

Analog Cable Tracker Kit

NetPeppers Cable Tracker Kit

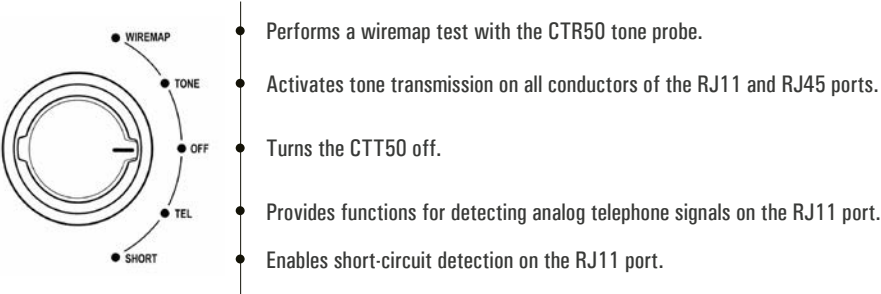


Quick Start Guide

OVERVIEW



CTT50 Mode Selector Switch in Detail



CTR50 TONE PROBE

Probe Tip:

The non-conductive probe tip is used for precise location of cables carrying a tone signal.

Power LED:

When the volume control is turned clockwise from its default position, the LED indicates that the device is powered on.

Signal LED:

When the probe tip approaches a cable or wire carrying a tone signal, the LED illuminates more brightly.

When the corresponding RJ45 cable is connected to the RJ45 port on the bottom of the device, the LED also indicates that the target cable has been identified.

Volume Control Knob:

Turn the knob clockwise from its default OFF position until a click is heard when passing the resistance point.

The Power LED will illuminate. Continue turning the knob clockwise to increase the sensitivity of the tone detection and therefore the volume.

LED Light / Flashlight Button:

Press and hold the button to activate the LED light at the probe tip. This makes tone tracing easier in dark environments.

The LED can only be activated when the volume control knob has been turned from the OFF position.

Wiremap LEDs:

When the tone probe is connected to the tone transmitter via the RJ45 port and the transmitter is set to "Wiremap," the LEDs illuminate sequentially from 1 to S. This allows wiring faults to be identified. For more information, see the "Wiremap Test" section.

RJ45 Port:

The RJ45 port is used either for tone tracing on RJ45 cabling or for performing a wiremap test together with the CTT50 tone transmitter. For more information, see the "Wiremap Test" section.

CTT50 TONE TRANSMITTER

RJ45 Port:

The RJ45 port is intended exclusively for connecting RJ45 cables. Do NOT connect RJ11/12 cables, as this may cause damage. The WIREMAP and TONE functions are available through the RJ45 port.

RJ11 Port:

The TONE, TEL, and SHORT functions are available through this port.

Wiremap LEDs:

When the RJ45 port of the tone transmitter (CTT50) is connected to the tone probe (CTR50) and the mode selector switch is set to WIREMAP, the LEDs illuminate sequentially from 1 to S. This allows wiring faults to be identified. For more information, see the "Wiremap Test" section.

Mode Selector Switch:

Turn the selector switch to the desired position to activate the corresponding function.

The associated LED will illuminate.

TECHNICAL SPECIFICATIONS

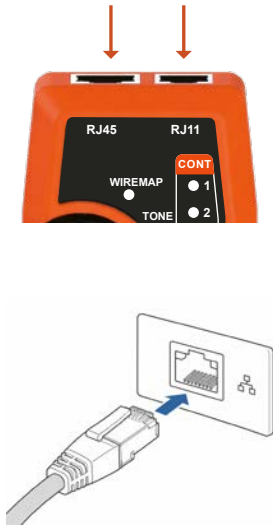
The NetPeppers CTK50 Cable Tracker Kit is a professional cable tracing and tone tracking solution for network and telephone cabling. The kit consists of a tone transmitter and tone probe, supporting RJ45, RJ11, and two-wire cabling for accurate cable identification and tracing. In addition, the CTK50 provides RJ45 wiremap testing and short-circuit detection capabilities.

