VEVOR®

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INVERTER CHARGER USER MANUAL

MODEL:BL-W2012V-L,BL-W3024V-L,BL-W4024V-L,
BL-W5024V-L,BL-W6048V-L,BL-W6024V-L

We continue to be committed to provide you tools with competitive price. "Save Half", "Half Price" or any other similar expressions used by us only represents an estimate of savings you might benefit from buying certain tools with us compared to the major top brands and does not necessarily mean to cover all categories of tools offered by us. You are kindly reminded to verify carefully when you are placing an order with us if you are actually Saving Half in comparison with the top major brands.

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Inverter charger

MODEL:BL-W2012V-L,BL-W3024V-L,BL-W4024V-L,
BL-W5024V-L,BL-W6048V-L,BL-W6024V-L

BL-W2012V-L

BL-W3024V-L

BL-W4024V-L BL-W5024V-L
BL-W6024V-L BL-W6048V-L

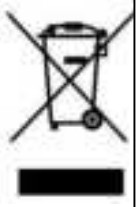
(The picture is for reference only, please refer to the actual object)

NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:

Technical Support and E-Warranty Certificate
www.vevor.com/support

This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

	Warning-To reduce the risk of injury, user must read instructions manual carefully.
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.
	This product is subject to the provision of European Directive 2012/19/EC. The symbol showing a wheelie bin crossed through indicates that the product requires separate refuse collection in the European Union. This applies to the product and all accessories marked with this symbol. Products marked as such may not be discarded with normal domestic waste, but must be taken to a collection point for recycling electrical and electronic devices

SAFETY INSTRUCTIONS

Thank you for choosing the intelligent frequency inverter,household inverter,and online interactive products produced by our company.The design is safe,reliable and easy to use. Please read this manual carefully,it will help you get the fullest service life and service.

Please strictly abide by all warnings and operating instructions in the manual and on the machine and keep this manual properly.

The installation/operation and maintenance of this series of products should be carried out by trained and technical personnel,and the following requirements should be followed.

1.Please confirm that the DC/AC voltage value of the connected product conforms to the nominal and rated working voltage value of the product.

2.Please make sure that the positive and negative poles of the DC input of this product and the positive and negative poles of the battery are correctly connected,not reversed.

3.Please make sure that the connection cable between the product and the battery is as short as possible,the input and output wiring is correct and firm,and pay attention to avoid short circuit of the connection cable.

4.There is high voltage inside this product,non-electrical professionals should not open the inverter case.

The car starter battery can provide a short-term high current to start the engine,but it is not designed for continuous power use and is not suitable for deep cycle discharge.If you want to use a certain electrical equipment continuously for a long time,it is recommended that you additionally equip a battery that is suitable for deep discharge,such as AGM or GEL batteries.

Disclaimer:Due to the continuous update and improvement of products and technologies, the content in this document may not completely match the actual product,please understand.If you need to inquire about product updates,please contact our company.

INSTALLATION

1.Installation instructions

①.Unpacking inspection

Open the package of the inverter,please check the accessories,and check whether the inverter is damaged during transportation.If you find damage or missing parts,please inform the carrier and distributor.

Note:

Please keep the packing box and packing materials for future transportation.

This series of products are heavier (see appendix),so be careful when handling

2.Installation precautions

①.The area where the inverter is placed must be well ventilated,away from water,flammable gas and corrosive agents.

②.Keep the side panel fan air inlet,air outlet and air inlet on the side of the box unobstructed.

③.The ambient temperature of the inverter should be kept between 0℃-40℃ .

④.If the machine is disassembled and used at low temperature,water droplets may condense.You must wait for the inside and outside of the machine to be completely dry before installing and using it,otherwise there is a danger of electric shock.

⑤.Please install the inverter near the mains input socket or switch,so that in an emergency,unplug the mains input plug and cut off the power.

⑥.Do not connect the inverter output directly to the mains

Note:

*When the load is connected to the inverter,the load must be turned off before wiring, and then the load must be turned on one by one.

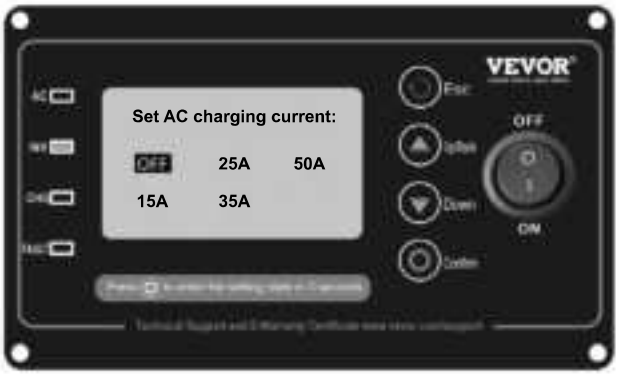
*Connect the inverter to a special socket with over current protection device

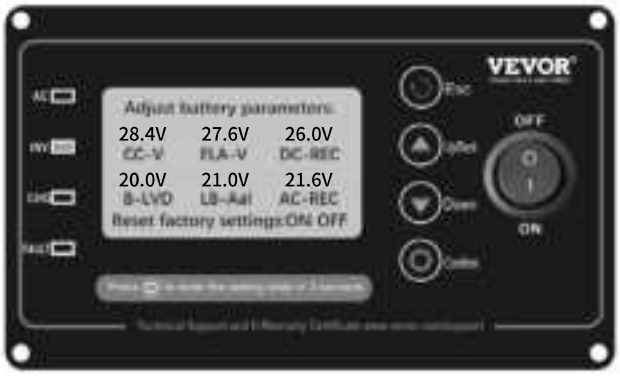
*The power socket used should be connected to the protective earth terminal

