



OWNER'S MANUAL

BATTERYCHARGE60



TEAMBMPRO.COM

SAFETY PRECAUTIONS

Please read the Safety Precautions before installing or using the BatteryCharge60. Be sure to observe all precautions without fail. Failure to observe these instructions properly may result in equipment 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 BatteryCharge60. If every consideration of these instructions has been satisfied, the BatteryCharge60 will be safe to operate.



This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.



Children should be supervised to ensure that they do not play with the product.



Ensure that the product is well ventilated when in use and the fan is not covered or obstructed.



Metal conducts electricity. Take care not to drop or touch metal objects onto the battery terminals, which, if contacts the battery terminals, may cause short circuits and may lead to serious personal injury. Take care and remove unwanted metal objects from the vicinity of the battery and BatteryCharge60. Remove any personal metal adornment such as chain, watch or ring before handling the battery and BatteryCharge60.



Do not replace a damaged mains power cord. If the power cord is damaged, the product must be discarded.



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



WARNING



Only charge battery types which are supported by this charger (see "Compatible Battery Types")



The connection of the BatteryCharge60 to the supply mains is to be in accordance with the national wiring rules.



Do not drop or vigorously shake the product as this may cause damage. Do not shock the product, its accessories or batteries as this may cause the product or battery to fail, catch fire or explode.



Electricity and water do not mix. Keep this product and your battery dry and do not expose it to water or water vapor. Do not operate this product or battery near any sort of liquid. Do not operate this product with wet hands.



Only use this product with the supplied power cable and with batteries or accessories recommended in this manual. Use of other batteries or accessories not recommended in this manual may cause damage to the unit and will void the warranty.



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 BatteryCharge60 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.



Product specifications are subject to change without notice.

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ABOUT THE BATTERYCHARGE60

BM PRO's BatteryCharge60 is an AC-DC 12V battery charger that can provide up to 60A of charging current to your battery. It uses a 7-stage charging process that includes desulphation and reconditioning, which improves the longevity and efficiency of your battery and prevents overcharging.

The BatteryCharge60 is easy to use, with a simple button interface that allows you to adjust the settings, and is capable of charging different types of batteries and sizes, so you can always be ready for your next adventure.

The BatteryCharge60 is resistant to shock and vibration, and is designed for use in automotive environments, workshops and garages, making it a durable and dependable companion for your travels.

The BatteryCharge60 is suitable for a range of battery sizes, making it ideal for charging your car, caravan, bike, truck or boat battery and battery banks.

ADDITIONAL FEATURES

- Automatic lithium recovery mode for heavily drained LiFePO4 batteries.
- Capable of charging battery sizes 50-1200Ah.
- Incorporated output cables for easy battery connection.
- Temperature sensor included for optimised charging.
- Protection against reverse polarity up to 16V.
- Protection against short circuits.
- Overvoltage protection up to 16V.
- Power Supply Mode.

COMPATIBLE BATTERY TYPES

The BatteryCharge60 is compatible with 12V lead-acid (Gel, AGM and Calcium) or LiFePO4 lithium batteries.

The BatteryCharge60 can charge either a single battery or several batteries connected in parallel up to a capacity of 1200Ah.

DESCRIPTION OF PARTS



1. Mounting Points (4x)

Two on each side. Used to mount the BatteryCharge60 on a wall or work bench.

2. AC Mains Supply Cable and Plug

Used to connect the BatteryCharge60 to AC power.

3. DC Output Cables with Fitted Ring Terminals

Used to connect the BatteryCharge60 to the battery.



4. Battery Charge State Display

Monitor the progression of battery charging. The current charging stage is shown with a flashing LED. Completed charging stages are shown with a solid LED.

5. Battery Chemistry Selection Button

Used to select the battery chemistry (Gel, AGM, Calcium or LiFePO4). Press the battery chemistry selection button multiple times to navigate between the available battery chemistries.

6. Battery Charge Rate Selection Button

Used to select the charging current. Press the battery charge rate selection button multiple times to navigate between the available charging rates.

7. P1 and P2 Input Buttons

Used for various functions of the BatteryCharge60.

INSTALLING THE BATTERYCHARGE60

MOUNTING THE BATTERYCHARGE60

Securely mount the BatteryCharge60 horizontally to any sturdy indoor surface using the four pre-drilled mounting slots.

