

EN

INSTRUCTIONS
SOUND LOCATOR

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Information on the use of these instructions

Symbols



Warning

This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.



Warning of electrical voltage

This symbol indicates dangers to the life and health of persons due to electrical voltage.



Warning of explosive substances

This symbol indicates dangers to the life and health of persons due to potentially explosive substances.

Notice

This signal word indicates important information (e.g. material damage), but does not indicate hazards.



Info

Information marked with this symbol helps you to carry out your tasks quickly and safely.



Follow the manual

Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of these instructions via the following link:



LD8



<https://hub.trotec.com/?id=47612>

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.



Warning

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in an aggressive atmosphere.
- Do not immerse the device in water. Do not allow liquids to penetrate into the device.
- Protect the device from permanent direct sunlight.
- Do not open the device.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Do not expose the charger to rain or wet conditions. Water entering an electrical appliance increases the risk of electric shock.
- Do not operate the charger on highly combustible ground (e.g. textiles, paper etc.) or in an inflammable environment. The heat generated by the charger during charging entails a risk of fire.
- Do not operate the USB power adapter when covered.
- Observe the storage and operating conditions (see Technical data).
- Check accessories and connection parts for possible damage prior to every use of the device. Do not use any defective devices or device parts.

Intended use

Only use the device for the non-destructive, acoustic leak detection in piping systems conveying liquid pumping media and within the measuring range specified in the technical data.

Only use the USB power adapter included in the scope of delivery with the associated cable or a power adapter with the appropriate specifications.

Any use other than the intended use is regarded as misuse.

Reasonably foreseeable misuse

Do not use the device in potentially explosive atmospheres, for measurements in liquids and at live parts. Any unauthorised modifications, alterations or structural changes to the device are forbidden.

Personnel qualification

People who use this device must:

- have basic knowledge of how to safely handle electrical equipment.
- have read and understood the instructions, especially the Safety chapter.

Residual risks



Danger

There is a danger of suffocation for children due to packaging material! Keep packaging films and parts away from children. There is a risk of death due to suffocation.



Warning of electrical voltage

There is a risk of a short-circuit due to liquids penetrating the housing!
Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.



Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



Warning of explosive substances

Do not expose the batteries to temperatures above 60 °C! Do not let the batteries come into contact with water or fire! Avoid direct sunlight and moisture. There is a risk of explosion!



Warning

The device is not a toy and does not belong in the hands of children.



Warning

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



Caution

Lithium-ion batteries might catch fire in case of overheating or damage. Ensure a sufficient distance to heat sources, do not subject lithium-ion batteries to direct sunlight and make sure not to damage the casing. Do not overcharge lithium-ion batteries. If the battery is not permanently installed in the device, only use smart chargers that switch off automatically when the battery is fully charged. Charge lithium-ion batteries in due time before they are discharged completely.



Caution

Keep a sufficient distance from heat sources.

Notice

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.

Notice

Do not use abrasive cleaners or solvents to clean the device.

Information about the device

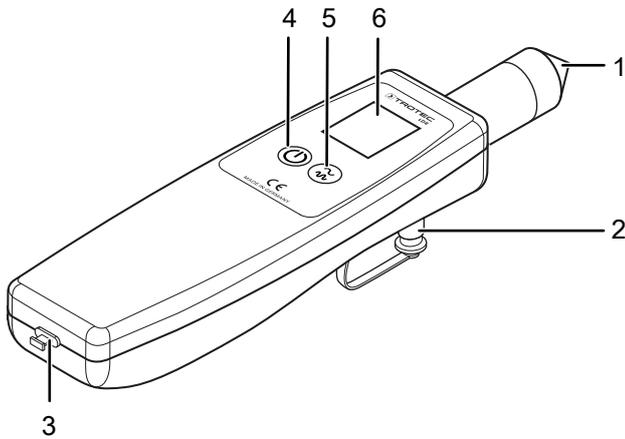
Device description

With this device leakage sounds can be transmitted via Bluetooth to the corresponding headphones and rendered audible. The sound level is displayed analogously on the device.

