BARRYVOX®

REFERENZHANDBUCH	DE
EXTENDED REFERENCE MANUAL	EN
MANUEL DE RÉFÉRENCE	FR
MANUALE DI REFERENZA	IT
GUÌA DE REFERENCIA	ES
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DECLARATIONS OF CONFORMITY	

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BARRYVOX®

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EXTENDED REFERENCE GUIDE

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Congratulations on the purchase of your new Barryvox®.
This user manual explains the functionality and use of the Barryvox®. The Barryvox® is a revolutionary, sensor-controlled avalanche transceiver, which is very easy to use. Additional detailed information and advanced instruction may be found in the Barryvox® Extended Reference Guide.

Register your Barryvox® and get a 3 year warranty extension!
Register your Barryvox® today at www.Barryvox.com, to get important information such as announcements about the availability of software updates.
After a successful registration your device is covered for 5 years by warranty.

Barryvox® Transceivers – Made in Switzerland
Our heritage is compelling. Mammut and Barryvox® follow the time-honored tradition of world-class precision products made in Switzerland. From its design to its engineering and production, this device is completely made in Switzerland.
This device is compatible with all avalanche transceivers that comply with the EN 300718 standard and operate on a frequency of 457 kHz.

The following documents for the Barryvox® transceivers are available at www.mammut.com/BarryvoxManual:

Barryvox® User Manual
This user manual describes the SEND and group check functions as well as the standard search mode.
In addition, you will find all information regarding basic maintenance, warranty and repair as well as the technical specifications.

Barryvox® Extended Reference Guide
The Extended Reference Guide is a comprehensive resource of information for your Barryvox®. It includes additional information that augments the user manual concerning search and rescue techniques. It is an important and valuable resource for all educators.

Approval / Conformity
All information concerning approval and conformity is available at the very end of this booklet.

Like all transceivers, the Barryvox® contains shock sensitive ferrite antennas. Therefore, you should handle it with utmost care!
Store the device and the carrying system in a dry spot that is protected from extreme cold or heat and direct sunshine.
Always check the result of the self- and battery test, pay attention to alert messages and carry out the group check.
It is your responsibility to frequently check your Barryvox® for mechanical damage of the casing, proper function of the main switch, battery compartment cover as well as cleanliness and mechanical integrity of the battery contacts.
To ensure the proper performance of the transceiver, it is highly recommended that you send your device to an official Barryvox® service center once every three years for a functional test. The recommended date of the next check can be viewed under «Maintenance» in the shut down sequence of the device. (see chapter «Periodic Checks» of the Barryvox®S Extended Reference Manual).

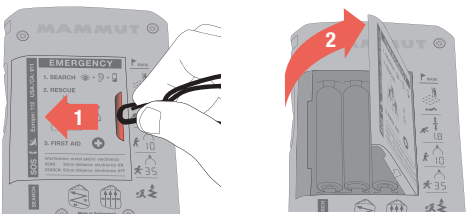
Interferences

Always avoid having other electronic devices (e.g. mobile phones, radios, headlamps, cameras), metal objects (pocket knives, magnetic buttons), or other transceivers close to (20 cm in SEND; 50 cm in SEARCH) your running avalanche transceiver.
You should not wear clothing with magnetic buttons! Users of pacemakers are advised to carry the device in a secure pants pocket (no vital data detection). Consult the manufacturer's instructions with regard to the impact on pacemakers.

- BarryTip: **When searching, hold the device at a minimum of 50cm away from these objects and turn off any electronic devices, if possible. It is highly recommended to turn OFF mobile phones!**

Batteries

Only use alkaline (LR03/AAA) batteries of the same type.
Always insert 3 new batteries of the same type. In case these batteries need to be removed, the same 3 batteries or 3 new batteries must be reinserted. Never use rechargeable batteries and always replace all the batteries at the same time.
Make sure the lid is properly closed and that the device and the batteries stay dry.



Use a fingernail or the leash clip to slide battery door to the left, and it will swing open.

Periodically inspect the battery compartment. Clean or dry it, if needed, since moisture can cause corrosion.
Avoid touching the contacts with your hands, use a clean cloth.
A reliable power supply is crucial for safe operation.

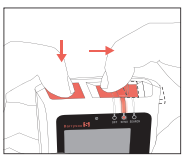
When storing or not using the transceiver for an extended period of time (summer, travelling, shipping), remove alkaline as well as lithium batteries. The warranty becomes void if batteries have leaked!

- **Caution: Risk of damage if you use batteries of the wrong type.**

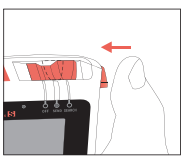
Main Switch OFF / SEND / SEARCH

The main switch is located on the top side of the device. In the left position OFF, the device is turned off, in the center position SEND the device is in SEND mode and in the right position SEARCH, the device is in SEARCH mode. For safety reasons, it is required to press the hinged unlock button to leave the SEND mode. To return from SEARCH to SEND, simply push the main switch sideways.
Always make sure that the switch locks into position mechanically to avoid an undesired change of mode.

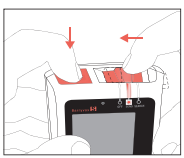
OFF –> SEND



SEND –> SEARCH



SEARCH –> SEND



SEND –> OFF

User Interface and Use of Buttons

The use of the Barryvox® is easy and straightforward. All user interaction is done with the ▶ button on the front side. To confirm your selection, use the orange ▶ button. The action triggered by pressing the ▶ button is shown at the bottom left of the screen.

Samples:
Press the ▶ button to…
…activate the group check.

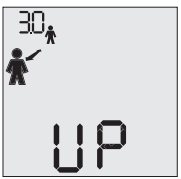
DEVICE TO DEVICE UPDATE

Thanks to the device-to-device update you may share the new functions of your firmware with older Barryvox® devices.

