



Basic Companion Rescue

This short, but efficient lesson has been tested on inexperienced individuals. The trials showed that 15-30 minutes training yields good results with respect to search time and the excavation of avalanche victims. As the chances for rescuing avalanche victims are greatest within the first 18 minutes, it is important that search and excavation focus on fast rescue. The trials were conducted in a 50m by 80m scenario and the participants located and excavated 2 victims in an average time of 15min and 43 seconds. First victim was excavated on average 6 min and 39 seconds.

Aim of lesson: the instructor vs the soldier

- ✓ Companion Rescue. Refer to sticker on backside of transceiver, emphasise importance of notifying emergency personnel
- ✓ Short, but efficient method to ensure good learning.
- ✓ A lesson plan that the instructor easily adapts and that is held in an overall similar manner.

Equipment: briefing on the companion rescue equipment

- ✓ Shovel: explain the efficient digging, wearing, telescope function, use of hand gear.
- ✓ Probe: Safe and efficient assembly/disassembly, use of hand gear, search perpendicularly to snow surface.
- ✓ Transceiver: explain functions (buttons, main switch, harness), switch to “send”, to “search”, back to “send” and “off”. Ensure everybody understands. Demonstrate correct carrying position (distance to metal/electrical items)

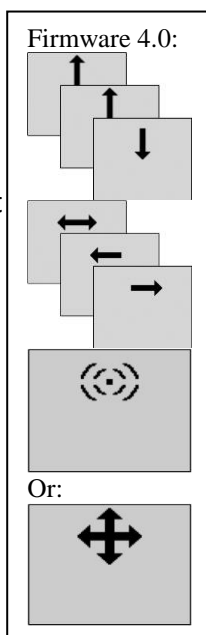
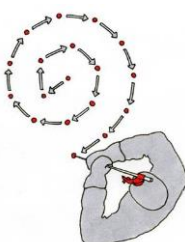
Search procedure: explain a search from start phase to end phase. How to conduct signal search, coarse search and fine search. Refer to symbols on the backside.

Demo search: walk-through, talk-through of every phase where the participants perform the same actions. The steps must be managed by each participant. Search distance approx. 50m and unit searched for at 45° angle. The search results in a curved path where direction is corrected throughout. Avoid the discussion of flux lines. At the end of each phase the group comes to a halt.

- ✓ Signal search: show symbol on the backside, rotate transceiver next to ear, slow and in the x, y and z-axis. (1-2 sec in each directions). Search strip width 50m. Move at high pace!
- ✓ Coarse search: follow direction and distance indicator at high speed up until 10m, slow down towards “airport”. At 3m transceiver level with snow surface.
- ✓ Fine search: “Land the plane” below 3m. Once distance increases, return to point of lowest value, where a spiral search is undertaken. Make a mark in the snow.
- ✓ Communication: Loud, clear communication to fellow rescue personnel.

Spiral search: use probe in a spiral pattern

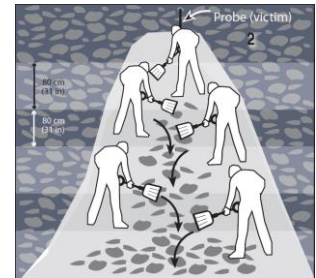
- ✓ 25cm distance between holes and between each round in the spiral. Search 90° to snow surface. Leave probe at the point of a finding.
- ✓ Available personnel can start digging straight down during the spiral search.
- ✓ Activate a 2nd transceiver at 25m distance. All participants “mark” the first transceiver and follow through to the next victim.





Excavation

- ✓ Show and explain efficient use of shovel, incl the chopping of hard snow into blocks in semi circles.
 - ✓ Place the diggers in a V-shaped formation. Chop and shovel the snow backwards down the formation.
 - ✓ Rotate personnel in the formation every 3-4 mins (max).
- Refer to basic first aid for treatment of patient.



Group check

The “Group-check”-function is designed to test max range of device in search and send without having to do it at 50m distance. The sensitivity of the device is automatically tuned so that 1m distance equals maximum range. A positive test result indicates that the device functions and that the antennas are intact.

Double group check is done daily before movement.

Simple group check can be done after long halts or use of the transceivers.

Simple group check: Explain how to switch to group check mode. All participants switch device to “send”. Instructor switches to group check mode and pass participants at 1m distance. Instructor shows to the last group member their device, and then is switched back to send.

Double group check: All participants switch to group check mode, instructor to “send”. Instructor passes all at 1m distance while listening to the participants’ device. Then all participants push button of choice to switch to “send”, place device in harness and instructor switches to group check mode. Participants are again checked at 1m distance, this time instructor’s device is checked for signal. The instructor shows to last participant that unit is switched to “send” and places device in harness.

Calibration

If device prompts for calibration, press “OK” and “start” and then rotate device slowly 360 degrees in the palm of your hand.

457- error

The unit is carried too close to metal, magnetic devices or electronics that disturbs the signal. Keep a min distance of 20 cm to such devices.

SMART PHONES MUST BE SWITCHED COMPLETELY OFF DURING A SEARCH PHASE AS THE PHONE WILL INTERRUPT THE TRANSCIEVER’S ABILITY TO READ A SIGNAL.