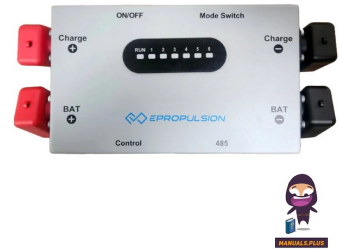




BEC4850 E Battery External Controller



EPROPULSION BEC4850 E Battery External Controller Instruction Manual

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EPROPULSION BEC4850 E Battery External Controller



Product Information

The E Battery External Controller, model BEC4850, is designed for use with E Battery and E Battery Solar Charger. It is compliant with Electromagnetic Compatibility (EMC) 2014/30/EU, RoHS 2.0 Directive 2011/65/EU and 2015/863EU.

Specifications

- **Voltage range:** 41.6 – 57.6 VDC
- **Maximum current:** 50A
- **Weight:** 2300 g
- **Dimensions:** 245 x 130 x 91 mm

Important Notes

According to research in the UK, the average amount of sunlight per day is around 2.5 hours. For optimal performance, it is recommended to have a minimum panel output of 250Wp per battery.

Warning

Do not reverse the positive and negative poles of the External Controller. Contact an ePropulsion authorized distributor before connecting the controller with a third-party product.

Product Usage Instructions

Charging the E Battery External Controller

1. Connect the charger to a power source.
2. Turn the ON/OFF switch to ON.
3. Select the desired charging mode using the Mode Switch (1-6).
4. Monitor the charging progress until fully charged.

Using the Controller

1. Ensure the E Battery External Controller is properly connected to the E Battery or E Battery Solar Charger.
2. Adjust settings using the control options available on the controller.
3. Refer to the user manual for detailed instructions on specific functions and settings.

MODEL: BEC4850

Suitable for E Battery

Introduction

- Thank you for purchasing ePropulsion E Battery External Controller.
- This Controller is specially designed for E Battery and E Battery Solar Charger.

Declaration of Conformity

We Guangdong ePropulsion Technology Limited, hereby, declares that this equipment is compliance with the applicable Directives and European Norms, and amendments.

Object of the Declaration:Product:

- **Product:** E Battery External Controller
- **Model:** BEC4850

The object of the declaration is in conformity with the following directives: Electromagnetic Compatibility (EMC) 2014/30/EU RoHS 2.0 Directive(RoHS) 2011/65/EU and 2015/863EU

Applied Standards:

- EN IEC 61000-6-1:2019
- EN 61000-3-3:2013+A1:2019+A2:2021
- EN IEC 61000-3-2:2019/A1:2021
- EN IEC 61000-6-3:2021

Manufacturer

- **Name:** Guangdong ePropulsion Technology Limited
- **Address:** Room 801, Building 1, 11 Daxue Road, Songshan Lake, Dongguan, Guangdong Province, China
- **Signature:**



- **Date:** 2024.9.3

Shizheng Tao, Chief Executive Officer & Cofounder of Guangdong ePropulsion Technology Limited

Statement

Operation is subject to the following three 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.


Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

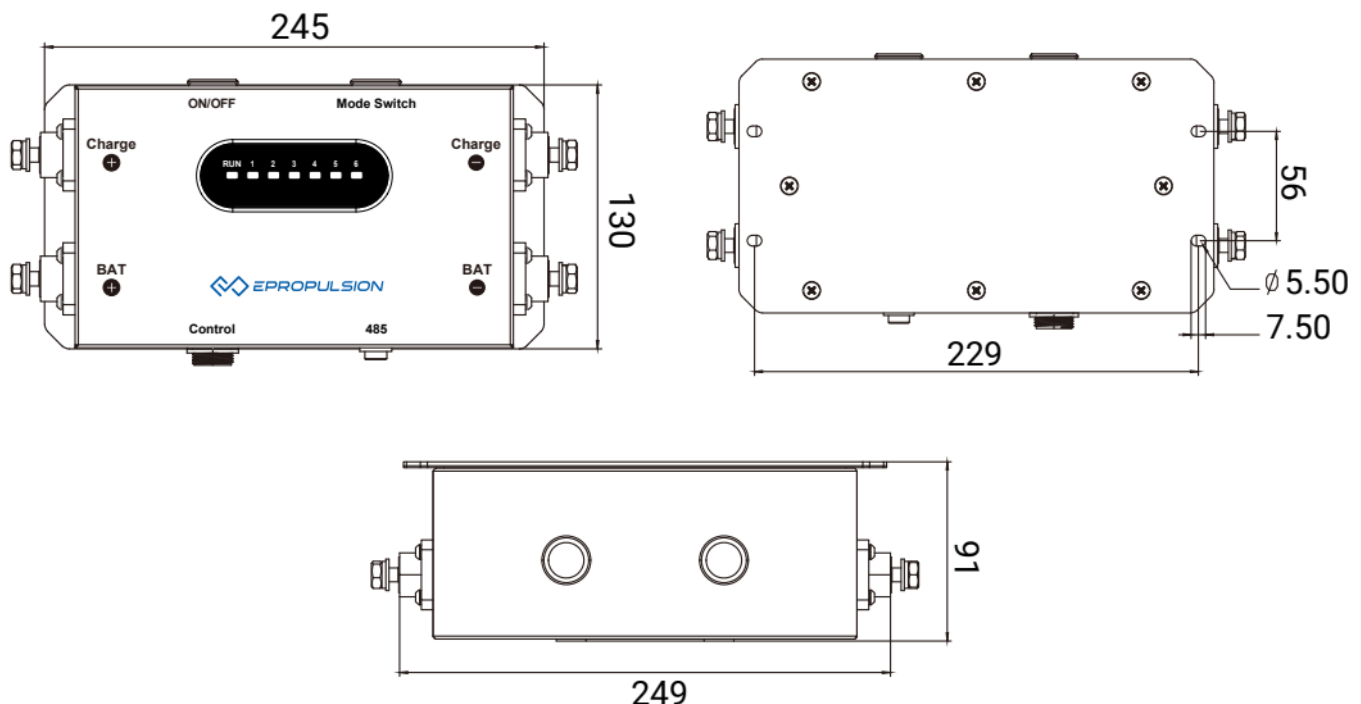
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Disposal and environment



This  marking indicates that this product should not be disposed of with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Interface description



Important Notes:

According to research in the UK, the average amount of sunlight per day is around 2.5 hours. This can vary depending on location, but it's the overall average. Based on this, we recommend a minimum panel output of 250Wp per battery, with an optimal output of 400Wp or more per battery.

Warning:

- Do not reverse the positive and negative poles of the External Controller.

- Before connecting the External Controller with the third party product, please contact ePropulsion authorized distributor.
- If the E battery is charged by the solar charger without a communication cable, it may not be fully charged to 100%.

Packing List

Voltage range	41.6 – 57.6 VDC
Maximum current	50A
Weight	2300 g
Dimensions	245 x 130 x 91 mm

Operations

Recommendation: Charge the system via shore power after every five cycles.

