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> allsun GMEM287 Automotive Electrical Circuit Tester Instruction Manual

## allsun GMEM287

# allsun GMEM287 Automotive Electrical Circuit Tester Instruction Manual

## INTRODUCTION

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The allsun GMEM287 Automotive Electrical Circuit Tester is a versatile diagnostic tool designed for automotive electrical systems. It allows technicians and DIY enthusiasts to quickly and accurately test various electrical parameters, ensuring efficient troubleshooting and maintenance.

## PRODUCT OVERVIEW

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### Components



Operation Voltage:8~24V DC

DC Voltage Range:3~24Vdc

Overload Protection:8A

**Image Description:** A detailed diagram of the allsun GMEM287 circuit tester, highlighting its various components including the probe tip, illuminator, test indicator, voltage indicator LEDs, rock switch, selection switch, touch metal area, red and black battery clips, and the auxiliary ground lead.

## Key Functions



**Image Description:** A visual representation listing the multi-functional capabilities of the GMEM287 circuit tester, such as testing continuity, voltage polarity, DC voltage measurement, checking lamps and electric motors, and locating short circuits.

- Tests for continuity
- Tests the polarity of a voltage
- Measures DC voltage from 2V to 24V
- Checks lamps and electric motors
- Follows and locates short circuits
- Tests for bad ground contacts
- Features an illumination function for dark environments

## **SPECIFICATIONS**

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# MULTI-FUNCTION

1. Tests for continuity
2. Tests the polarity of a voltage
3. Measures dc voltage from 2V to 24V
4. Checks lamp
5. Checks electric motor.
6. Follows and locates short circuits
7. Tests for bad ground contacts



**Image Description:** A graphic displaying the key specifications of the allsun GMEM287, including operation voltage, cable length, DC voltage measurement range, overload protection, size, and weight.

Specification	Value
Operation Voltage	8-24V DC
DC Voltage Measurement Range	2-24V DC
Overload Protection	8A (Unit disconnects automatically if current exceeds 8A)
Cable Length	Approx. 5m (16ft)
Size (Main Body)	27.4 x 5.3 x 4.2 cm
Weight	Approx. 385g
Power Source	Vehicle Battery Powered
Upper Temperature Rating	125 Degrees Celsius
Measurement Type	Voltmeter

### Connecting to Vehicle Battery

The allsun GMEM287 is powered directly by the vehicle's battery. Follow these steps to connect the tool:

1. Connect the **RED** battery clamp to the **POSITIVE** terminal of the vehicle's battery.
2. Connect the **BLACK** clamp to the **NEGATIVE** terminal of the vehicle's battery.
3. Once connected, the tool will power on, and the display will activate.



**Image Description:** A hand connecting the red and black clamps of the GMEM287 circuit tester to the positive and negative terminals of a car battery, illustrating the power setup.

**CABLE LENGTH: ABOUT 5M**



**USING ILLUMINATION**



**Image Description:** A series of diagrams illustrating different ways to connect the circuit tester for various diagnostic tasks, including direct battery connection, testing components, and checking for shorts.

## OPERATING INSTRUCTIONS

### Voltage & Polarity Testing

To test for voltage and polarity, contact the probe tip to the circuit point. The tool's display will show the voltage reading, and the LEDs will indicate polarity:

- A **RED** LED indicates positive voltage.
- A **GREEN** LED indicates negative voltage (ground).



**Image Description:** The allsun GEMEM287 circuit tester held in a hand, with its display showing operation voltage, DC voltage range, and overload protection specifications. The probe tip is visible.

### **Continuity Testing**

Connect the auxiliary ground lead to a known good ground. Touch the probe tip to the component or wire you wish to test. If the circuit is continuous, the green LED will light and a beep tone will sound.

### **Short Circuit Tracing**

The tool's long cable allows you to follow and locate short circuits along the entire length of the vehicle without constantly searching for suitable vehicle grounds. The audible tone and LED indicators will guide you to the fault location.

