OPERATING INSTRUCTIONS

EN

Translation of the Original

RC 500 | RC 500 WL

Remote control

PFEIFFER VACUUM

Dear customer,

Thank you for choosing a Pfeiffer Vacuum product. Your new remote control is designed to support you with its performance, perfect operation and without impacting your individual application. The name Pfeiffer Vacuum stands for high-quality vacuum technology, a comprehensive and complete range of top-quality products and first-class service. From this extensive, practical experience we have gained a large volume of information that can contribute to efficient deployment and to your personal safety.

In the knowledge that our product must avoid consuming work output, we trust that our product can offer you a solution that supports you in the effective and trouble-free implementation of your individual application.

Please read these operating instructions before putting your product into operation for the first time. If you have any questions or suggestions, please feel free to contact info@pfeiffer-vacuum.de.

Further operating instructions from Pfeiffer Vacuum can be found in the Download Center on our website.

Disclaimer of liability

These operating instructions describe all models and variants of your product. Note that your product may not be equipped with all features described in this document. Pfeiffer Vacuum constantly adapts its products to the latest state of the art without prior notice. Please take into account that online operating instructions can deviate from the printed operating instructions supplied with your product.

Furthermore, Pfeiffer Vacuum assumes no responsibility or liability for damage resulting from the use of the product that contradicts its proper use or is explicitly defined as foreseeable misuse.

Copyright

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1 About this manual

IMPORTANT
Read carefully before use.
Keep the manual for future consultation.

1.1 Validity

This document describes the function of the products listed in the following and provides the most important information for safe use. The description is written in accordance with the valid directives. The information in this document refers to the current development status of the products. The document retains its validity assuming that the customer does not make any changes to the product.

1.1.1 Related documents

Designation	Document
Operating instructions "Leak detector"	(depending on the device used)
Installation instructions "Radio transmitter"	IG 0142
Declaration of conformity	(Part of this manual)

Tbl. 1: Related documents

1.1.2 Variants

This document applies to products with the following part numbers:

Part number	Designation	Can be used for
PT 445 421-T	RC 500	MiniTest 300 or HLT 5xx SmartTest
PT 445 420-T	RC 500 WL	
PT 445 432-T		ASM 3xx (wireless)

This operating manual applies for the cable-bound and wireless remote control. Information that relates to only one of both products is indicated as such.

The part number is found on the rating plate of the product.

Pfeiffer Vacuum reserves the right to make technical changes without prior notification.

The figures in this document are not to scale (dimensions in mm).

1.2 Target group

These operating instructions are aimed at all persons performing the following activities on the product:

- Transportation
- Setup (Installation)
- Usage and operation
- Decommissioning
- Maintenance and cleaning
- Storage or disposal

The work described in this document is only permitted to be performed by persons with the appropriate technical qualifications (expert personnel) or who have received the relevant training from Pfeiffer Vacuum.

1.3 Conventions

1.3.1 Instructions in the text

Usage instructions in the document follow a general structure that is complete in itself. The required action is indicated by an individual step or multi-part action steps.

Individual action step

A horizontal, solid triangle indicates the only step in an action.

► This is an individual action step.

Sequence of multi-part action steps

The numerical list indicates an action with multiple necessary steps.

1. Step 1
2. Step 2
3. ...

1.3.2 Pictographs

Pictographs used in the document indicate useful information.

Note

Tip

1.3.3 Product labels

This section describes all the labels on the product along with their meaning.

Rating plate

The rating plate is located on the bottom of the remote control.

1.4 Trademarks

- EXCEL® is a trademark of the Microsoft Corporation.

2 Safety

2.1 General safety instructions

This document includes the following 4 risk levels and 1 information level.

⚠ DANGER

Imminent danger

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

► Instructions on avoiding the hazardous situation

⚠ WARNING

Possibly imminent danger

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

► Instructions on avoiding the hazardous situation

⚠ CAUTION

Possibly imminent danger

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

► Instructions on avoiding the hazardous situation

NOTICE

Danger of property damage

Notice is used to address practices not related to physical injury.

► Instructions on avoiding property damage

Notes, tips or examples indicate important information on the product or on this document.

2.2 Safety instructions

Safety instructions according to product's life stages

All safety instructions in this document are based on the results of a risk assessment. Pfeiffer Vacuum has taken into account all the relevant life stages of the product.

Risks during transport

NOTICE

Damage caused by incorrect transportation

Transportation in unsuitable packaging, or failure to install all transport locks, can damage the product.

► Comply with the instructions for safe transportation.

Risks during storage

NOTICE

Damage caused by improper storage

Improper storage will lead to damage to the product.

► Comply with the instructions for safe storage.

Risks during installation

⚠ DANGER

Danger to life due to electric voltage

High voltages are present inside the device. When touching parts that are live, there is a risk of death.

- ► Disconnect the device from the current supply before performing all installation and maintenance work.
- ► Secure the current supply against unauthorized or unintentional reactivation.
- ► Never open the device with the current supply connected.

⚠ WARNING

Danger of electric voltage from incorrect mains voltage

An incorrect mains voltage leads to damage as well as injury from electric shock.

- ► Before connecting to the current supply, ensure that the charge adapter is compatible with the mains voltage on-site.

⚠ WARNING

Danger of electric shock from incorrect power supply pack

An unapproved charge adapter causes damage, as well as injury from electric shock.

- ► Use only the charge adapter and remote control supplied.

NOTICE

Danger from improper modifications to the device

Improper modifications to the device may have far-reaching consequences:

- Errors when transferring measurement results (leakage remains undetected)
- Invalid modifications to the EMC properties (violations of the law)
- Dangerous radio-technical and electrical malfunctions
- Mechanical malfunctions (impairment of safety)

- ► Never make modifications to the device.

NOTICE

Damage to the device from too high electric voltage

The device contains electric components that may be damaged by high electric voltage.

- ► Use only the original charge adapter.
- ► Before connecting the charge adapter, ensure that it is compatible with the mains voltage on-site. (See technical data)

NOTICE

Damage from connecting or disconnecting under voltage

The device as well as devices connected will be damaged by connecting or disconnecting during current operation.

- ► Attach all cables only when the devices are switched off.
- ► Remove all cables only when the devices are switched off.

NOTICE

Damage from incorrect screw fixing

Screws screwed in too deep or too tight will damage the housing.

- ► Screw the screws into the housing by max. 6 mm.
- ► Tighten the screws only hand tight and not tighter than necessary.

NOTICE

Damage from incorrectly installed or incorrect rechargeable battery

A rechargeable battery that is not installed correctly, has the wrong dimensions, or electrical properties that do not match, will destroy the device.

- ► Always use an original rechargeable battery.
- ► Order a replacement rechargeable battery exclusively via the Pfeiffer Vacuum Service.
- ► Replace the rechargeable battery on the basis of the installation instructions of the replacement rechargeable battery.

Risks during operation

⚠ DANGER

Electric shocks due to moisture penetrating into the device

Moisture that has penetrated into the device results in personal injury through electric shocks.

- ► Only operate the device in a dry environment.
- ► Operate the device away from fluids and humidity sources.
- ► Do not switch on the device if fluid has penetrated into it, instead contact Pfeiffer Vacuum Service.
- ► Always disconnect the current supply before cleaning the device.

⚠ WARNING

Ignition of flammable substances or gases due to malfunction of the device

A rechargeable battery operates inside the device and has high voltages. In event of a malfunction, the device may ignite flammable substances or gases.

- ► Operate the device only outside potentially explosive atmospheres.
- ► Do not expose the device to open fires.
- ► Do not smoke in the vicinity of the device.
- ► Avoid spark generation in the vicinity of the device.

⚠ WARNING

Danger from magnetic fields

The product has a magnetic field that disturbs or impairs the function of electronic devices (e.g. pacemakers).

- ► Maintain the distances specified by the manufacturer of the pacemakers.
  - – Pfeiffer Vacuum recommends a safety distance of **at least 130 mm** between the pacemaker and the product.
- ► Avoid the influence of strong magnetic fields by means of magnetic field shielding.

⚠ CAUTION

Dangers from a damaged rechargeable battery

The wireless device is fitted with a rechargeable battery from which, in case of a malfunction or damage, dangers may arise. Warning signs could be: smoke, heat, development of sound or noises, deformation of the housing, substances escaping.

