TRANSCEIVER BASICS AND SMART-ANTENNA-TECHNOLOGY™

HOW DO THE 3 ANTENNAS OF AN AVALANCHE BEACON WORK?

Modern avalanche transceivers utilize THREE ANTENNAS (X, Y, Z).

AVALANCHE TRANSCEIVER IN SEARCH MODE

During searching, ALL THREE ANTENNAS ARE USED. The X and the Y antennas are used to display range and direction. The Z antenna is used for close search only (the final few meters).

AVALANCHE TRANSCEIVER IN TRANSMITTING MODE

WITHOUT Smart-Antenna: Devices without a Smart-Antenna can SEND ONLY OVER the X ANTENNA.

WITH Smart-Antenna: ORTOVOX units S/one.prop+, /three.prop+, and ZOOM+ with Smart-Antenna technology are the only units on the market that CAN SEND OVER BOTH the X and Y ANTENNAS. This greatly extends the victim’s transmission range (up to double), making it much easier to find the buried person. We can therefore say that the victim has GREATER VISIBILITY for the rescuer.

THE POSITION OF THE BURIED TRANSCEIVER IN THE AVALANCHE IS CRITICAL FOR HOW VISIBLE IT WILL BE FOR THE RESCUER. WHY?

The transceiver can have two basic positions in the avalanche: HORIZONTAL or VERTICAL.

HORIZONTAL POSITION = VERY HIGH VISIBILITY

» The X antenna broadcasts HORIZONTALLY in two dimensions.

» A horizontally oriented transmission antenna enables HIGH VISIBILITY with a LARGE SURFACE COVERAGE in the search range. This usually makes it EASY TO FIND THE VICTIM.

VERTICAL POSITION WITHOUT SMART-ANTENNA = POOR VISIBILITY

» The X antenna broadcasts VERTICALLY.

» A vertically oriented transmission antenna results in POOR VISIBILITY due to its MINIMAL SURFACE AREA COVERAGE in the search range. Therefore, a vertical sender without Smart-Antenna is very difficult to locate.

SOLUTION

VERTICAL POSITION WITH SMART-ANTENNA = VERY HIGH VISIBILITY

» The patented Smart-Antenna-Technology SOLVES THE PROBLEM OF POOR VISIBILITY caused by a vertical position.

» The POSITION SENSOR in all new ORTOVOX avalanche transceivers analyzes the position of the device buried in the avalanche and AUTOMATICALLY SWITCHES to the Y antenna if the angle is /seven.prop/five.prop° or greater.

» As a result, the antenna transmits horizontally and the SURFACE COVERAGE IN THE SEARCH RANGE AGAIN APPROACHES THE MAXIMUM RANGE. This restores very high visibility, regardless of which device the rescuer is using. Making it easier to find avalanche victims!

BE FOUND EASIER WITH SMART-ANTENNA-TECHNOLOGY™