

POWERTECH

MB3914

Battery Charger 6/12/24V 8AMP 7-step



Instruction Manual

CONTENTS

General Information & Safety Instructions.....	3
Box Contents.....	3
Product Diagram.....	4
Before First Use.....	4
Warnings & Safety Information.....	5
Features.....	6
Operating Instructions.....	6
Battery Charger operation.....	8
Cleaning, Care, Storage & Maintenance.....	9

BOX CONTENTS



1x Battery Charger

PRODUCT DIAGRAM



BEFORE FIRST USE

Prior to using your product, please read all the safety and operating instructions thoroughly. Please ensure you follow the steps below before using the product. We recommend you keep the original packaging for storing the product when not in use.

Please pay close attention to the section entitled Important Warning and Safety Instructions. Find a safe and convenient place to keep this instruction manual for future reference.

Unpack the product but keep all packaging materials until you have made sure your new product is undamaged and in good working order. Ensure you have all accessories listed in this manual.

WARNINGS & SAFETY INFORMATION

- Before using the battery charger ensure the instructions have been read and understood.
- The battery charger is not intended for use by young children. Please keep away from pets.
- This battery charger is designed to charge most 6, 12 and 24 volt battery types including: Lead-acid, Deepcycle, Calcium, Gel, Absorbed Glass Matt (AGM) batteries in flooded and maintenance free configurations and 12V Lithium. Do not attempt to recharge dry cell batteries.
- Always wear the appropriate Personal Protective Equipment (PPE) when working near batteries. This includes gloves and eye protection.
- Always ensure that there is no damage to the power source (230v power outlet). This includes cracks or exposed wires.
- When working with automotive batteries remove all jewellery including watches and rings. Use insulated tools to ensure prevention of a battery short should the metal tool make contact with the battery terminals.
- Ensure the battery is charged in a well-ventilated area. Explosive gases may escape from the battery during charging. Never charge a battery in a closed off space or in an area without ventilation.
- Never smoke, use an open flame or create sparks near a battery or charger whilst charging as gases may cause explosion. Please keep burning cigarettes, flames or other ignition sources away from the charging battery at all times.
- This battery charger is designed for indoor use only, and is not water resistant or waterproof. Do not expose the battery charger to water or liquids.
- Do not attempt to use the battery charger if the cables or plugs are damaged. This unit does not contain serviceable parts. To avoid a hazard ensure that any damage to the unit, cable or plugs are replaced by the manufacturer or service agent/ qualified technician.

- Do not disassemble the battery charger. The warranty will be void if this instruction is ignored.
- Ensure the battery charger is off before connecting and disconnecting from the battery. Once connected power can be turned on.
- Ensure vehicles ignition is switched off before charging the battery.
- Do not place the battery charger where it is not able to get adequate ventilation. Do not place on fabric/leather/vinyl seats, on the battery or improperly balanced in the engine bay.
- This Battery charger is fitted with a sophisticated method of detecting the voltage and lead acid chemistry of the battery being charged. Even though this charger has been designed to operate with minimal user input, always consult the battery manufacturers recharging guide.

WARNING: The manufacturer is not responsible for any potential injury from misuse

WARNING: This battery charger is not capable for charging a frozen battery, non-rechargeable or dry cell battery.

FEATURES

- Button-less automatic battery voltage selection. This charger is suitable for 6 Volt, 12 Volt and 24 Volt DC automotive batteries. When the charger is connected to a battery and switched on, the unit will take approximately 1 minute to test and initialise the correct voltage program. This occurs automatically with no user input required.
- Button-less automatic battery chemistry selection, suitable for GEL, LEAD ACID, AGM, and Maintenance Free, Calcium types of automotive batteries. To charge 12V lithium batteries, please **hold the mode button for 3 seconds** to switch to 12V Lithium charging. This will display on the LED screen.

WARNING: Do not attempt to recharge dry cell batteries.