### **Component Activation**

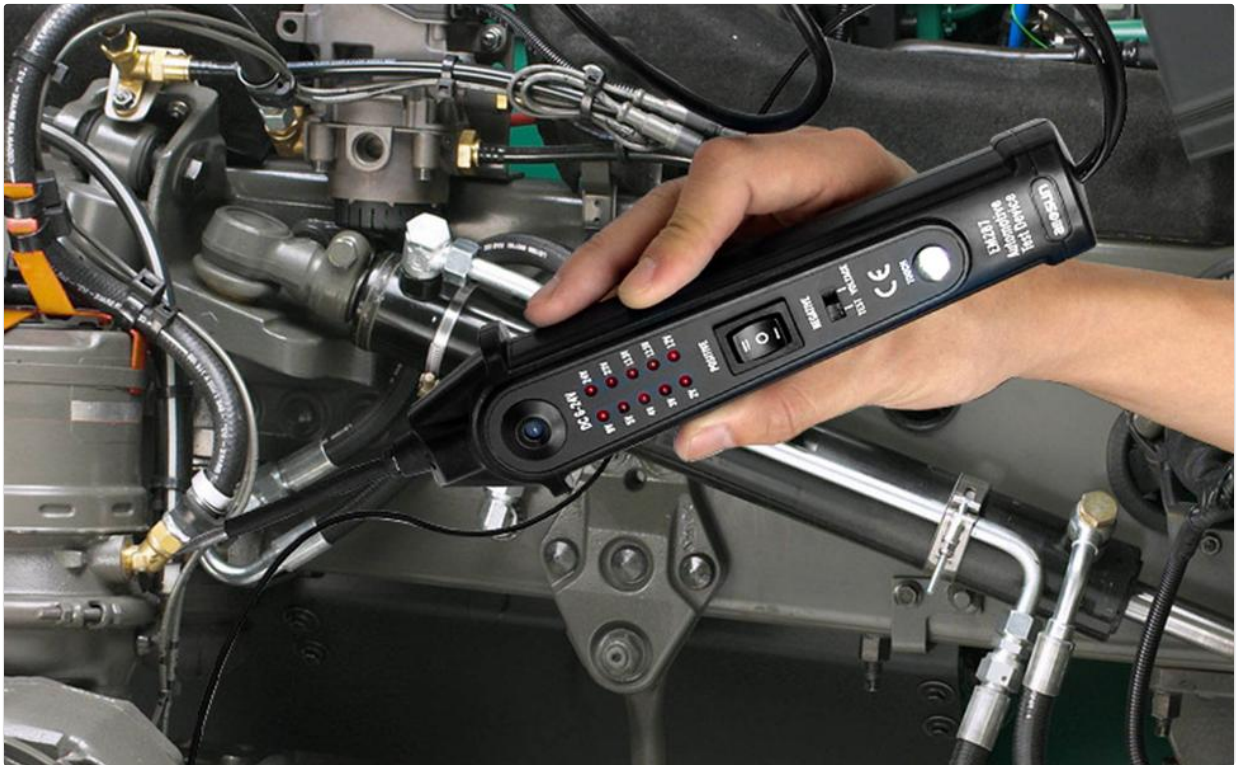
By depressing the power switch (rocker switch) forward or backward, you can conduct a positive or negative battery current to the probe tip for testing the function of an electrical component without the use of jumper wires. This is useful for activating components like fuel pumps, starter solenoids, magnetic clutches, blower motors, cooling fans, and lights.

### **Ground Testing**

Test for poor ground contacts instantly without performing voltage drop tests. The green LED will indicate a good ground connection.

## Illumination Function

The tool features a built-in flashlight to illuminate the test area, enabling automotive technicians to work in dark environments.



**Image Description:** A split image showing the long cable length of the GMEM287 circuit tester on the left, and a hand demonstrating the built-in flashlight illumination feature on the right, useful for working in low-light conditions.

## MAINTENANCE

### Cleaning

Keep the tool dry, clean, and free from oil, water, or grease. Use a mild detergent on a clean cloth to clean the outside of the tool when necessary.

### Overload Protection

The tool is short-circuit protected. Its internal circuit breaker will trip if it becomes overloaded (current exceeds 8A). This protects the tool from damage. If the circuit breaker trips, allow it to cool before resuming use.

## TROUBLESHOOTING

- **No Power:** Ensure the battery clamps are securely connected to the correct terminals of the vehicle battery. Check for corrosion on battery terminals.
- **Incorrect Readings:** Verify that the probe tip is making good contact with the circuit. Ensure the tool is in the correct operating mode for the test being performed.
- **Circuit Breaker Trips:** If the internal circuit breaker trips, it indicates an overload. Disconnect the probe from the circuit, allow the tool to cool, and check the circuit for shorts or excessive current draw before retesting.
- **No Audible Tone/LED Indication:** Check battery connections. Ensure the tool is functioning correctly

by performing a quick self-test on a known good circuit.

## WARRANTY & SUPPORT

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### Warranty Information

This allsun GMEM287 Automotive Electrical Circuit Tester comes with a **1-Year Warranty** from the date of purchase, covering manufacturing defects and malfunctions under normal use. Please retain your proof of purchase for warranty claims.

### Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact allsun customer support. Refer to the contact information provided with your product packaging or visit the official allsun website for support resources.