*Regardless of whether the input power cord is plugged into the mains socket,the inverter output may be charged.Turning off the inverter does not guarantee that the internal parts of the machine will not be charged.If you want to make the inverter no output,you must first turn off all switches,and then cut the Mains power

*When inductive loads such as motors,monitors,and laser printers are needed, the starting power is too large.When selecting an inverter,the capacity should be calculated based on the starting power.The starting power is usual

LCD PANEL DESCRIPTION



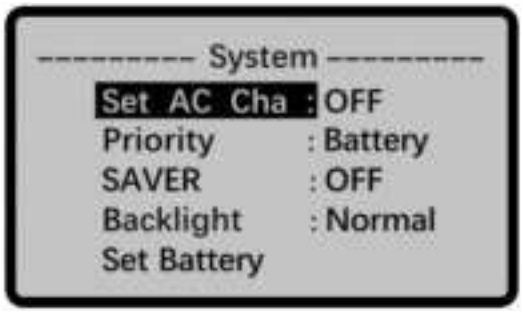


Description:

Long press the setting key for 3 seconds to enter the system setting interface,and pressing the setting key can also indicate confirmation.The LCD will automatically turn off the backlight (energy saving)without any operation for 5 seconds.Press the setting key again can turn on the backlight.

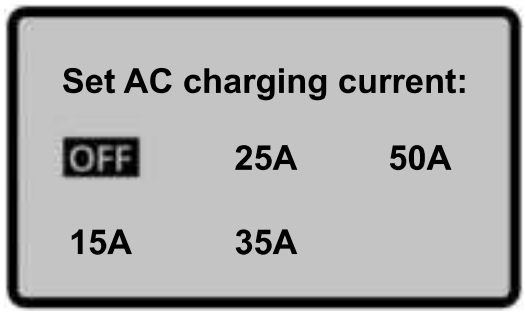
Energy saving (sleep)function,when the inverter is working in battery mode and no load,it will enter the state(Off output)after 20 seconds in order to achieve energy saving effect,automatically turn on after load,normal use.

WORKING MODE SETTING



Enter the system setting interface

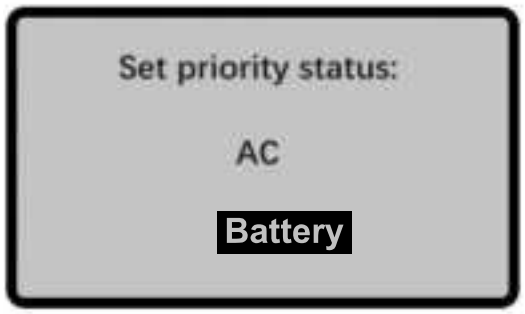
Long press the setting key for 3 seconds to enter the system setting interface after you turn on the inverter.



Set the mains charging current

In the system setting interface,press the or key to select Set AC charging current, and then press the key to confirm.Select the charging current you want and press the key to confirm.

Different specifications of inverters can set different charging current values. The mains charging current value in the left picture is the default parameter of the 24V3000W inverter.



Set Priority AC/Battery

In the system setting interface,press the or key to select the priority, and then press the key to confirm.Select the priority status you want and press the key to confirm.

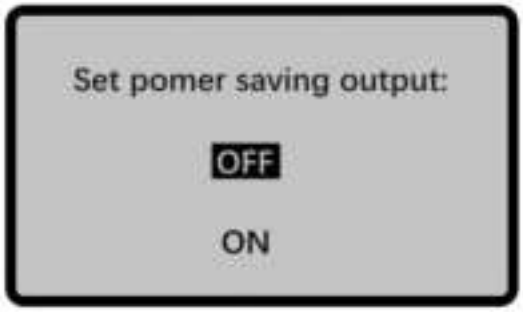
After changing the priority,the system setting interface will correctly display the current work priority after 5 seconds.

AC priority: The mains power supply priority.The battery power supply will start instantly when the mains power failure(the switching is milliseconds and does not affect the electrical appliances in use)and can be used as a UPS.When the mains power is restored,it will automatically switch to the mains power supply and charge the battery at the same time.

Battery priority: The battery power supply priority.When the battery power is low,it will switch to the mains power supply,and the battery will be charged automatically.When the battery voltage returns to a certain value(set in the battery settings)and 30 minutes later the battery power supply will be automatically restored.

protection board is disconnected,the inverter can be charged without turning on,intelligently repair the battery,and extend the service life.

> **Tip:**Switch between AC mode and Battery mode requires an interval of 30 minutes



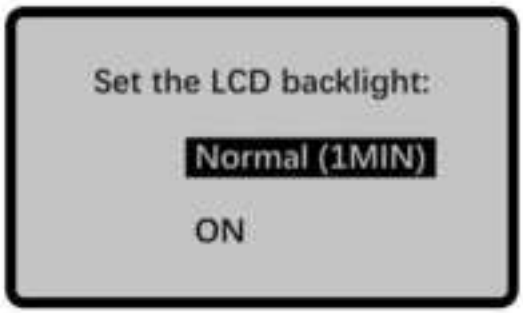
Energy-saving output:off/on

In the system setting interface,press the or key to select SAVER, and then press the key to confirm.Select the saving output(off/on)you want and press the key to confirm.

