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OWNER'S MANUAL

BATTERYCHARGE25



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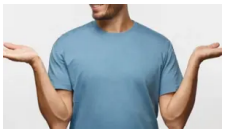
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SAFETY PRECAUTIONS

Please read the Safety Precautions before installing or using the BatteryCharge25. 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	
⚠	Correct installation is the most critical factor in ensuring the safe use of the BatteryCharge25. If every consideration of these instructions has been satisfied, the BatteryCharge25 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.
⚠	Ensure that the product is well ventilated when in use and if the product has a fan, 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 BatteryCharge25. Remove any personal metal adornment such as chain, watch or ring before handling the battery and BatteryCharge25.
⚠	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.

BMPRO

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REV **2.0**

Designed by BMPRO, one of Australia's leading power solution experts, the BMPRO product range is proudly designed and manufactured in Melbourne, Australia, 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.

WARNING	
⚠	Only charge battery types which are supported by this charger (see “Compatible Battery Types”)
⚠	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 BatteryCharge25 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 and improvement without notice.

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ABOUT THE BATTERYCHARGE25

BMPRO's BatteryCharge25 is a high-performance 12V battery charger. Featuring a 7-stage charging process, including desulphation and reconditioning, the BatteryCharge25 enhances your battery's lifespan and performance while preventing overcharging.

The BatteryCharge25 is user-friendly, with easy configuration at the push of a button, and versatile, capable of charging various battery chemistries and sizes, meaning you're always prepared for the next big adventure!

ADDITIONAL FEATURES

- Capacity to automatically provide the voltage to to revive heavily drained LiFePO4 batteries.
- Automatic charging output reduction to prevent overheating in hot environments.
- Protection against reverse polarity and short-circuits.

> Reverse polarity protection is not available in Power Supply Mode.

- Power Supply Mode.

COMPATIBLE BATTERY TYPES

The BatteryCharge25 is compatible with 12V lead-acid (Gel, AGM and Calcium) or LiFePO4 lithium batteries.

The BatteryCharge25 can charge either a single battery or several batteries connected in parallel up to a capacity of 800Ah.

DESCRIPTION OF PARTS



1. **Mounting Points**

   Used to mount the BatteryCharge25 on a wall or work bench.

2. **Battery Charge State Graph**

   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.

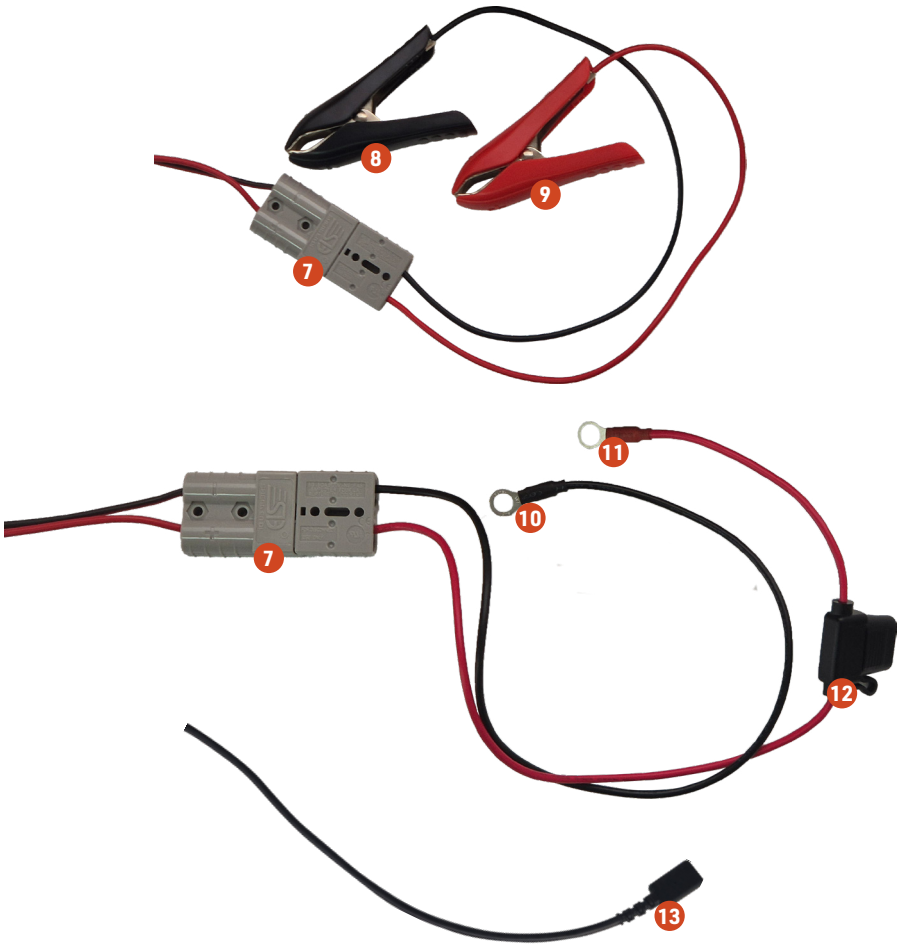
3. **Battery Chemistry Selection Button**

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

4. **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.

