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› FASLINK M10 Automotive Circuit Tester User Manual

FASLINK M10

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Model: M10

1. INTRODUCTION

The FASLINK M10 Automotive Circuit Tester is designed for diagnosing electrical system issues in 12V to 24V vehicles. It offers a wide 0-80V DC voltage testing range and supports various functions including voltage and polarity testing, component activation, continuity and grounding tests, trailer lights testing, short circuit location, and jumper functionality.



Figure 1: FASLINK M10 Automotive Circuit Tester

2. SAFETY INFORMATION

Always observe the following safety precautions when using the FASLINK M10 Automotive Circuit Tester:

- This tool is designed for 12V to 24V DC vehicle electrical systems. Do not use it on AC circuits or voltages outside this range.
- The circuit tester incorporates an LED circuit board for safer operation compared to traditional bulb test lights, protecting vehicle computer boards from potential damage.
- The probe tip is sharp. Use the insulation protective rubber cover when the tool is not in use to prevent injury.
- The device features overload protection. If the current exceeds 8A, the internal circuit breaker will automatically trip, accompanied by a buzzer warning. This protects both the user and the vehicle's electrical system.
- Ensure correct alligator clip connections (red to positive, black to negative) to maintain proper functionality

and prevent damage.

- Perform a quick self-test before each use to confirm the device is functioning correctly.



Figure 2: Overload Protection Feature

3. PRODUCT COMPONENTS

The FASLINK M10 Automotive Circuit Tester consists of the following main components:

- **Main Unit:** Features an LED display, polarity indicator lights (red/green), power switch, buzzer, and built-in LED flashlight.
- **Sharp Probe:** For piercing wires and accessing tight areas.
- **16.5ft Long Wire:** Provides extended reach for testing various parts of the vehicle.
- **Alligator Battery Clips:** Red for positive, black for negative connection to the vehicle battery.
- **Auxiliary Ground Clip:** Assists in continuity testing and jumper lead functionality.

Compact Design



Figure 3: Main Components Overview

4. SETUP

To prepare the FASLINK M10 for use:

1. Connect the **red alligator clip** to the positive (+) terminal of the vehicle's battery.
2. Connect the **black alligator clip** to the negative (-) terminal of the vehicle's battery.
3. The device is now powered on. The built-in LED flashlight will illuminate, and the display will show the battery voltage.
4. Before testing, perform a quick self-test by touching the probe to the positive and negative terminals of the battery to confirm correct polarity indication (red light for positive, green light for negative).

5. OPERATING INSTRUCTIONS

The FASLINK M10 offers multiple diagnostic functions:

5.1. Voltage & Polarity Test

To test voltage and identify polarity:

1. Connect the tester to the vehicle battery as described in the Setup section.
2. Touch the probe tip to the circuit or component you wish to test.
3. The LED display will show the DC voltage reading.
4. The polarity indicator light will illuminate: a **red light** indicates a positive (+) voltage, and a **green light** indicates a negative (-) voltage or ground.

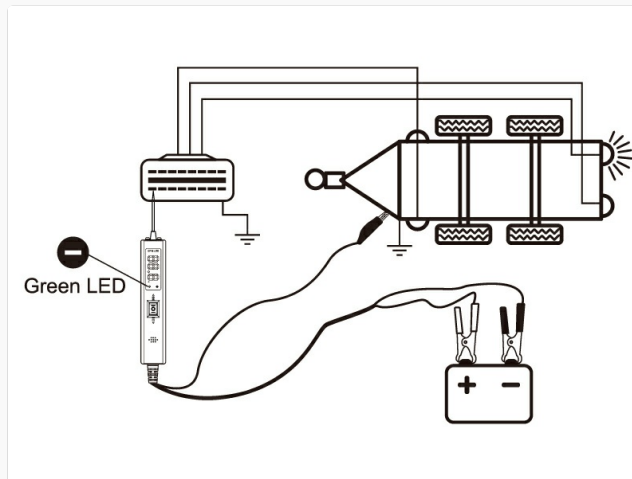


Figure 4: Positive Polarity Indication (Red LED)

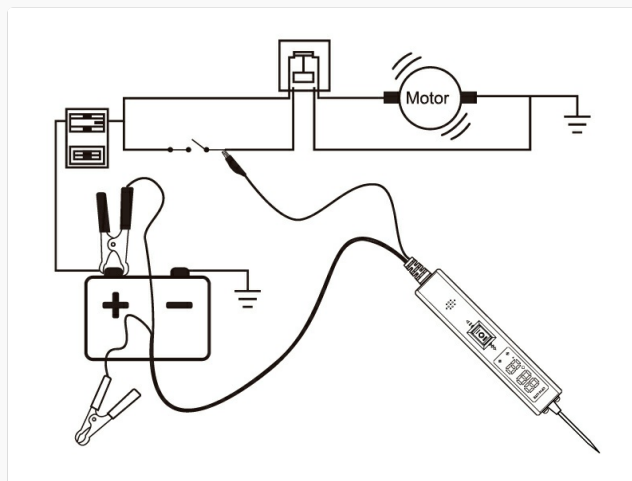


Figure 5: Negative Polarity Indication (Green LED)

5.2. Continuity Test

To test for continuity on a wire or component:

1. Connect the tester to the vehicle battery.
2. Connect the auxiliary ground clip to one end of the component or wire.
3. Touch the probe tip to the other end of the component or wire.
4. If continuity exists, the green LED will illuminate, and the buzzer will sound. The display will show 0.0V.

