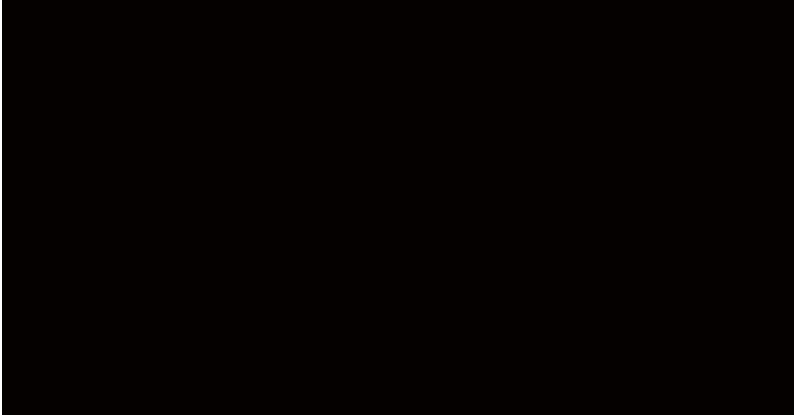


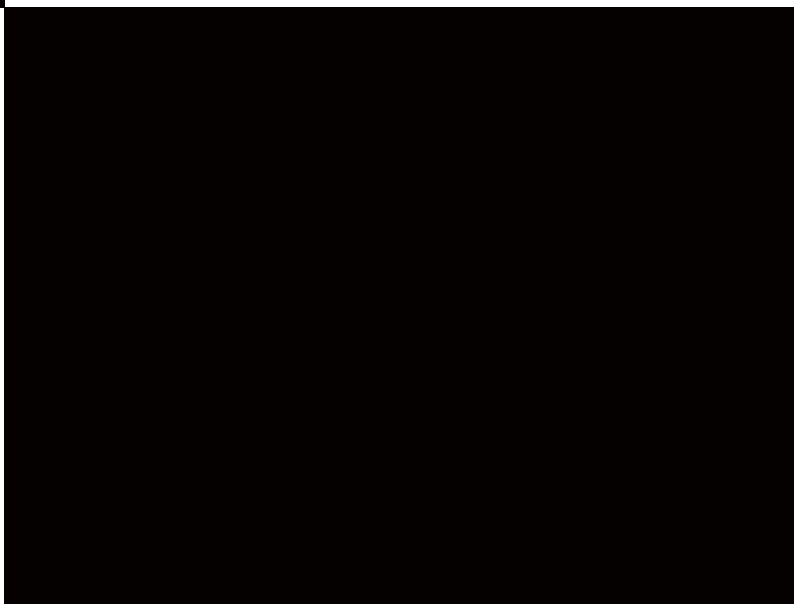
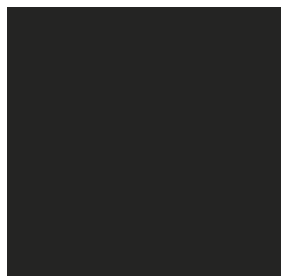
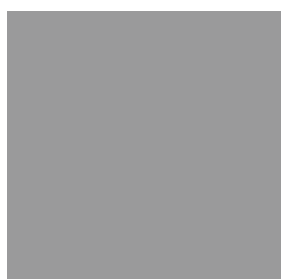


EGSCATEE

PURE SINE WAVE INVERTER

USER MANUAL

✉ egtech66@outlook.com



DC/AC Pure Sine Wave Inverter User Manual

Thank you for purchasing EGSCATEE pure sine wave inverter.

It is important for you to read and understand the instruction manual before using and keeping the manual in a safe place for future reference. Safety precautions must be observed to reduce the risk of personal injury when operating this machine.

Safety Attention -Be sure to read it and follow the precautions-

WARNING!

