



# EEZEE POWER



## EEZEE POWER Battery Box user manual

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# EEZEE POWER

## General safety instructions

Please read this instruction manual carefully and familiarize yourself with the instructions, the received components and the needed tools.

Eezee Power will not be responsible for any damage caused by the failure to install the product according to these instructions.

All information in this guide has been prepared with great care. Eezee Power, however, does not accept liability for possible errors, changes and/or omissions. This user guide is for information purposes only and aims to support you in installing the Battery Box completely by yourself. Individual applications may not be covered and need different handling.

If you do not understand the instructions and/or you do not feel confident enough to tackle the installation, you should have the product installed by a professional.

## What you see is what you get

- A 1x battery box
- B 1x universal mounting bracket
- C 4x M8 stainless steel bolt  
4x M8 nuts  
4x M6 allen screws
- D 1x ignition cable and connector
- E 2x battery box straps





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## Connectors, charger and sockets



- A Anderson 12V 175 amp - in and out no fuse
- B 2x Anderson 12V 50 amp - in and out circuit breaker auto reset
- C Anderson in-vehicle charger input 16V max
- D Anderson solar input 25V max
- E In-vehicle charger ignition override (euro6)



- F Main power switch all plugs on/off except the in-vehicle charger Anderson plug
- G Voltmeter and battery indicator
- H Display on/off



- I In-vehicle charger battery menu
- J 2x 12V socket 10 amp max / socket
- K 2x USB socket



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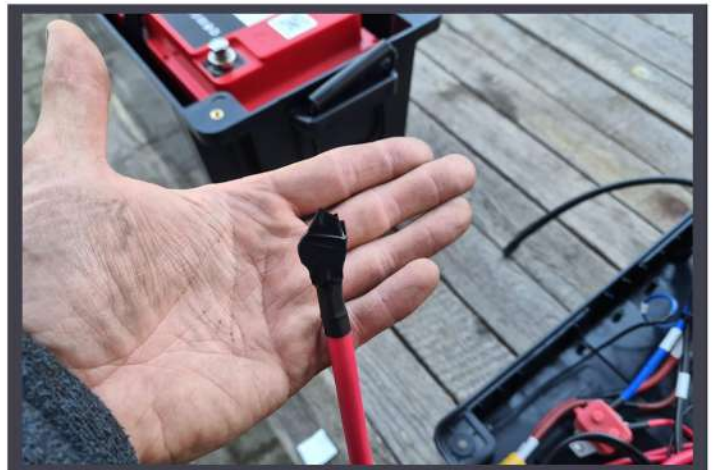


## Battery box battery installation



Stick 2 pieces of double-sided tape to the bottom of the box to keep the battery from sliding around inside the box. Then put the battery in the box.

Attention: the battery cannot be larger than L 320 x W 180 x H 225mm.



Put the strap around the battery and attach it firmly.

Locate the positive and negative cable in the lid of the battery box and remove the black tape.





Connect the red cable to the positive terminal of the battery and attach the rubber cap. Connect the black cable to the negative terminal of the battery and attach the rubber cap.



Test the battery functionality by turning on the main switch and the battery monitor. If the display doesn't show a voltage you need to check and correct your connections.



Use the supplied Allen bolts to attach the lid to the box. You have now successfully installed the battery, hooray!



# EEZEE POWER



## Charging option 1: solar panel

**NOTE: solar panels are sold separately**



The Eezee Power Battery Box is equipped with a built-in DC-DC Charger with MPPT regulator suitable for charging from unregulated solar panels.

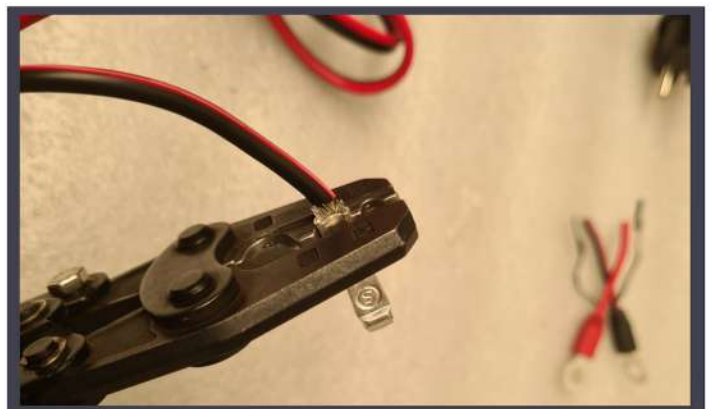
To connect your solar panel to the Battery Box simply plug it in via the yellow anderson style plug on your battery box.

