

Avalanche Victim Search by Helicopter

Beacon Search System with External Antenna

Within the body of a helicopter, an efficient search by means of an avalanche beacon is impossible. This is mostly due to electromagnetic interference from the on board electronics.

The **cylindrical active antenna**, which is suspended about 2 - 3 meters below the helicopter, **remains outside the range of this interference**. Because of its omnidirectional characteristic, it receives signals from **all directions with equal strength**. There is no need to manually change the orientation of the connected avalanche beacon for best results.

The necessary galvanic separation and level adjustment is provided by an adapter circuit which is integrated into the Barryvox VS 2000 PRO EXT special receiver. The received signal is forwarded to the INTERCOM system via a connecting cable. All crew members can thus listen to the signal by means of their headset.



Photo: Susanne Bonaca

Efficient Search with the RECCO System

Within the body of a helicopter, an efficient search by means of the RECCO Rescue System is difficult. This is mostly due to the noisy environment. Also the RECCO System should not be connected galvanically to the on board electronics to avoid any interference.

The problem is solved by a special adapter interface. Via a connecting cable the headphone signal of the RECCO receiver is forwarded to the helicopter INTERCOM system. The necessary galvanic separation and level adjustment is provided by an adapter circuit which is integrated in the INTERCOM connector of the adapter cable. All crew members can thus listen to the signal by means of their headset.



Photo: Susanne Bonaca

Beacon Search by Helicopter



RECCO Search by Helicopter



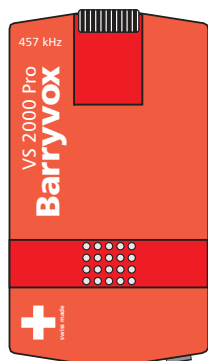
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Helicopter Beacon Search System BARRYVOX VS 2000 PRO EXT

**BARRYVOX
VS 2000 PRO EXT**



Headphone or intercom connector
External antenna connector

Intercom cable
Typ RG-174
Length ~ 1.5 m

Antenna cable
Type RG-58
Length ~ 5 m

MIC+
MIC-

Connections and Level Adjustment



Headphone or intercom connector

External antenna connector

25 turns dial for level adjustment
output PHONE-INTERCOM

~ 2 mVeff ... 250 mVeff into 150 Ohms

Min. = left end position (ccw)

Max. = right end position (cw)

Both ends with slip clutch,
i.e without hard limit

Note:

Carefully adjust the PHONE-INTERCOM level by means of a small screwdriver. When done, close the dial opening with a piece of tape or a small sticker, in order to keep humidity out of the beacon.

All connections to the system **must not be used in other ways than described**. In particular, do not feed any electrical signal (DC or AC) into the system.

Metallic objects within an area about 1 m around the antenna **may have some influence on antenna performance**. For the same reason, do not use any metal coated tape on the antenna. This also goes for reflecting material, such as Scotch-Lite etc.

Ring hook
for suspending



**3-dimensional
Active Antenna**

Length ~ 620 mm

Diameter ~ 125 mm

Weight ~ 1.8 kg

RECCO System for Search from Helicopter

RECCO
Connector
GND
RX signal
from RECCO



RECCO System with
INTERCOM Adapter Cable

Connecting Cable
RECCO System - Helicopter INTERCOM

Length approx. 1.8 m

INTERCOM Level Adjustment

25 turns dial for level adjustment of intercom input signal (MIC- / MIC+). Both ends with slip clutch, i.e without hard limit.

Version 1 for civil intercom system:

~ 3.0 mVeff ... 250 mVeff into 75...200 Ohms

Version 2 for military intercom system:

~ 0.2 mVeff ... 20 mVeff into 5...12 Ohms

Note:

Carefully adjust the INTERCOM level by means of a small screwdriver. When done, close the dial opening with a piece of tape or a small sticker, in order to keep humidity out of the connector.

All connections to the system **must not be used in other ways than described**. In particular, do not feed any electrical signal (DC or AC) into the system.

Helicopter INTERCOM Connector

Type: 0540/TP-120 NEXUS
(“NATO Connector”)

Transport Bag for 3-d Helicopter Antenna

We now offer a robust, water-repellent protective transport bag for the Barryvox VS 2000 PRO EXT helicopter search system. This bag provides optimum protection during transportation and deployment of the antenna system. In a separate external pocket which is accessed via a peripheral zipper, all accessories such as avalanche beacon, antenna cable, intercom cable and suspending rope can be stored. There is no need to remove the antenna from the bag for searching. It may be suspended directly underneath the helicopter by means of the rope, while connecting the antenna cable to the beacon inside the helicopter.

Circular external pocket
with zipper

Opening for rope
and antenna cable

