



OWNER'S MANUAL

PROBOOST

PROBOOST25
PROBOOST40



TEAMBMPRO.COM

SAFETY PRECAUTIONS

Please read the Safety Precautions before installing or using the ProBoost. Be sure to observe all precautions without fail. Failure to observe these instructions properly may result in personal damage, or personal injury which depending on the circumstances may be serious and cause loss of life.



WARNING



It is best to have professional guidance when installing and using the charger. People with physical disabilities, visual impairments and olfactory impairments (including children) should not use this device. Children should be supervised to ensure they do not play with battery chargers.



Do not disassemble or modify the charger, otherwise it may cause a safety accident.



This charger is only suitable for battery types listed in this manual. Do not use it for other purposes.



When charging, select the charging procedure applicable to the auxiliary battery. If the wrong charging procedure is selected, it may cause damage to your auxiliary battery, and even cause safety accidents in serious cases. If you are not sure what kind of charging procedure you should select, consult a professional.



Use the fuses and wires recommended in this manual, otherwise it may damage the product and cause serious safety accidents.



Never smoke or allow a spark or flame in the vicinity of the battery or the engine. This may cause the battery to explode.

CONTENTS

SAFETY PRECAUTIONS	2
ABOUT THE PROBOOST	4
KEY FEATURES	4
OPERATION	4
DESCRIPTION OF PARTS	5
DISPLAY PANEL	5
INSTALLATION	6
MOUNTING	6
CABLE SIZE	6
WIRING INSTRUCTIONS	7
WIRING DIAGRAM	8
TYPICAL SET-UP	9
FUSING	10
BATTERY TYPE SELECTION	10
LED INDICATORS	11
LED CHARGE INDICATORS	11
LED FAULT INDICATORS	12
FAQS AND TROUBLESHOOTING	13
APPENDICES	14
SPECIFICATIONS	14
WARRANTY TERMS AND CONDITIONS (AUSTRALIA)	16
LIMITED WARRANTY TERMS AND CONDITIONS (USA)	18
COMPLIANCE	19



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REV 4.0

Designed by BM PRO, one of Australia's leading power solution experts, the BM PRO product range is proudly designed and manufactured in Melbourne, Australia, and represent a high-quality product that will provide years of service.

DISCLAIMER: BM PRO accepts no liability for any loss or damage which may occur from the improper or unsafe use of its products. Warranty is only valid if the unit has not been modified or misused by the customer.

ABOUT THE PROBOOST

BMPRO's ProBoost is a multi-stage DC-DC battery charger that enables the charging of a secondary battery using solar panels and/or a towing vehicle's 12V electrical system.

The ProBoost uses either the solar or auxiliary inputs to ensure there is always a consistent charge to your battery.

The ProBoost is available in two models, the **ProBoost25** and the **ProBoost40** to suit your charging needs.

KEY FEATURES

- ☑ Compatible with lead-acid and lithium LiFePO4 batteries
- ☑ 25A (**ProBoost25**) or 40A (**ProBoost40**) solar MPPT regulator
- ☑ Dual input from either solar or vehicle auxiliary
- ☑ High power density design provides efficiency up to 93% (**ProBoost25**) or 95% (**ProBoost40**)
- ☑ Ultra-thin design suitable for limited installation space
- ☑ Excellent performance in harsh environments
- ☑ Resistant to shaking, wet, dusty or muddy environments
- ☑ Smart alternator compatible
- ☑ Overtemperature, overvoltage, undervoltage and reverse polarity protection

OPERATION

The ProBoost is designed as a standalone system. It is designed to take current from a vehicle battery and boost the voltage at the Aux battery to provide maximum amps.

The ProBoost can output up to 40A. This depends on cable sizes due to voltage drop.

The ProBoost will either charge from an alternator source or from a solar array, but not both together. Blended mode doesn't charge from both sources, it switches off the charging source based on the power of the charging sources.

The threshold for switching between solar and alternator mode is 350W.

DESCRIPTION OF PARTS



1. Battery Selection Button

Used to select the battery type to be charged.

2. Mounting Slots

Used to mount the ProBoost to a surface with screws.

3. Input/Output Leads

Used to connect the ProBoost to inputs and outputs.

DISPLAY PANEL



INSTALLATION

The ProBoost is designed to be installed in a variety of environments, including the chassis rail, engine cabin and driver cabin.

The ProBoost can be installed in any orientation. Installation should take place in a well-ventilated area that allows for continuous airflow around the unit to prevent overheating. Overheating the ProBoost will affect optimal operation.

