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[www.ortovox.com](http://www.ortovox.com)

Current avalanche warning  
service information!

**Scanning the avalanche track for transmitters and locating each signal quickly and exactly** are the decisive advantages of the ORTOVOX avalanche transceiver S1. An immediate search with an avalanche transceiver and a rescue using avalanche shovels and a probe that is carried out by the tour participants themselves offers the best chance of survival for an avalanche victim. When third party help has to be called to the scene it usually arrives too late! Pay attention to the avalanche report and select safe routes. Always take the avalanche transceiver S1 with you together with the necessary **ORTOVOX SAFETY PRODUCTS** such as an avalanche shovel and a probe. Read the S1 operating instructions carefully and practice both the handling of your avalanche transceiver S1 and avalanche search procedures.

Information on ORTOVOX products and safety notices can be found on the ORTOVOX website at [www.ortovox.com](http://www.ortovox.com)

Contact us by e-mail at  
[ortovox@ortovox.com](mailto:ortovox@ortovox.com)

ORTOVOX wishes you wonderful, safe tours!

## OPERATING ELEMENTS

- |   |                                     |  |
|---|-------------------------------------|--|
| 1 ON/ OFF button<br>(and MENU function<br>button) | 4 Transmission<br>indication lights | 7 'Select' button for<br>menu and for flagging |
| 2 Screen with display of<br>victim location       | 5 Loudspeaker                       | 8 Battery compartment<br>(on rear)             |
| 3 Sensor for back-<br>lighting                    | 6 Buttons to release<br>open        |  |



9 Protective case with  
carrying strap

10 Quick lock

11 Shoulder strap  
markings (SILVER)

## TECHNICAL DATA

**DEVICE DESIGNATION:** ORTOVOX S1

**FUNCTION:** digital with acoustic emergency operation

**CASING:** ergonomic, waterproof, impact-resistant

**DIMENSIONS:** 120 x 80 x 30 mm (closed);  
215 x 80 x 30 mm (open)

### FREQUENCY

**Transmitting:** 457 kHz +80 Hz

The S1 can receive signals from any standard avalanche transceiver with no limitations

**DIGITAL RECEPTION RANGE:** up to 65 m

**SEARCH STRIP WIDTH:** up to 40 m

**TEMPERATURE RANGE:** -20° C to +45° C

### POWER SUPPLY:

3 alkaline AAA Mignon 1.5 V LR 03 batteries

### OPERATING TIME

**TRANSMITTING:** about 250 hours

**RECEIVING:** about 10 hours

**WEIGHT:** approximately 260 g incl. batteries and wrist strap, carrying case approximately 120g

The ORTOVOX S1 surpasses the high requirements of European standard EN 300 718.

### INFORMATION FOR THE USER

Changes or modifications to this device not approved by ORTOVOX can void the users authority to operate the equipment.

### FCC ID KF50RTOVOXS1

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) the device may not cause harmful interference and (2) the device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for an intentional radiator pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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### EU DECLARATION OF CONFORMITY

Manufacturer:  
X-log Elektronik GmbH  
Responsible person:  
Johann Nowotny,  
Bahnhofstr. 95,  
D-82166 Gräfelfing

declares that the product:

Type: **ORTOVOX**  
Model: **S1**

Intended Purpose:

**Searching for avalanche victims** when used as intended satisfies the basic requirements in accordance with Article 3 of the R&TTE guidelines, Directive 1999/5/EC, and that the following standards have been applied:

#### 1. Health

(Article 3.1.a of the R&TTE guidelines)  
ETS 300 718 issue: 05/01

#### 2. Safety

(Article 3.1.a of the R&TTE guidelines)  
ETS 300 718 issue: 05/01

#### 3. Electromagnetic compatibility

(Article 3.1.b of the R&TTE guidelines)  
ETSI EN 300 718-1  
issue: 05/01

#### 4. Efficient use of the radio frequency spectrum

(Article 3.2 of the R&TTE guidelines)  
ETSI EN 300 718-2  
issue: 05/01

#### 5. Electromagnetic compatibility and radio spectrum matters

(Article 3.3.e of the R&TTE guidelines)  
ETSI EN 300 718-3  
issue 2004/02

Gräfelfing, 04/24/2006

(City/date of the Declaration of Conformity)  
p. p. Andrea Reintges  
(name)

