

**Model: PX-2408M**

# OWNER'S MANUAL

AUSTRALIAN & NEW ZEALAND STANDARD AS/NZS 60335.2.29 APPROVED



Congratulations on purchasing the Oz Charge PX-2408M fully automatic switched mode 24 Volt / 8 Amp battery charger and maintainer. Please take the time to carefully read and understand this manual before using this product.

## IMPORTANT SAFETY ADVICE AND WARNINGS

- The charger is designed to charge and maintain **conventional lead-acid batteries only**. (VRLA), AGM, GEL & WET.
- Always refer to the battery manufacturers specifications and recommendations if you're unsure of your battery charging requirements. E.g. Such as removing or not removing cell caps whilst charging.
- Explosive gases may escape from the battery during charging so please ensure the battery is charged in a well ventilated area.
- This charger is designed for indoor use only and should never be exposed to water, rain, snow, liquids etc.
- Do not attempt to use the charger if it has been dropped or damaged.
- Do not attempt to use the charger if the cables or plugs are damaged.
- If battery acid contacts your skin or clothing, wash immediately with soap and water. If acid enters your eye, immediately flush the eye with running cold water for at least 10 minutes and seek medical attention. Someone should always be within range of your voice.
- Never attempt to charge a damaged battery, frozen battery or non rechargeable battery.
- Never place the charger on the battery or battery on the charger.
- When working with lead-acid batteries, remove personal metal items such as rings, bracelets, necklaces, watches and make sure you don't short circuit the battery terminals with any type of metal tool or piece of jewellery as this will cause an explosion. You can wrap your spanner with insulation tape to minimise the risk of a short circuit.
- NEVER smoke, use an open flame or create sparks near a battery or charger during charging operation as this may cause an explosion and explosive gases.
- Do not disassemble the charger. Take it to a qualified and authorised person for repair.
- If using a generator, you must ensure you use a surge protector to protect the charger from voltage spikes.
- The charger must not be used or played with by infirm persons or children. Also keep it away from any pets.

## MAIN FEATURES

- **100% automatic smart battery charger & maintainer.**
- **The battery charger is easy to use and requires no technical experience.**
- **Fully microprocessor controlled with safety timers at every stage.**
- **Multi Stage:**
  - 1 - Soft start charging
  - 2 - Bulk charging
  - 3 - Absorption charging
  - 4 - Float mode
- **Can be left on 24/7 to ensure your battery is always maintained and fully charged:** The battery charger can be left unattended and left permanently connected all year round. The intelligent charger will monitor the battery voltage and will maintain it at peak performance.
- **Short circuit and reverse polarity protection.**
- **The PX2408M will recharge the battery set to 80% of the rated capacity in a period not exceeding 8-hours. (Based on 80Ah battery capacity)**
- **IP51 rated** - Drip proof as required by Australian & NZ Standards for use with wheelchairs.
- **AS/NZS 60335.2.29 & AS/NZS 3696.14 Approved for use with Wheelchairs**

## TEMPERATURE & SAFETY PROTECTION:

- **INTERNAL OVERHEAT PROTECTION:** The charger has a built-in overheat and an overload electronic circuit. This protects the charger from being damage if overheated or overloaded and will automatically decrease the charging current. Once the units internal temperature decreases to a safe level, the charger will resume normal charging.
- **SAFETY TIMER PROTECTION:** The charger has safety timers for every stage. If the battery voltage doesn't reach a certain voltage within a certain time, the unit will stop charging as it's highly likely that you're attempting to charge a severely discharged or heavily sulphated battery. If any of the stages time out, the charger will immediately stop charging in order to protect the battery. This will be indicated with the fault LED flashing.
- **REVERSE POLARITY:** The charger has reverse polarity protection. If the charger output leads are connected reverse polarity, the fault LED will come on and the charger will be disabled.
- **SHORT CIRCUIT PROTECTION:** The charger will automatically turn off if the output leads are short circuited and the fault LED will come on. This prevents the charger from being damaged if there is a short circuit across the positive and negative pins of the 3 pin connector while the charger is turned on.

## BATTERY TYPES & CAPACITY:

- Suits conventional lead acid batteries (VRLA) AGM, Gel & Wet.
- The Ah (Ampere-hour) capacities shown below are to be used as a general guide only. Some batteries may be able to handle a higher charge current. Refer to the battery manufacturers specifications and recommendations for your charging requirements.

