PiEPS DSP

SEIDEL Elektronik

STUBAI
distributed by

LCD-Display (back light)

Main switch
OFF-SEND-SEARCH

Lock

Button OPTIONS

Richtungsanzeige

Button MARK

Button SCAN

Number display

Temperatur

Number of burials

Altimeter

Compass

Battery level

98 0%

PiEPS DSP

OFF
SEND
SEARCH

8888
0%

Dear winter sports enthusiast,

Congratulations on having purchased a PIEPS avalanche rescue beacon !
100,000 skiers world-wide testify to the quality of this brand, which has been
on the market for nearly 30 years. During this time, PIEPS beacons have
undergone constant improvement. The device you have chosen is a state-of-
the-art piece of equipment. Enhanced by the latest **DSP** technology (= signal
processing with a **D**igital **S**ignal **P**rocessor) and a triple-antenna system, it not
only offers an exceptional range but also greatly simplifies the rescue
procedure, even in case of multiple victims.

*IMPORTANT: Even the PIEPS-DSP beacon cannot protect you against
avalanches. A close study of avalanche prevention techniques is equally
essential, as is regular practising for the eventuality of an avalanche
rescue.*

Carrying harness

The PIEPS DSP can be worn directly on your person using the supplied carrying system. Pass the snap hook of the safety cord through the carry pouch and attach it to the loop on the rear of the pouch (=safest option).

Alternatively, the PIEPS DSP can be attached to the belt of your ski trousers via the belt loop, or can be carried in your trouser pocket with or without the protective pouch. Always make sure, however, that the safety cord is suitably attached to an eyelet on your clothing to avoid losing the detector.

IMPORTANT: The PIEPS DSP should be worn as close as possible to the body, and under as many layers of clothing as possible !

LIGHT

98
0%

PiEPS
DSP

?

OFF
SEND
SEARCH

1. PRESS

OFF
SEND
SEARCH

2. MOVE

Battery / switching on / SEND mode

The battery compartment is located at the rear of the housing. The safety screw connection can be easily opened and closed using a coin.

IMPORTANT: Only use battery type LR03/AAA and always replace all 3 batteries with new ones of the same type. Never use rechargeable batteries and always change all batteries at the same time!
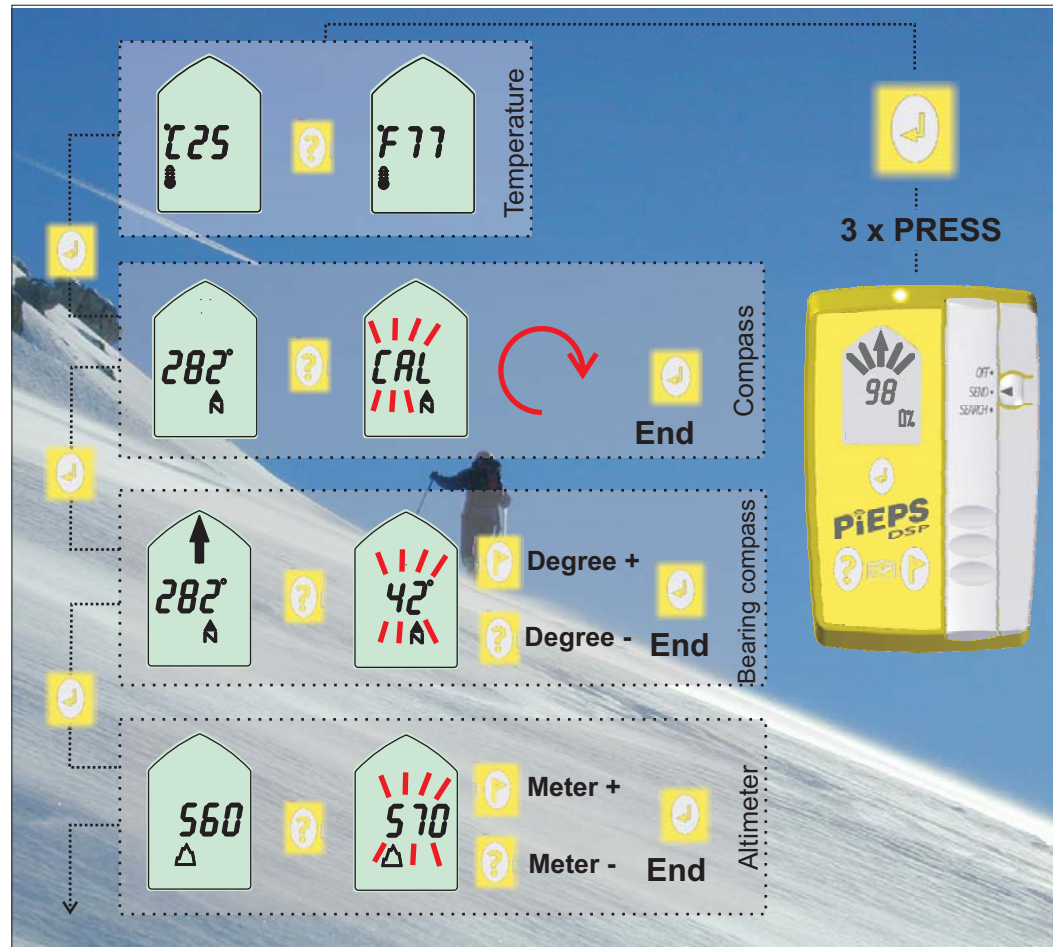
Depress the main switch lock and push the main switch to the "SEND" position. In this mode, the PIEPS DSP will carry out a self-test lasting approx. 5 seconds. You will then see the send symbol and the remaining % battery voltage in the display. The LED will also flash synchronously with the transmitter bit timing.

