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› Performance Tool W2990 Digital Circuit Tester User Manual

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Model: W2990

INTRODUCTION

This manual provides detailed instructions for the safe and effective use of the Performance Tool W2990 Computer Safe LED Digital Circuit Tester. This device is designed to detect power, voltage, ground, and circuit integrity in DC electrical systems ranging from 3 to 48 volts. Please read this manual thoroughly before operation.



Image: The Performance Tool W2990 Digital Circuit Tester, featuring a transparent handle, sharp metal probe, coiled lead wire, and an alligator clip for connection.

SAFETY INFORMATION

Always observe basic safety precautions when using electrical testing equipment. Failure to do so may result in injury or damage to the device or vehicle.

- Ensure the vehicle's ignition is off before connecting or disconnecting the tester, unless specifically testing an active circuit.
- Wear appropriate personal protective equipment, such as safety glasses.
- Do not use the tester on AC circuits. This device is designed for DC voltage only (3-48V).
- Avoid contact with moving parts or hot surfaces when working in engine compartments.
- The W2990 is computer-safe, drawing less than 10mA, minimizing risk to sensitive electronics. However, always exercise caution.

PRODUCT COMPONENTS

- **Digital LCD Display:** Shows accurate voltage readings.
- **LED Indicators:** Backlit LEDs (Red for Power, Green for Ground) for quick identification.

- **Sharp Probe:** For piercing wire insulation or contacting terminals.
- **Coiled Lead Wire:** Extends from 3 to 12 feet for flexible reach.
- **Alligator Clip:** For secure connection to a ground or power source.
- **Durable Storage Case:** For protection and portability.

SETUP

1. **Unpack the Tester:** Remove the W2990 circuit tester from its storage case.
2. **Identify Components:** Familiarize yourself with the probe, coiled wire, alligator clip, LCD display, and LED indicators.
3. **Prepare for Connection:** Ensure the area you are testing is accessible and safe.

OPERATING INSTRUCTIONS

The Performance Tool W2990 is designed for ease of use. Follow these steps to test electrical circuits:

1. **Connect the Ground Clip:** Attach the alligator clip securely to a known good ground point on the vehicle chassis or battery negative terminal. Ensure a clean, metal-to-metal connection for accurate readings.
2. **Test for Power:** Carefully touch the sharp probe to the circuit or wire you wish to test.
 - If power is present, the LCD display will show the voltage value, and the LED indicator will illuminate **RED**.
 - If no power is present, the display will show 0V, and no red LED will light.
3. **Test for Ground (Continuity):** To test for ground, connect the alligator clip to a known positive 12V source (e.g., battery positive terminal). Then, touch the probe to the circuit or wire you suspect is a ground.
 - If a ground is present, the LED indicator will illuminate **GREEN**. The LCD display may show a low voltage reading if there's a slight voltage drop, or 0V if it's a perfect ground.
 - If no ground is present, no green LED will light.
4. **Read Voltage Values:** The large LCD display provides precise DC voltage readings between 3 and 48 volts.
5. **Disconnect:** Once testing is complete, carefully remove the probe from the circuit and disconnect the alligator clip. Store the tester in its case.

MAINTENANCE

- **Cleaning:** Wipe the tester with a clean, dry cloth after each use. Do not use abrasive cleaners or solvents.
- **Storage:** Always store the circuit tester in its provided durable case to protect it from damage and dust. Keep it in a dry environment.
- **Probe Condition:** Periodically inspect the probe tip for sharpness and damage. A dull or bent probe may not make proper contact.
- **Wire Integrity:** Check the coiled lead wire and alligator clip for any signs of fraying, cuts, or corrosion. Replace the unit if damage is observed that could compromise safety or functionality.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Tester does not light up or display voltage.	No power/ground in the circuit being tested. Poor connection of the alligator clip. Damaged internal wiring or components.	Verify the circuit with a known good power/ground source. Ensure the alligator clip has a clean, secure connection to a known good ground or power source. Inspect the tester for visible damage. If damaged, discontinue use.
Inaccurate voltage readings.	Poor connection at the probe or alligator clip. Testing outside the 3-48V DC range.	Re-establish secure connections. Clean contact points if necessary. Confirm the circuit voltage is within the tester's specified range.
LED indicator (red/green) not working.	Faulty LED. Internal circuit damage.	If the LCD works but the LED does not, the unit may be defective. Discontinue use and contact customer support if under warranty.

SPECIFICATIONS

Model Number	W2990
Brand	Performance Tool
Voltage Range	3 to 48 Volts DC
Measurement Type	Voltmeter
Power Source	Hand Powered (draws power from circuit being tested)
Computer Safe	Yes (draws less than 10mA)
Lead Wire Length	3 to 12 feet (recoil)
Item Dimensions (L x W x H)	0.7 x 1 x 7 inches
Item Weight	0.75 Pounds (approx. 12 ounces)
Included Components	1 Performance Tool W2990 Digital Circuit Tester with Storage Case
Batteries Required	No

WARRANTY INFORMATION

The Performance Tool W2990 Digital Circuit Tester comes with a **LIMITED WARRANTY**. For specific terms and conditions, please refer to the warranty documentation included with your purchase or contact Performance Tool customer support. Keep your proof of purchase for warranty claims.

CUSTOMER SUPPORT

For further assistance, technical support, or warranty inquiries, please visit the official Performance Tool website or contact their customer service department. You can also explore other products from the brand:

[Visit the Performance Tool Store](#)

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