

KICKASS[®]

12V 32 AMP SMART BATTERY CHARGER

USER MANUAL



KACHG1232

V1.0

PRODUCT SPECIFICATIONS

- **Input Voltage / Frequency:** 220 ~ 240V/50Hz
- **Charging Voltage:** 12V
- **Charging Current:** 8A/16A/32A Max
- **Certifications:** AS/NZS 60335.2.29:2017+a1 :2020
- **Dimensions:** 298 x 152 x 87mm

PRODUCT FEATURES

- Automatic 9 stage smart charging
- Fast charge 32A peak output
- Adjustable output for different battery sizes for precise charging: 8A, 16A and 32A
- Multi- chemistry battery compatibility: Lead acid batteries, AGM batteries. Gel batteries, and Lithium batteries including LiFePO4 batteries.
- Lithium Activation mode.
- AGM Recondition mode.
- Starter Battery Replacement mode.
- Reverse polarity protection, short circuit protection and overheating protection.
- Connect via Anderson connector or alligator clamps.

BATTERY CHARGER PROTECTION FEATURES

Reverse Polarity Protection: This charger offers reverse-polarity protection; Should reverse polarity occur, the red LED will blink, and the charging process will not start. If this happens, immediately unplug the charger from the mains power outlet. Then, connect the red clamp to the positive (+) battery post, and the black clamp to the negative (-) terminal, Lastly, plug into the mains power outlet and the charging process will start.

Short-circuit Protection: If you accidentally touch the clamps together while the mains power is on, the charger will automatically turn off. If this happens, unplug the charger from the mains power outlet, disconnect, and begin again this time being careful not to let the clamps touch.

Overheating Protection: The charger will reduce the charge current to 2A if the internal temperature reaches 95 °C. This protects both the charger and the battery.

Charge Memory: If the mains AC power is disconnected for any reason during the charging process, the charger will remember the charge settings it was using and will automatically restart charging in the same mode once mains AC power is restored, providing the battery clamps have not been disconnected.

IMPORTANT SAFETY INFORMATION

- Before you begin charging, read the instructions and this user manual carefully.
- Explosive gases may escape from the battery during charging. Prevent flames and sparks, and ensure the battery and charger have adequate ventilation.
- The charger is for indoor use only. Do not expose to rain or moisture.
- The charger is for charging lead acid and lithium batteries ONLY. (Review the size and voltage details in the specifications table provided).
- Disconnect the 240V mains power supply before connecting or disconnecting the charger to the battery.
- The battery charger must be plugged into an earthed power outlet.
- The connection to the mains power supply must be in accordance with National Wiring Rules and Regulations.
- Do not attempt to charge non-rechargeable batteries.
- Never charge a frozen battery.

- If the AC cord is damaged do not use it. It must be replaced or repaired by a qualified technician.
- Corrosive substances may escape from the battery during charging and damage delicate surfaces. Make sure you charge in a suitable area and store your batteries and charger safely.
- Ensure all vehicle accessories including lights, heaters, and appliances etc are turned off prior to charging.
- Children should be supervised to ensure that they do not play with the charger.
- The charger should not be dismantled, and any attempt at modification or repair without the approval of KickAss will void any warranty. Please refer to the back of this manual for warranty details.