In the event of a device error, a 5-second warning tone sounds. This means the device is not fit for operation. In this case, contact our customer service department.

When in the open, make sure the "SEND" mode is selected throughout. The PIEPS DSP will then transmit continuously any signal it picks up from other detectors.

IMPORTANT: When switched on, a complex self-testing is done by the beacon itself, nevertheless a LVS-check stronlgy recommended in preperation to each tour !

3 x PRESS

Temperature
℃25 ℉77

Compass
282° CAL End

Bearing compass
282° 42° Degree + Degree - End

Altimeter
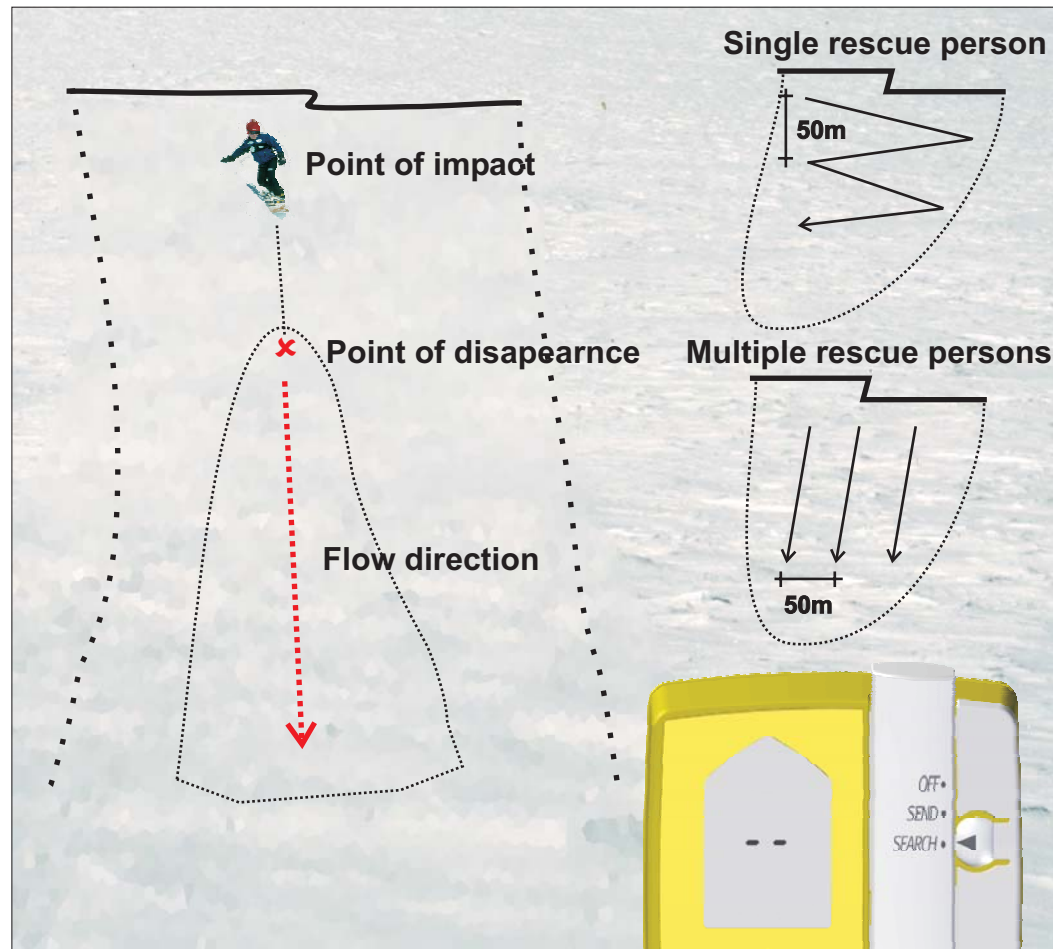560 570 Meter + Meter - End

Beacon with OPTION PACK

By pressing the OPTION switch three times, you can switch from the SEND mode to the OPTION mode. This enables you to switch between the relevant functions:

- Temperature display
  Press SCAN to switch between °C and °F.
- Compass
  When new batteries are inserted, the compass has to undergo an internal calibration. This is also necessary if the device detects strong temperature variations. To start the calibration, press SCAN ("CAL" flashes). Then rotate the device a full 360°. Finally, press OPTION.
- Bearing compass (direction-finding compass with arrow display)
  You can change the bearing direction with SCAN. Select the flashing bearing by pressing MARK (+) and SCAN (-). To exit, press OPTION.
- Altimeter
  You can adapt the altimeter reading to the prevailing air pressure by pressing SCAN. Adjust the displayed altitude with MARK (+) and SCAN (-). To set the adjustment to zero, press MARK and SCAN simultaneously. To exit, press OPTION.

By holding down the OPTION key (min. 3 seconds), you can switch back to the SEND mode. In the OPTION mode, the device does not transmit any signals, and therefore switches back to the SEND mode automatically after two minutes. If the battery is low, it switches back after just 30 seconds.

IMPORTANT: Make sure the device stays connected to the harness via the safety cord at all times !

Single rescue person

50m

Point of impaot

Point of disapearnce

Multiple rescue persons

Flow direction

50m

OFF •
SEND •
SEARCH •

EMERGENCY / SEARCH mode

In case of an emergency, the key thing to remember is:

KEEP CALM, OBSERVE, RAISE THE ALARM

Observe the course of the avalanche and make an exact mental note of where the victim
- was hit by the avalanche (point of impact)
- was last seen (point of disappearance)

The extension of these points indicates the flow direction of the avalanche !
The primary search area is to the left and right of this. When the avalanche stops, the most experienced member of the group takes control of the search, issuing instructions from the edge of the avalanche so that another person can mark the above points (with sticks, etc.).

Depress the main switch lock and push the main switch to the SEARCH position. You can now begin the PRIMARY SEARCH, in which the device will pick up any signals from victims within its range. Now scan the primary search area according to the plan on the left until a steady signal is reported.