MOUNTING

Securely mount the ProBoost to any suitably strong flat surface. Install the ProBoost inside your caravan or camper trailer, preferably close to the auxiliary battery.



CABLE SIZE

The following table lists recommended cable sizes for the ProBoost if you need to extend the cable length. Cables can be used that are equal to or larger than this size.

Cable	Cable Colour	<5m	<10m
Solar	Green	ProBoost25: 10 AWG ProBoost40: 8 AWG	ProBoost25: 8 AWG ProBoost40: 6 AWG
Alternator	Yellow		
Output	Red		
Ground	Black		
Ignition	Blue	20 AWG	

It is very important that cables are well connected. The operation of the ProBoost will be its most stable and reliable when there is low conduction impedance.

With cables between 10-8 AWG, it is recommended to use BN8 Butt Splice Connectors.

After completion, heat shrinkable tubing must be used for insulation to prevent short circuits.



Butt Splice Connector

WIRING INSTRUCTIONS

To wire the ProBoost:

1. Ensure the vehicle engine is turned off. This will prevent any accidental short circuiting during the installation.

A vehicle power down may result in the loss of memory data.

2. Ensure the negative pole of the starter battery is disconnected.
3. Connect the **red** output cable to the positive pole of the auxiliary battery.
4. Either connect the **black** ground cable to the negative pole (-) of the auxiliary battery, or connect both auxiliary battery negative (-) terminals and the ProBoost common ground cable to the vehicle chassis ground.
5. Connect the **yellow** alternator cable to the positive (+) pole of start battery.
6. If you have a smart alternator, connect the **blue** ignition cable to the ignition terminal of the vehicle. This is usually found in the vehicle's fuse box. When the vehicle is started, the terminal is powered on. When the car is turned off, the terminal is powered off.

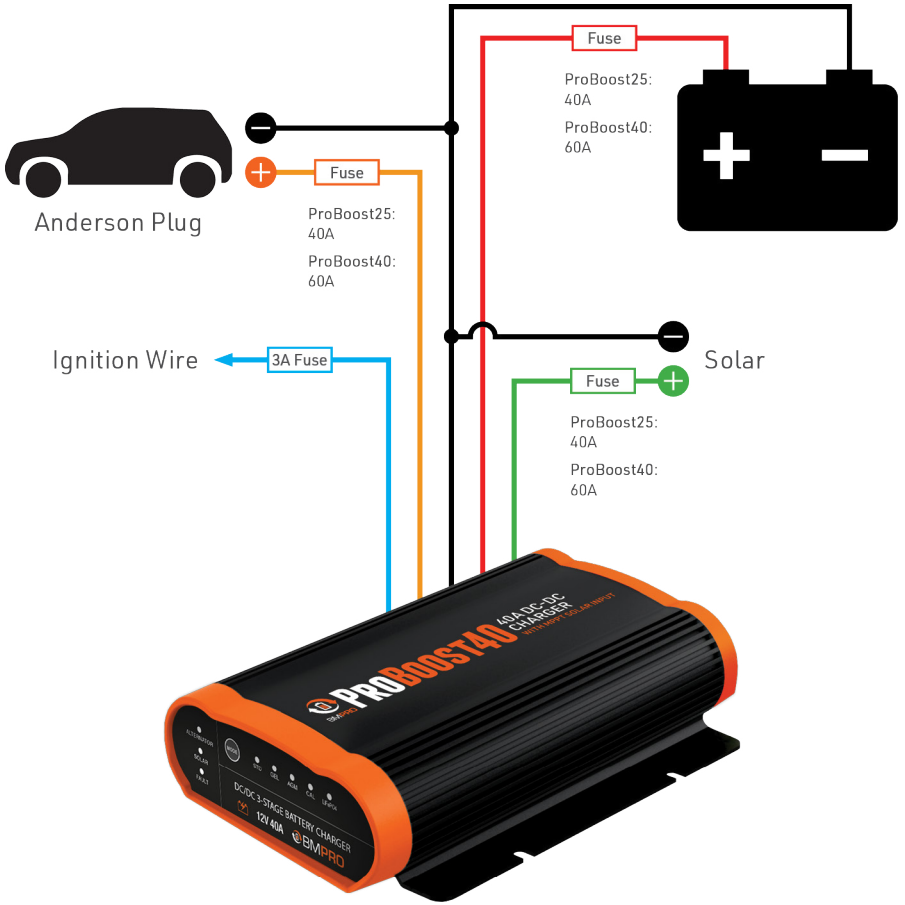
If you do not have a smart alternator, leave the blue ignition cable disconnected. Ensure you have insulation protection.