Technical Specifications	CTR50 Tone Probe
Operating Principle	Analog
Volume Control	Continuously adjustable via rotary knob
Tone Reception	Probe tip, RJ45 jack
Audio Output	Speaker, 3.5 mm headphone jack
Wiremap Display	9 sequential LEDs (8 conductors + shield)
Flashlight	White LED
Additional LEDs	Signal strength, Power ON/OFF
Battery	9V battery
Dimensions	125 × 38 × 29 mm (L × W × H)
Weight	123 g

Technical Specifications	CTT50 Tone Transmitter
Operating Principle	Analog
Function Modes	4 (Wiremap, Tone, Analog Telephone Detection, Short-Circuit Detection)
Voltage Protection	Up to 60 V AC/DC
Wiremap Display	9 sequential LEDs (8 conductors + shield)
Ports	RJ45 / RJ11
Battery	9V battery
Tone Signal	Dual-tone
Maximum Transmission Distance	≤ 1000 m
Dimensions	125 × 45 × 31 mm (L × W × H)
Weight	111 g

BASIC OPERATION

Tone Tracing



①

- Connect the CTT50 tone transmitter to the cable you want to inject a tone signal to.

Several connection options are available:

1. Using an RJ45-to-RJ45 patch cable between the RJ45 port of the device and the cabling system
2. Using an RJ11-to-RJ11 patch cable between the RJ11 port of the device and the cabling system.
3. Using an RJ11-to-alligator clip adapter cable connected to the RJ11 port of the device, with the alligator clips attached to any two conductors of the cabling.

Warning!

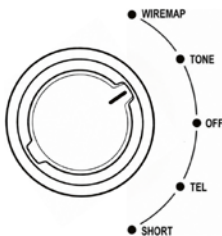
**Never connect the tone transmitter to live electrical systems.
Risk of injury and device damage.**

Note:

In principle, adapter cables with RJ11 or RJ45 connectors can be used to connect the device to a wide variety of cabling systems, such as RJ45-to-M12, RJ45-to-F coaxial connectors, and others.

②

- Set the mode selector switch to TONE.

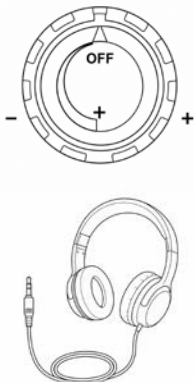


The TONE LED will illuminate green, indicating that the tone signal is active on all conductors of both the RJ11 and RJ45 ports. The cable can now be traced using the tone probe.

CTR50 Tone Probe

③

- Turn on the tone probe by rotating the volume control knob clockwise past the initial resistance point.
- Adjust the volume to a level that makes it easier to locate the target cable signal.



Note:

It is recommended to start with a high volume setting and reduce the volume for more precise tracing as you get closer to the cable carrying the tone signal. In noisy environments, the use of headphones connected to the 3.5 mm audio jack is also recommended.



4

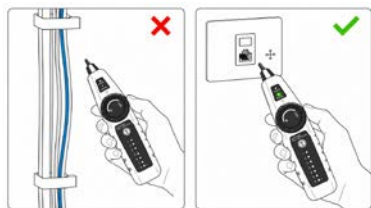
- Move the probe close to the cabling where you suspect the target cable is located and listen for an increase in the tone signal.

Note:

When the probe comes within approximately 1 to 5 cm (0.4 to 2 in.) of the target cable, the SIGNAL LED will also begin to illuminate.

With shielded cabling, such as twisted-pair cabling with RJ45 connectors, it is not possible to trace the cable along its jacket. The shielding effectively prevents the tone signal from radiating from the cable. Therefore, identification should be performed at the cable termination or connector end.

As an alternative to using the probe tip, you can use the RJ45 port on the bottom of the probe. When the target cable is connected, the tone signal will be clearly audible and the LEDs in the lower section of the device will illuminate.



Wiremap Test



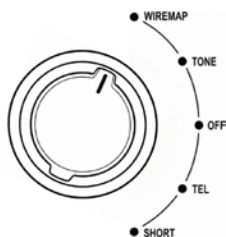
CTT50 Tone Transmitter

1

- Connect the RJ45 port of the CTT50 tone transmitter to the cable link whose wiring you want to test.

Warning!

**Never connect the tone transmitter to live electrical systems.
Risk of injury and device damage.**

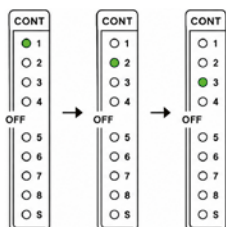


2

- Set the mode selector switch to WIREMAP

The WIREMAP LED will illuminate green, indicating that the wiremap function is active.

