English

User Manual

PCE-160 CB Cable Detector

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Contents

1 Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. Damage or injuries caused by non-observance of the manual are excluded from our liability and not covered by our warranty.

- The device must only be used as described in this instruction manual. If used otherwise, this can cause dangerous situations for the user and damage to the meter.
- The instrument may only be used if the environmental conditions (temperature, relative humidity, …) are within the ranges stated in the technical specifications. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity or moisture.
- Do not expose the device to shocks or strong vibrations.
- The case should only be opened by qualified PCE Instruments personnel.
- Never use the instrument when your hands are wet.
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth. Use only pH-neutral cleaner, no abrasives or solvents.
- The device must only be used with accessories from PCE Instruments or equivalent.
- Before each use, inspect the case for visible damage. If any damage is visible, do not use the device.
- Do not use the instrument in explosive atmospheres.
- The measurement range as stated in the specifications must not be exceeded under any circumstances.
- The unit must not be used on live AC lines.
- The unit may only be used on DC lines with a maximum voltage of 42 V DC.
- Non-observance of the safety notes can cause damage to the device and injuries to the user.

We do not assume liability for printing errors or any other mistakes in this manual.

We expressly point to our general guarantee terms which can be found in our general terms of business.

If you have any questions please contact PCE Instruments. The contact details can be found at the end of this manual.

2 Specifications

Specification	Explanation
Cable identification	Pulsating tone, continuous tone
Further measuring function	Continuity check
Transmitter connection	Crocodile clips
Receiver connection	Headphone jack 3.5 mm
Environmental conditions	0...50 °C / 32 ... 122 °F, 5 ... 95 % RH
Power supply	1 x 9 V block battery each
Dimensions	
Receiver	260 x 44 x 25 mm
Sensor length	180 mm semi-rigid
Transmitter	70 x 56 x 22 mm
Connection cable	approx. 600 mm
Weight without battery	
Receiver	approx. 202 g
Transmitter	approx. 61 g

3 Scope of delivery

Cable locator PCE-160 CB consisting of:
1 x transmitter
1 x receiver
2 x 9 V block battery
1 x carrying bag
1 x user manual

4 System description

① Measurement key
② On / Off, sensitivity
③ Sensor
④ Test leads
⑤ Switch transmitter
⑥ Headphone jack

5 Preparation

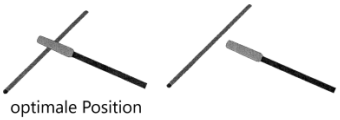
- Unpack the measuring device and check the scope of delivery.
- Open the battery compartment on the back of the receiver and connect the battery, observing correct polarity.
- When closing the battery compartment, make sure it is properly locked.
- Using a Phillips screwdriver, open the back of the transmitter and connect the battery, observing correct polarity.
- You can select the sound signal via the slide switch to the left of the battery:
  1) Continuous tone
  2) Pulsating sound

- Close the transmitter again.

6 Operation

6.1 Sensor arm / Sensor

The sensor arm is of semi-rigid design and can be pre-bent according to the respective situation. The sensor is located at the tip of the sensor arm under the black cap.
You will get the best search result if you can place the sensor at a 90° angle to the cable you are looking for.



6.2 On / off, sensitivity

Transmitter
Slide the switch on the left side of the transmitter to the position required for the measuring task.
To test the battery, slide the switch to the "TONE" position. If the red LED is not lit, replace the battery.
To switch off, slide the switch to the middle position.

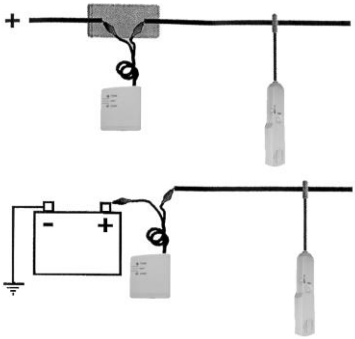
Receiver
Turn on the receiver using the rotary control on the right-hand side.
The further you turn the control clockwise, the greater the search depth.
When tracing a cable or performing other tests that require the receiver, press and hold the measurement key.
To switch off, turn the rotary control anticlockwise to the end position.