7. If you have solar panels, connect the **green** solar cable to the positive (+) pole of the solar panel. Connect the negative pole of the solar panel to the common ground cable or vehicle chassis ground.

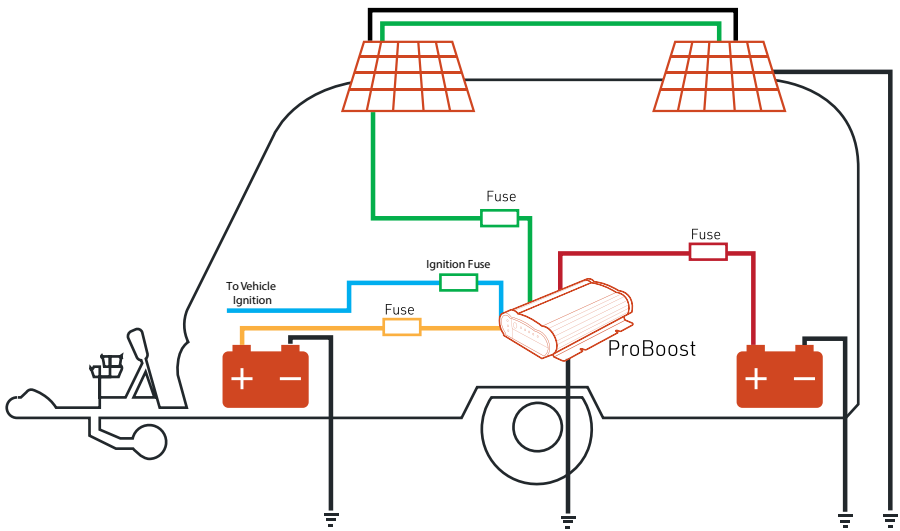
If you do not have solar panels, leave the green solar cable disconnected. Ensure you have insulation protection.

8. Restore the negative connection of the battery.

WIRING DIAGRAM



TYPICAL SET-UP

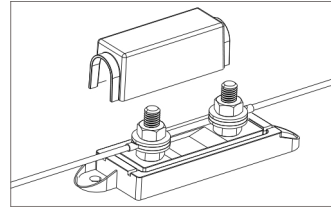


FUSING

All recommended fuses should be connected in series in circuit.

Bolt down fuses are preferred as they ensure a low resistance connection.

Blade type fuses are not recommended. These fuses can result in a high resistance connection which causes excess heat, which may damage the fuse holder and/or the wiring.



Self-resetting circuit breakers are not recommended. These may trip prematurely due to the heat generated by the current flowing through the wires.

Cable	Cable Colour	Fuse Recommendation	
		ProBoost25	ProBoost40
Solar	Green	40A	60A
Alternator	Yellow		
Output	Red		
Ignition	Blue	3A	

BATTERY TYPE SELECTION

Once the ProBoost is installed, the correct battery type must be selected for the ProBoost to charge correctly.

On the front of the ProBoost, press the Mode button until the LED is lit for the correct battery.

The supported battery types are:





- ☐ **STD:** standard lead-acid batteries.
- ☐ **GEL:** gel lead-acid batteries.
- ☐ **AGM:** absorbent glass mat lead-acid batteries.
- ☐ **CAL:** calcium lead-acid batteries.
- ☐ **LiFePO4:** lithium iron phosphate batteries.





LED INDICATORS

LED CHARGE INDICATORS

The LEDs on the ProBoost will illuminate to indicate the current charging stage.

The flashing LED indicates the charging source (either alternator or solar).



LED STATUS KEY	
	SHORT FLASH - 0.5S ON, 0.5S OFF
	LONG FLASH - 1S ON, 2S OFF
	SOLID COLOUR
	NO LIGHT





























Charging Stage	Alternator LED / Solar LED	Battery Type LED
Bulk or Absorption		
Float		

LED FAULT INDICATORS

If the ProBoost detects a fault, LEDs will illuminate to indicate the fault.

LED STATUS KEY

-  QUICK FLASH - 0.2S ON, 1.8S OFF
-  NO LIGHT

Fault	Alternator LED	Solar LED	Battery Type LED	Fault LED	Solution
Low voltage detected at alternator input*					Check battery voltage Check if the battery is connected, or if there are broken cable connections at the battery
Low voltage detected at solar input					Check solar voltage
Low voltage detected at alternator or solar input					Check voltage at both alternator and solar panel
Overvoltage detected at output					Check auxiliary battery voltage and cable connections
High voltage detected at alternator output					Check battery voltage
High voltage detected at solar output					Check solar voltage
Overtemperature					Let the unit cool down or find a more ventilated area

*If you have configured the ProBoost to work with lithium batteries, this fault may display while the lithium battery activates. This may display for up to 3 minutes until the lithium battery is activated.