## QUICK REFERENCE for the ORTOVOX S1 avalanche transceiver

### IMPORTANT NOTICE!

Avalanche transceivers are designed to support the assistance offered by companions in the event of avalanche burial! Your presence in areas where avalanche hazards exist is fraught with potential risk; only remain in such areas in the company of experienced participants. Effective use of an avalanche transceiver requires appropriate training and constant practice. Wear your avalanche transceiver close to your body under your outer clothing. ORTOVOX strongly recommends that you carefully read the operating instructions provided with the avalanche transceiver. Always take a shovel and a probe when you go off-piste in areas where avalanche hazards exist, and never tour alone. Give due consideration to worldwide, current avalanche situation reports prior to planning your off-piste activities: [www.ortovox.com](http://www.ortovox.com). Before you travel in an area where an avalanche hazard exists, ensure that all avalanche transceivers are functioning properly and that all batteries are in good operating condition.

**The S1 fulfils the highest safety requirements and is characterized by its clear and uniquely simple illustration on the graphic display!**

### TO OPEN

Take the S1 from the protective case, press both release buttons (6) **at the same time** and then open the S1.



### SWITCH ON

Press the ON/OFF button (1) to switch on the S1 and wait for the result of the transceiver self-test.

### SWITCH OFF

Press the ON/OFF button (1) for 5 seconds.



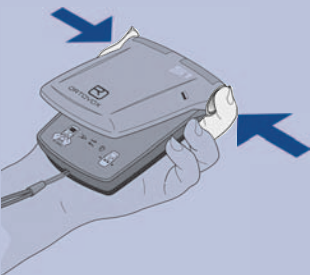
### TRANSCIEVER SELF-TEST AND TRANSMISSION

Following a positive transceiver self-test (symbols for transmission, receive, additional function and battery capacity appear on the screen and are marked as positive) close the S1.



The S1 will now transmit and the transmission indication lights on the side (4) will flash.

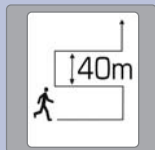




**RECEIVE = SEARCH:** Press both release buttons (6) at the same time and open the S1. The search situation will be displayed automatically on the screen (2).

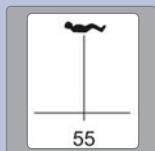


Hold the S1 in a horizontal (flat) position during the search! **Do Not Rotate!**



#### COARSE SEARCH:

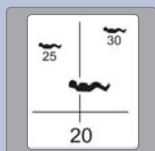
If there is no transmission signal being received then the screen will automatically display instructions to carry out a coarse search. Search the avalanche track in search strips of 40m!



#### REFINING LOCATION:

At approximately 55 m distance from the victim the victim symbol will appear on the display screen (2) with the digital distance measurement "55".

The searcher aims the vertical line to the middle of the victim symbol and then moves towards the victim. The acoustic signal from the loudspeaker will sound faster as the distance reduces and thus confirm the measurement result.



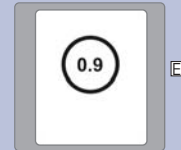
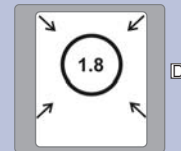
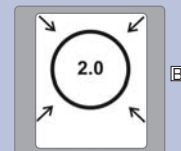
**The S1 should be moved deliberately and precisely, the closer to the victim.**

The distance to the victim is now 20m. Two further victims are shown at distances of 25m and 30m.

#### PINPOINT LOCATION:

The sensors, the 3 reception antennas and the **patented circular illustration on the S1** simplify pinpoint location and make it more precise.

