

ROTHENBERGER

ROLeak Aqua 3Plus

ROLeak Aqua 3Plus



DE Bedienungsanleitung
EN Instructions for use
FR Instruction d'utilisation
ES Instrucciones de uso

IT Istruzioni d'uso
PL Instrukcja obsługi
TR Kullanım kılavuzu
HU Kezelési útmutató



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Intro

EU-KONFORMITÄTSEKTLÄRUNG

Wir erklären in alleiniger Verantwortung, dass dieses Produkt mit den angegebenen Normen und Richtlinien übereinstimmt.

EU-DECLARATION OF CONFORMITY

We declare on our sole accountability that this product conforms to the standards and guidelines stated.

DECLARATION EU DE CONFORMITÉ

Nous déclarons sous notre propre responsabilité que ce produit est conforme aux normes et directives indiquées.

DECLARACION DE CONFORMIDAD EU

Declaramos, bajo nuestra responsabilidad exclusiva, que este producto cumple con las normas y directivas mencionadas.

DICHIARAZIONE DI CONFORMITÀ EU

Dichiariamo su nostra unica responsabilità, che questo prodotto è conforme alle norme ed alle direttive indicate.

DEKLARACJA ZGODNOŚCI EU

Oświadczamy z pełną odpowiedzialnością, że produkt ten odpowiada wymaganiom następujących norm i dokumentów normatywnych.

EU UYGUNLUK BEYANI

Tek sorumlu olarak bu ürünün yönetmelik hükümleri uyarınca aşağıdaki normlara ve norm dokümanlarına uygunluğunu beyan ederiz.

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Teljes felelősségünk tudatában kijelentjük, hogy jelen termék megfelel a következő szabványoknak vagy szabványossági dokumentumoknak.



ROLeak Aqua 3Plus:

2014/53/EU, 2011/65/EU, EN 300328,
EN 301489-1, EN 301489-17, EN 62368-1,
EN 62479, EN IEC 63000

Herstellerunterschrift

Manufacturer/ authorized representative signature

ppa. Thorsten Bühl

Director Corporate
Technology

i. V. Maximilian Gottschalk

Head of New Product
Development

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Technische Unterlagen bei/ Technical file at:

ROTHENBERGER Werkzeuge GmbH
Spessartstraße 2-4
D-65779 Kelkheim/Germany



Intro

DEUTSCH - Originalbetriebsanleitung! Bedienungsanleitung bitte lesen und aufbewahren! Nicht wegwerfen! Bei Schäden durch Bedienungsfehler erlischt die Garantie! Technische Änderungen vorbehalten!	Seite 2
ENGLISH Please read and retain these directions for use. Do not throw them away! The warranty does not cover damage caused by incorrect use of the equipment! Subject to technical modifications!	Page 12
FRANÇAIS Lire attentivement le mode d'emploi et le ranger à un endroit sûr! Ne pas le jeter! La garantie est annulée lors de dommages dus à une manipulation erronée! Sous réserve de modifications techniques!	Page 22 ⊕
ESPAÑOL ¡Por favor, lea y conserve el manual de instrucciones! ¡No lo tire! ¡En caso de daños por errores de manejo, la garantía queda sin validez! Modificaciones técnicas reservadas!	Página 32
ITALIANO Per favore leggere e conservare le istruzioni per l'uso! Non gettarle via! In caso di danni dovuti ad errori nell'uso, la garanzia si estingue! Ci si riservano modifiche tecniche!	Pagina 42
POLSKI Instrukcję obsługi proszę przeczytać i zachować! Nie wyrzucać! Przy uszkodzeniach wynikających z błędów obsługi wygasa gwarancja! Zmiany techniczne zastrzeżone!	Strony 52
TÜRKÇE Kullanım açıklamalarını lütfen dikkatlice okuyunuz ve bir yerde muhafaza ediniz! Çöpe atmayınız! Kullanımında yapılan hatalar, garantinin silinmesine neden olur! Teknik deðişiklikler yapma hakkımız saklıdır!	Sayfa 62
MAGYAR Kérjük, olvassa el és őrizze meg a kezelési utasítást! Ne dobja el! A helytelen kezelésből származó károsodások esetén megszűnik a jótállás! Műszaki változtatások fenntartva!	Oldaltól 72



ROLeak Aqua 3Plus, no. 1500003533

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Markings in this document:



Markings in this document!

This sign warns against the danger of personal injuries.



Caution!

This sign warns against the danger of property damage and damage to the environment.



Call for action



1.1 General Power Tool Safety Warnings



WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool.

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your electrically-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors only, use an extension cords suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety


- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A momentary lack of attention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.

- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5) Battery tool use and care

- a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- b)  **WARNING! Use power tools only with specifically designated battery packs and respectively battery types.** Use of any other battery packs may create a risk of explosions, injury and fire.
- c) **When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- e) **Do not use a damaged or modified battery.** Damaged or modified batteries can behave unexpectedly and lead to fires, explosions or injuries.
- f) **Do not expose a battery for fire or high temperatures.** Fire or temperatures above 130°C (265°F) can cause an explosion.
- g) **Follow all the instructions for charging and never charge the battery or the cordless tool outside the temperature range specified in the operating instructions.** Incorrect charging or charging outside the permitted temperature range can destroy the battery and increase the fire risk.

6) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
- b) **Never service damaged batteries.** All maintenance of batteries should only be carried out by the manufacturer or authorised customer service points.

1.2 Special safety instructions



Attention! You can prevent your hearing from being damaged by not listening at high volume for long periods of time.

The limit values specified in the technical data must never be exceeded.

The device is sensitive to impacts. Never let it drop on the floor or suffer any other kind of impact!

Checking the package: Check the package for completeness and any signs of external damage immediately after you receive the device. Devices that are visibly damaged must never be put into operation. Contact your sales partner immediately if there is anything missing or damaged.

Transporting the device: Transporting lithium batteries, as well as equipment in which such batteries or accumulators are fitted, is controlled by regulations based on the UN Model Regulations for Transporting Dangerous Goods (UN document ST/SG/AC.10-1).

Find out about the transport regulations and abide by them when transporting the system.

Initial charging: The device and the included headphones should be fully charged before they are used for the first time.

2 Technical Data

The device is specified by the following technical parameters:

Parameter	Value
Sensor	Internal piezo-ceramic sensor (sound recording via probe tip or other probe head); an external microphone can also be connected
Display	LCD, 102 x 64 pixels; transreflective
Frequency filter	3 levels are selectable: 0 to 540 Hz / 0 to 4,000 Hz / 540 to 4,000 Hz
Memory	Last level
Battery	Li-ion battery (3.6 V / 750 Ah)
Operating time	up to 15 h
Recharging duration	6 h max.
Charging power	5 V / 150 mA
Operating temperature	-10°C to +50°C
Storage temperature	-25°C to +70°C
Dimensions (L x W x H)	230 x 90 x 70 mm (including standard probe tip)
Weight	400 g (including standard probe tip and battery)
Protection class	IP 41

The Bluetooth headphones are specified by the following technical parameters:

Parameter	Value
Bluetooth frequency	2,402 - 2,480 GHz
Bluetooth version	V4.0
Battery	Li-ion battery
Operating time	up to 10 h
Recharging duration	4 h max.
Charging power	5 V / 300 mA
Operating temperature	-10°C to +55°C
Storage temperature	-20°C to +60°C
Weight	about 210 g

3 Scope of delivery

The standard package includes:

- leak detector + headphones
- case
- micro-USB recharger with dual outputs
- probe tip, V2A, d = 10 x 31 mm
- 2 x probe tip extension rods
- magnetic adapter
- tripod adapter

4 Power supply

An internal Li-ion battery powers the ROLeak Aqua 3Plus.

The device can be operated for up to 15 hours from a fully charged battery. The battery symbol at the top right of the display indicates the actual battery status. The battery symbol will start to flash if the battery status is too low. The device will switch off some time later without another warning.

Use the USB recharger provided in the package to recharge the device. It connects up to the device via the USB socket (4) and it also connects up to the general power supply. A complete recharging cycle takes approx. 6 hours. The recharging progress is displayed on the device's screen.

The integrated battery is not replaceable.



Do not open the device. Contact your service partner if you have battery problems!

5 Function of the Unit

The ROLeak Aqua 3Plus is a simple to use, hand-held device used for acoustically de-tecting leaks in pipeline systems.

The device uses an integrated acoustic sensor. The noises occurring in the pipework are recorded by the probe tip, amplified and reproduced through the headphones. The measured noise level is also simultaneously displayed on the device's screen.

The user can choose between three frequency filter settings during the measuring.

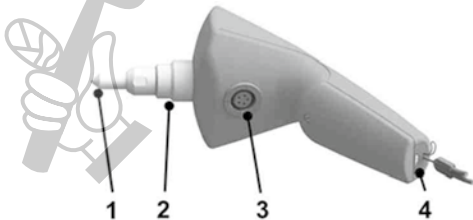
The probe tip can be detached from the device. This allows extensions to be inserted or other probe heads to be used.

An external acoustic sensor, such as a floor microphone, can be connected up to the device via the sensor socket.

Bluetooth is used to establish the connection between the device and the headphones.

