



OWNER'S MANUAL

# MINI BOOST



TEAMBMPRO.COM





# BM PRO

## POWERING YOUR ADVENTURES

With over 50 years' experience in power solutions combined with manufacturing and design facilities in Melbourne, Australia, BM PRO are the leading experts in RV power and control management.

Inspired by the great outdoors, we have created a range of rugged, smart and reliable products to power your adventures.

Our range of battery, power and RV management control systems gives you peace of mind when you are on the road, so that you can relax in even the most far flung destinations, knowing you have control over your power needs.

To learn more about the BM PRO range of products, please visit our website **[teambmpro.com](http://teambmpro.com)**



# SAFETY PRECAUTIONS

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

## WARNING



Correct installation is the most critical factor in ensuring the safe use of the **MiniBoost**. If every consideration of these instructions has been satisfied, the **MiniBoost** will be safe to operate.



Batteries are electrically live and must be treated with extreme caution. They can supply high short circuit currents, even if they appear damaged or undamaged.



Do not allow water or other liquids to enter the power supply area.



Contact with water will cause the device to short-circuit or corrode.



Do not use this product in environments that are excessively hot, cold, dusty or humid or where it will be exposed to magnetic fields or long periods of sunshine. Such exposure may cause the product or your battery to fail, catch fire or explode.



Clean the housing of this product lightly with a dry or moist cotton cloth. Do not use alcohol, thinners, benzene or any other chemical cleaner.



The **MiniBoost** is a high precision electronic product. It contains no user-serviceable parts inside. Do not try to dismantle, modify or repair it yourself. Disassembly, service or repair by an unauthorised person will void the warranty.



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MANUAL PART 036049  
REV 5.0

Designed by BMPRO, one of Australia's leading power solution experts, the BMPRO range of products are proudly Australian-Made in Melbourne, Victoria and represent a high-quality product that will provide years of service.



**DISCLAIMER:** BMPRO 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 MINIBOOST

The MiniBoost is intended for the RV market to enable the effective charging of the Caravan/Camper house battery from the towing vehicle's electrical system even if the voltage delivered from the towing vehicle is lower than that normally required to charge the house battery.

The MiniBoost has been specially designed to work with the BMPRO BatteryPlus35 and J35.

The input fuse is illuminated from behind with a green light when the input voltage is sufficient for the unit to operate.

The MiniBoost is not a power supply and must be connected to a battery. If the battery voltage is too low the MiniBoost will not connect.

The MiniBoost can be used to charge all types of lead acid batteries. While the MiniBoost can charge LiFePO<sub>4</sub> batteries to around 90%, please be aware that the output voltage of the MiniBoost is slightly lower than the LiFePO<sub>4</sub> optimal charging voltage required to achieve full charge.

# INSTALLATION INSTRUCTIONS

Installation is to be carried out only by suitably qualified personnel.

## VENTILATION, ORIENTATION AND THERMAL CONSIDERATIONS

The MiniBoost may be installed in any orientation, but located such that there is free air movement around the product. This allows for the lowest operating temperature of the internal electronics and highest reliability of the product.

The MiniBoost should be located in the Caravan preferably close to the House Battery. The compartment into which the MiniBoost is installed must be well ventilated to provide adequate ventilation to the outside world (or larger internal cavity) to prevent excessive heating of the air within the compartment, resulting in reduced performance.

## REQUIRED FOR INSTALLATION

- ☐ Relay 30A
- ☐ Wire Connector
- ☐ In Line 30A Fuse
- ☐ Trailer Connector

## MOUNTING

The MiniBoost should be securely mounted to a suitably strong surface. Dimensional details are provided in Figure 1. The MiniBoost may be mounted in any orientation.

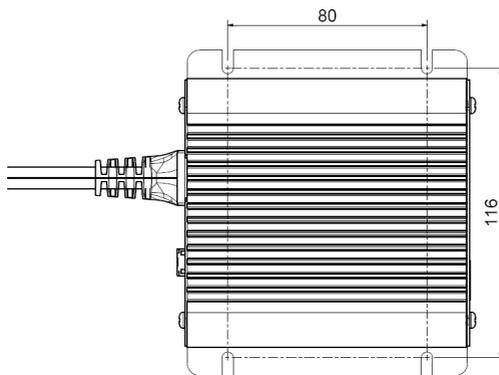


Figure 1: Mounting Dimensions

# WIRING INSTRUCTIONS

## WIRING

It is recommended that the MiniBoost connect to the vehicle through a 30A (minimum) Isolating Relay and 30A (minimum) fuse. The relay function is to prevent the vehicle battery from discharging when the vehicle is not in use.