- Special knowledge is required to install this product. Please be careful when using it.
- Do not use for any purpose other than the product's original purpose.
- Never insert anything other than the power plug into the AC output receptacle of this product as it may cause electric shock or malfunction.
- If any problems or problems occur with this product or the connected device, immediately stop using it.
- Observe and follow the instructions displayed on the connected device.
- This product can not be used for medical equipment, socially and publicly important equipment, or business equipment.
- The cooling fan operates when the main unit temperature rises after using this product for a long time, but please stop using it for about 15 minutes for cooling.
- Do not block the cooling fan and air vents or insert foreign objects. It may impede the heat dissipation of the product and cause a failure.
- Do not put heavy objects on this product or place it on a place that is easy to drop. The product may be damaged or dropped, resulting in injury, electric shock, heat generation or fire.
- Do not connect or disconnect the power plug of the connection device with wet hands. There is a risk of electric shock.
- If a problem occurs, please consult the store where you purchased it. Please do not repair or adjust by yourself.
- Please be careful not to touch children and infants. It may cause an accident such as injury or electric shock.
- Do not use in places where the humidity is extremely high, places where rain, snow, etc. may be applied. It may cause a short circuit, electric shock or failure. Also, do not use it in other adverse environments as it may cause failure.
- Do not use while driving as it is very dangerous. Be sure to stop the car in a safe place before connecting and operating.

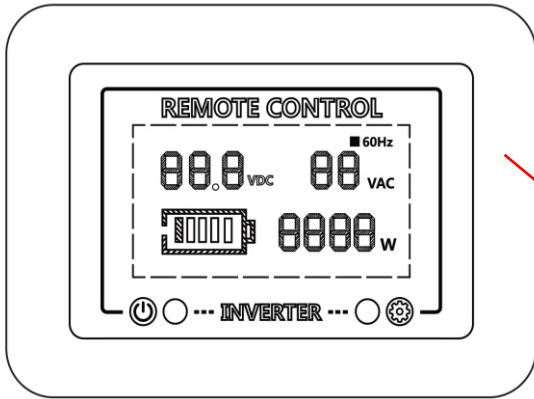
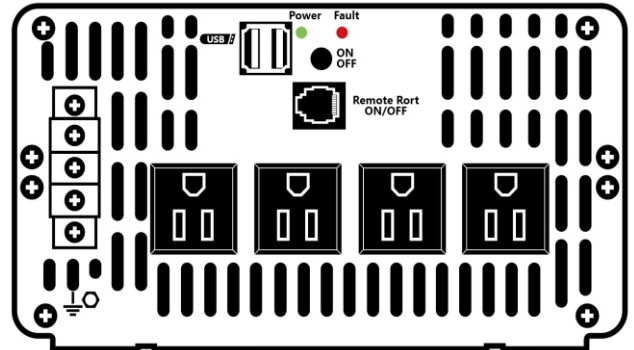
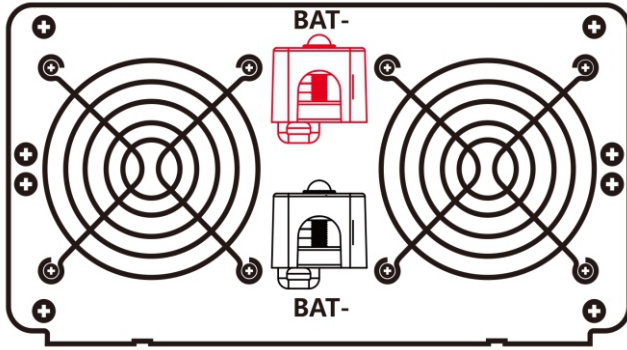
【Note】

- Do not use around flammable materials. It may cause a fire.
- Do not bend the cord forcibly or put anything on the cord. It may cause an electric shock, heat generation or fire.
- Do not use in places where the product becomes hot, such as in direct sunlight or near a heating element.
- Do not disassemble or modify this product. It may cause damage or an accident.
- When unplugging the power plug of the connected device from the outlet, be sure to unplug it with the power plug. Pulling the cord and unplugging the power plug may break the cord, which may cause a fire or electric shock.
- This product can not be used by connecting an electrical device that requires grounding.