- ► Take the device out of operation immediately in case of damaged or malfunctioning rechargeable batteries.
- ► Keep the device in a safe place (e.g. fire-resistant container).
- ► Contact the Pfeiffer Vacuum Service department.

⚠ CAUTION

Risk of explosion from overheated rechargeable battery

An overheated rechargeable battery may explode.

- ► Never heat the device or the rechargeable battery by more than 60 °C.
- ► Never throw the device or the rechargeable battery into a fire.

⚠ CAUTION

Harmful radio radiation

The wireless remote control works with radio radiation that is harmful to health.

- ► Operate the device only at a distance of > 7 cm to persons.
  - – Exceptions are hands and wrists.

⚠ CAUTION

Health hazards from liquid crystals

In case the display breaks, liquid crystals escape and represent a health hazard.

- ► Avoid skin, eye and mouth contact with the liquid crystals.
- ► In event of contact with liquid crystals: wash the liquid crystals with water and soap immediately.
- ► If liquid crystals are swallowed: seek medical attention immediately.
- ► If liquid crystals should make contact with your clothing, wash them immediately with water and soap.
  - – Wear protective gloves.

⚠ CAUTION

Health hazard from alarm tones that are too loud

Alarm tones where the volume is too high will cause hearing damage.

- ► Maintain a distance to the device if a high volume has been set.
- ► If necessary, wear ear protection.
- ► When using headsets, first set the volume low.

NOTICE

Damage caused by penetrating moisture

Penetrating moisture, e.g. through condensation or dripping water, damages the device.

- ► Protect the device against moisture penetrating.
- ► Only operate the device in a clean and dry environment.
- ► Operate the device away from fluids and humidity sources.
- ► Take special precautions if there is a risk of dripping water.
- ► Do not switch on the device if fluid has penetrated into it, instead contact the Pfeiffer Vacuum Service Center.

NOTICE

Malfunction of radio transmissions

The radio transmission of the wireless device may impair other radio transmissions.

- ► Inform yourself at the local or national authorities about any requirements and guidelines for devices with radio transmission.
- ► On site, make sure that the frequency used for the device is available.

NOTICE

Damage from overheating due to excessive sun exposure

The device overheats under direct sun exposure.

- ► Do not expose the device to direct sun radiation for longer periods.

NOTICE

Undetected leaks due to incorrect threshold value

The threshold value set here applies only for the alarm of the remote control.

- ► Set the threshold value (Trigger) of the leak detector on the leak detector.

NOTICE

Undetected leaks from interrupted connection

If the connection to the remote control fails, the measurement of the leak detector is not interrupted. As a result, leaks remain undetected.

- ► Check the connection status at regular intervals.

NOTICE

Undetected leaks due to missing knowledge of the leak detector

Operation of the leak detector via the remote control without full knowledge of the leak detector may lead to malfunctions and undetected leaks.

- ► Before operating the leak detector, familiarize yourself completely with the remote control with the leak detector.

NOTICE

Damage from missing protective caps

Protective caps seal the inputs and outputs of the device so that dirt and moisture cannot penetrate. Without these protective caps, the device does not fulfill protection class IP42.

- ► Leave the protective caps on the connections if you are not using the device.
- ► Protect the device against contamination and moisture.

NOTICE

Undetected leaks from exhausted remote control rechargeable battery

The remote control switches off without prior acoustic warning once the rechargeable battery has been exhausted.

- ► Check the charge state of the rechargeable battery at regular intervals.
- ► Charge the rechargeable battery before it is exhausted.

Risks during maintenance

⚠ WARNING

Health hazard through poisoning from toxic contaminated components or devices

Toxic process media result in contamination of devices or parts of them. During maintenance work, there is a risk to health from contact with these poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- ► Take suitable safety precautions and prevent health hazards or environmental pollution by toxic process media.
- ► Decontaminate affected parts before carrying out maintenance work.
- ► Wear protective equipment.

⚠ WARNING

Danger of electric shock from opening the charge adapter

Opening the charge adapter leads to damage as well as injury from electric shock.

- ► Never open the charge adapter.

NOTICE

Damage caused by unsuitable cleaning agents

Unsuitable cleaning agents damage the product.

- ► Do not use solvents as they attack the surface.
- ► Do not use any aggressive or abrasive cleaning agents.

Risks when shipping

⚠ WARNING

Risk of poisoning from contaminated products

Where products that contain harmful substances are shipped for maintenance or repair purposes, the safety of service personnel is at risk.

► Comply with the instructions for safe shipping.

Risks during disposal

⚠ CAUTION

Health hazard caused by environmentally hazardous substances

Products, operating fluid, electric components, calibration gas residues (for example from test leaks) or similar pose health hazards.

► Dispose of the environmentally hazardous substances in accordance with local regulations.
► Dispose of calibration gas and test leaks in accordance with local regulations.

2.3 Safety precautions

The product is designed according to the latest technology and recognized safety engineering rules. Nevertheless, improper use can result in danger to operator all third party life and limb, and product damage and additional property damage.

Duty to provide information on potential dangers

The product holder or user is obliged to make all operating personnel aware of dangers posed by this product.

Every person who is involved in the installation, operation or maintenance of the product must read, understand and adhere to the safety-related parts of this document.

Infringement of conformity due to modifications to the product

The Declaration of Conformity from the manufacturer is no longer valid if the operator changes the original product or installs additional equipment.

- Following the installation into a system, the operator is required to check and re-evaluate the conformity of the overall system in the context of the relevant European Directives, before commissioning that system.

Meet fundamental safety measures

1. When handling the gases and contaminated parts used, observe the applicable guidelines.
2. Observe the protective measures.
3. Observe the safety guidelines specified in this document.
   – All work is only permissible when observing the relevant guidelines and adhering to the protective measures.
4. Inform yourself about any contamination before starting work.
5. Pass on safety instructions to all other users.

2.4 Proper use

You can operate the device with the following leak detectors:

- ASM 3xx (only wireless variant)
- MiniTest 300
- HLT 5xx SmartTest

Using the product according to its intended purpose

1. Install, operate and maintain the product only in accordance with these operating instructions.
2. Comply with the application limits.
3. Observe the technical data.

2.5 Foreseeable improper use

Improper use of the product invalidates all warranty and liability claims. Any use that is counter to the purpose of the product, whether intentional or unintentional, is regarded as misuse, in particular:

- Use outside the mechanical and electrical application limits (technical data)
- Use with corrosive or explosive media, if this is not explicitly permitted
- Use outdoors
- Use after technical changes (on the inside or the outside of the product)
- Use with replacement or accessory parts that are unsuitable or are not approved

2.6 Responsibilities and warranty

Pfeiffer Vacuum shall assume no responsibilities and warranty if the operating company or a third party:

- disregards this document.
- does not use the product for its intended purpose.
- carries out any modifications to the product (conversions, changes, maintenance work, etc.) that are not listed in the corresponding operating instructions.
- operates the product with accessories that are not listed in the corresponding operating instructions.

The operator is responsible for the process media used.

2.7 Owner requirements

Safety-conscious working

1. Only operate the product in a technically flawless state.
2. Operate the product in line with its intended purpose, safety and hazard-conscious and only in compliance with these operating instructions.
3. Fulfill the following instructions and monitor the observation of the following instructions:
   - Proper use
   - Generally applicable safety instructions and accident prevention regulations
   - International, national and locally applicable standards and guidelines
   - Additional product-related guidelines and regulations
4. Only use original parts or parts approved by Pfeiffer Vacuum.
5. Keep the operating instructions available at the place of installation.
6. Ensure personnel qualification.

2.8 Personnel qualification

The work described in this document may only be carried out by persons who have appropriate professional qualifications and the necessary experience or who have completed the necessary training as provided by Pfeiffer Vacuum.

Training people

1. Train the technical personnel on the product.
2. Only let personnel to be trained work with and on the product when under the supervision of trained personnel.
3. Only allow trained technical personnel to work with the product.
4. Before starting work, make sure that the commissioned personnel have read and understood these operating instructions and all applicable documents, in particular the safety, maintenance and repair information.

