



[Manuals.plus](#) /
› [TopDiag](#) /
› Topdiag P55 Power Circuit Probe Kit Instruction Manual

TopDiag P55

Topdiag P55 Power Circuit Probe Kit Instruction Manual

Model: P55

- Introduction
- Safety Information
- Setup
- Operation
- Maintenance
- Troubleshooting
- Specifications
- Warranty & Support

1. INTRODUCTION

The Topdiag P55 Power Circuit Probe Kit is a versatile automotive electrical circuit tester designed for diagnosing various electrical issues in 12-24V vehicle systems. This tool allows for efficient testing of positive/negative poles, component activation, continuity, grounding, and short circuit tracing. It is suitable for a wide range of vehicles including cars, trucks, SUVs, excavators, boats, and backhoes.

P55

Automotive Electrical Circuit Tester



**Component
Activation**



Continuity Test



Ground Detection



**Trace Locate
Short Circuit**



**Positive and
Negative Detection**



Figure 1: Overview of the Topdiag P55 Power Circuit Probe Kit and its primary functions.



Figure 2: The Topdiag P55 supports a wide range of 12-24V vehicle electrical systems.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using the Topdiag P55. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always wear appropriate personal protective equipment, including safety glasses, when working on vehicle electrical systems.
- Ensure the vehicle's ignition is off and the parking brake is engaged before performing any tests.
- Do not use the device if it appears damaged or if the cables are frayed.
- Avoid contact with moving engine parts or hot surfaces.
- Do not exceed the maximum operating voltage of 30 Volts.
- Keep the device away from water and other conductive liquids.
- Use caution when probing live circuits to prevent accidental short circuits.

3. SETUP

Before using the Topdiag P55, ensure proper connection to the vehicle's power source.

1. **Connect the Red Clamp:** Attach the red battery clamp to the vehicle's positive (+) battery terminal.
2. **Connect the Black Clamp:** Attach the black battery clamp to the vehicle's negative (-) battery terminal or a suitable chassis ground point.
3. **Power On:** Once connected, the device is ready for use. The internal circuitry will power on.



Figure 3: Proper connection of the Topdiag P55 to a vehicle battery and indication lights.

4. OPERATING INSTRUCTIONS

The Topdiag P55 offers several diagnostic functions:

4.1 Positive and Negative Detection

This function identifies the polarity of a circuit.

- Touch the probe tip to the circuit point you wish to test.
- If the device lights up **red**, the circuit is positive (+).
- If the device lights up **green**, the circuit is negative (-).

4.2 Component Activation

Activate components like relays, solenoids, or actuators directly from the device.

- Connect the probe to the component's power input.
- Use the device's controls (e.g., the power switch or specific buttons if available) to apply power and activate the component. Observe the component's response.

4.3 Continuity Test

Test the path of electrical current through a circuit to identify broken wires or open circuits.

- Ensure the circuit is de-energized before testing continuity.
- Touch the probe tip to one end of the circuit or wire.
- Touch the grounding clip to the other end.
- The device will indicate continuity (e.g., a specific light or tone) if the circuit is complete.

4.4 Ground Detection

Verify proper ground connections.

- Connect the red clamp to a known positive source.
- Touch the probe tip to the point you suspect is a ground.
- If the device lights up **green**, it indicates a good ground connection.

4.5 Short Circuit Tracing

Locate the exact point of a short circuit.

- Identify the circuit with the suspected short.
- Follow the circuit path with the probe, observing the device's indicators. A change in indication (e.g., a sudden change in light color or a specific tone) can help pinpoint the short.
- *Note:* This process often involves isolating sections of the circuit to narrow down the location.

4.6 Torch Function

The P55 includes a dual LED torch for improved visibility in dark or poorly lit environments.

- Activate the torch function using the designated switch or button on the device.
- The LEDs will illuminate the work area, making it easier to see components and wiring.

P55 Supported Features

Simple, accurate and efficient operation, no need to shift gears.