Specification

1	Input rated voltage	12V DC	24V DC
2	Input voltage Range	9.5-16V DC	19-32V DC
3	Output Voltage Range	120V AC $\pm$ 10%	
4	Output Frequency	60Hz $\pm$ 1Hz	

5	Output Waveform	Pure sine wave	
6	Total Harmonic Distortion	$\leq 3\%$ @Linear load	
7	Maximum conversion efficiency	About 90%	
8	No-load current	$1 \pm 0.2A$	$1 \pm 0.3A$
9	Undervoltage alert	$10 \pm 0.5V$	$20 \pm 1V$
10	Undervoltage protection	$9.5 \pm 0.5V$	$19 \pm 1V$
11	Undervoltage protection recovery	$12.5 \pm 0.5V$	$25 \pm 1V$
12	Overpressure protection	$16 \pm 0.5V$	$32 \pm 1V$
13	Overpressure protection recovery	$14 \pm 0.5V$	$28 \pm 1V$
14	Overload protection recovery	Yes	
15	Short circuit protection recovery	Yes	
16	USB output voltage	$5 \pm 0.2V$	
17	USB output current max	3.4A	
18	Remote Control	Wired remote control with Display	
19	Buzzer operating status	Intermittent beeping -- indicates "battery undervoltage".	
		Three consecutive beeps -- "protection", the machine enters the protection state, no voltage output.	
20	Fan working status	The temperature inside the machine $>45^{\circ}C$ or the power reaches 40% or more fan starts to run.	
		The temperature inside the machine $<42^{\circ}C$ or the power is below 30% fan stops running.	
21	LCD indicates working status	Green light -- "power on indicator"	
		The red light "fault light" lights up the machine into the protection state, no voltage output.	



Input voltage: VDC
Output voltage: VAC
Battery's power
Load Wattage: W
4 Warning Indicator:
1. Under-voltage
2. Over-voltage
3. Over-load
4. Short circuit

Assemble:

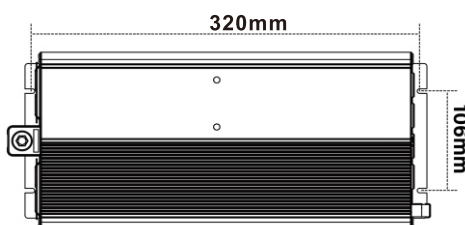
1. The position of Mounting

First ensure that there is enough space to install the inverter, while the installation location must meet the following requirements:

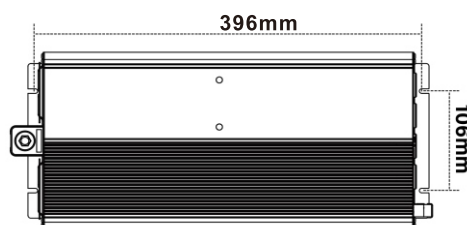
- (1) Dryness: Avoid dripping water or other liquids on the inverter.
- (2) Coolness: The working temperature of environment for the product is 0-40°C, the preferable temperature is 10-25°C, the lower the temperature is better within this range.
- (3) Ventilation: There should be a certain distance between inverter and other objects, to avoid blocking the product's vents.
- (4) Cleanness: Do not install the product in the dusty, wood chips or other particles. Or cooling fan is turned on, the particles will be involved in the inside of the product, thus affecting the normal work.
- (5) When connecting inverters and batteries, it will produce arcs or sparks, so there should not be flammable objects around, such as gasoline, alcohol, etc

2. Assemble the inverter

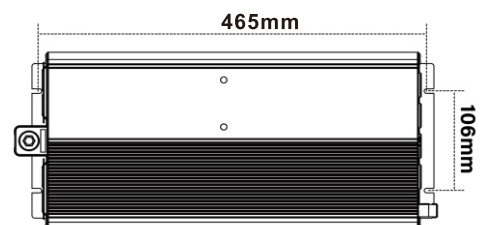
For this big power inverter, preferably mounted on a solid platform because of the heavy weight, such as floor, table or stable support. In order to avoid sliding off, the platform should bear the weight of the product, and it is better to fix the product with four screws.



