

Qoltec®



USER MANUAL

Digital battery tester with LCD display

12V / 24V

Model: 52487

Introduction

Thank you for your trust and for choosing the Qoltec battery tester. We are confident that this product will meet your expectations and prove to be an indispensable tool in your daily work.

This user manual has been prepared to assist you with the installation process and the correct use of the device. It includes detailed steps and guidelines on how to use our product correctly.

If you have any questions after reading the manual, please contact the NTEC sp. z o.o. service department.

About the product

Using the most advanced conductivity testing technology and reverse polarity protection, the tester provides information on the condition of the battery being tested, enabling rapid diagnosis of problems with the battery and the charging process. It is capable of testing batteries with a voltage of 12V to 24V and a capacity of 3Ah to 250Ah. The tester provides accurate measurement results for AGM, GEL, VRLA, EFB and STD batteries.

Compatibility

The tester supports the following battery types: VRLA, GEL, AGM, EFB, STD, and standard automotive. The battery type and CCA (Cold Cranking Amp) values are marked on the battery label; please check these before use. It does not support LiFePO4 batteries.

Technical specifications

Manufacturer	Qoltec
Input voltage:	12-24V
Battery capacity:	3Ah – 250Ah
Display:	2.7" LCD
Cable length:	0.60 mm
Operating temperature:	-20°C to +60°C
Storage temperature:	-20°C to +70°C
Dimensions (L x W x H):	170 x 90 x 35 mm
Net weight:	0.355 kg

Safety instructions

1. This tester must be used in accordance with the instructions, taking into account the conditions and nature of the work being carried out. Using the tester for purposes other than those for which it is intended may result in damage to one of the devices.
2. Before starting the test, ensure that the battery terminals are clean, as grease and dust can lead to errors in the test results.
3. Wear safety goggles when working with batteries.
4. Check that the insulation on the battery terminals is in good condition (no damage, exposure or disconnection) to avoid the risk of electric shock.
5. The test must be carried out in a well-ventilated area. Explosive and toxic gases may be produced during testing.
6. Do not store the tester where children can reach it.
7. Do not place the tester near the engine or exhaust pipe whilst the car is running.
8. Do not smoke, create sparks or use matches near the battery during testing.
9. Do not remove the battery terminals during testing.
10. Do not place the tester in an environment with high humidity or dust.
11. Do not dismantle the tester, as this may cause damage. If repairs are necessary, contact an authorised service centre.

Description of operation

NO	Button	Function
1	LCD	Battery parameters display
2	See Appendix Symbols from Table 1	Previous option or increase in battery ratings
3	See Appendix Symbols from Table 1	Reset, restart
4	See Appendix Symbols from Table 1	Confirm, enter and continue
5	See Appendix	Next option or reduction of battery ratings

	Symbols from Table 1	
6	Red Clamp	Positive battery test terminal
7	Black Clamp	Negative battery test terminal

How to get started with the tester?

Selecting the correct battery type is essential for conducting the test properly and obtaining accurate results. Ensure you select the correct type in accordance with the information on the battery's rating plate.

1. Before the test

The engine and all other power sources must be SWITCHED OFF during the test to ensure accurate results. Switch on the vehicle's headlights for 2–3 minutes to allow the battery to reach its normal voltage if it is fully charged.

2. Steps

- a. Connect the red positive (+) terminal of the battery tester to the positive (+) terminal of the battery.
- b. Connect the black negative (-) terminal of the battery tester to the negative (-) terminal of the battery.
- c. Ensure that the clamps have a firm, secure grip on the battery terminals to ensure accurate results.
- d. Use the '⬆' or '⬇' keys to select BATTERY TYPE , then confirm with the 'ENTER' key. *Figure 1 in the appendix to the manual.*
- e. Use the '⬆' or '⬇' keys to select the appropriate test standard (specified on the battery nameplate), then confirm again with the "ENTER" button. *Figure 2 in the appendix to the manual.*
- f. Hold down '⬆' or '⬇' and then select the battery's EDC/CCA values (specified on the battery's rating plate or in the EDC/CCA parameters table).