Depending on the situation, the device can be operated with a connected tip, extension, tripod or pot magnet.

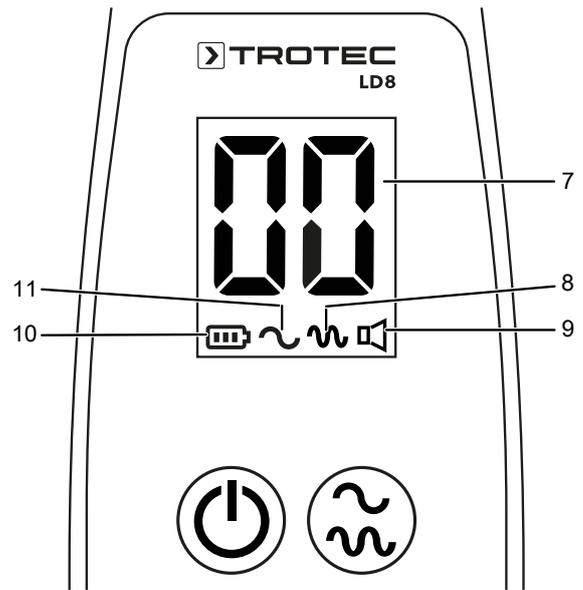
The frequency can be adjusted with due regard to the respective material, the pressure and the presumed leak size.

Device depiction



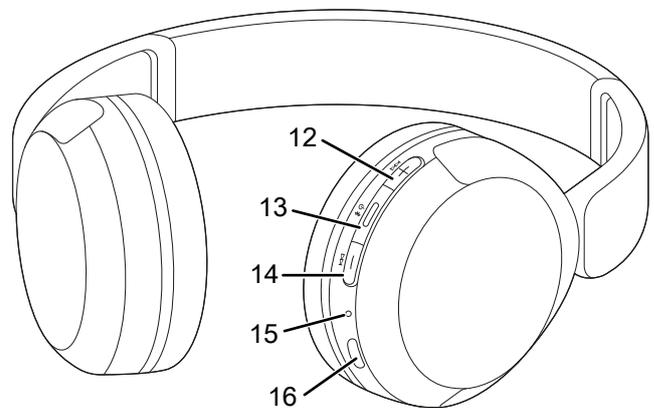
No.	Designation
1	Measuring tip (exchangeable)
2	Connection for contact microphone
3	USB-C port with dust protection
4	On/Off/Min button
5	Frequency button
6	Display

Display



No.	Indication
7	Measured value
8	High frequencies
9	Sound
10	Battery status
11	Low frequencies

Headphones



No.	Designation
12	Increase volume button
13	Power button
14	Decrease volume button
15	Status LED
16	USB-C port

Technical data

Measuring device

Parameter	Value
Signal input connection	Bluetooth (for supplied headphones)
Bluetooth frequency range	2400 MHz – 2483.5 MHz
Max. Bluetooth transmission power	8.1 dBm
Level indication	0 – 99 digits
Acoustic rendition	Noise-cancelling BT headphones
Frequency range	70 Hz to 3.5 kHz
Power supply	integrated lithium-ion battery
Battery capacity	approx. 600 mAh
Battery charging voltage	max. 4.2 V
Battery charging time	up to 5 h
Battery operating time per charge	approx. 8 h to 10 h
Operating temperature	-20 °C to +55 °C
Storage temperature	-20 °C to +55 °C
Dimensions (length x width x height)	185 x 45 x 33 mm
Weight (device only)	180 g

Headphones (noise-cancelling)

