Ermenrich NP60 NetGeeks Optical Wire Tracker User Manual

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Ermenrich NP60 NetGeeks Optical Wire Tracker

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Ermenrich NetGeeks NP60 Optical Wire Tracker

Please carefully read the safety instructions and the user manual before using this product. Keep away from children. Use the device only as specified in the user manual.

The kit includes transmitter, receiver, RJ11 patch cord, RJ45 patch cord, alligator clip, Type-C USB cable, DC cable, earbuds, carry bag, user manual, and warranty.
Charging the device
The transmitter and the receiver use rechargeable lithium polymer batteries. Connect the Type-C USB cable to the device and the DC adapter via a USB plug and connect it to the AC power supply to charge the device.
Getting started Transmitter

- Press and hold the power button (6) for 3 seconds to turn the transmitter on/off.
- Press the OK button (7) to enter the menu, and press the Up (8) and Down (9) buttons to scroll the menu. Press the OK button (7) to confirm the selection. Press the Back button (10) to return.

Receiver

- Press and hold the power button (22) for 3 seconds to turn the receiver on/off.
- The default mode is the digital detection mode.
- Blue triangles on the screen indicate the selected items. Green triangles on the screen point at the device ports for cable connection.

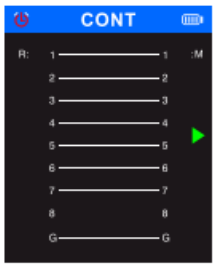
Display information

Display icons	Function	Display icons	Function
CONT	Wire mapping	SCAN	Cable tracing
Flash	Port Flash	Length	Cable length measurement
PoE	PoE test	QC Test	Cable crimping quality check
OPM	Optical power meter	VFL	Visual fault locator
Set	Settings		

Wire mapping

This function is used to check if the wires within the cable are connected correctly.

1. Plug one end of the cable into the QC/CONT port (5) on the transmitter and the other end into the RJ45 port (24) on the receiver.
2. Select CONT (Wire mapping) in the main menu, choose the required cable type, and press the OK button (7). Possible outcomes are shown below:

Normal	Short
	
Open	**Cross**
	

Cable tracing

This function is used to locate the target cable in a cable bundle.

1. Plug the loose end of the network cable into the SCAN port (2) on the transmitter, and select SCAN (Cable tracing) in the main menu, and then press the OK button (7).
2. Select the digital mode or analog mode on the transmitter for cable tracing and press the OK button (7). To switch between the scan modes on the receiver, press the SCAN button (19). The transmitter and the receiver must be set to the same mode. The analog mode enables cable tracing at a distance up to 300m. The scan

indicator glows in red when the device is in digital mode, and it flashes in red when the device is in analog mode.

1. Press the NCV button (20) on the receiver.
2. Place the receiver near the cable bundle and move the receiver along the cable to trace it. When the sensor is in the close proximity to the target cable, the receiver will emit a beeping sound. To detect the cable more accurately, lower the sensitivity. Turn the sensitivity adjustment knob (17) on the receiver clockwise to adjust the sensitivity (1 to 8 levels). The closer the device is to the object, the louder the signal will be

Port Flash function

This function is used to locate an exact port on a network switch or on a router to which the tested cable is connected.

1. Plug one end of the network cable into the Length/Flash/PoE port (4) of the transmitter; the other cable end is connected to a PoE switch.
2. Select Flash (Port Flash function) and press the OK button (7). The following text will be displayed on the screen: Link test. The circle on the display and LEDs under the Length/Flash/PoE port (4) will flash with the same frequency as the LED of the target port, and be different from the other LEDs. The corresponding specification will be displayed on the screen: FDX (full duplex) / HDX (half duplex), Auto-Nego protocol / Non-Auto-Nego protocol. If the test fails or if the cable is incorrectly plugged in, the following text will be displayed: Test time out.

