



Model: OC-DC1215

OWNER'S MANUAL

12V / 15A DC/DC Battery Charger
Suitable for all Conventional lead-acid batteries
(VRLA), AGM, CALCIUM, GEL & WET.

Congratulations on purchasing an Oz Charge fully automatic 12 Volt 15 Amp DC/DC battery charger. 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 **12V conventional lead-acid batteries only**. (VRLA), AGM, CALCIUM, GEL & WET.
- Always refer to the battery manufacturers specifications and recommendations if you're unsure of your battery charging requirements. 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 input or output 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.
- 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 DC/DC battery charger.**
- **Fully microprocessor controlled with safety timers at every stage.**
- **Selectable battery type.**
- **Small and Compact.**
- **Over temperature protection.**
- **Short circuit and reverse polarity protection.**
- **High Efficiency > 95%.**

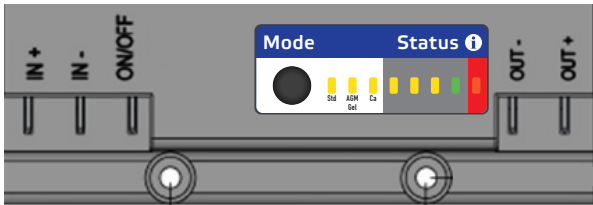
The Oz Charge OC-DC1215 DC/DC charger is designed to convert a DC voltage to a controlled charging algorithm. Note: The Negative (-ive) Input and Output is isolated. If the system doesn't require such isolation, please connect them to the same power source.

TECHNICAL SPECIFICATIONS:

Model Number	OC-DC1215
Output	15A @ 12V
Input Voltage	9 - 18VDC
Charge Voltage	14.4V (Std, AGM, GEL) 14.8V (Ca)
Equalisation Charge	14.5V (AGM,GEL) 14.9V (Std) 15V (Ca)
Float Voltage	13.6V
Start Voltage	> 3V
Operating Temperature	-15 to 50° C
Storage Temperature	-25 to 85°C
Operating Humidity	90% RH Max.
Size (L*W*H)	115mm x 89mm x 20mm
Weight	0.3kg
Approvals	CE, EMC

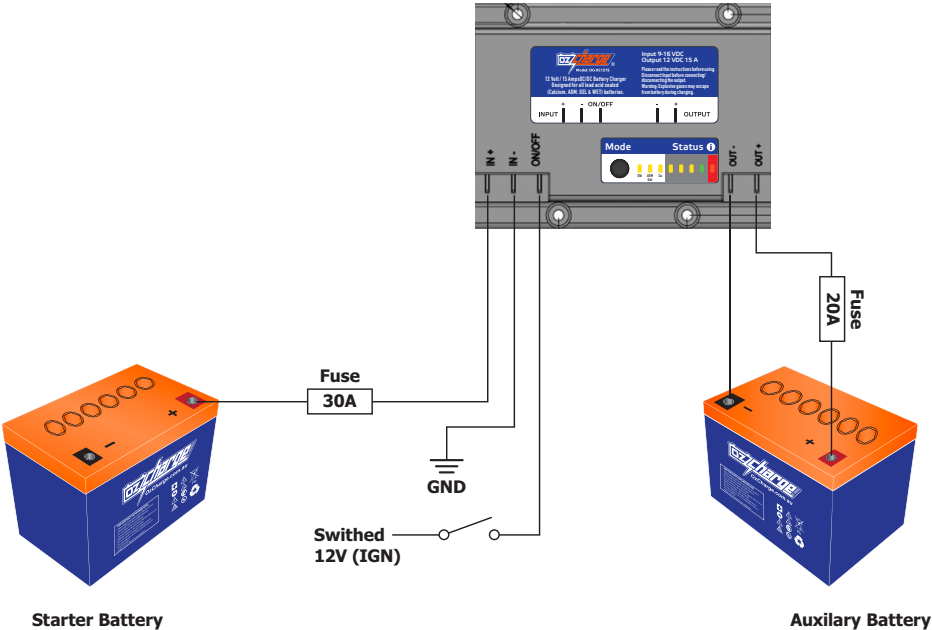
WIRING DETAILS:

To ensure the best performance we recommend installing the DC DC Charger as close as possible to the auxiliary battery that is being charged (Output). Should be in a cool dry area. The Input connections are made to the vehicles battery / alternator, the ON/OFF input needs to be connected the vehicles IGN wire or it can be controlled by a manual ON/OFF switch. The ON/OFF input needs to see 12V for the DC DC Charger to turn on. Please ensure you use adequate size wiring. The size of wire will depend on the length of wire being used to connect to the input and output. If you're unsure, please consult a professional or refer to.