Parameter	Value
Bluetooth version	4.2
Bluetooth frequency range	2402–2480 MHz
Range	Up to 10 metres in an open area without obstructions
Power supply	lithium polymer battery
Battery capacity	240 mAh
Battery charging voltage	max. 5 V
Battery charging time	3 hours
Battery operating time per charge	approx. up to 10 h at medium volume
Operating temperature	-15 °C to +55 °C
Storage temperature	-15 °C to +55 °C
Connection type	USB-C
Dimensions (length x width x height)	210 x 170 x 50 mm
Weight (headphones only)	approx. 150 g

Universal input (optional contact microphone)

Parameter	Value
Sensitivity	> 1000 pC/g
Resonance frequency	Approx. 500 Hz
Material	Stainless steel / rubber coating
Protection class	IP68
Dimensions (length x diameter)	120 x 50 mm
Weight	approx. 800 g

Scope of delivery

- 1 x Measuring device LD8 with measuring tip (e.g. for water lines, valves)
- 1 x Headphones
- 1 x USB power adapter with 3 exchangeable travel adapters
- 1 x 12 V car charger
- 1 x USB-C charging cable for measuring device and headphones
- 2 x Extension rod
- 1 x Tripod
- 1 x Pot magnet
- 1 x Transport case
- 1 x Quick guide

Transport and storage

Notice

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

Transport

For transporting the device, use the transport case included in the scope of delivery in order to protect the device from external influences.

The supplied Li-ion batteries are subjects to the requirements of dangerous goods legislation.

Observe the following when transporting or shipping Li-ion batteries:

- The user may transport the batteries by road without any additional requirements.
- If transport is carried out by third parties (e.g. air transport or forwarding company), special requirements as to packaging and labelling must be observed. This includes consulting a dangerous goods specialist when preparing the package.
 - Only ship batteries if their housing is undamaged.
 - Please also observe any other national regulations.

Storage

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- protected from dust and direct sunlight
- stored inside the transport case supplied in order to protect the device from external influences
- at the temperature specified in the technical data

Operation

Charging the battery

The battery is partially charged upon delivery to avoid damage to the battery caused by a deep discharge.



Warning of electrical voltage

Before each use of the charger or power cable, check for damages. If you notice damages, stop using the charger or power cable!

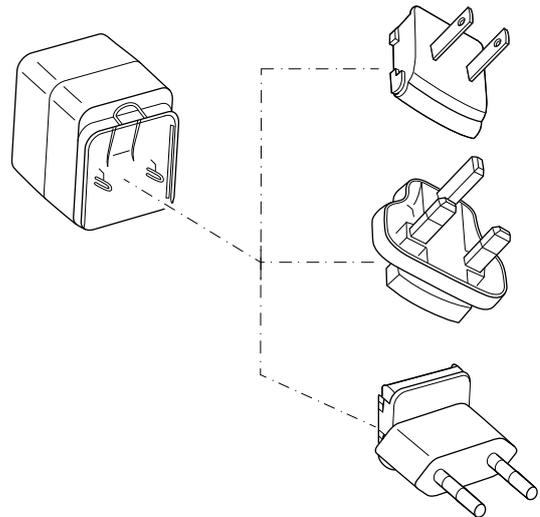
Notice

The battery can be damaged in case of improper charging.

Never charge the battery at ambient temperatures below 10 °C or above 40 °C.

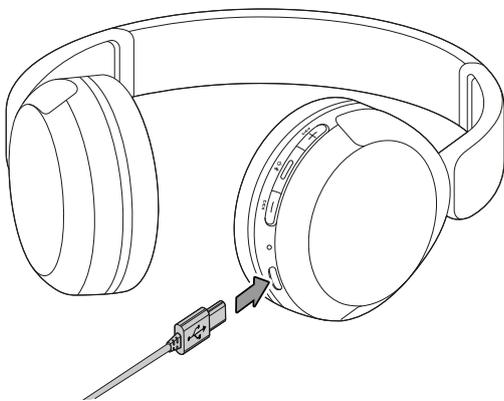
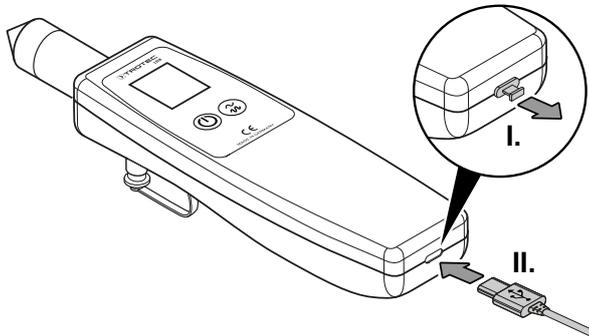
The battery should be charged prior to initial start-up and when the battery power is low. Then the *battery status* indication (10) only shows one bar, or the *Status LED* (15) flashes three times in white every 150 seconds. To do so, please proceed as follows:

1. Select the suitable charging adapter.



2. Plug the USB power adapter into a properly fused mains socket.
3. Connect the USB charging cable to the power adapter.

4. Remove the dust protection from the USB-C port (3) before charging the device.
5. Connect the USB charging cable to the device or headphones.



- ⇒ The *Battery status* indication (10) of the device only shows one bar. As soon as all bars are displayed, the charging process is complete.
 - ⇒ The *Status* LED (15) on the headphones lights up in orange. The charging process is completed as soon as the light goes out.
6. Remove the charging cable when the charging process is completed.
 7. Pull the USB power adapter out of the mains socket.

Initial start-up

Prior to initial start-up headphones and device need to be paired.

- ✓ The device is switched off.
1. Press and hold the *Frequency* button (5).
 2. Briefly press the *On/Off/Min* button (4) at the same time.
 - ⇒ A countdown from 05 to 00 appears on the display.
 3. Press and hold the *Frequency* button (5) until the countdown is complete.
 - ⇒ The message "on" appears briefly on the display.
 - ⇒ The device is now in pairing mode.

4. Press the *Power* button (13) on the headphones for approx. 3 seconds.
 - ⇒ The headphones are switched on.
 - ⇒ The pairing mode on the headphones is started.
 - ⇒ The *Status* LED (15) repeatedly flashes blue twice in succession and you will hear an acoustic confirmation of the device being in pairing mode.
5. Hold both devices in the immediate vicinity of one another until the connection is established.
 - ⇒ The *Sound* icon (9) is no longer crossed out.
 - ⇒ The *Status* LED (15) on the headphones goes out.
6. First, turn down the volume on the headphones by pressing the *Decrease volume* button (14) several times.



Info

The headphones and device pair automatically the next time they are switched on.

Switching the device on



Info

If you have just finished pairing the devices for initial start-up, both the device and the headphones are switched on already.

1. Press the *On/Off/Min* button (4) of the device for approx. 2 seconds.
 - ⇒ The version number of the software is displayed.
 - ⇒ The device is then switched on and ready for use.

Switching the headphones on



Info

If you have just finished pairing the devices for initial start-up, both the device and the headphones are switched on already.

1. Press the *Power* button (13) until the *Status* LED (15) lights up in blue. An acoustic confirmation will also be emitted.
 - ⇒ The headphones link up with the device.
 - ⇒ If the connection has been established successfully, there should be audible sounds.
2. If necessary, adjust the volume using the *Increase volume* (12) and *Decrease volume* (14) buttons.

If the connection attempt fails, switch both units off and then back on in the following order:

- Device
- Headphones

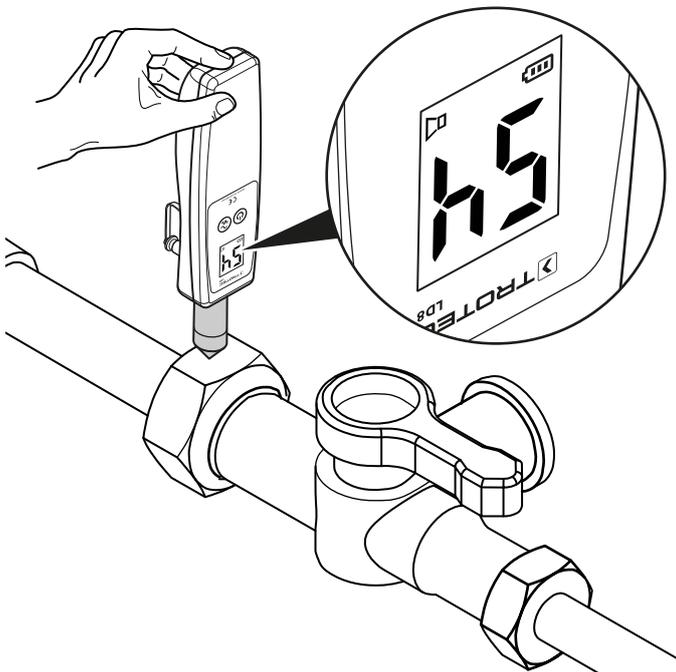
Carrying out a measurement



Info

Note that moving from a cold area to a warm area can lead to condensation forming on the device's circuit board. This physical and unavoidable effect can falsify the detection result. In this case, the device emits either no signals or they are incorrect. Wait for a few minutes until the device has become adjusted to the changed conditions before using the device.

- ✓ The device is switched on.
- ✓ The volume control at the headphones is set to minimum.
- 1. Put on the headphones.
- 2. Put the measuring tip (1) to the object to be tested.

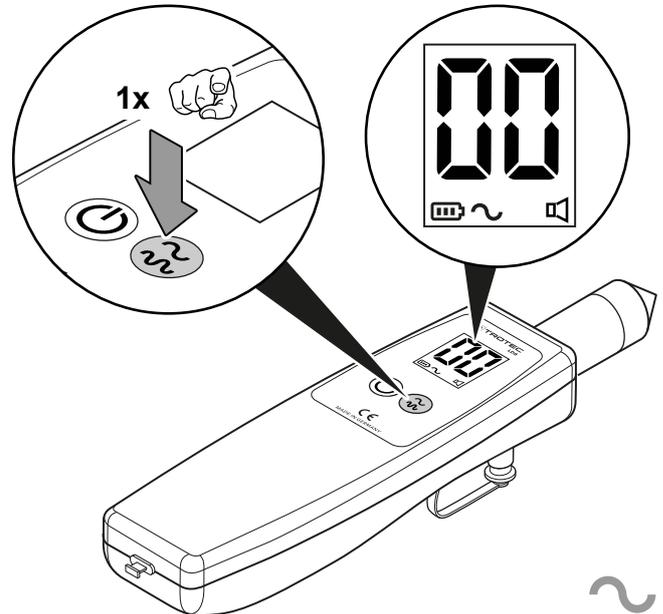


⇒ The level is shown on the display and the sound can be heard through the headphones.

Changing the frequency range

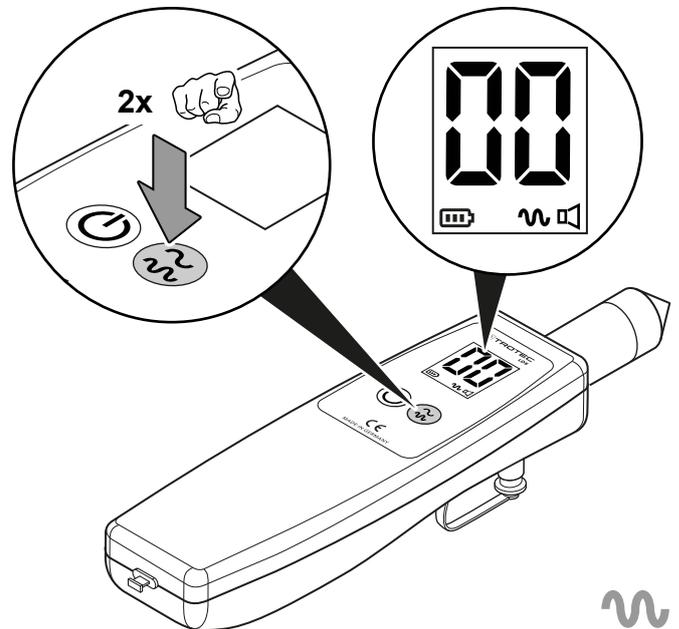
Upon switch-on the device allows for all frequencies.

