Technical Data & Information

GIRSBERGER
Mountain Rescue Technology

ATC Avalanche Training Center

avalanche-training-center.ch

TRAINING

ATC Avalanche Training Center

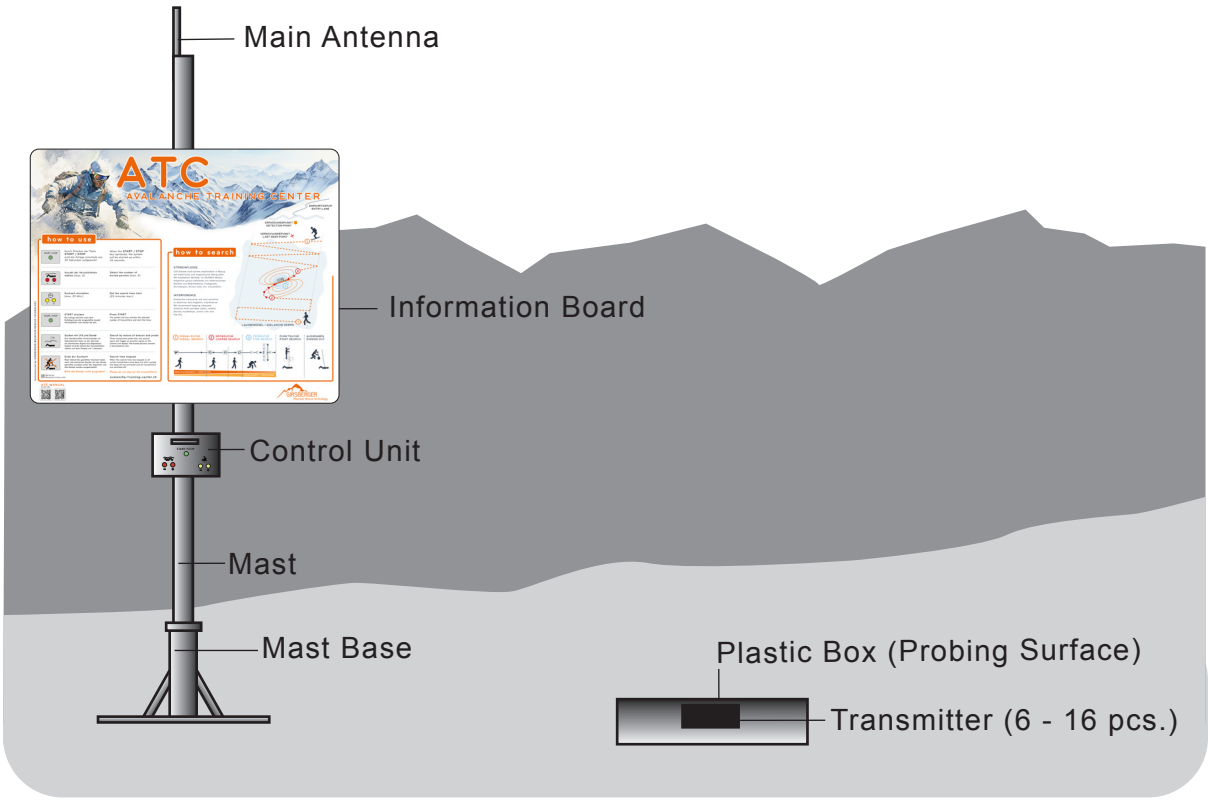
The ATC Avalanche Training Center is a stationary system for training transceiver and probe search.

The system has been proven for a long time and has been overhauled completely in the year 2015.
Some innovative solutions provided decisive advantages to the users and to the operators.
The system can simulate from six to sixteen transceivers. The transmitters that are buried in the search area emit signals that are exactly equal to the signals from real avalanche transceivers.

At the control unit, the remotely controlled transmitters can be selected at random (standard mode) or individually (expert mode). This allows for training simple as well as complex (multiple burials) burial situations.
The transmitters will provide automatic feedback upon a probe hit. A probe hit on the probing surface of a transmitter is indicated at the control unit and signaled acoustically. The search times for every transmitter are also indicated.
The control unit also incorporates a counter for the number of exercises that can be read out at any time.
The entire system is equipped with standard batteries for autonomous operation throughout a winter season.
No mains supply required.