2.8.1 Ensuring personnel qualification

Specialist for mechanical work

Only a trained specialist may carry out mechanical work. Within the meaning of this document, specialists are people responsible for construction, mechanical installation, troubleshooting and maintenance of the product, and who have the following qualifications:

- Qualification in the mechanical field in accordance with nationally applicable regulations
- Knowledge of this documentation

Specialist for electrotechnical work
Only a trained electrician may carry out electrical engineering work. Within the meaning of this document, electricians are people responsible for electrical installation, commissioning, troubleshooting, and maintenance of the product, and who have the following qualifications:

- Qualification in the electrical engineering field in accordance with nationally applicable regulations
- Knowledge of this documentation

In addition, these individuals must be familiar with applicable safety regulations and laws, as well as the other standards, guidelines, and laws referred to in this documentation. The above individuals must have an explicitly granted operational authorization to commission, program, configure, mark, and earth devices, systems, and circuits in accordance with safety technology standards.

Trained individuals
Only adequately trained individuals may carry out all works in other transport, storage, operation and disposal fields. Such training must ensure that individuals are capable of carrying out the required activities and work steps safely and properly.

2.8.2 Personnel qualification for maintenance and repair

Advanced training courses
Pfeiffer Vacuum offers advanced training courses to maintenance levels 2 and 3.

Adequately trained individuals are:

- **Maintenance level 1**
  - Customer (trained specialist)
- **Maintenance level 2**
  - Customer with technical education
  - Pfeiffer Vacuum service technician
- **Maintenance level 3**
  - Customer with Pfeiffer Vacuum service training
  - Pfeiffer Vacuum service technician

2.8.3 Advanced training with Pfeiffer Vacuum

For optimal and trouble-free use of this product, Pfeiffer Vacuum offers a comprehensive range of courses and technical trainings.

For more information, please contact Pfeiffer Vacuum technical training.

2.9 Operator requirements

Observing relevant documents and data

1. Read, observe and follow this operating instruction and the work instructions prepared by the operating company, in particular the safety and warning instructions.
2. Install, operate and maintain the product only in accordance with these operating instructions.
3. Carry out all work only on the basis of the complete operating instructions and applicable documents.
4. Comply with the application limits.
5. Observe the technical data.
6. Please contact the Pfeiffer Vacuum Service Center if your questions on operation or maintenance of the product are not answered by these operating instructions.
   - You can find information in the Pfeiffer Vacuum service area.

3 Transportation and storage

NOTICE

Damage caused by incorrect transportation

Transportation in unsuitable packaging, or failure to install all transport locks, can damage the product.

► Comply with the instructions for safe transportation.

NOTICE

Damage caused by improper storage

Improper storage will lead to damage to the product.

Static charging, moisture, etc. lead to defects on the electronic components.

► Comply with the instructions for safe storage.

Transporting the product safely

1. Observe the weight of the product.
2. Where possible, always transport or ship the product in the original packaging.
3. Always use dense and impact-proof packaging for the product.
4. Remove the existing protective cover and transport protections only immediately prior to installation.
5. Reattach transport locks and transport protections prior to each transport.

Storing the product safely

1. Store the product in a cool, dry, dust-free place, where it is protected against impacts and mechanical vibration.
2. Always use dense and impact-proof packaging for the product.
3. Where possible, store the product in the original packaging.
4. Store electronic components in antistatic packaging.
5. Maintain the permissible storage temperature.
6. Avoid extreme fluctuations of the ambient temperature.
7. Avoid high air humidity.
8. Seal connections with the original protective caps.
9. Protect the product with the original transport protections (where available).

4 Product description

4.1 Identifying the product

You will need all the data from the rating plate to safely identify the product when communicating with Pfeiffer Vacuum.

Recording rating plate data

1. Read the data on the product rating plate.
2. Record this data.
3. Always have all rating plate specifications to hand.

4.2 Scope of delivery

The shipment includes the following parts:

Part number	PT 445 420 - T	PT 445 432 - T	PT 445 421 - T
Designation of the remote control	RC 500 WL	RC 500 WL	RC 500
Data cable RJ-25/Sub-D	1	1	-
Data /current supply cable RJ-25/RJ-25	-	-	1
Charge adapter for integrated rechargeable battery	1	1	-
Radio transmitter (including connecting cable)	1	1	-
Operating instructions	1	1	1

Unpacking the product and checking completeness of the shipment

1. Unpack the product.
2. Remove the transport fasteners, transport protection etc.
3. Store the transport fasteners, transport protection etc. in a safe place.
4. Check that the shipment is complete.
5. Ensure that no parts are damaged.

4.3 Structure

Leak test and ZERO function

Further information about the leak test and ZERO function can be found in the leak detector operating instructions.

4.3.1 Components

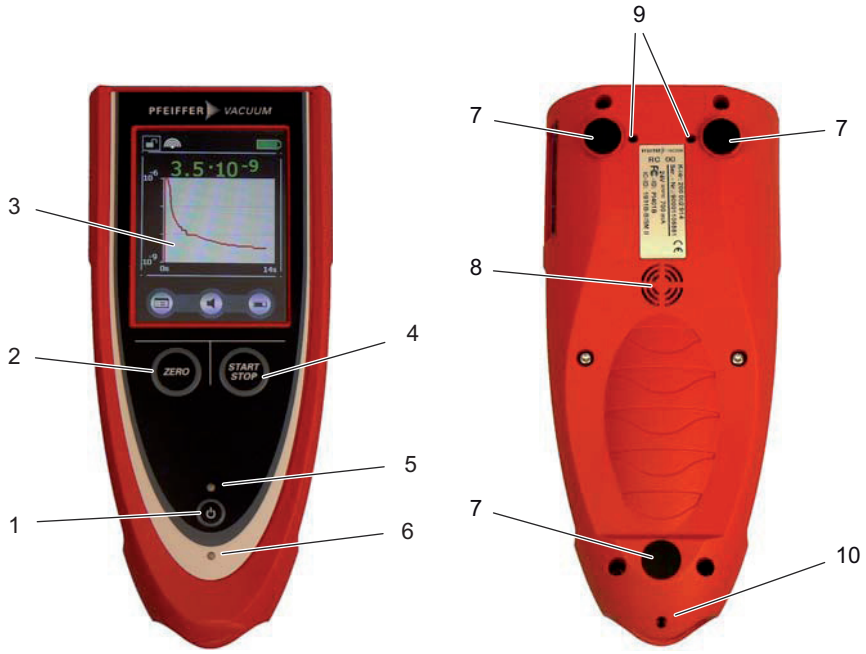


Fig. 1: Top and bottom view

1 **"ON/OFF" button**
Switches the device or display on or off

2 **"ZERO" button**
Activates the suppression of the underground signal in measuring mode

3 **Touchscreen**
Serves as display and operator panel

4 **"START/STOP" button**
Starts and stops the leak test of the leak detector

5 **LED "Operation"**
Illuminates when the device starts up
Flashes during operation and when the display is switched off

6 **LED "Charge"**
Illuminates when the rechargeable battery of the device is being charged

7 **Magnets**
For securing quickly to metallic surfaces

8 **Loudspeaker**
Outputs signal or alarm tones

9 **Threaded bushing (M3)**
For alternative attachment at usage location

10 **Eyelet for a carrying device**
An arm strap for example (not included in the scope of supply)

4.3.2 Inputs and outputs

NOTICE

Damage from missing protective caps

Protective caps seal the inputs and outputs of the device so that dirt and moisture cannot penetrate. Without these protective caps, the device does not fulfill protection class IP42.

- ► Leave the protective caps on the connections if you are not using the device.
- ► Protect the device against contamination and moisture.

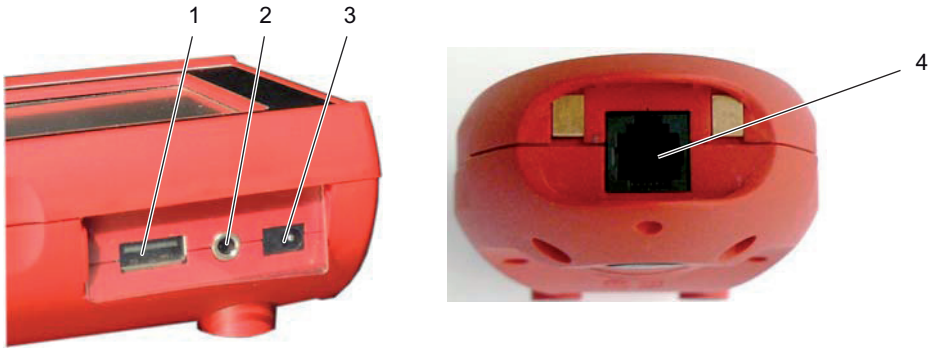


Fig. 2: Connections on the right side and bottom

1 USB connection
2 3.5 mm jack for connecting a headset
3 Connection for the charge adapter
4 RJ-25 socket for a cable connection to the leak detector

4.3.3 Charge adapter (RC 500 WL)

You can use the charge adapter worldwide as you can change the plug. See "Technical data" (see chapter “Technical data”, page 44) and "Using the rechargeable battery and charge adapter" (see chapter “Using the rechargeable battery and charge adapter”, page 31).

