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SMART BATTERY CHARGER AND MAINTAINER

9 Stages

Digital Display

Instruction Manual

Model: IQ8



^{*}Please read this manual carefully before using and retain for future reference.

INTRODUCTION

The QuickCable Rescue IQ8 Automatic 9-Stage Battery Charger is engineered to efficiently charge a variety of 12V and 24V battery types, including lead-acid (AGM, STD, GEL) and LiFePO4 (LFP) batteries. It is built with the latest charging technologies and meets high-quality standards.

IMPORTANT SAFETY INSTRUCTIONS

WARNINGS

- Charging batteries can produce explosive gases. To ensure safety, please prevent flames and sparks. Provide adequate ventilation during charging.
- Always wear eye protection and keep skin covered when working on or around batteries.
- For indoor use only. Do not expose to rain or snow.
- Designed for charging 12V/24V rechargeable lead-acid (AGM, STD, GEL) and LiFePO4 (LFP) batteries as specified in the specifications table.
- DO NOT attempt to charge non-rechargeable batteries.
- DO NOT charge other types of batteries, such as Nickel Cadmium (NiCad), Nickel-Metal Hydride (Ni-MH), or dry-cell batteries.
- DO NOT use any mode other than LFP mode to charge LiFePO4 batteries.
- DO NOT charge a frozen battery.
- During charging, ensure the battery is placed in a well-ventilated area, away from any flames or ignition sources.
- DO NOT smoke while attending to the battery or when in its vicinity.
- This battery charger is not intended for use by individuals with reduced physical, mental, or sensory capabilities. Those lacking experience or knowledge (including children) should be supervised or given proper instruction.
- Only plug the charger into a UL or CSA safety-approved 120V AC outlet.
- Connection to the mains supply must comply with National wiring regulations.
- Do not use the charger if the AC cord is damaged.
- Corrosive substances may escape from the battery. Use appropriate personal
 protective equipment (PPE), including eye protection, and keep skin covered where
 possible. If battery acid contact occurs, flush the area with plenty of water for at least
 10 minutes and seek medical attention immediately.

PRODUCT OVERVIEW



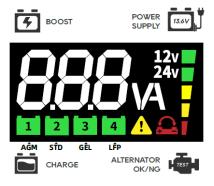
SPECIFICATIONS

| Model number | IQ8 | |
|------------------------|---|-------------|
| Charger Type | Intelligent Automatic – 9 Stages | |
| Input Voltage | 108-132 VAC 50~ 60Hz | |
| Input Current | 5.8A | |
| Nominal Output Voltage | 12V | 24V |
| Output Current | 4A, 12A, 25A | 4A, 12A |
| | 35A (boost) | 20A (boost) |
| Power Supply | 13.6V±0.3V/25A | |
| Battery Type | Lead-acid (AGM, STD, GEL) and LiFePO4 (LFP) batteries | |
| Automotive (CCA) | 170-1800 | |
| Marine (MCA) | 220-2350 | |
| Deep Cycle (Ah) | 24-250 | |
| Reserve Capacity (M) | 60-600 | |

FEATURES

Microprocessor and advanced smart charger technology enhance the efficiency of battery charging and maintenance, preventing overcharging and maximizing battery life. The charger offers safety protections against short circuits, reverse connections, and incorrect voltage. Additionally, the smart charger features battery desulphurization and reconditioning, as well as boost, power supply, and alternator evaluation functions.

DIGITAL SCREEN DISPLAY



| Icon | Function | |
|-------------------------|--|--|
| 5 | Boost mode | |
| 13.67 | Power Supply mode | |
| | Battery Charging mode | |
| TEST | Alternator Test and Evaluation mode. | |
| Ω | Reverse Connection warning sign | |
| 1 | Error warning sign | |
| 888 | Display voltage or current value. It will also display codes: "FUL" – battery is fully charged "bAd" battery is bad and can't be repaired "dES" in desulphurization mode "rEP" in repair/reconditioning mode "Lo" overload in power supplier mode | |
| M | Voltage (Volt) or Current (Amp) reading indicator. During charging, the voltage and current will be displayed alternately every 5 seconds. | |
| 12v 24v | Battery Voltage setting indicator. | |
| | Charging Status indicator | |
| 1 2 3 4 AĜM STD GÊL LFP | Battery Type setting indicator | |

OPERATIONS

Charge Mode

Review all battery manufacturer specifications and precautions, including nominal voltage, recommended charging rates, and whether to remove or leave cell caps on during charging.

Step 1: Select Proper Location for Charger to Be Placed or Mounted

The QuickCable Rescue IQ8 Charger is intended for indoor use only.