- A The process of pinpoint location begins automatically at a distance of 3m. The search is approaching the victim: the arrows show towards the centre of the circle. The closer he comes to the victim the faster the acoustic signal sounds.  
**Hold the S1 steady in front of you. Do not turn, tip, or rotate the S1 during pinpoint location!**
- B The searcher is approaching the victim: the distance is 2m, the circle becomes smaller and the arrows are pointing to the centre of the circle.
- C The searcher is moving away from the victim. The circle becomes larger; the arrows are pointing outwards as the distance increases. The previously achieved, closer position is stored and is referenced by the inner, lighter circle shown on the screen.
- D The searcher is once again approaching the victim. The circle is becoming smaller, the arrows are pointing to the centre and the distance to the victim is reducing.
- E The victim has been buried at a depth of 0.9m. No smaller numbers and no smaller circles are visible. Use the select button (confirmation button) to mark the beacon.
- F The first victim has been found and is marked using the confirmation button ("select", 7). Now the search can begin for the second and third victims (at distances of 10m and 15m respectively).



## BASIC AVALANCHE KNOW-HOW

Terrain - Weather - Snow pack - Human factors

### AVALANCHES

Four fundamental factors influence the avalanche situation. **Weather, terrain and snow cover** are inseparably connected - these factors influence each other and make an evaluation very complex. **Man (Human factors)** and his behavior represent the greatest uncertainty factor. The prerequisite for slab avalanches is cohesive snow (usually drift snow) in conjunction with a weak layer that is sensitive to interference, on a steep slope. *Only man makes avalanche danger a risk!*

### TERRAIN

#### SLOPE FORM

Terrain forms influence avalanche formation because they exert a deciding influence on wind direction and speed, and thus the

scope of snow loading. Thus terrain is the helpful partner in evaluating the avalanche danger. Good visibility and a lot of experience are necessary in order to make such an evaluation.

*Terrain forms influence avalanche formation.*

#### ASPECT

The slope form (also referred to as aspect) influences the temperature of the snow cover and its structure. On shaded slopes (direction NW to NE) the snow cover settles very slowly due to low sun incidence. Existing dangers remain intact for a longer period and new dangers occur.

*70% of all avalanche accidents occur on north aspects (W via N to E).*

#### SLOPE

The steepness of a slope is the essential prere-

quisite for formation of a snow slab. This factor plays a major role in the evaluation and the decision making process. When determining slope incline, the steepest point of a slope should be considered.

*If you do not go to steep slopes, the risk of triggering an avalanche can be significantly reduced.*

### WEATHER

#### PRECIPITATION

The amount of precipitation, (in conjunction with wind, temperature, and the existing old snow cover), is a central value to evaluate avalanche danger. Critical new snow accumulation (within the previous 1-3 days) 10-20cm for unfavorable conditions 20-30cm for moderate conditions

30-60cm for favorable conditions

*New snow accumulation is not the only deciding criterion; the conditions during and after the snowfall are the deciding criteria!*

#### TEMPERATURE

Low temperatures and warm air incidence exert a massive influence on the transformation processes within the snow cover, and thus the avalanche situation.

#### WIND

Wind is the master builder of an avalanche, because it ensures formation of snow slabs through snow loads. In this process particles of snow are reduced in size, loaded, and deposited as cohesive drift snow.

*The stronger the wind, the greater the accumulation of drift snow.*

### SNOW COVER

Depending on the weather situation and the stability of the terrain differences occur in the snow cover (snow slab prerequisites are "cohesive snow" and "bed surface").

The following applies:

- Stability on the specific slope can vary greatly.
- Over so-called hot spots (very weak slope areas, where there is practically no connection to the underlying layer), it is particularly easy for a skier to trigger the avalanche.

In this case the avalanche can be triggered by the added load on the snow pack caused by one skier.

#### Alarm signals are:

Breaking noises in the snow cover ("WUMPF"), tears in the snow cover, snow slabs that have already been released. *Alarm signals indicate significant avalanche danger.*

### HUMAN FACTOR

Man is the most decisive avalanche factor. Experience, knowledge, personal skill, and behavior are also crucial criteria for avoiding avalanches. Conscientious tour planning, alert observation and conscious, risk-reducing decisions are the indispensable components of any type of off-piste activity.

