

KINCROME[®]

PROFESSIONAL QUALITY TOOLS

UNIVERSAL BATTERY CHARGER & MAINTAINER

6/12V, 1 AMP

100%
AUTOMATIC
SMART BATTERY
CHARGER &
MAINTAINER

SUITS
ALL LEAD
ACID TYPE
BATTERIES

SELECTABLE
6 & 12V
OUTPUT

PULSE
CHARGE
FOR LONG TERM
MAINTENANCE

NO
TECHNICAL
EXPERIENCE
NEEDED



KP87001
ED1/Feb 18

Congratulations on purchasing the Kincrome KP87001 fully automatic, switched mode 6 Volt and 12 Volt / 1 Amp battery charger and maintainer. Please take the time to carefully read and understand this manual before using this product.

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Know Your Product

1. RED Power LED
2. AMBER Charging LED
3. GREEN Full LED
4. RED Fault LED
5. Voltage Selector Switch



SPECIFICATIONS

Part No:.....	KP87001
Output:	1A @ 6V/12VDC
Input Voltage:.....	100-240VAC/0.35A (20W)
Input Frequency:	50/60Hz
Boost Charge Voltage: ..	7.2V/14.4VDC
Float Trickle Charge:	6.75/13.5VDC
Start Voltage:	4.4V/8.8VDC

Operating Temperature:	-15 to 50°C
Storage Temperature:.....	-25 to 85°C
Operating Humidity:	90% RH Max.
Dimensions:	100 x 65 x 36mm
Weight:	0.4kg
Approvals	CE, AS/NZS, EMC



IMPORTANT SAFETY ADVICE AND WARNINGS

- The charger is designed to charge **6V/12V lead-acid batteries from 3Ah 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.

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 damaged 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.

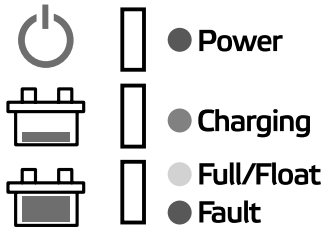
Battery Capacity: Charging	3 - 20Ah
Battery Capacity: Maintaining	3 - 100 Ah

ELECTRICAL PARTS & ACCESSORIES:

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

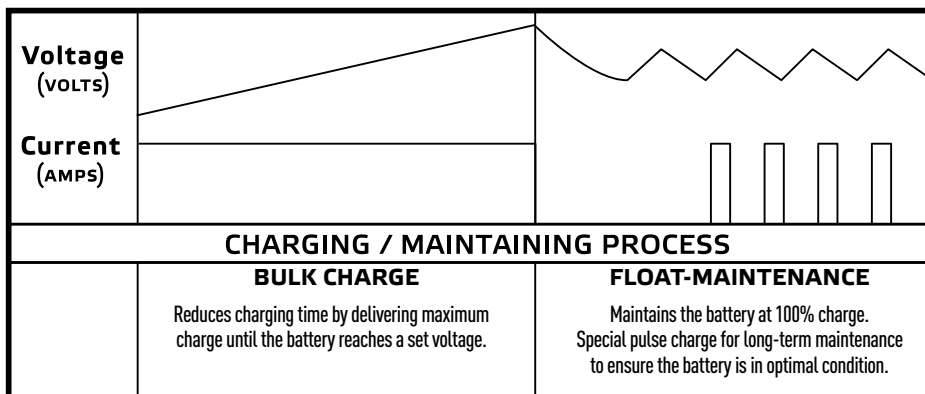
UNDERSTANDING YOUR PRODUCT

LED STATUS INDICATOR TABLE:



Power Red	Charging Amber	Full Green	Fault Red	
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



OPERATION CHARGING INSTRUCTIONS:

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 of your battery 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.

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 (Fig.1).
- Note:** If the battery is still **in the vehicle**, determine if the vehicle is positively or negatively earthed.

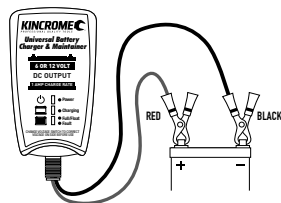


Fig. 1

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 (Fig. 2).



WARNING: DO NOT connect the BLACK (-) lead to the carburettor or fuel lines.

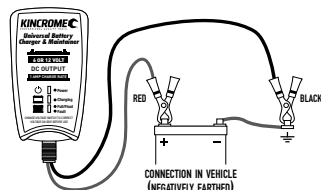


Fig. 2

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 (Fig 3).



WARNING: DO NOT connect the RED (+) lead to the carburettor or fuel lines.

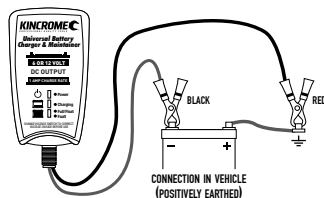


Fig. 3



**SEE QR CODE FOR
QUICK START PRODUCT VIDEO**

3. Connect the battery charger to Mains Power (240Vac)

- The charger will automatically start charging 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 (RED(+)) and Negative (BLACK(-)) Leads are reversed. Refer to Trouble Shooting Page for further information on page 8.

4. The Charging Process:

- **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 also senses whether the battery is still connected in the vehicle.
- **Bulk Charging - Amber Charging LED ON**
Uses the maximum charge output (1A) until the battery Voltage reaches 7.2V/14.4V.
- **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.

5. 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 Pin Plug from the outlet.
 - (2) Remove the **BLACK (-)** lead from the vehicle chassis.
 - (3) Remove the **RED (+)** 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)

TROUBLESHOOTING

PROBLEM	INDICATION	POSSIBLE CAUSES	SOLUTIONS
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 the terminals or come loose. - Check that the crocodile clips/ ring terminals are connected to the correct polarity. Note: 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.

In the event you believe your Battery Charger is not functioning correctly, please contact Kincrome Customer Service, (1300 657 528) before returning the item to your place of purchase. Our technical team may be able to rectify your issue over the phone.

REPLACEMENT PARTS

For the full range of replacement parts and accessories, please visit our website www.kincrome.com.au

Technical support is provided by Kincrome Tools or charger partner, OzCharge Corporation. Call Kincrome Customer Service on 1800 657 528 if assistance is required.



Warranty given by Kincrome Australia Pty Ltd of 3 Lakeview Drive, Caribbean Park, Scoresby, Victoria (Tel 1300 657 528). The applicable warranty period (24 months) commences on the date that the product is purchased. If this product has materials or workmanship defects (other than defects caused by abnormal or non warranted use) you can, at your cost, send the product to place of purchase, an authorised Kincrome service agent or one of Kincromes addresses for repair or replacement. Your rights under this warranty are in addition to any other rights you have under the Australian Consumer Law or other applicable laws. 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 further details please visit www.kincrome.com.au or call us. Due to minor changes in design or manufacture, the product you purchase may sometimes differ from the one shown on the packaging.

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 TOOLS + EQUIPMENT™

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Made to Kincrome Tools & Equipment Pty Ltd Global specifications and quality standards

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