6.3 Cable detection / cable routing

Household / industrial installation
Make sure that the cable you are looking for is free of voltage.
Slide the switch on the transmitter to the "TONE" position.
Switch on the receiver by turning the rotary control to the middle position. Guide the sensor close to the connection cables of the transmitter. As the sensor approaches the connection cable of the transmitter, the volume of the signal on the receiver will increase.
If the ambient noise level exceeds the signal, connect headphones or earphones to the bottom of the transmitter.
Connect the crocodile clips of the transmitter to one conductor each of the cable to be searched.
For shielded or coaxial cables, connect the red crocodile clip to the shield of the cable.
Press and hold down the measurement key on the receiver and follow the signal and thus the cable with the sensor.

Car
Disconnect all voltage-sensitive parts or systems such as airbags, electronic control modules etc. from the vehicle's electrical system.
Slide the switch on the transmitter to the "TONE" position.
Switch on the receiver by turning the rotary switch to the middle position.
Guide the sensor close to the connection cables of the transmitter. As the sensor approaches the connection cable of the transmitter, the volume of the signal at the receiver will increase.
If the ambient noise level exceeds the signal, connect headphones or earphones to the bottom of the transmitter.
There are two options for connecting the transmitter:

- Connect the black terminal to the incoming conductor or to the positive pole of the battery.
- Connect the red terminal to the conductor to be tracked.



Press and hold down the measurement key on the receiver and follow the signal and thus the cable with the sensor.

6.4 Short circuit / continuity test

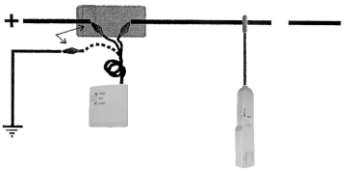
Remove all loads from the circuit to be tested.
Slide the switch on the transmitter to the "CONT" position.
Test the function by connecting the red and black crocodile clips to each other. The green LED should light up.

Continuity test
For the continuity test, connect the two ends of the conductor to be tested to one terminal each of the transmitter. If the continuity resistance is <10 kΩ, the green LED will light up.

Short circuit test
For the short circuit test, connect the crocodile clips to one of the conductors between which you suspect a short circuit. When the green LED lights up, the short circuit is confirmed.

6.5 Open circuit (car)

Slide the switch on the transmitter to the "TONE" position.
Switch on the receiver by turning the rotary switch to the middle position.
Place the sensor near the connection cables of the transmitter. As the sensor approaches the connection cable of the transmitter, the volume of the signal at the receiver will increase.
If the ambient noise level exceeds the signal, connect headphones or earphones to the bottom of the transmitter.
Connect the black terminal to a ground point or to the positive pole of the battery and the red terminal to the conductor to be tested.
Press and hold the measurement key on the receiver and follow the signal and thus the cable with the sensor. At the point where the signal stops, you will find the open circuit.



6.6 Cable detection (car)

Slide the switch on the transmitter to the "TONE" position.
Switch on the receiver by turning the rotary switch to the middle position.
Place the sensor near the connection cables of the transmitter. As the sensor approaches the connection cable of the transmitter, the volume of the signal at the receiver will increase.
If the ambient noise level exceeds the signal, connect headphones or earphones to the bottom of the transmitter.
Connect the black terminal to the positive pole of the battery and the red terminal to the conductor to be found.
While holding down the measurement key, search for the wire in demand with the receiver at the assumed locations. If the signal indicates a wire bundle, expand the bundle so that you can check the individual wires with the sensor. It may be necessary to reduce the sensitivity at the receiver to a minimum in order to enable accurate wire detection.

7 Contact

If you have any questions, suggestions or technical problems, please do not hesitate to contact us. You will find the relevant contact information at the end of this user manual.

8 Disposal

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose.

In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law.

For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations.

If you have any questions, please contact PCE Instruments.

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