After you change the SAVER setting,the system setting interface will correctly display the current work SAVER setting after 5 seconds.

On:the inverter will enter sleep state(turnoff the output)after 20 seconds when the inverter is working in battery mode and no load in.the no load power will low than 3W,it will start automatically after loading

O**ff:**the inverter will keeps start and will not enter sleep state,

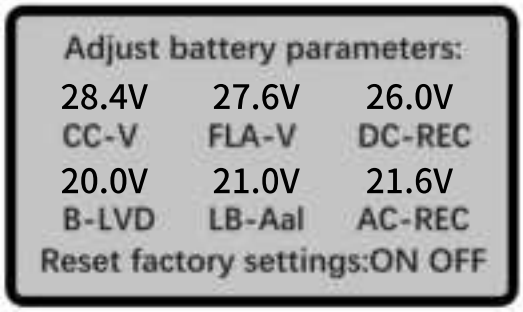


Backlight setting:normal/on

In the system setting interface,press the or key to select Backlight, and then press the key to confirm.Select the backlight state you want and press the key to confirm.after you change the Backlight setting, the system setting interface will correctly display the current work Backlight setting after 5 seconds.

On:the Backlight will keeps on

Normal: The Backlight will turn off when no operation within 1 minute



Battery setting

In the system setting interface,press the or key to select Set and then press the key to confirm

In the battery setting interface,press the key to select the battery parameter you want to adjust.After selecting the battery parameter you want to adjust,press can increase the voltage value,and press can decrease the voltage value.(The voltage value will not change immediately, it need to wait for 5 seconds)it will automatically return to the inverter information interface when no operation within 30 seconds.

CC-V: Constant voltage charging

FLA-V: Float charging

DC-REC: In the state of battery priority,Mains power supply,the battery power supply will be automatically restored 30 minutes later when the

battery voltage returns to this value.

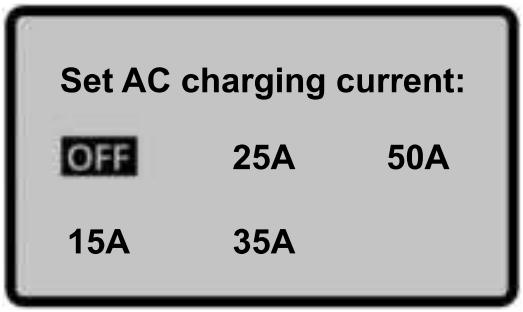
B-LVD: Low voltage protection(shutdown)

LB-Aal: Low voltage alarm(beeping)

AC-REC : In the state of battery priority,

Automatically switch to mains priority when the battery voltage Down to this value.

The picture on the left is the default battery voltage parameter of the 24V3000W inverter system.



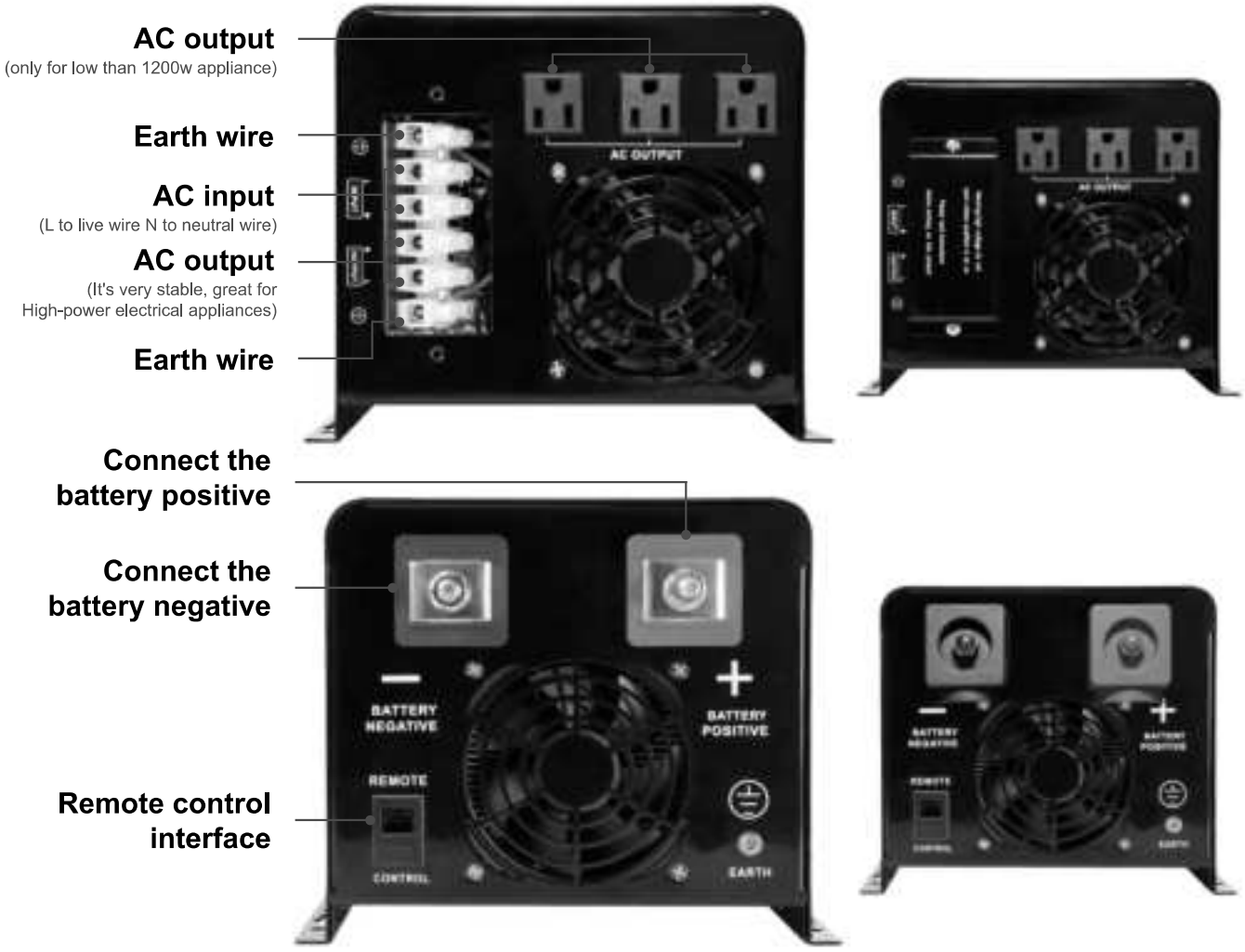
The user can select the charging gear according to the power demand(Daily charging is recommended to be adjusted to low or medium gear)