5.3. Component Activation

To activate components in or out of the vehicle:

1. Connect the tester to the vehicle battery.
2. Connect the auxiliary ground clip to a known good ground point if activating a positive-switched component, or directly to the component's ground terminal if activating a negative-switched component.
3. Touch the probe tip to the power input terminal of the component (e.g., starters, solenoids, fuel pumps, cooling fans, headlights, turn signals).
4. Toggle the power switch on the tester forward (for positive activation) or backward (for negative activation). The component should activate.
5. Observe the LED display for voltage and the polarity indicator.

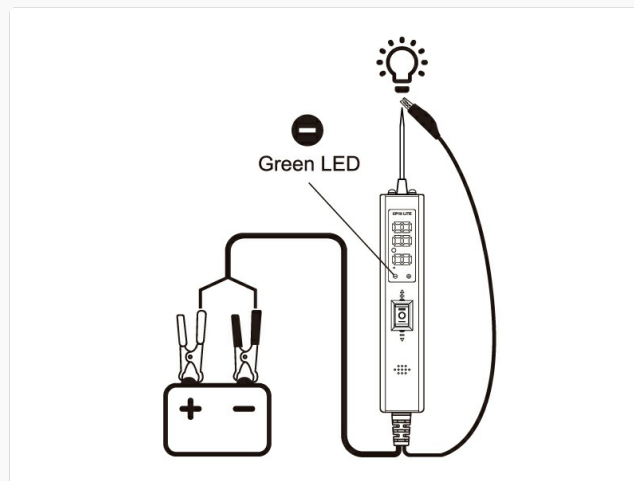


Figure 6: Component Activation Example

5.4. Short Circuit Tracing

To efficiently troubleshoot short circuits:

1. Connect the tester to the vehicle battery.
2. Identify the circuit suspected of having a short.
3. Trace the circuit with the probe. When the probe encounters a short to ground, the green LED will illuminate, and the buzzer will sound. For a short to power, the red LED will illuminate.
4. The overload protection will trip if the current draw exceeds 8A due to a direct short.

5.5. Grounding Test

To check for good grounding connections:

1. Connect the tester to the vehicle battery.
2. Touch the probe tip to the ground point you wish to test.
3. A good ground connection will be indicated by a green LED and a buzzer signal.

5.6. Jumper Lead Function

The tester can act as a jumper lead for certain applications:

1. Connect the tester to the vehicle battery.
2. Use the probe and the auxiliary ground clip to provide power or ground to a component for testing purposes.

3. Ensure the component's current draw does not exceed the 8A limit to prevent tripping the overload protection.

5.7. Trailer Lights Testing

The tester can be used to test trailer lamps and connections:

1. Connect the tester to the vehicle battery.
2. Connect the auxiliary ground clip to the trailer's ground.
3. Use the probe to test the various pins of the trailer connector or directly test the trailer lights.
4. Activate the desired circuit (e.g., brake lights, turn signals) using the power switch on the tester.



Figure 7: Versatile Applications of the M10 Tester

6. MAINTENANCE

- Keep the device clean and dry. Wipe with a soft, damp cloth if necessary. Do not use abrasive cleaners or

solvents.

- Always replace the protective rubber cover on the probe tip when not in use.
- Store the tester in a safe place, away from extreme temperatures and direct sunlight.
- The toggle power switch is replaceable if it becomes damaged.

7. TROUBLESHOOTING

- **Device not powering on:** Ensure the red and black alligator clips are securely connected to the correct battery terminals (red to positive, black to negative). Check the vehicle battery voltage.
- **Overload protection trips frequently:** This indicates the current draw exceeds 8A. Verify the circuit you are testing does not have a short or excessive load. The circuit breaker automatically resets after a short period.
- **Incorrect polarity indication:** Perform a self-test by touching the probe to the battery terminals. If the indications are reversed, recheck the alligator clip connections.
- **Inaccurate voltage readings:** Ensure good contact between the probe tip and the test point. Check battery connections for corrosion.

8. SPECIFICATIONS

Feature	Specification
Model Number	M10
Operating Voltage Range	0-80V DC
Overload Protection	8A (Automatic Trip)
Cable Length	16.5 ft
Weight	0.23 Kilograms
Certifications	CE, RoHS, UL

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the product packaging or contact FASLINK customer service through your retailer. Keep your purchase receipt for warranty claims.

