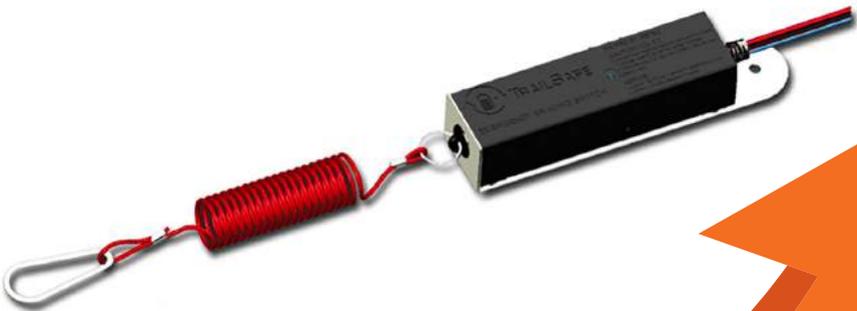


TRAILSAFE

by  **BM PRO**

OWNER'S MANUAL



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Disclaimer

Setec makes no claim as to the accuracy or suitability of the information contained in this manual. Setec accepts no liability for any loss or damage, which may occur as a result of improper or unsafe use of its products. Warranty is only valid if the unit has not been modified or misused by the customer.

INTRODUCTION

SAFETY PRECAUTIONS

Please read the Safety Precautions carefully before installing the **TrailSafe**. Be sure to observe all precautions without fail.

After completing the installation, conduct a trial operation to check for faults.



WARNING

Failure to follow these instructions properly may result in personal injury or loss of life.

Batteries are electrically alive at all times and must be treated with extreme caution. They can supply high short circuit currents, even if they appear damaged.

Remove any personal metal adornment such as a chain, watch or ring, which could cause short circuits and personal injury.



CAUTION

Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

Refer to the installation section before operating. Correct installation is the most critical factor in ensuring the safe use of the TrailSafe.

Ensure that cable connections to batteries have the correct polarity and are protected against accidental short circuit.

WHAT'S INCLUDED

Accessories provided with this product are:

- **TrailSafe** Unit
- **TrailSafe** Owner's Manual & Installation Instructions

KEY FEATURES

- **TrailSafe** provides emergency braking for double the ADR requirements.
- **TrailSafe** utilises your caravan or trailer's reliable 'house battery' meaning that no separate (extra) battery is required to maintain or charge.
- **TrailSafe** provides an 'indicator light' so that you can test the battery whilst at the tow vehicle's hitching point. No need to go look into a cupboard or storage area.

PRODUCT INFORMATION

Australian Design Rule (ADR) 38/02 mandates that for all trailers having a Gross Trailer Mass (GTM) over 2,000 kg, an 'emergency braking system' is required on all wheels and must be capable of automatically activating should the trailer become detached from the tow vehicle. In such a situation the brakes must remain active for a minimum of 15 minutes.

TrailSafe (TRS1) is a system designed to activate the electric brakes of a trailer, caravan (or similar) in the event of a disconnection from the towing vehicle. It utilises the House Battery (HB) located on the trailer to activate the electric brake system and brake lights on the trailer in the event of an emergency breakaway situation. **TrailSafe** also provides an indication of the state of charge (SOC) of the House Battery.

Disconnection detection is performed by means of a mechanical pull pin that is removed should the towing vehicle become separated from the trailer. Upon disconnection, the brakes and brake lights are activated for approximately 30 minutes. This timeout feature is included to prevent damage to the brakes from prolonged activation.

INSTALLATION INSTRUCTIONS

Mounting location

Secure **TrailSafe** to the right hand side arm of the trailer (the driver's side) approximately 300mm from the tow ball hitch. Mount horizontally.

Mounting method

Mount on the arm of the trailer using an M6 bolt or screw. Only one mounting point is required so that the unit can swivel in an emergency. Ensure that it is secured tightly so that it does not vibrate loose.

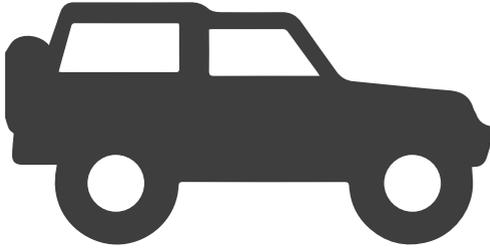
Mounting direction

Wires towards the rear of the trailer.