5. **Battery Attachment Cable**
6. **Mains Power Cable**



7. Anderson Plug
8. Positive Terminal Clamp Connector
9. Negative Terminal Clamp Connector
10. Positive Terminal Ring Connector
11. Negative Terminal Ring Connector
12. In-line 30A Fuse
13. Temperature Sensor

INSTALLATION INSTRUCTIONS

The BatteryCharge25 can be installed on a wall or workbench using its pre-drilled mounting points.



To avoid overheating, ensure the BatteryCharge25 is installed in a well-ventilated area with at least 100mm of free space around all vented sides for air circulation.



Securely mount the BatteryCharge25 to any sturdy indoor surface using the four pre-drilled mounting holes. Each mounting hole is approximately 3.7mm in diameter.

USING YOUR BATTERYCHARGE25

⚠ WARNING

To prevent the BatteryCharge25 from overheating, charge your battery in a well-ventilated area that allows for continuous air-flow around the unit.

Overheating of the BatteryCharge25 will inhibit the optimal operation of the unit and may cause the BatteryCharge25 to shut down.

SETTING UP THE BATTERYCHARGE25

To set up your BatteryCharge25:

1. Connect the BatteryCharge25 to your mains power supply.
2. Press the battery chemistry slection button to select the battery chemistry that matches the battery to be charged. Setting the correct battery chemistry ensures the BatteryCharge25 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.

   The below table provides a guide on selecting the charge rate based on the battery size.

CHARGE CURRENT	RECOMMENDED FOR	BATTERY CAPACITY
2A	Motorcycle	5-20AH
15A	4WD/Light Truck	45-300AH
25A	4WD/Light Truck	75-800AH

4. Attach the BatteryCharge25's positive (+) red attachment lead to the battery's positive terminal.
5. Attach the BatteryCharge25's negative (-) black attachment lead to the battery's negative terminal.
6. Place the temperature sensor as close to the battery as possible.

The temperature sensor monitors ambient temperature, allowing the BatteryCharge25 to reduce charging output in excessive temperatures and prevent the battery from overheating.

The BatteryCharge25 will begin charging the battery.

BATTERY CHARGING

When the BatteryCharge25 is charging a battery, green LEDs will display on the battery charge state graph. The current charging stage will be shown with a flashing LED. Completed charging stages will be shown with a solid LED. When all six LEDs are green and are no longer flashing, the battery has reached float mode, the final stage of charging.

To protect the battery, the BatteryCharge25 has a six-hour charging limit. This means that batteries with a capacity greater than 150Ah will likely require several charging cycles to achieve full charge.

If at the end of float mode, the BatteryCharge25 determines that the battery is not fully charged, it will automatically recommence the charging cycle.

DISCONNECTING THE BATTERYCHARGE25

Once the battery is fully charged you can disconnect the BatteryCharge25.

To disconnect the BatteryCharge25 from the battery:

1. Switch off the mains power supply.
2. Remove the BatteryCharge25 negative (-) black attachment lead from the battery terminal.
3. Remove the BatteryCharge25 positive (+) red attachment lead from the battery terminal.

CHARGING A BATTERY IN A PARKED VEHICLE

The BatteryCharge25 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 BatteryCharge25's positive (+) red attachment lead to the battery's positive terminal.
2. Connect both the BatteryCharge25's negative (-) black attachment lead 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 BatteryCharge25 to your mains power supply.
4. Press the battery chemistry slection 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 BatteryCharge25:

1. Switch off the mains power supply.
2. Remove all negative connections from the car chassis.
3. Remove the BatteryCharge25's positive (+) red attachment lead from the battery's positive terminal.

USING THE BATTERYCHARGE25 AS A POWER SUPPLY

⚠ WARNING

DO NOT use the BatteryCharge25 in Power Supply Mode if a battery is connected. Disconnect the BatteryCharge25 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.

The BatteryCharge25 can be used as a power supply. Up to 20A of current can be provided, with an output voltage of 13.6V.