CAR BATTERY TYPE: selection of test standard (CCA, IEC, EN, DIN, CA)

MOTORCYCLE BATTERY TYPE: select the correct battery capacity (AH)

Table: EDC/CCA parameters

Battery capacity	EDC value
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3AH	40A
4Ah	50A
5AH	60A
6AH	80A
7AH	120A
8AH	130A
9AH	140A
10Ah	150A
12Ah	210A
14Ah	215A
15Ah	220A
17Ah	225A
18Ah	230A
20Ah	235A
24Ah	290A
25Ah	295A
26Ah	300A
28Ah	310A
31AH	320A
33AH	330A
38AH	340A
40Ah	350A
42Ah	390A
44Ah	410A
45Ah	415A
48Ah	430A
50Ah	440A
55Ah	450A
60Ah	470A
65Ah	500A
75Ah	535A
80Ah	570A
85Ah	600A
100Ah	670A
120Ah	700A
150Ah	750A
200Ah	950A

- g. Press 'ENTER' to start the test. *Figure 3 in the appendix to the manual.*
- h. The test results are as follows: *Figure 4 in the appendix to the manual.*

SOH: State of Health

R: Internal resistance

Figure 5 in the appendix to the manual

SOC: State of charge

VOLT: Battery voltage

Figure 6 in the appendix to the manual

EDC/CCA: Estimated discharge current

Final rating

PERFECT	Battery life is ideal, SOH $\geq$ 85%
GOOD	Good battery life, SOH $\geq$ 60%
BAD	Poor battery life, SOH $\geq$ 50%
REPLACE	Battery is damaged, SOH $<$ 60%
RECHARGE	Retest the battery after charging
Figure 7 in the appendix to the manual	The terminal is not properly connected to the battery terminal of the battery

Battery system specifications

The battery tester will test each battery according to the selected system and rating.

CCA:	Cold Cranking Amps (CCA), as defined by SAE and BCI, represent the most commonly used value indicating a battery's starting capacity at -18°C
IEC:	Standard of the International Electrotechnical Commission
SAE:	Standard of the Society of Automotive Engineers
EN:	Standard of the European Automobile Industry Association
DIN:	Standard of the German Committee for the Automotive Industry
CA:	Starting amperes Standard effective starting current at 0°C

Frequently asked questions

QUESTION	ANSWER
Is this battery tester powered by internal batteries?	No, the tester is powered solely by the battery being tested.
Can the tester charge a battery?	The tester can detect the battery and check its condition, but it will not charge the battery.
Can the tester check the battery's lifespan?	Yes, we can check the battery's condition and charge level.
What types of batteries can the tester be used with?	It can be used with 12V and 24V batteries.
Why is the test result inaccurate?	The parameter you have set may be incorrect. Enter the correct details from the battery label.
Why is nothing showing on the display?	Please ensure that the battery voltage is higher than 8V and that the terminals are correctly connected.

Service and repair

Please note that incorrect repairs may cause serious damage to the device and even pose a risk to the user. If you experience problems with the device and do not have the experience or knowledge to repair it, it is advisable to seek assistance from a specialist or technical support. You may be eligible for warranty repairs if the fault is due to a manufacturing defect. Warranty repairs may involve repairing the damaged component, replacing parts with new ones, or replacing the entire product if repair is not possible.