Indoor Use
Only



No Excessive
Dust



No Excessive
Moisture



For 12V Rechargeable
Batteries Only

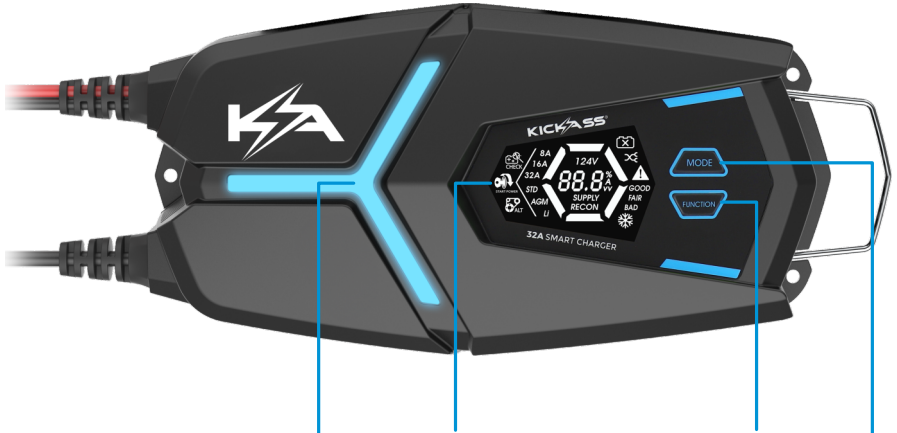
IMPORTANT SAFETY INFORMATION

- Do not attempt to charge a battery that is damaged or seems to be damaged.
- Do not attempt to charge a lithium battery at temperatures below 0°C (32°F).
- Do not attempt to charge a lithium battery that does not have an in-built Battery Management System (BMS).
- Do not smoke or allow sparks or flames anywhere near the battery or engine.
- Do not drop any heavy metal objects – for example, metal tools – onto the battery, as it could cause a short circuit and a possible explosion.

- Do not place the charger on top of the battery while it is charging.
- Avoid getting electrolyte on your skin or clothes. It is extremely corrosive and can cause burns.
- If electrolyte gets into your eyes - wash them thoroughly with water and seek medical attention immediately.
- Always confirm the battery manufacturer's safety recommendations and technical specifications before connecting it to the charger.
- Every battery has a recommended maximum charge voltage. Ensure that the charge voltage of the mode you have selected does not exceed the battery manufacturers recommendations.
- Every battery has a recommended maximum continuous charging current rating. Make sure that the charger does not exceed the recommended maximum continuous charging current specified by the battery manufacturer.

IMPORTANT: This charger must only be used to charge batteries as outlined in this manual. Always refer to the technical specifications of the battery that you are charging. Do not use this charger for any other purpose.

UNDERSTANDING YOUR CHARGER AND WHAT'S INCLUDED



Charging Light Indicator

LCD Display

Function Button

Mode Button

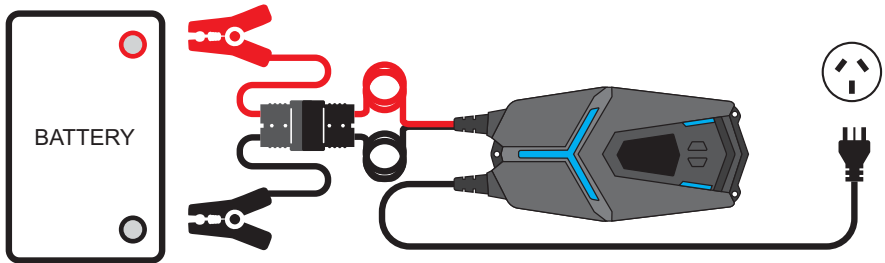


CONNECTING THE BATTERY CHARGER

To connect the charger and begin charging your battery, please follow these steps.

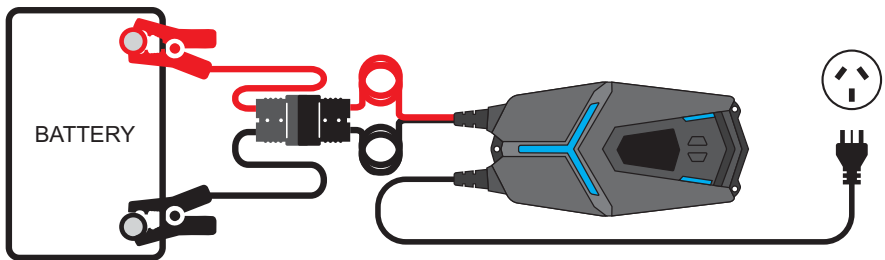
Step 1:

Ensure that the 240V AC mains power supply is disconnected.



