

PREMIUM  
ALPINE  
PERFORMANCE



# MANUAL

# PIEPS MICRO

07-16  
Firmware v1.0

ENGLISH

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# 1. INTRODUCTION

Dear winter sports enthusiast!

Congratulations on having purchased one of our products.

The PIEPS MICRO is the smallest and lightest unit with 3 antennas! The sensor technology for simple operation and cable-free device management via Bluetooth® make the PIEPS MICRO an avalanche beacon of the latest generation. Vibration during initial reception enables the best possible focus on the visual surface search.

Naturally, the PIEPS MICRO also has all tried and tested PIEPS features:

- Circular reception range for fast, stable initial detection
- Perfect signal processing, even in difficult situations (multiple burials)
- MARK function
- Continuous carrier indication
- Comprehensive self-test and simple group check
- Smart Transmitter: Auto-Antenna-Switch in case of external interference, iPROBE-Support
- Auto-Search-to-Send for secondary-avalanche burial

**An avalanche beacon does not protect against avalanches!** Detailed knowledge of avalanche prevention is as indispensable as regularly practicing searching for victims in an emergency. The following procedures and tips relate only to special usage in conjunction with the PIEPS MICRO. The basic line of action in an emergency – as explained in specialist publications and material from avalanche courses – must be followed.

With the PIEPS MICRO (hereinafter referred to as the MICRO), you have a product that is state of the art in terms of safety and user-friendliness. Despite this, the MICRO can pose risks if used inappropriately or incorrectly. We refer to possible hazards in chapter **Error! Reference source not found.** and with safety notes placed throughout the operating manual.

This operating manual is intended to ensure the safe use of the MICRO. The safety instructions in this document must be followed at all times.

Before you use the MICRO, you must have read and understand this operating manual.

Pieps GmbH is not liable for technical or printing errors in this operating manual, neither is any liability accepted for damage caused directly or indirectly by the delivery, performance or use of this operating manual.

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Pieps GmbH, July 2016

## 1.1 IDENTIFICATION

The MICRO is identified on the unit and on the packaging in accordance with applicable regulations.



Identification on the unit



Identification on the packaging

CE identification according to:

- RED RL 2014/53/EU
- EMV 2014/30/EU
- RoHS 2011/65/EU

## 1.2 LIABILITY

The information contained in this operating manual describes but does not guarantee the features of the product.

No liability is accepted for damage caused by:

- Improper use
- Failure to follow the operating manual
- Unauthorized modifications of the MICRO
- Improper work on and with the MICRO
- Continuing to use the MICRO despite evidence of wear and tear
- Unauthorized, improperly carried out repairs
- Emergencies, external influences or force majeure

### **NOTICE**

*Alterations or modifications not explicitly approved by the manufacturer will result in you no longer being allowed to use the unit.*

## 1.3 WARRANTY CONDITIONS

The manufacturer provides a 2-year warranty covering manufacturing and material defects of the MICRO from the date of purchase. Exceptions are the battery, carrying system, hand-loop and bag as well as any damage caused by improper use or dismantling of the unit by unauthorized persons. Any other warranties and liability for consequential damage are expressly excluded. For warranty claims, please take proof of purchase and a description of the fault to the point of sale.

## 1.4 SUPPORT

For technical problems, please contact Support: [support@pieps.com](mailto:support@pieps.com)

## 1.5 INTENDED USE

The MICRO serves as an avalanche victim search device (avalanche beacon) for the localization of buried persons and must only be used as intended. Any other use requires the written consent of Pieps GmbH. Improper use can put individuals at risk and result in the unit being damaged. The MICRO is not an automatically functioning device with partly automated functionalities – for this reason, the MICRO may only be commissioned after having read and understood the documentation. Failure to use the unit as intended will result in all liability and warranty claims being rejected. The MICRO is to be operated only under the conditions of use described in the documentation.

## 1.6 TARGET GROUP AND PREVIOUS KNOWLEDGE

An avalanche beacon should be part of the avalanche emergency equipment of everyone who ventures off secured pistes into open, unsecured terrain (e.g. ski tourers, freeriders, mountain rescuers, etc.).

Users of the MICRO must meet the following conditions:

- Read and understand this operating manual.
- Users with impaired vision must ensure that they can read the labelling and displays on the unit as well as the instructions in the documentation without problem.
- If users with impaired hearing are unable to hear the acoustic signal, they must ensure that they can correctly interpret the display indications in accordance with the instructions in the operating manual.
- Regular training ensures safe and efficient use of the MICRO.

## 1.7 OPERATING LIMITS

The operating limits of the MICRO are defined as follows:

- Ambient temperature: Guaranteed for use between min. -20°C (-4°F) and max. +45°C (+113°F).

## 1.8 ESSENTIALS

The MICRO meets the current state of technology and the applicable health and safety regulations. However, incorrect operation or misuse can give rise to hazards for:

- the life and health of the users or third parties
- The MICRO and property of the operator
- The efficient use of the MICRO

## 1.9 TECHNICAL DATA

<b>Name</b>	PIEPS MICRO
<b>Transmission frequency</b>	457 kHz (EN300718)
<b>Power supply</b>	1x Alkaline, AA, LR6, 1.5 V
<b>Battery life</b>	min. 200 h in send-mode
<b>Maximum range</b>	40 m
<b>Search strip width</b>	40 m
<b>Dimensions (LxWxH)</b>	106 x 74 x 20 mm
<b>Weight</b>	150 g (incl. battery)
<b>Operating temperature range</b>	-20°C to +45°C (-4°F to +113°F)

## 2. SAFETY

This operating manual is structured in accordance with the applicable EU regulations and contains safety instructions. Each individual is personally responsible for complying with the safety instructions. This chapter contains all safety-related information.