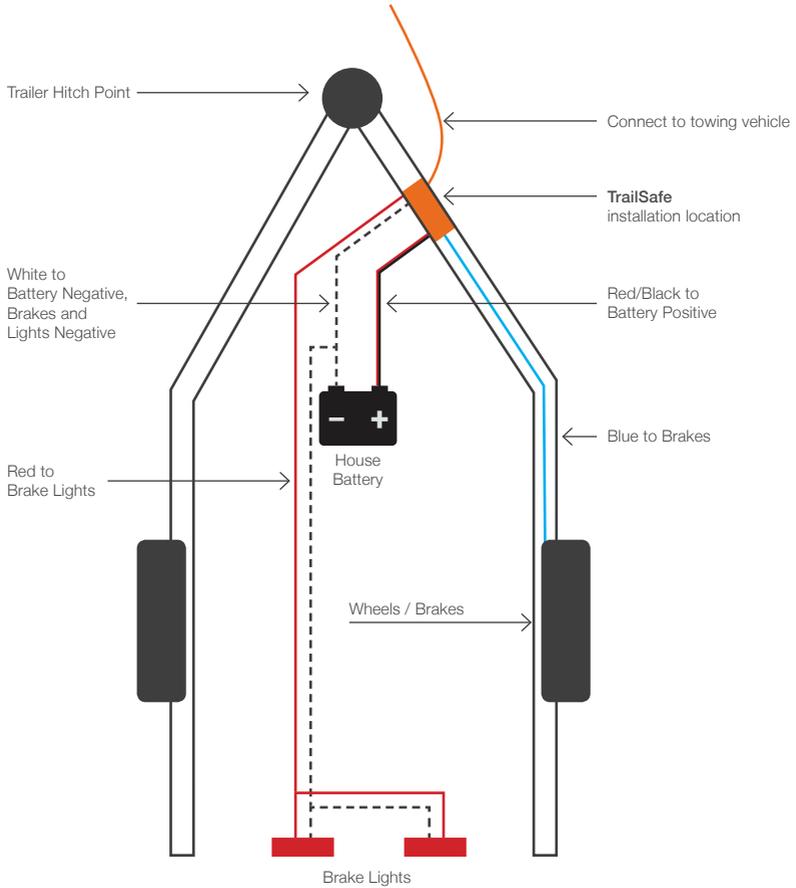
Wiring Directions

The **TrailSafe** has multiple coloured wires coming from the rear side which require connection to ensure correct functionality.

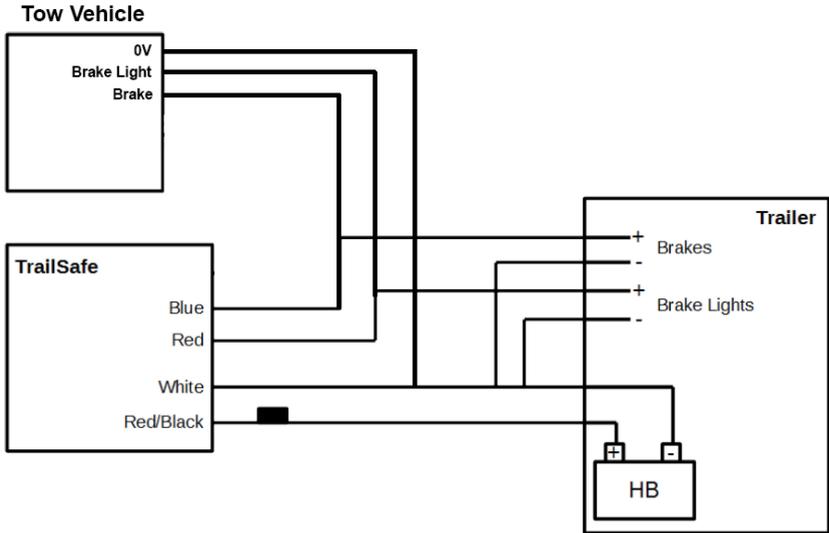
Red/Black	connect positive of the house battery
White	connect to the negative of the house battery
Red	connect to the positive of the brake lights
Blue	connect to the positive of the brakes



Towing Vehicle



Wire **TrailSafe** to the House Battery, trailer brakes & brake lights according to below diagram:



Notes: Return (negative) wires of brakes and brake lights from trailer must be wired directly to the House Battery.

Ensure wires used are of suitable gauge:

- Red/Black: 12 AWG
- Blue: 12 AWG
- Red: 14 AWG
- White: 14 AWG

USING TRAILS SAFE

Correct operation of **TrailSafe** should be checked prior to each use of the trailer. This check should be done prior to the trailer being hitched to the towing vehicle. **TrailSafe** can be checked by removing the pin. This will activate the system and illuminate the LED according to the table below.

Note: If the indicator is Orange then the State-of-Charge of the battery should be checked.

House Battery Condition	LED Colour
Battery may not suitable for 15 minutes of operation	ORANGE 
Battery suitable for 15 minutes of operation	GREEN 

If the indicator is Orange then the State of Charge of the battery should be checked.