To use the BatteryCharge25 in Power Supply Mode:

1. Attach the positive (+) red lead of BatteryCharge25 to the load's positive input.
2. Attach the negative (-) black lead of BatteryCharge25 to the load's negative input.
3. Connect the BatteryCharge25 to your mains power supply.
4. Press and hold the Charge Rate button for 10 seconds or until all three indicators light up.

The third LED will turn orange, indicating that BatteryCharge25 is in Power Supply Mode. The orange LED will turn off after about 2 seconds.

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



CLEANING

Disconnect the BatteryCharge25 from both the mains power supply and any connected battery or appliance before you begin to clean the BatteryCharge25.

To clean the housing of the BatteryCharge25, use a dry or moist cotton cloth to gently wipe off any dust or dirt.

Do not immerse the BatteryCharge25 in water, or use chemical cleaners like alcohol, thinners, or benzene, as they can damage the housing.

FAQS AND TROUBLESHOOTING

Need more help troubleshooting your BatteryCharge25?

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

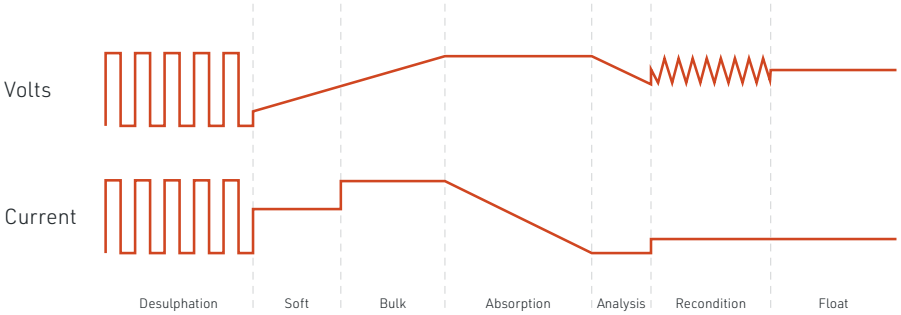
ERROR CODES

If the BatteryCharge25 setup encounters a problem that prevents battery charging, the first LED on the Battery Charging Graph will flash a red error code.

If it's safe, fix the issue and then press any button on the BatteryCharge25 to resume charging.

FAULT	LED SEQUENCE	SOLUTION
Unknown fault preventing the battery from charging	 Solid colour	
Battery connected in reverse polarity		Swap the attachment leads at the battery terminals
High operating temperatures greater than 50°C		Improve ventilation around the BatteryCharge25
Output short-circuit		Check to see if attachment leads are shorted together
Battery overvoltage		Battery to be charged is not a 12V battery
Battery undervoltage		Battery to be charged is not a 12V battery, or connected 12V battery is in poor health
Battery temperature reading fault, battery too hot or too cold		Improve ventilation around the BatteryCharge25

CHARGING PROCESS



LEAD-ACID BATTERY CHARGING

The BatteryCharge25 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.

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 BatteryCharge25 will test the battery to determine if it is fully charged. If the battery is not fully charged, the BatteryCharge25 will proceed to recondition the battery.

Recondition (1st Battery Charge State LED Flashes)

Reconditioning is important in bringing batteries with a low state of health to full charge. The BatteryCharge25 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 BatteryCharge25 will indicate an error.

Float (All 6 Battery Charge State LED 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 BatteryCharge25 if it is not convenient to do so.

LITHIUM CHARGING

If the BatteryCharge25 is to be used to charge LiFePO4 batteries, it must be put into LiFePO4 mode. Battery chemistry can be changed using the battery chemistry slection button.

When LiFePO4 mode is selected, the BatteryCharge25 will charge the battery with a constant voltage of 14.6V and constant current of 25A.

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

SPECIFICATIONS

BATTERYCHARGE25	
Input Voltage	240V, 50Hz
Input Power	430W
Nominal Output Voltage (Power Supply Mode)	13.6V
Output Current (Power Supply Mode)	20A
Minimum Start Voltage	8V
Charging Current	2/15/25A
Back Drain	<4mA

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 ten years. Ten year warranty applies to anniversary models purchased from September 2024. All previous models have the industry standard two year warranty.

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 BMRPO, 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 teambmpro.com/technical-support or email customerservice@teambmpro.com
2. If agreed with the BMPRO Product Specialist team, register a warranty claim or repair via teambmpro.com/warranty-claim or email customerservice@teambmpro.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@teambmpro.com**

Warranty Claim and Product Repair Form:
https://teambmpro.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://teambmpro.com/product-registration/** for your new product today.

POWERING YOUR ADVENTURES.

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