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› Power Probe ECT3000B Short/Open Circuit Finder Instruction Manual

Power Probe ECT3000B

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Instruction Manual

1. INTRODUCTION

The Power Probe ECT3000 is a two-piece circuit tracer designed to efficiently locate shorted or open circuits in automotive electrical systems. It transmits a signal into an isolated circuit, allowing the receiver to trace the direction to the problem area. This tool is engineered to simplify diagnostics, reducing the need to remove interior trims and carpets.

Key features include an auto-signal locking mechanism for ease of use, an integrated flashlight to illuminate the workspace, and an automatic 10-minute shut-off feature to conserve battery life.

2. WHAT'S IN THE BOX

The Power Probe ECT3000B package typically includes the following components:

- ECT3000 Transmitter Unit
- ECT3000 Receiver Unit (Tracer)
- Connection Cables (PPTK0007 and PPTK0008, including alligator clips and various probe adapters)
- 2 x AAA Batteries (pre-installed or included)



Image: The Power Probe ECT3000B kit, showing the red transmitter and receiver units, along with various black and red connection cables, alligator clips, and probe tips.

3. KEY FEATURES

The ECT3000B is equipped with several features designed to enhance its diagnostic capabilities:

- **Short Circuit Location:** Efficiently identifies short circuits without requiring extensive disassembly of vehicle panels, molding, or carpet.
- **Wire Tracing:** Allows users to trace wires to determine their routing and connections within the vehicle's electrical system.
- **Open Circuit Detection:** Capable of finding open circuits, faulty switches, or breaks within wires.
- **Adjustable Sensitivity:** The receiver offers sensitivity adjustment from 25mm to 200mm, enabling accurate tracing even through various materials and over objects.
- **Visual and Sound Indicators:** Provides clear visual indicators (LEDs) and audible tones that intensify as the receiver approaches the fault, with an option to turn off the sound.
- **Automatic Signal Locking:** Simplifies the tracing process by automatically locking onto the signal, reducing manual adjustments.
- **Integrated Flashlight:** Built-in light assists in illuminating dark work areas.
- **Automatic Shut-off:** Conserves battery life by automatically powering down after 10 minutes of inactivity.

ECT3000

ELECTRICAL SHORT & OPEN FINDER

The ECT3000 makes locating shorts and opens quicker and with more accuracy than ever before, without the need to remove panels, mouldings or carpets.

When connected to an isolated circuit the ECT3000 will quickly determine wiring shorts to ground and open circuits, including breaks in wires and faults in switches. The ECT3000 LED direction indicator will navigate you straight to the problem, FAST.



Trace Short to ground circuits.

No need to remove carpets and trims.
Saving time and money.



Find broken wires.

Makes it quicker finding faults.
Getting the vehicle back to customer faster.



Sensitivity from 25mm to 200mm

Means you can move over objects.
A fast way to track faults.



Test and find intermittent faults.

You can conduct cable wiggle tests.
No need to strip looms down to find a fault.



Visual navigation and sound indicators.

Bright indicators lights gets you close to the fault.
The sound can be turned off.

KIT CONTENTS ECT3000

- 3 x light bulb socket adapters for testing lighting systems
- 1 x lead with an alligator clip for connecting to a wire or terminal
- 1 x blade probe adapter for tapping into fuse terminals
- 1 x back probe adapter for back probing connectors
- 1 x piercing probe
- 1 x universal adapter
- 2 x AAA Batteries



Image: A detailed diagram highlighting the key features of the ECT3000, including its ability to trace shorts, find broken wires, adjustable sensitivity, and visual/sound indicators. It also lists typical kit contents.

4. SETUP AND INITIAL USE

4.1. Battery Installation

The ECT3000B units (transmitter and receiver) are powered by AAA batteries. Ensure fresh batteries are installed for optimal performance. The battery compartments are typically located on the back or side of each unit. Follow the polarity indicators (+/-) when inserting batteries.