Each mounting slot is suitable for M10 screws.



WARNING

Do not mount the BatteryCharge60 in a vertical orientation, as this will expose the fan air intakes to dust and moisture.

To avoid overheating, ensure the BatteryCharge60 is installed in a well-ventilated area with at least 100mm of free space around the sides and bottom for air circulation.

If the BatteryCharge60 overheats, optimal operation will be affected and may cause the unit to derate output current or shut down completely.



WIRING THE BATTERYCHARGE60

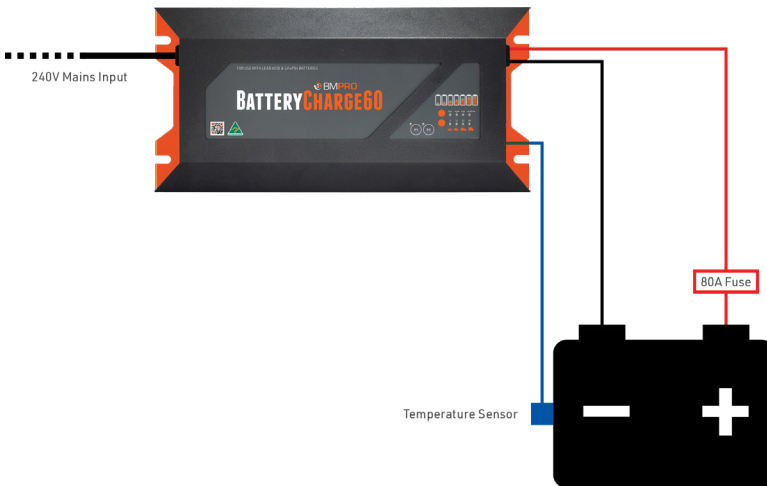
1. Attach the BatteryCharge60's positive (+) red output cable to the battery's positive terminal. Ensure an 80A fuse is installed.

Suitable fuses include MIDI or ANL type fuses with a fuseholder compatible with the fuse type and current rating.

Fuses are available from most automotive stores.

2. Attach the BatteryCharge60's negative (-) black output cable to the battery's negative terminal.
3. Place the temperature sensor as close to the battery as possible.

The temperature sensor monitors ambient temperature, allowing the BatteryCharge60 to adjust the charging output so it can compensate for high and low temperatures.



USING THE BATTERYCHARGE60

SETTING UP THE BATTERYCHARGE60

The BatteryCharge60's default setting is RV Mode.

If you are not using your BatteryCharge60 as part of an RV power management system, you can exit RV Mode by holding down the P2 button for 20 seconds. This will cause the green P2 LED to turn off.

For more information about modes, refer to the section **BatteryCharge60 Operating Modes**.

To set up your BatteryCharge60:

1. Connect the BatteryCharge60 to your mains power supply.
2. Press the battery chemistry selection button to select the battery chemistry that matches the battery to be charged. Setting the correct battery chemistry ensures the BatteryCharge60 applies the correct voltage levels.

For further information on charging voltage levels, refer to the below table.

BATTERY CHEMISTRY	BULK-ABSORPTION VOLTAGE	FLOAT VOLTAGE
Gel	14.2V	13.6V
AGM	14.4V	13.65V
Calcium	14.8V	13.6V
LiFePO4	14.6V	13.6V

3. Press the battery charge rate selection button to select the charge rate most appropriate for the size of the battery to be charged.

BATTERY CAPACITY	SUGGESTED CHARGE RATE
5-20Ah	5A
50-200Ah	15A
75-500Ah	25A
100-1200Ah	60A



WARNING

Check if there are any charge rate limitations on your battery. Some batteries are not safe to charge at 60A.

BATTERY CHARGING

Once the BatteryCharge60 is connected, press the P1 button to begin battery charging.

When the BatteryCharge60 is charging a battery, green LEDs will display on the battery charge stage display. The current charging stage will be shown with a flashing LED. Completed charging stages will be shown with a solid LED. When all LEDs are green and are no longer flashing, the battery has reached float mode, the final stage of charging.



If the connected mains power suffers an interruption while the BatteryCharge60 is charging, the BatteryCharge60 will automatically reconnect and start a new charging cycle once power is restored.

CHARGING A BATTERY IN A PARKED VEHICLE

The BatteryCharge60 is not intended to charge a vehicle's battery while the vehicle is running. However, you may charge the battery while the vehicle is parked, and the ignition is off.