The avalanche situation report is available at [www.lawinensicherheit.de](http://www.lawinensicherheit.de) and [www.ortovox.com](http://www.ortovox.com) or via telephone.

## AVALANCHE HAZARD SCALE

Level of Risk	Why and where ...	What to do ...
<b>1 LOW</b>	Natural avalanche very unlikely. Human triggered avalanches unlikely. Generally stable snow with isolated areas of instability.	Travel is generally safe, normal caution is advised.
<b>2 MODERATE</b>	Natural avalanches unlikely. Human triggered avalanches possible. Unstable slabs possible on steep terrain.	Use caution in steeper terrain on certain aspects.
<b>3 CONSIDERABLE</b>	Natural avalanches possible. Human triggered avalanches probable. Unstable slabs probable on steep terrain.	Be increasingly cautious on steeper terrain.
<b>4 HIGH</b>	Natural and human triggered avalanches likely. Unstable slabs likely on a variety of aspects and slope angles.	Travel in avalanche terrain is not recommended. Safest travel is on windward ridges of the lower angle slopes without any steep terrain above.
<b>5 EXTREME</b>	Widespread natural and human triggered avalanches certain. Extremely unstable slabs certain on most aspects and slope angles. Large destructive avalanches possible.	Travel in avalanche terrain should be avoided and travel confined to low angle terrain well away from avalanche path run-outs.

### EVERY MEMBER OF THE GROUP SHOULD HAVE THE FOLLOWING BASIC EQUIPMENT:

#### Avalanche transceiver

Mere possession of an avalanche transceiver does not suffice. Each member of the group must be familiar with his device and practise with it regularly. (See [www.lawinensicherheit.de](http://www.lawinensicherheit.de) for practice opportunities)

#### Avalanche shovel

Rescuing avalanche victims is only possible with a shovel.

#### Avalanche probes

A probe is required for fastest possible precise location with the pinpoint search procedure.

#### First-aid kit

For administration of first-aid to the injured

#### Bivouac sack

Protects against hypothermia and can be used as a transport aid.

#### Supplemental equipment for added safety:

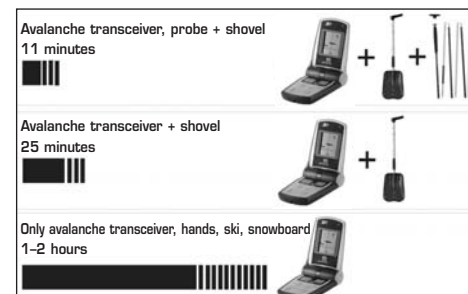
**Mobile phone** for organising professional help

*Each member of the group has an avalanche transceiver on their person and a shovel and probe in the backpack.*

### PROPER TOUR PLANNING REDUCES THE RISK!

You should check the **emergency equipment** on the day before the tour to ensure that it is complete and functional (e.g. avalanche transceivers).

*Average time needed to free a person from a snow depth of approximately 1m:*



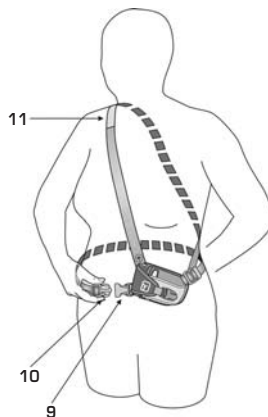
*The illustration shows the effect of useful equipment in rescuing an avalanche victim from a depth of 1m.*

Decision-making strategies are necessary when planning a tour. For more information contact the avalanche warning services and Alpine organisations in each country.

## OPERATING INSTRUCTIONS for the ORTOVOX S1 avalanche transceiver

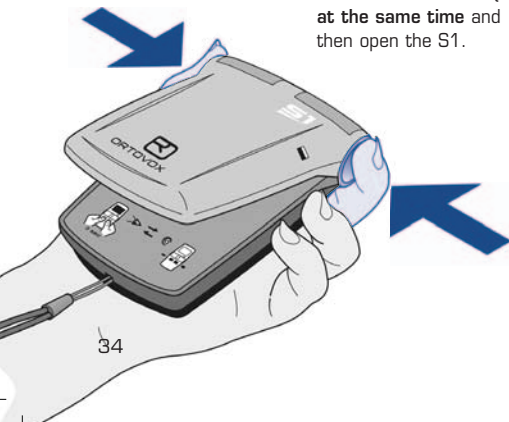
### WEARING THE PROTECTIVE CASE

Hold the shoulder strap on the protective case by the silver-coloured application (11) with the label 'shoulder' and place this over your head and shoulder. Pull the free end of the strap around your back and connect to the case using the snap buckle (10).



