



# ERMENRICH NU20 NetGeeks Optical Multimeter User Manual

[Home](#) » [ERMENRICH](#) » ERMENRICH NU20 NetGeeks Optical Multimeter User Manual 

ERMENRICH NU20 NetGeeks Optical  
Multimeter User Manual

# ERMENRICH NETGEEKS NU20 OPTICAL MULTIMETER

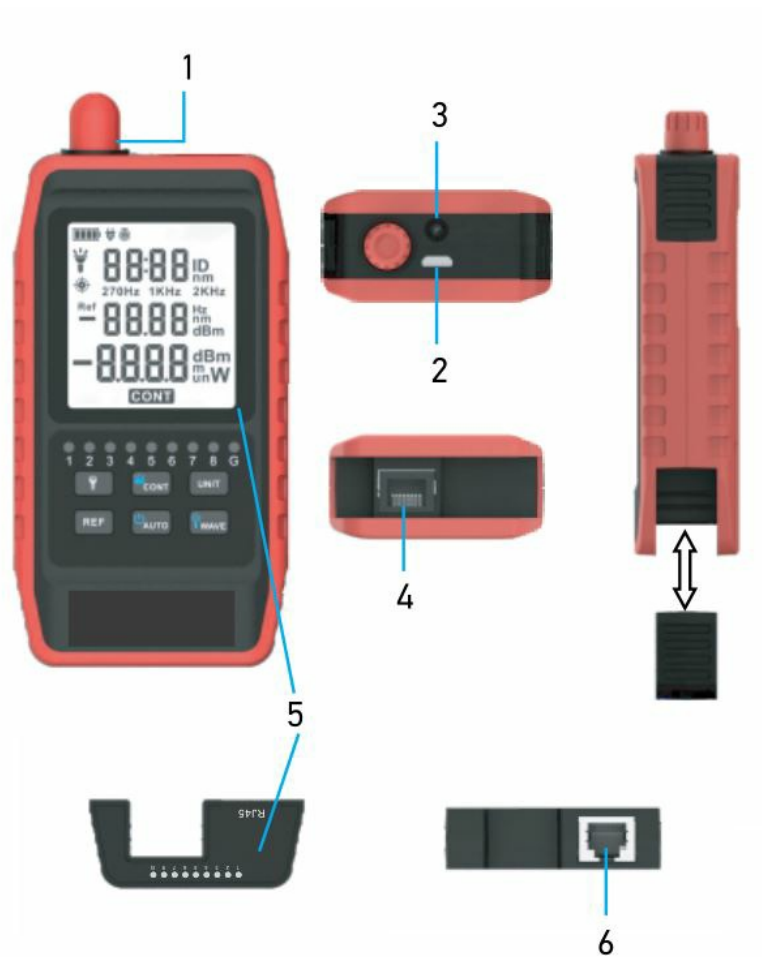
User Manual



Levenhuk Inc. (USA): 928 E 124th Ave. Ste D, Tampa, FL 33612,  
USA, +1-813-468-3001, [contact\\_us@levenhuk.com](mailto:contact_us@levenhuk.com)  
Levenhuk Optics s.r.o. (Europe): V Chotejně 700/7, 102 00 Prague 102,  
Czech Republic, +420 737-004-919, [sales-info@levenhuk.cz](mailto:sales-info@levenhuk.cz)  
Levenhuk®, Ermenrich® are registered trademarks of Levenhuk, Inc.  
© 2006–2024 Levenhuk, Inc. All rights reserved.  
[www.levenhuk.com](http://www.levenhuk.com)  
20240116

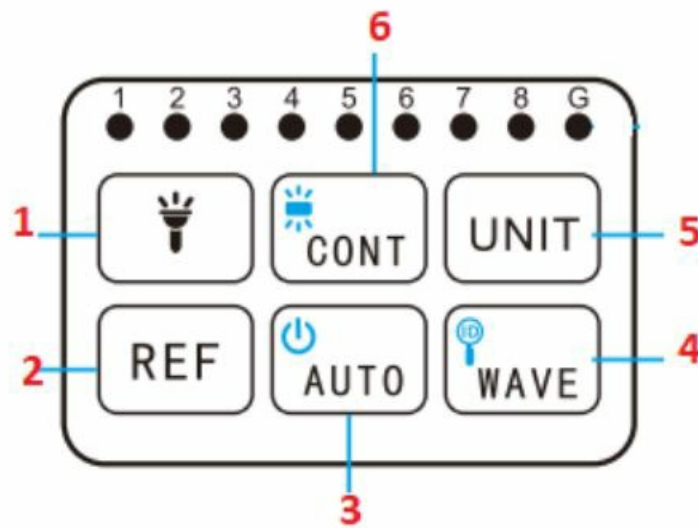
**ERMENRICH**  
by levenhuk

[www.levenhuk.com](http://www.levenhuk.com)



## Transmitter

1. Fiber optic connector and dust cap
2. Power input
3. Flashlight
4. RJ45 port
5. LED indicators Remote unit
6. RJ45 port



1. Flashlight button
2. **REF** (Reference value) button
3. **AUTO** (Power/Auto- off) button
4. **WAVE** (Wavelength) button
5. **UNIT** (Units of measurement) button
6. **CONT** (Cable continuity test) button

### Ermenrich NetGeeks NU20 Optical Multimeter

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, remote unit, Micro USB cable, user manual, and warranty.