If the length of the cable is less than 5 meters, the displayed cable length value is given only for reference

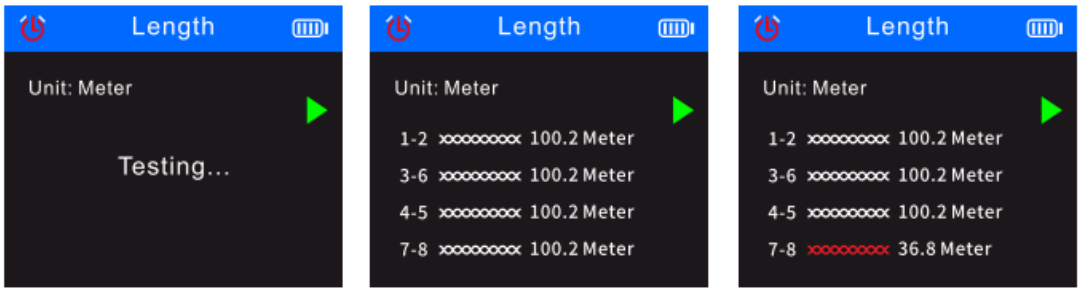
Cable length measurement

This function is used to measure the length of a cable.

1. Plug one end of the testing cable to the Length/Flash/PoE port (4) on the transmitter and leave the other cable end disconnected.
2. Select Length in the main menu and press the OK button (7).
3. Choose the required cable type and unit of measurement (meter, yard, foot).
4. Select Start testing and press the OK button (7).
    1. The cable length range shall be of 2.5m to 200m, otherwise the displayed value will be 0m.

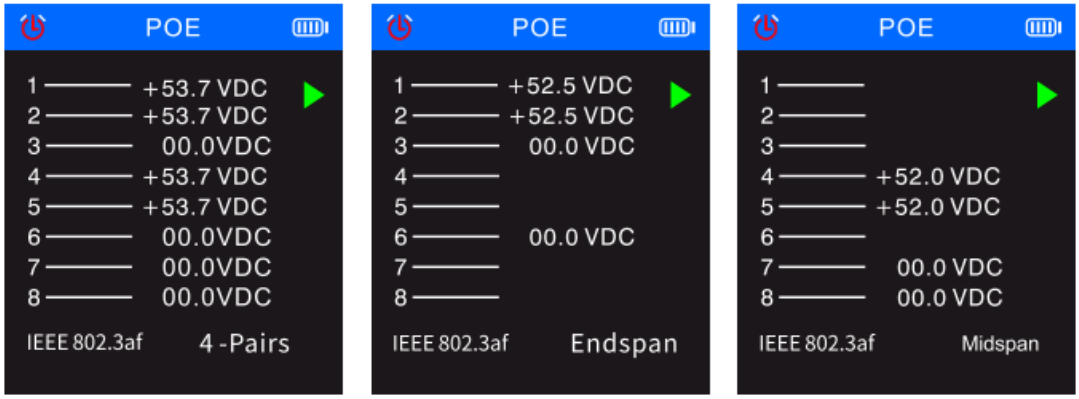
2. If the cable is damaged or if the wires within the cable are short-circuited, the corresponding data will be displayed in a red font.

Possible outcomes are shown below



PoE test
This function is used to identify the pins that provide PoE (Power over Ethernet), the PSE type (standard or non-standard), polarity, mode, and voltage.

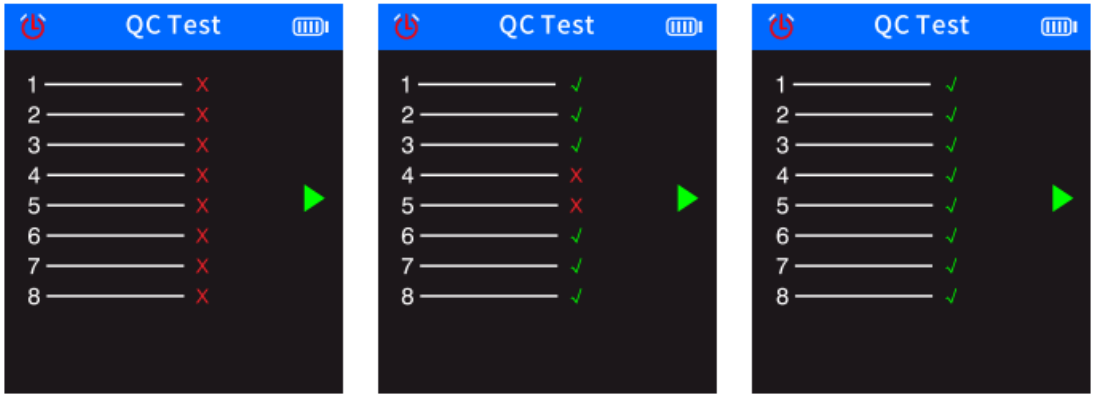
1. Plug the loose end of the PoE cable into the Length/Flash/PoE port (4) on the transmitter and the other end is connected a corresponding port on the PoE source equipment (such as a network switch, router, etc.).
2. Select PoE (PoE test) in the main menu and press the OK button (7). Possible outcomes are shown below



