



PROTECTING YOU
SINCE 1968

USER MANUAL PIEPS MINI IPS



www.pieps.com

ENGLISH

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1. FOREWORD

Thank you for choosing the PIEPS MINI IPS!

Register your **PIEPS MINI IPS** in the PIEPS app (iOS, Android) and receive:

- **a free warranty extension to 5 years**
- **important information about future software updates**



GOOD TO KNOW

PIEPS app

By purchasing your MINI IPS, you have acquired a modern and powerful avalanche beacon that will give you optimal support in an emergency.

To be optimally prepared for an emergency, however, the following is essential:

A sound knowledge of

- how to handle the MINI IPS
- the correct behavior after an avalanche accident
- the strategy for a successful companion rescue
- efficient probing and rapid excavation of a buried person.

Your PIEPS MINI IPS has all the proven PIEPS functions:

- **3-antenna technology**
- **Mark function**
- **Extensive self-check**
- **Extensive group-check**
- **Auto Search-to-Send**
- **Device management with the PIEPS app**

In addition, your PIEPS MINI IPS is based on the best possible electronic hardware platform for an avalanche beacon. The result is:

- **Maximum circular reception range for fast and stable first reception**
- **Fully digital, direct signal processing for even better performance**
- **PIEPS Interference Protection System (IPS) as the best possible protection against interference**

WARNING

An avalanche beacon does not protect you from avalanches! Intensive study of avalanche prevention is just as essential as regular practice of searching for buried persons. The procedures and instructions described below relate only to the specific application in conjunction with your PIEPS MINI IPS. Basic rules of conduct in an emergency – in accordance with relevant professional publications and the contents of avalanche courses – must be observed at all times.

With your PIEPS MINI IPS, you have a product that is state-of-the-art in terms of safety and user-friendliness. Nevertheless, the PIEPS MINI IPS may pose hazards if handled improperly or used for purposes other than intended. We point out possible dangers in chapter 2 "Safety" and in the safety instructions throughout this manual. This manual is intended to ensure the safe use of the PIEPS MINI IPS. Please observe the safety instructions in this document and make sure that you have read and understood this manual.

Pieps GmbH shall not be liable for any technical or typographical errors in this manual, nor shall any liability be assumed for damage that is directly or indirectly attributable to the delivery, performance or use of this manual.

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1.1 MARKING

The PIEPS MINI IPS is marked on the device and on the packaging in accordance with the applicable directives.



CE marking of conformity according to the following standards: EMC 2014/30/EU, RED 2014/53/EU, RoHS 2011/65/EU.



The UKCA conformity mark indicates that the relevant UK regulations have been met.



The R-NZ is an exclusively New Zealand label for radio products that are not harmonized with Australia. "E6561" is a unique supplier identifier and is stored in the National Registration Database (NRD).



Crossed-out garbage can: The product must not be disposed of with household waste. Disposal via public waste management authorities is not possible.

FCC ID

FCC ID: Reference to compliance with Part 15 of the FCC Rules.

IC ID

IC ID: Reference to compliance with Industry Canada's license-exempt RSS standard(s).



Bluetooth® logo: The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc., and any use of such marks by Pieps GmbH is under license. Other trademarks and brand names are the property of their respective owners.

SN

12-digit serial number: identifies the avalanche beacon and is used for device registration.



Recycling symbol.



Battery symbol: indicates the battery type and the correct position.



Manual symbol: instructs users to read the manual and warnings.

PIEPS

PIEPS brand name.



PIEPS logo.

MINI IPS

Example of model name.

1.2 LIABILITY

The information in this manual describes the properties of the product without guaranteeing them.

No liability is accepted for damage caused by:

- Improper use
- Disregarding the manual
- Unauthorized modifications to the PIEPS MINI IPS
- Improper work on and with the PIEPS MINI IPS
- Continued use of the PIEPS MINI IPS despite signs of wear
- Unauthorized or improperly performed repairs
- Catastrophic events, foreign objects and force majeure



Changes or modifications

**GOOD TO
KNOW**

Changes or modifications not expressly approved by the manufacturer could void your authority to operate the device!

1.3 WARRANTY CONDITIONS

The manufacturer warrants the PIEPS MINI IPS against defects in workmanship and material for a period of two years from the date of purchase. Excluded are the battery, carrying system, hand strap and bag, as well as damage caused by incorrect use (e.g. leaking battery) or disassembly of the device by unauthorized persons. Any further warranty and any liability for consequential damage are expressly excluded. For warranty claims, please contact the respective point of sale, enclosing the proof of purchase and a description of the fault.

1.4 MANUFACTURER ADDRESS & CUSTOMER SERVICE

Pieps GmbH, Parkring 4, AT-8403 Lebring, Austria

In case of technical problems, please contact our customer service: support@pieps.com

1.5 INTENDED USE

The PIEPS MINI IPS serves as an avalanche beacon for locating people buried in avalanches and must not be used for any other purpose. Any other use requires the written consent of Pieps GmbH. Improper use may endanger people and damage the device. The PIEPS MINI IPS is not an independently functioning device with partially automated functions – for this reason, the PIEPS MINI IPS may only be put into operation after the documentation has been read and understood. In addition, liability and warranty claims are excluded if the device is not used as intended. The PIEPS MINI IPS may only be operated under the operating conditions specified in the documentation.

1.6 TARGET GROUP AND PRIOR KNOWLEDGE

An avalanche beacon is part of the avalanche emergency equipment of anyone who ventures off secured slopes into open, unsecured terrain (e.g. winter mountaineers, ski tourers, freeriders, mountain rescuers, snowshoe hikers, etc.).

Users of the PIEPS MINI IPS must meet the following requirements:

- **Read and understand this manual.**
- **Users with visual impairments must ensure that they can easily read the labels and display indications on the device as well as the instructions in the documentation.**
- **If users with hearing impairments cannot hear the acoustic signal, they must ensure that they can correctly interpret the display indications according to the information in the manual.**
- **Regular training ensures the safe and efficient use of the PIEPS MINI IPS.**



GOOD TO KNOW

PIEPS app

With your PIEPS MINI IPS, you also have access to the PIEPS app and thus to our extensive training program. Owning the PIEPS MINI IPS is already half the battle in the mountains. With a sound knowledge of how to handle it, as well as of

- **the correct behavior after an avalanche accident**
- **the strategy for a successful companion rescue**
- **efficient probing and rapid excavation of a buried person**

you are optimally prepared for an emergency.

1.7 PRINCIPLE

The PIEPS MINI IPS complies with the state of the art and the applicable health and safety regulations. Nevertheless, incorrect operation or misuse may result in hazards for:

- life and limb of users or third parties
- the PIEPS MINI IPS and the user's property
- the efficient use of the PIEPS MINI IPS

1.8 TECHNICAL DATA

Designation	PIEPS MINI IPS
Transmission frequency	457 kHz
Transmission field strength	max. 7 dBµA/m (2.23 µA/m) at a distance of 10 m
Bluetooth transmission frequency	2.402 - 2.480 GHz
Bluetooth transmission power	2.5 dBm
Power supply	2x alkaline (AAA) LR03 1.5 V or 2x lithium (AAA) FR03 1.5 V
Battery life	400 h (alkaline) 600 h (lithium)
Search strip width	50 m
Dimensions (LxWxH)	104 x 74 x 20 mm
Weight	158 g (incl. batteries)
Operating temperature range	-20°C to +45°C (-4°F to +113°F)
Storage temperature range	-25° C to +70° C (-13° F to +158° F)

2. SAFETY

This manual is structured in accordance with the applicable EU regulations and contains safety instructions. Individuals are responsible for complying with the safety instructions. This chapter contains all safety-relevant information. If anything is unclear or you have difficulty understanding it, please contact our customer service.