### TO OPEN

Take the S1 from the protective case, press both release buttons (6) **at the same time** and then open the S1.



### SWITCH ON

Press the ON/OFF button (1) to switch on the S1 and wait for the result of the equipment self-test.

### SWITCH off

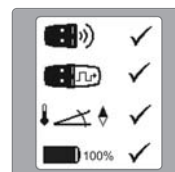
Press the ON/OFF button (1) for 5 seconds.



### EQUIPMENT SELF-TEST AND TRANSMISSION

Following a positive equipment self-test (symbols for transmit, receive, additional function and battery capacity appear on the screen and are marked as positive) close the S1.

The S1 will now transmit and the transmission monitoring lights on the side (4) will flash.



### TRANSMISSION AND AUTOMATIC SAFETY SWITCH FOR TRANSMISSION:

If the S1 is closed while switched on the equipment will continue to transmit and the transmission monitoring lights will flash. If the S1 is not moved for 90 seconds while **open** then the transmission mode will also be automatically activated from every operation type. In the event of a subsequent avalanche the S1 switches to transmission after 90 seconds (time can be set at between 30 and 120 seconds).

### RECEIVE = SEARCH:

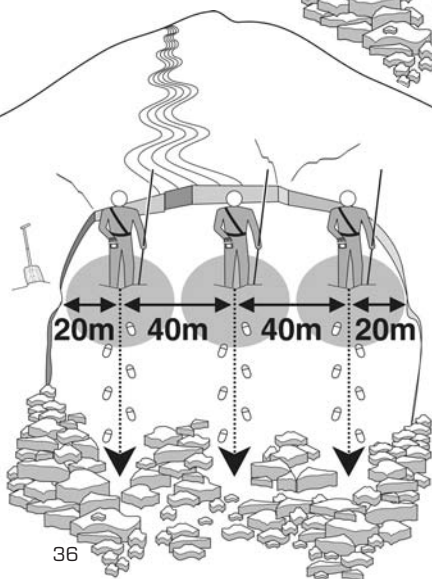
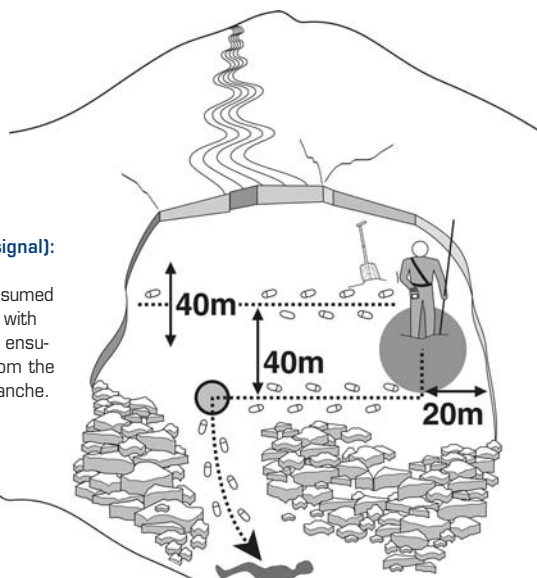
Open the S1. The search situation will be displayed automatically on the screen (2).



**COURSE SEARCH**

(= search for first signal):

Move through the presumed search area in strips with a width of 40m while ensuring 20m distance from the side edge of the avalanche.

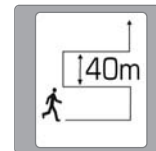


Several searchers:  
The distance between searchers is 40 m.