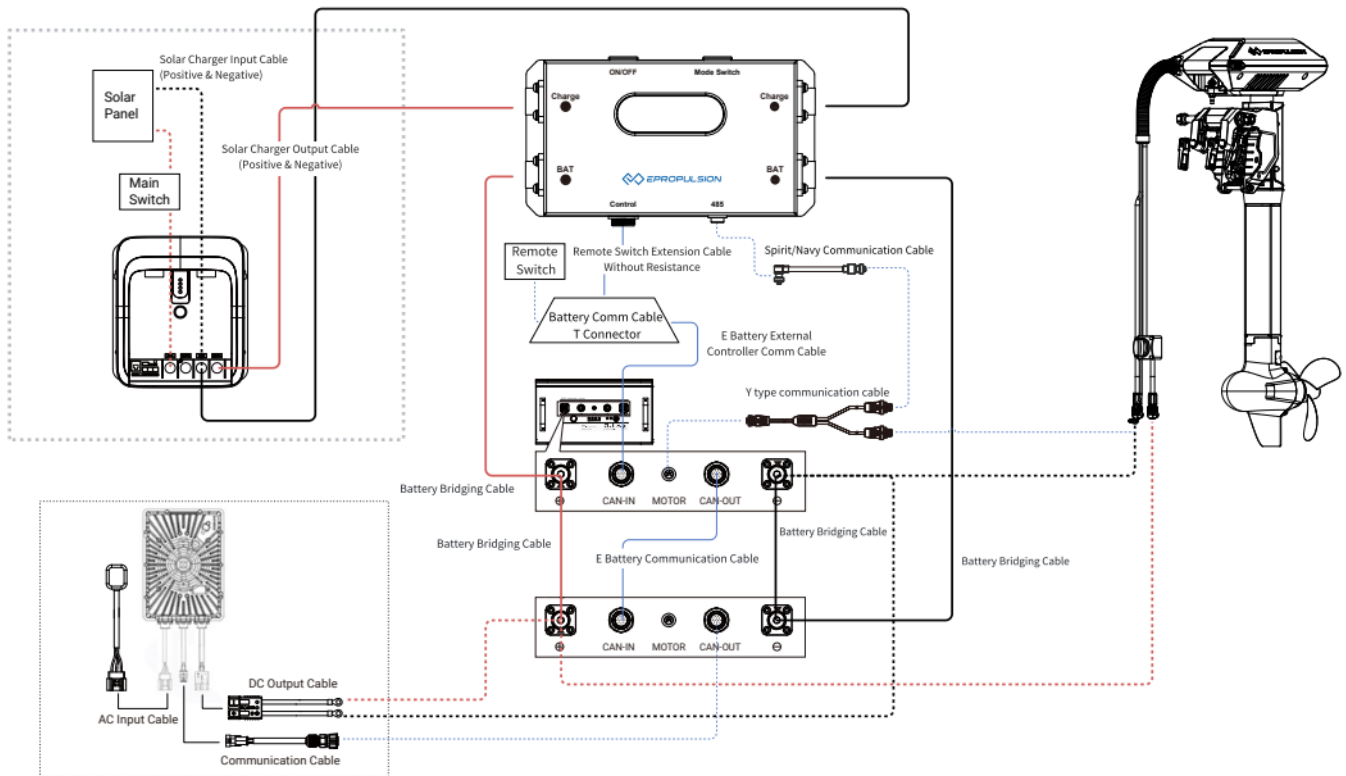
Wiring Guide

If you are unsure about wiring the system, do not attempt it yourself.