2.1 SIGNAL WORDS USED IN SAFETY INSTRUCTIONS

- | | |
|--|---|
|  DANGER | Imminent danger to the life of persons
A safety instruction with the signal word DANGER indicates an imminent danger to the life and health of persons! |
|  WARNING | Risk of personal injury (serious injuries) and possibly additional property damage
A safety instruction with the signal word WARNING indicates a hazardous situation that may affect the health of persons! |
|  CAUTION | Risk of property damage and possibly an additional slight risk of injury
A safety instruction with the signal word CAUTION indicates a possibly hazardous situation that may result primarily in property damage! |
| 
GOOD TO KNOW | This symbol with the remark GOOD TO KNOW indicates supporting information for installation, operation, maintenance and repair. |

2.2 GENERAL SAFETY PROVISIONS AND OBLIGATIONS

In general, the following safety provisions and obligations apply when handling the PIEPS MINI IPS:

- **The PIEPS MINI IPS may only be used if it is in perfect condition.**
- **It is not permitted to convert or modify the PIEPS MINI IPS without the written approval of Pieps GmbH.**
- **Malfunctions or damage must not be repaired without authorization. In this case, always contact our customer service for further instructions. The PIEPS MINI IPS must not be used until the damage has been repaired.**
- **The safety and operating instructions in this manual must be observed at all times.**

2.3 RESIDUAL RISKS | WARNINGS

Even with maximum care in the design of the PIEPS MINI IPS and taking into account all safety-relevant aspects, residual risks may exist, which have been evaluated by means of a risk assessment. This chapter lists all residual risks and warnings from the risk assessment.

- | | |
|---|--|
|  DANGER | Risk of device loss if worn incorrectly.
Keep the device in the carrying system provided for this purpose!
Fasten the device with the fastening loop! |
|---|--|

- ⚠ DANGER** **Danger due to the device not transmitting when Bluetooth is activated.**
Use Bluetooth mode only for device management and training mode. Never use Bluetooth mode in avalanche-prone terrain!
- ⚠ DANGER** **Risk of explosion due to incorrectly used or damaged batteries.**
Risk of incorrect capacity display due to incorrectly used batteries.
Only use batteries of the type "Alkaline (AAA) LR03 1.5 V" or "Lithium (AAA) FR03 1.5V"! Do not use damaged batteries! The use of lithium batteries must be configured in the PIEPS app! If the battery type is set incorrectly, the battery status will be displayed incorrectly. Do not use rechargeable batteries of any kind, including those with a USB-C port!
- ⚠ WARNING** **Risk of hearing damage due to high noise level.**
Never hold the device directly to your ear. A minimum distance of 50 cm is recommended.
- ⚠ CAUTION** **Risk of antenna breakage.**
Note the possible risk of the antennas breaking, e.g. due to a fall or impact. If the X antenna is broken, the device can neither transmit nor search. When switching on, error [E4/W4] appears during the self-check. If the Y antenna is broken, the device continues to transmit, but correct searching is no longer possible [E2]. In both cases, stop using the device and contact PIEPS Support. Details on the error codes can be found in **6.1 Error analysis**.
- ⚠ CAUTION** **Risk of malfunction or damage due to extreme temperatures.**
Do not expose the device to extreme temperatures. Store the device so that it is protected from direct sunlight. Extreme temperatures can impair functionality or damage the battery.
- ⚠ CAUTION** **Damage due to inadequate packaging when shipping the device.**
Make sure the packaging is safe for transport when shipping the device.
- Reuse of packaging**
We recommend keeping the original packaging and using it if you need to ship your PIEPS MINI IPS.

3. SCOPE OF DELIVERY

- 1x PIEPS MINI IPS
- 2x alkaline batteries (in battery compartment)
- 1x PIEPS MINI IPS carrying system with hand strap
- 1x short description (Quick Start Guide)
- 1x legal notice
- 1x PIEPS sticker

After unpacking, check the scope of delivery for completeness and damage. If necessary, contact the respective point of sale or our customer service. If you wish to dispose of the packaging and transport protection, please separate the materials in an environmentally friendly manner.

4. GENERAL DESCRIPTION

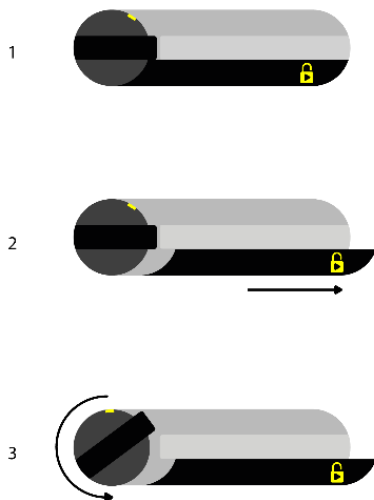
4.1 LAYOUT

PIEPS MINI IPS



- (A) LCD display
- (B) OFF/SEND/SEARCH switch
- (C) Locking mechanism
- (D) MARK button
- (E) Loudspeaker
- (F) Transmission control LED
- (G) Battery compartment

Locking mechanism (C)

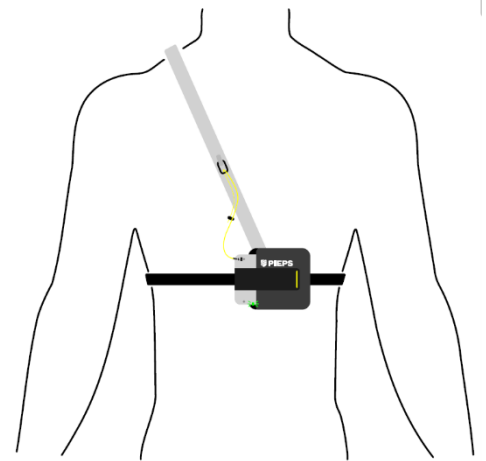


Battery compartment (G)



4.2 CARRYING SYSTEM

We recommend using the carrying system supplied or an approved clothing pocket. The gray strap is worn over the shoulder, the black strap around the waist. To protect the display, wear the avalanche beacon in the carrying system with the display facing inward. The transmission control LED remains visible even when the avalanche beacon is stowed in the carrying system. The design of the carrying system ensures that the avalanche beacon is secured after insertion. The carrying system must always be worn under at least one layer of clothing. This prevents loss or damage in the event of a fall or an avalanche. Insert the avalanche beacon into the carrying system with the display facing inward. Secure it with the hook-and-loop fastener of the black tab.



If you carry the avalanche beacon in an approved clothing pocket, make sure that there are no other sharp, metallic or electronic objects (e.g. keys, coins, cell phone) in the pocket that could damage or interfere with the avalanche beacon.

⚠ CAUTION

Risk of device loss if worn incorrectly.

Keep your PIEPS MINI IPS in the carrying system provided for this purpose!

Fasten the device with the fastening loop!



GOOD TO KNOW

Wearing a pacemaker

For Medtronic and Boston Scientific pacemakers, we recommend a distance of at least 20 cm. For other manufacturers, we recommend an increased distance of 50 cm (secured in a pants pocket) due to a lack of data.