#### Charging the device

This device uses a rechargeable Li-ion battery. Connect the power cable to the device and the 5V, 1A DC adapter for charging (not included) via a USB plug and connect it to the AC power supply to charge the battery.

#### Getting started

Press and hold the AUTO button (3) for 3 seconds to turn the device on/off.

Press the AUTO button (3) to enable/disable the auto-off option option, and then observe the corresponding icon on the screen. When the auto-off option is enabled, the device will automatically turn off in 30 minutes.

Press the flashlight button (1) to turn the flashlight on/off.

#### Optical power meter

This function is intended to test optical power. The optical power meter function is turned on by default.

1. Connect one end of the fiber cable end to the fiber optic connector (1) of the optical multimeter; 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. Press the **WAVE** button (4) to select a wavelength value (850nm, 980nm, 1310nm, 1490nm, 1550nm, or 1625nm). The wavelength value of the optical multimeter and the wavelength value of the light source must be the same.
4. Press the **UNIT** button (5) to select the units of measurement.
5. Press the **REF** button (2) to display the last saved reference value (the default value is 0dB).
6. Press the **REF** button (2) to measure the optical power. The result will be displayed on the screen.
7. Press and hold the **REF** button (2) to save the value as a reference value.

### Cable continuity test

To switch the cable continuity test function on, press the **CONT** button (6). Use this button to select the fast mode (0.5s) or slow mode (1s).

To test a network cable, plug one end of the cable into the RJ45 port (4) on the transmitter and the other end into the RJ45 port (6) on the remote unit.

The results are shown with the corresponding LEDs (5). Possible outcomes are shown below:

<p><b>Normal:</b> The LEDs on the transmitter and on the remote unit will blink green one by one.</p> <p>Transmitter: 1-2-3-4-5-6-7-8 Remote unit: 1-2-3-4-5-6-7-8</p>	<p><b>Short:</b> If pins 2 and 5 are short-circuited, the corresponding LEDs on the transmitter and LEDs on the remote unit will show a weak glow.</p> <p>Transmitter: 1-2-3-4-5-6-7-8 Remote unit: 1-2-3-4-5-6-7-8</p> <p>Transmitter: 1-2-3-4-5-6-7-8 Remote unit: 1-2-3-4-5-6-7-8</p>
<p><b>Open:</b> If pin 2 is open, the corresponding LEDs on the transmitter and on the remote unit will not glow.</p> <p>Transmitter: 1-x-3-4-5-6-7-8 Remote unit: 1-x-3-4-5-6-7-8</p>	<p><b>Cross:</b> If pins 2 and 5 are cross-connected, the corresponding LEDs on the remote unit will blink in the same manner.</p> <p>Transmitter: 1-2-3-4-5-6-7-8 Remote unit: 1-5-3-4-2-6-7-8</p>

### Specifications

Optical power meter wavelength	850/980/1310/1490/1550/1625nm
Power detection range	-60... +8dBm
Fiber connector type	FC/ST/SC
Maintained cable type	single-mode (SM), multimode (MM)
Units of measurement	dB/dBm/W
Cable continuity test	+
Operating temperature range	-10... +60°C / +14... +140°F
Power supply	3.7V, 700mA-h rechargeable lithium battery

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

### Care and maintenance

This is a class II laser product. Please DO NOT look directly into the beam with unprotected eyes or through an optical device at any time and never direct it toward other people. Do not use the device if it is not working properly. 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.

## Levenhuk 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](http://levenhuk.com/warranty)


If warranty problems arise, or if you need assistance in using your product, contact the local Levenhuk branch.

### Contents

#### 1 Documents / Resources

##### 1.1 References

## Documents / Resources

	<p><a href="#">ERMENRICH NU20 NetGeeks Optical Multimeter</a> [pdf] User Manual</p> <p>NU20 NetGeeks Optical Multimeter, NU20, NetGeeks Optical Multimeter, Optical Multimeter, Multimeter</p>
---	--

## 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](#)
-  [Gwarancja bezterminowa Levenhuk – Oficjalna witryna internetowa Levenhuk w Polsce](#)
-  [Levenhuk’s official website in USA](#)
-  [Поддержка - Гарантийное обслуживание Левенгук - Levenhuk Russia](#)
- [User Manual](#)

#### Manuals+, Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.