- Attention: your solar panel **open circuit voltage must not exceed 25 VoC**. The voltage of your panel can generally be found on a sticker on the solar panel.
- Attention: if your solar panel is fitted with a built-in regulator, you will need to bypass the regulator port. Alternatively you can connect your regulated solar panel to any of the 2 in/out gray anderson style connectors of the Battery Box.



## Charging option 2: AC charger

**NOTE: AC chargers are sold separately**



Step 1: find the charger's cable that goes to the battery and cut off the plugs or eye ends.

Step 2: crimp the Anderson contacts on the cables.

Step 3: click the Anderson contacts in the Anderson style plug.

Step 4: connect the Anderson style plug to the Battery Box. (see page 3, position B)

Step 5: set up the AC charger according to the user manual and the type of battery.  
Please note: never exceed 50 amp.



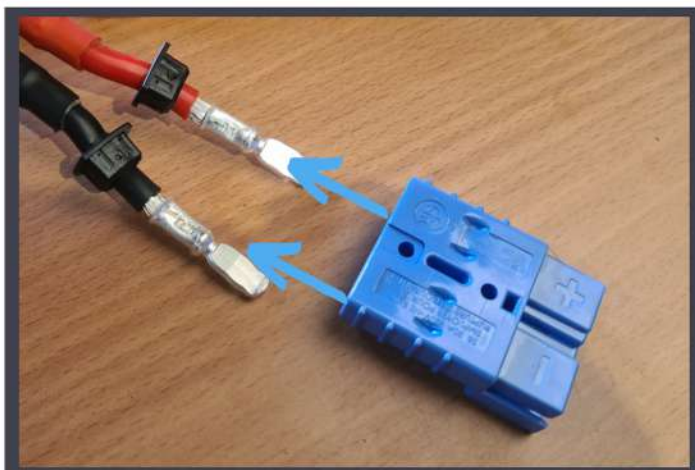
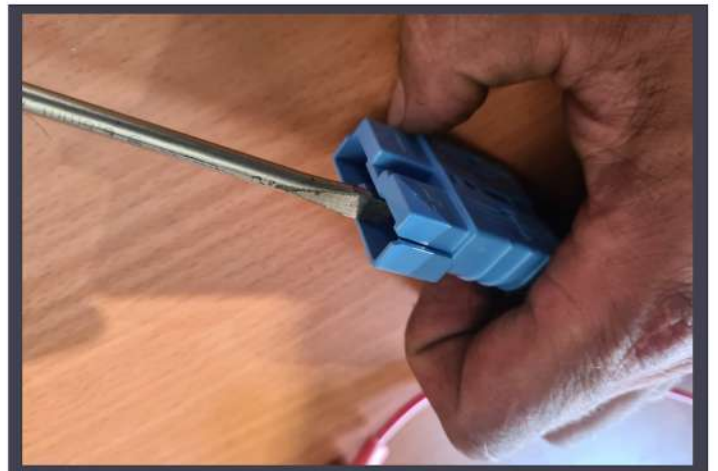
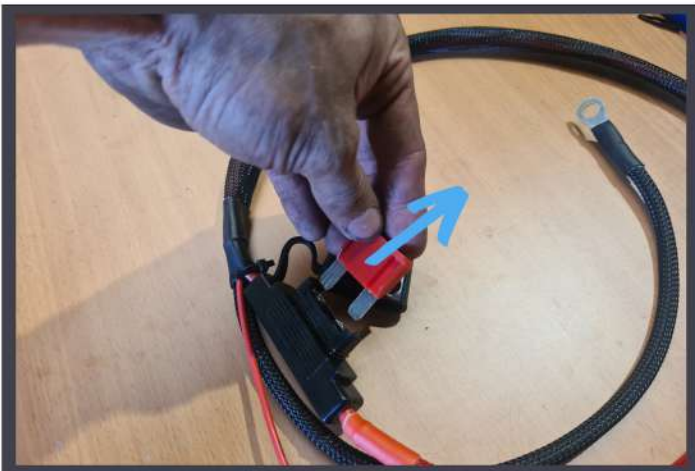
# EEZEE POWER



## Charging option 3: In-vehicle charger

**NOTE: the bespoke charging cable is sold separately. If you want to use your own cable, use a 10mm<sup>2</sup> (0-7 meter) or 16mm<sup>2</sup> (+7 meter) and a blue Anderson plug.**

You will have to disconnect the Anderson connector in order to lead the cable from the Battery Box, through the car, to the car battery. Follow these steps to safely disconnect and reconnect the plug.

