

EB 450 B

Surface detector

- Lightweight
- Robust – compact
- Modular tube system
- Automatic adjustment
- High sensitivity
- Built-in signal transmitter
- Acoustic control functions



Application

The EB 450 B surface detector is mainly used in the field of bomb disposal. One of the available models featuring detachable or exchangeable components is employed in humanitarian mine clearance.

Design

The EB 450 B surface detector is a compact, lightweight mine sweeping device featuring modular tube technology. The standard model, designed specifically for explosives clearance work, is equipped with a screw-fit battery tube. The detector can also be supplied in the form of a variable system with exchangeable search heads and extension tubes.

The oval search head is impermeable to presswater and insensitive to mechanical stress. The electronics cylinder that also serves as the handle houses the electronics cartridge, the step switch and the loudspeaker. The co-cavity of the switch and the tubular element housing the loudspeaker together form an acoustic resonator whose frequency corresponds with the display signal's intrinsic frequency with the result that the sound signal generated is particularly pleasant but, at the same time, loud. Depending on the model concerned, the detector is fitted with either one or three sensitivity options, i.e. LOW-MEDIUM-HIGH.

The equipment's detection sensitivity has been tailored to suit weapons clearance purposes. For certain applications, above all for enhanced depth ranges, the detector can be equipped with a square sensor measuring 260 x 260 mm. The EB 450 B runs on standard dry batteries or on rechargeable batteries. The battery charge level can be checked via an acoustic control pulse.

Operation

The EB 450 B works on the principle of EB attenuation which was first discovered in the course of weapons' development work more than 30 years ago. It revolutionized the technology employed in mine detection devices in that their sensitivity, penetration depth, interference suppression and tuning precision underwent significant improvement. Detection work was thus rendered easier, safer and consequently more efficient.

Functionality

A free-swinging oscillator, whose search coil is in the form of an LC oscillatory circuit, is subjected to an attenuating influence when in the vicinity of metal. This causes a change of amplitude that is converted into an acoustic signal by means of electronic processing.

Technical data

Battery:	6 x 1.5 V round cells (LR 14)
Operation time:	approx. 100 hours at 20 °C
Temperature range:	approx. from -25 °C to 55° C
Dimensions:	
Length	approx. 1,770 mm
Oval sensor	approx. 300 x 170 mm
Weight:	approx. 2,0 kg
in backpack	approx. 2,5 kg
in case	approx. 5,1 kg
Case dimensions	820 x 320 x 130 mm



EBINGER Prüf- und Ortungstechnik GmbH

www.ebinger.org

Technology centre / Sales Germany Benelux

Vulkanstraße 14 • D-54578 Wiesbaum • Germany

Tel. +49 6593 99894-0

Fax +49 6593 99894-50

E-Mail: eifel@ebinger.de

Headquarter/ Sales international

Hansestraße 13/19 • D-51149 Cologne • Germany

Tel. +49 2203 95900-0

Fax +49 2203 95900-20

E-Mail: info@ebinger.org