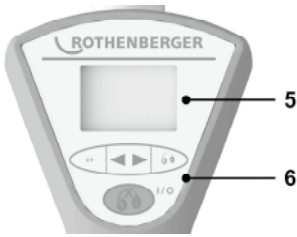
5.1 Design

The following image shows you the device's probe tip, sensor and connection sockets:



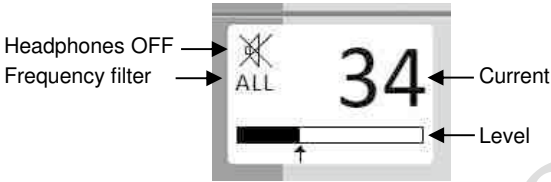
- 1 Probe tip (exchangeable, M8 thread)
- 2 Device's acoustic sensor (cannot be dismantled)
- 3 Sensor socket for connecting up an external acoustic sensor (floor microphone, etc.)
- 4 Micro USB socket for recharging the battery

The following image shows you the device's control panel:



5 Display

The following information is displayed on the screen:



The currently measured level is displayed as a dimensionless numerical value lying between 1 - 99.

The displayed bar also indicates the current level. The arrow below the bar marks the last measured value that was saved.

6 Control buttons

Filter button

Selecting a frequency filter (3 levels - LOW / HIGH / ALL)

Volume buttons

Decrease / increase the headphones volume

I/O button

Long press switches the device On / Off

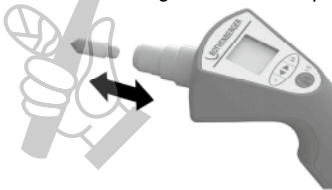
Short press starts/ stops the current measuring process; headphones are muted / muting is cancelled simultaneously

6 Operation

Using the probe tip:

The noise is recorded via the probe tip (1) when the internal sensor is used for the measuring.

The probe tip can be detached. You can unscrew it when necessary and exchange it for another measuring head or fit the provided extension rod between the probe tip and the sensor.




Using an external sensor:

The 5-pin socket (3) underneath the device can be used to connect up an external sensor to the device, e.g. a ROLeak Aqua 3Plus floor microphone.

The device must be switched off before an external sensor is attached to it. Take note of the markings on the plug and socket. The plug must click into place.

The external sensor will be detected automatically when the device is switched on. The measured values from the external sensor will be displayed on the screen from this point on. It is not possible to switch between the internal and an external sensor during operation. The device will not switch over to the internal sensor automatically after the external sensor has been detached. The device must be switched off and then be switched back on. The values from the internal sensors will be displayed on the screen again afterwards.



Frequency filter:

Press the filter button  to change between the following three frequency filter stages during the measuring:

Description	Measuring range	Explanation
LO	0 - 540 Hz	The high frequencies are suppressed; (when using a floor microphone)
HI	540 - 4,000 Hz	low frequencies are suppressed; (when using a probe rod directly on the line / fitting)
ALL	0 - 4,000 Hz	Broadband measuring without a filter

Procedure for running a measuring process:



We recommend that the following procedure should be used for a measuring run:


- switch on the headphones, but do not put them on yet
- switch on the ROLeak Aqua 3 Plus: This will establish the Bluetooth connection between the device and the headphones. The status LED on the headphones will start to continually flash blue as soon as the connection is established. The current noise level will be displayed on the screen.
- Press the  button to "mute" the device.
- Use the  button to set the volume to a low level, e.g. Level 2.

The device is now ready for measuring.

You can put the headphones on now.

Proceed as follows:

- Now use the  button to set the frequency filter to "ALL".
- Place the probe tip or the connected microphone on the measuring spot.
- Press the  button to cancel the muting. The headphones will be re-activated and the recorded noise will be reproduced. The noise level will be displayed on the screen. Change the frequency filter if necessary.

Press the  button again before moving the unit or the connected microphone! The screen display will be frozen and the headphones will be "muted".


Bluetooth problem:


If the existing connection between the headphones and the device is dropped than the headphones will start to search for the Bluetooth signal from the device once again. The headphones will switch off if the device is not detected during this period. The status LED will go out.

7 Headphones

Bluetooth headphones are included in the ROLeak Aqua 3Plus package.

Buttons & sockets:

 Press the On / Off button down for about 3 seconds to switch On / Off

 Micro USB socket for recharging the battery

All of the other buttons and interfaces do not have functions or they are not relevant for working with the ROLeak Aqua 3Plus.

Status-LED:

The light from a status LED on the left earpiece will be visible when the headphones are on. The following statuses are possible:

LED-Status

3 x blue
Alternating blue / red
Regularly blue, every 3 seconds

Significance

During switching on
Bluetooth is searching for the ROLeak Aqua 3Plus
Connection with the ROLeak Aqua 3Plus has been established
During recharging until the battery is full
During switching off

Continuously red, then off

Briefly red, then off

Switching on / Switching off:

Switch on by pressing the I/O button on the headphones until you hear a signal tone. The status LED flashes blue three times, then alternates between red and blue light to indicate that the headset is searching for the Bluetooth partner device.