1. Press the *Frequency* button (5) once to activate low frequencies.



⇒ The *High frequencies* indication (8) appears.

2. Press the *Frequency* button (5) a second time to activate high frequencies.



⇒ The *Low frequencies* indication (11) appears.

3. Press the *Frequency* button (5) a third time to activate all frequencies.
- ⇒ The *High frequencies* (8) and *Low frequencies* (11) indications go out.

Using the MIN function

The MIN function can be used to identify the damaged point more precisely. To do so, please proceed as follows:

1. Place the measuring tip to the first position.
2. Press the *On/Off/Min* button (4) during the measurement.
 - ⇒ The display shows the lowest level measured.
3. Make a note of the lowest level.
4. Press the *On/Off/Min* button (4) again to return to the measurement display.
5. Repeat the process at the next position.
 - ⇒ If the value of the lowest level increases, you are approaching the damaged point.
 - ⇒ If the value of the lowest level decreases, you are moving away from the damaged point.
6. Repeat the process until you have found the highest of all the low levels.
 - ⇒ You have most probably found the damaged point.

Using the torch and display illumination

The torch and the background illumination of the display can be switched on and off as follows:

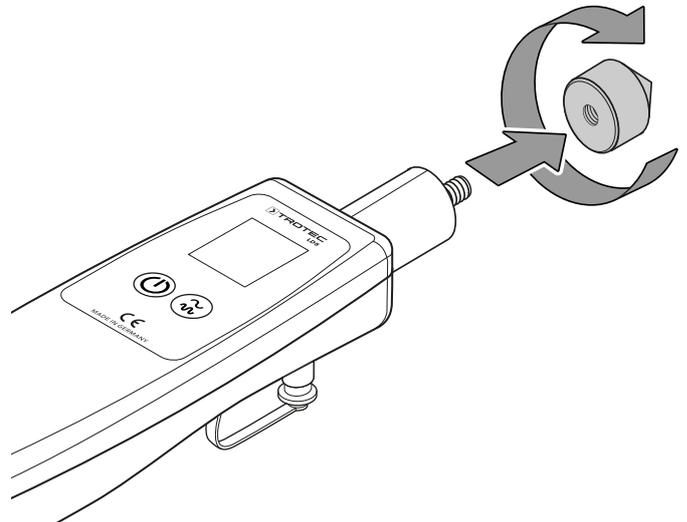
1. Press and hold the *Frequency* button (5) for approximately 3 seconds.
 - ⇒ The display illumination is switched on.
2. Press and hold the *Frequency* button (5) again for approximately 3 seconds.
 - ⇒ The torch will also be switched on.
3. Press and hold the *Frequency* button (5) a third time for approximately 3 seconds.
 - ⇒ The torch and the display illumination are both switched off.

Exchanging the measuring tip

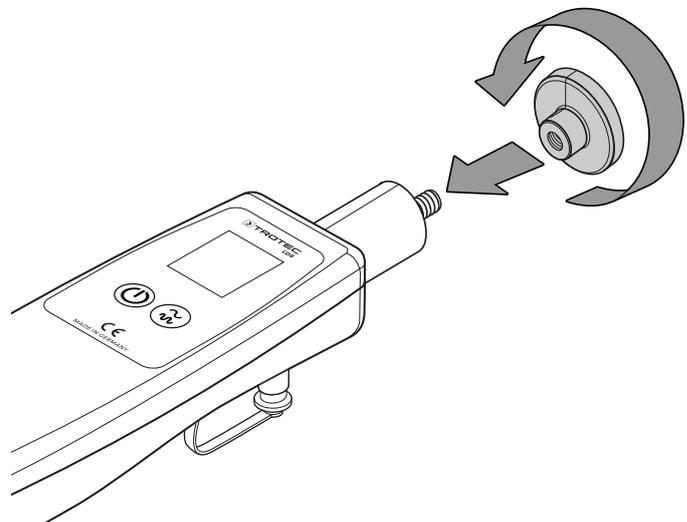
The measuring tip design can vary depending on the surface to be measured or on the medium contained in the conveyor line. Upon delivery the device comes equipped with the standard measuring tip, e.g. for checking water lines.

