ATEMPOWER

SOLAR TRAILER BREAKAWAY SYSTEM AP3BAS

USER MANUAL

Please read this manual carefully before installation, and retain it for future reference.

V1.0

ABOUT US

ATEM POWER, born in June 2017, as a synonym for exciting outdoor experience, is an Australian company with dedication and passion for the R&D of high quality products in the field of renewable energy products, batteries and related accessories.

Since the company was founded, we have committed to innovation that aims to make your life infinitely more convenient. And the belief in our conviction for quality and commitment allows us to innovate in developing products that are optimally tailored to the needs of our amazing customers.

We engineer and supply solar products for homes, 4x4s, recreational vehicles and virtually any application you can think of. And we also develop reliable, high performing deep-cycled batteries and lithium batteries for standby or daily power needs. Accessories include battery chargers and inverters that are ideal for RV's, commercial vehicles, boats, yachts and many more applications!

At ATEM POWER, we stay true to our DNA by prioritizing technological innovation designed to improve our products and striving to provide excellent customer care. Because we are motivated to explore the limits of solar power!

WARNINGS & SAFETY INSTRUCTIONS

- Your trailer must be equipped with electric brakes in order to use this controller.
- Check the status of the battery, and ensure it is fully charged prior to each use.
- Regularly check the breakaway controller from time to time to ensure proper and secure connections.
- Check that the switch cables of the breakaway controller aren't damaged from dragging on the ground and that they move freely.
- Ensure this product is mounted is a well ventilated and easy to access location.
- Ensure the test button is not accidentally activated by any objects.
- Check the breakaway system regularly, especially after periods of non-use.
- DO NOT attach the breakaway switch cable to mounting hooks, trailer safety chains or the trailer ball.
- Ensure this product is mounted securely in a fixed location. Failure to do so will result in inaccurate braking of the trailer.
- Ensure that the wire(s) and all connections used to install the product are correct and secure. Incorrect wiring can result in reduced or loss of trailer braking and/or damage to property or persons.
- DO NOT exceed tow vehicle and trailer weights and specifications. Failure to abide by the towing regulations may result in a fine or in case of an accident, refusal of the insurance claim, and the possibility of further legal action.
- Ensure the front of the solar brake controller face the sun to convert as much energy as possible.