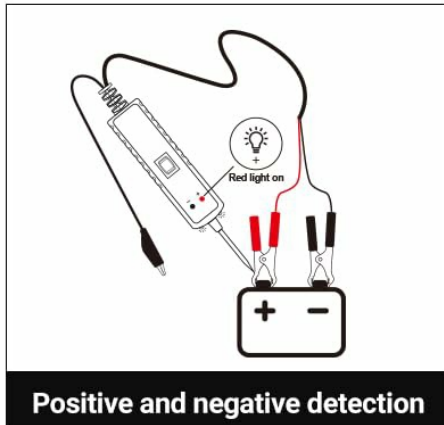
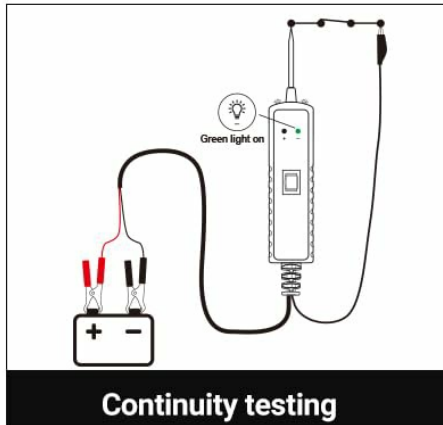
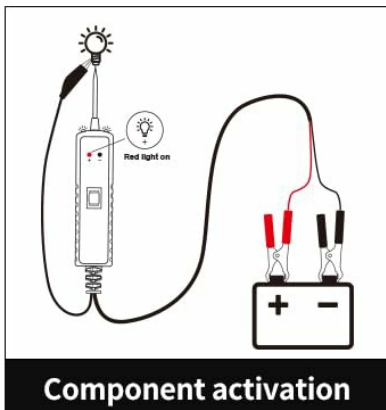
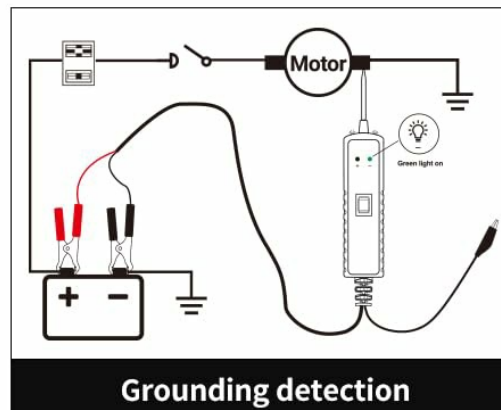


Figure 4: Visual representation of P55 supported features.

Torch function

Dual LED user-friendly design

Easy to use at night or in poorly lit environments



Figure 5: The P55's integrated torch function for working in low-light conditions.

5. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your Topdiag P55.

- **Cleaning:** Wipe the device with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is dry before storage.
- **Storage:** Store the P55 in a clean, dry place away from direct sunlight and extreme temperatures. Keep the probe tip protected to prevent damage.
- **Cable Inspection:** Regularly inspect the power cables and clamps for any signs of wear, cuts, or damage. Replace if necessary.

6. TROUBLESHOOTING

If you encounter issues with your Topdiag P55, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	Incorrect battery connection; vehicle battery is dead; damaged cable.	Ensure red clamp is on positive (+) and black clamp on negative (-). Check vehicle battery voltage. Inspect cables for damage.
Incorrect polarity indication.	Faulty circuit; incorrect connection.	Double-check the circuit you are testing. Ensure the device is properly grounded to the vehicle's negative terminal.
Component activation fails.	Component is faulty; insufficient power; incorrect connection.	Verify the component is functional. Ensure the P55 has a stable power supply. Confirm correct connection to the component.
Continuity test shows open circuit.	Broken wire; faulty switch/relay; poor contact.	Inspect the wire or component for visible damage. Ensure good contact between the probe and the test points.

7. SPECIFICATIONS

Technical specifications for the Topdiag P55 Power Circuit Probe Kit:

Product Description



Size: 135*35*20mm (for main body only)

Working voltage: 12-24V

Operating current: 80ma

Overload protection: 8A

Cable length: 4M

Weight: approx. 210g

Figure 6: Product dimensions and key specifications of the Topdiag P55.

- **Model:** P55
- **Working Voltage:** 12-24V DC
- **Maximum Operating Voltage:** 30 Volts
- **Operating Current:** 80mA
- **Overload Protection:** 8A
- **Cable Length:** 4M
- **Item Weight:** Approx. 210 Grams
- **Measurement Type:** Multimeter functions (polarity, continuity)
- **Included Components:** 1*P55 unit

8. WARRANTY & SUPPORT

For warranty information and technical support, please refer to the official TopDiag website or contact your authorized dealer. Keep your purchase receipt as proof of purchase for warranty claims.

Contact Information: Please visit www.topdiagtool.com for the latest support resources and contact details.