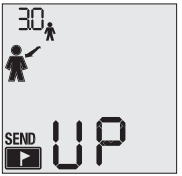
Requirements for the device-to-device update:

- Battery charge in both devices greater 30%.
- Only one upgrade can be done at a time in the same building or within 50m radius.
- Only devices of the same w-link region (no device-to-device upgrade for devices purchased in Japan).
- Follow the instructions on the screen.

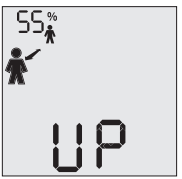
1. Turn both devices OFF
2. Press and hold the ▶ button on the device with the newer firmware and simultaneously slide the main switch from OFF to SEND. Keep the ▶ button pressed until this screen appears:



3. The device is now ready to transmit the update. Press the ▶ button in case you do not want to perform the update.



4. Press and hold the ▶ button on the device which needs to be updated and slide the main switch simultaneously from OFF to SEND. Release the ▶ button after 2 seconds.
5. The firmware is being installed on the device. The progress is shown in percentage in the top left corner



Start-Up / Self- and Battery Test

While starting, the device conducts a self test. The result of the self-test is shown the first time the device enters a SEND mode.
If the battery power falls below 30% (alkaline) or the battery icon is displayed, the batteries must be replaced as soon as possible!

Battery Test and Battery Level Indicator

The following table gives you average values for the battery levels. The remaining battery level can only be displayed correctly if batteries are used according to the chapter «Insert / Replace Batteries» Low temperatures, age, and brand can have a negative impact on the battery life and the accuracy of the battery level indication. As the risk of a battery failure increases towards end of the battery life, we recommend to replace alkaline batteries at 40%.

100%:

Normative requirement (=minimum requirement):
min 200hrs SEND at 10°C followed by 1hr SEARCH at -10°C

Typical values for the Barryvox® with alkaline batteries:
300 hrs SEND at 10°C (measured with PULS Power).

---

less than: 30% / 0%

The batteries must be replaced as soon as possible!
Emergency reserve at 30%:
Max. 20 hrs in SEND mode at 10°C and max. 1 hr in SEARCH mode at -10°C left.

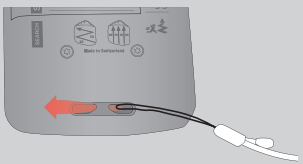
The transceiver sounds a warning if the battery level is running on emergency reserve at startup.

CARRYING POSITIONS

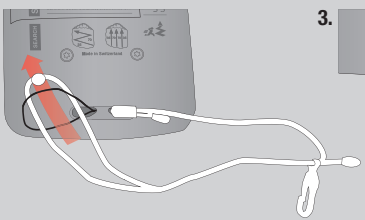
Adjust the BarryMount to fit your body. Regardless of the carrying position, the display should always face your body!
The detection of vital data is only possible if you carry the device in the BarryMount.

BarryLeash

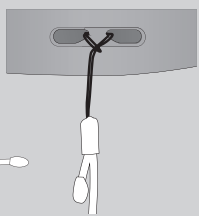
1.



2.



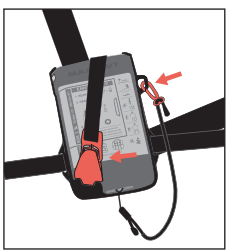
3.

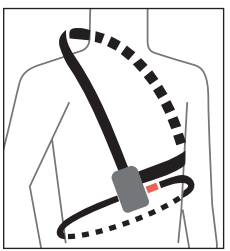


Attach the BarryLeash to the bottom of the device.

BarryMount (Recommended Carrying Position)

The BarryMount should be put on over your innermost layer of clothing prior to beginning the trip (see illustration) and must be worn on your body for the duration of the trip. The transceiver must always remain covered by one layer of clothing. The device itself is inserted into the BarryMount according to the illustration. It should always remain attached to the holster using the clip of the BarryLeash.

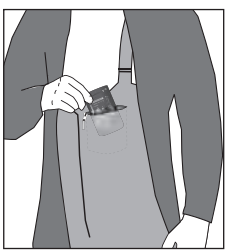


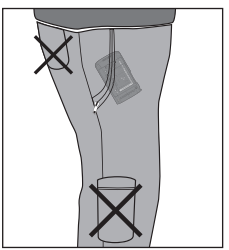


Carrying the Transceiver in a Pocket

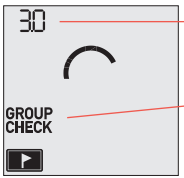
If you carry the Barryvox® in a pants pocket, the zipper must remain closed for the duration of the

trip. Always use a secured pocket (see illustration). The wrist loop should be secured to your pants or around your belt.



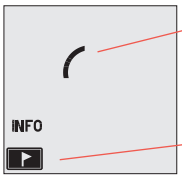


Turning the Device ON and OFF



Firmware Version (BarryHeart)

Group Check: enter group check by pressing the ▶ key.



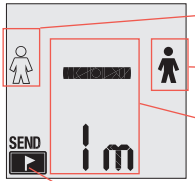
The device shuts down 2 seconds after the main switch has been moved to the OFF position.

Press the ▶ key to access device and maintenance info.

W-Link Region (see chapter «Additional Information»)

Year of the next periodic check (see chapter «Handling the Barryvox»)

Group Check



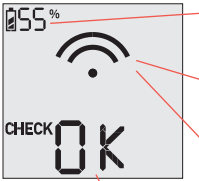
Participant

Leader

Status information or instructions for the leader.