IMPORTANT: All participants (including observers) must switch their beacons to receiving (SEARCH) mode. Always make sure there are no electronic devices (e.g. mobiles, radios,) or solid metal items in the direct vicinity of the search.
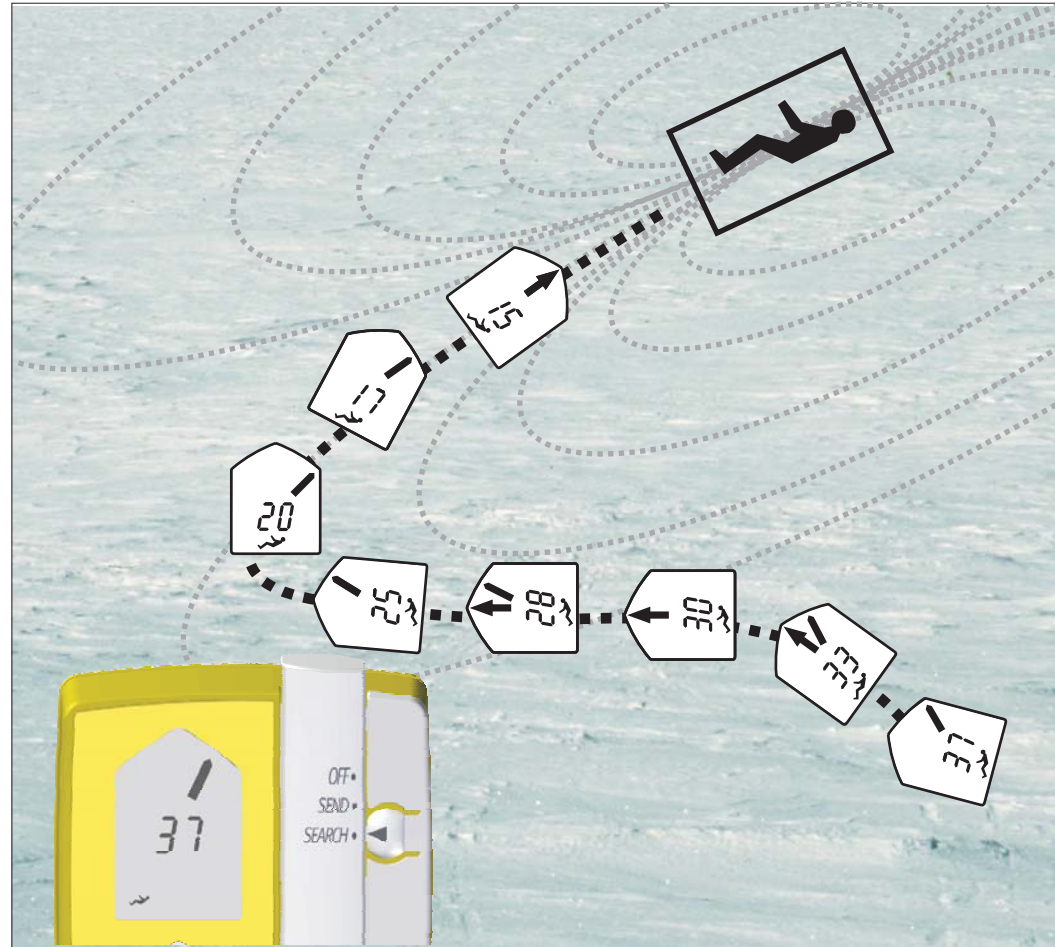
SEARCH mode / rough search

As soon as the PIEPS DSP picks up signals, the approximate distance and direction appear in the display. The number of victims within the range of the device is represented by matchstick men.

