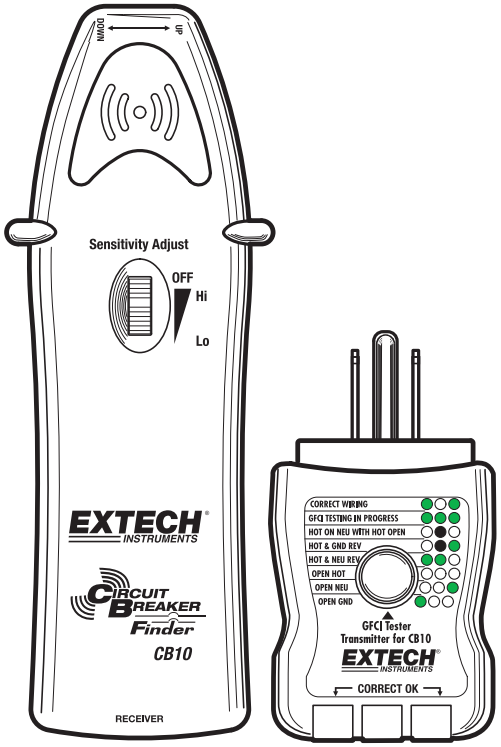
User Guide

EXTECH INSTRUMENTS

Circuit Breaker Finder and GFCI Receptacle Tester

Extech CB10



Introduction

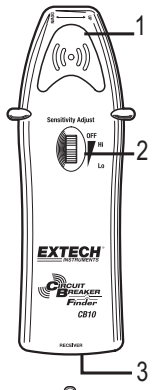
Congratulations on your purchase of the Extech Model CB10 Circuit Breaker Finder and Receptacle Tester. This instrument is shipped fully tested and calibrated and, with proper use, will provide years of reliable service.

Meter Description

Receiver

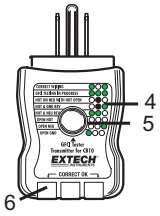
1. Indicating LED and Beeper
2. ON/OFF and Sensitivity adjust
3. Transmitter storage plug

Note that battery compartment is located on rear of receiver



Transmitter

4. Receptacle LED coding scheme
5. GFCI test button
6. Receptacle LED's



Safety

This symbol adjacent to another symbol, terminal or operating device indicates that the operator must refer to an explanation in the Operating Instructions to avoid personal injury or damage to the meter.

WARNING This **WARNING** symbol indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.

CAUTION This **CAUTION** symbol indicates a potentially hazardous situation, which if not avoided, may result damage to the product.

This symbol indicates that a device is protected throughout by double insulation or reinforced insulation.

Specifications

Operating Voltage	90 to 120V
Operating Frequency	47 to 63Hz
Power supply	9V battery (receiver)
Operating Temperature	41ºF to 104ºF (5ºC to 40ºC)
Storage Temperature	-4ºF to 140ºF (-20ºC to 60ºC)
Operating Humidity	Max 80% up to 87ºF (31ºC) decreasing linearly to 50% at 104ºF (40ºC)
Storage Humidity	<80%
Operating Altitude	7000ft. (2000meters) maximum.
Weight	5.9oz (167g)
Dimensions	8.5" x 2.2" x 1.5" (215 x 56 x 38mm)
Approvals	UL CE
UL Listed	The UL mark does not indicate that this product has been evaluated for the accuracy of its readings.

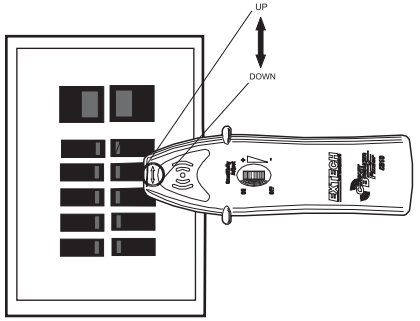
Operation

WARNING: Always test on a known good circuit before use.

WARNING: Refer all indicated problems to a qualified electrician.

Locating a Circuit Breaker or Fuse

The transmitter injects a signal onto the circuit which can be detected by the receiver. The receiver will beep when the signal is detected. The sensitivity adjustment allows for tracing and pinpointing the exact circuit breaker or fuse protecting the selected circuit.



1. Plug the Transmitter / Receptacle Tester into a powered outlet. The two green LED's should illuminate.

2. Rotate the Receiver's Sensitivity adjustment from the OFF position to the HI position. The red LED should turn on. If the LED does not turn on, replace the battery.
3. Test the operation of the Receiver by placing it in close proximity to the transmitter. The receiver should beep and the LED should flash.
4. At the breaker panel, set the sensitivity to the HI position and hold the receiver as indicated by the "UP – DOWN" label.
5. Move the receiver along the row of breakers until the selected circuit is identified by the beep and flashing light.
6. Reduce the sensitivity as needed to pinpoint the exact circuit breaker controlling the circuit.

Receptacle Wiring Test

CORRECT WIRING	●○●
GFCI TESTING IN PROGRESS	●●●
HOT ON NEUTRAL WITH HOT OPEN	○●○
HOT AND GROUND REVERSED	○●●
HOT AND NEUTRAL REVERSED	●●○
OPEN HOT	○○○
OPEN NEUTRAL	○○●
OPEN GROUND	●○○

○ OFF ● ON

1. Plug the Transmitter / Receptacle tester into the outlet.
2. The three LED's will indicate circuit condition. The diagram lists all of the conditions that the CB10 can detect. The LED's in this diagram represent the view from the GFCI button side of the transmitter. When viewing the other side of the transmitter the LED's will be a mirror image of those shown here.
3. The tester will not indicate the quality of the ground connection, 2 hot wires in a circuit, a combination of defects, or reversal of ground and neutral conductors.

Receptacle GFCI Test

1. Before using the tester, press the TEST button on the installed GFCI receptacle, the GFCI should trip. If it does not trip, do not use the circuit and call a qualified electrician. If it does trip, press the RESET button on the receptacle.
2. Plug the Transmitter / Receptacle tester into the outlet. Verify that the wiring is correct as described above.
3. Press and hold the test button on the tester for at least 8 seconds, the indicator lights on the tester will shut off when the GFCI trips.
4. If the circuit does not trip, either the GFCI is operable but the wiring is incorrect, or the wiring is correct and the GFCI is inoperable.

Replacing the Battery

1. When the battery drops below the operating voltage the receiver's LED will not light. The battery should be replaced
2. Remove receiver battery cover by removing the screw using a Philips head screwdriver. (The Transmitter is line powered.)
3. Install 9 volt battery observing the correct polarity.
4. Re-install battery cover
5. Dispose of the old battery properly.

Warranty

FLIR Systems, Inc. warrants this Extech Instruments brand device *to be free of defects in parts and workmanship for* ***one year*** *from date of shipment (a six month limited warranty applies to sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department for authorization. Visit the website www.extech.com for contact information. A Return Authorization (RA) number must be issued before any product is returned. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. FLIR Systems, Inc. specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. FLIR's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.*