4.4 Range

Variant RC 500 WL
With the remote control, you can operate the leak detector wireless from a distance up to 100 meters.

Variant RC 500
With the cable-bound remote control, the distance to the device can be up to 34 meters.

5 Installation

5.1 Handling

The sturdy housing is suitable for manual operation of the remote control.

As an alternative, you can screw the remote control on at the operating location or secure it using the magnets attached.

5.2 Connecting the remote control

The leak detector is equipped with a bushing for connecting the remote control or radio transmitter.

Positioning the radio transmitter

You should position the radio transmitter such that a direct radio contact can be established to the remote control without obstructions. In particular, obstructions made of metal should be avoided.

Extension cable for the radio transmitter

You can extend the connecting cable supplied with an extension cable (10 meters) as an accessory. As a result, you have the option to position the radio transmitter in a more favorable reception position.

Connecting the remote control RC 500

You can connect the cable-bound remote control RC 500 directly to the leak detector using the connecting cable. The connecting cable transfers the data and supplies the remote control with voltage. A 4 meter long cable is included in the shipment. You can use an extension cable where the overall length of the connection must not exceed 34 meters.

1. Make sure that the remote control and leak detector are switched off.
2. Remove the protective cap from the RJ-25 socket of the remote control.
3. Connect the remote control to the leak detector using the connecting cable.
4. ASM 3xx: Tighten the screws on the D-sub plug.

Fig. 3: Mounting the radio transmitter and remote control on the leak detector

1 RJ-25 socket on the leak detector
2 Connecting cable (in the shipment of the remote control)
3 Complete radio transmitter
4 Remote control of the leak detector (RC 500 / RC 500 WL)

Connecting the remote control RC 500 WL

For the wireless communication of the remote control RC 500 WL with a leak detector, you require a radio transmitter on the leak detector. As an alternative, the remote control RC 500 WL can also exchange data with the leak detector via a cable. In this case, the maximum cable length is only 4 meters. Using the hook-and-loop fastener supplied, you can secure the radio transmitter e.g. to the leak detector housing.

1. Make sure that the remote control and leak detector are switched off.
2. Communication via cable:
   – Remove the protective cap from the RJ-25 connection of the remote control.
   – Connect the remote control to the leak detector using the connecting cable.
   – ASM 3xx: Tighten the screws on the D-sub plug.
3. Wireless communication:
   – Make sure that the radio transmitter is switched off.
   – Prepare the radio transmitter.
   – Connect the radio transmitter to the leak detector. (See operating instructions of the leak detector and the installation instructions of the radio transmitter)
   – Switch on the radio transmitter.

5.3 Securing the remote control

NOTICE

Damage from incorrect screw fixing

Screws screwed in too deep or too tight will damage the housing.

► Screw the screws into the housing by max. 6 mm.
► Tighten the screws only hand tight and not tighter than necessary.

The magnets integrated in the rear of the housing hold the remote control on metallic surfaces.

For a screw fixing, 2 threaded bushings (M3) are located in the rear of the housing.

6 Commissioning

6.1 Making ready for operation

Setting the interfaces of the leak detector

► Perform the necessary settings on the interfaces of the leak detector. (See the operating instructions of the leak detector)

Positioning the remote control correctly

► Operate the remote control in viewing and hearing distance to allow you to observe the display and hear acoustic signals.

Positioning the remote control correctly

From positioning the remote control incorrectly, you will miss acoustic signals and overlook display images.

6.2 Switching off the remote control

Switching on the remote control RC 500

► Insert the data/current supply cable into the bushing.

The LED "Operation" illuminates when starting up.

When the remote control is ready for operation, the LED "Operation" flashes.

Switching on the remote control RC 500 WL

► Press the ON/OFF button.

The LED "Operation" illuminates when starting up.

When the remote control is ready for operation, the LED "Operation" flashes.

Pressing the ON/OFF button again displays the switch-off menu.

6.2.1 Selecting the leak detector type

Switching on for the first time defines which leak detector functions with the remote control.

Selecting the leak detector type

1. Select the respective pushbutton on the display.
   – This saves the selection permanently.
2. For MiniTest 300: You can find all further information on using the remote control in the operating instructions of the MiniTest 300.

6.2.2 Selecting and connecting a leak detector (RC 500 WL)

After switching on, the device searches for the signal of a leak detector and a connection with the radio transmitter supplied. As a result, the device establishes a connection immediately when switching on. If the search is not successful after 20 seconds, the search stops. The identification of the radio transmitter is on its rating plate (PV_...). If the device has already booted, you can start a search for new leak detectors. Devices found appear on the touch screen.

Fig. 4: Available devices on the touch screen

Establishing a connection to the leak detector

1. Select "Main menu > Connect".
2. On the touch screen under "Available devices", tap on the name of the device to which a connection should be established.
3. Select "Connect".

6.3 Changing the leak detector type

Changing the leak detector type

1. For ASM 3xx and HLT 5xx:
   – press the START/STOP and ZERO buttons at the same time when the device is starting up (approx. 10 seconds).
2. For MiniTest 300:
   – select "Main menu > Settings > Setup > Devices".

6.4 Change the selection of the leak detector (RC 500 WL)

If a connection is present, the designation of the button "Connect" in the main menu changes to "Disconnect".

Change selection of the leak detector

1. Select "Main menu > Disconnect".
2. Select "Main menu > Connect" and the new device as previously described.

6.5 Checking the connection status

NOTICE

Undetected leaks from interrupted connection

If the connection to the remote control fails, the measurement of the leak detector is not interrupted. As a result, leaks remain undetected.

► Check the connection status at regular intervals.

Connection interrupted

If the connection is interrupted, the progression chart and the numeric representation of the leakage rate is additionally displayed gray.

Symbols of the connection status are located on the top edge of the touch screen.

Cable-bound	Symbol
Connection OK	
Connection interrupted	

Tbl. 2: Cable-bound connection

Wireless	Symbol
Connection OK (strong signal)	
Connection OK (weak signal)	
Connection interrupted (red dot)	

Tbl. 3: Wireless connection

7 Operation

7.1 Operating the remote control

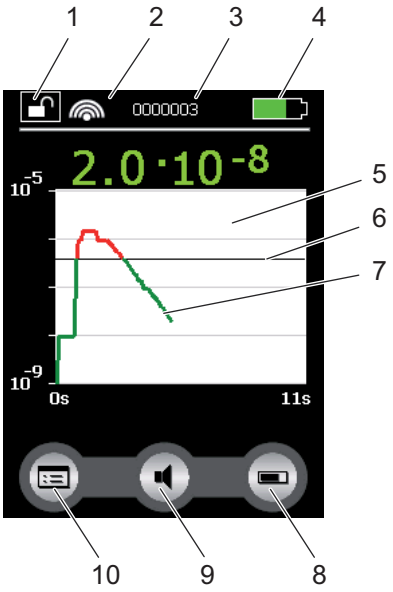


Fig. 5: Symbols and elements of the touch screen

1 Switching the key lock on/off (keep pressed for 2 seconds)
2 Connection status
3 Data set number of the recording
4 Rechargeable battery charge state
5 Main display area
6 Threshold value (Trigger)
7 Progression chart
8 Switching the measured value representation between the progression chart and enlarged numeric representation
9 Setting the volume of the remote control and leak detector
10 Open the main menu

7.2 Basic functions

The buttons on the bottom edge of the touch screen change their functional assignment when you open a settings window.

Exit menu screens

Always exit a menu screen with "X" in order not to change the parameter or to disregard possible changes.

Save changed settings

Always confirm saving changed settings with "OK".

Change display

Keep the "X", "OK" or "Back" button pressed for at least one second and then let go.

You execute the function of the button in this manner and then the display changes directly to the measuring image.

Functions highlighted in gray

Functions highlighted in gray cannot be executed.

Fig. 6: Footer in the setting window

Button "?"
Help window (if present)
"X" button
Cancel and close the window
"OK" button
Confirm/save and close the window

Fig. 7: Up and Down arrows

You can change between the setting options using the Up and Down arrows.