Exit Group check and enter SEND mode by pressing the ▶ key

SEND



Remaining battery percentage

The device is currently in **SEND mode**

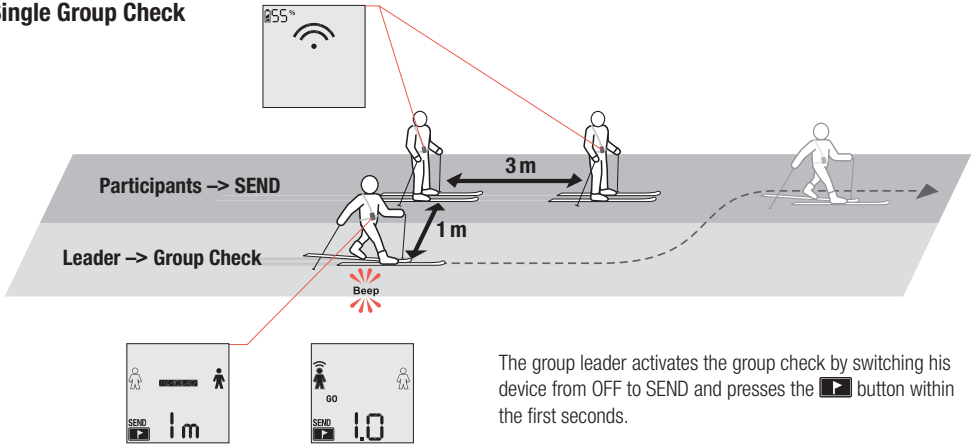
SEND mode status:

SEND mode functions properly.

⚠ **Alert:** the SEND function is compromised and transmits with reduced power.

Self test status information.
Alert messages.
(Status information disappears after 10sec in SEND mode)

Single Group Check

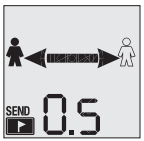


Before a party takes off, the transceivers of all party members must be checked. The participants switch their device to SEND mode.

The group leader activates the group check by switching his device from OFF to SEND and presses the ▶ button within the first seconds.

The test is successful if you can clearly hear beep sounds from each participant's transceiver within the range indicated on the display.

The members of the party must be spread out appropriately to avoid mutual interference.



The indicated test distance must not be shortened, or the group check becomes very unreliable.

Once all the participant's devices are tested, the group check is concluded. The group leader's transceiver must be switched to the SEND mode.

If no tone is heard within the indicated range, the device must not be used.

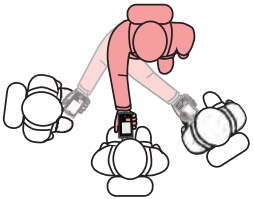
Further procedure:

1. Check if the device is switched to SEND.
2. Replace the batteries.
3. Have the device checked by the manufacturer.

Chapter «Maintenance and Repair».

If your Barryvox® detects that the transmit frequency of the tested device is out of tolerance, a warning message will be shown. In this case, repeat the test with 5m distance between the participants to identify the defective transmitter. Such devices must be checked by the manufacturer.

SEND Confirmation



In case a regular group check is impossible due to limited space, it is possible to perform a basic verification if the transceivers of all participants are turned on.

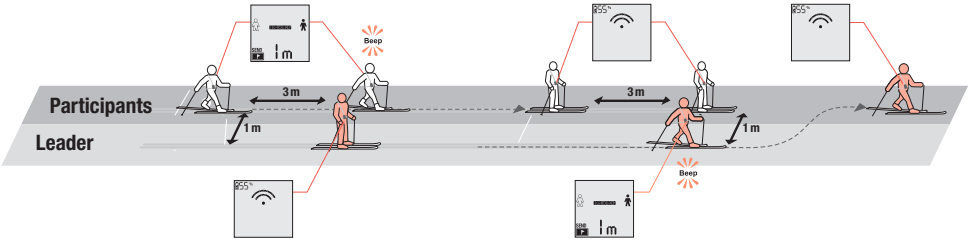
The leader holds his transceiver in group check as close as possible to the transceiver of each participant.

By doing so, the distance indication must decrease to the point where it is impossible to mix-up the result due to close proximity presence of other participants.

As the test distance is too short for a regular group check, there is no affirmative confirmation. Apply a regular group check the next time you check your group to confirm the proper function of the transceivers of the participants.

In case the indicated distance in immediate proximity to the transceiver of a participant does not decrease to a value which excludes with certainty the possibility to mix-up the result with the one of other participants in close proximity, the proper function of the device must be checked by a regular group check.

Double Group Check



We recommend to perform a double group check once a week and in general when a new group gets together. The double group check individually tests the SEND and SEARCH function of all devices. The members of the party activate the group check on their transceivers or set them to a low receive volume. The leader switches his or her transceiver to the SEND mode and ensures that all party members can receive.

Subsequently, the party members switch their transceivers to SEND, and the leader activates the group check or sets the transceiver to a low receive volume. The SEND mode of all transceivers is checked, and ultimately the leader switches his or her transceiver to SEND.

SEND

The SEND mode is the normal operating mode outdoors or in all other situations in which there is a risk of avalanches.

Each time the SEND mode is activated, this is confirmed by an ascending triple beep sound.
Each individual signal pulse is tested. If the test is successful, this is confirmed by a blink of the red SEND-Control LED.

If the device detects that the SEND function is compromised, the red SEND-Control LED stops flashing and screen shows an alert message.

To save battery power, the LCD screen is automatically deactivated in the SEND mode, but can be activated any time by pressing the button.

Although the avalanche transceiver is easy to use, its effective use requires proper training. We recommend that you practice transceiver searches regularly.

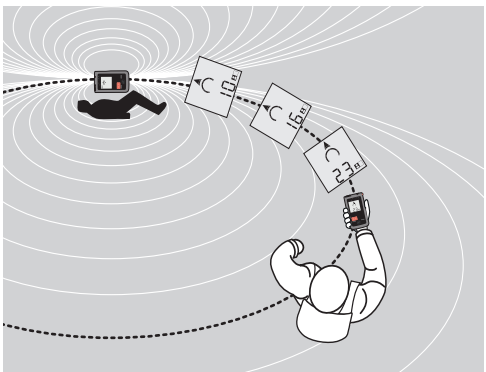
Be aware that electronic devices including mobile phones used by other rescuers may disturb the search. Therefore it is highly recommended to switch off phones which are not absolutely required!