The figure on the left is the default parameters ofthe 24V3000W inverter.The charging current values of inverters of different specifications are different. Please refer to the figure below.

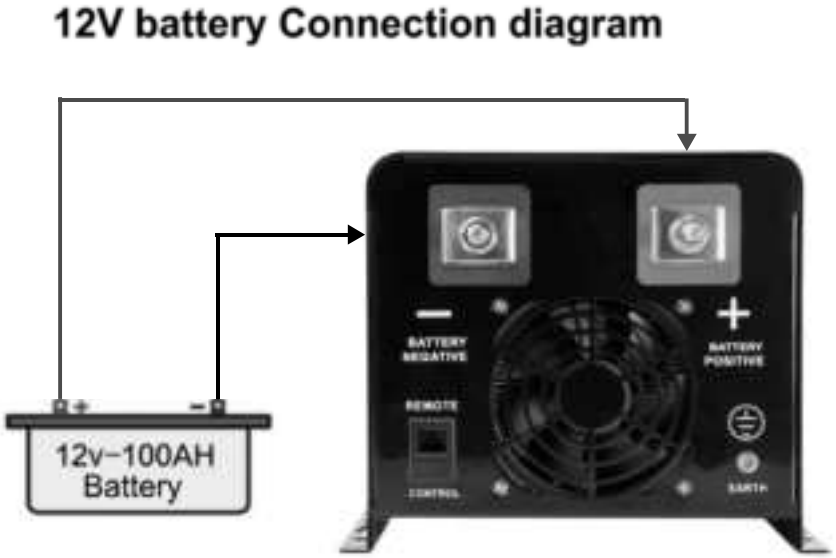
CHARGING CURRENT COMPARISON

Mode	Low	Mid	High	Super high
12V 2KW	10A	20A	30A	50A
24V 3KW	15A	25A	35A	50A
24V 4KW/5KW/6KW	15A	35A	55A	70A
48V 6KW	15A	25A	35A	50A