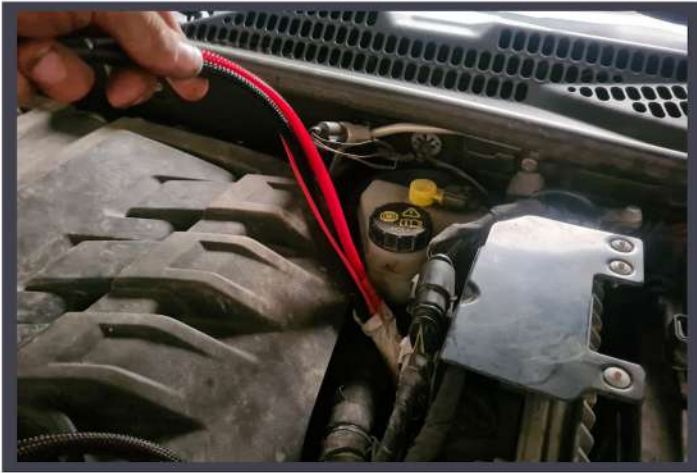


Step 1: make sure to remove the 50 amp fuse

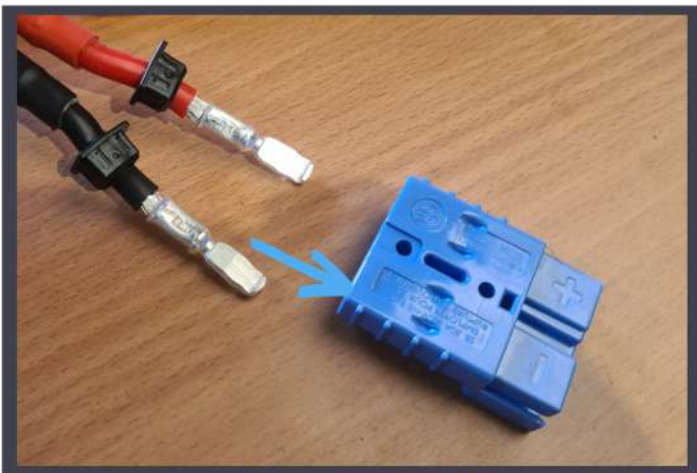
Step 2: use a flat screwdriver to loosen the connectors and remove the Anderson style plug

Step 3: use some painter's tape to make sure that the cables stay together





Find the most convenient way to run the cable from the Battery Box to the car battery. Make sure to put the cable end with the fuse holder near the car battery and the cable end with the painter's tape near the Battery Box. Keep the cable away from the exhaust system and beware of turning parts. Use enough cable ties to firmly hold the charging cable in place.



Reconnect the Anderson style plug.  
Attention: the red cable is + and the black cable is -



Connect the black cable to the negative pole of the car battery. Attention: never disconnect the original negative pole from the car battery as this can completely reset the car's computer.

Connect the red cable to the positive pole of the car battery and put the 50 amp fuse back into position.



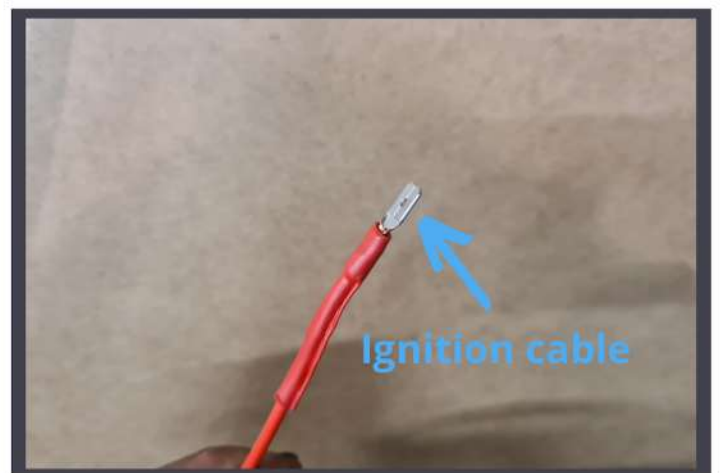
Connect the blue Anderson connector to the Battery Box.