2500W



3000W



4000W

Instructions

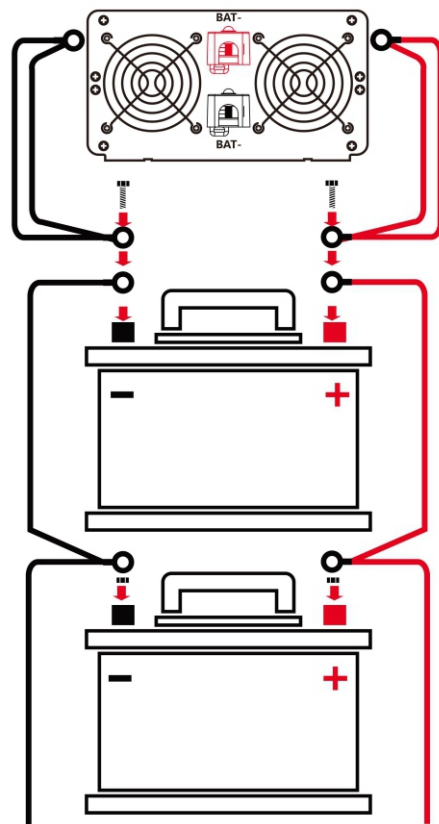
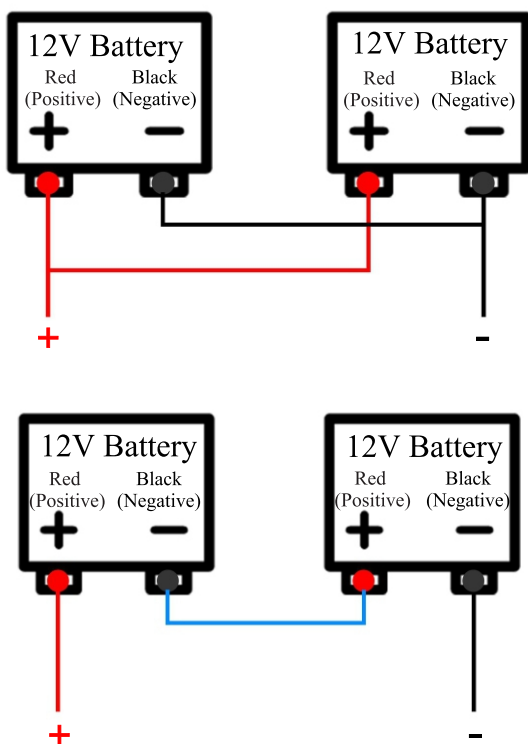
- 1 . Install the inverter in a stable place without moisture.
- 2 . Make sure there are no flammable substances in the area.
- 3 . Pay attention to the polarity and connect the inverter and the battery with the power input cable.
- 4 . After confirming that the connection is correct, turn on the inverter's power switch. (Please start the engine before turning on the power.)
- 5 . After confirming that the green operation lamp is on, connect the electrical device you want to use.
- 6 . Turn on the power switch of the electrical device you want to use.
- 7 . If you hear a warning sound, please discontinue use immediately.
- 8 . After using, turn off the power switch.

Note: Connection and Installation

- Because deviation of voltage / capacity of battery may cause trouble in this product or battery.
- When installing the power input cord, do not pinch it, pull it, or scratch it.
- As the main unit becomes hot on the product specifications, please install in a well-ventilated place when installing.
- Do not place anything within 5 cm of the main unit.
- Do not use in places with a lot of water (where it rains or snows).
- Make sure there are no flammable substances near the main unit.
- Do not use in a dusty place.

If you have multiple 12V batteries, please connect them in series or parallel according to the model you ordered (12V for parallel connection, 24V for series connection).

Note that connecting (+) terminal and (-) terminal will cause failure. Please connect + (plus),-(minus) each other.



Caution on Storage

- When not using for a long time, remove the power input cord from the battery and store it.
- Do not store in direct sunlight, heat sources, or high temperature and humidity.
- Do not store in places with a lot of vibration, such as the car's trunk room.