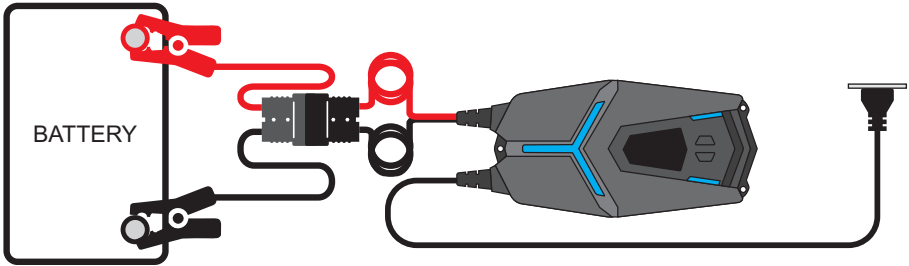
Step 2:

Connect the alligator clamps to the battery, attach the red clamp to the positive (+) terminal, and the black clamp to the negative (-) terminal. Then, connect the alligator clamps to the battery via the Anderson connector.



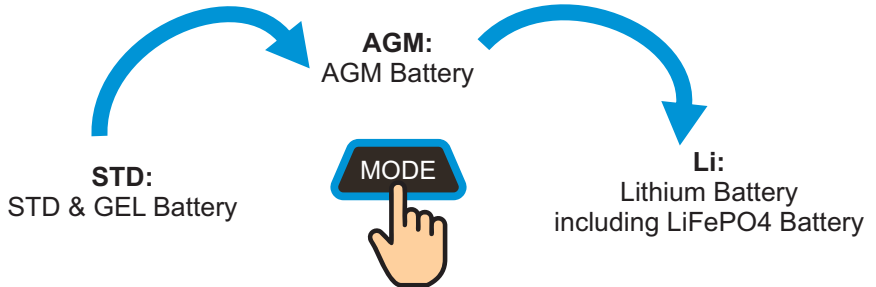
Step 3

Plug in the battery charger to your 240V AC mains plug and switch it on at the wall, the charger's display will then operate and show the battery voltage.



Step 4

Select the appropriate charge mode as described above ensuring it is correct for the battery type connected. Select the charge mode within 10 seconds of switching the charger on.



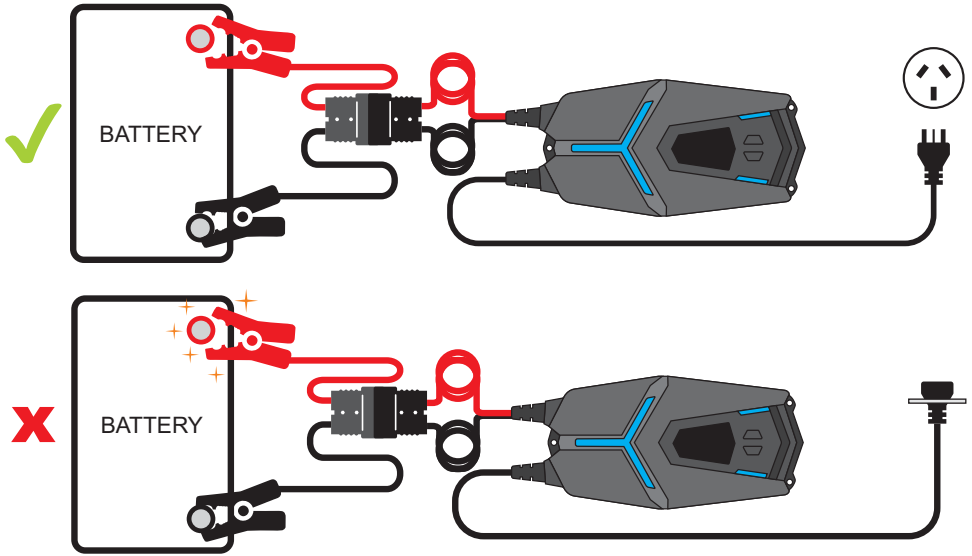
Step 5

Adhere to the recommended charge rate based on the battery's specifications. Following these guidelines ensures safe and efficient charging, optimizing the battery's longevity and performance.

Step 6

If the battery needs to be disconnected, switch off the power supply at the wall and unplug the charger, then disconnect the alligator clamps or the Anderson connection.

