

**Model: OC-61201**

# OWNER'S MANUAL

AUSTRALIAN & NEW ZEALAND STANDARD AS/NZS 60335.2.29 APPROVED



Congratulations on purchasing the Oz Charge OC-61201 fully automatic switched mode 6 Volt and 12 Volt / 1Amp 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 **6V/12V lead-acid batteries from 1Ah to 20Ah**. However the charger can also be used to **maintain batteries up to 100Ah**.
- 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.
- This appliance 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 use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line.

- The battery charger is then to be connected to the supply mains;
- After charging, disconnect the battery charger from the supply mains. Then remove the chassis connection and then the battery connection.

## MAIN FEATURES

- **100% automatic smart battery charger & maintainer with reconditioning.**
- **The battery charger is easy to use and requires no technical experience.**
- **High frequency, High Efficiency Switching Mode Charger and Maintainer**
- **Suits all Lead Acid Type Batteries. (VRLA, AGM & Gel)**
- **Selectable 6 Volt & 12 Volt Output**
- **Pulse charge for long term maintenance**
- **Multi Stage:**
  - 1- Bulk charging
  - 2- Float mode
  - 3- Maintenance
- **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 with a special pulse charge during long term maintenance.
- **Short circuit and reverse polarity protection.**
- **Heavy-duty and corrosion-resistant output connectors.**
- **Crocodile clips and ring terminals:** It comes with a quick connect fly lead and 2 different kinds of connectors, crocodile clips and ring terminals. The ring terminals are perfect for permanent connection to your battery. You can connect the lead to the battery and tuck the lead away while you are using your vehicle and when you get back to your garage simply plug the lead back into the charger.

## 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.
- **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. Simply unplug the charger from AC power and then connect the output leads to the correct polarity.
- **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 the positive and negative crocodile clips or ring terminals accidentally touch each other while the charger is turned on.

## BATTERY TYPES & CAPACITY:

- Suits 6V and 12V conventional lead acid batteries (VRLA) AGM, Gel & Wet. It can also be used as a maintenance charger only for Calcium batteries if required.
- 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	1 - 20Ah
Battery Capacity: Maintaining	1 - 100 Ah

## ELECTRICAL PARTS & ACCESSORIES:

AC Power Cord:	SAA 3 Pin AU Plug
DC Output Lead:	1.2m with quick connect
Charging Leads:	Quick connect 60cm Crocodile Clip Harness Quick connect 60cm Ring Terminal Harness

## TECHNICAL SPECIFICATIONS:

Model Number	OC61201
Output	1A @ 6V/12V
Input Voltage	100-240Vac / 0.35A(20W)
Input Frequency	50/60Hz
Charge Voltage	7.2V/14.4V
Float Voltage	6.75V/13.5V
Start Voltage	4.4V/8.8V
Operating Temperature	-15 to 50° C
Storage Temperature	-25 to 85°C
Operating Humidity	90% RH Max.
Size (L*W*H)	100mm x 65mm x 36mm
Weight	0.4kg
Approvals	CE, UL/cUL, AS/NZS, EMC

# CHARGING INSTRUCTIONS:

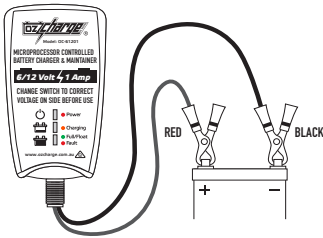
## STEP 1 - Pre charge check & electrolyte level check

- Check the Battery Electrolyte levels (Not required on sealed & maintenance free batteries).

If necessary, remove the vent caps and add distilled water so the levels are halfway between the upper and lower fill lines.

- Check the battery voltage, type and Ah capacity to ensure the charger is compatible.
- Ensure the battery is in a well ventilated area and the charger should be as far away from the battery as the cables permit.

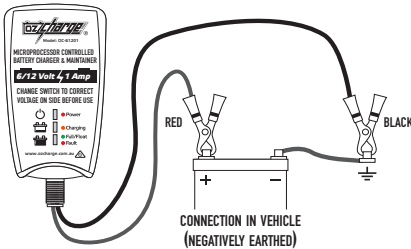
## STEP 2 - Connecting the battery charger to your battery



If the Battery is **out of the vehicle**:

Connect the Red (+) Crocodile clip or ring terminal to the positive (+) battery terminal. Connect the Black (-) Crocodile clip or ring terminal to the negative (-) battery terminal.

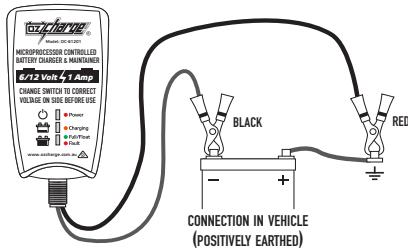
If the battery is still **in the vehicle**, determine if the vehicle is positively or negatively earthed.



If **Negatively Earthed (Most Common)**

FIRST Connect the Red (+) Crocodile clip or ring terminal lead to the positive (+) battery terminal and then connect the Black (-) Crocodile clip or ring terminal lead to the vehicle's chassis.

