

Qoltec[®]

Model: 52491

INSTRUCTION MANUAL

**INTELLIGENT BATTERY CHARGER WITH
MICROPROCESSOR 12V/24V**

INTRODUCTION

Thank you for choosing our intelligent battery charger. The charger has been designed to provide safe and efficient charging of 12V/24V batteries and 12.6V lithium batteries. This manual contains all the necessary information for its use. If you have any questions after reading this manual, please contact our Customer Service Department.

ABOUT THE PRODUCT

The 12V/24V battery charger is a high-tech microprocessor-controlled device designed for professional battery charging and maintenance. It is compatible with various types of lead-acid batteries such as wet, MF, GEL, VRLA, flooded, as well as 12.6V lithium and AGM/EFB batteries. The unit features an easy-to-read LCD display, which allows precise monitoring of charging parameters and many protection functions.

CONSTRUCTION OF THE LOADER

Illustration 1 in the appendix

- 1 - Percentage of charge
- 2 - Charging current
- 3 - Charging voltage
- 4 - Lithium battery mode
- 5 - Normal battery mode
- 6 - AGM/EFB battery mode
- 7 - Repair mode
- 8 - Amount of stored electrical charge
- 9 - Charging indicator
- 10 - 24 V indicator
- 11 - 12V indicator
- 12 - Lithium
- 13 - Ordinary
- 14 - AGM

PRODUCT FEATURES

- Microprocessor controlled
- Professional automatic battery charging and maintenance
- For charging all lead-acid batteries 12V/24V (wet, MF, gel, VRLA and flooded), 12.6V, lithium, AGM / EFB, LiFePO4 batteries
- LCD display shows parameters such as battery voltage, charging current and accumulated charge
- Protection against overheating, overcharging, short circuit and reverse polarity
- Maximises battery life

SAFETY INSTRUCTIONS:

1. Read these instructions carefully before using the charger.
2. Only use the charger for its intended purpose.
3. Connect the charger to a suitable power source, according to the specifications on the device label.
4. The charger contains dangerously high voltage, so contact the manufacturer in the event of equipment failure.
5. Do not use the charger in high humidity, high temperatures or near flammable or explosive materials.
6. Do not block the ventilation holes or use the charger when the cooling fan is not working.
7. Do not leave the charger unattended during use.
8. Protect the unit from rain and water to avoid damage.
9. Persons without the appropriate qualifications must not open the device or change its purpose. This can lead to serious injury.

Comments

1. Always check the condition of the battery before charging.
2. Avoid charging in extreme temperatures.
3. Maintain the charger regularly to ensure long-lasting and reliable operation.

TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	220-240V 50/60Hz
OUTPUT VOLTAGE	12V/24V
CHARGING VOLTAGE	12V:14V±0.3 24V:28V±0.3V
POWER	220W
PEAK CHARGING CURRENT	12V 12A 24V 7.5A
RECHARGING MODE	4-stage charging mode
BATTERY TYPE	12V/24V SLA (Wet,MF,Gel,VRLA , flooded) 12.6V Lithium, AGM/EFB
CAPACITY OF THE BATTERY TO BE CHARGED	4Ah-105Ah
COOLING	Fan
OPERATING TEMPERATURE	-30°C to+50°C

BATTERY CHARGING

1. check that the battery parameters are compatible with the charger.
2. connect the red terminal to the positive (+) terminal, the black terminal to the negative (-) terminal. Select the correct type of battery.
3. connect the charger to an AC power source and the charger will start working (the charging indicator will start flashing in colour. This indicates that the charger is starting to operate).

HOW DO YOU KNOW WHEN THE BATTERY IS FULLY CHARGED?

1. current drops below 0.3A (or below 0.5A)
2. the charging indicator is off
3. display "100%" on the CHARGER screen.

Note: For normal batteries, if the battery is abnormal, simply refer to the first point.

HOW TO USE THE MAINTENANCE (REPAIR) MODE?

First select the appropriate battery type and then press the maintenance button to start. When maintenance is complete (it takes about 1 hour), it will automatically switch to smart charging. It will stop when the battery is full.

INFORMATION ON CUMULATIVE CHARGING

To assess the condition of the battery, the accumulated charge is compared with its original capacity

Battery performance evaluation:

Cumulative charging > 25% of battery capacity:	The battery is in good condition
Cumulative charging < 25% of battery capacity:	The battery has poor energy storage capacity and replacement is recommended.

For a 100Ah battery, this means that the cumulative charge after a full charge cycle should be at least 25Ah in order to be considered an efficient battery.

PROBLEM SOLVING

PROBLEM	REASON	SOLUTION
The charger shows that the battery is fully charged, but in reality it is still not.	This can be due to several reasons: the internal resistance of the battery is too high, the capacity of the battery is reduced (in the case of a depleted battery), the battery is vulcanised or has a low voltage due to a long period of inactivity. In such cases, the battery voltage may increase rapidly, causing the charger to show a "100%" status, even though the battery is not fully charged.	Press the "Maintenance mode" button to continue charging the battery. The charging process will stop automatically when it has finished. (If the battery starts to heat up, stop charging immediately!)
The battery voltage is normal, but the charger does not work.	No mains supply.	Check that the AC power source is working, then change the socket and try again.

Charger cannot reach full charge after long charging time	The battery may be vulcanised, damaged or may lack water. In such cases, the battery voltage remains low, preventing a full charge.	If the battery is damaged, it may need to be replaced with a new one. If the battery is sulphated, you can try to regenerate it using the REPAIR function. In lead-acid batteries, check the electrolyte level. If the water level is too low, top it up with distilled water to the appropriate level.
Why can 12-volt batteries be charged, but 24-volt batteries cannot?	The voltage of the two batteries connected may not exceed 18 V, so that the charger does not recognise a 24 V system.	You can charge the batteries separately for a period of time (half an hour to an hour) and then combine them together to continue charging as a 24 V system.

RECHARGING TIME

Battery type	Hours
6AH	1h
9AH	1-2h
20AH	2-3h
36AH	4-5h
45AH	5-7h
60AH	6-8h
80AH	8-10h
100AH	10-13h

**If the battery capacity is greater than 105 Ah, it can also be charged, but the charging time will be relatively increased. The above charging data is an actual reference to charging in the normal state of the battery.*

CONSERVATION

1. Keep the charger clean by using a soft, dry cloth to remove dust and dirt. Do not use chemicals.
2. Regularly check power cables and connectors for damage such as abrasion, cracks or loose connections.
3. Ensure that the vents are clean and not blocked to ensure adequate cooling of the charger.
4. Store the charger in a dry, cool place, away from direct sunlight, moisture and heat sources.
5. Avoid contact of the charger with water or other liquids to prevent electrical damage.

UTILISATION

This product is subject to the regulations for the disposal of electrical and electronic equipment (WEEE). It must not be disposed of with municipal waste. Take the charger to an electro-waste collection point that provides safe recycling in accordance with GPSR standards. Check where the nearest electro-waste collection points are located.

If you have any questions about disposal, contact the manufacturer or an authorised service centre.

INFORMATION ON WARRANTY AND SERVICING

The product is covered by a 24-month manufacturer's warranty from the date of purchase. The warranty covers any defects in materials and workmanship. Please contact our service department if you have any problems with your device to ensure prompt and professional service. The warranty does not cover damage resulting from misuse, falls, mechanical damage, unauthorised repairs or attempts at disassembly. The warranty is invalid if the housing has been opened or the warranty seal has been removed.

ATTACHMENT

1