This will prevent any dangerous sparks. NOTE: Do not disconnect the alligator clamps from the battery while the charger is connected to mains power, as this may cause sparks.



BATTERY CHARGER STANDARD OPERATION MODES



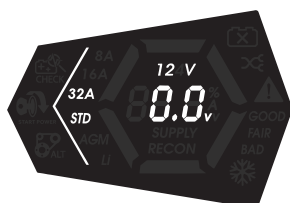
12V/8A STD Mode:

Slow charge with 12V sealed or flooded lead acid or GEL battery, MAX 8A



12V/16A STD Mode:

Fast charge with 12V sealed or flooded lead acid or GEL battery, MAX 16A



12V/32A STD Mode:

Fast charge with 12V sealed or flooded lead acid or GEL battery, MAX 32A



12V/8A AGM Mode:

Slow charge with 12V AGM battery, MAX 8A



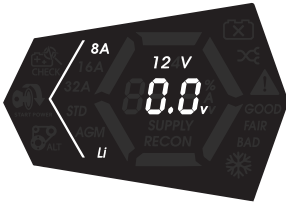
12V/16A AGM Mode:

Fast charge with 12V AGM battery, MAX 16A



12V/32A AGM Mode:

Fast charge with 12V AGM battery, MAX 32A



12V/8A Li Mode:

Slow charge with 12V LiFePO4 battery, MAX 8A



12V/16A Li Mode:

Fast charge with 12V LiFePO4 battery, MAX 16A



12V/32A Li Mode:

Fast charge with 12V LiFePO4 battery, MAX 32A

BATTERY CHARGER SPECIAL OPERATION MODES



Recondition Mode:

Recondition mode can be used on AGM batteries to deliver a specialized charge if the battery has not been used for some time. We recommend you consult your battery manual or vendor before using the Recondition mode as it can shorten battery life.



12V COLD Mode:

Activate 12V COLD mode for optimal charging in cold temperatures.



Starter Battery Replacement Mode:

By following the steps below, you can effectively use the Starter Battery Replacement Mode of the KickAss Flexi Charge Smart Charger to replace your vehicle's starter battery without encountering electronic system re-setting issues.

- Step 1:** Connect the KickAss Flexi Charge Smart Charger to the starter battery terminals in your vehicle.
- Step 2:** Ensure that the battery charger detects a voltage at the battery terminals minimum 6V before proceeding.
- Step 3:** Hold down the "MODE" button on the charger for 5 seconds.
- Step 4:** The Starter Battery Replacement Mode is now activated.
- Step 5:** Replace the starter battery while the charger maintains power to the vehicle's electronic systems.
- Step 6:** Ensure that the battery terminals remain connected to the vehicle's 12V terminals throughout the replacement process.
- Step 7:** Once the replacement is complete, disconnect the charger from the battery terminals.
- Step 8:** Verify that the vehicle's electronic systems have not reset and are functioning properly.

LITHIUM ACTIVATION MODE

All lithium batteries have an integrated Battery Management System (BMS) to protect them from unsafe operating conditions. One of these conditions is Under Voltage Protection, which occurs when the batteries are depleted below a certain voltage.

When a battery pack enters this Under Voltage Protection mode, the BMS does not allow the battery to discharge any further to stop the cells from being damaged. While in this protective model, some BMS's may disconnect the external battery terminals from the internal cells. This can create problems for some chargers because they expect to sense a voltage at the battery terminals before they start charging.

To use Lithium Battery Activation mode, follow these steps:

Step 1: Connect the alligator clamps to the battery in protection mode.

Step 2: Plug the charger into a 240V AC mains power outlet.

Step 3: Select Lithium mode on the charger.

Step 4: Press and hold the MODE button for approximately five seconds. The charger will enter Lithium Activation mode.

Note:

- In this mode, the output voltage will be a constant 13.5V supplying 16A max.
- The charger will stay in Lithium Activation mode for five minutes, after which time the charger will have reactivated the BMS to allow the battery to charge normally.
- Lithium Activation mode cannot be used while in AGM or STD charging modes.