Fig. 8: Left and Right arrows

You can change between the input fields using the Left and Right arrows.

7.3 Configuring basic settings

7.3.1 Setting the language

The following languages are available for representation on the touch screen:

- German, English, French, Spanish
- Russian and Chinese (only for HLT 5xx SmartTest)

Setting the language

1. Select "Main menu > ... > Language".
2. Set the desired language using the arrow buttons.
3. Confirm the selection with "OK".

7.3.2 Setting the time and date

The cable-bound remote control RC 500 can only store the date and time when it has a current supply. This means that you should not disconnect the cable to the leak detector and do not switch the leak detector off.

Time and date have the following format:

- Time: hh:mm
- Date: DD.MM.YYYY

Setting the time and date

1. Select "Main menu > ... > Time".
2. Set the time.
3. Change to set the date with "OK".
4. Set the date.
5. Confirm the settings with "OK".

7.3.3 Volume

⚠ CAUTION

Health hazard from alarm tones that are too loud

Alarm tones where the volume is too high will cause hearing damage.

- ► Maintain a distance to the device if a high volume has been set.
- ► If necessary, wear ear protection.
- ► When using headsets, first set the volume low.

Alarm tone volumes of the remote control and leak detector can be set separately using the remote control. This will overwrite the volume set on the leak detector itself. The remote control and leak detector output example tones when setting the volume. The tone is switched off at level "0". When a headset is connected, the loudspeaker of the remote control is not switched off, it is only set a few levels lower.

Setting the volume

1. Select "Main menu > ... > Volume".
2. Set the volume using the arrow buttons.
3. Confirm the settings with "OK".

7.3.4 Configuring energy saving settings (RC 500 WL)

You can set the time that the background lighting of the touch screen switches off automatically in case you have not made any entry. You can also set the time that the remote control switches off in case you have not made any entry. The background lighting switches back on as soon as you touch the touch screen. If the remote control has switched off automatically, you have to start up the remote control again on the ON/OFF button. If the remote control is connected by means of an external current supply, the energy saving settings are not available.

Setting the time

1. Select "Main menu > ... > Energy".
2. Set the desired time using the arrow buttons.
3. Select the infinity symbol (∞) if the background lighting and remote control should not be switched off.
4. Confirm the settings with "OK".

7.4 Perform settings for the measurement

7.4.1 Setting the threshold value (Trigger)

NOTICE

Undetected leaks due to incorrect threshold value

The threshold value set here applies only for the alarm of the remote control.

► Set the threshold value (Trigger) of the leak detector on the leak detector.

You can set the threshold value (Trigger) via a numeric keypad. The cursor automatically goes to the next field once a digit has been entered. You can also use the arrow buttons to select individual fields.

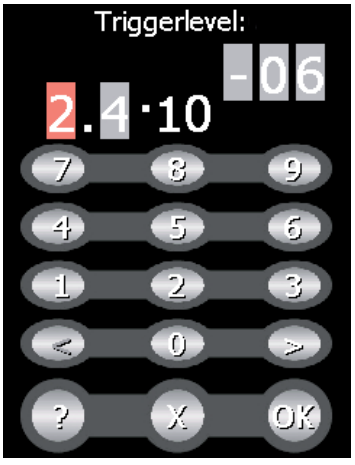


Fig. 9: Setting the threshold value (Trigger Level)

Setting the threshold value (Trigger) of the remote control

1. Select "Main menu > Trigger".
2. Set the desired threshold value.
3. Confirm the setting with "OK".

7.4.2 Setting the measured value display

You can adapt the measured value display individually.

7.4.3 Setting the scale of the Q(t) axis

The following options are available for scaling the Q(t) axis:

- Logarithmic, 1 to 9 decades
- Linear
- Automatic scaling

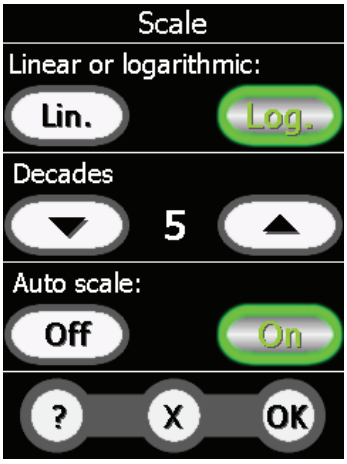


Fig. 10: Setting the scale of the Q(t) axis

Setting the scale of the Q(t) axis

1. Select "Main menu > Scaling > Q(t) axis".
2. Select a linear or logarithmic scale ("Lin" or "Log").
3. For logarithmic scaling: set the number of decades.
4. Set the automatic scaling on or off.
5. Confirm the settings with "OK".

7.4.4 Setting the scale of the time axis

The measurement path in the main display field can represent a short or long measuring duration. The longer that you select the measuring duration, the more details are lost in the representation. The setting range is from 16 to 960 seconds in steps of 16 seconds.

Setting the scale of the time axis

1. Select "Main menu > Scaling > Time axis".
2. Set the time.
3. Confirm the setting with "OK".

7.5 Performing measurements with the remote control

NOTICE

Undetected leaks due to missing knowledge of the leak detector

Operation of the leak detector via the remote control without full knowledge of the leak detector may lead to malfunctions and undetected leaks.

► Before operating the leak detector, familiarize yourself completely with the remote control with the leak detector.

If the device is connected to a switched-on leak detector, the main display area shows the display content of the leak detector. The states "Start-up" or "Ready to start" also appear on the touch screen.

Fig. 11: Display of the leak detector display on the remote control (examples)

The START/STOP and ZERO buttons on the remote control have the same functions as the respective buttons on the leak detector. If you open one of the setting screens of the remote control, when selecting "Back", you immediately access the measuring display again.

7.6 Recording measurement results

With the recorder, measurement results can be recorded. You can already write the measurement results during the measurement or on a USB stick at the end. As an alternative, you can also use the internal memory. The recording starts and ends with the measurement "Auto record". The data is stored in TXT format. For example, you can open these in a spreadsheet program. You can set the storage interval in the range of 100 milliseconds to 5 seconds. You must have set the time and date correctly in order to be able to allocate the data recorded correctly.

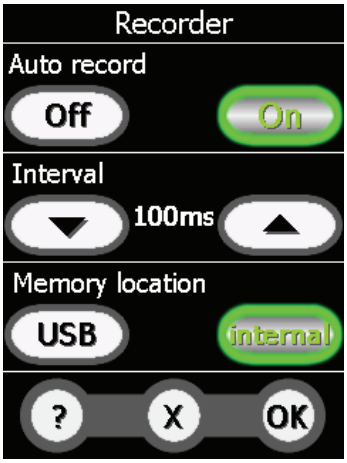


Fig. 12: Recorder settings

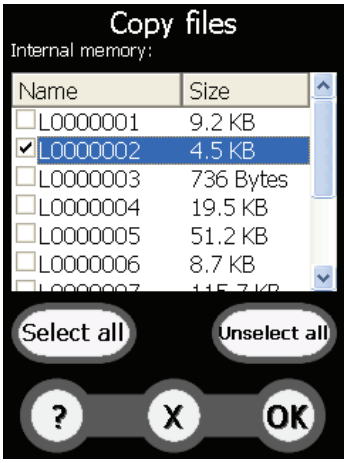


Fig. 13: Mark and copy the measurement results

Setting the recorder

1. Select "Main menu > Recorder > Settings".
2. Under "Auto record", switch the data recording on or off.
3. Set the storage interval.
4. Select the storage location.
5. Confirm the settings with "OK".

Copying the measuring results

1. Connect a USB stick to the remote control.
2. Select "Main menu > Recorder > Copy".
3. Select "Select all" or place a tick in front of individual files.
4. Confirm the selection with "OK".
5. After copying all files, acknowledge the message that appears with "OK".
6. Remove the USB stick from the remote control.

Deleting measurement results

1. Select "Main menu > Recorder > Delete".
2. Select "Select all" or place a tick in front of individual files.
3. Confirm the selection with "OK".
4. Confirm the security prompt with "OK".
5. After deleting all files, acknowledge the message that appears with "OK".

7.7 Using the rechargeable battery and charge adapter

⚠ WARNING

Danger of electric shock from incorrect power supply pack

An unapproved charge adapter causes damage, as well as injury from electric shock.

► Use only the charge adapter and remote control supplied.