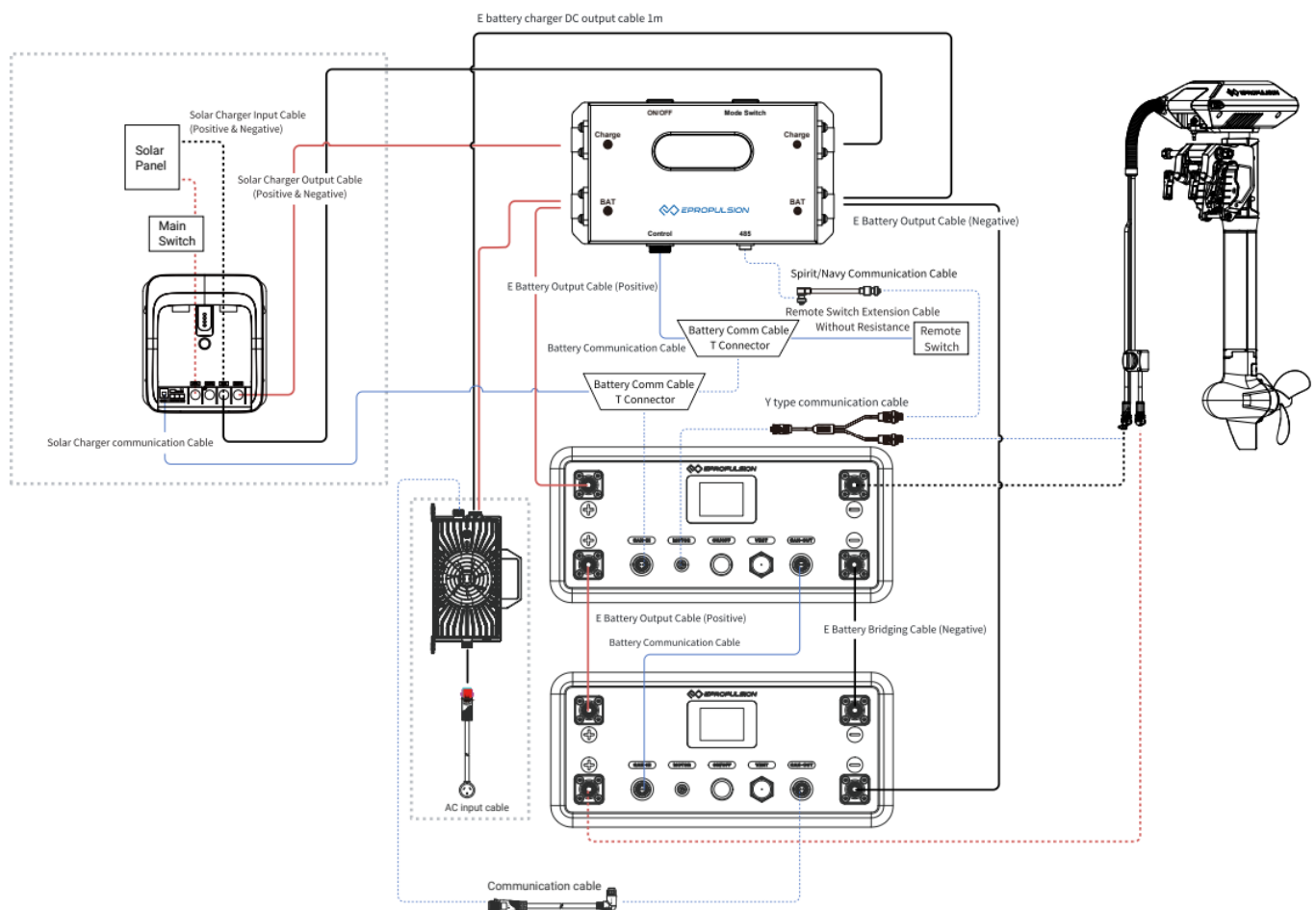
Packing List

Item	Qty.
E Battery External Controller	1 pcs
E Battery External Controller Manual	1 pcs

Connect E40/E80/E175



Connect E60/E163



For different E battery connections, you will need to purchase the following additional materials:

Connection	Item		NO.	Qty	Note
Connect E40/ E80/ E175	Battery Remote Switch 5m		EB-AC02-01	1	To connect the remote switch, you need to prepare
	Battery Comm Cable T Connector		EB-AC05-00	1	
	Remote Switch Extension Cable Without Resistance		/	1	It is needed to connect the remote switch, which is included in the E Battery Solar Charger 48 V 1600W
	E Battery External Controller Communication Cable		00-0601-50	1	/
	Spirit/Navy Y Type Communication Cable 0.3m		00-0601-12	1	/
	Spirit/Navy Communication Cable		00-0601-01	1	/
	Battery Bridging Cable	0.5m	00-0601-28	4	/
		1.0m	00-0601-29		
		2.0m	00-0601-30		
	E Battery Communication Cable	1.5m	00-0601-10	1	/

Connection	Item		NO.	Qty	Note
Connect E60/ E163	Battery Remote Switch 5m		EB-AC02-01	1	Non-essential
	Battery Comm Cable T Connector		EB-AC05-00	2	At least prepare 1pcs To connect the remote switch, you need to prepare 2pcs
	Remote Switch Extension Cable Without Resistance		/	1	It is needed to connect the remote switch, which is included in the E Battery Solar Charger 48V 1600W
	Solar Charger communication Cable		/	1	Included in the E Battery Solar Charger 48V 1600W
	E Battery Output Cable (Positive & Negative)	1.5m	EB-CP04-00	1	/
	Spirit/Navy Y Type Communication Cable 0.3m		00-0601-12	1	/
	Spirit/Navy Communication Cable		00-0601-01	1	/
	E battery charger DC output cable 1m	1m	00-0601-69	1	/
	E Battery Bridging Cable (Positive & Negative)	0.45m	EB-CP01-00	1	/
		1.5m	EB-CP02-00		/
		5.0m	EB-CP03-00		/
	Battery Communication Cable Kit	0.5m	EB-CP10-00	2	/
		1.5m	EB-CP11-00		/
		5.0m	EB-CP12-00		/

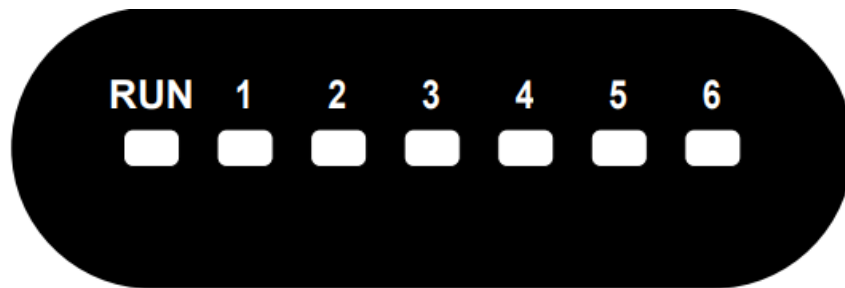
1. Connecting to E Battery, E Battery Solar Charger and NAVY.
2. To turn on the controller, please press and hold the power button on the controller for 1 second (no more than 3 seconds). In this case, the controller is in Standby Charge Mode by default. You can also turn on the system using the power button on the battery or the remote switch. In this case, the controller is in Mode 1 (No Control Mode) by default.
3. For switching modes of the controller, please press and hold the mode switch button on the controller for 1 second (no more than 3 seconds).
4. To turn off the controller, please press and hold the power button on the battery for 3 seconds, then the system will turn off automatically.