Note: Please ensure both the Input and Output connections are protected by an adequate size fuse (not included). We recommend a 30A fuse for input and 20A fuse for output. Terminals size for Input, Output and ON/OFF is 6.3mm.

WIRING DIAGRAM:



CABLE SIZE GUIDE:

Please ensure you have adequate cable size for the output cables. If the output cables are too small, the voltage drop across the cable will cause the battery not to be charged at the correct voltage. Voltage drop isn't as critical on the input side, so the cable size can be a little smaller. The ON/OFF (Switched Ign) wire can be 0.8mm / 18AWG . Please refer to our recommendations below.

Input Battery Cables		Output Battery Cables	
Cable Length	Minimum Cable Size	Cable Length	Minimum Cable Size
< 1.0m	1.3mm ² / 16AWG	< 0.5m	1.3mm ² / 16AWG
< 2.0m	1.6mm ² / 15AWG	< 1.0m	2.6mm ² / 14AWG
< 3.0m	2.1mm ² / 14AWG	< 1.5m	3.8mm ² / 12AWG
< 6.0m	2.6mm ² / 13AWG	< 2.0m	5.1mm ² / 11AWG

TEMPERATURE & SAFETY PROTECTION:

- **INTERNAL OVERHEAT PROTECTION:** The DC/DC charger has a built-in overheat and an overload electronic circuit. This protects the unit 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. The Yellow LED 4 will Flash.
- **REVERSE POLARITY:** The charger has reverse polarity protection. If the charger output leads are connected reverse polarity, the RED fault LED 8 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 the positive and negative output accidentally touch each other while the charger is turned on.

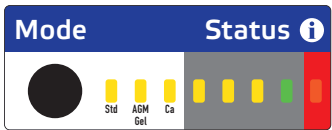
BATTERY TYPES & CAPACITY:

- Suits 12V conventional lead acid batteries (VRLA) AGM, Calcium, Gel & Wet.
The Ah (Ampere Hours) 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	< 250 Ah
Battery Capacity: Maintaining	< 400 Ah

CHANGING BATTERY MODE:

- To change the Battery Mode / charge algorithm to suit your charging requirements you will need to use the Mode Button. (Note: You cannot change the Battery Type when the Output



is connected. The Mode Button will only work when the Input is connected and the ON/OFF switch is activated (ON)). Simply Press the Mode Button to select the appropriate Battery Type. Charging Voltages for each battery type are shown in the specifications on page #3.

THE CHARGING PROCESS:

1) Bulk Charging - (Charge Voltage depends on battery type selection)

Uses the maximum charge output until the battery voltage reaches a selected voltage. If the battery voltage doesn't reach this within 24 hours, the safety timer protection will stop the unit from charging and LED 4 will be flashing.

2) Absorption Charging

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

3) Equalisation Charging

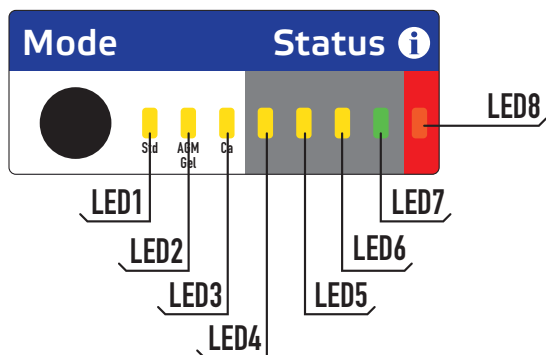
A well proven process that carefully overcharges the battery to restore it's full capacity. The Equalisation charge voltages are shown in the specifications on Page #3.

4) Float Mode - Fully Charged

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 13.6V.