Should anything be unclear or difficult to understand, please contact our support team.

### 2.1 SIGNAL WORDS USED IN THE SAFETY INSTRUCTIONS

#### **DANGER**

***Imminent threat to the life of individuals***

*A safety instruction with the signal word DANGER indicates an imminent threat to the life and health of individuals!*

#### **WARNING**

***Risk of personal injury (serious injuries) and possible material damage***

*A safety instruction with the signal word WARNING indicates a dangerous situation which could affect the health of individuals.*

#### **CAUTION**

***Risk of material damage and possible minor risk of injury***

*A safety instruction with the signal word CAUTION indicates a possibly dangerous situation which could primarily result in material damage.*

#### **NOTICE**

*This symbol with the text NOTICE indicates supporting information for installation, operation or maintenance and repair.*

## 2.2 GENERAL SAFETY RULES AND OBLIGATIONS

The following safety rules and obligations apply in general for using the MICRO:

- The MICRO may only be used in a perfect condition.
- It is forbidden to alter or change the MICRO without the written permission of Pieps GmbH.
- Do not attempt to rectify faults or damage without authorization. Instead, you must contact support, who will tell you how to proceed. The MICRO must not be used until the damage has been rectified.
- The safety and operating instructions in the operating manual must be followed at all times.

## 2.3 RESIDUAL RISKS | WARNINGS

Even though the MICRO has been designed with maximum care and all safety-related facts have been taken into consideration, residual risks may exist and must be evaluated by means of a risk assessment. All residual risks and warnings from the risk assessment are listed in this chapter.

**⚠ DANGER** ***Risk of getting caught in the unit's carrier***  
*Always fasten the unit in the provided carrier on descents. Ensure that the carrier lies close to the body. When performing a search, the MICRO must be held by hand.*

**⚠ CAUTION** ***Risk of crushing when closing the battery compartment and when turning the unit on/off***  
*Be aware of any risk of crushing when closing the battery compartment and when turning the unit on/off.*

**⚠ WARNING** ***Risk of hearing damage due to the high noise level***  
*Never hold the unit directly next to your ear. A minimum distance of 50 cm is recommended.*

**⚠ DANGER** ***Risk of explosion from incorrectly used batteries***  
*Use only batteries of type "Alkaline, AA, LR6, 1,5V"!*

**⚠ CAUTION** ***Risk that the displayed battery level is incorrect***  
*Use only batteries of type "Alkaline, AA, LR6, 1,5V"!*

**⚠ CAUTION** ***Risk of extreme temperatures***  
*Do not expose the unit to extreme temperatures. Store the unit so that it is protected from direct sunlight. Extreme temperatures can impede operation or damage the battery.*

## NOTICE

*It is recommended to secure the unit to the belt system with a fixing strap or to the wrist with a hand loop during use. This is intended to prevent the unit from becoming lost.*

## NOTICE

*The user must read the operating manual.*

## 3. PACKAGING

Ensure that the unit is transported only in the packaging provided. The unit can be damaged if transported in insufficient or defective packaging. Furthermore, the unit must not be exposed to moisture or heat at any time during transport.

If stored for an extended period, the unit should be stored in its original packaging in a dry place. This is to avoid corrosion and soiling.

### 3.1 UNPACKING

Remove the MICRO carefully from the packaging, remove all transport safeguards and check whether all parts contained in the scope of delivery are accounted for. It is recommended to retain the original packaging in case the unit has to be returned.

## NOTICE

*Dispose of the packaging and transport safeguards in an environmentally friendly manner (paper to paper, plastic to plastic, etc.).*

### 3.2 SCOPE OF DELIVERY

- 1x PIEPS MICRO
- 1x Battery (in battery compartment)
- 1x PIEPS MICRO Carrying system
- 1x PIEPS Hand loop
- 1x PIEPS MICRO Bag
- 1x Quick manual
- 1x Registration card
- 1x PIEPS Sticker



## NOTICE

*Check that the contents are complete and undamaged after unpacking. If necessary, contact your point of sale or our support team.*

## 4. GENERAL DESCRIPTION

### 4.1 SENSOR INFORMATION

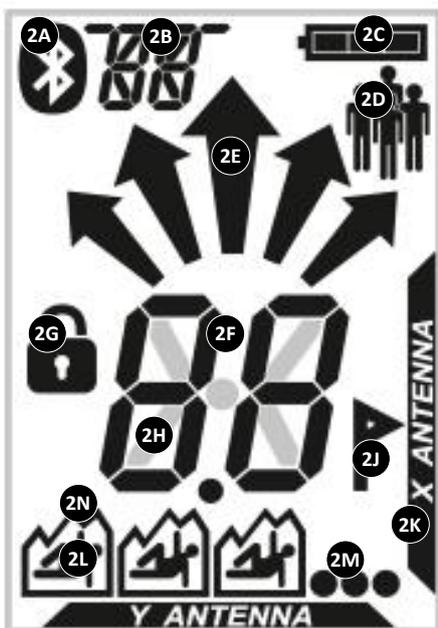
The proximity-sensor (1F) is used for automatic switching from Send to Search mode. The sensor detects whether it is covered or not. This feature also works in darkness.