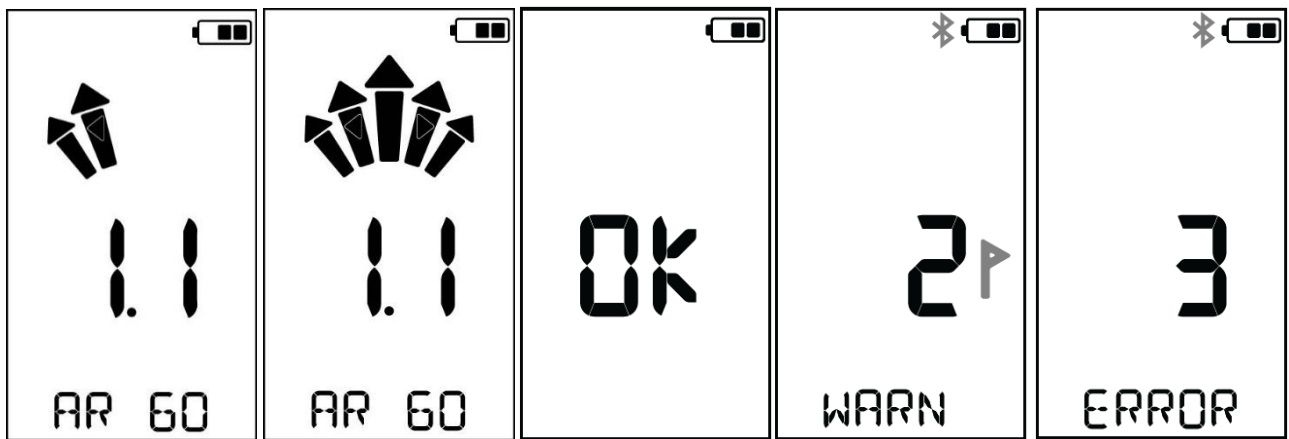
Automatic return to SEND.

In case of a secondary avalanche, the MINI IPS has the Auto-Revert function, see chapter 4.9.2.

4.3 SWITCHING ON | SELF-CHECK

Unlock the locking mechanism (C) and turn the switch (B) counterclockwise to the SEND or SEARCH position. In the SEND position, make sure that the locking slider is fully engaged and the switch is securely fixed. In the SEARCH position, the switch intentionally does not lock so that you can switch quickly to SEND mode in the event of a secondary avalanche during the search.

After switching on, the following information is displayed: firmware version (e.g. 1.1), progress of the self-check (arrows from left to right), result of the self-check (OK, WARN for warning, ERROR for error), battery capacity and battery type, as well as AR 60 (the Auto-Revert function is activated at the factory with a 60-second delay). After the group-check countdown, the MINI IPS switches to SEND mode: the transmission control LED starts flashing green.



Possible self-check results:

OK Self-check successful: you are ready for your tour!

WARN Warning: All important functions are working properly, but some additional functions are not available. Press the MARK button to switch to SEND mode: you are ready for your tour! We recommend performing a device check via the PIEPS app to obtain more information about the warning and, if necessary, contacting PIEPS Support.

ERROR Error: The device has a malfunction! Do not use the avalanche beacon! Perform a device check via the PIEPS app to obtain more information about the error and to contact PIEPS Support if necessary.



**GOOD TO
KNOW**

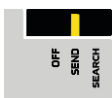
Self-check

During the self-check, a minimum distance of 5 m from other devices and all electronic, magnetic and metallic sources of interference should be maintained.

4.4 SWITCHING OFF

To switch off your PIEPS MINI IPS, unlock the locking mechanism **(C)** and turn the switch **(B)** back to the "OFF" position.

4.5 SWITCHING BETWEEN SEND AND SEARCH



SEND

Unlock the locking mechanism (C) and turn the switch (B) counterclockwise to the SEND position.

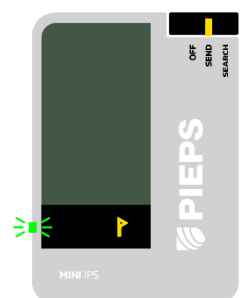


SEARCH

Unlock the locking mechanism (C) and turn the switch (B) counterclockwise to the SEARCH position.

SEND mode

While you are moving in avalanche-prone terrain, your PIEPS MINI IPS must be in SEND mode and the transmission control LED **(F)** must flash green.

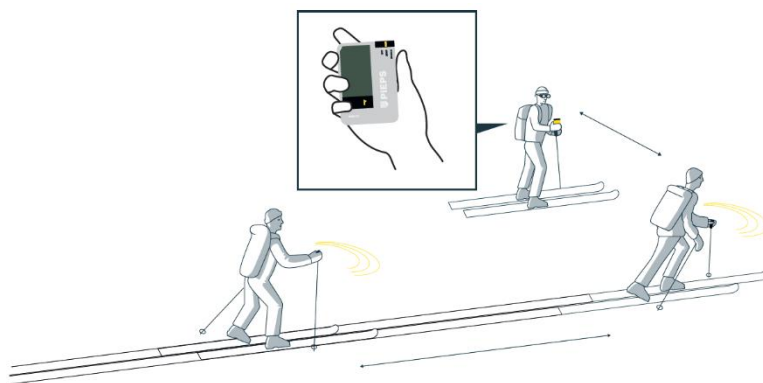


4.6 INTERFERENCE

All avalanche beacons are very sensitive to electronic, magnetic and metallic sources of interference. Therefore, all manufacturers recommend keeping a minimum distance from devices such as cell phones, smartwatches, radios, keys, heated clothing, electronic airbags, magnetic fasteners, etc. Although your PIEPS MINI IPS is equipped with advanced protection technologies, we recommend the following minimum distances from possible sources of interference: minimum distance in SEND mode: 20 cm; minimum distance in SEARCH mode: 50 cm

4.7 GROUP-CHECK

Despite the extensive self-check, PIEPS recommends carrying out an avalanche beacon check as a standard measure before every tour! The PIEPS MINI IPS offers a group-check function for this purpose. By default, the reception range during the group-check is limited to 1 m. For use with snowmobiles, the distance value can be set to 3 m in the app.

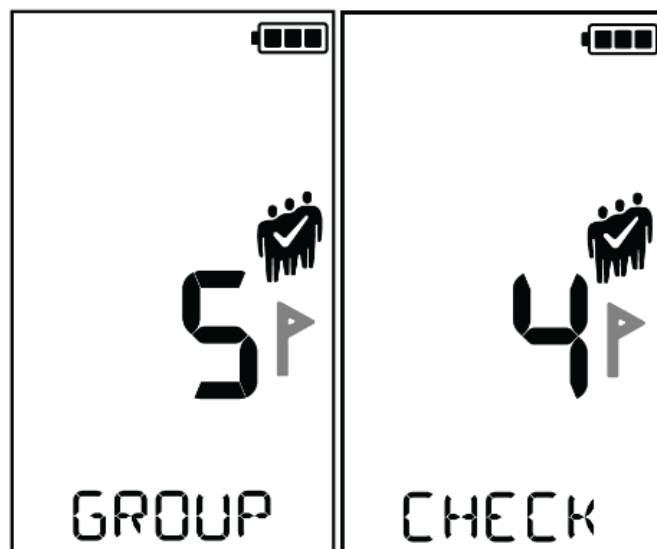


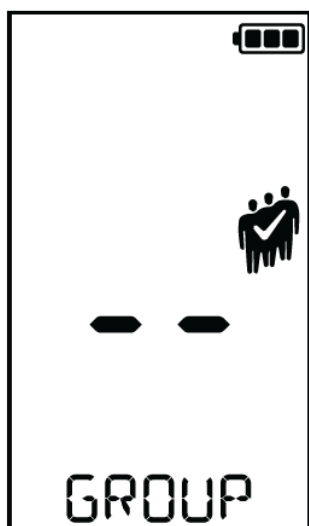
How to enter the group-check

Switch on the MINI IPS. After the self-check, the group-check countdown appears. Briefly press the MARK button once during the countdown to activate the group-check. During the group-check, the distance between the individual group members must be at least 5 m.

The group-check mode is active for 60 seconds and ends automatically after a countdown. To remain in group-check mode, press the MARK button during the countdown.

You can exit the active mode at any time (outside a countdown) by pressing the MARK button.