To charge a battery in a parked vehicle:

1. Attach the BatteryCharge60's positive (+) red cable to the battery's positive terminal.
2. Connect both the BatteryCharge60's negative (-) black cable and the battery's negative terminal to the car chassis.
Make sure to use a point on the chassis that is as far as possible from both the vehicle's battery and fuel line.
3. Connect the BatteryCharge60 to your mains power supply.
4. Press the battery chemistry selection button to select the battery chemistry that matches the battery to be charged.
5. Press the battery charge rate selection button to select the charge rate most appropriate for the size of the battery to be charged.

Once the battery is fully charged you can disconnect the BatteryCharge60.

DISCONNECTING THE BATTERYCHARGE60

Once the battery is fully charged you can disconnect the BatteryCharge60.

To disconnect the BatteryCharge60 from the battery:

1. Switch off the mains power supply.
2. Remove the BatteryCharge60 negative (-) black cable from the battery terminal.
3. Remove the BatteryCharge60 positive (+) red cable from the battery terminal.



WARNING

Avoid touching the positive and negative output connectors together, as this may cause a spark.

BATTERYCHARGE60 OPERATING MODES

The BatteryCharge60 has multiple operating modes, each optimised for specific requirements.

RV MODE

RV Mode is the BatteryCharge60's default setting, and is optimised for use within an RV power management system.

When in RV Mode, the BatteryCharge60 will begin charging immediately upon startup, and will skip the desulphation charging stage when charging Gel, AGM and Calcium battery chemistries, which helps protect sensitive electronics.

The P2 LED will be **green** when RV Mode is active.

Enter or exit RV Mode by holding the P2 button down for 20 seconds.

For more information, refer to the section **Using the BatteryCharge60 in an RV Power Management System**.

POWER SUPPLY MODE

When in Power Supply Mode, the BatteryCharge60 will act as a power supply and will output 13.6V at 60A.

All charge rate LEDs will be **orange** when Power Supply Mode is active.

Enter Power Supply Mode by holding down the battery chemistry selection button and the charge rate button together for 10 seconds.

Exit Power Supply Mode by pressing the charge rate button. Once Power Supply Mode is inactive, the charge rate LEDs will no longer be orange.

For more information, refer to the section **Using the BatteryCharge60 as a Power Supply**.

SOFT START FEATURE

The Soft Start feature allows the BatteryCharge60 to gradually ramp up the charging process in order to protect the battery.

Soft Start is unavailable while in RV Mode.

ON/OFF

To turn the BatteryCharge60 on or off without disconnecting the main power source, press the P1 button.

When the unit on, the P1 LED will be **green**, and when the unit is off, the P1 LED will be **orange**.

USING THE BATTERYCHARGE60 IN AN RV POWER MANAGEMENT SYSTEM

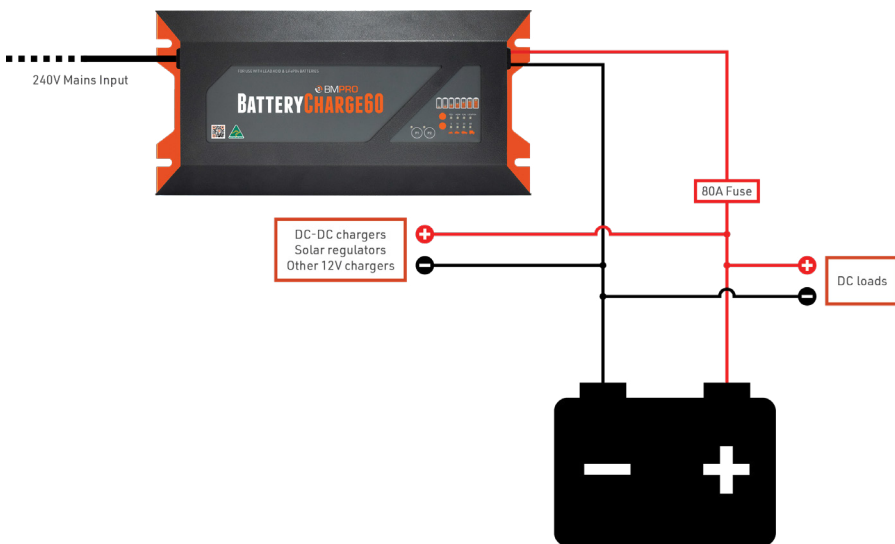
The BatteryCharge60 can be used as a component of an RV power management system.