- The location selected for the charging of the battery must be cool, dry, clean and well ventilated, away from flammable materials and ignition sources.
- To minimize TV/Radio interference, position the charger well away from the TV, Radio antenna, and the antenna cable.

Step 2: Connect Charger to Battery

1. Connect to battery out of the vehicle

First, connect the POSITIVE (RED) lead clamp of the charger to the POSITIVE terminal of the battery. Next, connect the NEGATIVE (BLACK) lead clamp of the charger to the NEGATIVE terminal of the battery.

Note - The POSITIVE terminal of a battery is defined by the color RED and may be marked by POS, P or (+). The NEGATIVE terminal of a battery is defined by the color BLACK and may be marked by NEG, N, or (-).

To ensure a secure connection and minimize sparks or arcing, wiggle or swivel the clamps several times.



2. Connect to battery mounted in the vehicle

Determine if the vehicle is Positively or Negatively earthed.

2-1 Negatively Earthed (Most Vehicles)

Note: Negatively earthed vehicles usually have a cable (usually BLACK or GREEN) connecting the Negative battery terminal to the vehicle's chassis.

First, connect the POSITIVE (RED) lead clamp of the charger to the POSITIVE (+) terminal of the battery. Next, connect the NEGATIVE (BLACK) lead clamp of the charger to the vehicle's chassis - away from the fuel lines or moving parts.



2-2 Positively Earthed

First, connect the NEGATIVE (BLACK) lead clamp of the charger to the NEGATIVE (-) terminal of the battery. Next, connect the POSITIVE (RED) lead clamp of the charger to the vehicle's chassis - away from the fuel lines or moving parts.



Step 3: Connect charger to main power

Plug the battery charger to a UL or CSA safety approved 120V AC outlet.

The digital screen will illuminate to indicate that the Battery Charger is powered on, and the actual battery voltage will be displayed.

Note: After the charger is powered on, the screen will initially turn on and then automatically dim to less LED lights after 2 minutes of inactivity to conserve energy. To wake the screen, simply press any of the button once.

Step 4: Set charge mode

Press the MODE button to select the CHARGE mode.

Step 5: Set battery type, voltage and charging current

Press the corresponding operation buttons TYPE, VOLT, AMP to set battery type, voltage and the charging current.

Step 6: Charging

After the battery type, voltage and charging current are set, press the START/STOP button to start charging. The charging status indication bar on the right will scrolling display, indicate that charging is in progress, and the approximate charge percentage.

Note: If the battery charger is unable to detect a properly connected battery, or the battery is too weak (less than 0.5V) After pressing the START/STOP button, the Error warning sign will turn on. Charging will not proceed. The Force Charge mode maybe used for partially revive the battery. Refer to Force Charge Mode section.

During charging, if the battery is detected to be faulty, the Error warning sign will be triggered with "bAd" error code on screen. A buzzer will sound for 2 seconds. Charging will terminate.

During charging, pressing the START/STOP button while the screen is fully on will terminate the process.

Once the battery is fully charged, 'FUL' will appear on the screen. If the charger remains connected, it will automatically enter maintenance mode to keep the battery in optimal condition.

Step 7: Disconnection

To disconnect the charger from the AC power and the battery, first unplug the charger from the outlet. Then, remove the clips from the battery in the reverse order of connection.

Force Charge Mode

WARNING

In Force Charge mode, all protection features are disabled. The user is fully responsible for manually verifying the connections, battery type, and nominal voltage.

Force Charge mode can be used in the following situations to partially revive a deeply discharged or aged battery:

1. Battery Not Detected or Too Weak:

If the battery charger is unable to detect a properly connected battery, or if the battery voltage is too low (less than 0.5V), pressing the START/STOP button will trigger an Error Warning and a 10-second buzzer alert. Normal charging cannot proceed.

To activate Force Charge mode:

- Recheck the battery type, nominal voltage, and charging current settings.
- Press and hold the START/STOP button for 5 seconds. This will enable Force Charge mode, bypassing the low voltage check and applying charging voltage to the battery.

2. Battery Voltage Above 0.5V but Charging Terminated:

If the battery voltage is above 0.5V but charging is terminated with the Error warning sign flashing, accompanied by a 2-second buzzer alert and the error code 'bAd' indicating a bad battery:

 Press and hold the START/STOP button for 3 seconds. This will activate Force Charge mode, allowing the charger to apply charging voltage to the battery for an extended period.

Desulphurization and Recondition Mode

The desulphurization or reconditioning mode will automatically activate and exit after the charger analyzes the battery. During desulphurization, 'dES' will be displayed, accompanied by a fully scrolling charging status bar. In reconditioning mode, 'rEP' will be displayed with a partially lit and partially scrolling charging status bar.