Battery Capacity: Charging	5 - 160Ah
Battery Capacity: Maintaining	< 240Ah

## ELECTRICAL PARTS & ACCESSORIES:

AC Power Cord:	1.8m with SAA 3 Pin AU Plug
DC Output Lead:	1.5m with 3 Pin Amphenol (Cannon) XLR Type Connector

## TECHNICAL SPECIFICATIONS:

Model Number	PX-2408M
Output	8A @ 24V
Input Voltage	220-240Vac / 1.6A
Input Frequency	50Hz
Charge Voltage	28.8V
Float Voltage	27.2V
Start Voltage	3V
Operating Temperature	-15 to 50° C
Storage Temperature	-25 to 85°C
Operating Humidity	90% RH Max.
Size (L*W*H)	185mm x 153mm x 70mm
Weight	1.7kg
Approvals	CE, AS/NZS, EMC

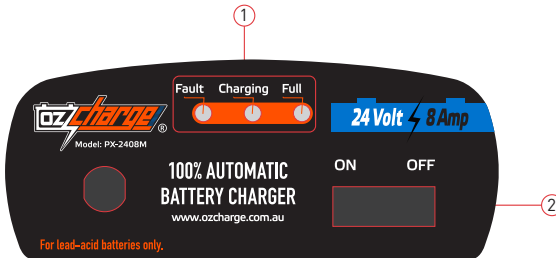
## CONTROL AND INDICATORS

### 1. Charging status Display LED

Fault - RED (refer to LED STATUS indicator TABLE on page 6).

Charging Process - Orange

Fully Charged - Green



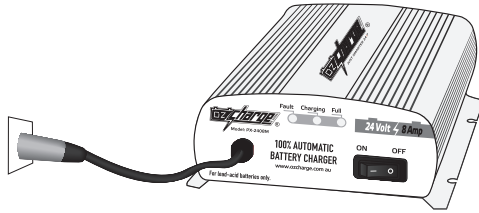
### 2. ON/OFF Switch

Main Power Switch for the Charger.

# CHARGING INSTRUCTIONS:

## STEP 1 - Connecting the battery charger to your battery

- Simply push the round charger plug into the battery charge socket of your wheelchair or scooter, ensuring the pins are not stressed and lined up straight and correctly.



## STEP 2 - Connect the battery charger to AC mains (220-240Vac) power and turn ON

- Switch the battery charger ON and the charger will automatically start.  
(**Note:** If the Fault Indicator LED illuminates or flashes Red, please check your connections and refer to the LED status indicator table on page 6.)

## THE CHARGING PROCESS:

### 1) **Soft Start Charging - Orange Charging LED Flashing**

Gently charges the battery using a reduced charge output until the battery voltages reaches 23V. If the battery voltage doesn't reach 23V within 4 hours, the safety timer protection will stop the unit from charging and the Red Fault LED will start flashing.

### 2) **Bulk Charging - Orange Charging LED ON**

Uses the maximum charge output (8A) until the battery voltage reaches 28.8V. If the battery voltage doesn't reach 28.8V within 16 hours, the safety timer protection will stop the unit from charging and the Red Fault LED will start flashing.

### 3) **Absorption Charging - Orange Charging LED ON**

Uses a constant voltage while reducing the charging output current to ensure the battery receives a full charge without overcharging the battery.

### 4) **Float Mode - Full / Float Green LED ON**

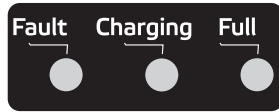
This stage allows you to keep the charger connected 24/7 to ensure your battery is well maintained and kept 100% fully charged. Float mode will maintain the battery at a constant 27.2V.

**Note:** Check electrolyte levels if possible after charging as they may need topping up with distilled water. (This does not apply to sealed maintenance free batteries)

### STEP 3 - Disconnecting the battery charger from battery

- Switch the battery charger OFF then switch the mains power OFF.
- Disconnect the battery charger from the battery charge socket.

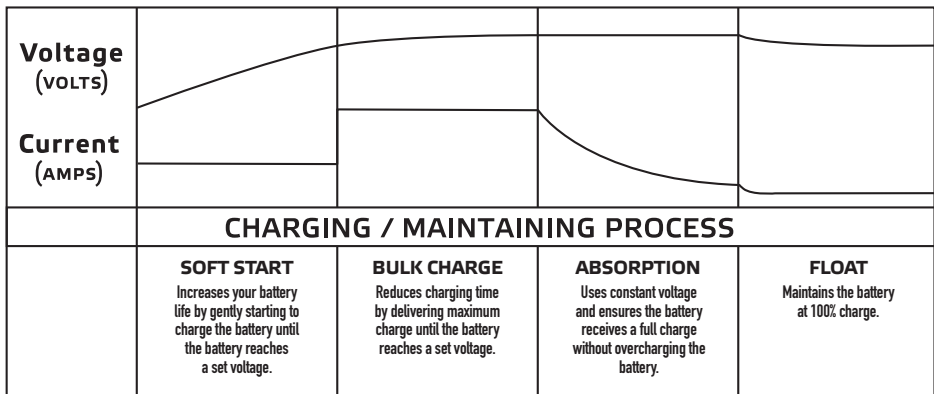
**Note:** The charger has been designed to be left turned on and switching the charger on-off to connect/reconnect is not necessary.