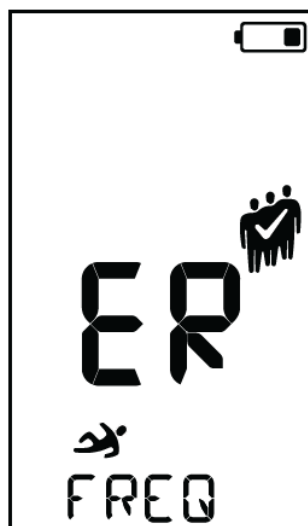
NO SIGNAL

No signal detected within the set range.



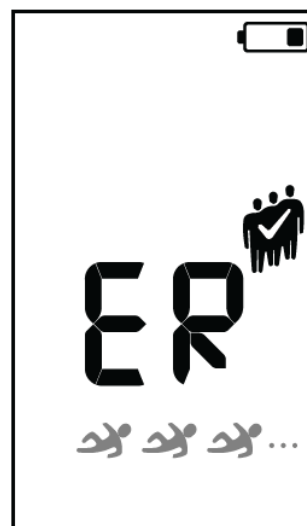
OK

Result of the group-check is OK – avalanche beacon transmits correctly, distance to the transmitter is displayed.



ERROR

Attention – the tested avalanche beacon does not transmit correctly.



TOO MANY TRANSMITTERS WITHIN THE SET RANGE

During the test of the avalanche beacon, the individual group members should keep a distance of 5 m.

4.8 SEARCH MODE | SEARCH STRATEGY

4.8.1 Avalanche emergency

A buried person has the best chance of a rapid rescue if as many group members as possible have not been buried and they are able to carry out an efficient companion rescue as a team! If an emergency occurs, the most important thing is: **KEEP CALM, OBSERVE, ALERT, ACT IN A COORDINATED MANNER!**

(1) Keep calm & get an overview

- Are there any further dangers?
- Number of buried persons?
- Define the primary search area!

(2) Make a short emergency call

- max. 2 min
- EU 112, AT 140, CH 1414, IT 118, FR 15

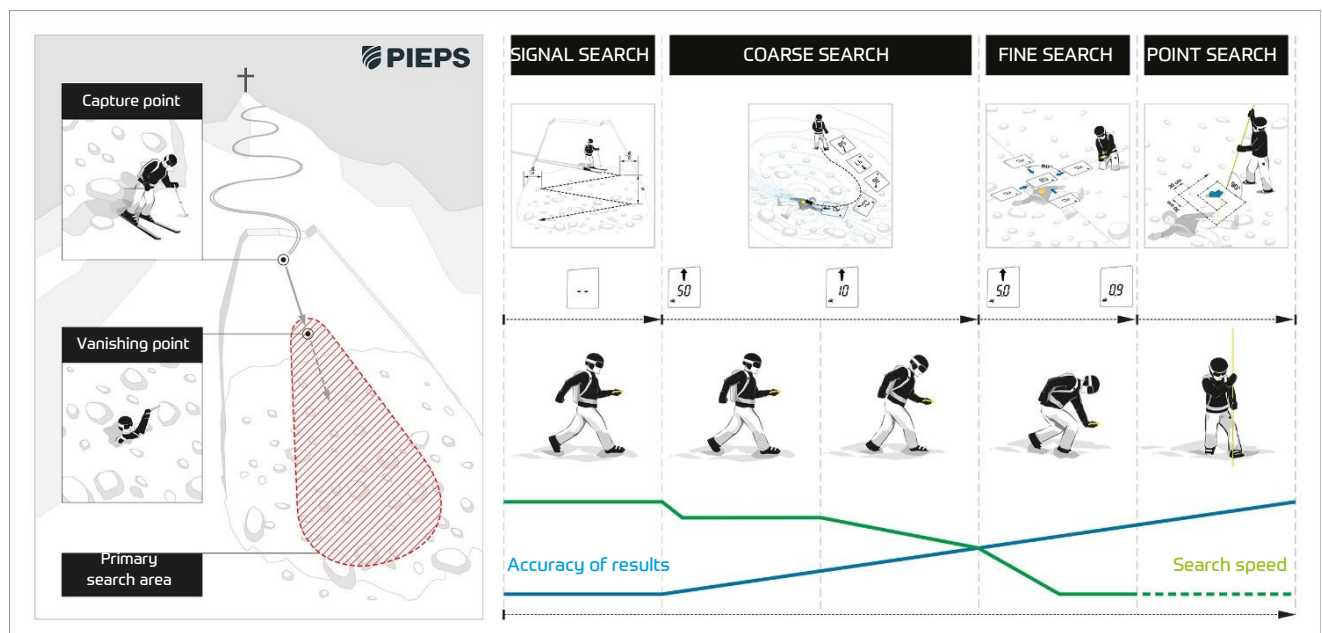
(3) Search for buried persons

- Signal search (eyes + ears, avalanche beacon)
- Coarse search (from first reception)
- Fine search (from 5 m, at the surface)
- Point search (systematic probing)

(4) Systematic shoveling

(5) First aid

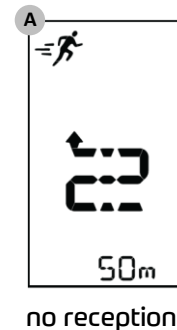
(6) Transport



4.8.2 Signal search

Start searching (signal search) in the primary search area. With its optimal technical platform for avalanche beacons, your PIEPS MINI IPS has the optimal reception range and thus provides correct direction and distance indication from the first reception – a special technique such as turning/swiveling is not necessary and is rather counterproductive for signal acquisition. All avalanche beacons in SEND mode within the maximum reception range are received simultaneously.

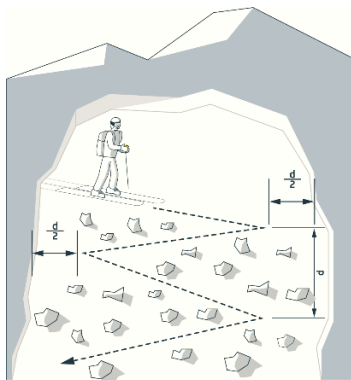
Walk swiftly through the defined search area using the specified search strip width. The recommended search strip width for your PIEPS MINI IPS is 50 m. The display shows this search strip width and a "no reception" symbol until a signal is received (A).



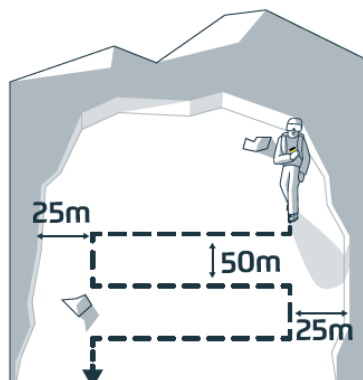
GOOD TO KNOW

Search strip width

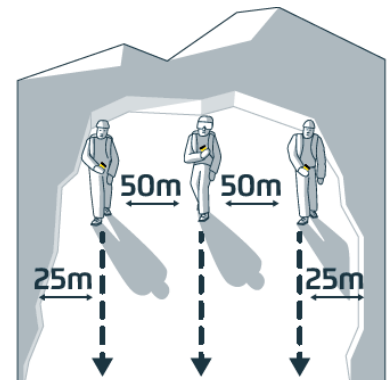
The search strip width of your PIEPS MINI IPS is 50 m and is displayed at the bottom center of the display. In case of interfering signals, the MINI IPS displays a reduced search strip width of 35 m or 20 m.



A rescuer on skis during signal search
d = search strip width



A rescuer on foot during signal search



Multiple rescuers during signal search

CAUTION

Behavior during signal search

All participants, including the observers, switch their avalanche beacons to SEARCH (receive) (or, if available, to backup mode, e.g. PRO IPS). Please also observe the distance recommendations for external sources of interference!