- Large easy to read LED display shows the charging stage status, volts and amps output and battery capacity.
- Inbuilt protection systems for safe operation.
- Zero volt start up, enabling recovery and charging of a completely deep discharged battery. But any load must be removed from the rechargeable battery.
- 13.5V DC power supply for 8A, 12A and 16A output currents with overload and short circuit protection.
- Internal or external short circuit, reverse connection (Yellow LED), over temperature, overload and over voltage protection.
- For these products, the charger can be hung with a hook, and the power cable can be wound on the back.

OPERATING INSTRUCTIONS

Charging Process:

Fully automatic 7 stage charging system:

- **Analysis / Desulphation (Charging stage 1 illuminated)** – A small voltage pulse is applied to the battery to ensure it can effectively and safely accept a charge. Desulphation uses pulse reconditioning to gently remove any sulphation build up on the battery plates and prevents oxidization. Stabilises electrolyte consistency and minimises the battery temperature rising by charging, recovers battery capacity and can help extend battery life.
- **Soft Start (Charging stage 2 illuminated)** – The soft start function improves the batteries charging capability, reduces gas and heat build-up and can improve electrolyte consistency which can become uneven in the battery cells from day to day use. A steadily increasing current is applied over a set time so as not to initially overload the battery. This stage prepares the battery for the more intense charging stages to follow.

- **Bulk Charge (Charging stage 3 illuminated)** – Maximum charge current is delivered to the battery to minimise charge times.
- **Absorption (Charging stage 4 illuminated)** – Reduces the current supplied to the battery and ensures that the battery has been completely charged without the risk of being overcharged.
- **Analysis (Charging stage 5 illuminated)** – The charger shuts off power and measures voltage drop over a set time. If unacceptable readings are measured, this may indicate an internal short or other issue inside the battery. If the battery has a fault the charger will illuminate the Battery Error LED indicator (Red LED). The charger will cut output and not continue to charge until it is either switched off, or the battery is removed.
- **Boost / Equalisation charge (Charging stage 6 illuminated)** – Once the battery is fully charged, the charger will equalise all the battery cells by providing a steady set voltage over a programmed period, at low current.
- **Float Stage (Charging stage 7 illuminated)** – Once the battery is fully charged, the charger will provide a constant voltage of 6.85V/13.7V/27.4V to maintain the battery at a full level without damaging the battery.

Temperature Compensation – This charger has a temperature compensation feature that will reduce the output current of the charger if the charger internal temperature exceeds its set limit. This protection feature will prevent the battery and charger from damage if the bulk stage takes an extended time – particularly if a larger than recommended battery has been connected. There is no indicator to show temperature compensation.

The 6V / 12V / 24V, 8A/12A/16A fully automatic 7 stage battery charger is designed to effectively charge most automotive battery types including lead acid, calcium, maintenance free, Gel and AGM and 12V Lithium batteries. They are manufactured to the latest design parameters and highest quality levels. There are no buttons to decipher - the specially designed microprocessor charging system automatically selects the correct voltage and current setting and output levels for the size and type of the battery, greatly assisting prolonged battery life and user safety. Please adhere to all safety directions in this manual and retain for later use.

Important Safety Instructions:

- Battery chargers contain hazardous voltages. There are no user serviceable components inside the charger. Do not disassemble this product.
- If the AC supply cord is broken or damaged, it must be replaced a qualified person only.
- This battery charger is for use with 6, 12 and 24V electrical systems only. Care should still be taken to correctly identify the correct voltage on vehicles and light trucks BEFORE the battery charger is connected and switched on.

BATTERY CHARGER OPERATION

This charger has been designed to be as simple to use as possible. As a result, there is only one input button for Lithium charging mode. The charger has an advanced on board micro-processor that will take care of every setting required.