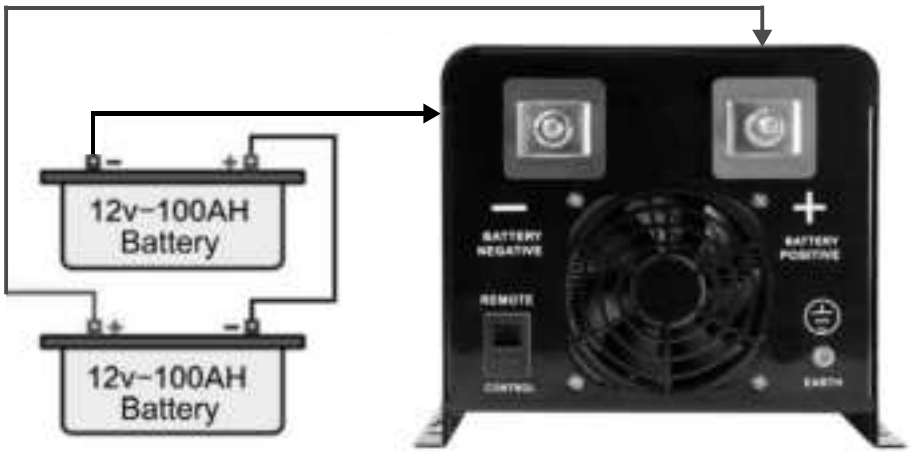
INPUT & OUTPUT CONNECTION



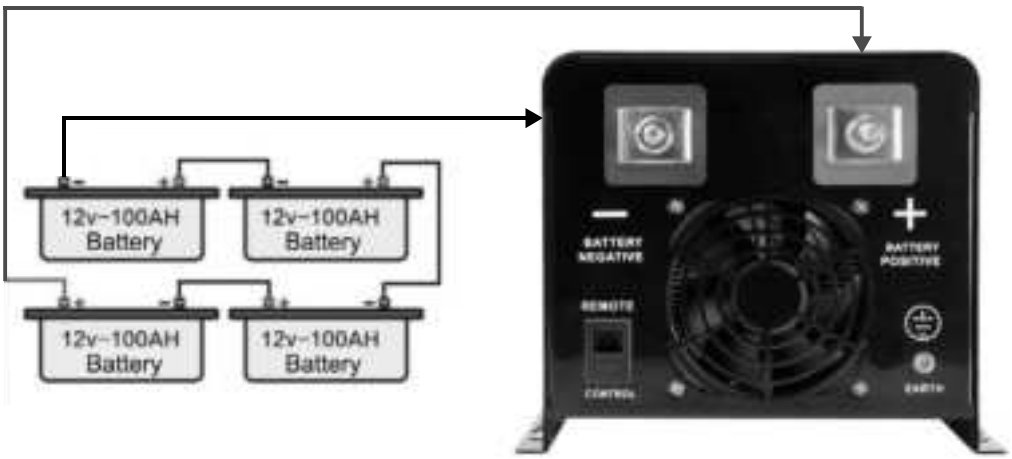
CONNECTION DIAGRAM



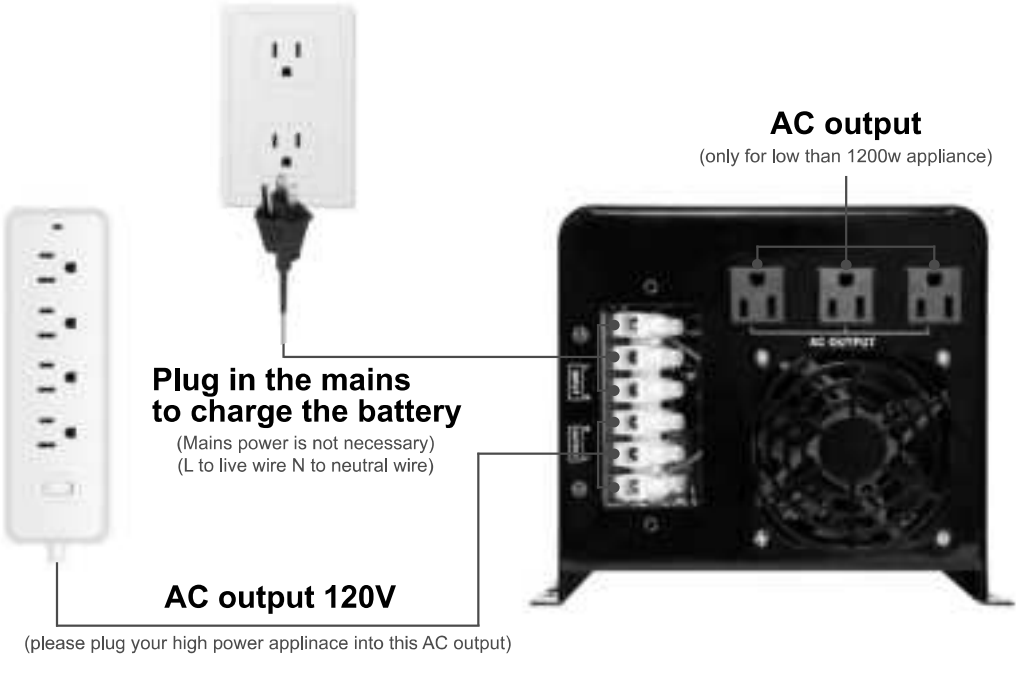
24V battery Connection diagram



48V battery Connection diagram



AC input&output Connection diagram



Note:

If it is connected to the generator,it needs to operate according to the following steps

①Start the generator,wait for it to run stably,connect the output power of the generator to the input of the inverter (in this case,make sure the inverter is no-load),and then start the inverter according to the startup procedure.After the inverter starts ,And then connect to the load one by one.

②It is recommended to choose the generator capacity with two to three times the capacity of the inverter.

MAINTAIN &MAINTENANCE

①This series of inverters requires very little maintenance.The battery of the standard model is valve-regulated,low-maintenance type,and only needs to be charged frequently to achieve the expected life.

②If the inverter is not used for a long time,it is recommended to charge it every two to three months--times

③Under normal circumstances,the service life of the battery is three years.If the battery is found to be in poor condition,it must be replaced early.When replacing the battery,it must be performed

by a professional.

④ The battery should not be replaced individually,and the battery supplier's instructions should be followed when replacing the entire battery.Normally,the battery is charged and discharged every two to three months,and charged after being discharged to shutdown,and the charging time of

the standard machine shall not be less than 12 hours.

⑤In high-temperature areas,the battery is charged and discharged--times every two months, and the standard machine charging must not be less than 12 hours each time.

Note:

①The inverter must be turned off and disconnected from the mains before replacing the battery

②Take off metal objects such as rings and watches.

③Use insulated handles and screwdrivers,and do not place tools or other metal objects on the battery.

④ It is normal for small sparks to appear at the connector and will not cause harm to personal safety and the inverter when connecting the battery cable.

⑤ Never short-circuit or reverse the battery's positive and negative poles.