4.8.3 Coarse search

The PIEPS MINI IPS features pictographic search assistance (Search Assist Plus) **(SA)**. It appears in the upper left corner of the display. The figure shown represents the recommended search speed during the search.

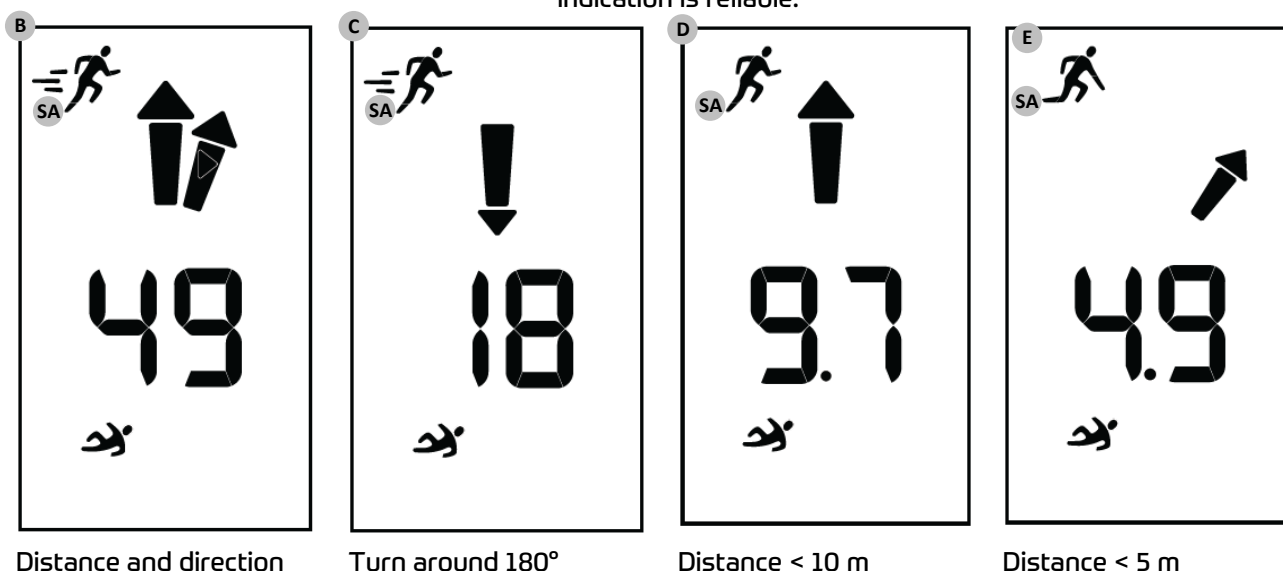
As soon as the MINI IPS receives a signal, it starts beeping and an arrow shows the direction of the buried person **(B)**. Quickly follow the indicated direction and check whether the distance value decreases. If the distance value increases, you are moving in the wrong direction. In this case, the displayed arrow points at you and prompts you to turn around **(C)**. When the distance to the buried person falls below 10 m, the "speed lines" of the figure shown in the search assistance disappear. This signals you to reduce your search speed **(D)**. At a distance of less than 5 m, the figure of the search assistance kneels down, indicating that you should continue the search very slowly and guide the device close to the snow surface **(E)**.



GOOD TO KNOW

Reverse arrow

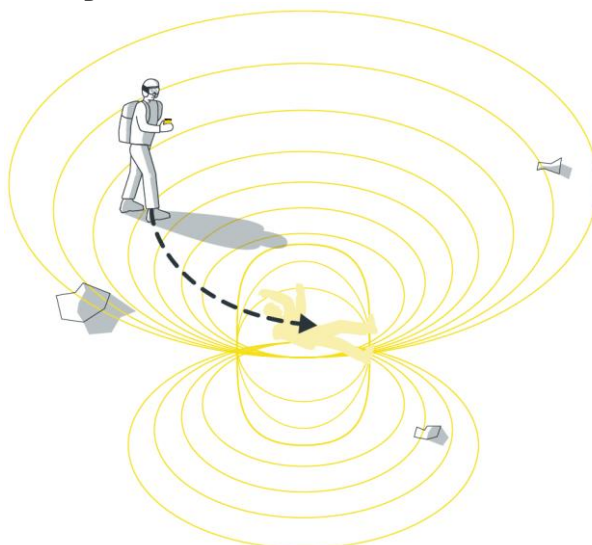
An estimation algorithm for the distance values ensures that the reverse arrow is only shown when the indication is reliable.



GOOD TO KNOW

Behavior during coarse search

Work calmly and with concentration in SEARCH mode. Avoid hasty movements!



4.8.4 Fine search

From a distance of 5 m (screen **E**), the search speed should be reduced significantly (50 cm/s). At the same time, work as close to the snow surface as possible.

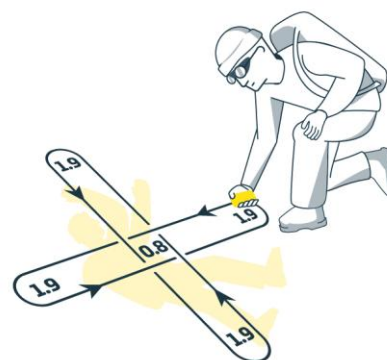
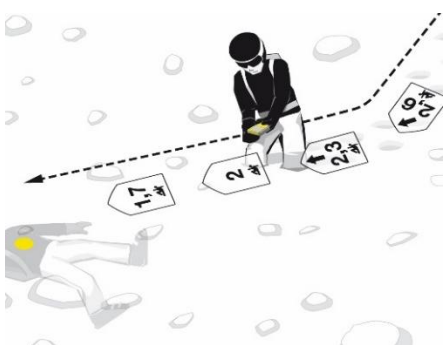
To prevent confusion during the fine search, the direction arrows are hidden below a distance of 2 m. Reduce the search speed again, move the avalanche beacon slowly and as close as possible over the snow surface, and use a grid search (bracketing) to find the point with the lowest distance indication. The dynamic sound output supports the fine search: the closer you get, the faster the tones are emitted.



GOOD TO KNOW

Every second counts.

In an emergency, every second counts. For your companions under the avalanche, every second feels much longer than for you on the snow surface. With the PIEPS iPROBE, you are up to 3x faster during fine and point search. The PIEPS iPROBE is compatible with all avalanche beacons from all manufacturers.

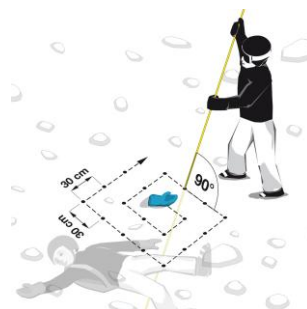


Make the last direction correction precisely before the direction arrow disappears. You will then move towards the transmitting avalanche beacon in the best coupling position and save time during the grid search.

Do not make any fast movements during the fine search, reduce the search speed to 10 cm/s during the grid search and avoid turning/swiveling! Search along the Y-axis to the point with the lowest distance indication, then search along the X-axis. Always search beyond the point with the lowest distance indication to verify the distance indication. Mark the point with the lowest distance indication and start probing systematically.

4.8.5 Point search

Start at the point with the lowest distance indication. Always probe at right angles to the snow surface. Use your lower hand as a "probe guide" to ensure that the probe follows a consistent path. Follow this method until you get a hit. Communicate a hit and leave the probe in place.