The built-in charger will now be active for euro5 cars and older. The battery will be charged when the car battery goes above 13V and will stop charging when it goes below 13V.

For euro6 cars and vehicles with a smart alternator you will need to complete the following steps.



## Euro6 ignition cable



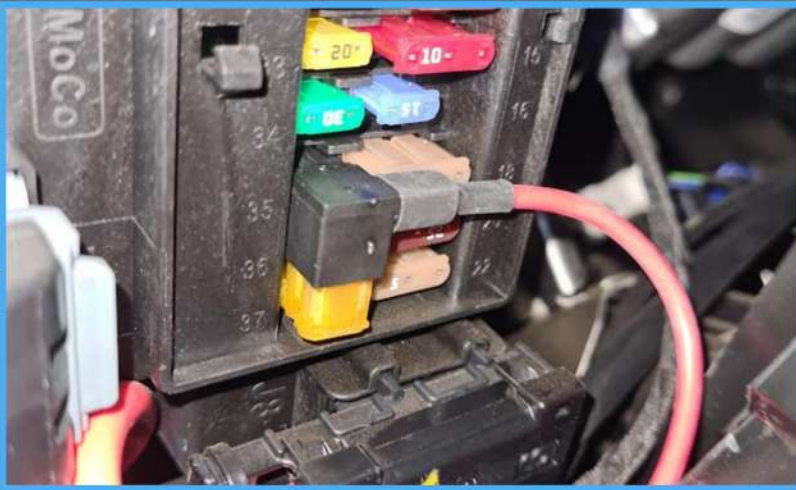
Connect the plug of the ignition cable to the Battery Box.

The other side of the ignition cable must be connected to the ignition of the car. We recommend using an Add-a-fuse tool to simplify this process. Add-a-fuse tools are sold separately.



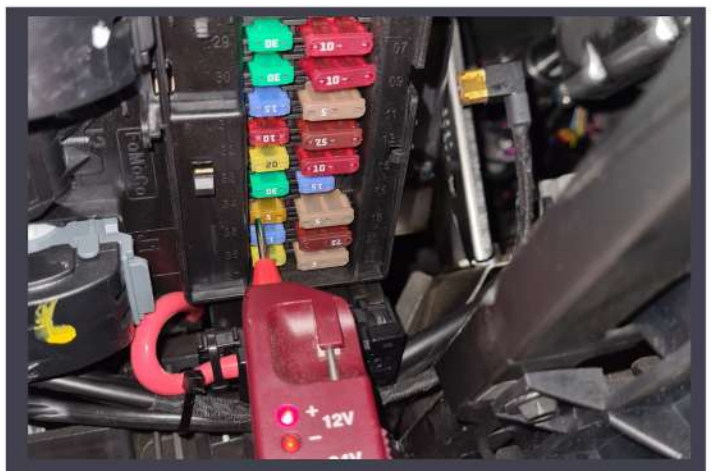


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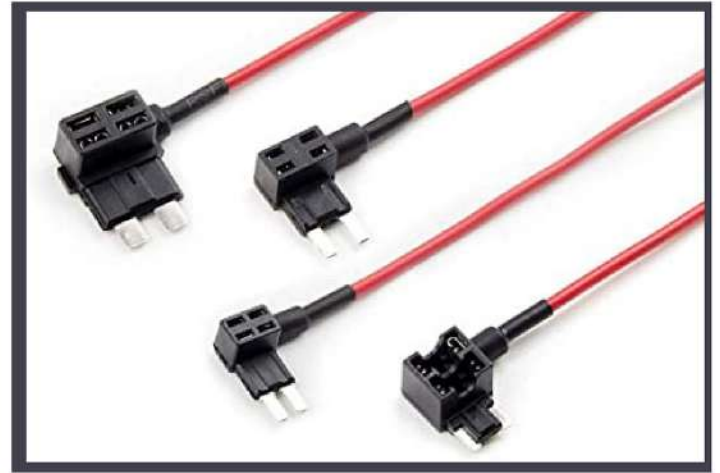
## Ignition cable & Add-a-fuse tool