To prevent accidental switching back to Send mode during the search, Search mode is blocked (SEARCH-LOCK, 2G) as soon as you take the MICRO out of its carrying system. The MICRO remains in Search mode even if you return it to the carrying system during probing or digging. To return to send mode, release the SEARCH-LOCK (1C) and place the unit in the carrying system. See also chapter 4.7 & 4.8.

### 4.2 STRUCTURE



- (1A) MARK button
- (1B) LCD display (backlit)
- (1C) “Release SEARCH-LOCK ” info symbol
- (1D) Send check LED
- (1E) Loudspeaker
- (1F) Proximity sensor
- (1G) Main ON/OFF switch, access to battery compartment
- (1H) Battery compartment
- (1J) Battery polarity



- (2A) Bluetooth® active
- (2B) Auxiliary display
- (2C) Battery capacity
- (2D) Group check
- (2E) Direction indicator
- (2F) Distance indicator
- (2G) SEARCH-LOCK (search mode blocked)
- (2H) Send indicator
- (2J) MARK (marking possible)
- (2K) Current sending antenna
- (2L) Number of burials (1-3)
- (2M) Number of burials (4 or more)
- (2N) Sender marked

## 4.3 QUICK START IN 3 STEPS

Your **PIEPS MICRO** is ready for use as soon as you unpack it.

**Step 1:** Place the carrying system by laying the strap over your head and shoulders. Pass the body belt around your back, connect the quick release and adjust to the required length.

**Step 2:** Switch the MICRO on (main switch 1G ON) and wait for it to complete the self-test.

**Step 3:** Place the MICRO in the carrying system, check the sender check LED (1D) and enjoy your tour.



A

PIEPS recommends using the MICRO carrying system (A) or using the MICRO Bag with hand-loop (B), if the MICRO is carried in a securely closeable clothing pocket.



B

## 4.4 SWITCHING ON | SELF-TEST

Switch the MICRO on by turning the main switch (1G) to the ON position.

The display shows the current firmware-version and hardware-revision. At the same time, an extensive self-test is performed which checks all relevant system components.

### NOTICE

*A minimum distance of 5 m from other devices and all electronic, magnetic and metallic sources of interference should be kept during the self-test. Ensure that the sensor is not covered during the self-test.*

If the self-test is successful, "OK" appears in the display. If the unit suffers an error, a warning is sounded and an "E" is shown on the display together with an error code ([see also chapter 6.1](#)).

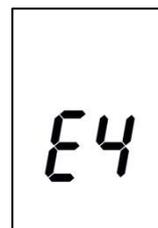
A covered sensor during the self-test leads to a warning: the MICRO beeps and vibrates and "ST" for "Sensor test error" is shown in the additional display (2B).



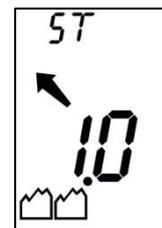
Firmware-version (1.0)  
Hardware-revision (H3)



Self-test OK



Self-test error



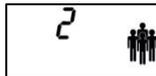
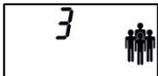
Sensor test error

## 4.5 GROUP CHECK

Despite the comprehensive self-test, PIEPS recommends that an avalanche beacon is checked as standard before every tour. The MICRO is equipped with a group check function. This simply and efficiently checks whether the partner avalanche beacon is sending (send check) and whether the send parameters meet the standard.

### Activating the group check function:

- Switch the MICRO on
- Wait until “Group check” appears on the display.
- Press and hold the MARK button



3-second-countdown

The group check function remains active while the MARK button remains pressed. Release the MARK button to end the group check function. After a countdown of 3 seconds, the MICRO automatically switches to Send or Search mode:

- Sensor covered => Send mode
- Sensor not covered => Search mode

The group check function can be activated again during the 3-second countdown.

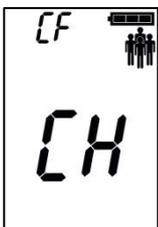
### NOTICE

*The maximum range in group check mode is 1 m.*

### Regular and extended group check

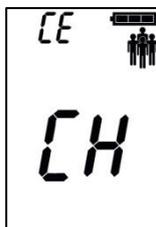
The MICRO has two group check modes:

- Regular group check: checks send signal and send frequency
- Extended group check: checks send signal, send frequency, signal duration and period duration



Regular group check

CF = Check Fast



Extended group check

CE = Check Extended

The “Regular group check” mode is set by default. The required mode can be selected in the PIEPS APP ([see also chapter 5](#)).

The “Regular group check” is sufficient for checking modern, digital units with 3 antennas.

The “Extended group check” is recommended for checking old devices (analogue single-antenna devices).