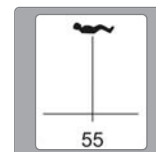
**REFINING LOCATION:**

**Hold the S1 in a horizontal position during the search!**

If there is no transmission signal then the screen will automatically display instructions to carry out a coarse search. Search the avalanche track in search strips of 40m!

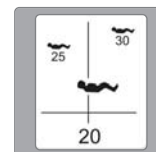


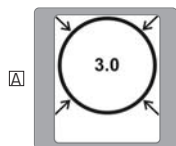
At approximately 55 m distance from the victim the victim symbol will appear on the display screen (2) with the digital distance measurement "55". The searcher points the vertical line to the symbol and moves towards the victim. The acoustic signal from the loudspeaker will sound faster as the distance reduces and thus confirm the measurement result.



**The S1 should be moved deliberately and precisely, the closer the distance to the victim!**

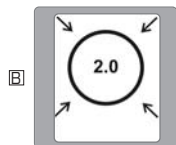
The distance to the victim is now 20m.  
Two further victims are shown at distances of 25m and 30m.





### PINPOINT LOCATION:

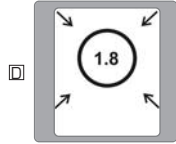
The sensors, the 3 reception antennas and **the patented circular illustration on the S1** simplify pinpoint location and make it more precise.



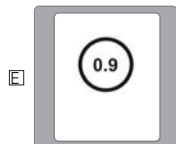
A The process of pinpoint location begins automatically at a distance of 3m. The searcher is approaching the victim: the arrows show towards the centre of the circle. The closer he comes to the victim the faster the acoustic signal sounds. Do not turn or tip the S1 during pinpoint location!



B The searcher is approaching the victim: the distance is 2m, the circle becomes smaller and the arrows are pointing to the centre of the circle.

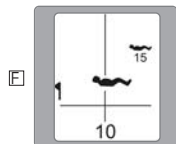


C The searcher is moving away from the victim. The circle becomes larger, the arrows are pointing outwards as the distance increases. The previously achieved, closer position is stored and is referenced by the inner, lighter circle shown on the screen.

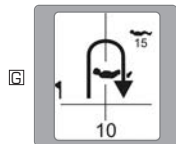


D The searcher is once again approaching the victim. The circle is becoming smaller, the arrows are pointing to the centre and the distance to the victim is reducing.

E The victim is buried at a depth of 0.9m. No further and no smaller circles are visible. Use the select button to mark the position.



F The first victim has been found and is marked using the confirmation button ("select", 7). Now the search can begin for the second and third victims (at distances of 10m and 15m respectively).



G The reverse arrow signals that the searcher should turn around and move in the opposite direction.

### MENU:

In order to call up the menu of the S1 open the S1 while it is switched on and press the ON/OFF button ('menue'). The following symbols will appear in the display.

Search (A)

Switch off (B)

Temperature and slope angle (C)

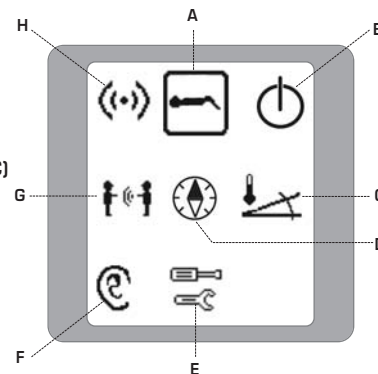
Compass (D)

Tool (E)

Acoustic search (F)

Fast group test (G)

Demand to close the equipment (H)



Using the ON/OFF button ('menue') it is possible to switch from one symbol to the next. The function of the symbol is called up using the 'select' button.



(1)



(7)



## DAILY FUNCTION TEST BEFORE STARTING A TOUR!

### FAST GROUP TEST



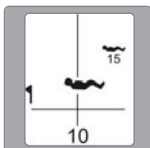
The group leader sets his/her S1 to receive using menu item 7 ('fast group test').



If the S1 receives an audible (via the loudspeaker) and visible signal (circle with 2 persons) from each individual avalanche transceiver then the transmission function of the units to be tested and the reception function of the group leader are in order.

