



Manuals.plus /

› KZYEE /

› KZYEE KS21 Auto Battery Tester User Manual

## KZYEE KS21

# KZYEE KS21 Auto Battery Tester User Manual

Model: KS21

## 1. INTRODUCTION

The KZYEE KS21 Auto Battery Tester is a professional diagnostic tool designed to test 12V automotive batteries. It provides a quick and accurate analysis of battery health, cranking system performance, and charging system efficiency. This manual provides detailed instructions for the proper use and maintenance of your KS21 tester.

## 2. PRODUCT OVERVIEW

### 2.1 Key Features

- Tests 9-12 Volt batteries from 100 to 1700 CCA.
- Compatible with various battery types: Regular Flooded, Gel, AGM Flat Plate, AGM Spiral, and Deep Cycle batteries.
- Analyzes battery health (CCA value, voltage, internal resistance, battery life percentage).
- Performs cranking system tests to evaluate starter motor performance.
- Conducts charging system tests to assess generator, rectifier, and rectifier diode function.
- Features reverse polarity protection for safe operation.
- Does not emit light, heat, or sparks, and does not discharge the battery during testing.
- Automatic temperature compensation for accurate results.

### 2.2 Package Contents

- KZYEE KS21 Auto Battery Tester Unit
- User Manual

# WIDELY APPLICATION

12V 100-2000CCA lead acid batteries

Regular Flooded

AGM Flat Plate

AGM Spiral

GEL

EFB



Image 1: KZYEE KS21 Battery Tester demonstrating compatibility with various 12V lead-acid battery types.

### 3. SAFETY INFORMATION

Always observe the following safety precautions when using the KZYEE KS21 Battery Tester:

- Wear appropriate eye protection and protective clothing when working near batteries.
- Ensure good ventilation in the work area to prevent accumulation of explosive gases.
- Avoid sparks, flames, and smoking near batteries.
- Keep the tester dry and clean. Do not operate in wet conditions.
- Do not attempt to disassemble or modify the tester.
- The tester is designed with reverse polarity protection, but always double-check connections to prevent damage to the vehicle or tester.

# SAFE & EASY OPERATIONS

- ✓ Polarities wrongly-connected protection
- ✓ Doesn't emit light, heat or spark
- ✓ Won't discharge the battery
- ✓ Strong and lightweight construction



Image 2: The KS21 tester's clamps connected to a battery, illustrating safe and easy operation.

## 4. SETUP

1. Ensure the vehicle's ignition is off and all accessories are turned off.
2. Clean the battery terminals to ensure good contact.
3. Connect the red clamp of the tester to the positive (+) terminal of the battery.
4. Connect the black clamp of the tester to the negative (-) terminal of the battery.
5. The tester will power on automatically once connected correctly.

## 5. OPERATING INSTRUCTIONS

The KZYEE KS21 offers three main testing functions: Battery Test, Cranking Test, and Charging Test. Use the "UP" and "DOWN" arrow buttons to navigate the menu and "ENTER" to select.