FAQS AND TROUBLESHOOTING

Need more help troubleshooting your ProBoost?

Contact our customer service team online at teambmpro.com/technical-support

Is the ProBoost designed to be used with a power management system?

The ProBoost is designed as a standalone system. It is designed to take current from a vehicle battery and boost the voltage at the Aux battery to provide maximum amps.

What's the maximum output of the ProBoost?

The ProBoost can output up to 40A. This depends on your cable size due to voltage drop.

How does the ProBoost work if it is connected to both the alternator and solar?

The ProBoost will either charge from an alternator source or from a solar array, but not both together. Blended mode doesn't charge from both sources, it switches off the charging source based on the power of the charging sources.

The threshold for switching between the alternator and solar mode is 200W for the ProBoost25, and 350W for the ProBoost40.

APPENDICES

SPECIFICATIONS

Operating Conditions	ProBoost25	ProBoost40
Input Voltage	9-18V	
Solar Input Voltage	10-25V	
Maximum Input Current	27A	47A
Input Fuse Rating	40A	60A
Solar Input Watts	500W	800W
Maximum Output Current	25A	40A
Output Fuse Rating	40A	60A
Minimum Start Voltage (Lead-Acid)	4V	
Minimum Start Voltage (LiFePO4)	0V	
Standby Current	<10mA	
Battery Type	STD, Gel, AGM, Calcium, LiFePO4	
Operating Temperature	-20°C to 80°C	
IP Rating	IP56	
Dimensions	145x130x43mm	183x130x43mm

Charge Control	STD	Gel	AGM	Calcium	LiFePO4
Charge Type	3-Stage				
Maximum Voltage	14.4V	14.1V	14.7V	15.3V	14.5V
Float Voltage	13.4V	13.5V	13.4V	13.6V	

Operating Mode	Turn On Input	Turn Off Input
12V Standard Alternator	>13.1V	<12.8V
12V Smart Alternator	>12.0V	<11.8V

WARRANTY TERMS AND CONDITIONS (AUSTRALIA)

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is provided by SETEC BMPRO Pty Ltd (ABN) ("BMPRO") for its products. Warranty benefits are applied along with any rights and remedies required by Australian State and Federal legislation that cannot be excluded. No part of this warranty excludes, restricts or modifies any State or Federal legislation relating to the supply of goods and services which cannot be excluded, restricted or modified.

WARRANTY

BMPRO warrants that the product will be free from any faults in materials and workmanship beginning from the original date of purchase under standard application, installation, use and service conditions, subject to the exclusions and limitations detailed below. The warranty period of the product is two years.

If, before the warranty period has ended, a fault occurs with the product and BMPRO finds the product is defective in materials or workmanship, BMPRO at its discretion will subject to further rights accorded by the Australian Consumer Law to either:

- Repair the defective product
- Replace the defective product
- Provide a refund to the purchaser for the price paid at purchase for the defective product.

WARRANTY CLAIMS

Refer to your manual before using the product. Most BMPRO products are designed to be installed by a suitably qualified installer. The products should be carefully inspected by you or your installer before installation for any visible manufacturing faults. If a product has been installed incorrectly, BMPRO accepts no responsibility on top of our consumer guarantee obligations.

1. If a fault covered by warranty occurs, the purchaser must either contact the dealer where the product was purchased within 7 days, or BMPRO at the contact details listed.
2. All warranty claims must include: (a) proof of purchase of the product; (b) complete details of the alleged fault; (c) any relevant documentation related to the fault (such as photographs or maintenance records); (d) return material authorisation (RMA) number.
3. The product must be made available to BMPRO or its authorised installer for inspection and testing within 14 days of contacting BMPRO or the dealer.
4. The reasonable cost of delivery and installation of any products or components of products that have been repaired or replaced to the place of purchase notified to BMPRO is covered by the warranty provided by BMPRO, along with the reasonable costs of removal and return of any products determined by BMPRO to be defective.
5. If, on return to BMPRO or on investigation by BMPRO, inspection and testing determines there is no fault in the product, the purchaser must pay BMPRO's reasonable costs of testing and investigating the product, as well as transportation and shipping costs.

