
**********	'
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^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^	^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^
3.2 Display Instruction	

1. Mains ON: When mains input is available, then the respective symbol will glow.

a) ECO Mode: When system is working in ECO mode, this symbol will glow.

b) UPS Mode: When system is working in UPS mode, this symbol will glow.

4. Fault Indicator: When any fault is there, this symbol will glow. $\textbf{5. Battery Discharging Indicator:} \ It shows the different level of battery discharge status.$ As per battery discharge level, the bar status shows decreases. Bar rolls down 6. Status Display:
a) Switch off condition - the display will show simultaneously the switch status as "OFF" and the model "VA" rating.
b) Charging and dis-charging - unit display respective time remaining. c) Output load - unit display percentage of load running on the system. Condition Excess load is applied Overload Inverter is heated over range Over Temperature 6 6 8 8 Any short-circuit occurred at Mains Fuse Fail mains mode

7. Charging: It glows when unit is in charging mode.

8. Setting Mode: It glows when you selecting the ECO/ UPS, Battery Type, Charging

Displays "tsfl" When internal failure

Displays battery level available

Displays when battery is charging

Displays Mains available

Displays ECO or UPS Mode

Displays if there any fault or trip condition

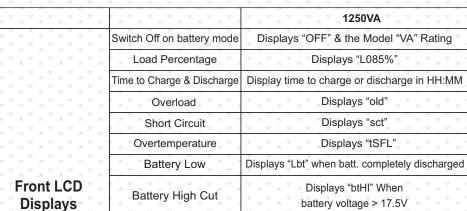
Single Beep for 1 Seconds

Beep with 1 second gap till Battery Low

Continuous beep for 10 Seconds

Continuous beep for 10 Seconds

2. Mode Selector:



Temp. Sensor Failed

Battery Level Symbol

Charging Symbol Mains Symbol

Mode Selection

Fault Symbol

Mains to Inverter change over

Low Battery Pre-alarm

Low Battery

Overload & Short circuit Overload Pre-alarm

Technical Specification

$\hbox{\it **JUNCTION BOX:} \ This is the \ battery \ path \ fuse \& \ a \ part \ of \ the \ battery \ negative \ wire. \ Will \ be \ replaceable \ in \ case$ of fuse blown due to the reverse connection of the battery or for any other reason. E) POSITIVE BATTERY LEAD: The positive end of the battery is connected to this lead.

9. Technical Specification

Input

Model Capacity

Regulated UPS mode

Rated Voltage

Undervoltage

Undervoltage Restoration

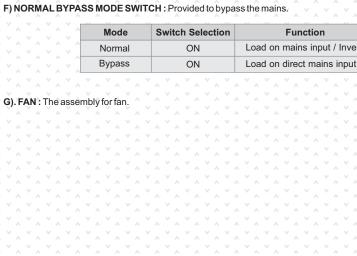
Overvoltage

Overvoltage Restoration

Unregulated ECO mode

short-circuit or overload in mains mode.

Connect the Mains again after the fuse replacement with a new fuse.



1250VA

1250VA

230V AC

180±5V

190±5V

265±5V

255±5V

	Undervoltage	85±10V		
Undervoltage Restoratio		105±10V		
	Overvoltage	285±10V		
	Overvoltage Restoration	275±10V		
	Rated voltage (UPS Mode)	(220-240)V AC ± 5%		
	Voltage (Mains Mode)	SAME AS INPUT		
	Frequency (UPS Mode)	50 ± 0.5Hz		
Output	Frequency (Mains Mode)	SAME AS INPUT (45-55 Hz)		
	Overload	> 105%		
	Transfer Time(typical a.s.)	v		
	Load Performance Factor	× ^ × ^ × ^ × 0.6 to 0.8 * × ^ × ^ × ^ ×		
	Capacity*	80Ah-200Ah TUBULAR / FLAT / SMF		
	Number of Battery	<u> </u>		
Battery	Typical Recharge Time	8-10 hours approx		
	Protection	LOW BATTERY		
·	Net weight (Kg.)	11.4		
Physical	Gross weight (Kg.)	` ^ ` ^ ` ^ ` ^ ` ^ ` ^ ` 12.2` ^ ` ^ ` ^ ` ^ ` ^ ` ^ ` ^		
	Dimension (LxWxH)(mm)	300x275x139		
CONNECTION DIAGRA	Input Grid Supply	L4 Ln Distribution		