Result of Regular group check



Unit not sending or  
distance too great (> 1 m)

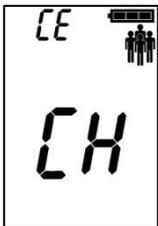


Unit sending  
Transmission parameters  
according to standard



Unit sending  
Sending frequency not  
according to standard

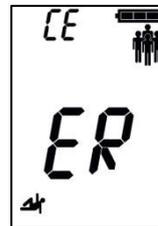
Result of Extended group check



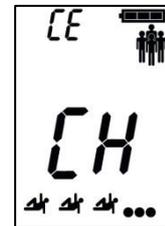
Unit not sending or  
distance too great (> 1 m)



Unit sending  
Transmission parameters  
according to standard



Unit sending  
One or more sending  
parameters not according  
to standard



Several senders  
within 1 m  
=> Increase distance



Continuous carrier indication ([see chapter 4.9.6](#))

**Group check professional mode**

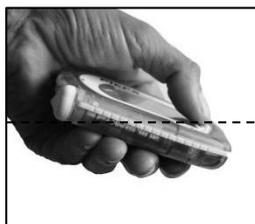
The MICRO has a professional mode that makes it easy to change between receiving and sending, even during the group check:

- Tip the MICRO downwards to send in group check mode
- Tip the MICRO upwards to receive in group check mode

Professional mode is deactivated by default. The feature can be activated in the PIEPS APP ([see also chapter 5](#)).



Professional mode "Receive"



Professional mode "Send"



Display in group check send mode  
CT = Check Transmit

## The holistic “big” avalanche beacon check

Perform the “big” avalanche beacon check as follows:

- Reception check

Group leader => Send mode: Unit sending?

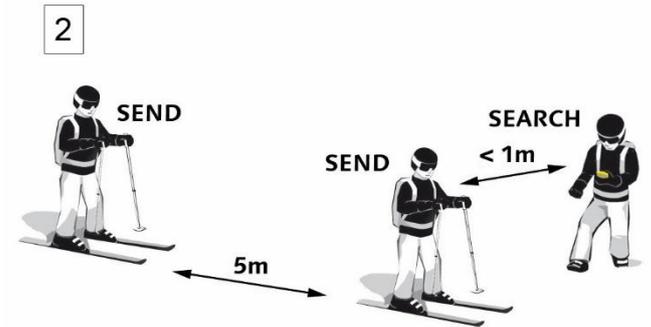
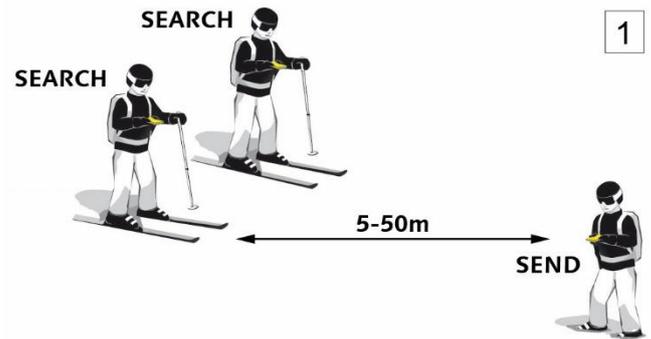
All others => Search mode: Units receiving?

- Send check

Group leader => Group check mode: Unit receiving?

All others => Send mode: Units sending?

**Tip!** The receive check can be combined with a range test by selecting a large distance.



## 4.6 SEND MODE

After the self-test or the group check, place the MICRO into the carrying system. The MICRO sends, the send check LED (1D) flashes.



Send mode display

### NOTICE

To see the display in send mode, cover the sensor (1F) after unlocking the SEARCH-LOCK beforehand as necessary. If the sensor remains uncovered after the start sequence, the MICRO switches immediately to Search mode.

### 4.6.1 Send-Vibra

The Send-Vibra is an additional, tactile send confirmation. When the MICRO sends, it vibrates 5 times.

The Send-Vibra is activated by default. The feature can be deactivated in the PIEPS APP ([see also chapter 5](#)).



### 4.6.2 Smart Transmitter – maximum support in Send mode

The Smart Transmitter of the MICRO works in the background and helps make find a buried victim quickly and better.

### PIEPS Auto-Antenna-Switch

If the send antenna is negatively influenced by external interference (e.g. mobile phone), the other antenna will take over the send function. The MICRO always sends using the most powerful antenna for the biggest possible range to the receiver unit!

### PIEPS iPROBE-Support

Avalanche beacons with iPROBE-support\* are automatically deactivated when probing with the electronic probe PIEPS iPROBE. This prevents signal overlaps and the next-strongest signal is automatically displayed on the receiver avalanche beacon. The PIEPS iPROBE-support provides maximum support when there are multiple burials!

*\* Avalanche beacons with iPROBE-Support: PIEPS MICRO, PIEPS DSP PRO, PIEPS DSP PRO ICE, PIEPS DSP SPORT, PIEPS DSP STANDARD  $\geq$  v5.0, PIEPS DSP TOUR, PIEPS FREERIDE*

### External interference and distance recommendations

All avalanche beacons are by nature sensitive to electrical and magnetic sources of interference. That is why all manufacturers recommend keeping a minimum distance from electronic, magnetic and metallic sources of interference (mobile phone, radio, keys, magnetic closures, etc.):

**Minimum distance in Send mode: 20 cm | Minimum distance in Search mode: 50 cm**

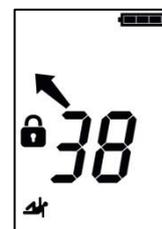
## 4.7 SWITCHING SEND $\Leftrightarrow$ SEARCH

The MICRO automatically switches to Search mode when you remove it from the carrying system.