In order to save precious energy, the system automatically enters a sleep mode when not used for some time.
There is no need to turn the system off manually.

AREAS OF APPLICATION: Ski Resorts, Huts, Ski Schools, Municipality, Mountain Restaurants



ATC Avalanche Training Center

Main Features

- Up to sixteen remotely controlled transmitters
- Random or individual transmitter selection
- Single or multiple burial search scenarios
- Automatic probe hit indication
- Configurable transmit patterns
- Elastic probe hit surface for realistic probing
- Search time indication
- Number of exercises readout at any time
- Battery lifetime for an entire winter season
- Information board with transceiver search phases and short instructions
- Easy operation
- Professional and robust construction
- Compatible with all brands of transceivers (EN 300718)
- Meets all European and national regulations
- Developed and made in Switzerland

ATC Avalanche Training Center

Technical Data

Transmitter RTX457ATC

Transmit Frequency:	457 kHz + / - 30 Hz
Transmitter Field Strength:	ca. 2,0 mA/m at a distance of 1 meter
Remote Control Frequency:	433,92 MHz (ISM Band)
Compatible with:	ETS 300718
Power Supply:	4 Alkaline Batteries 1,5 V Type IEC LR20 (size D)
Battery Lifetime:	ca. 6 months
Casing:	Plastic
Dimensions:	203 x 203 x 102 mm
Weight:	5 kg (including probing surface)
Protection:	IP 67 (waterproof)
Operating Temp. Range:	- 25 to + 50 Degree Centigrade

Probing Surface

Casing:	Plastic
Dimensions:	600 x 400 x 170 mm
Reinforcement:	Sheet Plastic PE-HMW
Dimensions:	560 x 360 x 6 mm
Probing Surface:	Cell Rubber EPDM
Dimensions:	560 x 360 x 8 mm

Technical Data

Control Unit FCU

Remote Control Frequency:	433,92 MHz (ISM Band)
Range:	ca. 150 m
Power Supply:	6 Alkaline Batteries 1,5 V Type IEC LR20 (size D)
Casing:	Steel
Dimensions:	330 x 240 x 130 mm
Weight:	6.6 kg
Protection:	IP 65 (splash water proof)
Operating Temp. Range:	- 25 to + 50 Degree Centigrade
Weather Protection:	Stainless Steel
Mast Fixture:	Tube Brackets

Antenna

Frequency Range:	406 to 470 MHz
Polarization:	Vertical
Impedance:	50 Ohm
Diameter:	90 / 25 mm
Length:	600 mm
Weight:	1 kg

Mast

Nominal Length:	3,2 m
Transportation Length:	3.2 m
Diameter:	63 mm
Weight:	5,6 kg
Material:	Aluminium

Technical Data

Mast Base

Dimension:	1000 x 1000 x 550 mm
Weight:	15 kg
Material:	Steel galvanized

Information Board

Information:	Search Phases / Short User Instructions
Overall Dimension:	910 x 760 mm
Weight:	8 kg
Material:	Aluminum
Mounting:	Brackets

Information

Location

The following requirements should be met by a suitable location:

The altitude should be reasonable to provide sufficient and long lasting snow cover.

The size should be about 100 meters by 100 meters, preferably on a slope.

Keep at least 150 meters distance from possible sources of interference to avoid problems. Possible sources of interference are:

- Power lines above and below ground
- Any means of transportation
- Snowmaking equipment
- Technical buildings such as transformer stations, mobile network antennas
- Ski runs (interference from transceivers that are carried by skiers)

For reasons of safety, we recommend to fence the search area.

For easy access, we recommend to mark the area by means of signs, banners or beach flags.

Number of Transmitters

The system is modular. From six to sixteen transmitters may be installed. Based on our experience, we recommend installing ten transmitters.

Mast Base

The mast base is placed directly on the ground and must be loaded with weights.