At the beginning and during the search, pay close attention that the rescuer's transceivers are not transmitting and do not switch to SEND unintentionally. It does not make sense to remove your backpack and assemble the shovel and probe at the edge of the avalanche debris. Keep your backpack with all the equipment on you! The assembled shovel and probe is only a hindrance during signal and course search. Only remove your pack to assemble probe and shovel once you have successfully concluded the fine search.

Elementary understanding of transceiver search

The 457kHz transmitter of the transceiver has a kidney shaped transmit distribution, which is visualized with field lines in the illustration below. The searching transceiver's arrow leads the rescuer along the field lines and therefore usually in a curved line to the buried subject.

Search Along the Field Line: Flux Line Search



Search Phases

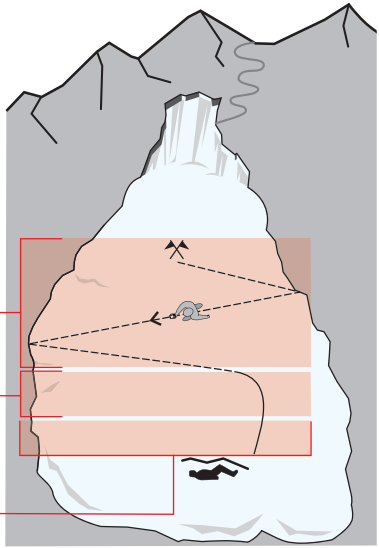
In an avalanche search, the following phases are distinguished:

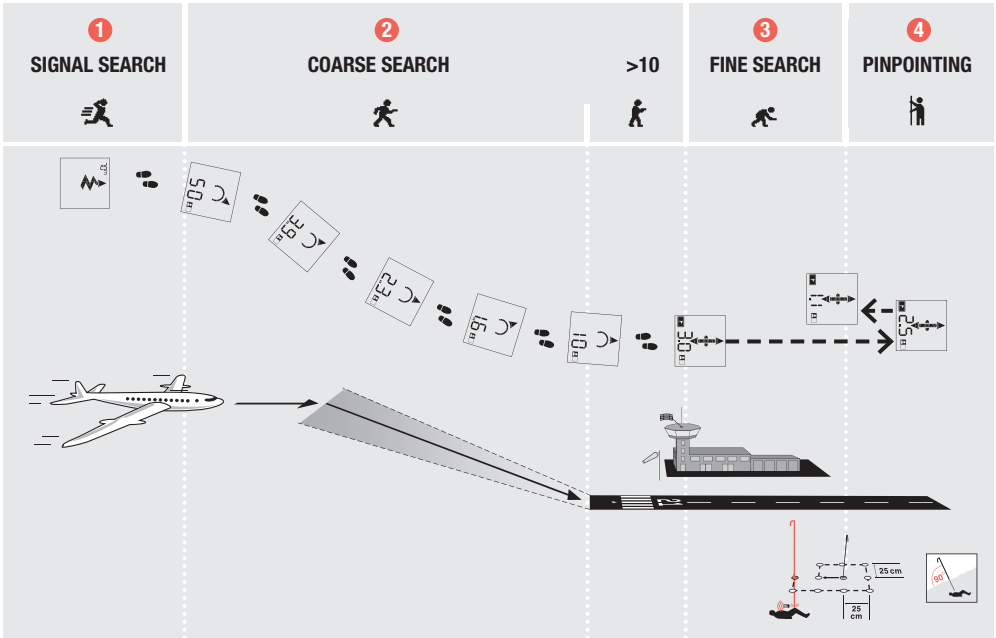
using transceiver

1. **Signal search**
   Search area to the point where the first clearly audible signal can be detected.
2. **Coarse search**
   Search area starting from the reception of the first signal until the immediate vicinity of the buried subject. In this phase the signal search pattern is abandoned in order to follow the signals leading to the buried subject.
3. **Fine search**
   Search area in the immediate vicinity of the buried subject.

using probe

4. **Pinpointing**
   First use of the probe until probe hit.

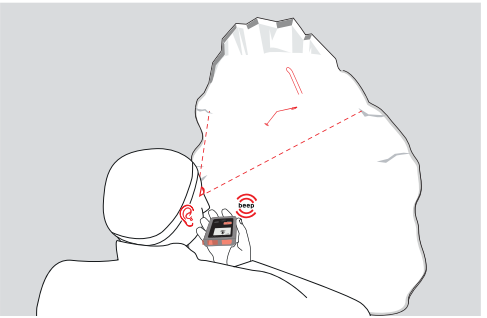



1
SIGNAL SEARCH
2
COARSE SEARCH
>10
3
FINE SEARCH
4
PINPOINTING
50m
39m
23m
19m
10m
3.0m
1.1m
0.5m
25 cm
25 cm
60°

1 Signal Search

- BarryTip: **Move swiftly.**
- Emergency plan, search strategies and search strip widths: please see back side of device.
- Search avalanche surface systematically.
- During signal search, the rescuer has his visual focus on the surface of the debris in order to look for visual clues on the snow surface. The first signal is indicated by a distinct double beep sound.

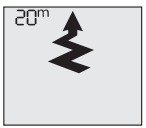
From the start of the search until you clearly hear the first tone, you are in signal search.



The avalanche surface is searched systematically until you pick up a signal. During the acoustic signal search, the rescuer has the visual focus on the surface of the debris in order to be able to see body parts or objects protruding the snow surface.

If your Barryvox® detects that the signal search strip width needs to be reduced due to interference or due to a device transmitting outside the standard frequency, the reduced search strip width will be indicated.

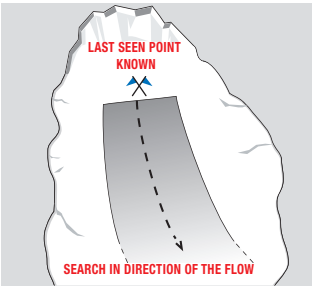
Reduced signal search strip width due to interference.