⚠ WARNING

Danger of electric voltage from incorrect mains voltage

An incorrect mains voltage leads to damage as well as injury from electric shock.

► Before connecting to the current supply, ensure that the charge adapter is compatible with the mains voltage on-site.

⚠ WARNING

Danger of electric shock from opening the charge adapter

Opening the charge adapter leads to damage as well as injury from electric shock.

► Never open the charge adapter.

NOTICE

Undetected leaks from exhausted remote control rechargeable battery

The remote control switches off without prior acoustic warning once the rechargeable battery has been exhausted.

► Check the charge state of the rechargeable battery at regular intervals.
► Charge the rechargeable battery before it is exhausted.

The display indicates the charge state of the rechargeable batteries by a rechargeable battery symbol that is more or less filled in and different colors.

- Green: good charge state
- Yellow: low charge state
- White: rechargeable battery being charged (plug symbol)

Fig. 14: Rechargeable battery symbol: rechargeable battery fully charged

Fig. 15: Rechargeable battery symbol: rechargeable battery being charged

You can charge the rechargeable battery during operation of the remote control. If the remote control is switched off, you can switch it on by connecting the charge adapter. The LED "Charge" illuminates during the charge procedure. As soon as the rechargeable battery is fully charged, the LED goes out. It can take up to several hours until the rechargeable battery is fully charged. You cannot overcharge the rechargeable battery.

Fig. 16: When charging, the plug symbol is displayed in the header

The shipment includes the plug of the charge adapter in the following versions typical for the country:

- Europe, USA, Japan, UK, China, Australia

Fig. 17: Plug on the charge adapter

1 Locking slide

Checking the rechargeable battery charge state

1. Check the charge state of the rechargeable battery at regular intervals.
2. Charge the rechargeable battery before it is discharged.

Charging the rechargeable battery

1. Insert the hollow plug of the charge adapter in the charge adapter connection of the remote control.
2. Plug the plug of the charge adapter into a socket.
3. Disconnect connections as soon as the rechargeable battery is fully charged.

Replacing the plug of the charge adapter

1. Slide the locking slide away from the plug.
2. Remove the plug.
3. Insert an alternative plug with the nose pointing upwards.
4. Press the alternative plug into the mount until the locking slide engages.

7.8 Activating the paging function (acoustic localization)

Using the leak detector, you can find the remote control in case you have misplaced it.

For this purpose, you have to activate a signal tone of the remote control via the leak detector (see operating instructions of the leak detector).

7.9 Evaluating recorded measurement results

Format of the log file

The log file is a simple text file. The end character of the line is CR & LF. Lines starting with "//" are comments. The remarks are in the header of the file for additional information (e.g. device name). The

first line that is not a comment designates the column title. Delimiter for the columns is always "Space". All numerical values always use a decimal point, independent of the language used.

Importing a TXT file in EXCEL®

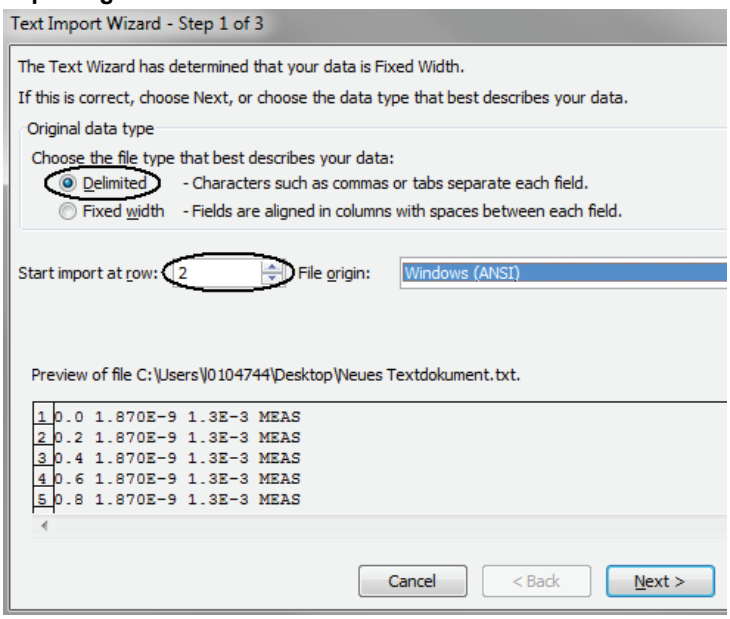


Fig. 18: Text converting assistant (step 1 of 3)

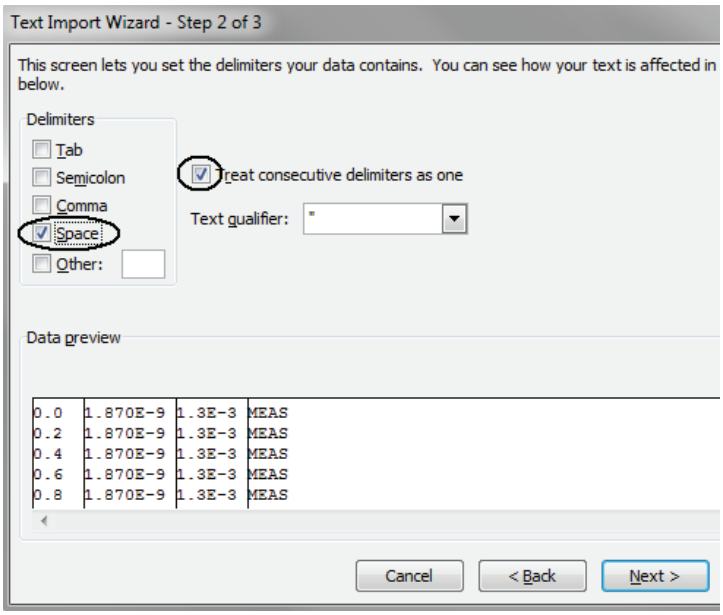


Fig. 19: Text converting assistant (step 2 of 3)

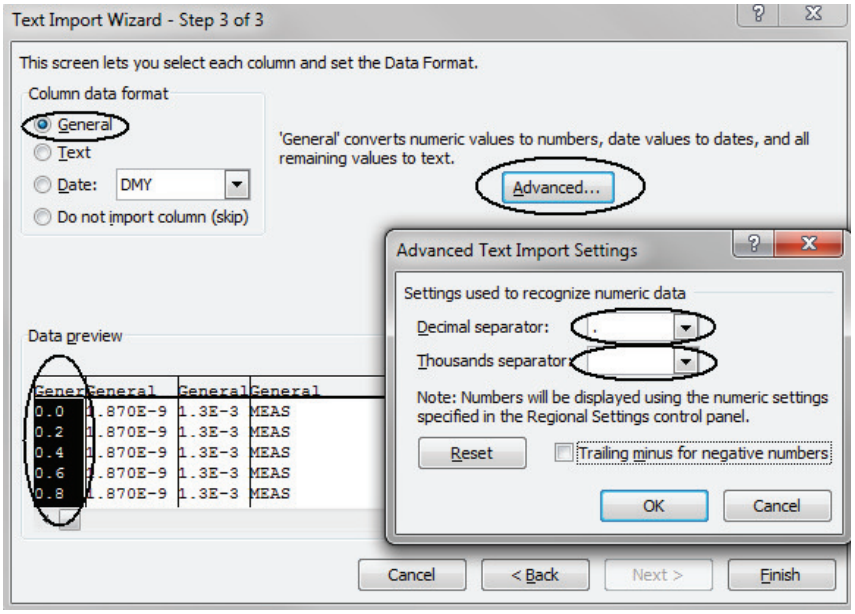


Fig. 20: Text converting assistant (step 3 of 3)