Number of burials:

|	↑ 45	↑ 45	↑ 45	↑ 45
	one	two	three	four or more
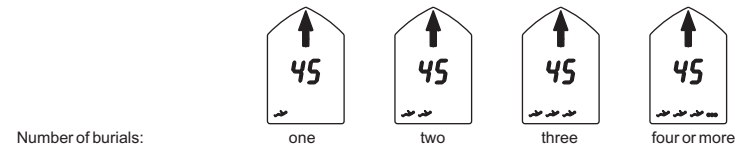
Using the arrow and distance reading, follow the strongest of the received signals along the field lines. Move in the direction indicated by the PIEPS DSP:

	↖ 38	↑ 38	↗ 38
	turn LEFT	move STRAIGHT AHEAD	turn RIGHT

The distance reading should become progressively smaller. If it gets larger, switch the search direction by 180°, i.e. turn round and follow the opposite direction.

IMPORTANT: When working in the SEARCH mode, remain calm and concentrated, and avoid hasty movements !
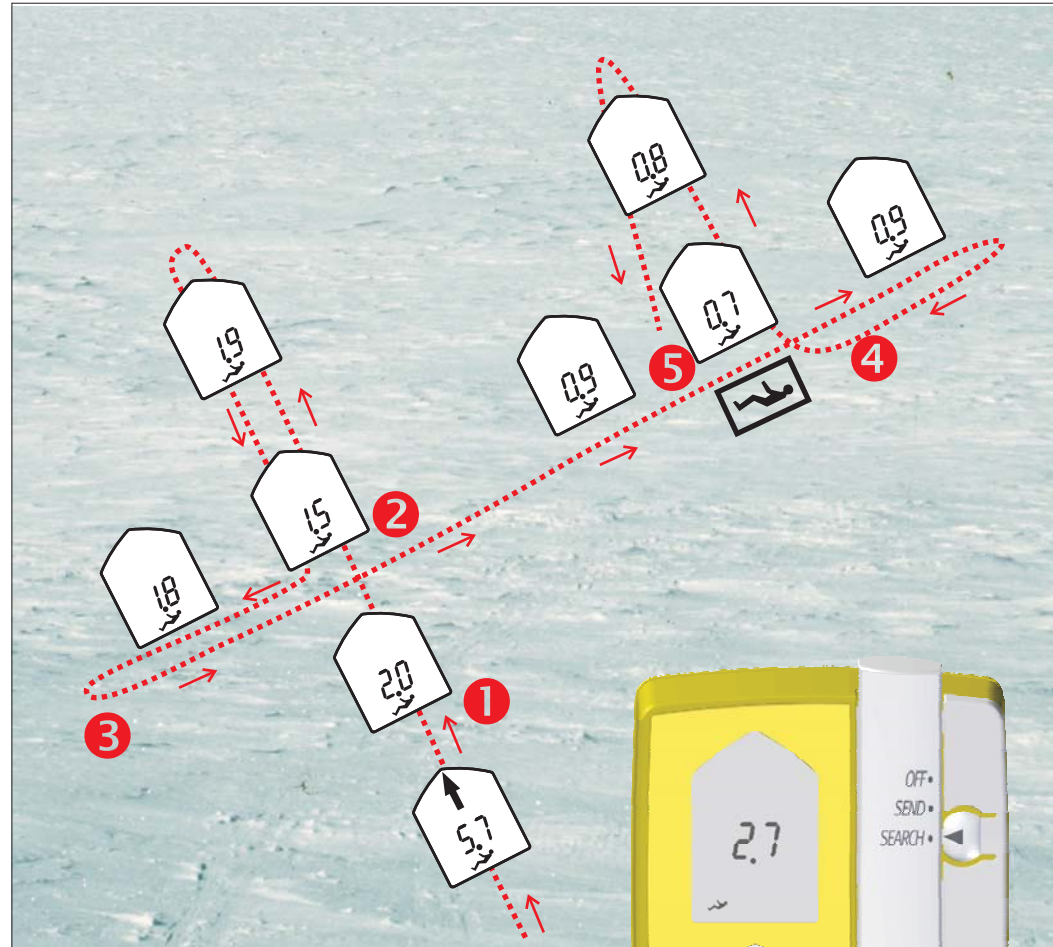
SEARCH mode / close search