SIMPLE MAINTENANCE AND REPAIR METHODS

Malfunction	Reason	Solution
The fan not works	The temperature inside the inverter does not over 45℃	It is normal,the fan is temperature control
The terminal is hot	Poor contact or loose	Re-tighten
Shutdown with load	Battery do not have enough power or over load	Charge your battery or reduce load
Can't turn on the inverter	The battery cable is not connected properly	Check if the battery cable is connected and reconnect it
Power-on alarm	Battery do not have enough power or over load	Charge your battery or reduce load

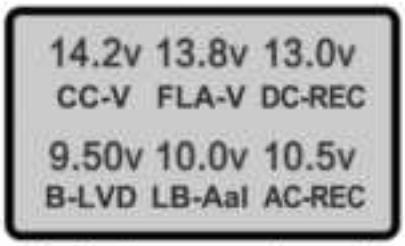
APPENDIX

Model		BL-W2012V-L	BL-W3024V-L	BL-W4024V-L
Rated power		2000W	3000W	4000W
Peak power		6000W	9000W	12000W
Input	Voltage	90V-130VAC		
	Frequency	45-65Hz		
Output	Voltage	120VAC±10%(Battery Priority mode)		
	Frequency	60Hz±1%(Battery Priority mode)		
Output waveform		Pure sine wave		
Effectiveness		>76%	>80%	
Battery type		Lead-acid batteries Lithium iron battery Ternary(18650)battery and Customizable		
Battery voltage		12VDC	24VDC	
Maximum current of mains charging		50A(12VDC)/70A(24VDC)/50A(48VDC)		
Protection		over load ,short circuit,over temperature,battery high/low voltage,Mains high/low voltage		
Conversion method		Interactive 5ms (typical)		
Overload		Protection for 15 seconds after exceeding 100%		
Communication method		RS-232(Optional)		
Working environment	Temperature	-30-40℃		
	Humidity	10%-90%		

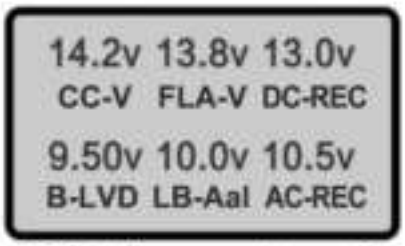
Model		BL-W5024V-L	BL-W6024V-L	BL-W6048V-L
Rated power		5000W	6000W	6000W
Peak power		15000W	18000W	18000W
Input	Voltage	90V-130VAC		
	Frequency	45-65Hz		
Output	Voltage	120VAC±10%(Battery Priority mode)		
	Frequency	60Hz±1%(Battery Priority mode)		
Output waveform		Pure sine wave		
Effectiveness		>80%		
Battery type		Lead-acid batteries Lithium iron battery Ternary(18650)battery and Customizable		
Battery voltage		24VDC		48VDC
Maximum current of mains charging		50A(12VDC)/70A(24VDC)/50A(48VDC)		
Protection		over load ,short circuit,over temperature,battery high/low voltage,Mains high/low voltage		
Conversion method		Interactive 5ms (typical)		
Overload		Protection for 15 seconds after exceeding 100%		
Communication method		RS-232(Optional)		
Working environment	Temperature	-30-40℃		
	Humidity	10%-90%		

If the above parameters are changed in the future you can ask the seller the Latest parameters

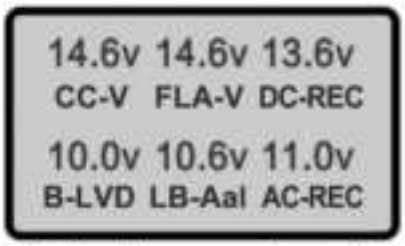
DEFAULT BATTERY PARAMETERS



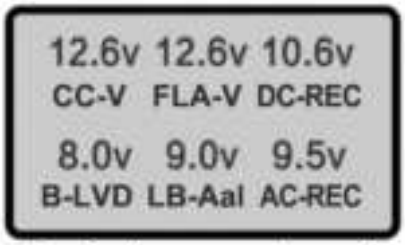
Default parameters of
12V lead-acid battery



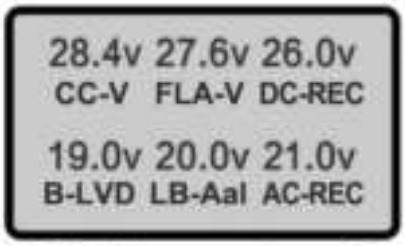
Default parameters of
12V Gel battery



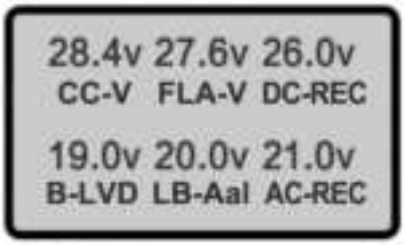
Default parameters of
12V Lithium iron battery



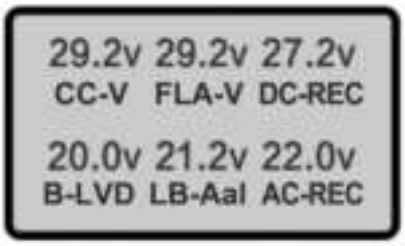
Default parameters of
12V Ternary battery



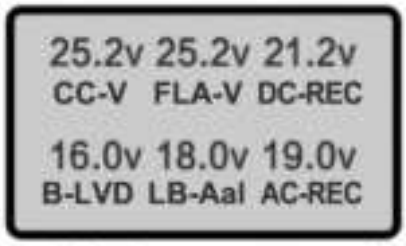
Default parameters of
24V lead-acid battery