**DO NOT connect the Black (-) lead to the carburettor or fuel lines.**



If **Positively Earthed**

FIRST Connect the Black (-) Crocodile clip or ring terminal lead to the negative (-) battery terminal and then connect the Red (+) Crocodile clip or ring terminal lead to the vehicle's chassis.

**DO NOT connect the Red (+) lead to the carburettor or fuel lines.**

### **STEP 3 - Connect the battery charger to Mains Power (240Vac)**

- The charger will automatically start when AC power is connected and switched on.

**Note:** If the Fault Indicator LED illuminates Red, please check your connections as it's likely that the Positive and Negative Leads are reversed. Refer to Trouble Shooting Page for further information.

## **THE CHARGING PROCESS:**

### **1) Qualification - Battery Condition Check**

When the charger is first switched on it checks the battery condition to determine whether the battery needs reconditioning. During this qualification process it checks the internal impedance and initial voltage of the battery and it will determine how much charge current, if any that the battery will accept. It's also senses whether the battery is still connected in the vehicle.

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

Uses the maximum charge output (1A) until the battery voltage reaches 7.2V/14.4V.

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

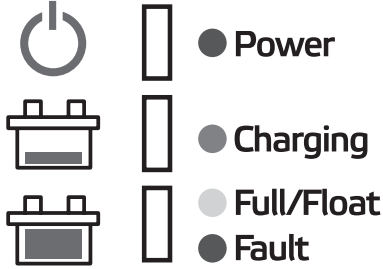
This stage allows you to keep the charger connected 24/7 to ensure your battery is well maintained and kept 100% fully charged. Float mode will maintain the battery at a constant 6.75V/13.5V.

### **STEP 4 - Disconnecting the Battery charger from Battery**

- **If the Battery is out of the vehicle:**
  - (1) Switch OFF and Remove the AC Power Socket from the outlet.
  - (2) Remove the Black lead and then the Red lead.
- **If the battery is still in the vehicle:**
  - (1) Switch OFF and Remove the AC Power Socket from the outlet.
  - (2) Remove the lead from the vehicle chassis.
  - (3) Remove the lead from the battery.

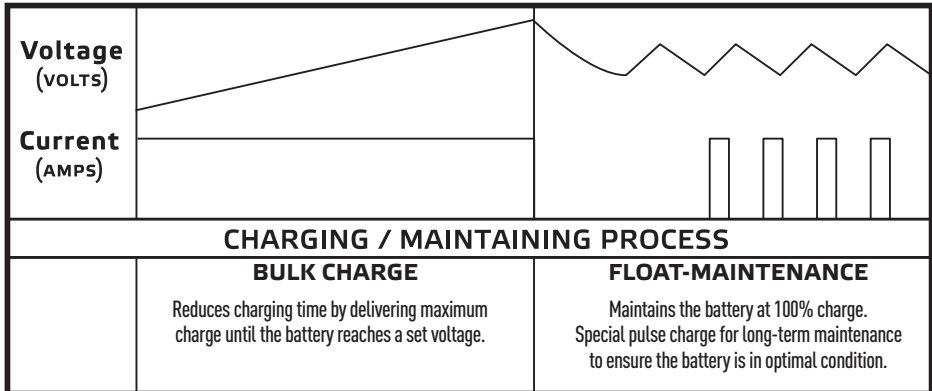
**Note:** Check electrolyte levels if possible after charging as they may need topping up with distilled water. (This does not apply to sealed maintenance free batteries)

## LED STATUS INDICATOR TABLE:



<b>Power Red</b>	<b>Charging Amber</b>	<b>Full Green</b>	<b>Fault Red</b>	
ON	OFF	OFF	OFF	AC power is connected, battery disconnected
ON	ON	OFF	OFF	Bulk Charging
ON	ON	OFF	OFF	Level 1 Charging
ON	OFF	ON	OFF	Level 2,3 Charging
ON	OFF	OFF	ON	Battery Reverse polarity connection
OFF	OFF	OFF	OFF	AC Power OFF

## CHARGING CURVE





## TROUBLE SHOOTING

Problem	Indication	Possible Causes	Suggested Solution
Charger does not work?	No Indicator lights on	- No AC power	- Check AC connections and make sure the AC Power Point is switched ON. - Try a different AC Power Point which you know is working.
Charger has no DC output?	Fault Red LED is ON  or  Green power LED ON or flashing	- Output is short circuited - Reverse polarity protection - Loose / bad connection to the battery	- Check DC connection between charger and battery and make sure they are not short circuited. (Touching each other) - Check that the crocodile clips have not fallen off or come loose. - Check that the crocodile clips/ ring terminals are connected to the correct polarity. <b>Note:</b> The charger output is only present when connected to a battery.
No charging current?	Fault Red LED is Flashing	- Battery is severely sulphated - Battery has a damaged cell - Over temperature protection mode	- Check the battery condition, age etc. - Battery may need replacement. - Move battery & charger to a cooler environment.
The full / float light won't come on.	Fault Red LED is Flashing	- Battery Ah capacity too large for the battery charger and it has timed out - Battery is defective - Battery is severely sulphated	- Check the charger specifications match the battery capacity. Eg. make sure battery capacity is not too big for the charger. - Battery may need replacement.

## 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.





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