# MAIN FUNCTIONS

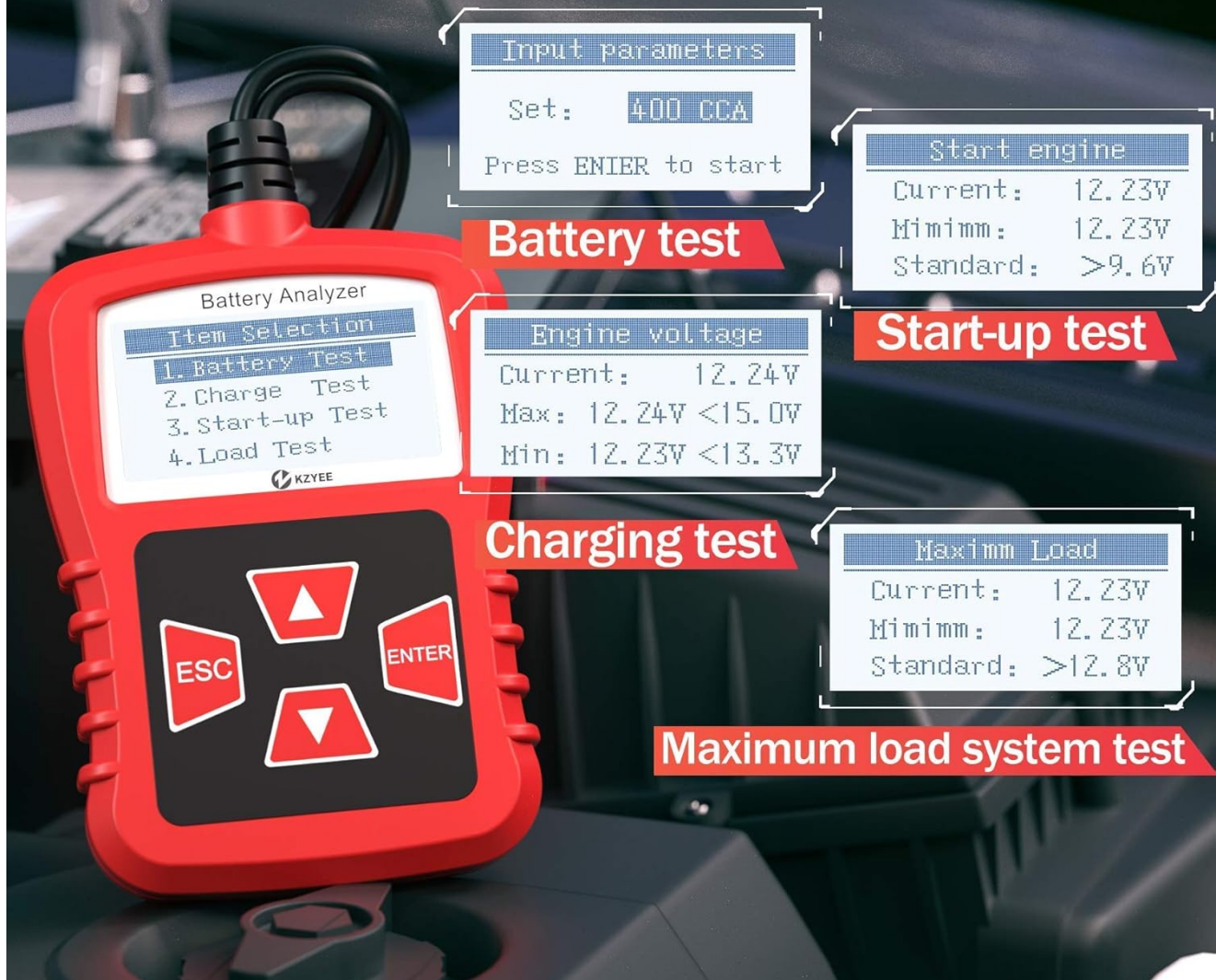


Image 3: Main functions display on the KZYEE KS21 tester.

## 5.1 Battery Test

1. From the main menu, select "1. Battery Test" and press "ENTER".
2. Input the battery's Cold Cranking Amps (CCA) rating as specified on the battery label. Use the arrow buttons to adjust the value and "ENTER" to confirm.
3. The tester will display the battery's health status, including CCA value, voltage, internal resistance, and remaining life percentage.

## 5.2 Cranking System Test (Start-up Test)

1. From the main menu, select "3. Start-up Test" and press "ENTER".
2. Follow the on-screen prompts to start the vehicle's engine.
3. The tester will analyze the cranking voltage and cranking time, providing a diagnosis of the starter system's performance.

## 5.3 Charging System Test (Charge Test)

1. From the main menu, select "2. Charge Test" and press "ENTER".

2. Follow the on-screen prompts, which may include revving the engine to a specific RPM.
3. The tester will evaluate the generator's output voltage, rectifier, and rectifier diode, indicating if the charging system is functioning correctly.

#### 5.4 Interpreting Battery Test Results

The battery test results provide a clear indication of the battery's condition. Refer to the table below for guidance:

| LifeTime | Test Result | Remarks   |
|----------|-------------|---|
| > 80%    | Excellent   | The battery is in very excellent condition                |
| > 60%    | Passable    | The battery is passable                                   |
| > 45%    | Attention   | The battery is OK, but need to pay attention              |
| < 45%    | Replace     | The battery is at the end of its life, suggest to replace |

Image 4: Interpretation of battery test results based on battery life percentage.

| Battery Life Percentage | Test Result | Remarks  |
|-------------------------|-------------|--|
| > 80%                   | Excellent   | The battery is in very excellent condition.                      |
| > 60%                   | Passable    | The battery is passable.   |
| > 45%                   | Attention   | The battery is OK, but needs attention.                          |
| < 45%                   | Replace     | The battery is at the end of its life; replacement is suggested. |

## 6. MAINTENANCE

- Keep the tester clean and dry. Wipe with a soft, damp cloth if necessary.
- Store the tester in a safe place, away from extreme temperatures and direct sunlight.
- Inspect the cables and clamps regularly for any signs of damage. Replace if necessary.

## 7. TROUBLESHOOTING

- **Tester does not power on:** Ensure clamps are securely connected to the correct battery terminals. Check for corrosion on battery terminals.
- **Inaccurate readings:** Ensure battery terminals are clean. Verify the correct CCA value is entered for the battery test.
- **"Reverse Polarity" error:** Disconnect immediately and re-connect the red clamp to positive (+) and black clamp to negative (-).

## 8. SPECIFICATIONS

| Parameter               | Value   |
|-------------------------|---|
| Model                   | KS21  |
| Operating Voltage       | 9-12 Volts  |
| CCA Range               | 100-1700 CCA  |
| Supported Battery Types | Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, EFB, Deep Cycle |
| Test Standards          | CCA, EN, DIN, JIS, IEC, BCI                                       |
| Item Weight             | 227 g   |
| Dimensions              | 30.48 x 20.32 x 2.54 cm (Package)                                 |

## 9. WARRANTY AND SUPPORT

The KZYEE KS21 Auto Battery Tester comes with a Two Years Warranty from the date of purchase. For technical support, warranty claims, or service inquiries, please contact KZYEE customer service through their official website or the retailer where the product was purchased. Please retain your proof of purchase for warranty validation.