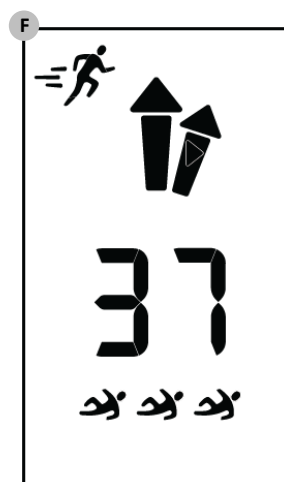
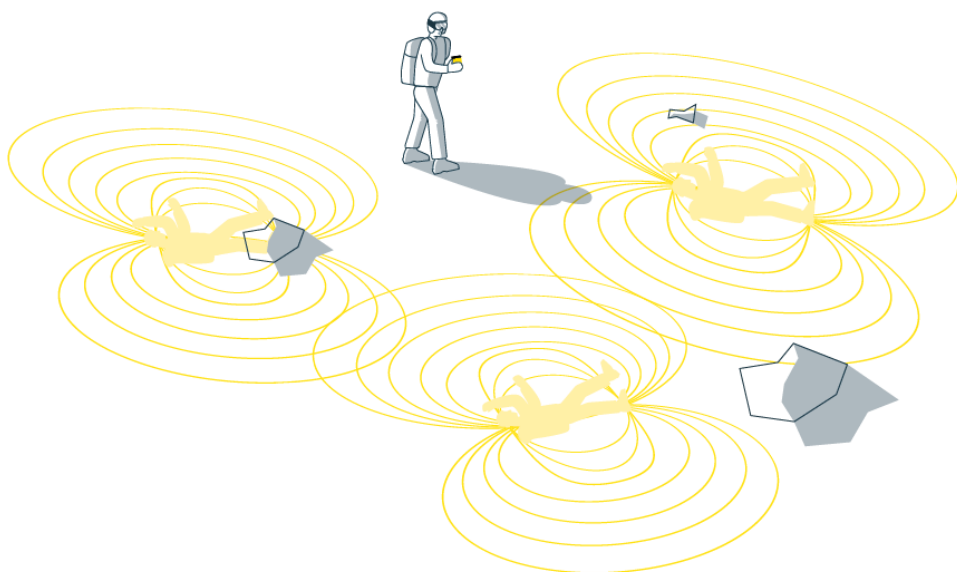
GOOD TO KNOW

PIEPS iPROBE.

The PIEPS iPROBE provides optimum support in this phase with a visual and acoustic hit indication in the immediate vicinity of the buried person. At a distance of < 50 cm from the buried person, a continuous tone is emitted. This makes it easy even for inexperienced users to distinguish between hitting a person and, for example, a piece of wood or ice.

4.8.6 Multiple burial | MARK function

A multiple burial is clearly indicated by the number of buried-person symbols on the display (F).



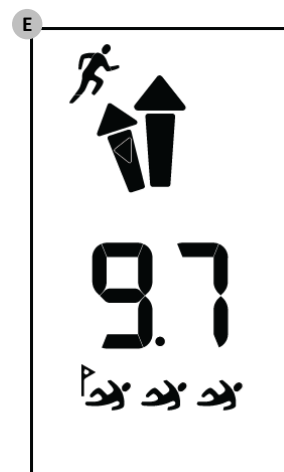
MARK

Marking is possible from a distance of 5 m and is indicated by a flag symbol next to the distance value on the display (G). To mark ("hide") a located transmitter, briefly press the MARK button. Successful marking is confirmed by a flag above the buried-person symbol (E).

The PIEPS MINI IPS automatically shows the next strongest signal within the reception range on the display. If there is no further signal within the reception range, the display shows the "signal search" indication.



Display before
marking



Display after
marking

**Unmarking a single signal:**

Press the MARK button for 3 seconds.

Unmarking all signals: Switch to SEND mode and then back to SEARCH mode.

4.9 PIEPS IPS TECHNOLOGY AND OTHER HELPFUL FUNCTIONS

Maximum background support in SEND and SEARCH mode!

4.9.1 PIEPS IPS technology

IPS – INTERFERENCE PROTECTION SYSTEM IN SEND MODE

PIEPS IPS is a unique technology that continuously monitors the effects of electronic interference on the transmitter by processing the interfering signals and adapting to them *IMMEDIATELY*. In this way, your PIEPS MINI IPS delivers optimum transmission performance despite any interference.

PIEPS Advanced Signal Verification | Support in SEARCH mode

Only a verified signal is displayed. Your PIEPS MINI IPS will not confuse you by displaying "ghost signals"! This function has been optimally implemented with PIEPS IPS technology.

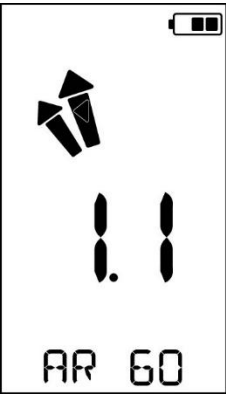
External interference and distance recommendations

All avalanche beacons are inherently sensitive to sources of electrical and magnetic interference. We therefore recommend keeping a **minimum distance in SEND mode: 20 cm** and in **SEARCH mode: 50 cm** from electronic, magnetic and metallic sources of interference (cell phone, radio, key ring, magnetic fastener, action cams, avalanche backpacks, etc.).

4.9.2 Secondary avalanche | Automatic Revert (Auto-Revert) from SEARCH to SEND

Your PIEPS MINI IPS features the Auto-Revert function from SEARCH to SEND. This function is activated by default. It can be activated/deactivated in the device manager of the PIEPS app. When activated, the device automatically switches from SEARCH to SEND mode if it no longer detects any movement for a certain period of time that can be set in the app. In this case, a 30-second countdown runs before the switch takes place. This countdown can be canceled by pressing the MARK button once.

An activated AR function can be recognized directly after switching on. The bottom line of the display then shows "AR" followed by the set time, e.g. 60 seconds. Within this time, the device automatically switches from SEARCH to SEND.



The AR function has the following features:

- **Motion-controlled initialization**
- **Short switching time**
- **Countdown / warning phase with signal tone before switching**
- **Permanent warning tone even after switching**
- **Can be canceled during the countdown by briefly pressing the MARK button.**

Beacon mode	SEARCH MODE	WARNING PHASE					SEND MODE				
Display indicator	Search display										
Sound output	Search sound										
Manual cancel		Press MARK button									
START WARNING Setting 1 (60 s)0:30 min Setting 2 (90 s)1:00 min Setting 3 (120 s)1:30 min SWITCH TO SEND 1:00 min 1:30 min 2:00 min											

4.9.3 Settings for MARK range

In the device manager of the PIEPS app, the MARK range can be changed from 5 m (default setting) to 20 m.

5. DEVICE MANAGEMENT WITH THE PIEPS APP

The PIEPS app provides convenient device management (e.g. software updates, device configuration) via Bluetooth and also includes a practical training mode. Download the PIEPS app (Google Play Store, Apple App Store) and install it on your smartphone. Connect your PIEPS MINI IPS to the app to enjoy all the benefits.

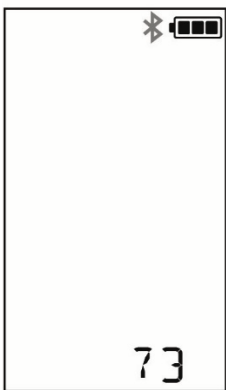


**GOOD TO
KNOW**

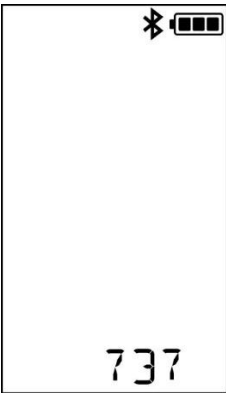
PIEPS app version

If you have already installed the PIEPS app, make sure that the latest version is installed.

To activate Bluetooth, briefly press the MARK button once within 2 seconds after switching on. The Bluetooth symbol flashes on the display next to the battery indicator. The serial number scrolls across the bottom line. To deactivate Bluetooth, briefly press the MARK button again.