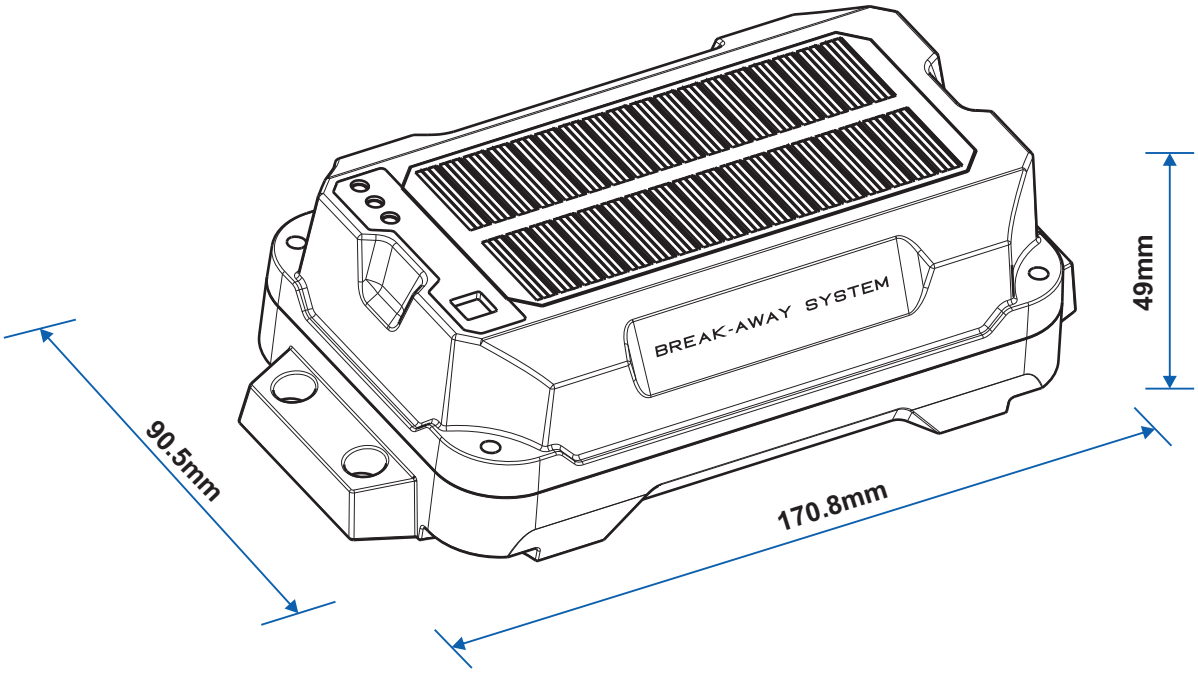
KIT CONTENTS

1 PC(s) ATEM POWER Solar Trailer Brake Controller

1 PC(s) Switch

1 PC(s) User Manual

DIMENSIONS



SPECIFICATIONS

Product Weight: 572g

Output Voltage: 10V~14.6V

Output Current: Max.10A

Input Voltage: Max.20V

Operating Temperature: -20~60℃

Solar Panel Wattage: 0.63W

Battery Type: LiFePO4

Battery Capacity: 3Ah

Waterproof: IP-65

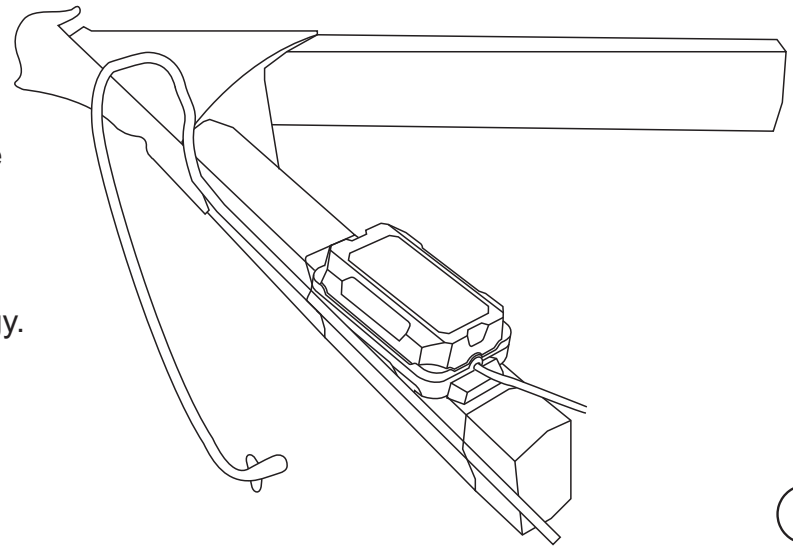
Wire Gauge: 16AWG

Warranty: 3 Years

INSTALLATION INSTRUCTIONS

① Mounting the breakaway controller

Decide the best location for mounting the unit – it should be a solid surface, usually on drawbar. And ensure that the solar panel face upward. This gives the panel the maximum possible time to collect sunlight and convert it into energy.



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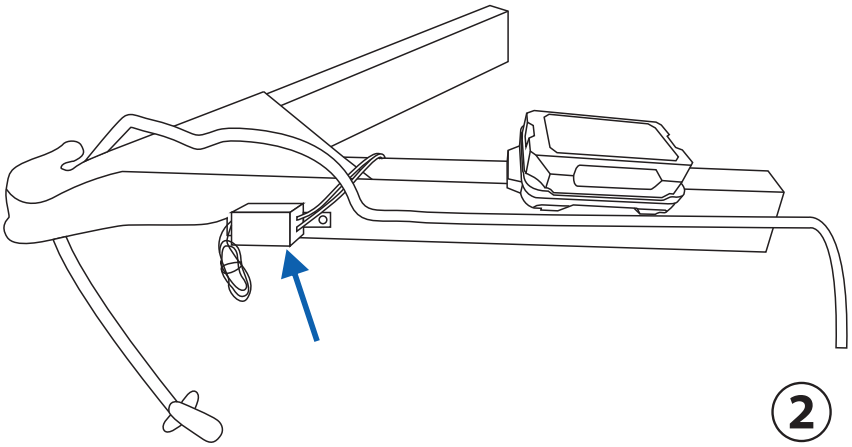
② Mounting the switch

Position the breakaway switch on the drawbar of the trailer, per the diagram below. This is critical for proper engagement of the switch.