## WIRE SIZE

Cables should be sized to carry 30A. The minimum recommended wire size is 5mm<sup>2</sup>.

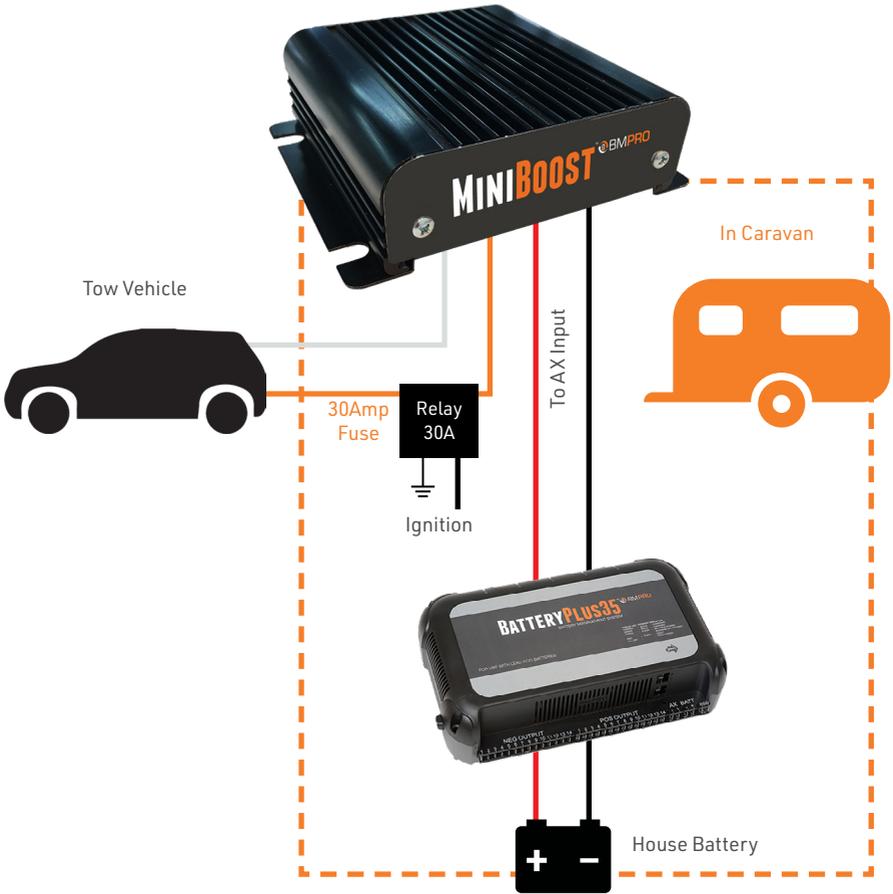
Wiring resistance, inclusive of connectors should be less than 100mR total (vehicle battery to MiniBoost input wires).

If the circuit resistance (including fuse, relay and connectors) is too high, the performance of the MiniBoost may degrade.