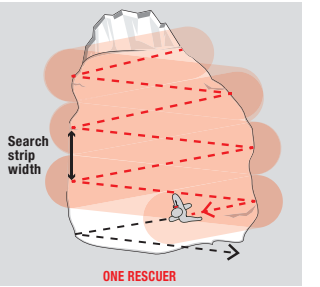
Reduced signal search strip width due to a device transmitting outside the standard frequency.

Regardless of the operating mode, the following search strategies apply:

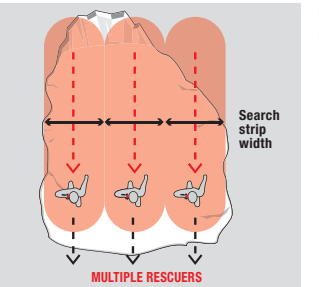
Search strategy if the last seen point is known.
The signal search strip extends downhill from the last seen point in the direction of the slide.



Search strategy if the last seen point is unknown.



Last seen point unknown, one rescuer.



Last seen point unknown, multiple rescuers.

❷ Coarse Search

- BarryTip: **Move swiftly, move in the direction of the arrow.**
- Hold the transceiver with the extended arm horizontally in front of you.
- If the distance increases, then you are moving away from the victim. Continue the search in the opposite direction.

Distance below 10

- BarryTip: **Reduce search speed, precisely follow the arrow.**

❸ Fine Search

► BarryTip: **Follow the arrow! Step slowly forward and backwards until you have found the point of lowest distance indication. Hold the device at knee height.**

During this search phase hold the transceiver at knee height! The Barryvox indicates you the first axis of the fine search, refered to as the “runway” in the “Airport Approach” teaching model.
For novice companion rescuers, it is usually faster to proceed with the probe once they have found to lowest distance indication on the first axis.
For intermediate and advanced users, it is advised to apply a classic grid search pattern.

Searching in a strictly perpendicular cross shortens the search time and increases the search precision, thus always try to keep the device and your body in the same orientation during fine search.

The greater the remaining distance to the buried subject (burial depth), the more repetitions of fine search crosses may be required to reach sufficient search-precision. Systematically fine search until you have found the point with the lowest distance indication.

Immediately place an indicator, i.e. a ski pole at this spot as an important reference when applying the probing spiral. Open your backpack now and assemble probe and shovel. It is recommended to put your backpack immediately back on your shoulders, in particular if you use a back pack with an airbag. In the unusual case of a secondary avalanche, this allows you to take advantage of the safety gear. By strictly keeping the equipment (i.e. first aid kit, radio or mobile phone) with you in your back pack, you will always have it available when you need it while rescuing the subsequent buried subjects.

4 Pinpointing

- BarryTip: **Place a visual indicator at the point where you have found the lowest distance indication. The visual reference is important to probe in a systematic pattern.**
- If the buried subject is hit with the probe, leave the probe in the snow.

Stash the device in search mode on your body (i.e. pocket) in order to have both hands available to probe. Begin probing in a spiral at a 90° angle to the snow surface. In particular if the debris is hard, guide the probe with two hands, one pushing from the top, the other guiding the probe closer to the snow surface in order to avoid bending the probe. Keep in mind that the remaining distance shown on the screen indicates the maximum possible distance to the buried subject. I.e. if you see 1.1 on the screen, the buried subject must be within 1.1m probing depth and spiral probe radius. In case there is no probe hit within this area, you have missed the buried subject. Repeat probing with a slightly offset probing pattern (chapter «Pinpointing with Transceiver and Probe Pole»).

Mark

Mark the buried subject as «found» by pushing the ▶ button after you have successfully located it with a probe strike!

Automatic Revert to SEND

For the safety of the rescuers, the device automatically switches into SEND mode after 4 minutes without user interaction or motion.

Leaving SEARCH Mode

After 4 seconds the device automatically switches into SEND mode.

Multiple Burials

The marking feature allows to continue the search for further buried subjects by marking the previously located ones as found. Excavate the buried subjects already found while the search continues, unless the burial depth is particularly deep.

In Complex Situations Slow Down The Search

If the signal of the buried subject you are currently searching for temporarily overlaps with another signal, the device tries to guide you along the optimal search path. If the signals overlap for a long period of time, reliable guidance is limited. The device indicates this with a flashing distance indication. Radically slow the search until the distance indication stops flashing, indicating the signal overlap has cleared.

Search for Multiple Buried Subjects

The transceiver attempts to analyze all the detectable signals and to determine the number of buried subjects. This is possible because the signals from each transmitter have characteristics which are distinguishable from the signals of other transmitters. The more unique the signal characteristics are, the more accurately the signals can be distinguished and separated (pattern recognition). By automatically associating the signals with their respective sources, multiple burial situations can be solved without applying special search tactics. Transceivers which also transmit W-Link information can be detected particularly fast and reliably. The W-Link information includes a unique identification as well as the trasmit pattern.

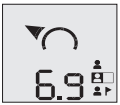
List of Buried Subjects

The buried subjects whose transmit patterns can be identified are inserted in the list of buried subjects based on their signal strength, usually corresponding with distance. The closest buried subject on the avalanche is shown at the bottom, the furthest at the top of the list. The list of buried subjects can show no more than 3 buried subjects at the time. In case the amount of recognized buried subjects is greater, arrow symbols indicate that the list contains further down or further up in the list additional entries. Usually, the device guides you so that the list is processed from bottom to top. The lower, already hidden part of the list of buried subjects ⌄. contains therefore the buried subjects which have already been marked as found, and the upper, not yet visible part of the list ⌃, the buried subjects which are not found yet and still ahead of you on the avalanche.
Independently of the position of a buried subject in the list, the device will always try to guide you as quickly as possible until all recognized buried subjects are found.