- If all 8 pins are used for power supply, the voltage polarity will not be displayed.
- If there is no test result displayed within 30 seconds, it may mean that the equipment connected is not the power supply equipment

Cable crimping quality check
This function is used to check the quality of cable end crimping for proper connection of conductors to pins.

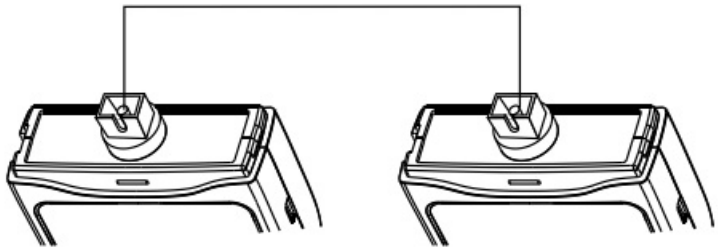
1. Plug one end of the testing cable to the QC/CONT port (5) on the transmitter and leave the other cable end disconnected.
2. Select QC TEST (Quality check of cable connectors) in the main menu and press the OK button (7). Possible outcomes are shown below



Optical power meter function

This function is used to test the optical power and the attenuation value of the optical signal to check fibre cables.

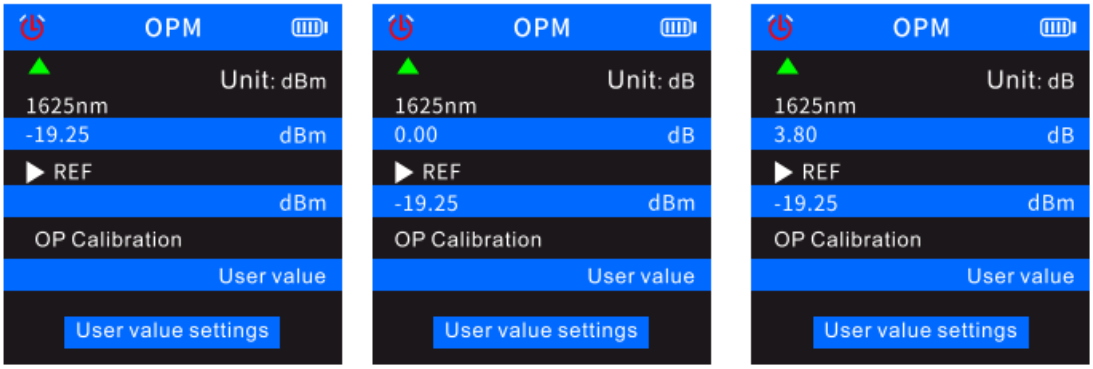
1. Connect one end of the fibre cable end to the fibre optic connector (1); connect the other fiber cable end to the corresponding connector of the external optical light source (external device



2. Turn on the external optical light source (external device).
3. Select OPM (Optical power meter) in the main menu, and press the OK button (7) to enter the optical power meter mode.
4. Select the unit of measurement (dBm, dB, µW, mW, nW).
5. Select a wavelength value (850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm).

6. Set the optical power value by changing the user settings (User value settings).

7. Select REF (Reference value), then press and hold the OK button (7) to save the current optical power value in the first blue line. The measurement unit will be switched to dB and cannot be changed to other units



If you do not save the value in REF, the first blue line will display normal optical power characteristics, but the second blue line of the user settings will not contain any value.

Visual fault locator

The VFL function is used to test fibre cables.

1. Plug one end of a fiber cable to the VFL connector (3) on the transmitter and leave the other end of the cable disconnected.
2. Select VFL (Visual fault locator) in the main menu and press the OK button (7).
3. You can select three modes: Fast flash 2 Hz, Fast Flash 1 Hz, and Light. In case of no breakage in the cable, the red LED on the end of the cable will light on. If the fiber cable is damaged, the damaged part of the cable will glow red.