The status LED on the headphones will start to regularly flash blue every 3 seconds as soon as the switched-on ROLeak Aqua 3Plus has been detected.

The search for the Bluetooth signal from the ROLeak Aqua 3Plus will continue for 5 minutes. The headphones will switch off if the device is not detected during this period. The status LED will go out.

Switch off by pressing the I/O button on the headphones down until the red status LED lights up and goes out afterwards.

Volume:

The headphones volume can be adjusted over 15 levels. It can be set using the V+ / V- buttons on the headphones or the  and  buttons on the ROLeak Aqua 3Plus.


Pairing:

"Pairing", i.e. the initial connecting up of the ROLeak Aqua 3Plus with the supplied headphones, has already been carried out in the factory. The ROLeak Aqua 3Plus is already saved as a "connected device" in the data memory in the headphones. The two devices will find and connect themselves up automatically after being switched on.

Battery:

The headphones are powered by an internal battery.

A warning signal will sound when the battery is low. The headphones will switch off a few minutes later without another warning.

Use the recharger provided in the package for recharging. It connects up to the headphones via the USB socket  and it also connects up to the general power supply. Alternatively, the headphones can be connected to a computer or USB power supply via USB cable for recharging. The status LED will be red during recharging. It will go out as soon as the battery is fully charged.

The integrated battery is not replaceable.

Do not open the device. Contact your service partner if you have battery problems!





7.1 Using a different Bluetooth headset

You can also use different Bluetooth headphones instead of the headphones supplied by us. You can do this by connecting up the ROLeak Aqua 3Plus with the new headphones (so-called "pairing").

Proceed as follows to run a pairing process:

➔ The ROLeak Aqua 3Plus must be switched off.

- Press the  and  buttons simultaneously until "Configuration" is displayed on the screen. The device is switched on and it will now search for all Bluetooth devices present in the vicinity.
- Set the headphones to pairing mode. (More detailed information can be found in the headphones operating instructions.)

The name of the headphones will be displayed on the screen as soon as the device detects the headphones. OK will be displayed on the right at the bottom of the screen.

"ERROR" will be displayed on the screen if the headphones are not detected. Press the button below REPEAT if you want to repeat the search. Press the button below IGNORE if you want to use the ROLeak Aqua 3Plus without headphones.

Press the  button directly below OK to accept the displayed headphones.

An audio connection will be immediately established between the ROLeak Aqua 3Plus and the headphones after successful pairing. The device is ready for measuring.

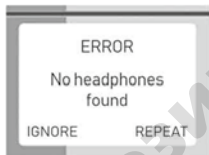
The device and the headphones will now detect and connect to each other automatically whenever they are switched on.




7.2 Using the device without headphones

The ROLeak Aqua 3Plus can also be used without any headphones being connected to it. The recorded noise level will only be displayed on the screen.

Proceed as follows:

- Switch the device on. The device will now search for all Bluetooth devices present in the vicinity.
- Wait for approx. 10 seconds until this message is displayed on the screen:



- Press the  button below IGNORE. The screen will change over to the measured value display. The device will start measuring. The actual measured value will be displayed. Use this  button to interrupt or continue the measuring as normal. Use this  button to select the frequency filter as normal.

You must first switch off the ROLeak Aqua 3Plus if you want to start working with headphones again. After you switch back on again, the device will run a normal search for the headphones that were last used and establish the Bluetooth connection with them.

8 Accessories

You can find suitable accessories in the main catalog or at www.rothenberger.com

9 Customer service

The ROTHENBERGER service locations are available to help you (see listing in catalog or online) and replacement parts and service are also available through these same service locations. Order your accessories and spare parts from your specialist retailer or using RO SERVICE+ online: ☎ + 49 (0) 61 95/ 800 8200 📠 + 49 (0) 61 95/ 800 7491 ✉ service@rothenberger.com - www.rothenberger.com

Components of the unit are recyclable material and should be put to recycling. For this purpose registered and certified recycling companies are available. For an environmental friendly disposal of the non-recyclable parts (e.g. electronic waste) please contact your local waste disposal authority.

Old batteries can be taken to your specialist dealer who will dispose of them in conformity with environmental regulations.

For EU countries only:



Do not dispose of electric tools with domestic waste. In accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation as national law, electric tools that are no longer serviceable must be collected separately and utilised for environmentally compatible recycling.

МАГАЗИН
БАШ МАЙСТОРА
ПРОФЕСИОНАЛНИ РЕШЕНИЯ