To exchange the measuring tip, please proceed as follows:

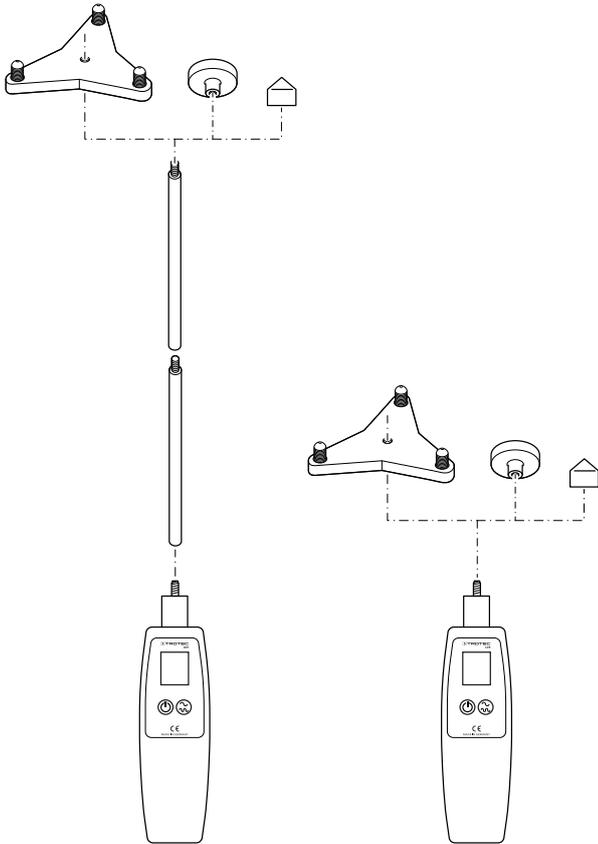
1. Unscrew the measuring tip from the device.



2. Instead, attach for instance the pot magnet to the device.

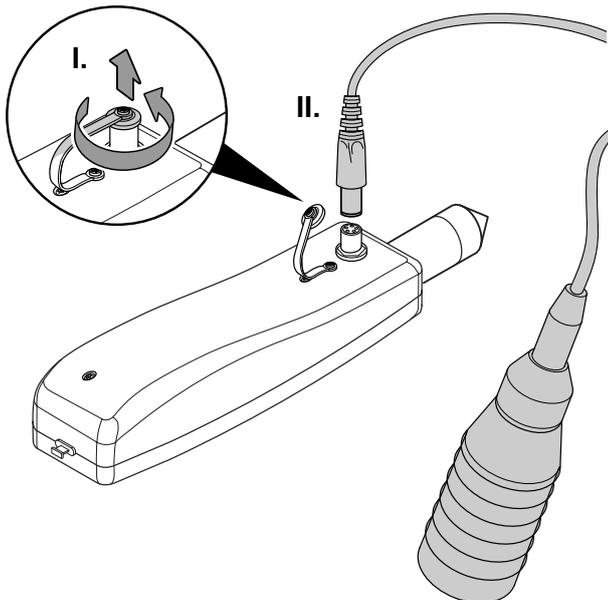


The following schematic representation provides an overview of the possible combinations. You can use one or both extensions as needed.



Using a contact microphone (optionally available)

The contact microphone can be used for a pre-localisation on various surfaces. To do so, connect the contact microphone to the designated connection on the rear of the device (2):



Info

The localisation process with the measuring tip is interrupted while the contact microphone is connected.