Specifications

Testing cable types	STP/UTP (CAT5, CAT6)	
Cable length measurement	+	
Cable length measurement range	2.5–200m	
Cable tracing	+	
Wire mapping	+	
Optical power meter function	+	
Optical power meter wavelength	850/1300/1310/1490/1550/1625nm	
PoE test	PSE type test	standard (IEEE 802.3at/af) / non-standard
	Midspan/endspan identification	+
	DC voltage measurement range	5–60V
	Voltage polarity detection	+
Port Flash function	+	
Cable crimping quality check	+	
Visual fault locator (VFL)	+	
Non-contact voltage detection function (NCV)	+	
Backlight	3 levels	
Auto-off	15 min, 30 min, 1 hour, 2 hours, OFF	
Operating temperature range	–10… +60°C / +14… +140°F	
Power supply	transmitter: 3.7V 1500mA·h rechargeable lithium polymer battery receiver: 3.7V 1500mA·h rechargeable lithium polymer battery	

The manufacturer reserves the right to make changes to the product range and specifications without prior notice.

Care and maintenance

Do not use the device in a high voltage environment (e.g. 220V AC electric power supply). Do not use the device if it is not working properly. In order to avoid lightning strikes, do not use the device during thunderstorms. Protect the device from sudden impact and excessive mechanical force. Store the device in a dry cool place. Please note that the parameters of the power supply must comply with the technical characteristics of the device. Do not touch

any bare conductor with your hand or skin. Do not try to disassemble the device on your own for any reason. For repairs and cleaning of any kind, please contact your local specialized service center. Only use accessories and spare parts for this device that comply with the technical specifications. Never attempt to operate a damaged device or a device with damaged electrical parts! If a part of the device or battery is swallowed, seek medical attention immediately.

Battery safety instructions

Always purchase the correct size and grade of battery most suitable for the intended use. Always replace the whole set of batteries at one time; taking care not to mix old and new ones, or batteries of different types. Clean the battery contacts and also those of the device prior to battery installation. Make sure the batteries are installed correctly with regard to polarity (+ and –). Remove batteries from equipment that is not to be used for an extended period of time. Remove used batteries promptly. Never short-circuit batteries as this may lead to high temperatures, leakage, or explosion. Never heat batteries in order to revive them. Do not disassemble batteries. Remember to switch off devices after use. Keep batteries out of the reach of children, to avoid risk of ingestion, suffocation, or poisoning. Utilize used batteries as prescribed by your country's laws.

Warranty

Lvenhuk International Warranty
Levenhuk products, except for their accessories, carry a 5-year warranty against defects in materials and workmanship. All Levenhuk accessories are warranted to be free of defects in materials and workmanship for six months from the purchase date. The warranty entitles you to the free repair or replacement of the Levenhuk product in any country where a Levenhuk office is located if all the warranty conditions are met.
For further details, please visit: **levenhuk.com/warranty** If warranty problems arise, or if you need assistance in using your product, contact the local Levenhuk branch.

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Documents / Resources

	**Ermenrich NP60 NetGeeks Optical Wire Tracker** [pdf] User Manual NP60 NetGeeks Optical Wire Tracker, NP60, NetGeeks Optical Wire Tracker, Optical Wire Tracker, Wire Tracker

References

- Доживотна гаранция на Levenhuk – Официален уебсайт на Levenhuk в България
- Doživotní záruka společnosti Levenhuk – Oficiální webové stránky Levenhuk pro Českou republiku
- Levenhuk Lebenslange Garantie – Die offizielle Website von Levenhuk in Deutschland
- Garantía internacional de por vida Levenhuk – Web oficial de Levenhuk en España
- Levenhuk Lifetime Warranty – Levenhuk's official website in USA
- A Levenhuk élettartamra szóló szavatossága – A Levenhuk hivatalos magyarországi weboldala
- Levenhuk Limited Warranty – Levenhuk's official website in USA
- Поддержка - Гарантийное обслуживание Левенгук - Levenhuk Russia
- Gwarancja bezterminowa Levenhuk – Oficjalna witryna internetowa Levenhuk w Polsce
- Levenhuk's official website in USA
- User Manual