Energy Supply

The entire system is fitted with off-the-shelf batteries. The batteries will last for an entire winter season. There is no need for a mains supply.
When not used, the system will automatically enter a sleep mode. There is no need for manual switch off.

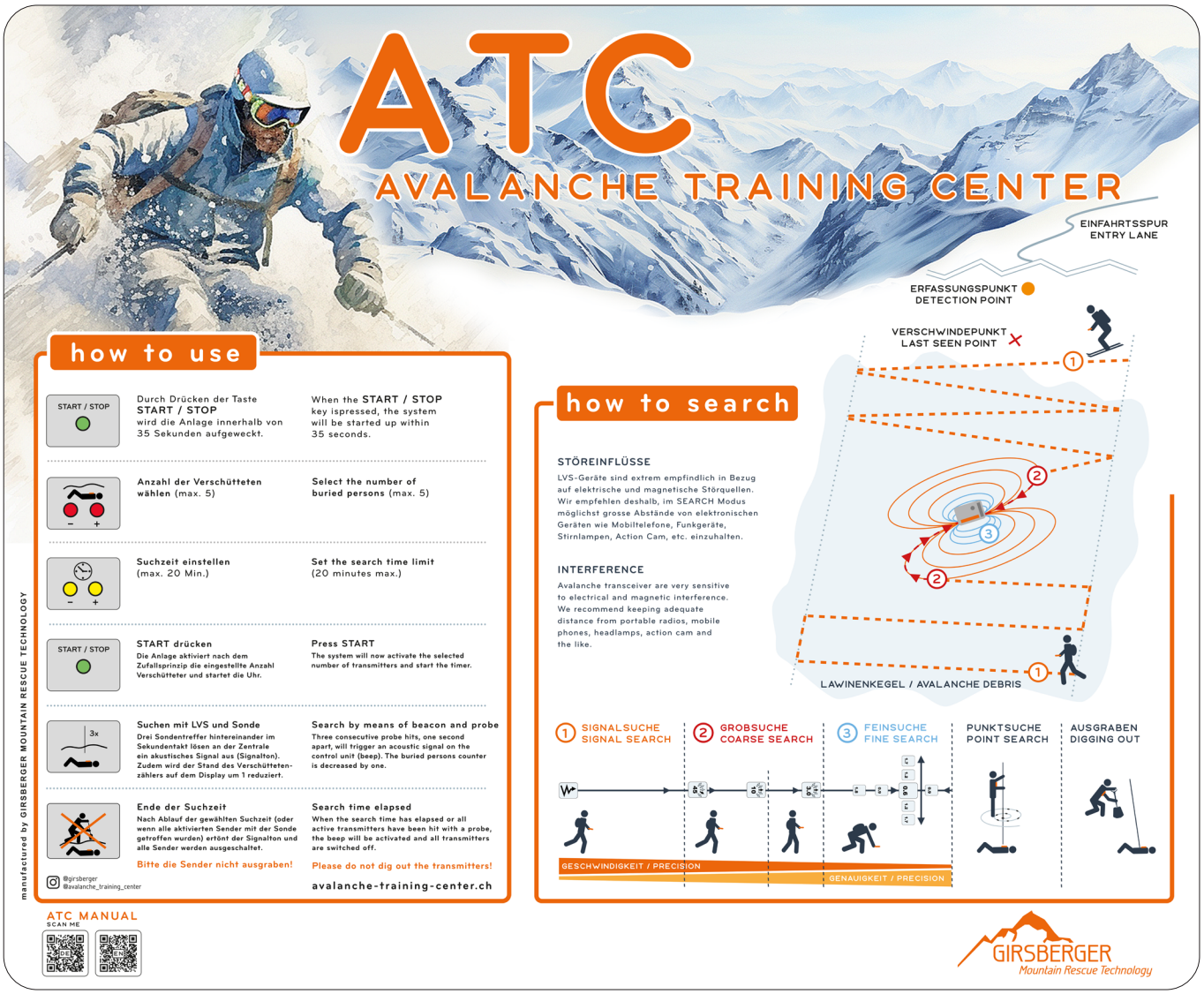
Information

Information Board

The surface of the information board is divided into three areas:

- Graphical presentation of transceiver search phases
- Short user instructions in languages as ordered, up to two languages
- Lower area for placing logos, sponsors information and advertising

If the lower area is too small, an extra board must be installed. This extra board must not be mounted on the telescopic mast for reasons of overload.