Boost Mode

The charger can assist with vehicle boosts.

To boost the vehicle, follow the same procedure as in charging mode to connect the charger

to the vehicle's battery. Power on the charger, press the MODE button to select BOOST mode, and then set the battery type and voltage. Press the START/STOP button to activate BOOST mode. The BOOST status will last for 5 minutes, during which the jump start attempt should be performed

Note: If the battery charger is unable to detect a properly connected battery, or if the battery is too weak (less than 0.5V) after pressing the START/STOP button, the Error warning sign will illuminate and a buzzer will sound for 10 seconds. In this case, follow the same procedures for Force Charge mode while in BOOST mode and attempt the jump start. For deeply discharged batteries, initiating Force Charge first can assist with the boost.

Power Supply Mode

The charger can also function as a DC power supply.

Note: Ensure the load is within the charger's output power range and is connected with the correct polarity.

Once the charger is connected to the load, plug it into the AC power supply. Press the MODE button to select Power Supply mode, then press the START/STOP button to begin operation.

Alternator Test and Evaluation Mode:

The charger is capable of helping evaluating the status of the vehicle's alternator.

To test and evaluate the status of a vehicle's alternator, attach the charger to the vehicle's battery by following the instructions under "Connect to Battery Mounted in Vehicle." **DO NOT** plug the charger into the AC power during the test.

Start the vehicle's engine, then press the START/STOP button once on the charger. The Alternator Test icon will light up on the screen, displaying either green or red to indicate the evaluation result—green for "OK" and red for "Negative". For accurate results, maintain the engine RPM at approximately 2000 RPM. If the START/STOP button is not pressed, the result will be displayed after 3 minutes. Throughout the process, you can also monitor the alternator output voltage on the charger's screen to evaluate its status yourself. Turn off the engine first, then disconnect the charger clips from the battery to conclude the test.

Note: The evaluation result is for reference only. Further examination may be necessary based on the findings.

TROUBLE SHOOTING



Error warning sign

The Error Warning sign will illuminate and remain on after the battery type, voltage, and charging current are set, and the START/STOP button is pressed. This may indicate one of the following issues:

- Short circuit, poor connection, or reversed connection to the battery: Check the connection between the clips and the battery. Correct the issue and try again.
- Bad or weak battery:
 - Force Charge mode may be used to partially revive the battery. Refer to the Force Charge Mode section for instructions.
- Mismatched battery voltage: The battery's nominal voltage does not match the voltage setting. Check and reset the voltage accordingly.

If the Error Warning sign is flashing and the screen displays "bAd," the battery is defective and cannot be repaired.



Reverse Connection warning sign

If the Reverse Connection warning sign is flashing, the connection between the clips and the battery is reversed. Please check the connections, correct the polarity, and try again.

Note: The charger may not detect a reversed connection if the battery voltage is below one volt.

QUICKCABLE Rescue® Battery Charger Limited Warranty

The Manufacturer warrants this product against defects in material and workmanship for one (1) year from the date of original retail purchase.

Damage caused by misuse or improper connections, failure to follow prescribed operating instructions, impact damage, or negligence is not covered by this warranty. The manufacturer reserves the right to inspect units for improper use in determining warranty coverage.

EXCEPT FOR THIS LIMITED WARRANTY, THE MANUFACTURER HAS NOT MADE AND SPECIFICALLY DISCLAIMS ANY WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED, DIRECT OR INDIRECT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY, AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED, CONDITIONAL WARRANTY PROVIDES THE EXCLUSIVE REMEDY FOR ANY CLAIM OR DAMAGE EXCEPT AS OTHERWISE REQUIRED BY LAW.

This warranty excludes and does not cover defects or failures of your BATTERY CHARGER due to any cause other than defects in material or workmanship, including without limitation any malfunctions or failures caused by repairs made by an unauthorized person, mishandling, modifications, normal wear, improper storage and unreasonable use or damage.

IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Any claim relating to the Battery Charger must be submitted within one (1) year of purchase and must be sent to the seller from whom the unit was purchased.

If any portion of this warranty or limitation of rights and remedies is found to be unenforceable, then the remainder of this document shall remain in full force and effect.

To Obtain Service Under This Warranty:

- 1. Warranty claims must be made within 12 months of purchase date; proof of purchase must be provided.
- 2. Provide warranty claim information to the seller from whom the unit was purchased Be prepared to establish proof and date of purchase.
 - 3. Warranty will not be applied for misuse, damage or normal wear or tear.