**Note: you will need a 12V tester for the installation.**

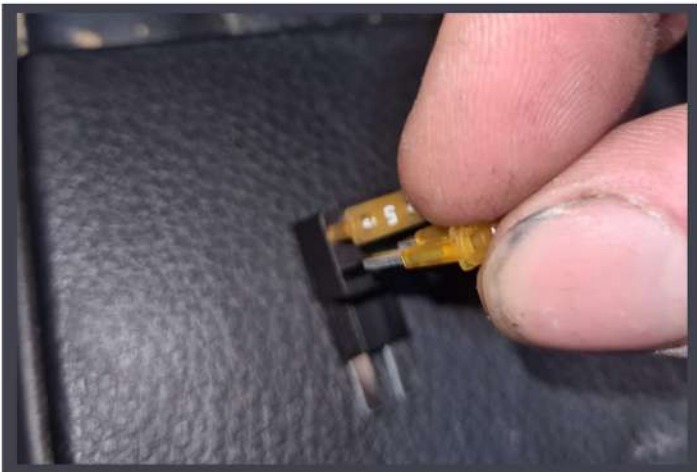


- Turn off the ignition of the car. Search for a fuse that is not active when the ignition is off.
- Turn on the ignition of the car and check if the fuse is now active. (For example: the fuse of the 12V socket is often an ignition-activated fuse.)
- Once you have found a suitable fuse, switch the car's ignition off again.





Remove the fuse from the car's fuse box and mark / remember the location. Check if the fuse matches the Add-a-Fuse tool. If it does not match, check the Eezee Power website to find a suitable Add-a-Fuse tool for your car.



Place the car's fuse in the bottom place of the Add-a-fuse tool. Crimp the Add-a-Fuse tool onto the ignition cable.



Place the Add-a-Fuse tool in the original position of the car's fuse.





## In-vehicle charger programming



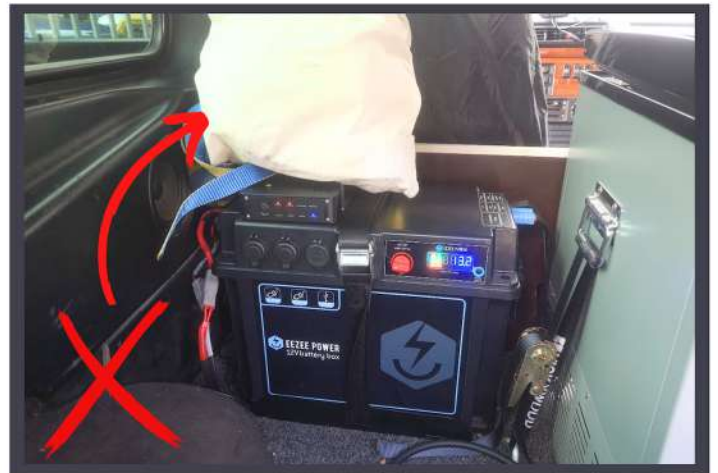
The built-in charger has a few indication leds to check the charging status.

- Euro5 and lower: the 'Power On' light will illuminate when the alternator goes above 13V
- Euro 6 and higher: the 'Power On' light will illuminate when the car's ignition is on
- Solar panel: the 'Power On' and 'Solar Charge' lights will illuminate once the solar panel reaches 16V
- The 'Charging' and 'Fully Charged' lights will illuminate according to the state of the battery

Please make sure that the right battery type is selected on the built-in charger.

- When the 'Power On' light is illuminated, long press the button to change the battery type
- Every long press will select the following battery type
- Stop pushing the button once the correct battery type is illuminated

## Important safety notice



The built-in charger can get very hot (+/- 50°C). This is normal and no reason for concern.

Make sure to keep enough space around the Battery Box and never put items on top of the charger.

## Battery safety mode

Some batteries have a built-in protection feature that will put the battery in safety mode when it gets completely discharged. When this is the case, the Battery Box will power on again while being charged but the display and the outputs will not work. Follow the next steps to get the battery out of safety mode:



Step 1: check if the battery is in safety mode by short pressing button A. If every short press changes the battery type, the battery is in safety mode.

Step 2: short press button A until the correct battery type is selected.