Information

Installation

First setup is done by Girsberger Elektronik AG together with the customer‘s personnel who will be responsible for the system.

Deliverables

The deliverables include the complete ready-for-use system, the first setup as well as the instruction for the personnel.

Delivery

The system will be delivered by Girsberger Elektronik AG within Switzerland. Delivery cost is included in the price.

The system will be delivered by Girsberger Elektronik AG to European and other countries. Delivery cost is not included in the price.

Customs will be handled by Girsberger Elektronik AG. Custom duties will be taken care of by Girsberger Elektronik AG.

Maintenance

The positioning and the burial depth of the individual transmitters may need to be adapted during the winter season.

From time to time, you will need to clean traces from earlier exercises on the surface.

A functional check should be performed at regular intervals. At that time, it also makes sense to read out the exercise counters.

Maintenance Cost

There will be annually recurring costs for replacing the batteries.

Definitions

ATC	Avalanche Training Center
LVS	Lawinenverschütteten-Suchgerät
Transmitter	A transmitter that is buried in the search area and is capable of emitting exactly the same signals as an avalanche transceiver. The transmitter is turned on and off by wireless commands from the control unit.
Probing Surface	A surface (60 by 40 cm) is made of a plastic box containing the transmitter. The surface is reinforced and, on top of it, there is an elastic rubber sheet.

Informationen

Service / Support

Service and support will be provided at any time by Girsberger Elektronik AG. We do recommend that you have the system checked every 5 years by Girsberger Elektronik AG.

Warrenty

The ATC Avalanche Training Center comes with a 2 years warranty, starting at the time of sale as per the sales documents. All parts that have been proven to have a material or production fault will be replaced free of cost. Damage that has been caused by improper handling or normal use will not be covered. The warranty becomes void if devices have been opened by the customer or by non-authorized third parties. The use of devices with replacement parts or accessories that have not been recommended by the manufacturer also voids the warranty.

Conformity

The ATC Avalanche Training Center is conformant to all relevant European and national regulations. Conformity has been documented, the respective declarations and documents are deposited at the manufacturer.

ATC History of development

2002
Development of the world's first ATC Avalanche Training Center

2003
Commissioning of the first three ATC's in Zinal, Andermatt and Davos

2015
The ATC was completely revised and brought up to the latest technical state of art

ATC Avalanche Training Center

Locations

Switzerland

Adelboden
Airolo
Andermatt
Avers/Juf
Belalp
Bettmeralp
Bivio
Braunwald
Champéry - Les Crosets
Crans Montana*
Disentis
Fideriser Heuberge
Flumserberg**
Haute Nendaz Siviez
Laax
Les Savagnières
Leysin
Les Diablerets
Malbun
Meiringen-Hasliberg
Minschuns / Val Müstair
Moleson
Mürren
Pizol*
St. Antönien
Toggenburg/Sellamatt
Val Bedretto
(Capanna Piansecco)
Verbier
Wasenalp
Zinal

Germany

Bad Reichenhall* ***
Feldberg / Schwarzwald
Mittenwald* ***
Spitzingsee* ***

Austria

Arlberg - Rendl*
Bad Gastein
Dachstein
Goldeck*
Jamtal (Galtür)
Obergurgl*
Praxmar
Schmirn
Stubaier Gletscher*
Tschagguns
Tux

Australia

Mount Hotham
Thredbo NSW

Sweden

Niehku - Riksgränsen***

Italy

Abetone
Campo Imperatore*
Cortina d'Ampezzo* ***
Ladurns
Madonna di Campiglio*
Pfelders - Moos i. Passeiertal
Plose - Brixen
Piz Sella - Wolkenstein
Sextner Dolomiten
Sulden
Valle d'Aosta*
Val Formazza