The LEDs in the CONT section to the right of the mode selector switch will now sequence from conductor 1 to S (shield). The LED sequence on the CTT50 itself remains fixed and is not affected by any wiring faults in the cable under test.





CTR50 Tone Probe

3

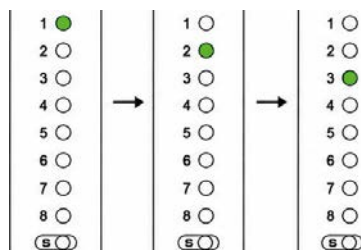
- Connect the RJ45 port on the bottom of the CTR50 tone probe to the opposite end of the cable link whose wiring you want to test.

Warning!

Never connect the tone probe to live electrical systems.

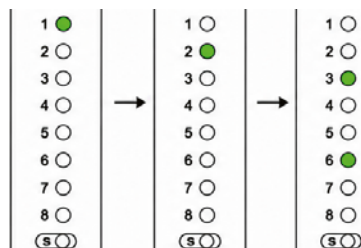
Risk of injury and device damage.

Different LED patterns may occur on the CTR50 depending on the type of wiring fault detected. All of the following faults may also occur in combination.



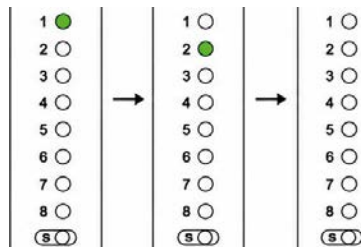
Correct Wiring

The LEDs illuminate sequentially from 1 to S, with no LEDs missing and no multiple LEDs lighting up simultaneously. The wiring corresponds 1:1 with the wiring at the CTT50 tone transmitter.



Short Circuit

Two or more LEDs illuminate simultaneously. This indicates a short circuit between the corresponding conductors.



Open Conductors

If one or more conductors are open and there is no end-to-end continuity, the LED that should illuminate at that point in the 1-to-S sequence will remain off.



Crossed Pairs / Miswiring

If two or more conductors are swapped, the sequence will no longer progress in a 1:1 order. The affected conductors will illuminate either earlier or later than expected in the sequence.

Telephone Service Detection



CTT50 Tone Transmitter

1

- Connect the RJ11 port of the CTT50 tone transmitter to the telephone line whose service status you want to check.

2

- Set the mode selector switch to TEL mode.

The following indications may be displayed depending on the status of the telephone line:



Polarity:

Green: Pin 3 (3P) is positive and Pin 4 (4P) is negative.
Red: Pin 3 (3P) is negative and Pin 4 (4P) is positive.

Status:

LED continuously illuminated: The telephone line is on-hook (idle).
LED alternates between red and green: The telephone line is ringing.
LED dimly illuminated: A call is active (off-hook).

Short-Circuit Detection



CTT50 Tone Transmitter

1

- Connect the RJ11 port of the CTT50 tone transmitter to the two-wire cable you want to test for short circuits using the RJ11-to-alligator clip adapter.

2

- Set the mode selector switch to SHORT mode.

The SHORT LED illuminates when a short circuit is detected between the two connected conductors.

WARNINGS

- Never connect live conductors to the NetPeppers CTT50 or CTR50.
- Always verify that the system is de-energized before connecting the device. Failure to do so may result in injury.
- Never insert connectors other than RJ45 plugs into the RJ45 ports of the handheld devices. Doing so may damage the contacts.
- Clean the device only with a damp cloth.
- Do not use aggressive cleaning agents or solvents on the housing.

WARRANTY

NetPeppers GmbH warrants that this product will be free from defects in materials and workmanship for a period of 12 months from the date of sale, provided it is used properly and in accordance with the operating instructions, unless otherwise agreed in writing.

The warranty does not cover damage caused by improper use, failure to follow the operating instructions, external influences, normal wear and tear, or modifications carried out by unauthorized third parties. Mechanical damage to the test ports is not covered by the warranty.

DISPOSAL

Do not dispose of the device or its accessories with household waste.

The device and its accessories must be disposed of in accordance with local regulations.

For further information, please visit: www.stiftung-ear.de, www.bmlfuw.gv.at

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