

3 POINTS TO EXPLAIN THE RECCO RESCUE TECHNOLOGY

WHY BE EQUIPPED WITH RECCO TECHNOLOGY?

1. RECCO technology makes you searchable by organized rescue to find and help you faster when lost in the outdoors or in case of an avalanche.

HOW DOES IT WORK?

2. The RECCO detector, used by rescuers, sends out a directional radar signal, which is reflected back by the RECCO rescue reflector in your gear, leading rescuers to your location.

WHERE IS THE RECCO SYSTEM IN USE?

3. RECCO detectors are a standard rescue tool for rescue teams and ski patrollers worldwide. RECCO SAR Helicopter Detectors are new and used in a growing number of countries. See all locations at recco.com/global-network/



DO I NEED A RECCO REFLECTOR IF I HAVE AN AVALANCHE TRANSCIVER?

Yes! Transceivers are used for companion rescue. Professional rescuers search for both transceivers and RECCO reflectors. If there is no transceiver signal, the RECCO system is the only way (electronically) to find someone fast.

For those going off-piste and into the backcountry, the RECCO reflector provides a backup if companion rescue fails or if there is no transceiver signal.

Avalanche terrain can be insidious. Sometimes people end up in avalanche terrain unintentionally or without realizing it. For those not going off-piste and not carrying a transceiver, probe and shovel, the RECCO rescue reflector is the only tool that makes you searchable.

The RECCO RESCUE SYSTEM



How RECCO TECHNOLOGY works



RECCO TECHNOLOGY a standard in avalanche rescue



The RECCO SAR helicopter detector



QUICK FACTS

RECCO RESCUE TECHNOLOGY

How it works

The RECCO detector emits a directional radar signal. When the radar signal hits the RECCO reflector, it is echoed back to the detector and points the rescuer in the direction of the person. Also, the closer the detector gets to the reflector, the stronger the returned signal. The combination of directionality and stronger signal allows the rescuer to pinpoint the person's location.

RECCO SAR Helicopter Detector

Quick-Info & Facts



Application & coverage

The RECCO SAR Helicopter Detector is a missing person search device to search wide areas fast for people equipped with RECCO Rescue Reflectors. The detector is attached to the helicopter with a sling and carried as a hanging load. At the moment, 15 units are operational in Europe and 7 in North America. New locations will be added constantly and announced on recco.com.

Search parameters

The search parameters are very dependent on the terrain, weather, vegetation and the surface structure. Therefore, only an approximate indication of the average search parameters can be given:

Height: $\approx 100\text{m}$
Speed: $\approx 100\text{ km/h}$
Search corridor width: $\approx 100\text{m}$

Search performance at average search parameters equals **6 minutes/km²**

The RECCO SAR helicopter detector

Weight: 80 kg (including batteries)
Size: 57cm (diameter)
Power source: battery
Operating time: 6 hours

RECCO Avalanche Rescue System

Quick-Info & Facts



Application & coverage

Mountain rescue and ski patrols are equipped with RECCO detectors worldwide. In the event of an avalanche accident, RECCO detectors are used by the rescuers as an electronic search method in addition to the avalanche transceiver.

The handheld RECCO Detector

Introduced: 1983
Name: R9 (ninth generation)
Weight: 1 kg
Range: 80m through air / up to 20m through snow
Search corridor width: 20m
Coverage: 900+ rescue organizations and ski resorts in 32 different countries

RECCO Rescue Reflector

Quick-Info & Facts



Integrated in equipment and clothing or available as an attachable reflector for backpacks and helmets, the RECCO Rescue Reflector reflects the RECCO search signal. The reflector is searchable by the RECCO SAR Helicopter Detector and the handheld RECCO Detector. It is a passive transponder that requires no battery or activation and has an unlimited lifespan. (Weight: $\approx 4\text{ g}$ / Size: $\approx 1.5\text{ x }7\text{ x }0.5\text{ cm}$)



FAQ - FREQUENTLY ASKED QUESTIONS

Does a RECCO rescue reflector replace a transceiver?

No! The transceiver makes you searchable to your companions. The RECCO rescue reflector makes you search to professional rescuers. For example, Ortovox integrates RECCO rescue reflectors into their avalanche transceivers so you are always searchable.

Does the reflector interfere with my avalanche transceiver?

No, since the reflectors are passive, they do not have any influence on the transceiver signal.

Have people been found and rescued alive by rescuers using a RECCO detector?

Yes, on average 1 or 2 people have been rescued alive each year by rescuers using a RECCO detector. To give an example, in February 2016 in Champéry, Switzerland, a woman skiing with her family triggered an avalanche and was buried when she took a short cut between the groomed runs. Her husband and young children had no avalanche transceivers, so he called for rescue. After a 3-minute search using a RECCO detector, rescuers located and uncovered her alive after 20 minutes of burial. The first live rescue using a RECCO detector happened in Lenzerheide, Switzerland, in 1987.

What is the range of the RECCO technology?

The signal range through snow is up to 20 meters. Therefore, rescuers search avalanche debris in 20-meter wide search corridors. Through air the signal has a practical range up to 80 meters. The signal does not pass through water, rock, or earth.

Are detectors used from helicopters?

Yes, rescuers use the handheld detectors from helicopters to search larger avalanches or areas where it is too dangerous to be on the ground. The RECCO SAR Helicopter Detector is designed to be carried by a helicopter and to scan large areas fast for a missing person.

Do reflectors get old or stop working?

No. Reflectors have a virtually unlimited lifespan and being passive they do not need any power. They do not wear out nor grow old through intended usage.

Can I wash clothing with integrated reflectors?

Yes, the reflectors are sealed. Garments with integrated reflectors can be washed according their washing instructions. The reflector should not be ironed.

As a user do I need to register or login to a database or satellite?

No. Since the reflectors are passive reflective antennas. No registration is needed anywhere.

What if I have more than one reflector?

More reflectors equals better signal reflection. The strength of the returned signal is affected by the orientation of the reflector and the person's body. Wearing several reflectors increases the probability that one reflector has a better position to reflect the signal than another. Therefore, the odds for a stronger signal reflection improve by wearing more than one reflector.

Where are detectors in use?

Detectors are used by rescue professionals worldwide as a standard rescue tool at ski resorts, mountain rescue organizations and helicopter bases. In total, more than 2000 detectors are placed at more than 900 different locations in 28 countries. A complete list of detector locations can be found at recco.com.

What frequency is used and how does the technology work in detail?

RECCO technology uses the principle of "harmonic radar." The detector sends out a signal at around 900MHz. The passive reflector doubles the frequency and bounces back a directional signal. The rescuer hears a "ping" that directs the rescuer to the person.