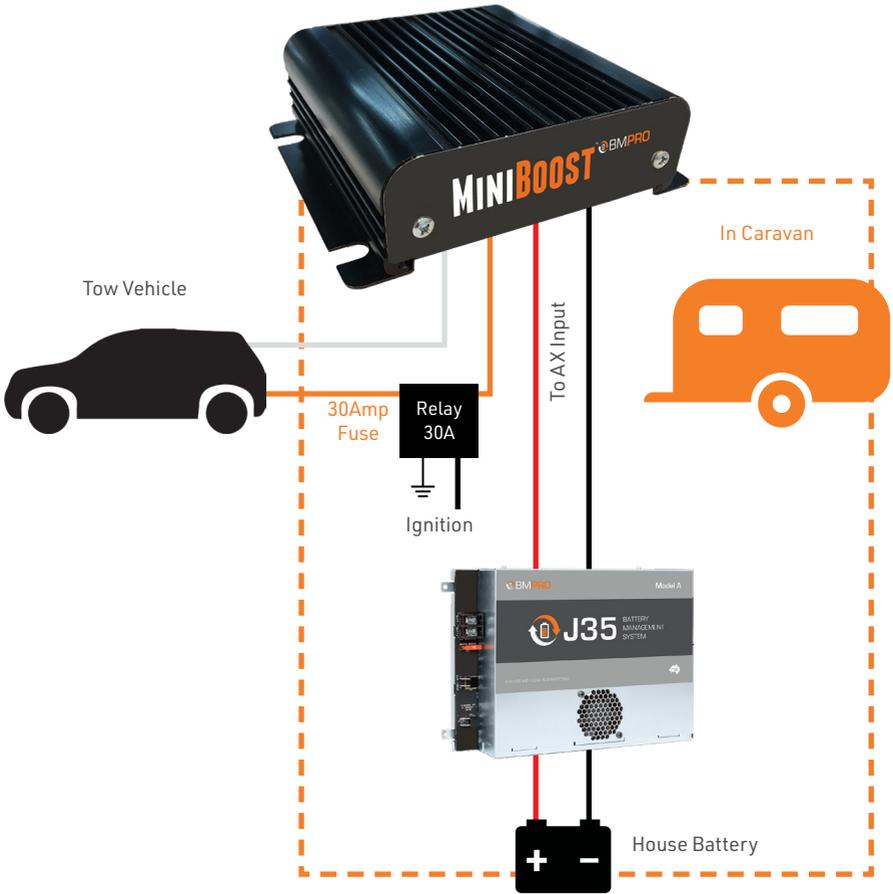
## FUSING

Over current protection is provided by a 30A automotive fuse (green mini-blade). Always replace fuse with the same type and rating.

# WIRING THE MINIBOOST TO THE BATTERYPLUS35



# WIRING THE MINIBOOST TO THE J35



## SERVICING

Do not attempt to service the MiniBoost, OR dismantle, modify or repair the MiniBoost yourself; this will void your warranty. If your MiniBoost requires servicing, please consult your BMPRO dealer or visit [teambmpro.com](https://teambmpro.com) for assistance.

## FAQS AND TROUBLESHOOTING

**Need help troubleshooting your MiniBoost?**

Contact our customer service team online at [teambmpro.com/technical-support](https://teambmpro.com/technical-support)

# SPECIFICATIONS

## MINIBOOST SPECIFICATIONS

|  |   |
|--|---|
| Input Voltage Range                      | 10V to 15V  |
| Output Current                           | Boost Mode: 20A<br>Bypass Mode: 30A                           |
| Output Voltage                           | Boost Mode: 14.4V<br>Bypass Mode: <1V less than input voltage |
| Output Ripple Voltage                    | <150mV  |
| Output Current Protection                | Boost Mode: 21A (electronic)<br>Bypass Mode: 31A (fuse)       |
| Start Voltage                            | 12.2V to 12.9V  |
| Disconnect Voltage                       | 9.1V to 10.5V   |
| Battery Drain (tow vehicle disconnected) | <20mA   |
| Efficiency                               | >80%  |
| Ambient                                  | 0°C to 50°C   |
| Standards                                | RCM Approval, EMC CISPR 11, CFR 47 FCC Part 15                |
| Weight                                   | 0.8kg   |



# 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.



# WARRANTY TERMS AND CONDITIONS (AUSTRALIA)

Registering your BPRO product is an important step to ensure that you receive all the benefits you are entitled to. Please visit [teambpro.com](http://teambpro.com) to complete the online registration form for your new product today.

1. BPRO goods come with guarantees that cannot be excluded under Australian Consumer Law. You are entitled to a replacement or refund for major failure. You are 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. The benefits under this Warranty are in addition to your other rights and remedies under a law in relation to the goods to which this Warranty relates (the Australian Consumer Law).
2. BPRO warrants products against defects for a period of two years, commencing from the original date of purchase. Proof of purchase is required before you can make a claim under this warranty.

## HOW TO PROTECT YOUR RIGHTS UNDER THIS WARRANTY:

3. The MiniBoost is designed to be installed by a suitably qualified installer. You or your installer should carefully inspect the products before installation for any visible manufacturing defects. We accept no responsibility in addition to our consumer guarantee obligations where a product has been installed incorrectly.
4. 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, unauthorised repair, modification or alteration, natural disaster, corrosive environment, insect or vermin infestation and failure to comply with any additional instructions supplied with the product.
5. BPRO may seek reimbursement of any costs incurred by BPRO when a product is found to be in proper working order or damaged as a result of any of the warranty exclusions mentioned in point
6. To enquire or make a claim under this warranty, please follow these steps:
  - a) Prior to returning a BPRO product, please email [customerservice@teambpro.com](mailto:customerservice@teambpro.com) to obtain a Return Material Authorisation (RMA) number
  - b) Package and send the product to:

**BPRO Warranty Department**  
**19 Henderson Road**  
**Knoxfield, VIC 3180**

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.
7. BPRO will not be liable for any costs, charges or expenses incurred in the process of returning a product in order to initiate a warranty claim

# 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](http://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](mailto: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.

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