Once you have approached the victim quickly with the rough search, the PIEPS DSP really comes into its own thanks to its advanced triple-antenna system.
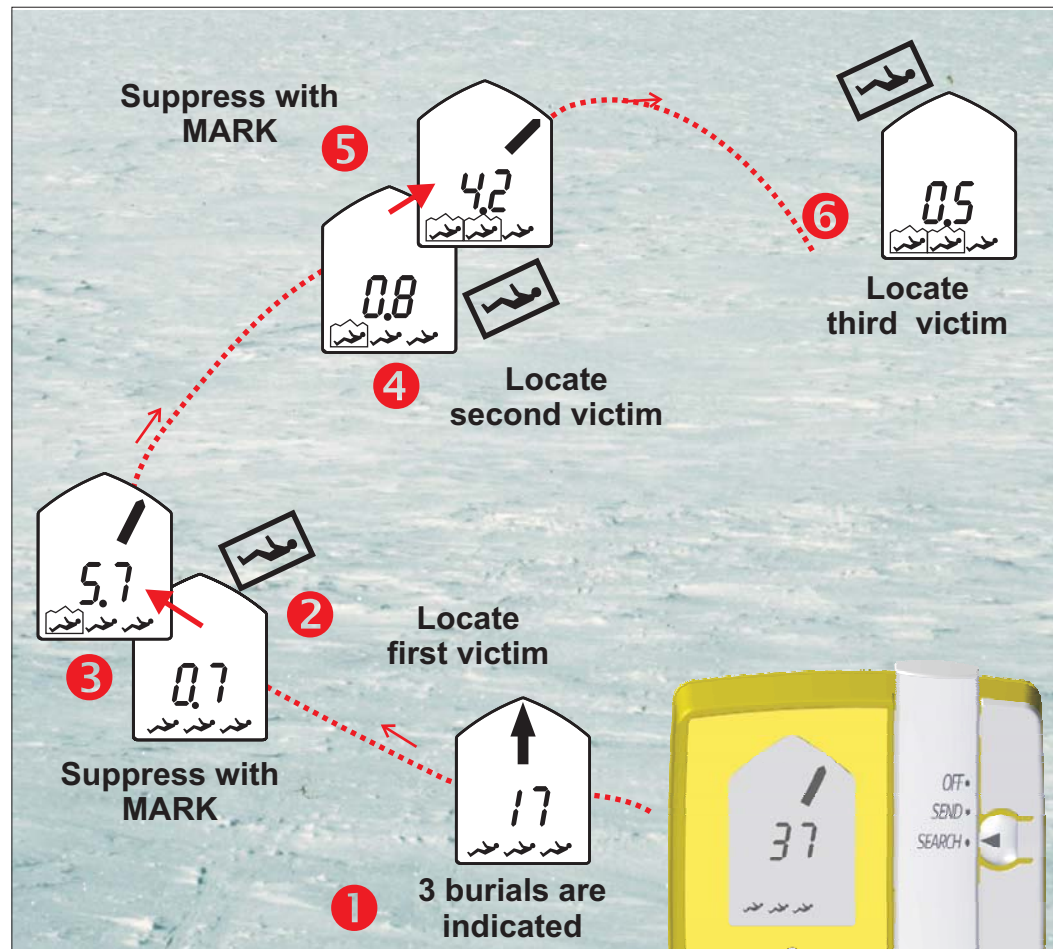
When you are closer than 3 m to the victim, you can start locating the position point by point. To avoid confusion, the direction display is now suppressed (point 1). Continue moving in the same direction and follow the plan on the left.

After a certain point, the distance reading will start to increase again (point 2). From this point, move sideways (90°) without turning your body or the device. If the value increases unexpectedly, move in the opposite direction (point 3). Along this theoretical axis, you will find the minimum point of the distance reading (point 4). Mark this point in the snow and continue at a right angle from here (90°) as already described.