France

Alpe d'Huez*
Avoriaz
Courchevel*
Grand Massif**
Labellemontagne
Les Contamines
La Plagne
La Rosière
Les Arcs
Les 2 Alpes*
Méribel*
Serre-Chevalier*
Valmorel**

All ATC manufactured by Girsberger Mountain Rescue Technology

* on beahlf of ORTOVOX Safety Academy ** on behalf of ARVA *** restricted access

Comparison table

Main Features	ATC	RTX457
Up to sixteen remotely controlled transmitters	●	
Mobile System with 4, 5 or 6 transmitters		●
Random or individual transmitter selection	●	●
Random or individual transmitter selection	●	
Automatic probe hit indication	●	●
Configurable transmit patterns	●	●
Simulates transmit patterns of all current transceivers	●	●
Probing surface combined with transmitter case	●	●
Elastic probe hit surface for realistic probing	●	●
Reducible transmitter field strength		●
Compatible with all brands of transceivers (EN 300718)	●	●
Operation with standard alkaline batteries	●	●
Battery lifetime for an entire winter season	●	
Constant transmitter strength over battery lifetime	●	●
Single or multiple burial search scenarios	●	●
Search time indication	●	
Number of exercises readout at any time	●	
Range at least 150 m	●	
Information board with transceiver search phases and short instructions	●	
Professional and robust construction	●	●
Easy operation	●	●
Easy operation, immediately ready for use		●
Meets all European and national regulations	●	●
Developed and made in Switzerland	●	●