Maintenance and cleaning

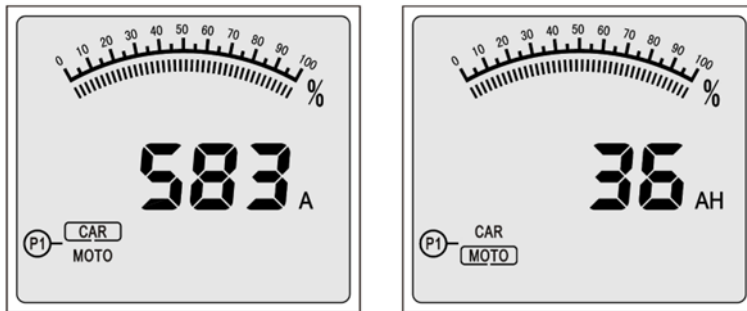
- 1) Switch off the power before cleaning.
- 2) Wipe the appliance with a dry cloth. Do not use chemicals or water.

Disposal

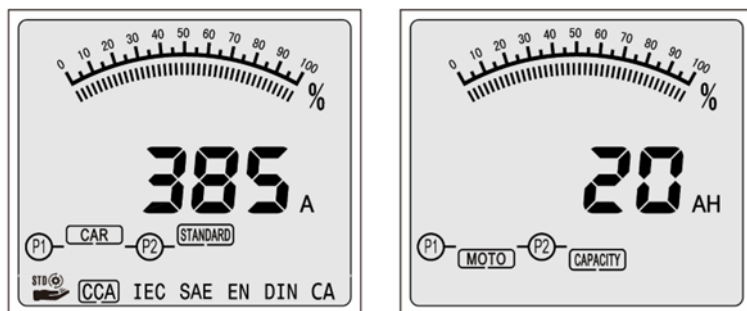
Avoid disposing of the device in ordinary rubbish bins to prevent environmental pollution. Take the device to appropriate electronic waste collection points or to shops that recycle electronic equipment.

Attachment 1

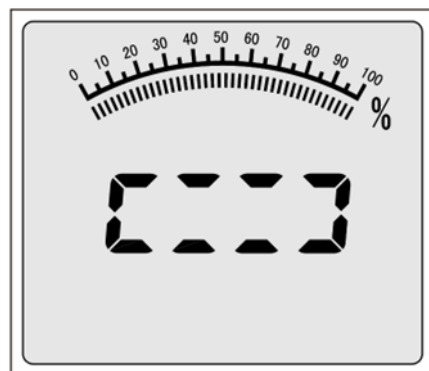
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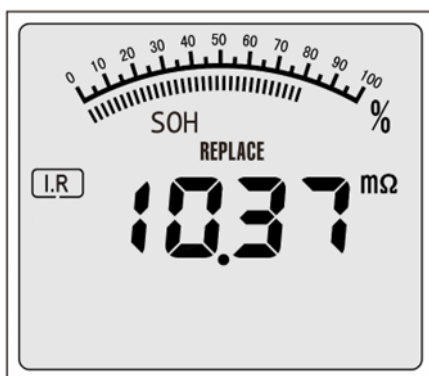
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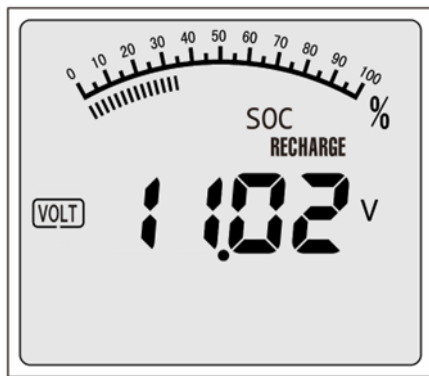
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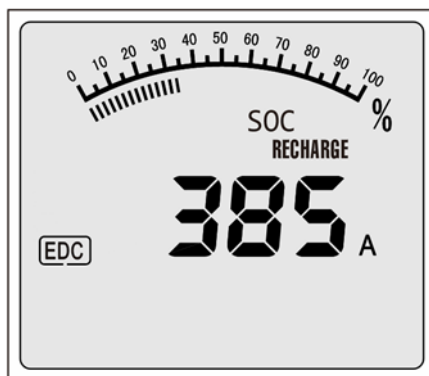
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6



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