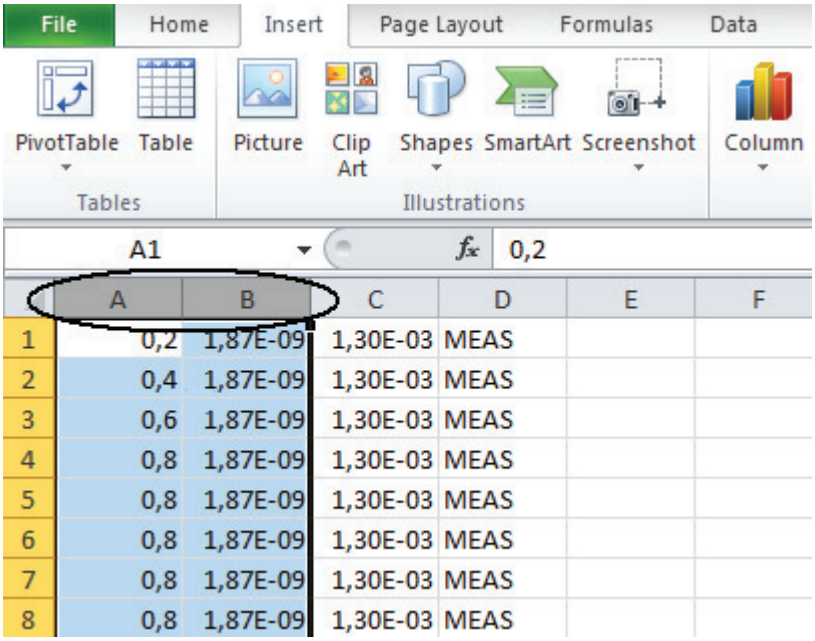


Fig. 21: Representation of columns A and B

Importing a TXT file in EXCEL®

1. Start EXCEL® and select "File > Open".
2. Select the text file with the suffix ".txt" as file type.
3. Select the recorded text file and open it.
   – The text converter assistant starts and in 3 steps, navigates you through the formatting of the text file.
4. In the settings, select "Separate" and "Start import in line 2".
5. Click on "Next".
6. Select "Space" and "Treat successive delimiter as character".
7. Click on "Next".
8. To be able to create a diagram later on, you have to replace the points in the entries by commas.
   – Depending on the EXCEL® version, the procedure may be different.

   It depends on the following steps:
9. Select the first line in order to change the file format of the column.

10. Select "standard" for the file format of the columns and click on "Next" to perform more settings in the following window.
11. Select the point "." as decimal delimiter and leave the field 1000 delimiter empty.
12. Click on "OK" and repeat the steps for the following table columns.
13. Click on "Finish".

Now you can create a measurement diagram from the data using the familiar EXCEL® tools.

7.10 Call up information about the device

You can call up information with regard to the parameters set as well as the operating states of the remote control.

This information is, for example:

- details on the charge state of the rechargeable battery
- details of the radio connection
- details of the firmware

Call up information about the device

1. Select "Main menu > Info".
2. Scroll back and forth with the arrow buttons to view all information.
3. Return to the main menu with "OK".

8 Decommissioning

Switching off the remote control RC 500

1. Disconnect the data/current supply cable from the bushing or switch off the leak detector.
   – You can only switch the display on or off using the ON/OFF button.

Switching off the remote control RC 500 WL

1. Keep the ON/OFF button pressed for 2 seconds.

9 Maintenance

Maintenance in the Pfeiffer Vacuum Service Center

Pfeiffer Vacuum offers a complete maintenance service for all products.

Pfeiffer Vacuum recommends: Contact your Pfeiffer Vacuum Service Center to arrange the maintenance of defective products and components.

Cleaning in the Pfeiffer Vacuum Service Center

Pfeiffer Vacuum recommends: Contact your nearest Pfeiffer Vacuum Service Center to arrange the cleaning of heavily-soiled products and components.

Loss of warranty claims

The following will result in the loss of the warranty:

- Damage to or removal of a closure seal
- Opening the device during the warranty period

Contact the Pfeiffer Vacuum Service Center in the event of process-related shorter maintenance intervals.

First read through the sections completely

Read the section with the work instructions through completely first before you commence with work.

9.1 Replacing the rechargeable battery (RC 500 WL)

NOTICE

Damage from incorrectly installed or incorrect rechargeable battery

A rechargeable battery that is not installed correctly, has the wrong dimensions, or electrical properties that do not match, will destroy the device.

- ► Always use an original rechargeable battery.
- ► Order a replacement rechargeable battery exclusively via the Pfeiffer Vacuum Service.
- ► Replace the rechargeable battery on the basis of the installation instructions of the replacement rechargeable battery.

Recommended replacement of the rechargeable batteries

You should replace the rechargeable battery once the memory capacity has strongly diminished.

Pfeiffer Vacuum has developed the rechargeable battery especially for this device.

With a new rechargeable battery, you can operate the remote control for up to 8 hours.

Replacing the rechargeable battery

- ► Replace the rechargeable battery on the basis of the installation instructions of the replacement rechargeable battery.

9.2 Replacing the housing parts

Replacing the housing shell set

- ► Please contact your Pfeiffer Vacuum Service Center.

9.3 Cleaning the remote control

The housing of the remote control is made of plastic.

NOTICE

Damage caused by unsuitable cleaning agents

Unsuitable cleaning agents damage the product.

- ► Do not use solvents as they attack the surface.
- ► Do not use any aggressive or abrasive cleaning agents.

Cleaning the remote control

Required consumables

- Usual means for cleaning plastic surfaces (e.g. a light domestic detergent)
- Soft cloth

1. Switch off the remote control.
2. Disconnect the remote control from the mains and leak detector.
3. Use a moist and soft cloth for cleaning.
4. Allow the surfaces to dry thoroughly after cleaning.

9.4 Service menu

The service menu under "Main menu > Miscellaneous > Service" can only be accessed by the Pfeiffer Vacuum Service department.

10 Shipping

⚠ WARNING

Risk of poisoning from contaminated products

Where products that contain harmful substances are shipped for maintenance or repair purposes, the safety of service personnel is at risk.

► Comply with the instructions for safe shipping.

Shipping the product safely

Decontamination subject to charge

Pfeiffer Vacuum decontaminates products not clearly declared "Free of contamination" at your expense.

1. Do not ship microbiological, explosive or radioactively contaminated products.
2. Observe the shipping guidelines for the participating countries and transport companies.
3. Highlight any potential dangers on the outside of the packaging.
4. Download the declaration of contamination. (Pfeiffer Vacuum Service).
5. Always enclose a completed declaration of contamination.

11 Disposal

⚠ WARNING

Health hazard through poisoning from toxic contaminated components or devices

Toxic process media result in contamination of devices or parts of them. During maintenance work, there is a risk to health from contact with these poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- ► Take suitable safety precautions and prevent health hazards or environmental pollution by toxic process media.
- ► Decontaminate affected parts before carrying out maintenance work.
- ► Wear protective equipment.

⚠ CAUTION

Health hazard caused by environmentally hazardous substances

Products, operating fluid, electric components, calibration gas residues (for example from test leaks) or similar pose health hazards.

- ► Dispose of the environmentally hazardous substances in accordance with local regulations.
- ► Dispose of calibration gas and test leaks in accordance with local regulations.

Dividing components

- ► After disassembly, divide the components into the following categories with regard to disposal:
  - contaminated components **that have** contact with process gases
  - non-contaminated components **that have no** contact with process gases

Disposal of contaminated components that have contact with process gases

1. Dispose of the substances in a safe manner in accordance with the locally applicable regulations if the process gases used were contaminated, e.g. radioactive, toxic, caustic or a microbiological manner.
2. Observe the environment and safety provisions of the respective country.

Disposal of components that do not have contact with process gases

1. Separate the components according to their type of material:
   - electronic components
   - electrical components
   - battery and rechargeable batteries
   - mechanical components
2. Recycle the components.
3. Dispose of the substances in a safe manner according to locally applicable regulations.
4. Observe the environment and safety provisions of the respective country.

12 Service solutions from Pfeiffer Vacuum

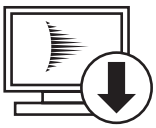
We offer first class service
Long vacuum component service life, coupled with low downtimes, are clear expectations that you have of us. We satisfy your needs with capable products and outstanding service.

We are consistently striving to perfect our core competence, service for vacuum components. And our service is far from over once you've purchased a product from Pfeiffer Vacuum. It often enough really just begins then. In proven Pfeiffer Vacuum quality, of course.

Our professional sales engineers and service technicians stand ready to provide hands-on support to you worldwide. Pfeiffer Vacuum offers a complete portfolio of service offerings, ranging from genuine spare parts right through to service agreements.

Take advantage of Pfeiffer Vacuum Service
Whether for preventative on-site service from our field service, fast replacement with as-new replacement products or repair in a Service Center close to you; you have various options for upholding your equipment availability. Detailed information and addresses can be found on our website in the Pfeiffer Vacuum Service section.