REGISTER A WARRANTY OR REPAIR WITH BMPRO

To register a warranty or repair with BMPRO:

1. Lodge a support request via teambmp.com/technical-support or email customerservice@teambmp.com
2. If agreed with the BMPRO Product Specialist team, register a warranty claim or repair via teambmp.com/warranty-claim or email customerservice@teambmp.com to obtain a Return Material Authorisation (RMA) number.

3. Package and send the product to:

BMPRO Warranty Department
19 Henderson Road
Knoxfield, VIC 3180

Please mark RMA details on the outside of the packaging.

4. Ensure your package also includes a copy of the proof of purchase, a complete description of the fault and your contact details including phone number and return address.

EXCLUSIONS

This warranty will not be applicable where: (a) the product has been altered, modified or repaired by someone other than BMPRO, an authorised installer or a qualified auto electrician; (b) the product has not been installed properly by either the user or manufacturer; (c) BMPRO cannot establish a fault in the product after inspection and testing; (d) the product has been used for purposes other than that for which it was designed; (e) the fault in the product has occurred due to a failure by the purchaser to ensure proper use and maintenance of the product according to BMPRO's instructions, recommendations and specifications (including maintenance); (f) the product has been subjected to abnormal conditions, such as environmental, temperature, water, fire, humidity, pressure, stress or similar; (g) the fault has been caused by abuse, misuse, neglect or accident; (h) the fault has been caused by a power surge or other kind of fault in the supply of electricity; (i) unauthorised parts or accessories have been used on or in relation to the product; (j) the appearance of the Product has deteriorated; or (k) the fault is a result of common wear & tear.

LIMITATIONS

No express warranties or representations are made by BMPRO other than what is set out in this warranty. The absolute limit of BMPRO's liability under this express warranty is the repair or replacement of the product or part of the product.

CONTACT

BMPRO's contact details for warranty claims are:

SETEC BMPRO Pty Ltd
19 Henderson Road,
Knoxfield, VIC 3180
Phone: (03) 9763 0962

Email: customerservice@teambmp.com

Warranty Claim and Product Repair Form:

<https://teambmp.com/warranty-claim/>

Registering your BMPRO product is an important step to ensure that you receive all the benefits you are entitled to.

Please complete the online registration form at <https://teambmp.com/product-registration/> for your new product today.

LIMITED WARRANTY TERMS AND CONDITIONS (USA)

Registering your BMPRO product is an important step to ensure that you receive all the benefits you are entitled to. Please visit teambmp.com to complete the online registration form for your new product today.

WHAT THIS LIMITED WARRANTY COVERS

This warranty covers any defect or malfunction in your BMPRO product. Under this warranty you are entitled to have such goods replaced, repaired or refunded.

WHAT THIS LIMITED WARRANTY DOES NOT COVER

- This warranty does not extend to product failures or defects caused by, or associated with, but not limited to:
- Failure to install or maintain correctly, unsuitable physical or operating environment, accident, acts of God, hazard, misuse, unauthorized repair, modification or alteration, natural disaster, corrosive environment, insect or vermin infestation and failure to comply with any additional instructions supplied with the product.
- BMPRO may seek reimbursement of any costs incurred when a product is found to be in proper working order or damaged as a result of any of the warranty exclusions listed above.
- BMPRO will not be liable for any costs, charges or expenses incurred in the process of returning a product to initiate a warranty claim.

HOW LONG THE WARRANTY LASTS

BMPRO warrants products against defects for a period of two years, commencing from the original date of purchase.

CLAIMS PROCESS

Proof of purchase is required before the product can be deemed to be within the warranty period.

To enquire or make a claim under this warranty, please follow these steps:

A. Prior to returning a BMPRO product, please email service@teambmp.com to obtain a Return Material Authorisation (RMA) number.

B. Package and send the product to:

**BMPRO WARRANTY DEPARTMENT
UNIT 1 821 E WINDSOR AVE
ELKHART IN 46514**

Please mark RMA details on the outside of the packaging.

C. Please ensure the package also includes: a copy of the proof of purchase, a detailed description of the fault and your contact details including phone number and return address.

HOW STATE LAW APPLIES

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

COMPLIANCE

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.

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.

Warning: Any changes or modifications not expressly approved by BMPRO could void the user's authority to operate this equipment.

POWERING YOUR ADVENTURES.



BMPRO

customerservice@teambmpro.com

19 Henderson Rd, Knoxfield VIC 3180 Australia | Unit 1, 821 E Windsor Ave, Elkhart IN 46514 USA

teambmpro.com