You have now detected the absolute minimum point (point 5) and located the victim.

IMPORTANT: Throughout this procedure, keep the device horizontal in the same position without rotating it, and keep it as close as possible to the surface of the snow !

Suppress with MARK
5
4.2

Locate third victim
6
0.5

Locate second victim
4
0.8

Locate first victim
2
1.7

Suppress with MARK
3
5.7

0.7

3 burials are indicated
1
1.7

37

OFF •
SEND •
SEARCH •

SEARCH mode / multiple search

The optimised multiple search, the absolute **highlight** of the PIEPS DSP, is based on a separation of signals via the digital signal processor (DSP).

If there are multiple victims, this is clearly indicated by the number of matchstick men. By default, the PIEPS DSP will automatically search for the strongest signal.
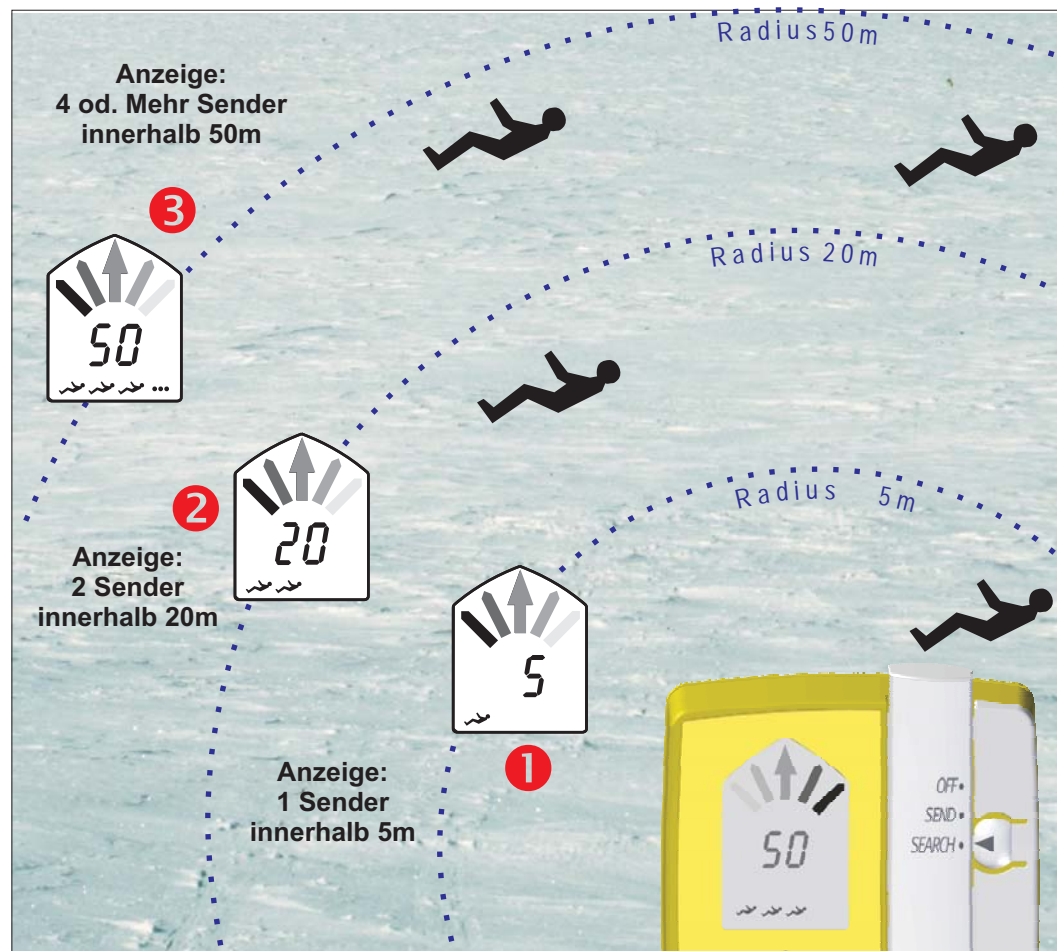
Once the position of the first victim has been located, press the MARK key for approx. 3 seconds without moving away from this point.