~ ~ ~ ~ ~ ~ ~	<u> </u>	
Alarms	Overload Pre-alarm	Beep with 1 second gap till Overload
×	Over temperature	Continuous beep till fault get reset
·	Input Fuse Failure	Continuous beep till fault get reset
/	Operating Temperature	0-45°C (32-113°F)
Environmental	Storage Temperature	0-45°C (32-113°F)
	Humidity	0-95% RH non-condensing
Due to continuous product im	provement, the specifications ar	re subject to change without notice.
/ . v . v . v . ' v . v .	cent bulb rated 250V AC) at opting	
A A A A A A A A A A A A A A A A A A A	v . v . v . v . v . v . v . v . v	Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y
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. * . * . * . * . * .	×	
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UNPACKING & PLACEME	NT.	
	<u> </u>	
. Unpacking: On receiving th	ne inverter, inspect for any transit o	damage. The packaging can be saved for future use.
. Placement: inverter shall be	e kept at a place which is protected	d from dust, water, temperature and humidity.
. INSTALLATION DIAGRAN	1S . Y . Y . Y . Y . Y . Y . Y . Y	
	· . · . · . · . · . · . · . · . · .	
). BATTERY INSTALLATIO	N	
AUTION: Battery polarity i	must be checked before conne	ections. Wrong polarity connection with inverter v
ause Reverse Protection F	use Blown and may lead to Fire	Hazards.
stallation shall be done by	gualified technician.	
^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^	* ^ * ^ * ^ * ^ * ^ * ^ * ^ * ^	
		ery post, avoid short circuit by spanner etc.
~ ~ ~ ~ ~ ~		operly fastened otherwise it may give false indications
attery charged and low batter	y inps.	
. CONNECTION DIAGRAM	OF INVERTER WITH MAINS 8	& RATTERY
. CONNECTION DIAGNAM	V V V V V V V V V V	V V V V V V V V V V V V V V V V V V V
iCruze 1250VA	·	
	×	
a) BATTERY CONNECTION	IS WITH DEVICE	. * . * . * . * . * . * . * . * . * . *
	×	· · · · · · · · · · · · · · · · · · ·
	* ^ * ^ * ^ * ^ * ^ * ^ * ^ * ^ * ^ * ^	

8. TROUBLESHOOTING

PROBLEM

that might occur.

V	ATTERY
Load Connection (should n	ot be greater than system capacity)
*	`
*	`.
*	*******************
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· , · , · , · , · , · , · , · , · , · ,	· . · . · . · . · . · . · . · . · . · .
7. STEPS FOR INVERTER INSTALLATION:	
• To be done by a competent & knowledgeable person.	, ^ _ ^ _ ^ _ ^ _ ^ _ ^ _ ^ _ ^ _ ^ _ ^

• Check the building wiring. Improper building wiring could result in equipment damage that is not covered in warranty.

• Keep the front switch of Inverter on OFF position. $\bullet \ \, \text{Switch ON the front switch \& measures the output voltage on output terminal block, if it is as per specification then } \\$

Connect the battery/batteries to Inverter as per its correct polarity.

 $\bullet \, \text{Switch OFF the supply to the distribution point to which the Inverter is to be connected.} \\$

• Connect the Load wire to the output terminal block located on the rear panel of Inverter. • Switch ON the front Switch of the Inverter.

 Gradually put the load on Inverter. • Connect input plug to input terminal block located on the rear panel of Inverter in correct polarity.

	a) The MAINS ON symbol is not displaying on LCD. The UPS is either working on battery or battery has exhausted (BATT.LOW is glowing).	Line cord plug is loose.Dead wall socket.Mains input voltage too low and too high.	 Fit the line cord plug properly. Check the socket with any lamp etc. Wait for mains to normalize.
< < < < < < < <<	B. In the battery mode a). If the display is showing Battery Low (Lbt)	•The battery may have got discharged from recent use.	• Recharge the battery after Mains restoration.
^ ^ ^ .	b). Display shows 'tSFL'.	•The UPS has tripped due to overheating condition.	Call for authorised technician.
^ ^ ^ ^ .	C.a). If the display is showing OVERLOAD (oLd)	The UPS has tripped due to overload condition.	Reduce the load and turn the reset switch (on the front panel) on/off.
^ ^ ^ ^	b). If the display is showing Short Circuit 'Sct' .	The UPS is tripped due to short circuit.	Switch off all loads and then turn on load one by one and if 'Sct' takes place again, call for authorised technician.
^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^	For any other problem, please contact our a	authorized service person.	

This section provides with troubleshooting tips to identify and solve most of the common problems

POSSIBLE

CAUSE(S)

ACTION

RECOMMENDED