### LED STATUS INDICATOR TABLE:

Orange	Green	Red	Description
OFF	OFF	OFF	AC Power OFF/ Switch is OFF/ Battery Disconnected
ON	OFF	OFF	Charging / Battery Connected
OFF	ON	OFF	Fully Charged (Float/Trickle maintenance charging)
OFF	OFF	FLASH (1)	Output lead short/ reverse polarity
OFF	OFF	FLASH (2)	Soft Start Charge Timed Out
OFF	OFF	FLASH (3)	Bulk Charge Timed Out
OFF	OFF	FLASH (4)	Overheat Protection Mode
OFF	OFF	ON	Weak/ Faulty Battery. Poor initial current acceptance

### CHARGING CURVE





## TROUBLE SHOOTING

Problem	Indication	Possible Causes	Suggested Solution
Charger does not work.	Indicator lights are not on.	<ul style="list-style-type: none"> <li>- No AC power.</li> <li>- Unit not connected to battery.</li> <li>- Blown AC fuse (Internal).</li> </ul>	<ul style="list-style-type: none"> <li>- Check AC connection and make sure Power Point and Charger are switched ON.</li> <li>- Check Battery is connected to Charger properly.</li> <li>- Contact Supplier for Service. (No user serviceable parts inside)</li> </ul>
Charger has no DC output.	Fault LED is Flashing.	<ul style="list-style-type: none"> <li>- Output is short circuited.</li> <li>- Output cables are not connected to the battery.</li> <li>- Output Reverse polarity connection.</li> <li>- Battery Weak / Damaged.</li> <li>- Charger has overheated.</li> </ul>	<ul style="list-style-type: none"> <li>- Check that there are no foreign objects inside the 3 Pin XLR connectors.</li> <li>- Check that the 3 Pin XLR plugs have been securely connected.</li> <li>- Check that the XLR plugs have not been forced together incorrectly.</li> <li>- Move charger to a cooler area.</li> <li>- Refer to LED Indicator Table.</li> </ul>
No charging current.	Fault LED is ON	<ul style="list-style-type: none"> <li>- Battery is severely sulphated.</li> <li>- Battery has a damaged cell.</li> </ul>	<ul style="list-style-type: none"> <li>- Check the Battery condition, age etc.</li> <li>- Battery may need replacement.</li> </ul>
Long charging time, Full light does not come on	Fault LED is Flashing.	<ul style="list-style-type: none"> <li>- Battery capacity too large.</li> <li>- Battery is defective.</li> <li>- 4 hours Soft Start timed out.</li> <li>- 16 hours Bulk Charge timed out.</li> </ul>	<ul style="list-style-type: none"> <li>- Check the charger specification matches the battery capacity.</li> <li>- Battery cannot be charged and must be replaced.</li> </ul>

## REPLACEMENT PARTS

For the full range of replacement parts and accessories, please visit our website:

[www.ozcharge.com.au](http://www.ozcharge.com.au) / [www.ozcharge.co.nz](http://www.ozcharge.co.nz)

## 2 YEAR PRODUCT WARRANTY

Zylux Distribution Pty. Ltd. (ABN 66 101 378 009) of 166 Christmas Street, Fairfield, Victoria, 3078, Australia warrants to the Customer that this product is substantially free from defects in materials and workmanship under normal use for a period of Two Years from the Date of Purchase. Please ensure you keep a copy of your purchase receipt on file as this will be required to validate your warranty.

### **Obtaining Warranty Service:**

Within the warranty period, the Customer must contact the authorised supplier / retailer where the product was purchased or alternatively you can contact the Oz Charge service centre through one of the following methods:

**Service help phone:** Within Australia (03) 9482 2203

**Outside of Australia:** +61 3 9482 2203

**Website:** [www.ozcharge.com.au](http://www.ozcharge.com.au) / [www.ozcharge.co.nz](http://www.ozcharge.co.nz)

If the Authorised Supplier and / or Oz Charge service centre concludes that while under normal use, a product failure or malfunction occurred during the warranty period and was caused by a defect in material or workmanship (see Exclusions), the Customer will be asked to ship to the nearest service point for repair or replacement, at our discretion. The product must be packaged appropriately for safe shipment. To prove that the product is under warranty, the customer should enclose a copy of their receipt for proof of purchase. It is recommended that returned products be sent by registered mail as Zylux Distribution Pty. Ltd. (Oz Charge) accepts no responsibility / liability for goods lost or damaged in transit.

### **Exclusions:**

If upon receiving a product for repair and if testing and examining the product has disclosed that the alleged defect or malfunction in the product does not exist or was caused by the Customer or any third persons misuse, neglect, physical abuse, water damage, unauthorised attempts to open, exposure to extremely high temperatures, tampered with or repaired by an unauthorised persons, this will not be covered under this warranty. Also charges may apply to any product returned which has no fault found or if the warranty has expired or been void.

### **This Warranty is also void if:**

1. The warranty seal is broken or altered.
2. The warranty period has expired.
3. The product has been tampered with or repaired by an unauthorised person.
4. If used on a generator without using a surge protector.

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 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. For New Zealand customers, this warranty is in addition to statutory rights observed under New Zealand legislation.





SAA Approval No. 111981EA-001