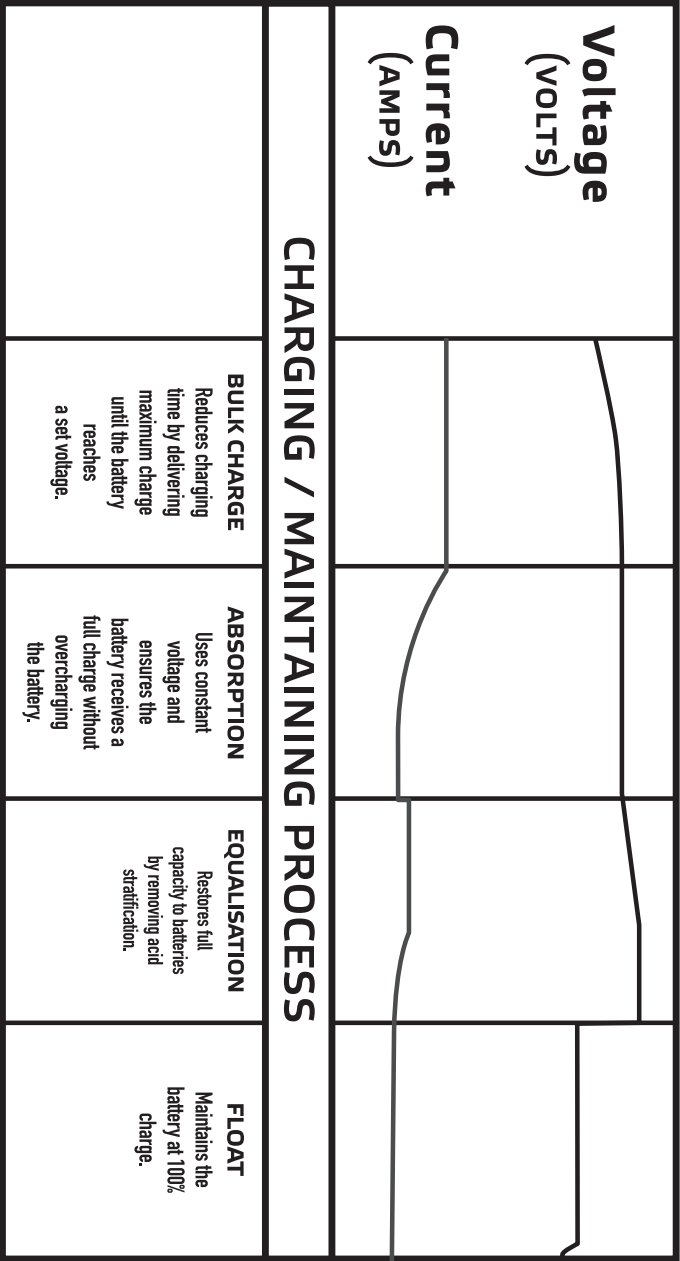
LED TABLE:

Please refer to the LED status indicator diagram and table below which shows you what each LED represents with regards to your battery type selection and charging status.



LED	Status	Description
1	ON	Std Battery Type Selected
2	ON	AGM/GEL Battery Type Selected
3	ON	Calcium/Calcium Battery Type Selected
4	Flashing	Charger has time out
4	ON	Bulk Charging
5 - 7	Rolling	
4 & 5	ON	Absorption Charging
6 & 7	Rolling	
4 - 6	ON	Equalisation Charging
7	Flashing	
4-7	ON	Fully Charge / Float Mode
8	Solid	Reverse Polarity
	Solid	Also with LED4 Flashing - Over Temperature

CHARGING CURVES:



TROUBLE SHOOTING

Problem	Indication	Possible Causes	Suggested Solution
DC DC Charger does not work?	No Indicator lights on	<ul style="list-style-type: none"> - DC Input / Output connection issue. - ON/OFF connection issue. 	<ul style="list-style-type: none"> - Check both the input and output are connected and the ON /OFF connection has power applied (12V/IGN)
DC DC Charger has no DC output?	No Indicator lights on or Red LED 8 is ON	<ul style="list-style-type: none"> - Loose / bad connection to the battery -Input or Output fuses are blown 	<ul style="list-style-type: none"> - Check that the input and output are connected to the correct polarity. - Check for Loose connections - Check the ON/OFF connection has 12V (IGN)
No charging current?	Fault Red LED 8 is ON	<ul style="list-style-type: none"> - Battery is severely sulphated - Battery has a damaged cell - Overheat protection mode 	<ul style="list-style-type: none"> - Check the battery condition, age etc. - Battery may need replacement. - Move battery & charger to a cooler environment.
The battery will not charge.	Fault Red LED 8 is ON or LED 8 is Flashing	<ul style="list-style-type: none"> - Battery Ah capacity too large for the battery charger and it has time out - Battery is defective - Battery is severely sulphated 	<ul style="list-style-type: none"> - Check the charger specifications match the battery capacity. Eg. make sure battery capacity is not too big for the charger. - Battery may need replacement.

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 / 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.