In the event of discrepancies from the functions of the avalanche transceiver as described above please send the S1 directly to your ORTOVOX service office for inspection (see page 112).

### LOCATING SEVERAL AVALANCHE VICTIMS (SIGNAL SEPARATION):



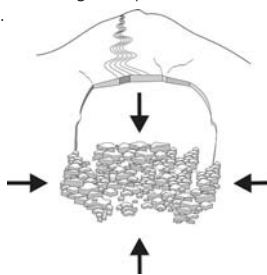
With the S1 signal separation is carried out by marking the first victim to be located.

It is necessary to have a short pause between the signals. It may take slightly longer to be able to separate three or more signals due to signal overlap. The receiver needs adequate time to differentiate between each additional transmitted

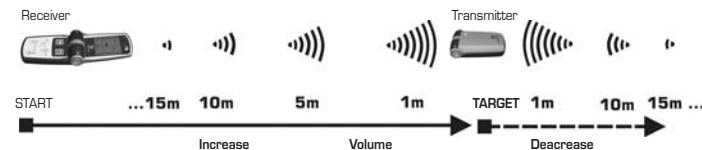
signal. Thus it is practically impossible to separate more than 3-4 signals within a reasonable time and to show them on the display. The S1 therefore automatically reduces its range until the number of signals has been reduced to a quantity that can be displayed in a reasonable time. If there are more than 3-4 avalanche victims we recommend repeating location from a greater distance (at least 20 m from left or right) after they have been located and marked in the avalanche area. Before a re-start the previous signal separation must, however, be deleted with the 'select' button.

### CAUTION:

it is, of course, possible to get a bearing on signals that have already been located. The searcher should then concentrate on signals that have not yet been marked in the avalanche area.



## ACOUSTIC EMERGENCY RECEPTION (SAFETY SETTING)



The ORTOVOX emergency safety setting allows an acoustic search when battery capacity is low. If batteries have been allowed to run too low (remaining capacity less than 20%) the micro-processor and the display will switch off automatically to conserve the battery power.

Now only acoustic reception is available. Emergency acoustic reception can, however, also be switched on via menu item 6 (acoustic search) for practice purposes. Switching off emergency acoustic reception: close the S1 and open it again or hold down both buttons for 5 seconds. If the battery capacity is very low (less than 20%) the S1 is automatically switched to the highest

possible reception level for emergency acoustic reception. The ON/OFF button ('menu') is used to reduce the signal. The 'select' button is used to increase the volume level. After initial reception the loudspeaker will sound the transmission signal. TURN the S1 in order to determine the direction with the strongest reception. Now the searcher will move in this direction for 5 m, reducing the volume if necessary. Then the searcher once again turns the S1 to the direction with the highest volume and again moves 5 m in this direction. The volume increases

as the searcher moves closer to the avalanche victim. During the pinpointing phase (= lowest reception level) do not turn or tip the S1. Now mark the point in the longitudinal direction with the loudest signal. A search is also made for the loudest signal to the right and left of this point. The avalanche victim is located at the point with the loudest signal.



### INTERFERENCE IN TRANSMITTING AND RECEIVING PERFORMANCE

Transmitting and receiving performance can be interfered by lightnings, ski lifts, power lines and plants, walkie-talkies, mobile phones and headlamps with voltage regulators.

**When in use, we recommend switching off mobile phones and walkie-talkies.**

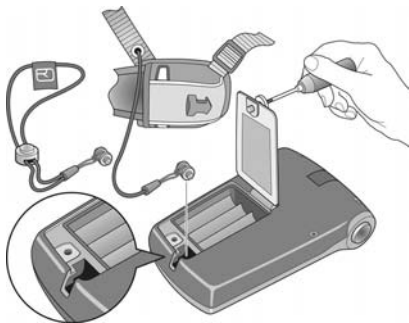
Minimum distance of 30 cm between two avalanche transceivers, metal, walkie-talkie, mobile phone, etc.

Der erforderliche Neustart (RESET) wird durch Unterbrechung eines Batteriekontaktes (10 Sekunden) erreicht.