ATC Avalanche Training Center
Equipment

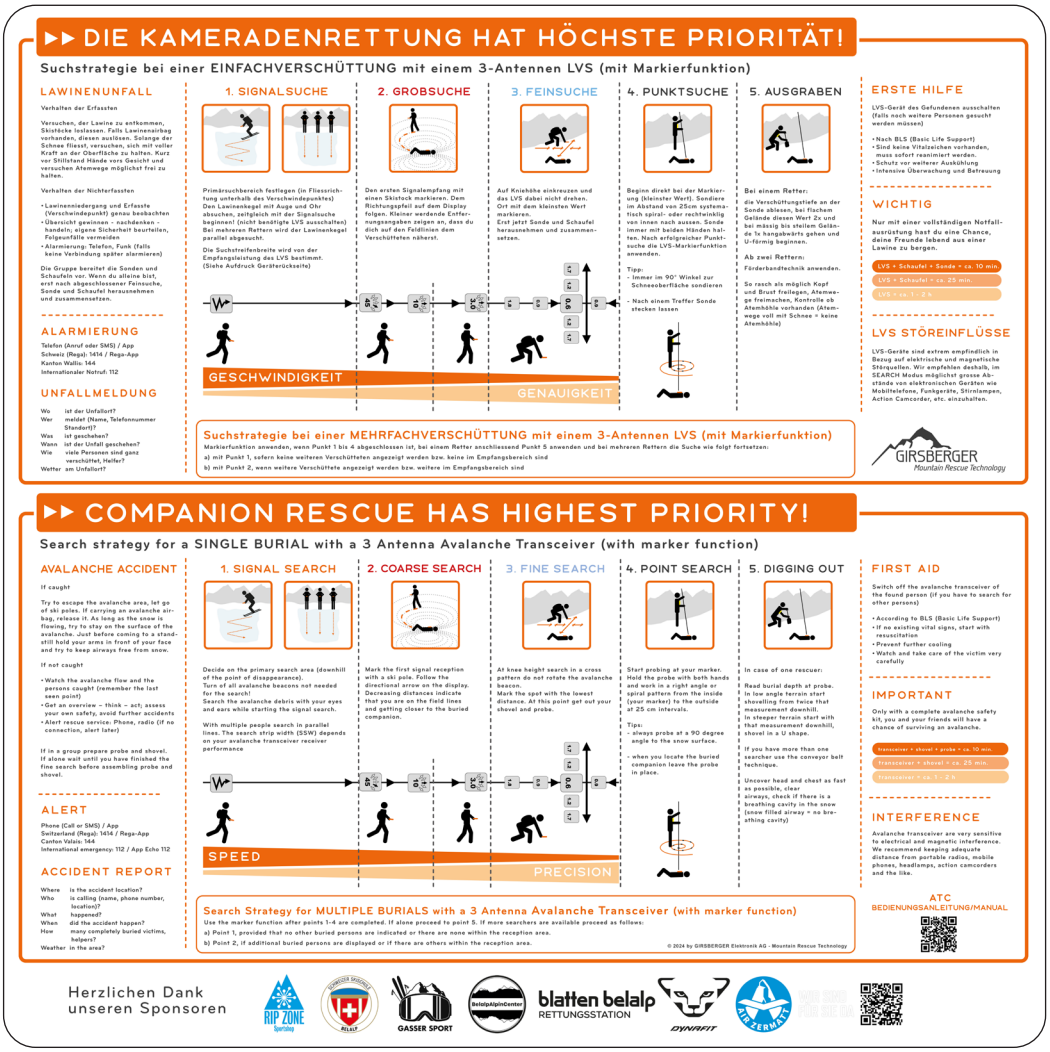
Search Strategy Board

In cooperation with experts from the Mountain Rescue Switzerland and Tyrol, such as mountain guides and the SLF, we have developed the new information board „Search Strategy Board“.
Our focus was to explain the search strategy with a LVS in the most simple possible way in the case of a single burial as well as a multiple burial step by step.

You will also find further information on the board such as

- Avalanche accident:
  Behaviour of the persons recorded - Behaviour of the persons not recorded
- First Aid
- Emergency Equipment
- Avalanche Transceiver Interferences

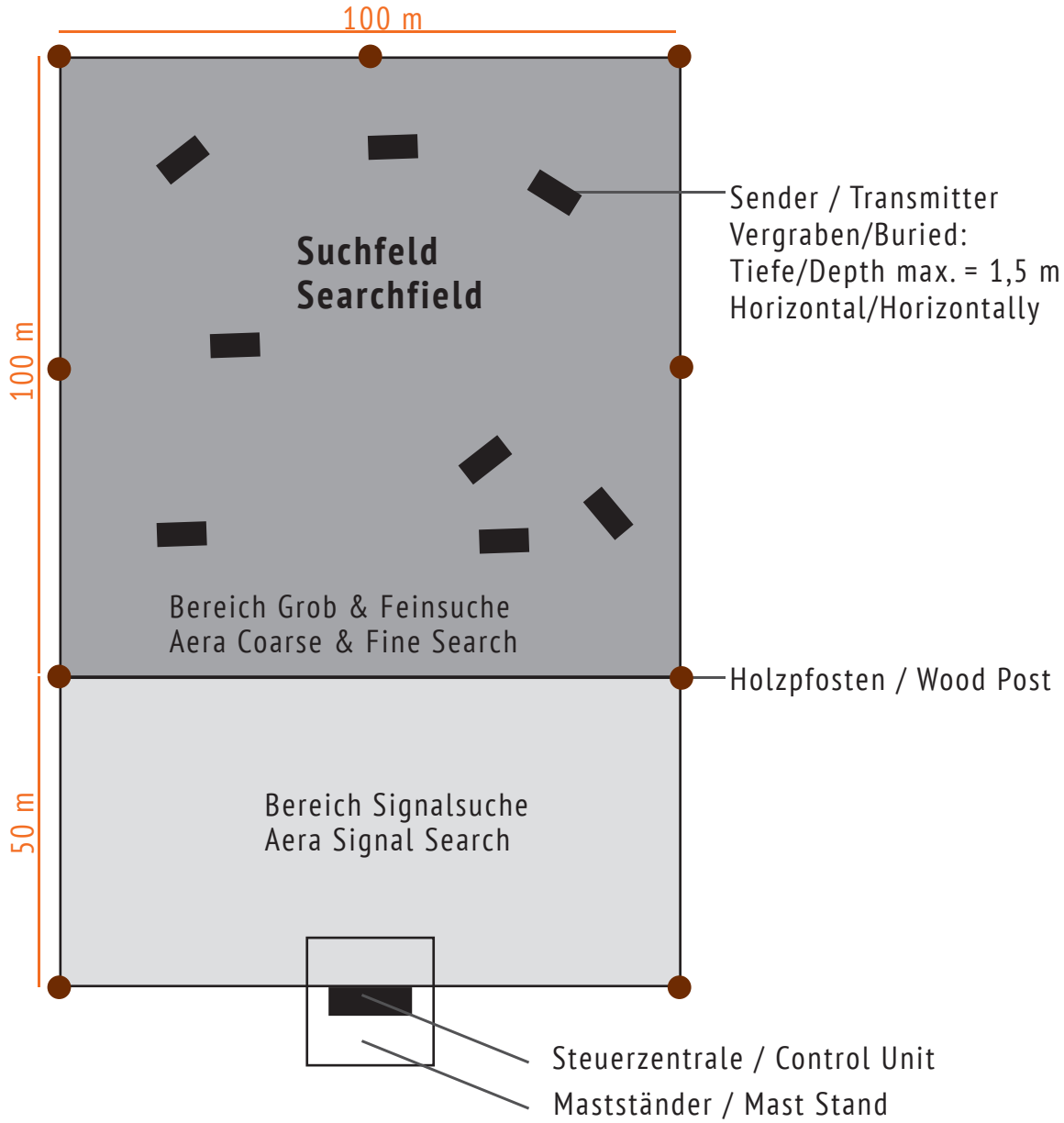
The Infoboard is available in four languages (DE, EN, FR, IT).
Customer-specific adjustments to the emergency number and logo placement are included in the price