Bluetooth activated
(Bluetooth symbol flashes)



Connection to mobile device established
(Bluetooth symbol is displayed permanently)

⚠ DANGER

Danger due to the device not transmitting when Bluetooth is activated

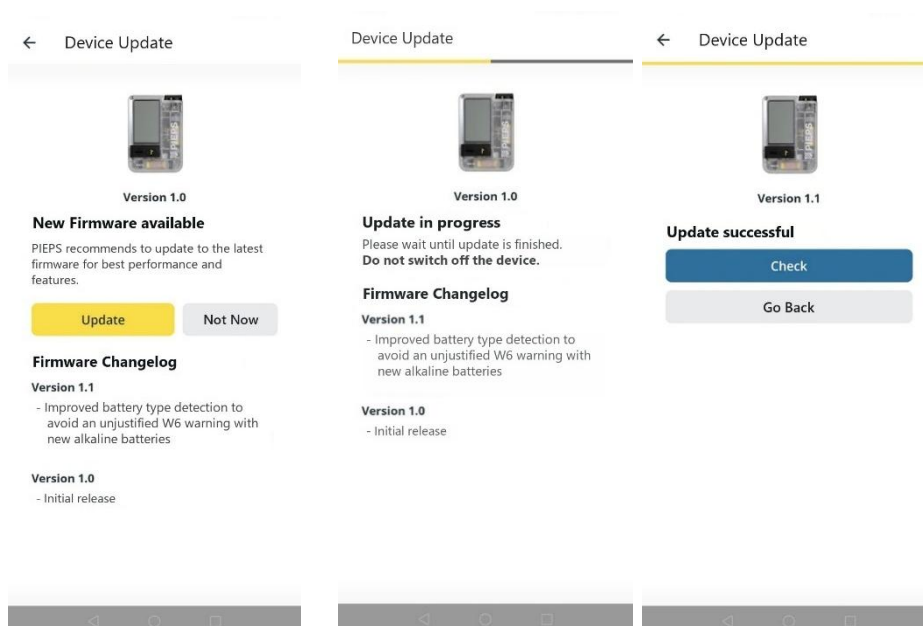
Use Bluetooth mode only for device management and training mode. Never use Bluetooth mode in avalanche-prone terrain!

You can use the PIEPS app for the following settings:

Basic functions	
Admin Lock	
Battery type (alkaline/lithium)	
Group-check ON/OFF	
Auto-Revert Search-to-Send Timeout (60 s/90 s/120 s)	
Volume HIGH/MEDIUM/LOW	
Power On Warning ON/OFF	
Reset to factory settings	

5.1 SOFTWARE UPDATE

We are continuously working on our firmware to optimize and improve the performance of our avalanche beacons. Please always keep the firmware of your PIEPS MINI IPS up to date.



5.2 WARRANTY EXTENSION BY REGISTRATION

When you connect your PIEPS MINI IPS to the PIEPS app on your smartphone and it has not yet been registered, you will see a registration prompt at the top. Please fill in the information accordingly. After registration, you will receive a warranty extension from 2 to 5 years. We will also keep you informed about new firmware versions.

5.3 DEVICE CHECK

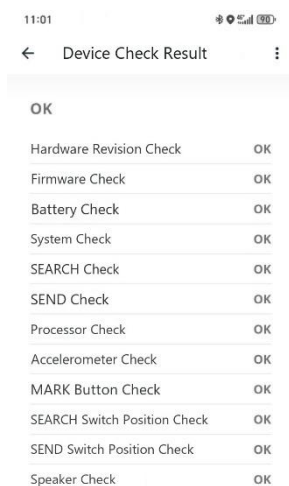
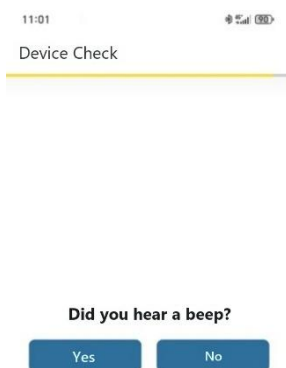
Your PIEPS MINI IPS is built for critical avalanche rescues. Due to the extreme operating conditions, we recommend checking your device before every tour.

For a detailed check (at least once a season), you can conveniently use the "Device Check" function in the app.

Switch on your PIEPS MINI IPS and connect it to the app. After a successful connection, you can select the Device Check function. Please follow the instructions:

The image shows two screenshots of the PIEPS MINI IPS app. The left screenshot, titled 'PIEPS MINI IPS', shows a 'Register now to extend warranty' button at the top. Below it is a device image and a battery level indicator. There are 'Register' and 'Check' buttons. Under 'Device Info', fields for Name, Serial Number (25-89), Version (1.1), and Device service are shown. Under 'Settings', fields for Admin Lock (Unlocked), Battery (Alkaline), Group Check (On (1m)), and Auto-Revert Search-to... (60 Seconds) are shown. The right screenshot, titled 'Registration', shows fields for Serial Number (25-89), Purchase Date (13.01.2026), Purchase Store (Where did you buy it?), and Store Country (Austria). There are two checkboxes: 'I agree that the original invoice is required for a warranty claim and a free warranty extension. Please keep your invoice in a safe place!' and 'I agree that PIEPS can send safety relevant product information.'

The image shows four screenshots of the 'Device Check' process in the app. The first screenshot shows the 'Device Check' screen with a 'Start' button and instructions: 'Device Check will provide a detailed report of your beacon's status.' Below this is an 'Important' section with three bullet points: '- Place the beacon on a flat surface and ensure:', '- No metallic elements or electronic devices within 50 cm of the beacon.', and '- No other transmitting beacons within 10 m.' The second screenshot shows a 'Press MARK Button' instruction with a remaining time of 9s. The third screenshot shows a 'Switch to SEARCH mode!' instruction with a remaining time of 8s. The fourth screenshot shows a 'Switch to SEND mode!' instruction with a remaining time of 6s. Each instruction is accompanied by a diagram of the beacon with the corresponding button highlighted.



If you notice any problems during the device check and would like to send your device to us, you can do so via our service website <https://my.pieps.com/#deviceservice>.

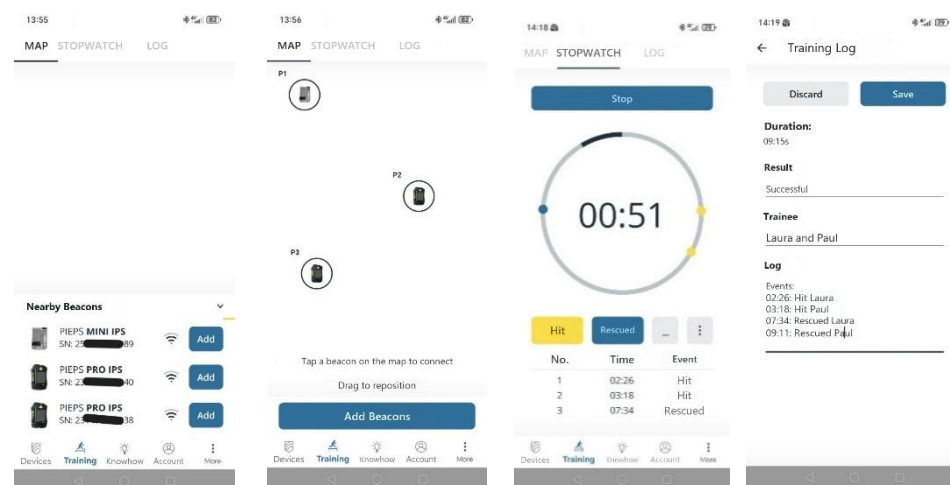


5.4 TRAINING MODE

The training mode in the PIEPS app is a unique feature, exclusive to PIEPS customers. Owning the best avalanche beacon is already half the battle. To be optimally prepared for an emergency, you also need the other half: a sound knowledge of how to handle the MINI IPS. In training mode, your smartphone turns into a remote control. Your PIEPS MINI IPS operates in SEND mode. If you now bury your PIEPS MINI IPS, you can control its X antenna with your smartphone. Other PIEPS avalanche beacons with Bluetooth even allow you to control the X and Y antennas, e.g. PRO IPS, POWDER BT, PRO BT. Depending on how many PIEPS avalanche beacons you have buried, you can create multiple training scenarios. For example, if you have buried 4 PIEPS avalanche beacons, you can create up to 80 training scenarios.

