

Ultimate Speed 296998

Ultimate Speed Battery and Alternator Tester

Model: 296998

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1. INTRODUCTION

Thank you for choosing the Ultimate Speed Battery and Alternator Tester, Model 296998. This device is designed to accurately assess the charge status of 6V and 12V vehicle batteries and evaluate the performance of vehicle alternators. Please read this manual thoroughly before use to ensure safe and effective operation.

2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to prevent injury or damage to the device and vehicle:

- **Eye Protection:** Always wear appropriate eye protection when working with vehicle batteries.
- **Ventilation:** Ensure adequate ventilation when testing batteries, as they can emit explosive gases.
- **Avoid Sparks:** Do not create sparks or flames near the battery.
- **Correct Polarity:** Connect the tester clamps to the correct battery terminals (red to positive, black to negative). Incorrect connection can damage the device or vehicle.
- **Short-Circuit Protection:** The device features short-circuit protection, but always handle with care.
- **Children:** Keep the device out of reach of children.
- **Moisture:** Do not expose the device to rain or excessive moisture.

3. PRODUCT OVERVIEW

The Ultimate Speed Battery and Alternator Tester is a compact and easy-to-use diagnostic tool. It features an LED display for clear indication of test results.

Components:

- Main Tester Unit with LED Indicators
- Red Positive Clamp

- Black Negative Clamp
- Integrated Cable (approx. 80 cm length)

Key Features:

- Tests 6V and 12V batteries
- Tests alternator performance
- LED display for easy reading
- Short-circuit protection
- Magnetic back for convenient placement (approx. 12 x 3.1 x 1.6 cm)

4. SETUP

The Ultimate Speed Battery and Alternator Tester is ready for use out of the box. No assembly or additional power source is required as it is battery-powered by the vehicle's battery.

1. Ensure the vehicle's ignition is off and all accessories are turned off.
2. Locate the vehicle's battery.
3. Ensure the battery terminals are clean and free of corrosion for accurate readings.

5. OPERATING INSTRUCTIONS

5.1. Battery Charge Status Test

1. Connect the **red** clamp to the **positive (+)** terminal of the battery.
2. Connect the **black** clamp to the **negative (-)** terminal of the battery.
3. The LED indicators on the tester will illuminate to show the battery's charge status. Refer to the labels on the device for interpretation (e.g., "Full," "Medium," "Low," "Recharge").



Figure 1: Ultimate Speed Battery and Alternator Tester connected to a vehicle battery. The LED indicators show the battery's current status.

5.2. Alternator Performance Test

1. With the tester still connected to the battery (red to positive, black to negative), start the vehicle's engine.
2. Allow the engine to run at idle.
3. Observe the LED indicators related to alternator performance. These will typically indicate if the alternator is charging correctly, overcharging, or undercharging.
4. Consult your vehicle's service manual for expected alternator voltage ranges.

6. MAINTENANCE

The Ultimate Speed Battery and Alternator Tester requires minimal maintenance.

- **Cleaning:** Wipe the device with a soft, dry cloth after each use. Do not use abrasive cleaners or solvents.
- **Storage:** Store the tester in a dry, cool place, away from direct sunlight and extreme temperatures. Ensure the clamps are not touching each other during storage.
- **Cable Inspection:** Periodically check the cables and clamps for any signs of damage, wear, or corrosion. Do not use the device if the cables or clamps are damaged.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No LEDs illuminate when connected.	<ul style="list-style-type: none">◦ Incorrect polarity connection.◦ Poor connection to battery terminals.◦ Battery is completely discharged.◦ Damaged cables or clamps.	<ul style="list-style-type: none">◦ Ensure red clamp is on positive (+) and black on negative (-).◦ Clean battery terminals and re-connect clamps firmly.◦ Attempt to charge the battery or test with a known good battery.◦ Inspect cables for damage; discontinue use if damaged.
Inconsistent readings.	<ul style="list-style-type: none">◦ Loose connections.◦ Corroded battery terminals.◦ Battery not fully settled after charging/discharging.	<ul style="list-style-type: none">◦ Ensure clamps are securely attached.◦ Clean battery terminals thoroughly.◦ Wait a few minutes after vehicle operation or charging before testing.

8. SPECIFICATIONS

Brand:	Ultimate Speed
Model Number:	296998
Product Type:	Electric Circuit Testing Device
Compatible Batteries:	6V and 12V Car and Motorcycle Batteries
Power Source:	Battery Powered (from vehicle battery)
Measurement Type:	Multimeter
Compliant Specifications:	EN 61010-1
Cable Length:	Approx. 80 cm
Tester Dimensions (approx.):	12 x 3.1 x 1.6 cm

9. WARRANTY AND SUPPORT

Specific warranty information is not provided in the product details. Please refer to your purchase documentation or contact the retailer for details regarding warranty coverage and customer support for your Ultimate Speed Battery and Alternator Tester.