4.2. Connecting the Transmitter

To begin, connect the ECT3000 Transmitter to the circuit you wish to test. Ensure the circuit is isolated from the vehicle's main power supply to prevent damage to the tool or vehicle electronics. Use the provided cables and adapters (alligator clips, probe tips) to establish a secure connection. The transmitter will send a signal through the wire.

4.3. Powering On

Turn on both the transmitter and receiver units. The transmitter typically has a tone on/off switch. The receiver will have controls for sensitivity and power.

5. OPERATING INSTRUCTIONS

5.1. Tracing Short Circuits

When tracing a short to ground, connect the transmitter to the suspected shorted wire. Move the receiver along the wire path. The signal strength indicators (visual LEDs and audible tone) on the receiver will increase as you approach the location of the short. The receiver's directional arrow will guide you towards the fault. Once the signal drops or changes significantly, you have likely passed the short, indicating the fault is behind you.



Image: The ECT3000B transmitter is shown connected within the dashboard area of a vehicle, while a user holds the receiver unit, demonstrating its use for tracing electrical circuits in a confined space.

5.2. Tracing Open Circuits

For open circuits, connect the transmitter to one end of the wire. Move the receiver along the wire. The signal will be present until you reach the point of the open circuit. The signal will then disappear or significantly weaken, indicating the break in the wire. The auto-signal locking feature helps maintain a consistent reading as you trace.



Image: A user is shown tracing a circuit near the headliner of a car using the ECT3000B receiver, illustrating the tool's versatility in reaching various parts of a vehicle's electrical system.

5.3. Sensitivity Adjustment

Adjust the receiver's sensitivity level (Sense Level) as needed. Higher sensitivity is useful for tracing signals through thicker materials or from a greater distance, while lower sensitivity can help pinpoint the exact location of a fault when you are very close to the wire.

6. MAINTENANCE

6.1. Cleaning

Keep the ECT3000B units clean and free from dirt, grease, and moisture. Wipe the exterior with a soft, damp cloth. Do not

use abrasive cleaners or solvents.

6.2. Battery Replacement

Replace batteries when the low battery indicator illuminates or when the units fail to power on. Always use fresh AAA alkaline batteries. Remove batteries if the tool will not be used for an extended period to prevent leakage.

6.3. Storage

Store the ECT3000B in a dry, cool place, away from direct sunlight and extreme temperatures. Keep the units and accessories in their original packaging or a protective case to prevent damage.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Units do not power on	Dead or incorrectly installed batteries	Replace batteries with fresh AAA batteries, ensuring correct polarity.
Inaccurate or inconsistent readings	Circuit not properly isolated; interference from other wires; incorrect sensitivity setting	Ensure the circuit under test is fully isolated. Adjust receiver sensitivity. Move away from other active electrical components.
No signal detected	Transmitter not connected properly; transmitter not powered on; open circuit before connection point	Verify all connections to the transmitter. Ensure transmitter is powered on. Check for an open circuit closer to the power source.
Signal too strong/weak	Receiver sensitivity too high/low	Adjust the 'Sense Level' on the receiver to an appropriate level for the environment and distance.

8. SPECIFICATIONS

Attribute	Detail
Brand	Power Probe
Model Number	ECT3000B
Power Source	Battery Powered (2 x AAA batteries included)
Color	Red
Item Weight	1.63 Pounds
Product Dimensions (L x W x H)	11.02 x 2.28 x 7.4 inches
Minimum Operating Voltage	6 Volts (DC)
Upper Temperature Rating	50 Degrees Celsius
Measurement Type	Ohmmeter (for circuit continuity)
UPC	816724020077

9. WARRANTY INFORMATION

The Power Probe ECT3000B comes with an exclusive 2-year warranty from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty card included with your product or visit the official Power Probe website.

10. SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Power Probe customer support. You can typically find contact information, including phone numbers and email addresses, on the official Power Probe website or within the product packaging.

Visit the [Power Probe Store on Amazon](#) for more information and product resources.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question