Battery

- ❗ The battery is for supplying DC input voltage to the inverter. Its rated voltage should be the same as the rated input voltage of the EGSCATEE inverter. Any voltage that exceeds the input voltage range of the inverter will cause the inverter to be overloaded and may damage the inverter.
- ❗ The battery ought to supply enough current for the load. (The load is the amperage or wattage rating of the equipment being powered by the inverter.) A small capacity battery cannot supply enough power for large electrical equipment and it will cause the inverter to be under-voltage.

SIMPLE METHOD

For determining the required battery capacity size is shown below for reference:

1. Determine the Watts (Amps * Volts) of the load
(Each appliance has technical specifications indicating the wattage or voltage and amperage required for operation.)
2. Utilize the formula $\text{Amps} = \text{Watts} / \text{Volts}$
3. Inverter consumption = $\text{Amps} \times 10\%$
(Due to inverter efficiency 90%, the recommended estimate for the calculation is 10%)
4. Estimated load runtime
(The capacity of the battery depends on the load wattage and runtime. Most loads are not constant, so estimation is essential.)
5. Determine Ah (Ampere-Hour) of the battery

Example: Using 12VDC battery to run a 1200Watts hotplate for 2 hours needs at least 220Ah battery. (10% Inverter consumption)
The calculations are as follows:

Utilize the formula $\text{Amps} = \text{Watts} / \text{Volts}$	$1200 \text{ Watts} / 12 \text{ Volts} = 100 \text{ Amps}$
Inverter consumption	$100 \text{ Amps} \times 10\% = 10 \text{ Amps}$
Load runtime = 2 hours	$(100 \text{ Amps} + 10) \times 2 \text{ hours} = 220 \text{ Ah}$

Conclusion: At least a 220 Ah battery must be selected in order to use the 1200 watts hotplate at 2 hours a day. However, determining the capacity of the battery is also dependent on the battery that is able to handle repeated discharge/charge cycles.

*This is just an example. Actual quantities vary by battery capacity and rates.

*Running wattage may fluctuate. To power the hotplate in the example, must use an inverter of at least 1500 watts.

Trouble Shooting

Please check the following contents first when trouble occurs. If the problem can not be resolved even if the following measures are taken, please consult the store where you purchased it.

Condition	Cause	Treatment
I can not turn on the inverter	The connection is loosed.	Tighten the mounting bolt to secure the round terminal.
	The power switch of the main unit is in the OFF state.	Press the power switch to turn it on.
	The fuse in the body is blown.	Replace with a replacement fuse.
The connected electrical device can not be used	Circuit's protection is working.	Eliminate the cause of activation of the circuit's protection.
	The current is decreasing	Shorten of the cable or use a thicker cable.
The power of the connected electrical device suddenly shuts down during using.	Protection circuit is working	Eliminate the cause of activation of the protection circuit.
	The power consumption of the connected electrical equipment greatly exceeds the rated power of this product.	If the rated output is exceeded it can only be used for a short time. When using continuously, please use below rated output.
A beep sounds during using.	Low battery.	Please charge the battery.
	Voltage error.	Please stop using it immediately and check the connected battery. Shorten the cable or use a long cable to charge the battery or reduce the power load (reduce the electrical equipment use)
	High temperature	Cool the inverter or place it in a cool place.
Battery voltage drops quickly.	Connecting electrical devices with high power consumption	Insufficient battery capacity. Use a large capacity battery.
	Battery is damaged.	Please replace the battery.
	Low battery.	Use a high-performance charger or a fully charged battery.
	The current is decreasing	Shorten the cable or use a thick cable.
	I am using it without starting the engine	Start the engine before use.

※Specifications are subject to change without notice depending on the time of arrival, and some contents may differ from the instruction manual.

※If the device still cannot work properly after all methods are used.

The above may be internal defects of the circuit. Please contact our after-sales service. Please send the order number and problem details to this email address: egtech66@outlook.com