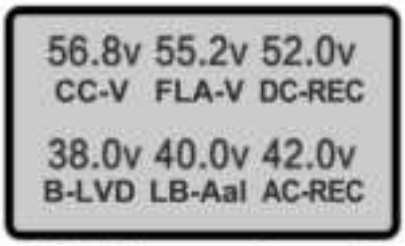
Default parameters of
24V Gel battery



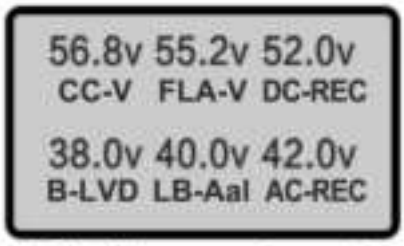
Default parameters of
24V Lithium iron battery



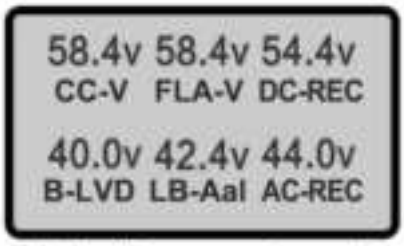
Default parameters of
24V Ternary battery



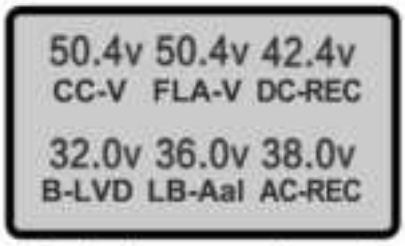
Default parameters of
48V lead-acid battery



Default parameters of
48V Gel battery



Default parameters of
48V Lithium iron battery



Default parameters of
48V Ternary battery

CUSTOM VOLTAGE ADJUSTMENT RANGE

12V battery voltage adjustment range

High voltage protection 16.5V
High voltage alarm 17V (shut down)

12.0v–15.5v	12.0v–15.5v	10.0v–13.5v
CC-V	**FLA-V**	**DC-REC**
7.50v–11.0v	8.0v–11.5v	9.0v–12.5v
B-LVD	**LB-Aal**	**AC-REC**

24V battery voltage adjustment range

High voltage protection 33V
High voltage alarm 34V (shut down)

24.0v–31.0v	24.0v–31.0v	20.0v–27.0v
CC-V	**FLA-V**	**DC-REC**
15.0v–22.0v	16.0v–23.0v	18.0v–25.0v
B-LVD	**LB-Aal**	**AC-REC**

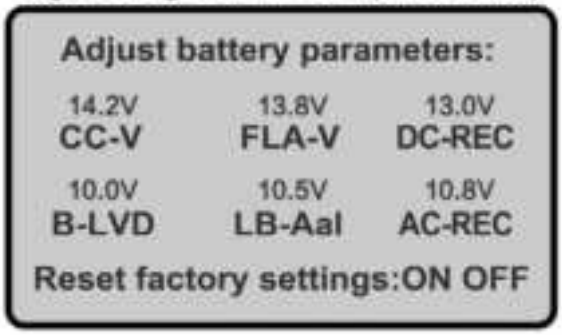
48V battery voltage adjustment range

High voltage protection 66V
High voltage alarm 68V (shut down)

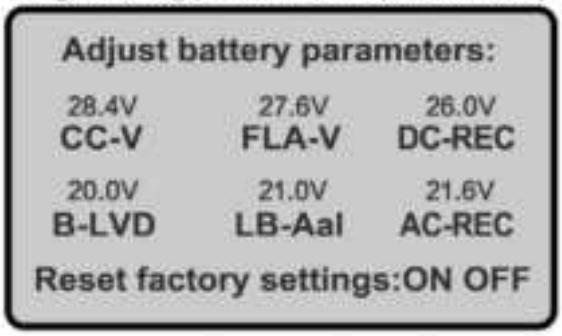
48.0v–62.0v	48.0v–62.0v	40.0v–54.0v
CC-V	**FLA-V**	**DC-REC**
30.0v–44.0v	32.0v–46.0v	36.0v–50.0v
B-LVD	**LB-Aal**	**AC-REC**

CUSTOM VOLTAGE ADJUSTMENT RANGE

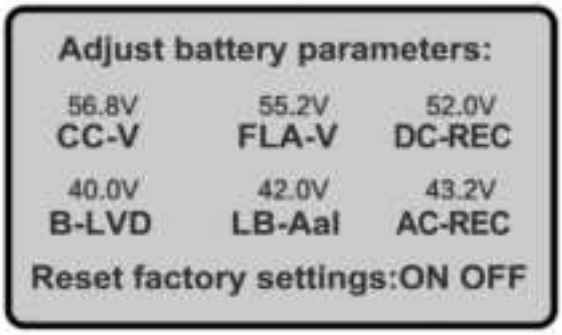
12V battery voltage adjustment range
High voltage protection 16.5V
High voltage alarm 17V (shut down)



24V battery voltage adjustment range
High voltage protection 33V
High voltage alarm 34V (shut down)



48V battery voltage adjustment range
High voltage protection 66V
High voltage alarm 68V (shut down)



The product specifications or related information mentioned in this operating manual are subject to change without notice.

VEVOR®

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Quick Start Guide

Battery Connection

WARNING! All wiring must be performed by a qualified personnel.
WARNING! It's very important for system safety and efficient operation to use appropriate cable for battery connection. To reduce risk of injury, please use the proper recommended cable.

