

BK120

SmartTrace™ Breaker Finder

Safety Information



2-Year Limited Warranty.
See the Users Guide for the full warranty.

A **Warning** identifies conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

⚠⚠ Warning

To prevent possible electric shock or personal injury:

- Read all safety information before you use the Product.
- Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.
- Carefully read all instructions.
- Do not use the Product if it operates incorrectly.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Limit operation to the specified measurement category, voltage, or amperage ratings.
- Do not exceed the Measurement Category (CAT) rating of the lowest-rated individual component of a Product, probe, or accessory.

- Use Product-approved Measurement Category (CAT), voltage, and amperage-rated accessories (probes, test leads, and adapters) for all measurements.
- Measure a known voltage first to make sure that the Product operates correctly.
- Have an approved technician repair the Product.
- Hold the Product behind the tactile barrier. (Breaker Finder only)
- Batteries contain hazardous chemicals that can cause burns or explode. If exposure to chemicals occurs, clean with water and get medical aid.
- Repair the Product before use if the battery leaks. Battery leakage may create a shock hazard or damage the Product.
- Remove the batteries if the Product is not used for an extended period of time, or if stored in temperatures above 50 °C. If the batteries are not removed, battery leakage may result.
- The battery door must be closed and locked before you operate the Product.
- Do not disassemble or crush battery cells and battery packs.
- All appliances or equipment on the circuit being tested should be unplugged to help avoid erroneous readings.
- Do not use this product as comprehensive diagnostic instrument. Use it as a simple instrument to detect nearly all probable common improper wiring conditions.
- Refer all indicated problems to a qualified technician.
- Do not use the Product to indicate the quality of ground.
- Do not use the Product to detect 2 hot wires in circuit.
- Do not use the Product to detect a combination of detects.
- Do Not use the Product to indicate reversal of grounded and grounding conductors.
- Consult the GFCI manufacturer's installation instructions to determine that the GFCI is installed in accordance with the manufacturer's specifications.
- Check for correct wiring of receptacle and all remotely connected receptacles on the branch circuit.
- Operate the test button on the GFCI installed in the circuit. The GFCI must trip. If it does not – do not use the circuit – consult an electrician. If the GFCI does trip, reset the GFCI. Then, insert the Product into the receptacle to be tested.

- Push the GFCI button on the Product for a minimum of 6 seconds to test the GFCI condition. If the Product fails to trip the GFCI, the GFCI may be faulty or mis-wired. Consult an electrician.
- When testing a GFCI installed in a 2-wire systems (no ground wire available), the Product may give a false indication that the GFCI is not functioning properly. If this occurs, recheck the operation of the GFCI using its test and reset buttons. The GFCI test function demonstrates proper operation.
- Do not rely on the Product to detect the presence or absence of voltage on a conductor for safety purposes. A single pole non-contact voltage detector such as this Product is not suitable to determine if a circuit is hazardous. A voltmeter or 2-pole voltage detector is necessary to confirm the absence of hazardous voltage prior to commencing work.
- When using the Product, if the tip does not glow, voltage can still be present.
- The Product can indicate active voltage in the presence of electric fields of sufficient strength generated from the source (MAINS) voltage. If the field strength is low, the Product might not provide indication of live voltages. Lack of an indication occurs if the Product is unable to sense the presence of voltage which is influenced by several factors including, but not limited to:
 - Shielded wire/cables
 - Thickness and type of insulation
 - Distance from the voltage source
 - Fully isolated users that prevent an effective ground
 - Receptacles in recessed sockets/ differences in socket design
 - Condition of the Product and Batteries
- Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.

Symbols

	Consult user documentation.
	WARNING. RISK OF DANGER.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
CAT III	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
	Battery

Specifications

Transmitter

Operating voltage	110 V ac to 125 V ac
Operating frequency	50/60 Hz
GFCI test current	6 mA to 8 mA
GFCI test indication	Yes
Wiring indications	1 red, 2 green LEDs
Power consumption (typical)	6 mA
Operating Altitude	Up to 2000 m
Operating temperature	5 °C to +40 °C (41 °F to + 104 °F)
Storage temperature	0 °C to +50 °C (32 °F to + 122 °F)
Operating and storage humidity	80 %RH for temperatures up to 31 °C (87.8 °F) decreasing linearly to 45 %RH at 40 °C (104 °F)
Dimension	86 mm x 48 mm x 53 mm
Weight	Approx. 0.13 lb (0.06 kg)
Safety	UL 1436, CSA C22.2 No. 160, Pollution Degree 2, CAT III 150 V
Ingress protection	IP 40
Compatibility (EMC)	USA (FCC) 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

Breaker Finder

Breaker finder indication ...	Visual (green) and audio
NCV detection range	90 V ac to 240 V ac, 50/60 Hz
	Sensitivity (typical):
	0.5" at 90 V (purple)
	0" at 90 V (beeping red)
NCV indication	Visual (red) and audio
	dual-sensitivity detection
	Proximity to voltage source: Visual (purple)
	At the voltage source: Visual (red) and audio
Flashlight	Yes (white)
Auto power off	Approx. 5 minutes of non use
Low battery indication	Yes
Battery	2 AAA IEC LR03
Battery life (typical)	Up to 10 hours
Operating Altitude	Up to 2000 m
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	0 °C to 50 °C (32 °F to 122 °F)
	(battery removed)
Operating and storage humidity	80 %RH for temperatures up to 31 °C (87.8 °F) decreasing linearly to 45 %RH at 40 °C (104 °F)
Dimension	183 mm x 40 mm x 30 mm
Weight	Approx. 0.17 lb (0.08 kg)
Safety	IEC 61010-1: Pollution Degree 2 IEC 61010-2-030: CATIII 150 V
Ingress protection	IP 40
Compatibility (EMC)	USA (FCC) 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

Contact Fluke

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To register your product, view, print, or download the latest manual or manual supplement, go to our website.

Fluke Corporation
6920 Seaway Blvd.
Everett, WA 98203
U.S.A

Fluke Europe B.V.
P.O. Box 1186
5602 BD Eindhoven,
The Netherlands