- The MICRO automatically switches to Search mode when you remove it from the carrying system. Search mode is blocked in this case (SEARCH-LOCK).
- The MICRO automatically switches to Search mode if you do not place it in the carrying system after the start sequence (switch-on). Search mode is not blocked in this case.

### 4.7.1 SEARCH-LOCK

To prevent accidental switching back to Send mode during the search, Search mode is blocked as soon as you take the MICRO out of its carrying system. The MICRO remains in Search mode even if you return it to the carrying system during probing or digging.



SEARCH-LOCK display

### NOTICE

The SEARCH-LOCK is only activated when the unit was previously in Send mode.

## 4.8 SWITCHING SEARCH ⇨ SEND

If necessary, you can release the SEARCH-LOCK, by pressing the MARK button (1A) for 3 seconds and placing the MICRO in the carrying system or covering the sensor.

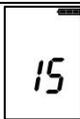
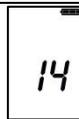
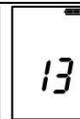
The MICRO emits an acoustic and tactile (Vibra) warning for 4 seconds that the unit will switch over from Search to send mode. A tactile send confirmation is performed after the switchover (*see also chapter **Error! Reference source not found.***).

### 4.8.1 Secondary avalanche | Auto-Revert Search-to-Send (AR)

The MICRO has the Auto-Revert Search-to-Send (AR) function by default. The unit switches over from Search to send mode automatically if the unit has not been in motion for 1 minute (buried). You can change the timeout for the switchover in the PIEPS APP (*see also chapter 5*).

The AR function has the following features:

- Motion-controlled initialization
- Short switching time
- Long warning phase with signal tone and countdown before switching over
- Permanent warning tone, also after switching over

Avalanche beacon mode	SEARCH MODE	WARNING PHASE			SEND MODE						
Display indicator	Search display										
Tone output	Search tone										
Manual abort		Shake unit or press MARK button									
		<b>START WARNING</b>			<b>SWITCH TO SEND</b>						
Setting 1 (60 s)		0:30 min			1:00 min						
Setting 2 (90 s)		1:00 min			1:30 min						
Setting 3 (120 s)		1:30 min			2:00 min						

During the warning phase, the AR initialization can be interrupted as follows:

- By briefly shaking the unit or
- By pressing the MARK button

After the switchover, your MICRO sends permanently, including a warning tone, until it is switched off.

## 4.9 SEARCH MODE | SEARCH STRATEGY

### 4.9.1 Avalanche emergency

A person buried under an avalanche has the greatest chance of being rescued quickly if as many of the companions in the group were not buried and these people are able to work efficiently as a team to rescue the victim. If the worst happens, the following applies: REMAIN CALM, OBSERVE, ALERT, ACT WITH COORDINATION!

#### (1) Remain calm and get an overview of the situation

- Are there any further dangers?
- Number of victims?
- Establish primary search area!