ATC Signpost

Material: Alu-Dibond
Dims.: 450 x 150 x 4 mm

ATC Aufbauanleitung / Assembly Guide



SEHR WICHTIG: 150 METER MINDEST ABSTAND VON STÖRQUELLEN:
VERY IMPORTANT: 150 METER MINIMUM DISTANCE FROM SOURCES OF INTERFERENCE:
- ELEKTRISCHE FREILEITUNGEN / ELECTRIC POWER LINES
- BERGBAHNEN, BESCHNEIUNGSANLAGEN / MOUNTAIN RAILWAYS, SNOWMAKING SYSTEMS
- TECHNISCHE GEBÄUDE, TRAFOSTATIONEN / TECHNICAL BUILDINGS, TRANSFORMER STATIONS,
- PISTEN (LVS GERÄTE) / SLOPES (AVALANCHE TRANSCEIVERS)

SEHR WICHTIG: KEINE ELEKTRISCHE BODENLEITUNGEN INNERHALB DES SUCHFELDES
VERY IMPORTANT: NO ELECTRICAL GROUND LINES WITHIN THE SEARCH FIELD

SICHERHEITSEMPFEHLUNG: ABSPERRUNG UND UMZÄUNUNG DES ATC
SAFETY RECOMMENDATION: CORDON OFF AND FENCE OFF THE ATC

EMPFEHLUNG ERKENNBARKEIT: PISTENPLAN EINBINDUNG, BESCHILDERUNG, FAHNEN ETC.
RECOMMENDATION RECOGNISABILITY: PISTE MAP INTEGRATION, SIGNAGE, FLAGS, E.G.

MASTSTÄNDER: GEWICHT BELASTEN (Z.B. STEINE, WASSERKANISTER)
MAST STAND: BURDEN WITH WEIGHT (E.G.

Girsberger Elektronik AG
Mountain Rescue Technology
Oberdorfstrasse 7 - CH-8416 Flaach

+ 41 52 301 35 35
info@girsberger-elektronik.ch
girsberger-elektronik.ch

@girsberger @avalanche_training_center

CE

All components of the ATC Avalanche Training Center have been developed and manufactured in Switzerland.

Girsberger Elektronik AG will always strive to deliver top quality equipment.

Designations, measures and construction details subject to change without notice.