FAQS

When I pull the pin, nothing happens:

1. Check the supplied fuse on the Black/Red wire
2. Check the wiring matches the diagram
3. Ensure TrailSafe pin contacts are clean and free of corrosion
4. Ensure House Battery is not deeply discharged

Why should I test TrailSafe before hitching to the tow vehicle?

Testing **TrailSafe** ensures that the House Battery has sufficient capacity to operate the brakes for at least 15 minutes should the need arise.

What is the difference between the green and orange LED?

'Green' confirms that the battery has been tested under full load to the brakes and brake lights and that the unit is confidently 'good to go'.

'Orange' indicates there is a need for a secondary check as the battery maybe too low. It is possible that with dual axles brakes, heavy brake light loads, warm batteries, a large load on the trailer, etc, that the battery is sufficient, but failing to give a clear pass.

It is necessary that there is at least 10Ah of useful battery capacity remaining, which may require 20% of slightly aged 100Ah-rated battery for this load. If any loads (e.g. lights, 12V fridges) are on in the trailer, turn these off if possible. If your trailer or caravan has a display showing remaining battery capacity this should be able to provide a useful indication that there is enough battery capacity remaining for the emergency braking function.

I have charged my HB, but when I check TrailSafe shows an Orange LED.

If a large load is applied to the HB, such as a fridge, the HB terminal voltage may drop below the minimum **TrailSafe** SOC threshold (due to the internal resistance of the HB). While the HB may still be capable of operating the brakes for the minimum required time, **TrailSafe** cannot accurately determine the SOC if large loads are applied. Switch off any loads and re-test.

Why does TrailSafe time-out after 30 minutes?

Sustained brake operation can cause the brake drums to heat up. **TrailSafe** is designed with a unique time-out feature that removes power to the brakes after 30 minutes to prevent damage to the brakes.

My unit has a Purple wire, what do I do with it?

If your unit has a Purple wire fitted, it can be left floating. Ensure that it does not come into contact with any other electrical contacts including the Trailer chassis. It is best to apply some heat shrink over the end of the wire and secure somewhere safe.

I thought it was not a good idea to remove the pin?

This is a key feature of the device and by removing this it checks to ensure that the contacts inside the case are not corroded and capable of making a suitable electrical connection. It also checks the battery is ready to function should an emergency happen.

WARRANTY TERMS AND CONDITIONS

Registering your BM PRO by Setec product is an important step to ensure that you receive all of the benefits you are entitled to. Please visit www.teambmpro.com to complete the online registration form for your new product today.

- 1.** BM PRO by Setec goods come with guarantees that cannot be excluded under Australian Consumer Law. You are entitled to a replacement or refund for major failure and compensation for any reasonably foreseeable loss or damage. 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.** Setec, as the manufacturer of BM PRO by Setec goods 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.
- 3. HOW TO PROTECT YOUR RIGHTS UNDER THIS WARRANTY:** The DS35 is designed to be installed by a suitably qualified installer. You or your installer should carefully inspect the product 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.** Setec may seek reimbursement of any costs incurred by them when a product is found to be in proper working order or damaged as a result of one or more of the warranty exclusions mentioned in point 4 of this statement.
- 6.** To enquire or make a claim under this warranty, please follow these steps:
 - a.** Prior to returning a BM PRO by Setec product, please email warranty@teambmpro.com to obtain a Return Material Authorisation (RMA) number
 - b.** Package and send the product to:
BM PRO 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.** Setec 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



BATTERYCHECK



The BatteryCheck is an easy to install device that sets a new standard in battery management systems. This innovative product connects to your deep cycle battery and communicates wirelessly with smart phones. The BatteryCheck provides real time battery management data that allows you to effectively manage remaining battery energy via a simple to use app.

Key features

- > Communicates via Bluetooth with smart phones
- > Free downloadable app via Google Play and App Store
- > Instant real time data - view information including volts and amps, time remaining, temperature, battery status, state of charge and battery health
- > Easy installation – no mechanical expertise required
- > Works with multiple batteries when in parallel (7Ah-800Ah Battery Bank)
- > Internal shunt capacity - 80 amps continuous
- > Set automatic alarm warnings via app
- > Compatible with any deep cycle 12 or 24V Lead Acid, AGM and Gel 7Ah-800Ah battery

THE LATEST TECHNOLOGY IN WIRELESS BATTERY MANAGEMENT



BM PRO - 19 Henderson Road, Knoxfield 3180, Victoria, Australia
Phone +61 3 9763 0962 | Fax +61 3 9763 8789
Email sales@teambmp.com | Web www.teambmp.com

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