#### (2) Make a brief emergency call

- Max. 2 minutes
- EU 112, AT 140, CH 1414, IT 118, FR 15

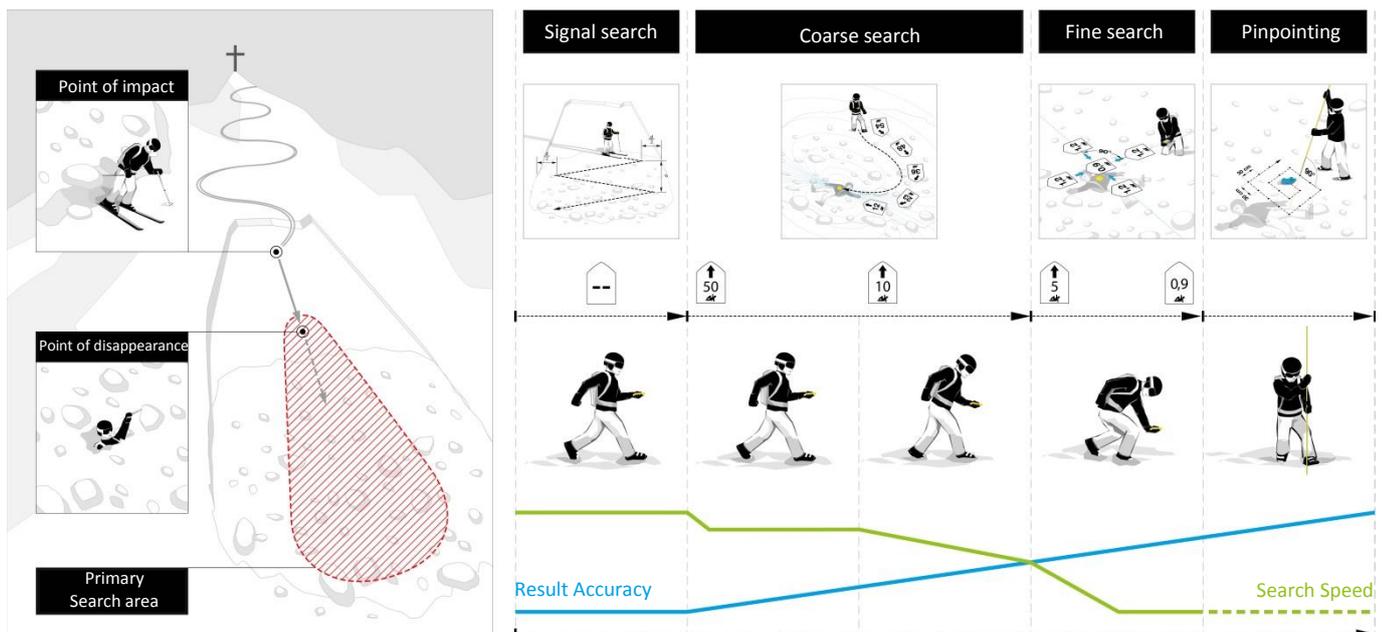
#### (3) Burial search

- Signal search (eyes + ears, avalanche probe)
- Coarse search (from first reception)
- Fine search (from 5 m on the surface)
- Pinpointing (systematic probing)

#### (4) Systematic digging

#### (5) First Aid

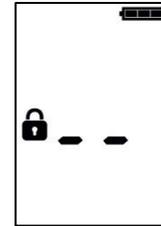
#### (6) Rescue



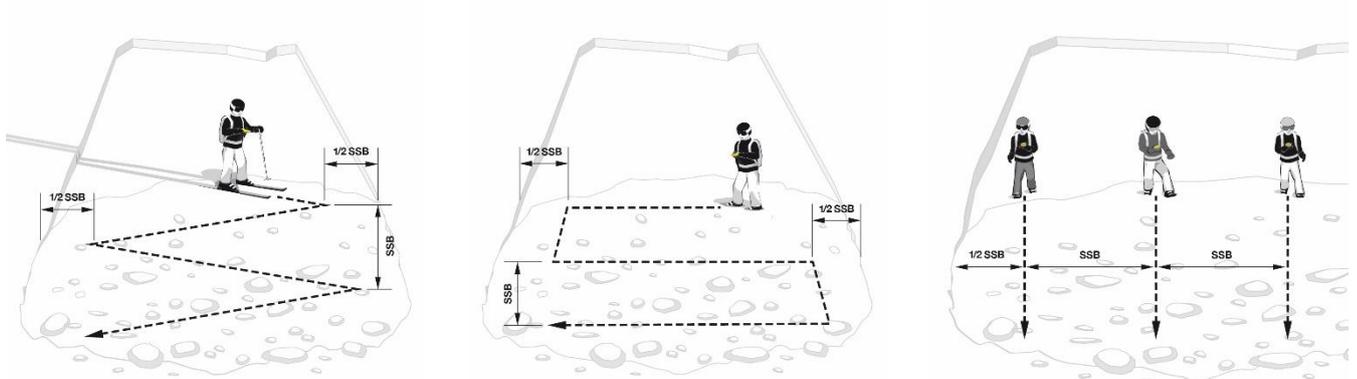
## 4.9.2 Signal search

Start searching in the primary search area following initial reception (signal search). The MICRO has a circular receiving range which enables the correct indication of direction and distance from the initial reception – a specific method such as turning/pivoting is not necessary. All sender avalanche beacons within the maximum receiving range are received simultaneously.

Walk the indicated search strip width in the established search area quickly. The recommended search strip width for the MICRO is 40 m. The display shows “no reception” until a signal is received.



No reception



A rescuer with ski  
during the signal search  
 $d = \text{search strip width}$

A rescuer on foot  
during the signal search

Several rescuers  
during the signal search

**IMPORTANT!** Everyone involved, including the observers, switches their avalanche beacons to receive mode (or to standby mode). You must avoid standing in the immediate vicinity of electronic devices (e.g. mobile phones, radios) or solid metal objects during the search.

## 4.9.3 Coarse search

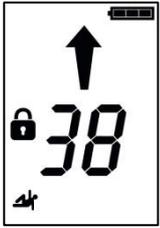
When the MICRO receives signals, the distance and direction to the strongest signal are shown on the display. The number of victims located within the receiving range is indicated by the number of small human figures. Approach the strongest send signal by following the directional arrow and distance along the field line.

### Vibra at initial reception

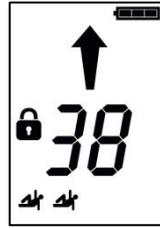
The MICRO provides additional support during initial reception by vibrating. This lets rescuers focus on the visual surface search during the signal search.



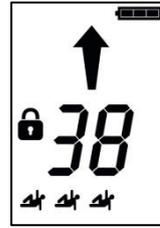
## Number of burials



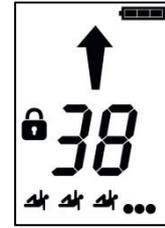
one



two

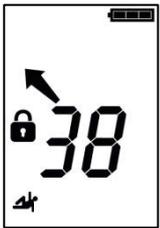


three

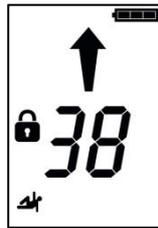


four or more

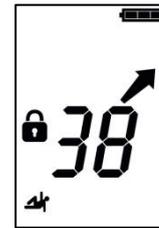
As soon as a signal is received, follow the directional arrow quickly and see if the distance figures reduce. If the distance figures increase, change your direction by 180°.