CHARGING PROFILE

This charger is controlled by a microprocessor with 9 separate stages of charging batteries. The microprocessor senses the condition of the battery and delivers the right current and voltage. This will optimize the charging process and protect the batteries.

Stage 1: Battery Diagnostics and Pre-charge

Checks the battery voltage to make sure the connections are working, and that the battery is in a stable condition before starting to charge.

Stage 2: Desulphation

Available for STD/AGM batteries only, this stage detects sulfated batteries. Pulsing current and voltage (1" charge and 0.5" discharge), it removes sulfate from the lead plates of the battery restoring the battery capacity. If the change of battery voltage exceeds the voltage setting during charging and discharging, it enters the next stage 4 hours later. If the change is less than 3V, it enters the next stage without desulphurization repair (in about 10 seconds).

Stage 3: Soft Start

All initial battery test to determine battery condition. If the battery is severely discharged, the charger will begin the Soft Start stage. Charging starts with reduced current until the battery voltage reaches an appropriate level for charge.

Stage 4: Bulk

Main charging stage where the battery fills most of its capacity. The charger delivers maximum current until the terminal voltage has risen to the full charge level.

Stage 5: Absorption

Completes the charge up to virtually 100% at a constant voltage. The current tapers off once it reaches the minimum level.

Stage 6: Recondition

Available for AGM batteries only, this stage charges at a higher voltage to recondition the sulfate of the AGM battery to extend battery life.

Stage 7: Analysis

Tests whether the battery can hold capacity.

Stage 8: Float

Delivers low constant voltage with minimum charge current, after the battery is fully charged. The charger continuously monitors the battery voltage and adjusts the charging current as needed to keep the battery fully charged.

Stage 9: Pulse

Maintains the battery at 95-100% capacity. The charger monitors the battery voltage and gives a pulse when necessary to keep the battery fully charged.

Charge Voltage

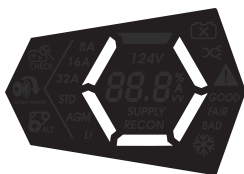
By simply selecting the appropriate charge mode for the battery type being charged, (refer to the battery manufacturer's recommendations) the voltage display settings for below key charge stages will be altered according to the table below.

Battery	Absorption	Float
12V LiFePO4	14.5V	13.5V
AGM	14.7V	13.5V
STD (FLD, SEALED, GEL)	14.4V	13.5V

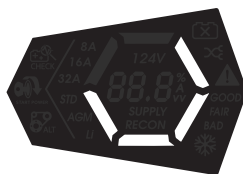
BATTERY CHARGING VOLTAGE LCD DISPLAY



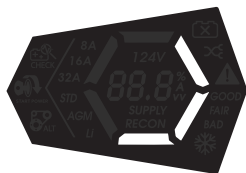
FULL



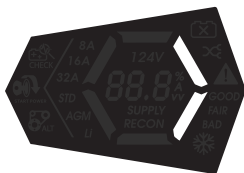
>13.7V



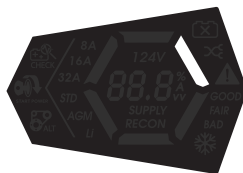
13.2-13.7V



12.7-13.2V



12.0-12.7V



<12.0V

Note:

- The voltage LCD display shows the voltage level of your battery. Each bar in the LCD display corresponds with a particular voltage level. Depending on the voltage level of your battery, the appropriate LCD light bars will be illuminated.
- Once the charger reaches the float stage, indicating the battery is fully charged and being maintained, the FULL light bar will be illuminated and stay solid.

BATTERY CHARGER ERROR CODES

ERROR CODE	ICON ON DISPLAY	ERROR CODE MESSAGE
Er1		Reverse Polarity
Er2		Faulty Battery
Er3		Soft Start Stage (8-10V for 9 hours)
Er4		Reports battery error if voltage drops by more than 2V within 5 minutes
Er5		Desulphation Error
Er6		DC Power Supply mode when output voltage less than 10V
Er7		Bulk & Absorption Charging Time Exceeds (Over 36 Hours)

KICKASS[®]

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Kickass Products Pty Ltd
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Australia

Made in China

