

## Operating instructions

e.BOX















#### Manual e.Box

Congratulations! With your choice of an e.Box from Carp-Sounder, you've chosen one of the most advanced mobile power solutions available today.

With proper use and appropriate care, our e.Box will provide years of reliable service.

This manual is intended to familiarize you with the operation of this product. Always keep this manual in a safe place so that you can access it at any time.

## **Safety instructions:**

- Our e.Box is not designed, used and handled by children
   To be taken into operation. The device is not a toy. Is the e.Box in operation?
   and children are close by, so there is always the presence of one responsible person required.
- The e.Box must not be connected to the AC mains of House installations are used.
- If the e.Box is not in operation for a long time, it should be switched off.
- If the e.Box is damaged by fall or other influences, the device must not be put into operation more. Leave it from our service to verify.
- Please use the product only in its intended manner and Wise. Any other use may cause damage to the Product or in the environment of the product.
- Modification or modification of the product will affect product safety. Attention risk of injury!
- Never open the product by yourself. Never carry out repairs yourself out!
- Handle the product carefully. It can be characterized by bumps, blows or fall already damaged at low altitude.
- Keep the product away from extreme heat.
- Never immerse the product in water or other liquids.
- Never leave the appliance unattended during operation.

#### **CAUTION:**

We accept no liability for consequential damages. Technical changes and errors reserved!

## **Intended Use**

The e.Box is intended exclusively for the operation of electrical appliances / consumers.

The max. specified continuous power (200 watts) of the built-in inverter sets the max. possible power consumption of the connected electrical appliances (consumers) to the 230 V socket. Before starting up, make sure that the max. Current consumption of the consumer is not above the nominal output current of the inverter. This information can be found on the rating plate or in the technical data of the respective connected consumer.

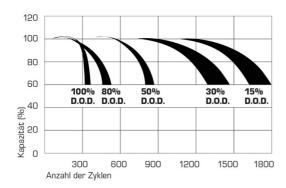
## Recommended method of carrying

The e.Box is equipped with a folding handle. When carrying the recess should always point to the body to prevent over-rotation of the handle. Due to the high dead weight of 11 kg, we do not recommend carrying the e.Box over long distances. If necessary, it should be stowed away for transport on a trolley.

## Charging the e.Box

The e.Box has 2 pole terminals on the top which are directly connected to the built-in 36 Ah battery. A charger for 12 volt AGM batteries can be connected directly here. The charger must work with a final charging voltage of at least 14.7 volts, otherwise the battery will not be fully charged. The maximum charge current should not exceed 5 amperes. We recommend the use of the charger Longex BL 12-5, which fulfills the requirements described above.

#### The e.Box in cycle mode



#### Capacity depending on the ambient temperature

-20°C	-10°C	O°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

### Connections of the e.Box

#### The 230 V socket

The e.Box is equipped with a 230 volt socket, which is powered by a built-in inverter. Always insert the plug of your appliance firmly into the e.Box.

Make sure that the power consumption of the consumer does not exceed the maximum possible continuous power output of 200 W.

The AC output waveform of the 230V output is referred to as a "modified sine wave". It is a stepped waveform that is designed to have similar characteristics to the sine waveform from the supply current. A waveform of this type is suitable for a wide range of applications. The modulated sine wave produced by the e.Box has an effective voltage of 220-240 volts, equal to the normal household voltage.

Most (digital and analog) AC voltmeters are more sensitive to the mean of the waveform than to the RMS value. They are calibrated to RMS voltage on the assumption that the measured waveform is a pure sine wave. These gauges do not accurately reflect the rms voltage of a modified sine wave. They indicate 20 to 30 volts less when measuring at the output. To accurately measure the output voltage, use a voltmeter that reduces true RMS values.

Devices with sensitive electronics should not be operated with a modified sine wave as this form of voltage is not sufficiently constant. These devices could be damaged. In case of doubt, please inform the manufacturer of the device to be connected in advance.

Inductive loads, such as Refrigerators, compressors and pumps require more power for their commissioning than the specified nominal value of the consumer. It may require 2 to 8 times the nominal watts. Since the characteristics of inductive loads vary greatly from consumer to consumer, it must be determined in tests whether a specific load can be started. If the inverter is overloaded, it simply shuts off.

#### 12 V connection

Suitable for all devices that can be operated or charged via the 12V socket in the car (for example, portable TVs, MP3 / DVD players, cameras, etc.) The maximum output current is 16 amperes.

#### **USB** ports

At the two USB ports, small consumers can be operated or charged with a USB plug (for example, a laptop lamp, mobile phone or tablet). The USB port delivers 5 volts with up to max. 1,000 mA and is not Data port.

## **Binding posts**

The pole terminals are connected directly to the built-in 36 Ah battery. They are suitable for the direct connection of 12 V devices such as Echo sounder, electric boat engine or electric reels thought. The maximum output current is 60 amps. The pole terminals are NOT protected against short circuits.

## Automatic protection functions of the e.Box

#### **Short circuit protection**

Reversing the polarity or shorting the load of the load can cause the fuse to blow. Immediately disconnect the short-circuited load from the power supply.

The pole terminals on top of the e.Box are directly connected to the built-in battery and are NOT protected against short circuits.

#### **Overload protection**

The built-in inverter is automatically switched off when the consumption exceeds the specified maximum continuous power.

#### **Overheating protection**

When the internal temperature sensors reach a temperature of 70  $^{\circ}$  C (158  $^{\circ}$  F), the built-in inverter shuts off automatically. It can be restarted after a fifteen minute cool down period. Switch off the e.Box during this time.

#### Overcurrent protection

Fuses serve as protection against overcurrents. When overcurrents occur, they safely disconnect the connections from the power source. Replacement of the fuses must only be carried out by a qualified specialist.

### Possible interference with TV, radio

Some consumers (radios, televisions, etc.) will make a buzzer sound when operating from the e.Box. This is because the power supplies in the consumer (radios, televisions, etc.) do not properly filter the modified sine wave provided by the e.Box. The only solution is the use of consumers (radios, televisions, etc.), which are equipped with a higher-quality power supply.

#### **CE** conformity

the company Carpsounder Braunfels e. K. declares that the design of the e.Box complies with the following regulations and guidelines:

EMC Directive 2014/30/EU Low Voltage Directive 2014/35/EU RoHS Directive 2011/65/EU



The declaration of conformity can be viewed at: www.carp-sounder.de/ce/

## Warranty

- 1. You get 2 years warranty on this device from the date of purchase. Please keep the receipt as proof of purchase. In the case of a warranty, please contact our service.
- The provision of a replacement device during the repair time is not in the Warranty included.
- 3. For damage caused by natural wear, faulty or negligent treatment as well as through transport, improper storage or unsuitable or improper Use or failure to comply with our instructions no warranty, as well as not for damage to connected Consumers. The manufacturer is free from any liability if the buyer changes unauthorized on the device has made or caused.
- 4. No warranty is provided for any repairs or changes made by others Issue as issued by the manufacturer or by a manufacturer authorized service be led.
- 5. Further claims of the purchaser, in particular those for compensation for damages that have not occurred on the delivery item itself, do not exist; excluded are also claims for damages from positive breach of contract, directly or indirectly based on defects or characteristics of the delivery item. Your legal rights are not limited by this warranty

## Disposal



This electrical appliance does not belong in the household waste.

For proper disposal, please contact the public collection points in your community. For details of the location of such a collection point and about any existing quantity restrictions per day / month / year and about any costs incurred in collection, please refer to the information of the respective municipality.

WEEE-Reg.-Nr.: DE 77278658

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