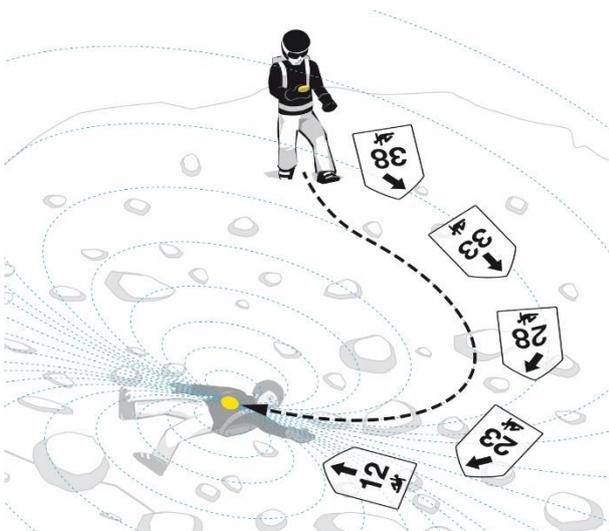
go left



go straight ahead



go right



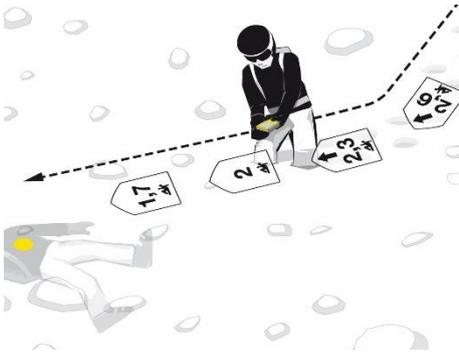
**IMPORTANT!** Work calmly and with concentration in Search mode. Avoid hasty movements.

### 4.9.4 Fine search

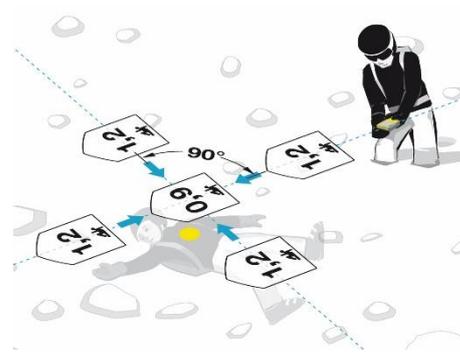
From a distance of 5 m, the search speed should be notably reduced (50 cm/s). At the same time, work with the MICRO as close to the surface of the snow as possible in this phase of the search to keep the distance to the sender avalanche beacon to a minimum.

To prevent confusion during the fine search, the directional arrows are hidden below a distance of 2 m. Reduce the search speed again and search by pinpointing the position of the smallest distance indicated. Work slowly and on the surface of the snow.

The dynamic tone output supports the fine search: the closer the higher/faster.



**TIP!** Perform the last directional correction before the directional arrow is hidden. You will then be moving in the best range to the sender avalanche beacon and will save time pinpointing. If the victim is deeply buried, it is possible that the minimum distance display will be more than 2 m!



**IMPORTANT!** Do not make any quick movements during the fine search, reduce the search speed to 10 cm/s during pinpointing and avoid turning/pivoting.

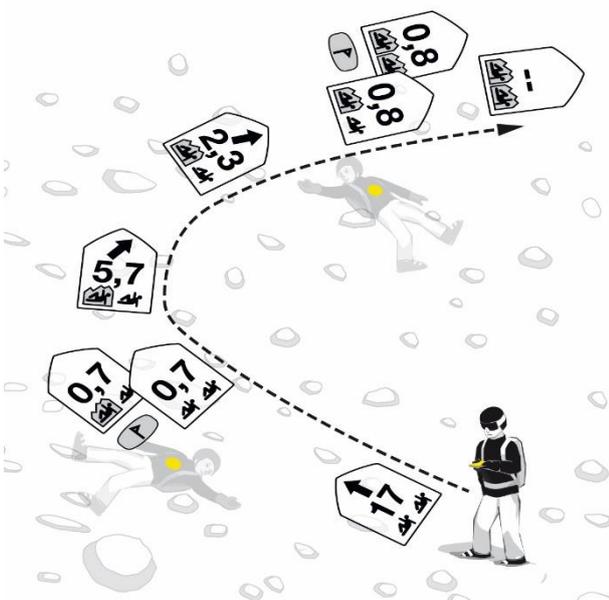
#### 4.9.5 Pinpointing

Check the search result by systematic probing. Begin at the point of the lowest distance indicated. If you encounter something, insert the probe and commence systematic digging.

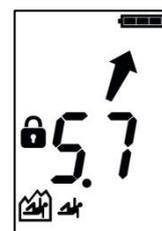
#### 4.9.6 Multiple burials | MARK function

If there are multiple burials, this will be indicated clearly on the display by the number of small human figures. In order to mark (“hide”) a localized sender, press the MARK (1A) button briefly. Once it is hidden, this will be confirmed by a frame around the human figure (2N). The MICRO automatically shows the next strongest signal on the display.

Now continue searching as described earlier and repeat the process until all senders have been located. When no further signal is located in the receiving area, the indicator for “Signal search” appears on the display.



Indicator before marking



Indicator after marking

#### NOTICE

Marking is possible from a distance of 5 m and is indicated by the MARK (2J) symbol.