Step 3: long press button A until all lights go out.

Step 4: give the battery some time to reset. The battery and Battery Box will automatically power on again.





# EEZEE POWER



## Troubleshooting

### **My battery won't charge when I use a solar panel.**

Put the solar panel in a spot with more sunlight.

Check if all cables and plugs are properly connected.

Double-check if the battery is correctly installed.

Make sure that the right battery type is selected on the charger.

Check the open circuit voltage of the solar panel and make sure it doesn't exceed 25 Voc.

### **My battery won't charge when I use an AC charger.**

Make sure the AC power is on.

Check if all cables and plugs are properly connected.

Double-check if the battery is correctly installed.

### **My battery won't charge when I use the in-vehicle charger.**

Check if the ignition wire and the other cables and plugs are properly connected.

Double-check if the battery is correctly installed.

Make sure that the right battery type is selected on the charger.

Check the fuse from the charging cable.

### **The battery is stuck in safety mode.**

When the battery is completely drained, the Battery Box will shut off and put the battery in safety mode.

You can simply check if this is the case by short pressing the button on the in-vehicle charger. If a short press changes the battery type, the battery is certainly in safety mode.

Remedy: short press the button until the correct battery type is selected. Then long press the button until all lights go out. Give the battery some time to reset and it will automatically power on again.

### **I have an issue with the Battery Box that is not listed above.**

Please contact us at [info@eezeepower.eu](mailto:info@eezeepower.eu) with a clear description of the problem.