Modes

- Mode 1 (No Control Mode) : For normal vessel operation. In this mode, the battery will charge and discharge at the same time.

- Mode 2 (Standby Charge Mode) : Use this mode when the boat is left idle for more than one hour. It optimizes battery charging.
- For additional modes, please refer to the manual.

LED Indicator



Item	Indicating method	Description
RUN	/	The steady light is for the controller to work, the flash light is for the battery communication lost
1	No Control Mode	Turn on the system using the power button on the battery or the remote switch. In this mode, the controller will not control the system.
2	Standby Charge Mode	Keep the battery power on until the battery is fully charged and automatically turn off the battery, In this mode, when the charging current is less than 2A and exceeds 10 minutes, the controller will control the battery to shut down for 1 hour and then restart to detect the charging current. When the charging current is greater than 2A, the controller will keep charging. The system will shut down when the battery is fully charged.
3	Standby Discharge Mode A	Turn the battery on to discharge for 1 hour and then turn it off for 1 hour, repeating the cycle until the battery is less than 10%.
4	Standby Discharge Mode B	Turn the battery on to discharge for 3 hours and then turn it off for 6 hours, repeating the cycle until the battery is less than 10%.

Item	Indicating method	Description
5	Standby Discharge Mode C	Turn the battery on to discharge for 6 hours and then turn it off for 12 hours, repeating the cycle until the battery is less than 10%.
6	Standby Discharge Mode D	Turn the battery on to discharge for 8 hours and then turn it off for 24 hours, repeating the cycle until the battery is less than 10%.

Notes

- If you want the battery to be fully charged and automatically shut down to save power, please switch to the Standby Charge Mode before leaving the boat.
- If you want the battery to automatically turn on and use electricity, please switch to the Standby Discharge Mode before leaving the boat.

Warranty

- ePropulsion E Battery External Controller is guaranteed against any manufacturing defects for TWO years from date of delivery of products to end customers.
- Free warranty is only validated upon the presentation of legal serial number, Warranty Card, and evidence of purchase from an authorized ePropulsion dealer.

Conditions

- Valid date of purchase should be established by the first-hand purchaser with original sales slip.
- Free warranty is not transferable and will not be reissued.
- The warranty is valid only when the information is correct and complete.

Warranty does not cover

- Minor faults producing no influence on the intended function of the product.
- Faults resulting from any improper operation that contradicts the user manual.
- Accessories supplied with the product.
- Damage caused by accident, misuse or unauthorized repair.
- Damage caused by dropping, improper care or storage.
- If warranty expires, users can still enjoy maintenance services from ePropulsion authorized dealers with minimum maintenance charge.

Thanks for reading this user manual.

If you have any concerns or find any problems while reading, please don't hesitate to contact us. We are delighted to offer service for you.

- **Guangdong ePropulsion Technology Limited**
- **Webseite:** www.epropulsion.com

- E-Mail: service@epropulsion.com

FAQs

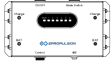
Q: What should I do if the E battery is not fully charged by the solar charger?

A: If the E battery is charged by the solar charger without a communication cable, it may not be fully charged to 100%. Contact the retailer or propulsion authorized distributor for assistance.

Q: How can I dispose of the product responsibly?

A: This product should not be disposed of with household waste. Please recycle it responsibly through designated return and collection systems or contact the retailer for safe recycling options.

Documents / Resources

 <p>The image shows a small, rectangular electronic device with a black casing and a white label. The label features the ePropulsion logo and the text 'E Battery External Controller'. There are also some technical specifications and a barcode on the label.</p>	<p>EPROPULSION BEC4850 E Battery External Controller [pdf] Instruction Manual BEC4850 E Battery External Controller, BEC4850, E Battery External Controller, External Controller, Controller</p>
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References

- [⚡ Electric Outboard Motor | ePropulsion](#)
- [User Manual](#)

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