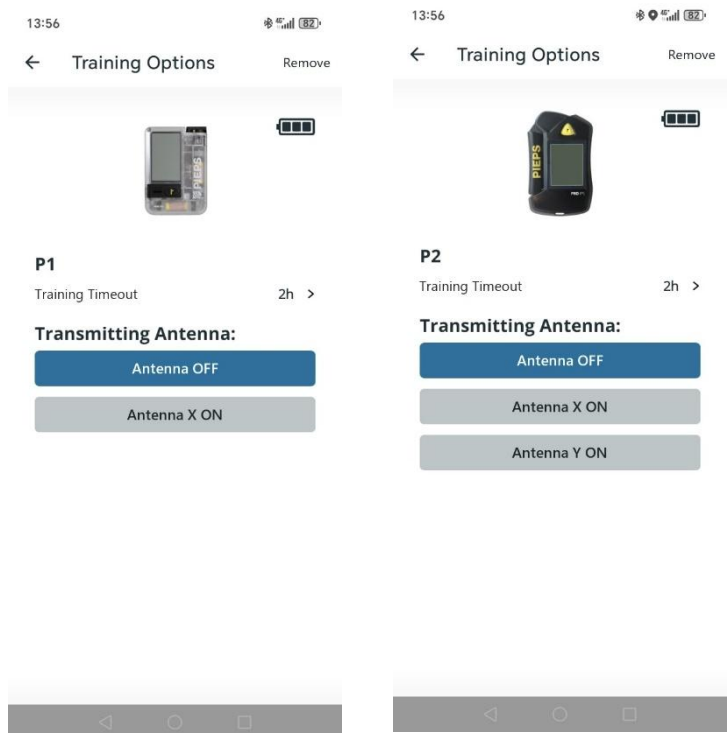
5.4.1 Starting a training session

To start the training mode, switch on your PIEPS MINI IPS in Bluetooth mode. In the PIEPS app, select the Training tab. Now tap the "Add avalanche beacons" button. Make sure that you do not use the training mode in terrain with avalanche danger. Now you can tap "Add" to add the devices to the training. Each training device is assigned an ID (P1, P2, P3...), which is visible both in the app and on the device.



Now you can set up your training scenario. You can select any training device by tapping it. After selecting it, you can switch the transmission signal on or off. For PIEPS avalanche beacons with several transmitting antennas (e.g. PRO IPS), you can also select the transmitting antenna. You can

sketch the relative positions of the devices on a map in the app. When you start the training, start the stopwatch.



Depending on how you have buried your training devices, the app shows the orientation of the active antenna: vertical or horizontal.

 **Bluetooth range**
GOOD TO KNOW The Bluetooth range under snow can be up to 10 m.

6. ERROR ANALYSIS, MAINTENANCE, STORAGE, DISPOSAL

6.1 ERROR ANALYSIS

Error	Description	Measure
	No indication on the display	Check the device for mechanical damage. Check the batteries for capacity, type and polarity (+, -) and insert new batteries if necessary. If there is still no indication, take the device to your dealer.
E1	System configuration The error remains on the display. The device is not functional.	Please contact PIEPS Support: www.pieps.com/support/ or support@pieps.com +43 3182 52556-30
E2/ E4	Transmitting or receiving unit Proper function is no longer guaranteed. So that the device continues to work as well as possible in an emergency, it still starts after confirmation with the MARK button.	Repeat the self-check in an interference-free area (outdoors). If the error is displayed again, stop using the device on tours and contact PIEPS Support: www.pieps.com/support/ support@pieps.com +43 3182 52556-30 If "Return for Service" appears, be sure to send the device in for inspection.
W4	Transmitting or receiving unit The message disappears after confirmation with the MARK button. The device is ready for use, but a measured value is outside the expected range.	Repeat the self-check in an interference-free area (outdoors). Check your immediate surroundings for external sources of interference (e.g. transmitting avalanche beacons, cell phones, metallic objects such as table legs or metal frames). If the warning appears every time you switch on, take your PIEPS MINI IPS to your dealer.
E5	Processor The error remains on the display. The device is not functional.	Please contact PIEPS Support: www.pieps.com/support/ support@pieps.com +43 3182 52556-30
E6	Battery The error disappears after the self-check. The device has limited functionality: the battery status indicator may be incorrect.	Check the battery type setting: alkaline/lithium. If the error is still displayed, take your PIEPS MINI IPS to your dealer.
W8	Acceleration sensor The error disappears after the self-check. The device has limited functionality: Auto-Revert Search-to-Send is not possible.	Take your PIEPS MINI IPS to your dealer.
W9	Bluetooth A Bluetooth connection with a mobile device is not possible. The avalanche beacon function of the device is working. Not checked during the self-check; only occurs when Bluetooth is activated.	Switch off the device and switch it on again in Bluetooth mode (briefly press the MARK button once when switching on). If the error appears every time Bluetooth is started, take your PIEPS MINI IPS to your dealer.

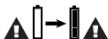
6.2 BATTERY CHANGE

Change the batteries as soon as the "battery capacity" indicator shows an empty battery! Always replace all batteries at the same time! To do this, open the battery compartment and make sure the batteries are inserted correctly. Observe the applicable regulations in your country when disposing of the batteries.

⚠ DANGER **Risk of explosion due to incorrectly used batteries.**
Risk of incorrect capacity display.

Only use batteries of the type "Alkaline (AAA) LR03 1.5 V" or "Lithium (AAA) FR03 1.5V"! The use of lithium batteries must be configured in the PIEPS app! Do not use rechargeable batteries of any kind (including USB-C)!

Battery life	Alkaline (h SEND)	Lithium (h SEND)
PIEPS MINI IPS	400 h	600 h

	3/3 full	100% - 66% (h SEND)	✓
	2/3 full	66% - 33% (h SEND)	✓
	1/3 full	33% - 20% (h SEND)	✓
	empty	20 h SEND (+10° C/50° F) + 1 h SEARCH (-10° C/14° F)	
	empty, flashing	Last reserve, device may switch off at any time	

6.3 CLEANING

Use a damp cloth without detergent for cleaning.

NOTE Do not use running water, steam or cleaning agents for cleaning. This could impair the functionality of the device.



6.4 STORAGE

Store the device in a dry room at room temperature.



NOTE

If the device is not used for a longer period (summer months), we recommend removing the batteries from the battery compartment. Damage caused by leaking batteries is excluded from the warranty.

⚠ CAUTION

Danger due to extreme temperatures

Do not expose the device to extreme temperatures. Store the device so that it is protected from direct sunlight. Extreme temperatures can impair functionality or damage the battery.

6.5 DISPOSAL

NOTE

Please note that this is an electronic device. Disposal via public waste management authorities is therefore not possible. Observe the applicable regulations in your country when disposing of the device.



7. CONFORMITY

EUROPE

Pieps GmbH hereby declares that the radio equipment type PIEPS MINI IPS complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.pieps.com/conformity.