To commence battery charging:

- Unwind both 230V and 12V power leads from the rear of the charger.
- Connect the Red POSITIVE (+) clamp to the battery Red POSITIVE (+) terminal
- Connect the Black NEGATIVE (-) clamp to the Black NEGATIVE (-) terminal
- Plug in the 230v mains power cord, and switch on power.
 - The charger will take approximately 1 minute to complete its voltage diagnostics to detect the correct battery voltage, once complete the correct LED will illuminate for 6, 12 or 24V operation.
 - Charging will now commence automatically.
 - **12V LITHIUM BATTERY ONLY** – Press and hold MODE button for 3 seconds until LITHIUM LED indicator lights up. 12V Lithium Mode charging will remain activated when the unit is switched off and then switched back on due to its memory retaining function.
- View the status LED indicators on the front panel to see progress.
- Once the top GREEN LED bar in the display indicator illuminates, the battery is fully charged, and may be disconnected from the battery charger clamps.

To Disconnect:

- Switch off mains power and unplug power cord, if the last charging mode was set to lithium or other conventional lead acid batteries, the charger will retain that memory and maintain that charging profile when switched back on.
- Disconnect the Black NEGATIVE (-) clamp from the Black NEGATIVE (-) terminal
- Disconnect the Red POSITIVE (+) clamp from the battery Red POSITIVE (+) terminal**
- Re-attach battery terminal protective covers if previously removed.
- Rewind both 230v and 12V power cables back into the rear of the charger for storage.

Power Supply Mode:

This battery charger is fitted with a DC power supply mode. This mode will deliver a constant 13.5 Volts at 8/12/16 Amps and can be used for powering 12V DC appliances, lighting or used for testing 12V devices. The DC power supply also has overload and short circuit protection which will cause the DC Power light to flash when protection is activated. To return to normal, press mode button once to return to charging mode, then press mode button twice to enter DC Power

supply. DC power supply mode does not have memory, so disconnecting power then reconnecting it will mean the charger will return to normal charging mode.

To enter the DC power supply mode:

- Ensure unit is switched off before making any connections
- Connect to 230v AC.
- Press the MODE button twice until the DC SUPPLY LED indicator is illuminated.
- Connect the RED lead (Battery Clip) to the positive input on the device.
- Connect the Black lead (Battery Clip) to the negative input on the device.
- To switch off power supply; press MODE button once to go back to charging mode.
- Disconnect the DC power leads from the device.
- The DC power mode will also automatically turn off and revert to Battery Charging when the charger is turned off and powered back on.

WARNING: Do not enable DC power supply mode when connected to a battery in order to prevent severe battery failure.

CLEANING, CARE, STORAGE & MAINTENANCE

- Disconnect from any mains power prior to commencing any cleaning or maintenance.
- Never immerse the charger in water as entering the charger will damage it. Clean only with a dry lint free cloth. Should charger become heavily soiled clean with a lightly dampened cloth only and allow to completely dry before use.

SPECIFICATIONS

Charger Type	Automatic 7 Stage switch mode Trickle charging
Input Voltage	230VAC/50Hz
Lithium Compatible	Yes, hold front button for 3 seconds
Output Voltage	6V / 12V / 24V DC (Charger will auto select)
Output Current	8A @6V/12V, 4A@24V
Zero Volt Start	Yes
DC Power Supply	13.5V 8A with overload and short circuit protection.
Warranty Time	5 Years
Short circuit, Reverse connection, overload, over-voltage, over-charging, over-temperature protection	Yes
Battery Charging Capacity	40Ah to 100Ah
Operating Temperature	-15°C– +50°C.
Product casing	Plastic
230vAC Cable Length	1.2m

WARRANTY INFORMATION

Our product is guaranteed to be free from manufacturing defects for a period of 5 Years.

If your product becomes defective during this period, Electus Distribution will repair, replace, or refund where a product is faulty; or not fit for intended purpose.

This warranty will not cover modified product; misuse or abuse of the product contrary to user instructions or packaging label; change of mind and normal wear and tear.

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 failure does not amount to a major failure.

To claim warranty, please contact the place of purchase. You will need to show receipt or other proof of purchase. Additional information may be required to process your claim.

Any expenses relating to the return of your product to the store will normally have to be paid by you.

The benefits to the customer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods or services to which this warranty relates.

This warranty is provided by:

Electus Distribution

Address 46 Eastern Creek Drive, Eastern Creek NSW 2766

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