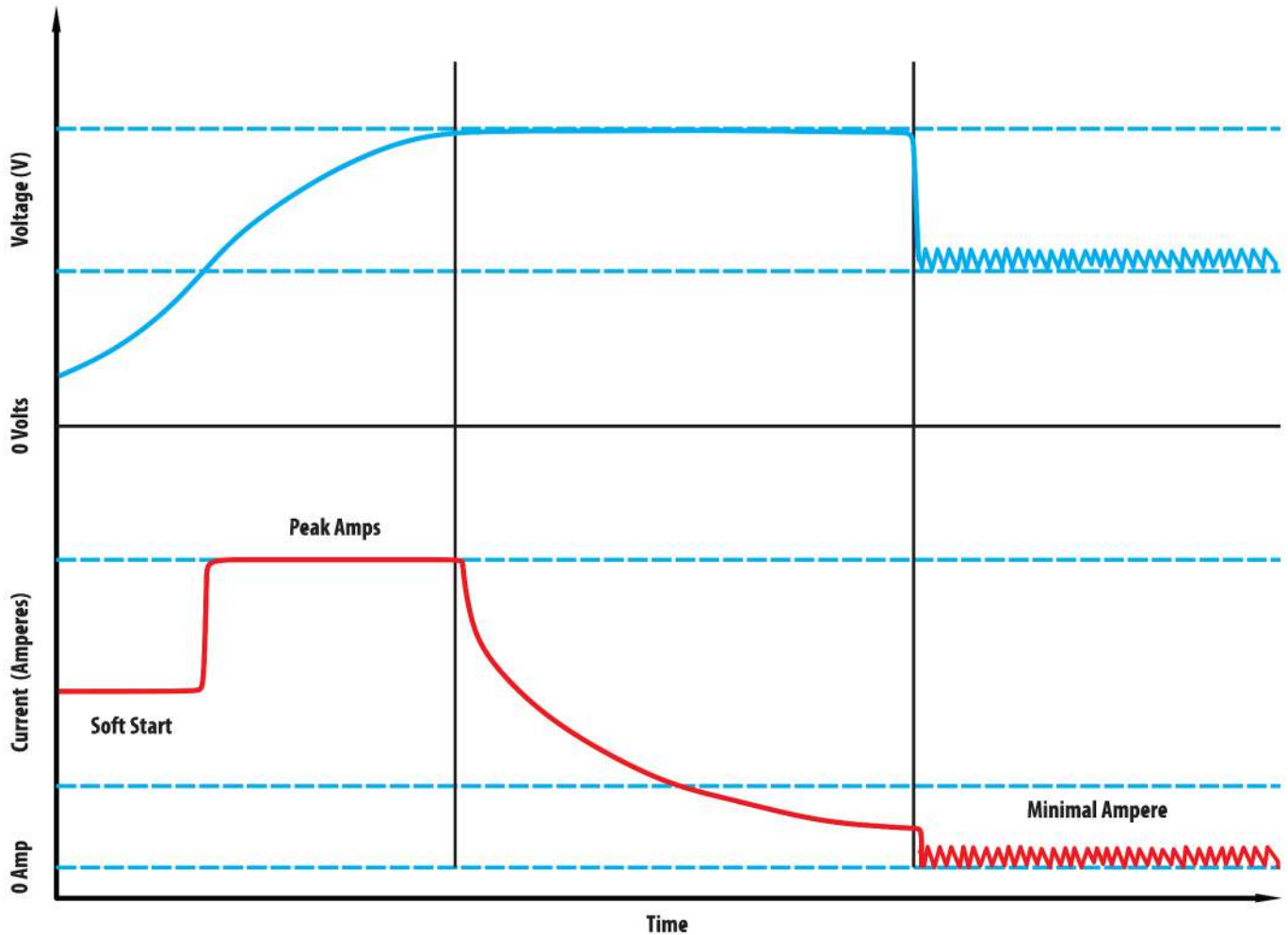
## Specifications built-in charger

Type	Multi stage
Input	DC battery: 12.5 - 16.0 Volts Solar input: 16.0 - 25.0 Volts
Output / charging voltage	14.4 - 15.4 Volts Stops charging when alternator output or vehicle battery is below 12.4 Volts
Output current	DC output: 30 A Solar output: 30 A
Minimum start voltage	2.5 Volts for battery being charged
Soft start	Yes
Soft charge current	DCDC30@30A
Bulk charge voltage	14.7V (AGM/Gel) 14.4V (lead acid) 15.4V (calcium) 14.4V (Li-ion)
Absorption	Constant voltage with automatic amperage control
Float charge voltage	13.5V (AGM/Gel) 13.5V (lead acid) 13.5V (calcium)
Float charge current	100mA
Battery range	100 - 1200 Ah
Cable length in-vehicle charger input	0-7 meter: 10mm <sup>2</sup> +7 meter: 16mm <sup>2</sup>





## Charging algorithm



Charging algorithm will change according to battery type.

## Charging voltages

	<b>AGM/GEL</b>	<b>Lead acid</b>	<b>Calcium</b>	<b>Li-ion</b>
Boost	14.3V	14.0V	15.0V	14.0V
Charging	14.7V	14.4V	15.4V	14.4V
Maintenance	13.5V	13.5V	13.5V	



## Disclaimer

All information in this guide has been prepared with great care. Although we make every effort to ensure that they are correct, errors may occur. Eezee Power cannot be held liable for errors, changes, outdated information and/or omissions.

This user guide aims to assist you in doing your own installations and is for information purposes only. Eezee Power will not be responsible for any damage caused by the failure to install the product according to these instructions.

If you do not understand the instructions and/or you do not feel confident enough to tackle the installation, you should have the product installed by a professional.

## General guidelines

- Only use the device as intended.
- This product is made for automotive and recreational vehicle 12V deep cycle battery use only.
- Do not use this product with dry cell batteries.
- This product is not intended for outdoor operation. Do not expose to moisture or extreme weather conditions.
- Always use the product in a well-ventilated place. Inadequate ventilation may overheat the charger and cause inefficient operation.
- The product may not be used if the device itself or any connection cables are visibly damaged.
- Do not use the product near a heat source such as a fire or heating furnace.
- Never use a flame near a battery. Never smoke or light a cigarette near a battery.
- This product is not intended for use by children or infirm persons.
- Avoid impact, falls and severe vibrations.
- Never insert foreign objects into outputs or inputs.
- Do not use sharp objects or cleaning agents as these may damage the product.
- Do not place tools on top of a battery or allow tools to fall on the battery.
- Store the device in a dry and ventilated place.
- The warnings, cautions and instructions in this user manual cannot cover all possible conditions and situations that may occur. Common sense and caution are factors which cannot be built into this product and must be supplied by the operator.

## Product care information

- Gently wipe the device with a dry, soft and clean cloth.

## Warranty

Our warranty only applies to manufacturing or design defects and does not cover misuse, modification, improper installation, accident damage, normal wear or finish failure caused by usage of wrong cleaning agents. Please check the terms and conditions on our website for further details about the warranty procedures.