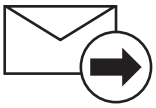
Advice on the optimum solution is available from your Pfeiffer Vacuum contact partner.
For quick and smooth handling of the service process, we recommend the following steps:



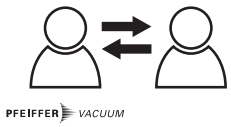
1. Download the current form templates.
   - Declaration of Service Request
   - Service Request
   - Declaration of Contamination

a) Dismantle all accessories and keep them (all external mounted parts as valve, inlet screen, etc.).
b) Drain the operating fluid/lubricant as necessary.
c) Drain the cooling medium as necessary.

2. Fill out the service request and the declaration of contamination.

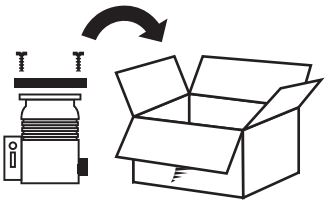


3. Send the forms via email, fax or post to your local Service Center.

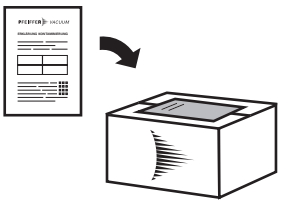


4. You will receive a response from Pfeiffer Vacuum.

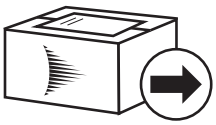
Sending of contaminated products
No units will be accepted if they are contaminated with micro-biological, explosive or radioactive substances. If products are contaminated or if the declaration of contamination is missing, Pfeiffer Vacuum will contact the customer before starting maintenance. In addition, depending on the product and the level of contamination **additional decontamination costs** may be required.



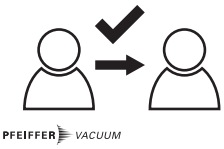
5. Prepare the product for transport in accordance with the details in the declaration of contamination.
a) Neutralize the product with nitrogen or dry air.
b) Close all openings with airtight blank flanges.
c) Seal the product in appropriate protective film.
d) Only pack the product in suitable, stable transport containers.
e) Observe the applicable transport conditions.



6. Affix the declaration of contamination to the **outside** of the packaging.



7. Then send your product to your local Service Center.



8. You will receive a confirmation message/a quotation from Pfeiffer Vacuum.

For all service orders, our General Terms and Conditions of Sales and Supply and General Terms and Conditions of Repair and Maintenance apply to vacuum equipment and components.

13 Ordering information

13.1 Ordering parts

Ordering spare parts, accessories or optional components

► Always specify the following details when ordering spare parts, accessories or optional components:
- all details according to the rating plate
- description and order number according to the parts list

13.2 Spare parts

Description	order number
Replacement rechargeable battery for RC 500 WL; 3,7 V, 5800 mAh	PT 445 424
Housing shell set including keypad membrane and mounting	PT 445 423
Charge adapter for RC 500 WL	PT 445 430

13.3 Accessories

Description	order number
Remote control connecting cable (4 m)	PT 445 401
Radio transmitter connecting cable	PT 445 429
Extension cable (10 m)	PT 445 402
Radio transmitter (for operation of another leak detector)	PT 445 422
Connecting cable ASM 3xx/RC 500 WL	A 465975
Connecting cable ASM 3xx/radio transmitter	A 466613

14 Technical Data

14.1 Technical data

Parameter	Variant RC 500	Variant RC 500 WL
Mechanical data		
Dimensions (L x W x H)	210 × 90 × 46 mm	210 × 90 × 46 mm
Weight	0.4 kg	0.5 kg
Protection system, class, category	IP 42	IP 42
Ambient conditions		
Use	only in rooms (EN 61010)	only in rooms (EN 61010)
Permissible ambient temperature (during operation)	5 – 40°C	5 – 40°C
Permissible storage temperature	-10 – 60°C	-10 – 60°C
Max. relative humidity up to 31 °C	80 %	80 %
Max. relative humidity from 31°C to 40 °C	linear drop from 80 % to 50 %	linear drop from 80 % to 50 %
Maximum height above sea level (during operation)	2000 m	2000 m
Radio transmission		
Approvals	-	CE, FCC, IC, TELEC, MIC, MII
Frequency	-	2.4 GHz
Range, free field	-	< 100 m
HF output power	-	+ 6 dBm (4 mW)
Radio transmitter		
See the radio transmitter operating manual		
Audio		
Acoustic alarm	70 db(A) max. at 1 m distance	70 db(A) max. at 1 m distance
Headset connection	3.5 mm stereo jack	3.5 mm stereo jack
Impedance of the headset (not included in the scope of supply)	> 2 × 32 Ohm	> 2 × 32 Ohm
Internal data storage		
Capacity	64 MB, of which approx. 32 MB are available for data recording	64 MB, of which approx. 32 MB are available for data recording
Rechargeable battery		
Operating time	-	< 8 h (depending on the charge state)
Touchscreen		
Size and version	TFT touch 1/4 VGA/3.5", 240 × 320 px, max. error 4 px	TFT touch 1/4 VGA/3.5", 240 × 320 px, max. error 4 px
Charge adapter		
Mains voltage and frequencies	100 – 250 V, 50/60 Hz	100 – 250 V, 50/60 Hz
Power input	< 30 VA	< 30 VA
Protection system, class, category	IP 40	IP 40
Excess voltage category	II	II
Country versions of the mains plug	Europe, USA, Japan, UK, China, Australia	Europe, USA, Japan, UK, China, Australia

Parameter	Variant RC 500	Variant RC 500 WL
Charging voltage of the charge adapter	-	24 V DC, max. 0.7 A
Supply voltage of the leak detector	24 V DC, max. 0.7 A	-

14.2 Factory settings

Parameter	Adjustment, setting
Language	English
Display	Q(t) Chart
Trigger-Level	1.0E-8
Q(t) Axis/Scaling	
Linear or Logarithmic	Log.
Decades	4
Automatic scaling	On
Scaling/time axis	32 s
Volume	
Remote control	10
Recorder	
Auto Record	Off
Interval	100 ms
Storage location	USB
(File name)	(L0000001)
Energy	
Background lighting off after	5 min.
Automatic switch on after	1 hour

The product RC 500 WL

- conforms to the UL standard
  UL 60950-1:2007 R10.14.
- is certified to the CAN/CSA standard
  CAN/CSA C22.2 No .60950-1-07+A1:2011+A2:2014.

https://www.certipedia.com (Certificate No. 72162531)

PFEIFFER VACUUM

Declaration of conformity

We hereby declare that the product cited below satisfies all relevant provisions of the following **EU Directives**:

- **Electromagnetic compatibility 2014/30/EU**
- **Low voltage 2014/35/EC**
- **Restriction of the use of certain hazardous substances 2011/65/EU**

Remote control for leak detectors
RC 500

Harmonized standards and applied national standards and specifications:
DIN EN 61326-1:2013-07
EN 61000-6-4:2011, Part EN 55011, Class B
EN 61000-6-2:2006, Part EN 61000-4-2
EN 61000-6-2:2006, Part EN 61000-4-3
EN 61000-6-2:2006, Part EN 61000-4-4
EN 61000-6-2:2006, Part EN 61000-4-6

Signature:

Pfeiffer Vacuum GmbH
Berliner Straße 43
35614 Aßlar
Germany

(Dr. Ulrich von Hülsen)
Managing Director

Aßlar, 2016-09-27

CE

PFEIFFER VACUUM

Declaration of conformity

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- **Electromagnetic compatibility 2014/30/EU**
- **Low voltage 2014/35/EC**
- **Radio systems 2014/53/EU**
- **Restriction of the use of certain hazardous substances 2011/65/EU**

Remote control for leak detectors
RC 500 WL

Harmonized standards and applied national standards and specifications:
EN 62479:2011-09
EN 60950-1:2013
ETSI EN 300 328 (V1.9.1)
ETSI EN 301 489-1 (V1.9.2)
ETSI EN 301 489-17 (V2.2.1)
EN 61000-6-4:2011, Part EN 55022, Class B
EN 61000-6-2:2006, Part EN 61000-4-2
EN 61000-6-2:2006, Part EN 61000-4-3
FCC, Title 47 CFR, Part 15, Class B

Signature:

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Aßlar, 2016-09-27

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PFEIFFER VACUUM

VACUUM SOLUTIONS FROM A SINGLE SOURCE

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, technological perfection, competent advice and reliable service.

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From a single component to complex systems:
We are the only supplier of vacuum technology that provides a complete product portfolio.

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Benefit from our know-how and our portfolio of training opportunities!
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