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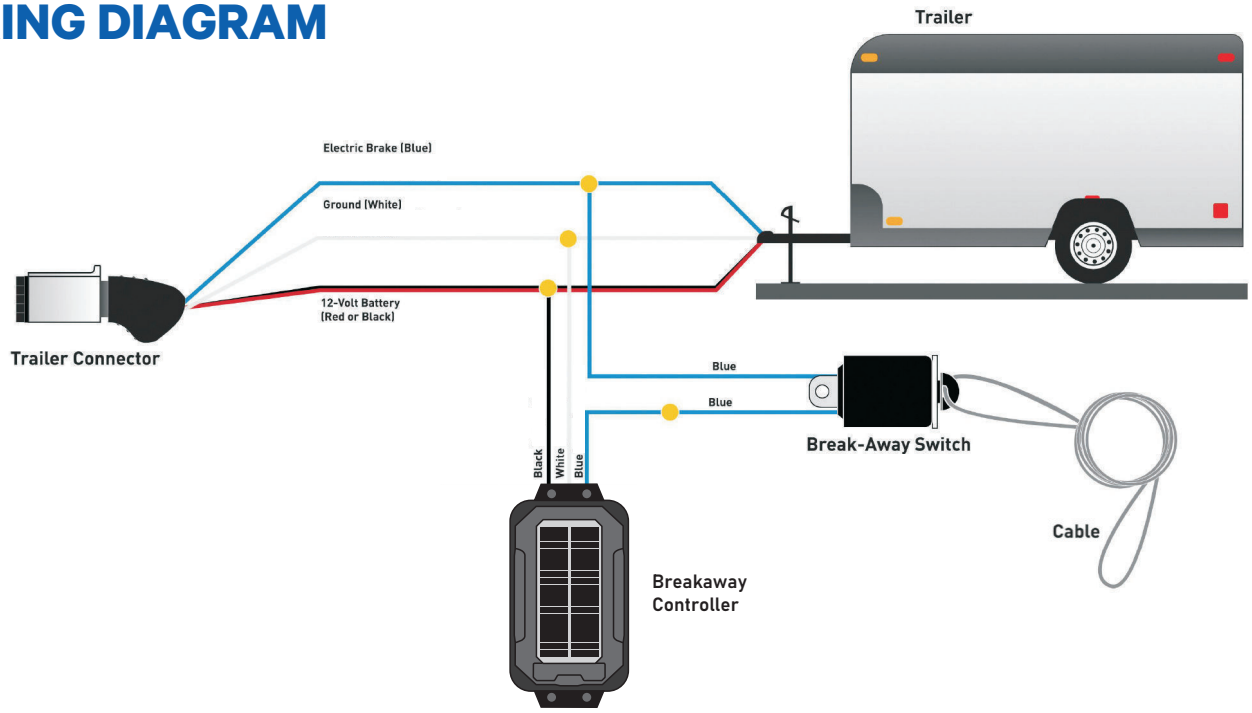
WIRING DIAGRAM



OPERATION

LED indicators:

"Fully Charged" LED: Illuminates Green when the internal battery has enough charge.

"Charging" LED: Illuminates Yellow when the internal battery is being charged by the tow vehicle or auxiliary battery at the caravan/trailer.

"Low" LED: Illuminates Red when the internal battery needs charging before use.

Push the "Test" button on the front of the unit to check the internal battery condition.

No LED turns On – The internal battery is flat or heavily discharged. Try to charge the battery by applying brakes for 20 seconds, then repeat the battery test.