Model	Maximum Amperage	Wire Size	Torque Value
12V 2000W	166A	4AWG	20~30Nm
24V 3000W	125A	4AWG	20~30Nm
24V 4000W	166A	4AWG	20~30Nm
24V 5000W	208A	6AWG X2	20~30Nm
24V 6000W	250	4AWG X2	20~30Nm
48V 6000W	125A	4AWG	20~30Nm

AC Input/Output Connection

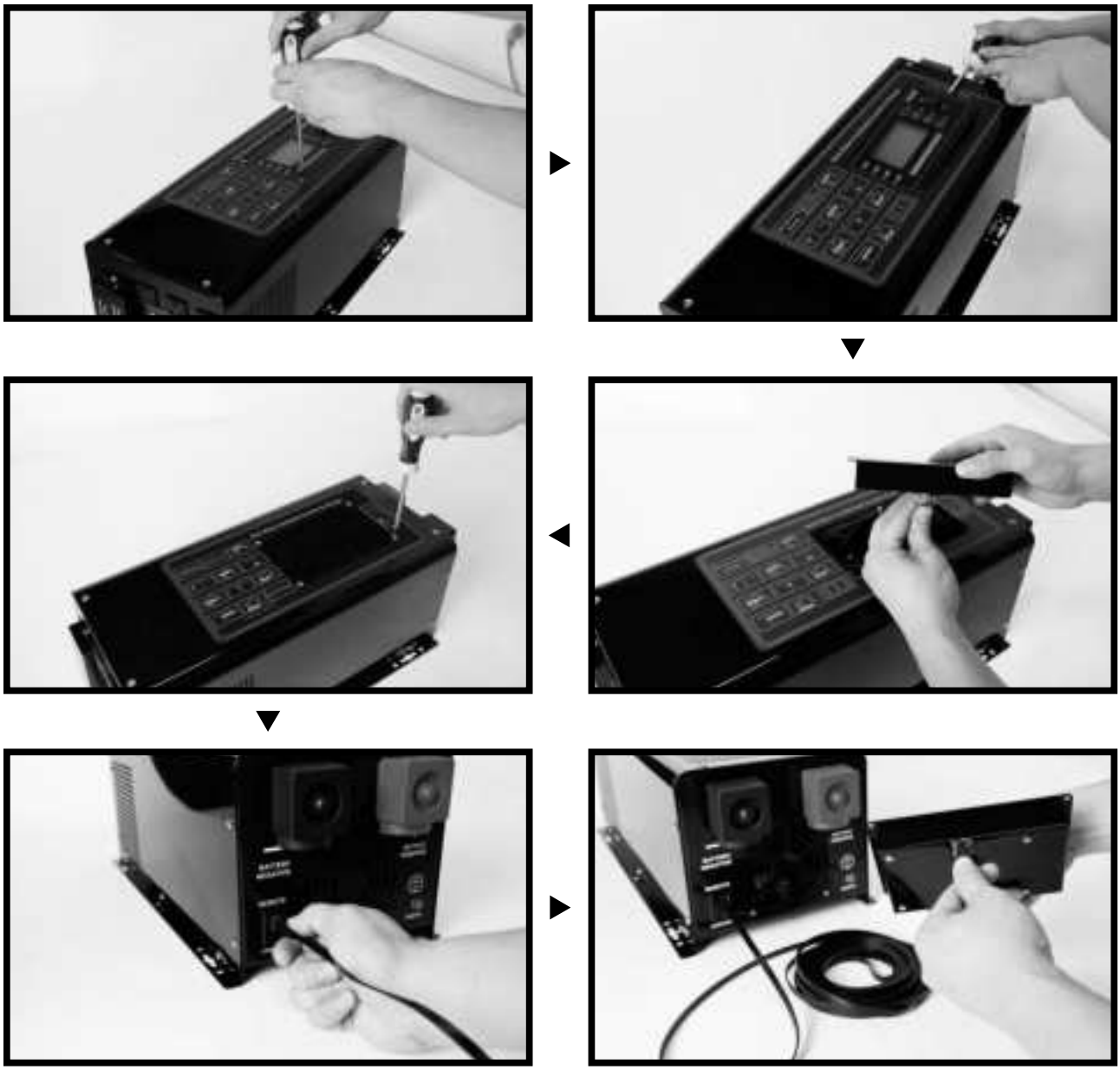
WARNING! All wiring must be performed by a qualified personnel.
WARNING! It's very important for system safety and efficient operation to use appropriate cable for AC input connection. To reduce risk of injury, please use the proper recommended cable size as below.

Suggested cable requirement for AC wires

Model	Wire Size	Torque Value
12V 2000W	10AWG	1.4~ 1.6Nm
24V 3000W	10AWG	1.4~ 1.6Nm
24V 4000W	10AWG	1.4~ 1.6Nm
24V 5000W	8AWG	1.4~ 1.6Nm
24V 6000W	8AWG	1.4~ 1.6Nm
48V 6000W	8AWG	1.4~ 1.6Nm

Introduction to the operation panel

If it is necessary to use the operating panel away from the inverter, refer to the following:



1. Remove the 4 dowels from the control display, being careful not to drop it inside the machine.
2. Use a small dowel cutter to pry the display open and take it out.
3. Unplug the network cable connected to the display.
4. Use a 10-meter cable to connect to the inverter port.

Note: that this cable cannot be connected to the Internet port and cannot communicate with it.