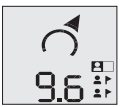
Procedure for Multiple Burials

1. The device favors the closest subject first. Locate the various buried subjects using the transceiver and probe pole.

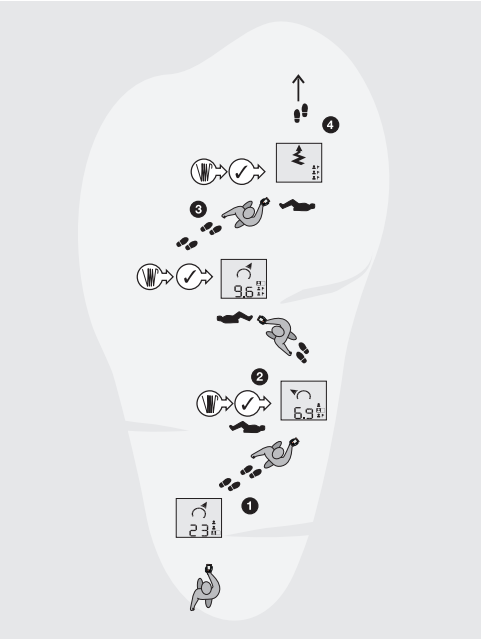
2. As soon as you mark an individual subject, the transceiver takes you to the next closest, unmarked buried subject.



3. Continue this procedure until all subjects are located and marked.



4. The rescuer now searches for additional buried subjects while the display shows the symbol for the signal search phase to indicate that the rest of the avalanche surface must be searched (Chapter «Signal Search»).



Boundaries of Automatic Signal Detection and Alternative Search Systems

A large number of buried subjects or interference leads into complex search scenarios:

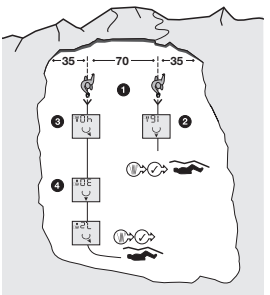
- The more signals there are, the longer the signal overlaps can last.
- Interferences may cover up weak signals from buried subjects, or may be interpreted as signals of an avalanche transceiver.

In case of complex search scenarios, the capability to automatically detect and isolate signals in the list of buried subjects may therefore be limited.

In case of complex search scenarios caused by signal overlap or interference, a proximity-based alternate search method must be used. In this case the searcher should attempt to find the remaining buried subjects by applying alternative search systems such as the micro search strips or the 3 circle method. Even though the Barryvox® device is optimized for searching using the digital search mode, narrowing the search strip width and lowering the search speed will lead to an increase in probability of detection.

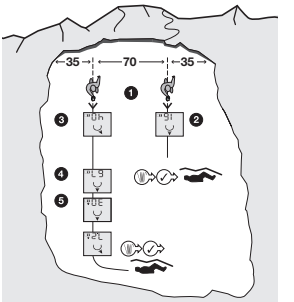
Search With Multiple Rescuers

When the search is conducted with multiple rescuers searching at the same time, avoid searching for the same buried subject as another rescuer. Use the scrollbar, to choose in the list of buried subjects which buried subject you are searching for.



Situation 1:

❶ Two rescuers receive two buried subjects. ❷ One rescuer continues the search for the buried subject closest to him, ❸ the other rescuer should directly search for the second buried subject, without having to mark the first one. The search is therefore continued on the current signal search pattern ❹ until the transceiver obviously leads to a different buried subject.



Situation 2:

❶ The two rescuers only receive one buried subject. ❷ One rescuer continues the search for the buried subject closest to him, ❸ the other rescuer should search the remaining of the avalanche for more buried subjects. The search is therefore continued on the current signal search pattern - ❹ even with increasing distance indications - ❺ until the transceiver obviously leads to a different buried subject.

Use in the Dark

If you use the transceiver in the dark, the display is automatically backlit.

W-Link Regions

- **EU Europe and neighboring countries (W-Link Region A)** [= light grey]
- **US US, Canadian, New Zealand and Australian Version (W-Link Region B)** [= dark grey]
- **no Countries without W-Link** [= black]
- **Countries with unknown region allocation** [= white]

Frequency regulations do not allow that the user modifies the frequency setting. To enable the user to take his Barryvox® with him when travelling into another region, it is possible to switch the W-Link off and on again when returning home.

Please note that the W-Link setting has no effect on the signal which is used to locate a buried subject.

W-Links settings may only be modified by an official Barryvox® Service Center.

Problem Solving

Transceiver doesn't turn on
No self-test at startup

1. Check and replace batteries.
2. If this doesn' t help, have the device checked by the manufacturer.

Alert Messages

Batteries are weak!

The batteries must be replaced as soon as possible. Refer to the instruction in the chapters «Insert / Replace Batteries» and «Battery Level Indicator».

Sensor failure!

1. Turn the transceiver off and turn it back on after it has properly shut down.
2. If this doesn't help, have the device checked by the manufacturer.

Alert «Check SEND»!
SEND LED doesn't blink

1. This alert message is usually triggered by external interference. Make sure that no metal objects or electronic devices are close to the transmitter.
2. Check and replace batteries.
3. Turn the transceiver off and turn it back on after it has properly shut down.
4. If this doesn' t help, have the device checked by the manufacturer.

Alert «Check Search»!

1. Make sure that no metal objects or electronic devices are close to the transmitter.
2. Turn the transceiver off and turn it back on after it has properly shut down.
3. If this doesn' t help, have the device checked by the manufacturer. In case of emergency, try to search anyway, but with reduced search strip width.

Maintenance and Repair

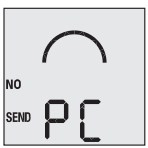
Barryvox transceivers, which do not function correctly, despite full and properly inserted batteries (e.g. no signal during the group check, mechanical defects) must be sent to a service center listed at the beginning of this manual.

Maintenance

The year of the next check can be viewed under «Info» in the shut down sequence of the device.

Use in combination with the Barryvox® Maintenance Software

The Barryvox® Maintenance Software allows to efficiently manage and maintenance transceiver fleets with a computer. The Barryvox® automatically connects to a service device (Barryvox® tester, W-Link Adapter/Stick) with in w-link range (approx. 50m). While in service mode, the SEND mode is deactivated and the red SEND-control LED is double flashing.