This signal is now suppressed and the device will automatically search for the second strongest signal. In unfavourable circumstances (temporary signal interference), you may have to repeat this procedure several times. Once a signal has been successfully suppressed, an outline appears around the matchstick man.

Now continue the search as described above and repeat the procedures until all transmitters are located.

IMPORTANT: In case of multiple detections involving older analogue devices, faults may at worst occur which impair the efficiency of the digital signal separation. In such cases, you may find for a short time that more signals are displayed than actually exist.

Radius 50m

Radius 20m

Radius 5m

Anzeige:
4 od. Mehr Sender
innerhalb 50m

Anzeige:
2 Sender
innerhalb 20m

Anzeige:
1 Sender
innerhalb 5m

OFF
SEND
SEARCH

SEARCH mode / SCAN function

Another highly useful feature of the PIEPS DSP is the SCAN function.

Press the SCAN key in the SEARCH mode and the device will begin scanning the entire receiving range. During the scan, stand still and hold the device steady.

This will give you an overview of all the victims' devices within the detectable range, classified according to three groups:

- Reading 1: within a distance of approx. 5m

- Reading 2: within a distance of approx. 20m

- Reading 3: within a distance of approx. 50m

All information from previously suppressed signals is now reset and you can start the suppression again (MARK).

IMPORTANT: Once you have located all victims, move away from their locations in a star shape and use the SCAN function to check the scenario again. That way you can make sure you haven't missed any other victims.

Technical data

Device designation: PIEPS DSP
Transmission frequency: 457 kHz (internation standard frequency)
Power supply;   3 batteries, Alkaline (AAA), IEC-LR03, 1,5V
Battery lifetimer: Min. 200 h in SEND Mode
Maximum range: 60 Metres (digital evaluation)
Earphone socket: Stereo earphone 3,5 mm, min. 32 Ohm
Temperature range: -20°C bis +45°C
Weight: 198 g (incl. batteries)
Dimensions (L xWB X H)   116 x 75 x 27 mm

Option-Pack
Temperature display   -20°C bis +50°C, accuracy ± 3°C
Compass function   Accuracy ± 8°
Altimeter   Accuracy ± 10 m

Certification / conformity

Warning: Any changes or modifications not expressly approved by Seidel Elektronik,
responsible for compliance, could void the user´s authority to operate this device.

Europa: Manufacturer: SEIDEL Elektronik GmbH
               Country of manufacture: Österreich
               Device Type: PIEPS DSP
               The device conforms to standard ETS 300817
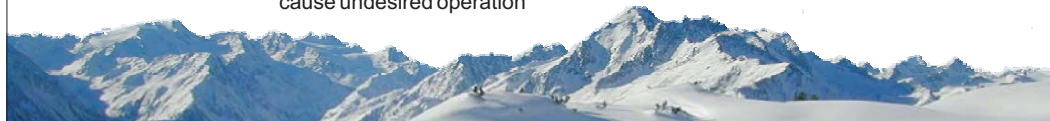Canada: IC: 4710A-DSP01
USA: FCC ID: REMDSP01
               This device conforms to Paragraph 15 of the FCC regulations.
               Operation is subject to the following two conditions:
               1) This device may not cause harmful interference, and
               2) this device must accept any interference received, including interfernce that may
                   cause undesired operation

Warranty conditions:

The device is guaranteed by the manufacturer against defects in material and workmanship for a period of five years from the date of purchase.

This warranty does not apply to damage caused by incorrect use, dropping or dismantling of the device by unauthorised persons.

Any further warranty or liability for consequential damage is expressly excluded.

Warranty claims should be addressed - enclosing the receipt of purchase - to the relevant sales outlet or directly to STUBAI Werkzeugindustrie.

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