### Continuous carrier indication

In addition to the pulse signal, older analogue units also send a weak continuous signal which can lead to a restriction of the digital signal separation at close range. It is recommended to quickly step a few meters away after marking such a sender.



Signal without continuous carrier



Signal with continuous carrier

The MICRO identifies such a continuous signal and supports it with an indicator: the small human figures start flashing.



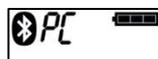
## 5. DEVICE MANAGEMENT WITH THE PIEPS APP

The PIEPS APP provides uncomplicated device management from your mobile phone using Bluetooth®. Download the app (Android Play Store, iOS App Store), connect to PIEPS MICRO and use all the functions.

To activate Bluetooth®, hold down the MARK button (1A) when switching on the device. When the Bluetooth® symbol appears on the display, you can release the MARK button.



Bluetooth® activated



Connection to mobile unit established

You can make settings to the following features using the PIEPS APP:

### Send-Vibra

- Switch send confirmation via Vibra on/off

### Group check

- Change group mode check (simple/extended)
- Switch professional mode on/off

### Auto-Revert Search-to-Send

- Change timeout (60 seconds/90 seconds/120 seconds)

## 6. TROUBLESHOOTING, MAINTENANCE, STORAGE, DISPOSAL

### 6.1 TROUBLESHOOTING

<i>Error</i>	<i>Description</i>	<i>Measure</i>
	No indication on the display	Check the unit for physical damage. Check the battery capacity, type and polarity (+,-); if necessary, fit a new battery. If there is still no indication, take the unit to your retailer.
E1	<i>System configuration</i> The error remains on the display. The unit is not serviceable.	Take the avalanche beacon to your retailer.
E2 E3 E4	<i>Sender or receiver or amplifier</i> The error disappears after the self-test. The unit has limited functionality: the send or receive power is limited.	Repeat the self-test in an area free from interference (outdoors). Check for external sources of interference (e.g. sending avalanche beacons, mobile phone) in your immediate vicinity. If the error is permanently displayed, take the unit to your retailer.
E5	<i>Processor</i> The error remains on the display. The unit is not serviceable.	Take the unit to your retailer.
E6	<i>Distance and/or direction indicator</i> The error disappears after the self-test. The unit has limited functionality: the distance or direction indication is inaccurate.	Take the unit to your retailer.
E7	<i>Proximity sensor</i> The error remains in the additional display (2B). In this case, automatic Send ↔ Search switching is not possible; the switching must be performed manually.	Repeat the self-test and ensure that the sensor area is not covered during the self-test. Manual Send ↔ Search switching is performed by pressing the MARK button for 3 seconds. Take the unit to your retailer.
	Automatic Send ↔ Search switching does not take place.	Ensure that the sensor is not covered. Check the display glass and especially the sensor area for soiling or deposits (large snowflakes), clean the display glass as necessary.
E8	<i>Accelerometer</i> The error disappears after the self-test. The unit has limited functionality: Auto-Revert Search-to-Send is not possible. Group check professional mode is not possible.	Take the unit to your retailer.
E9	<i>Bluetooth®</i> It is not possible to make a Bluetooth® connection to a mobile device. The avalanche beacon function of the unit is working. Is not checked during the self-test, occurs only during Bluetooth® activation.	Switch the unit off and on again in Bluetooth® mode (keep MARK button pressed briefly when switching on the unit). If the error is permanently displayed, take the unit to your retailer.

## 6.2 REPLACING THE BATTERY

Change the battery as soon as the battery level display (2C) indicates that it is empty.

To do so, open the battery compartment (1H) above the main switch (1G); be sure to insert the new battery the right way around (1J).

Dispose of the battery in accordance with the law in your country.

	3/3 filled	300 – 200 h SEND
	2/3 filled	200 – 100 h SEND
	1/3 filled	100 - 20 h SEND
	empty	20 h SEND (+10° C, 50° F) + 1 h SEARCH (-10° C, 14° F)
	empty, flashing	Final reserve, unit can switch off at any moment

### **⚠ DANGER**

***Risk of explosion from incorrectly used batteries***

*Use only batteries of type “Alkaline, AA, LR6, 1,5V”!*

### **⚠ CAUTION**

***Risk that the displayed battery level is incorrect***

*Use only batteries of type “Alkaline, AA, LR6, 1,5V”!*

## 6.3 CLEANING

Use a damp cloth without cleaning agent to clean the unit.

### **NOTICE**

*Flowing water, steam or cleaning agent must not be used to clean the unit. To do so could impede operation of the unit.*



## 6.4 STORAGE

Store the unit in a dry room at room temperature.

### NOTICE

*If the unit device is not used for extended periods of time (summer months), it is recommended to remove the battery from the battery compartment. The warranty does not cover damage caused by leaking batteries.*

### ⚠ CAUTION

#### **Risk of extreme temperatures**

*Do not expose the unit to extreme temperatures. Store the unit so that it is protected from direct sunlight. Extreme temperatures can impede operation or damage the battery.*



## 6.5 DISPOSAL

### NOTICE



*Please note that the unit is an electronic device. It cannot therefore be disposed of by public waste management companies. Dispose of the unit in accordance with the law in your country.*

## 7. APPROVAL & CONFORMITY

The approval text and the full text of the EU conformity declaration is available at the following website [www.pieps.com/conformity](http://www.pieps.com/conformity)