Resetting the headphones

You can reset the earphones if they are not functioning properly. To do so, please proceed as follows:

- ✓ The headphones are switched on.
- 1. Connect the headphones to a properly fused mains socket using the USB cable.
- 2. Press the *Increase volume* button (12) and the *Decrease volume* button (14) simultaneously.
 - ⇒ The headphones will be reset. The pairing settings remain saved.

If the headphones still do not work as usual after resetting, you can reset them to the factory settings. In this case, all saved settings are deleted. To do so, please proceed as follows:

- ✓ The headphones are switched off.
- 1. Press and hold the *Power* button (13) and the *Decrease volume* button (14) simultaneously for approximately 10-15 seconds.
 - ⇒ The headphones are reset to the factory settings when the *Status LED* (15) flashes in blue four times.

Switching the headphones off

- 1. Press the *Power* button (13) for approximately 5 seconds until the *Status LED* (15) goes out.
 - ⇒ The headphones switch off.

Switching the device off

- 1. Press the *On/Off/Min* button (4) of the device for approx. 3 seconds.
 - ⇒ The device switches off.

Maintenance and repair

Charging the battery

The battery should be charged if the following applies: the *Battery status* indication (10) only shows one bar, or the *Status* LED (12) flashes white three times every 150 seconds, or the device or headphones can no longer be switched on (see Operation chapter).

Cleaning

Clean the device with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners, but only clean water to moisten the cloth.

Repair

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The device and the headphones do not connect:

- Ensure that the headphones are switched on and that the volume is sufficient.
- Ensure that both devices are in pairing mode. Wait a few seconds for the two devices to connect.
- Ensure that the two devices are not too far apart. Observe the maximum range (see Technical data).
- The headphones may already be paired with another device. Disconnect the headphones from other devices and reset the headphones to factory settings if necessary (see section "Resetting the headphones"). Repeat pairing.
- Pairing may not have been performed correctly. Repeat pairing.
- The headphones may not be working properly. Reset the headphones (see section "Resetting the headphones").

During operation, the Bluetooth connection between the device and the headphones is lost:

- Ensure that the device and headphones are not too far apart. Observe the maximum range (see Technical data).
- The battery of the device and/or the headphones may be too low. Charge the battery.
- The headphones may not be working properly. Reset the headphones (see section "Resetting the headphones").
- The device or headphones have switched off for no reason. Switch the device back on.

The Bluetooth connection between the device and the headphones has been established correctly, but no sound can be heard:

- The volume on the headphones is set too low. Slowly increase the volume.
- The headphones may not be working properly. Reset the headphones (see section "Resetting the headphones").
- The measuring tip may be damaged or dirty. Clean the measuring tip as described in the chapter "Maintenance and cleaning" or contact the manufacturer for a replacement.

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out wheeled bin indicates that this device and any associated components must not be disposed of with household waste at the end of their life, in accordance with the Waste Electrical and Electronic Equipment Directive (2012/19/EU) and national laws.

You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

Declaration of conformity

We – Trotec GmbH – declare in sole responsibility that the product designated below was developed, constructed and produced in compliance with all relevant provisions of the EU Radio Equipment Directive in the version 2014/53/EU.

Product model / Product: LD8
Product type: sound locator
Year of manufacture as of: 2025

The product also complies with all relevant provisions of the following directives/regulations:

- 2011/65/EU
- 2014/30/EU

Other EU legal acts applied:

- 2012/19/EU

Applied harmonised standards:

- EN 300 328 V2.2.2
- EN 301 489-1 V2.2.3:2019-11
- EN 301 489-17 V3.2.4:2020-09
- EN 62311:2008
- EN 62368-1:2014 + AC:2015 + A11:2017

Applied national standards and technical specifications:

- IEC 62368-1 2014 + Corr.1 2015

Manufacturer and name of the authorised representative of the technical documentation:

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