After wiring the BatteryCharge60 to the battery, connect the BatteryCharge60 to your mains power supply.

The BatteryCharge60 comes default in RV Mode. If the BatteryCharge60 is already in RV mode, the P2 LED will be green.

If the P2 LED is not green, the BatteryCharge60 is not in RV Mode. Hold the P2 button down for 20 seconds to enter RV Mode.

To exit RV Mode, hold down the P2 button for 20 seconds until the green P2 LED turns off.



If you are installing third-party chargers with the BatteryCharge60, refer to the charger's manuals for installation and operating instructions.

USING THE BATTERYCHARGE60 AS A POWER SUPPLY

WARNING

DO NOT use the BatteryCharge60 in Power Supply Mode if a battery is connected. Disconnect the BatteryCharge60 from the battery before entering Power Supply Mode to avoid battery damage due to constant current output.

WARNING

Do not operate beyond the specified current limit while in Power Supply Mode or the voltage may become unstable.

WARNING

Only use the BatteryCharge60 in Power Supply Mode when using resistive loads.

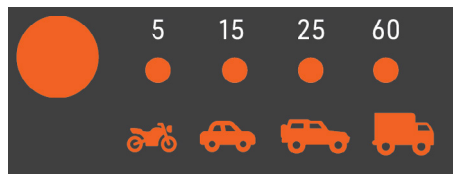
The BatteryCharge60 can be used as a power supply. When in Power Supply Mode, the BatteryCharge60 will output 13.6V at 60A.

To use the BatteryCharge60 in Power Supply Mode:

1. Attach the positive (+) red lead of BatteryCharge60 to the load's positive input.
2. Attach the negative (-) black lead of BatteryCharge60 to the load's negative input.
3. Connect the BatteryCharge60 to your mains power supply.
4. Press and hold the battery chemistry and charge rate buttons together for 10 seconds or until all indicators light up.

All charge rate LEDs will turn orange. The BatteryCharge60 is now in Power Supply Mode.

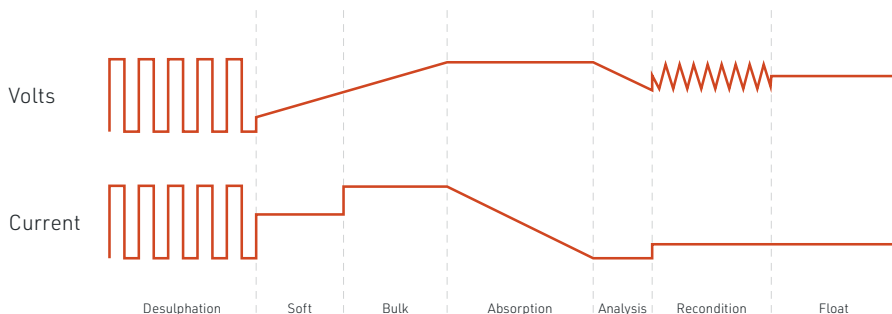
To exit Power Supply Mode, press the Charge Rate button once.



CHARGING PROCESS

LEAD-ACID BATTERY CHARGING

The BatteryCharge60 uses a 7-stage charging process when charging lead-acid batteries.



The seven charging stages are:

Desulphation (1st Battery Charge State LED Flashes)

If a battery has not been charged for some time, the lead-sulphate within the battery may harden. The desulphation stage will break down any hardened lead-sulphate before battery charging starts.

The desulphation stage is disabled when the BatteryCharge60 is in RV Mode.
For more information, refer to the section **RV Mode**.

Soft Charge (2nd Battery Charge State LED Flashes)

To help preserve battery life, the battery is initially charged with a smaller, "softer" current than the selected battery charge rate.

Bulk (3rd Battery Charge State LED Flashes)

Approximately 80% of battery charging will occur in Bulk Mode. The battery will be charged with maximum current, dependent on the battery charge rate selected, until the bulk-absorption voltage is reached.

Absorption (4th Battery Charge State LED Flashes)

The battery's voltage is maintained at the bulk-absorption voltage and charging current is gradually reduced so that the battery can absorb more power.