Periodic check by a Barryvox® Service Center

To check the proper function of the device it is highly recommended that the device be sent to a Barryvox service center every 3 years, or when reaching 3000 hours of operation or have it checked by a Barryvox service point (service charge will apply). The functional test is much more comprehensive and precise than the self and group check. As part of this service the electronics and the mechanical components such as the case, the main switch and the lateral key, the battery contacts, the battery compartment and cover as well as the wrist strap will be checked. In case the check shows abnormal wear and tear due to incorrect or long, very intense use, the service center may recommend that you replace the device.

We recommend that you have your device checked during the summer months so that your Barryvox is tested and ready to use at the start of the next winter season. The year of the next check can be viewed under «Info» in the shut down sequence of the device.

Warranty

There is a 2 year warranty on the Barryvox® transceiver (excluding the batteries, the carrying system and the leash) from the date of purchase shown on the purchase receipt.
If you register your device on www.Barryvox.com by completely filling in the required information, the existing warranty duration, starting from the date of purchase shown on the purchase receipt, will be prolonged by an additional 3 years of warranty.
In case of a warranty claim, all parts that can be shown to have material or production defects will be replaced free of charge. Damage that can be traced to incorrect handling or normal wear and tear is excluded.

The warranty is voided if the buyer or any non-authorized third party opens the device. This is also the case for devices that have been used with spare parts or accessories which are not original and are not recommended by the manufacturer.
A fee will be charged for the diagnostic test of a transceiver not needing any repair. Warranty repairs do not extend the duration of the warranty. There is a six month warranty on replaced spare parts. Warranty repairs will only be conducted if the device is sent in along with the receipt.
The owner will be charged for the shipping. No other warranty shall exist. Any liability for any kind of loss or damage including but not limited to any direct, indirect or consequential damage is explicitly excluded.

Technical Data

Device: Digital three antenna device.

Transmit frequency: 457 kHz (International Standard).

Power supply: 3 x LR03 1.5 V Alkaline (AAA)

Battery life:
typical 300 h SEND, min 200 h in SEND mode followed by 1 h in SEARCH mode.

Maximum range: up to 70 m

Search strip width: 70 m.

Operating temperature range: –25° to +45° C.

Dimensions (L x W x H): 115 x 67 x 27 mm.

Weight: 210 g (incl. batteries).

All information is provided without liability. Status July 2018. Technical data and specifications are subject to change without notice

Disposal Information

At the end of its lifetime, this product may not be disposed with regular waste.
It must be recycled by a specialized facility for recycling electronic devices.

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COMPANION RESCUE

Companion rescue means that buried subjects are located and excavated by members of their party immediately after the avalanche slide. Avalanche rescue is a race against time! While most buried subjects can be rescued within the first 18 minutes, the chances of survival decrease rapidly afterwards. Companion rescue, therefore, provides the greatest chances of survival for a buried subject.

If an Avalanche Occurs

As a Victim:

- Escape to the side
- Discard skis, snowboards, and poles
  - anchor effect
- Try to stay on top
- Close your mouth; place your hands in front of your face
  - clear airway when the avalanche stops

Separate instructions apply for the use of specialized safety equipment, such as the highly efficient avalanche airbag.
As a Witness:

- Memorize the last seen point as well as the direction of the avalanche
  - signal search strip
    (See chapter «Signal Search»).

Personal Rescue Equipment

Carrying the proper personal safety equipment is critical for effective companion rescue. A transceiver, a shovel, and a probe pole are necessary to localize and excavate a buried subject quickly and efficiently.
Mammut offers a variety of suitable probe poles and shovels. The use of an airbag system (flotation device) significantly reduces the risk of complete burial and therefore leads to

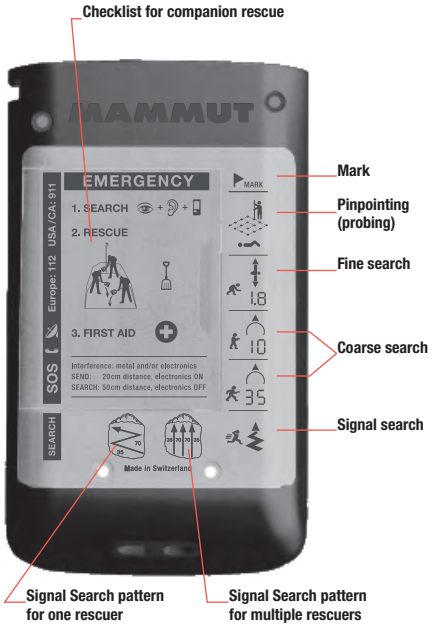
considerably higher survival chances.
The use of the transceiver precedes the use of the probe pole and the use of the probe pole precedes the use of the shovel. Carrying a radio or a mobile phone to call for help is highly recommended.

Emergency Plan

CALL FOR HELP

1. **Scene assessment**
2. **If possible, use the snow sport equipment until you reach fine search.**
   Keep your backpack with gear with you at all times.
3. **I am searching with my transceiver: SEARCH**
   I am not searching: OFF
4. **At least one rescuer immediately starts transceiver SEARCH, while looking and listening at the same time**
5. **Assemble probe and shovel only when the fine search is concluded**
6. **Transceiver search finished: all transceivers to SEND**
7. **Excavate – First Aid**

The emergency plan shows the elementary steps for a successful companion rescue.
Depending on the situation at hand, the procedure must be adapted.



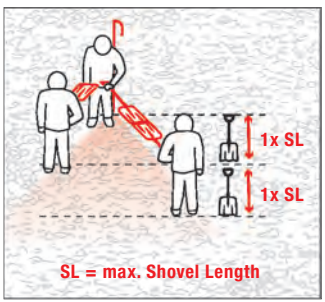
No Probe Hit

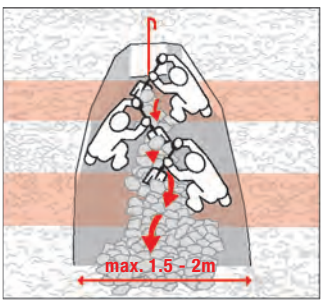
If the buried subject cannot be found by the probe, place the probe approx. 1.5 meter above the point with the lowest distance indication. While digging, enough space is now made available to allow a further fine and pinpoint search within the excavation site.

