

## Transportation

The MINEHOUND VMR3 comes ready-to-use in a transportation case, with all accessories:

- Four test pieces (mine surrogate)
- Two rechargeable Li-polymer batteries
- Charger for 2 battery blocks
- Mains cable
- Battery compartment for 4 round cells D-size
- 4 x 1.5 V round cells D-size
- Belt for arm-rest
- Headset
- Field manual
- Operation manual



## Technical Data

Measuring principle:	Dual sensor MD + GPR
Weight (ready for operation): with Li-polymer cells	approx. 4.0 kg
Telescopic bar length: (handgrip - search head)	52.5 - 92 cm
Dimensions of search head:	17.9 x 31.5 cm
Power Supply:	Lithium Polymer cells, rechargeable, additional: battery compartment for 4 x 1.5 V, D-cells
Power consumption:	< 5 W
Operation Temperature:	-31 °C to +63 °C
Storage Temperature:	-51 °C to +71 °C
Environmental conditions:	According to MIL STD 810F F501.4-I, II, F502.4-I, II, F503, 4-I, F506.4-III, F512.4-II, F01 514.5 C-1, C-3, F516.5-IV
Soil programmes (MD):	normal soil mineral soil
Waterproof: (with Li-polymer cells)	up to 1.5 m water depth (max. 30 minutes at an ambient temperature of 20 °C)
Alarm signal:	audio , visual, vibration
Transport case:	101 x 42 x 17 cm
Transport weight:	approx. 14 kg

<b>Control functions in the handle</b>	
ON-OFF-Button:	ON, OFF
Setup-button:	N = normal soil M = mineral soil SETUP
MODE:	MD only GPR only MD and GPR
-C+:	reduce sensitivity or volume increase sensitivity or volume compensation
LEDs:	MD and GPR
Sweep speed:	< 1.5 m/sec
Input/Output:	Headset Firmware upgrade

<b>Metal detector performance</b>	
Power line suppression:	Yes
Demining environmental conditions:	All world

**GPR Performance**  
The GPR detects AP and AT mines in almost all soil conditions, but not in heavy clay (like used for pottery) or salt water.

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All technical data are subject to change without prior notice.  
All dimensions ±3 %.

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# VMR3 MINEHOUND

## DUAL SENSOR MINE DETECTOR

- Comprising a metal detector and a ground penetrating radar (GPR)
- Metalfree mines and IEDs can also be detected
- Ultra high sensitivity
- Easy operation
- Alarm:
  - visual bargraph
  - audio signal
  - vibration
- Simultaneous operation of metal detector and GPR possible
- Lightweight



## VMR3 MINEHOUND

## DUAL SENSOR MINE DETECTOR

VMR3 MINEHOUND is an advanced technology, combining leading-edge ground penetrating radar (GPR) and high-performance metal detector (MD). The unit has been designed specifically for use in the most challenging military and humanitarian demining operations.

The GPR responds to even the smallest flush buried mine (diam. > 5 cm), but not to small metal fragments. This means that metallic clutter, which commonly cause false alarms such as bullet casings, small arms rounds and shrapnel, is rejected by the system. The GPR also detects mines with minimum or zero metal contents which are normally difficult to locate using metal detection techniques alone. MINEHOUND VMR3 uses a MD produced by Vallon GmbH (VMH3) and a custom designed 1 GHz GPR designed by Cobham Technical Services (the new trading name of ERA Technology Ltd). The GPR is a time-domain radar transmitting short pulses. A dedicated state of the art DSP processor is used to provide all control and signal processing functions.

MINEHOUND VMR3 is a new technology which requires special training of the operator team before working in a 'live' minefield situation.



Position for standing

Position for kneeling

MINEHOUND VMR3 is simple to use, providing the operator with clear audio signals to alert the presence of a potential mine threat. When a threat is located, the MD audio provides accurate position information and mass of metal indication. The GPR audio provides additional position and depth information, and gauges the radar cross-section of the target. Both detectors can be used separately or together.

MINEHOUND VMR3 is switched on by a press button. With the Setup-button the programs for the metal detector programs N (normal soil) and M (conductive soil) are activated. The configurations for MD and GPR are selected with the MODE selector. A headset and an embedded loudspeaker, which can be muted, are also part of the scope of supply.



The highly effective Li-polymer battery is fixed to the end of the electronics unit.



The battery charger can be connected to the mains or to a car battery.



A push button in the handle allows the operator to select the operation mode MD or GPR or both. LED's MD and GPR indicate which function is operative.

Two batteries can be charged at the same time. LED-indicators show the actual charging condition of the batteries.

The MD function is the prime search capability and offers a highly sensitive technology to locate even minimum metal mines (such as PMA3 and M14). The operator can set the MD sensitivity. The setting is observed by means of a LED bar graph display.

The GPR is self-calibrating in use by the operator. The GPR mode will give an audio confidence tick every 7.5 sec. to indicate correct operation. If a serious error condition occurs in the GPR, the LED bar display flashes.