### CHANGING BATTERIES (when the equipment is switched off)

Remove the screw from the battery compartment (8) on the back of the S1 and remove the batteries from the battery shaft using the strap. Replace three fresh AAA Alkaline batteries 1.5V LR 03 and make sure the positive and negative poles are inserted correctly. Use only brand name batteries. Cheap batteries can be slightly slimmer and/or shorter and thus correct contact with the battery poles cannot be ensured.

No rechargeable batteries and no lithium batteries.



### SEPARATING THE PROTECTIVE CASE FROM THE AVALANCHE TRANSCEIVER AND ATTACHING THE WRIST STRAP

The protective case can be separated from the avalanche transceiver for cleaning purposes.

The wrist strap can be attached in place of the protective case.

Open the battery compartment on the rear of the S1 and remove the fixing rod with the rubber cord. Now replace the fixing rod for the wrist strap in the same space and screw the battery compartment closed.

**For safety reasons, ORTOVOX only recommends using only the protective safety case that is supplied with the transceiver.**

### IMPORTANT INFORMATION!

Remove the batteries from the avalanche transceiver during the summer months.

The ORTOVOX factory guarantee is invalidated by damage due to battery leakage. **Never** use rechargeable batteries (rechargeable batteries such as Ni-Cd cells). Rechargeable batteries have significantly lower operating voltage, and thus lower range and limited service life.

In addition defective rechargeable batteries cannot be detected immediately. Once they have been recharged they show full battery voltage, however they can drop off to 0 after extremely short service (life threatening hazard!).

If you delay changing batteries (capacity <20%), the micro-processor, the distance display, and direction display will switch off. In such case, approximately only twenty hours of emergency analog transmit operation and one hour of emergency receive operation are possible.

## STORAGE

After the tour take off the S1 and store it in the switched off status in a well-ventilated dry location. Most often, the well-designed casing prevents condensation for the most part. To ensure that the device will function for several years we recommend a gentle drying of the carrying system and the avalanche transceiver, itself. If your transceiver gets wet, do not use direct heat, i.e. hair dryer, to dry it out. Heat applied in such a direct manner may cause permanent damage. Protect the avalanche transceiver from excessive moisture or excessive heat. Protect the batteries from cold temperatures.

## GUARANTEE

With the purchase of a new ORTOVOX avalanche transceiver and submission of the filled-out guarantee card (page 45) a full five-year factory guarantee starting from the date of manufacture is

provided. The valid guarantee period is shown on the test seal in the battery compartment and on the device packaging. For example, if the symbols IV/11 are written on the test seal, it means that the factory guarantee will expire at the end of the 4th quarter 2011.

Also, the seal is a reminder of the time period during which the recommended device inspection is free of charge. Within the guarantee period, faulty parts will be repaired or replaced at no cost. The exceptions are damage due to improper handling and normal wear and tear. The ORTOVOX factory guarantee is invalidated if there is damage due to battery leakage. Any further performance guarantees and subsequent damages are expressly excluded. Guarantee services performed neither cause the guarantee period to be extended or restarted.

## SERVICE

The ORTOVOX S1 is a rescue device. Its perfect operation might be crucial for life. To ensure your unit is functioning properly, send the device for factory inspection according to the dates shown on the test seal.

*Please use our inspection service in the summer months, so that your device will be ready for operation when winter starts.*

For repair or factory inspection please send the avalanche transceiver directly to our service center (see page 112).



## GUARANTEE CARD

Ms/Mrs/Mr \_\_\_\_\_

Street \_\_\_\_\_

Postal code, City \_\_\_\_\_

E-mail \_\_\_\_\_

Telephone \_\_\_\_\_

Model **ORTOVOX S1**

Serial number \_\_\_\_\_

(inside of battery compartment lid)

Purchased at \_\_\_\_\_

Please provide below a **detailed** explanation and description of your unit's faulty performance!!!!

In case of service please fill out this card and send it to the responsible ORTOVOX service center (see page 112).

**IMPORTANT!**

Please hold in  
safe keeping



**ORTOVOX**  
www.ortovox.com