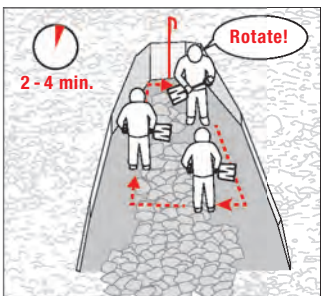
Excavating the Buried Subject

The first rescuer positions him/herself directly at the probe.
The first two rescuers position themselves in a distance of one shovel lengths, all other rescuers are two shovel lenghts apart of each other.
The rescuer at the tip of the conveyor belt digs directly following the probe to the buried subject, thus avoiding any chance to miss it.

▸ BarryTip: **in hard snow, cut blocks with the shovel. In case of multiple burials, switch off the transceiver of the buried subjects as soon as possible.**







DECLARATIONS OF CONFORMITY

USA/Canada/New Zealand/Australia

In this region the Barryvox® W-Link operates in the 915MHz band.

Type / Model: Barryvox® 7600.0035
IC: 8038A-BARRYVOX
FCC ID: ARN-BARRYVOX

E5720

Canada: IC Statement

This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:

1. This device may not cause interference and
2. This device must accept any interference, including interference that causes undesired operation of the device

Le présént appareil est conforme CNR d'Industrie Canada applicables aux appareils radio exempts de licence.
L'exploitation est autorisée aux deux conditions suivantes:

1. *l'appareil ne doit pas produire de brouillage, et*
2. *l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement*

USA: FCC Statement

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residual installation. This equipment generates, uses and can radiate 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 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 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
- To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with the Part 15 of the FCC Rules. 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 interference that may cause undesired operation.

Europe

In this region the Barryvox® W-Link operates in the 868MHz band.

Type / Model: Barryvox® 7600.0031 (W-Link enabled)
Barryvox® 7600.0036 (W-Link disabled)

For additional information concerning the «EU Declaration of Conformity», please visit: www.mammut.com/BarryvoxManual

Europe – EU Declaration of Conformity

bg	С настоящото Mammut Sports Group AG декларира, че този тип радиосъоръжение Barryvox® е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: www.mammut.ch/BarryvoxManual
cs	Tímto Mammut Sports Group AG prohlašuje, že typ rádiového zařízení Barryvox® je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.mammut.ch/BarryvoxManual
da	Hermed erklærer Mammut Sports Group AG, at radioudstyrstypen Barryvox® er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.mammut.ch/BarryvoxManual
de	Hiermit erklärt Mammut Sports Group AG, dass der Funkanlagentyp Barryvox® der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: www.mammut.ch/BarryvoxManual
et	Käesolevaga deklareerib Mammut Sports Group AG, et käesolev raadioseadme tüüp Barryvox® vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: www.mammut.ch/BarryvoxManual
en	Hereby, Mammut Sports Group AG declares that the radio equipment type Barryvox® is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.mammut.ch/BarryvoxManual
es	Por la presente, Mammut Sports Group AG declara que el tipo de equipo radioeléctrico Barryvox® es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.mammut.ch/BarryvoxManual
el	Με την παρούσα ο/η Mammut Sports Group AG, δηλώνει ότι ο ραδιοεξοπλισμός Barryvox® πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: www.mammut.ch/BarryvoxManual
fr	Le soussigné, Mammut Sports Group AG, déclare que l'équipement radioélectrique du type Barryvox® est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: www.mammut.ch/BarryvoxManual
hr	Mammut Sports Group AG ovime izjavljuje da je radijska oprema tipa Barryvox® u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: www.mammut.ch/BarryvoxManual

it	Il fabbricante, Mammut Sports Group AG, dichiara che il tipo di apparecchiatura radio Barryvox® è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: www.mammut.ch/BarryvoxManual
lv	Ar šo Mammut Sports Group AG deklarē, ka radioiekārta Barryvox® atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: www.mammut.ch/BarryvoxManual
lt	Aš, Mammut Sports Group AG, patvirtinu, kad radijo įrenginių tipas Barryvox® atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: www.mammut.ch/BarryvoxManual
nl	Hierbij verklaar ik, Mammut Sports Group AG, dat het type radioapparatuur Barryvox® conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: www.mammut.ch/BarryvoxManual
mt	B'dan, Mammut Sports Group AG, niddikjara li dan it-tip ta' tagħmir tar-radju Barryvox® huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li ġej: www.mammut.ch/BarryvoxManual
hu	Mammut Sports Group AG igazolja, hogy a Barryvox® típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.mammut.ch/BarryvoxManual
pl	Mammut Sports Group AG niniejszym oświadcza, że typ urządzenia radiowego Barryvox® jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.mammut.ch/BarryvoxManual
pt	Prin prezenta, Mammut Sports Group AG declară că tipul de echipamente radio Barryvox® este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.mammut.ch/BarryvoxManual
ro	O abaixo assinado Mammut Sports Group AG declara que o presente tipo de equipamento de rádio Barryvox® está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: www.mammut.ch/BarryvoxManual
sl	Mammut Sports Group AG potrjuje, da je tip radijske opreme Barryvox® skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.mammut.ch/BarryvoxManual
sk	Mammut Sports Group AG týmto vyhlasuje, že rádiové zariadenie typu [označenie typu rádiového zariadenia] je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: www.mammut.ch/BarryvoxManual
fi	Mammut Sports Group AG vakuuttaa, että radiolaitetyyppi Barryvox® on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.mammut.ch/BarryvoxManual
sv	Härmed försäkrar Mammut Sports Group AG att denna typ av radioutrustning Barryvox® överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: www.mammut.ch/BarryvoxManual

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