Analysis (5th Battery Charge State LED Flashes)

The BatteryCharge60 will test the battery to determine if it is fully charged. If the battery is not fully charged, the BatteryCharge60 will proceed to recondition the battery.

Recondition (6th Battery Charge State LED Flashes)

Reconditioning is important in bringing batteries with a low state of health to full charge. The BatteryCharge60 will attempt three reconditioning cycles to bring a battery up to full charge. If after the third cycle, the battery is still not fully charged, battery charging will stop and the BatteryCharge60 will indicate an error.

Float (All 7 Battery Charge State LEDs are solid)

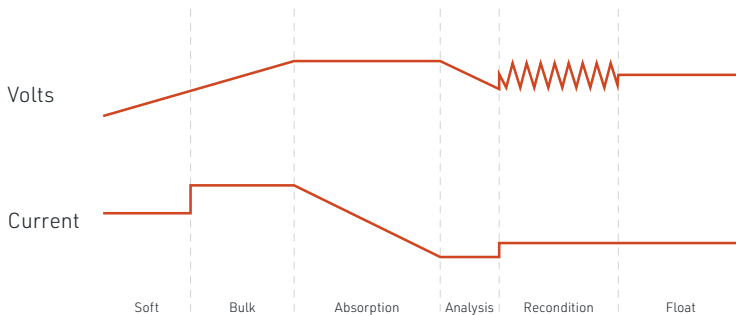
The final stage of charging. Float mode will keep the battery at optimum charge without overcharging or damaging the battery. This means there is no need to disconnect the battery from the BatteryCharge60 if it is not convenient to do so.

LITHIUM CHARGING

If the BatteryCharge60 is to be used to charge LiFePO4 batteries, it must be put into LiFePO4 mode. Battery chemistry can be changed using the battery chemistry selection button.

The LiFePO4 charging profile is able to kick-start the LiFePO4's internal battery management system and charge a heavily discharged LiFePO4 battery.

Lithium battery charging follows almost the same charging process as lead-acid battery charging, but without the desulphation stage.



CLEANING

Disconnect the BatteryCharge60 from both the mains power supply and any connected battery or appliance and allow the unit to discharge for a few minutes before you begin to clean the BatteryCharge60.

To clean the housing of the BatteryCharge60, use a dry or moist cotton cloth to gently wipe off any dust or dirt.

Do not immerse the BatteryCharge60 in water, or use chemical cleaners like alcohol, thinners, or benzene, as they can damage the housing. Do not spray liquids on the BatteryCharge60.

FAQS AND TROUBLESHOOTING










Need more help troubleshooting your BatteryCharge60?

Refer to our website for more information at teambmpro.com/technical-support

ERROR CODES

If the BatteryCharge60 setup encounters a problem that prevents battery charging, the first LED in the battery charge stage display will flash a red error code.

If it's safe, fix the issue and then power cycle the BatteryCharge60 to resume charging.

FAULT	LED SEQUENCE	SOLUTION
Unknown fault preventing the battery from charging	 Solid colour	
Battery connected in reverse polarity		Swap the cables at the battery terminals
High operating temperature greater than 50°C		Improve ventilation around the BatteryCharge60
Output short circuit		Check to see if cables are shorted together
Battery overvoltage		Connected battery is higher than 16V
Battery undervoltage		Connected battery is a 6V battery, or connected 12V battery is in poor health
Battery overtemperature		Improve ventilation around the battery
Battery temperature sensor not connected		Connect the battery temperature sensor
Battery temperature sensor not working		Replace the battery temperature sensor

SPECIFICATIONS

BATTERYCHARGE60	
Input Voltage	230-240VAC, 50Hz
Input Power	960W
Output Voltage Range	8-16VDC
Nominal Output Voltage (Power Supply Mode)	13.6V
Output Current (Power Supply Mode)	60A
Minimum Start Voltage	Lead-acid: 8V Lithium: 0V
Charging Current	5A / 15A / 25A / 60A
Back Drain	<4mA
Temperature	0-50°C
Altitude	Up to 3000m
IP Rating	IP20
Dimensions	453 x 223 x 88mm
Standards	Safety: AS/NZS 60335.1:2020 and AS/NZS 60335.2.29:2017 EMC Standards: AS/NZS CISPR 11:2011 Approvals: ERAC + ACMA, Marking RCM

WARRANTY TERMS AND CONDITIONS

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.

POWERING YOUR ADVENTURES.



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