TOOLTOP ET2202

TOOLTOP ET2202 Car Battery Tester User Manual

Model: ET2202

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective operation of your TOOLTOP ET2202 Car Battery Tester. This device is designed to accurately test 12V and 24V lead-acid batteries, including standard flooded, AGM flat plate, AGM spiral, GEL, and EFB batteries. It measures battery voltage, internal resistance, and can perform starting and charging system tests, along with temperature measurement. Please read this manual thoroughly before use and retain it for future reference.

2. SAFETY INSTRUCTIONS

- Always wear eye protection and protective clothing when working near batteries.
- Ensure the vehicle is in a well-ventilated area to prevent accumulation of explosive gases.
- Do not smoke or allow sparks or flames near the battery.
- Avoid contact with battery acid. If contact occurs, flush immediately with water and seek medical attention.
- Connect the red clamp to the positive (+) terminal and the black clamp to the negative (-) terminal. Incorrect connection can damage the tester or battery.
- Do not operate the tester if it appears damaged.
- Keep the tester away from children.

3. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- TOOLTOP ET2202 Car Battery Tester Unit
- Battery Clamps (Red for Positive, Black for Negative)
- USB Cable
- Temperature Sensor

- User Manual
- Storage Pouch

Figure 3.1: Contents of the TOOLTOP ET2202 package, including the tester, battery clamps, USB cable, temperature sensor, user manual, and storage pouch.

4. PRODUCT OVERVIEW

The TOOLTOP ET2202 features a 3.2-inch color display and intuitive controls for easy operation. Below is a diagram highlighting the main components and their functions.

Figure 4.1: Front view of the TOOLTOP ET2202 Battery Tester, showing the display, function buttons, and integrated battery clamps.

4.1. Device Components

- **3.2-inch Color Display:** Shows test results, battery type, voltage, charge status, and internal resistance.

- **MODE Button:** Navigates through different test modes (e.g., Battery Test, Cranking Test, Charging Test).

- **Arrow Buttons:** Used for selection and navigation within menus.

- **Enter/Confirm Button:** Confirms selections.

- **Battery Clamps:** Red for positive (+), Black for negative (-). Connects to the vehicle battery.

- **USB Port:** For firmware updates or data transfer (if applicable).

- **Temperature Sensor Port:** Connects the external temperature sensor.

5. SETUP

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If necessary, clean them with a wire brush.

2. **Connect the Clamps:**
   - Connect the **red positive (+) clamp** to the positive (+) terminal of the battery.
   - Connect the **black negative (-) clamp** to the negative (-) terminal of the battery.

   The tester will power on automatically once connected correctly.

3. **Connect Temperature Sensor (Optional):** If temperature measurement is required, plug the temperature sensor into its designated port on the tester and attach the sensor tip to the battery surface.

Figure 5.1: Proper connection of the battery tester clamps to a vehicle battery.

6. Operating Instructions

6.1. Main Menu Navigation

Upon successful connection, the tester will display the main menu. Use the arrow buttons to navigate and the Enter button to select an option.

6.2. Battery Test

1. From the main menu, select "Battery Test".

2. Select the battery type (e.g., STD, AGM, GEL, EFB).

3. Select the battery standard (e.g., CCA, BCI, CA, MCA, JIS, DIN, IEC, EN, SAE, GB). Refer to your battery's label for the correct standard and rating.

4. Enter the rated CCA (Cold Cranking Amps) or other rating as indicated on the battery.

5. The tester will perform the test and display results including battery voltage, measured CCA, internal resistance, and battery health status (e.g., Good, Recharge, Replace).

6.3. Cranking Test (Starting System Test)

1. From the main menu, select "Cranking Test".

2. Follow the on-screen prompts to start the vehicle engine.

3. The tester will monitor the starting voltage and display results, indicating the health of the starting system.

6.4. Charging Test (Alternator Test)

1. From the main menu, select "Charging Test".

2. Follow the on-screen prompts to rev the engine to a specified RPM (e.g., 2000-3000 RPM) for a few seconds.

3. The tester will analyze the alternator's output voltage and ripple voltage, providing a status on the charging system's performance.

6.5. Temperature Measurement

If the external temperature sensor is connected, the tester will display the battery's surface temperature during tests or as a separate reading, depending on the selected mode.

7. Maintenance

- **Cleaning:** Wipe the tester with a soft, damp cloth. Do not use abrasive cleaners or solvents.

- **Storage:** Store the tester in its protective pouch in a dry, cool place away from direct sunlight and extreme temperatures.

- **Cable Care:** Inspect the battery clamps and cables regularly for any signs of damage. Replace if necessary.

- **Firmware Updates:** Check the manufacturer's website periodically for available firmware updates to ensure optimal performance.

8. Troubleshooting

Problem	Possible Cause	Solution
Tester does not power on.	Incorrect clamp connection or battery voltage too low.	Ensure clamps are connected correctly (red to +, black to -). Check if battery voltage is above 8V.
Inaccurate test results.	Dirty battery terminals, incorrect battery type/standard selected.	Clean battery terminals. Verify correct battery type and standard (CCA, etc.) are entered.
"Connection Error" message.	Loose or poor connection of clamps.	Ensure clamps are securely attached to the battery terminals.

9. SPECIFICATIONS

- **Model:** ET2202

- **Display:** 3.2-inch Color Screen

- **Application:** 12V & 24V Lead-Acid Batteries (STD, AGM, GEL, EFB)

- **Test Range:** 100-2000 CCA

- **Voltage Range:** 8V-30V DC

- **Operating Temperature:** -20°C to 50°C (-4°F to 122°F)

- **Storage Temperature:** -20°C to 70°C (-4°F to 158°F)

- **Connectivity:** USB Port for data/updates

- **Additional Features:** External Temperature Sensor Input

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact the manufacturer directly. Keep your purchase receipt as proof of purchase.
Manufacturer: ETURBEV
For further assistance, please visit the official TOOLTOP website or contact their customer service.

Related Documents - ET2202

Multimeter and Accessories (IA)	[Digital Multimeters and Electronic Test Accessories Catalog](#) Discover a wide selection of digital multimeters, clamp meters, oscilloscopes, battery testers, and essential electronic accessories. This catalog features products from leading brands like ANENG, UNI-T, BSIDE, Victor, and more, catering to various electrical and electronic testing needs.

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 Infrared Thermal Camera Instruction Manual	**Tooltop ET692A Infrared Thermal Camera Instruction Manual** This manual provides instructions for the Tooltop ET692A Infrared Thermal Camera, covering its overview, operating procedures, measurement principles, charging instructions, and technical specifications. It is designed for industrial use in fields such as fire fighting, archaeology, traffic, agriculture, and electronics manufacturing.
User Manual for Infrared Thermal Imager **USER MANUALS** INFRARED THERMAL IMAGER QUICK START USER MANUAL Rev1. 24	**TOOLTOP ET14C Infrared Thermal Imager Quick Start User Manual** Comprehensive quick start user manual for the TOOLTOP ET14C Infrared Thermal Imager, covering safety instructions, technical specifications, operating procedures, system settings, and usage with upper computer software.