External charging:

In addition to the built-in solar panel that can provide the charge to the internal battery, the ATEM POWER brake controller also has the option to charge the battery by applying brakes. If this product is left for too long, just connect it to the battery for charging. NOTE: Black wire (+), White wire: (-)

NOTE:

Check the breakaway system periodically to ensure proper and secure electrical connections.

Check that the breakaway switch cable isn't damaged from dragging on the ground and is free from obstruction.

PERIODIC MAINTENANCE AND CHECKS

Before each trip

It is advised to ensure that your trail breakaway system is functioning properly before each journey. The followings should be checked every time you set out, along with standard mechanical maintenance.

- Check whether the brake lights of your tow vehicle and trailer function properly.
- Check the status of the brake of your trailer.
- Check the status of your breakaway controller and its battery.
- Check the setup of the tow hitch and safety chains.

Periodical check

It is recommended to have a qualified technician to check the status and function of your trailer system on a periodic basis to ensure the system is operating correctly, particularly before each journey.

FREQUENTLY ASKED QUESTIONS

Q: When there is sunlight but the charging LED on the front panel does not turn on?

A: The charging LED only turns on when the internal battery is charged by the towing vehicle or the auxiliary battery.

Q: When the test button is pressed the brakes do not lock.

A: The test button of this solar breakaway controller is only designed to indicate the status of the battery.

Q: When the test button is pressed no LED illuminates.

A: It is likely that controller has run out of power and needs charging. Please ensure the wires are connected well, and apply the brake for 20 seconds. If the indicator does not illuminate, apply the brakes for another 20 seconds before connecting it to the auxiliary battery for activation. If it still does not illuminate, please contact ATEM POWER.

Q: When the tow vehicle is applying brakes and the trailer plug is engaged, the charging LED is not turned on.

A: Check if the wires are connected well, then applying the brake for 20 seconds. If it does not work, apply the brakes for another 20 seconds before connecting it to the auxiliary battery for activation. If it still does not work, please contact ATEM POWER.

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WARRANTY

36 MONTH

WARRANTY

ATEM POWER (“Manufacturer”) warrants, to the original purchaser, (“User”) that its Solar Trailer Breakaway System, if purchased from Manufacturer or an authorized distributor or dealer, will be free of defects in material and/or workmanship under normal application, installation, use and service conditions from the date sold and for the duration (the “Warranty Period”) of 3 YEARS. Within the Warranty Period, subject to the exclusions listed below, the Manufacturer will replace or repair the Solar Trailer Breakaway System, if the components in question are determined to be defective in material or workmanship. If the Manufacturer deems the Solar Trailer Breakaway System to be not repairable, a new, similar system will be offered, or a refund will be issued. This Limited Warranty is to the original purchaser of the Solar Trailer Breakaway System and is not transferable to any other person or entity.

EXCLUSIONS:

This warranty does not cover defects that are caused by normal wear and tear, inadequate maintenance, transportation, storage or faulty repair, misuse, neglect, accident or abuse, modification, failure to observe installation instructions or improper installation. It is recommended that the installation should be performed by suitably qualified technicians or the warranty will be voided. For further clarity, this warranty is also void if the Solar Trailer Breakaway System:

- is used for applications other than which it was designed and intended for,
- is not properly installed in accordance with the user manual,
- is disassembled, altered, or repaired by someone other than an authorized Manufacturer's agent,
- has been subject to misuse, abuse or physical damage, or has been modified, altered,
- has been damaged by force majeure (e.g. flash of lightning, overvoltage, storm, fire),
- selected by the user is not of the correct size and design for the intended application,
- is damaged due to improper installation,

CLAIMS:

Request return authorization. No returns will be credited without an authorization. If an ATEM POWER product is suspected of being defective, you'll need to provide proof of purchase (e. g. a screenshot of the order) and a picture of the damaged goods in their entirety to *service@atempower.com* or the seller you purchased from for evaluation. In no event shall Manufacturer be liable for any loss or damages of any other kind, whether direct, incidental, consequential including lost profits, exemplary, special or otherwise, including any lost profits or removal, shipping, or installation expenses.

For more information, please visit: www.atempower.com