HBA
SYSTEM INTEGRATORS
High-tech solutions for defense industries

Scope of Supply (Photos available on request)

1) *Vehicle V4 290*

1 Non-magnetic frame
from aluminium and glassfibre compound components for holding 3 sensor tubes mounted at a distance of 0.5 m, or 4 sensor tubes, mounted at a distance of 0.33 m, VF2, VU2, power supply set, cables and GPS-Receive r.
2 wheels *8402200002*
with axle and sliding bearings. Wheel diameter 80 cm, material glassfibre compound
15 Velcro tapes
1 GPS-antenna mast *2902200045*
1 Holder GPS-receiver *2909990623*
1 Holder VF2 *2902200059*
1 Holder VU2 *2902540107*

2) *Central unit VU2 2002540*

1 Central unit for 1-4 sensors
- Bluetooth and RS232 output for VF2
- On / Off switch with lin x 1 / x 10
- Button for Comp and Test
- Coarse compensation ± 3500 nT

including accumulator 7.2 V
2902540004
1 Mounting set VU2 *2902540002*
1 Charger VU2 *5900002007*
1 Carrying case VU2 *2802540101*

3) Field Computer *VF2 2002170200*

1 PDA with firmware for data recording
with navigation aid, in-built rechargeable battery 3Ah, data data input via RS232 and Bluetooth, stylus pen *2909990643*
1 Data cable VF2-VU2/EL130xx *2502540003*
1 Clamp for fixing to Ferrous Locator *2809990061*
1 Belt for fixing to the operator's wrist *2809990063*
1 USB Memory stick with cable *2902170023*
1 Charging cable 12 V (car battery) *9190006015*
1 Charger 100-240 V AC (mains) *9190006016*
1 Connection cable VF2-PC *9190006018*
1 Connection cable VF2-USB Stick *9190006027*
1 Carrying case *8902170201*

4) *Sensor set 229099900674*

4 digital sensor tubes "VSM" with cable
Outside diameter = 32 mm,
sensor base = 50 cm,
total length = approx. 70 cm

5) Set Power Supply *2909990488*

1 Rechargable battery pack (12 V/9.2 Ah) with fixing clamp *2909990473*
1 Charger 230 V (50 Hz/12 V DC) with mains cable *2909990472*
1 Power cable *2502230003*

6) *GPS OmniSTAR 8305HP cplt. 9150006003*

1 OmniSTAR 8305HP-receiver
1 OmniSTAR 8305HP-antenna
1 Antenna cable
1 Software to display the x-, y- and z-position
1 Regional OmniSTAR HP-Licence for the first year
1 installation

7) *Accessories*

1 Converter 12 V for VU2 *2902200060*
1 Data bus to connect 4 sensors to VU2 *2909990683*
1 Bluetooth® RS232 mini-adapter for OmniSTAR 8305HP™ *2809990069*
1 Protective cover for GPS-receiver *8809990004*
1 Metal case to store sensor set (item 4)

Sensor Vehicle V4

- **Time-saving ground survey**
- **Rigid and lightweight**
- **4 Ferrous sensors**
- **PDA Data logger**
- **Navigation aid**
- **True-to-scale data acquisition**

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SENSOR VEHICLE V4

The non-magnetic sensor vehicle V4 is the appropriate sensor platform for ground survey of large areas to detect ferrous objects like non-exploded bombs and grenades.

Between two large glassfibre reinforced plastic wheels (80 cm diameter), four sensor tubes (fluxgate) are mounted to a non-magnetic support frame. Depending on their size, the ferrous objects lying on the ground are detected even beyond the sensor vehicle.

For data acquisition the 4 sensor tubes are connected via data bus to the Central Unit VU2. The survey data are transmitted to the Field Computer VF 2 (ruggedized, weatherproof PDA* with firmware).

The display of the field computer VF2 shows the nT-values of the tracks covered in real time, or, if a navigation system is used, it serves also as control whether all points of the surface in question have been covered.

Navigation

For true-to-scale data recordings, the data logger VF2 requires information about the location of the sensors.

The most comfortable way of navigation is the use of a Satellite-Navigation-System (GPS). The GPS antenna is attached to the centre of the vehicle, and supplies the exact coordinates to the Field Computer VF2 via bluetooth® . Coordinates and nT-values are stored together.

HBA GmbH offers the system 8305HP of OmniSTAR. This is a wide area GPS augmentation system that provides high performance positioning for the land based user. Outstanding features of the OmniSTAR 8305HP-Receiver:

- low maintenance
- cost efficient L-Band-technology
- accuracy in HP-mode: standard deviations horizontal < 10 cm, vertical < 15cm
- PPS-signal for synchronisation with data recording software

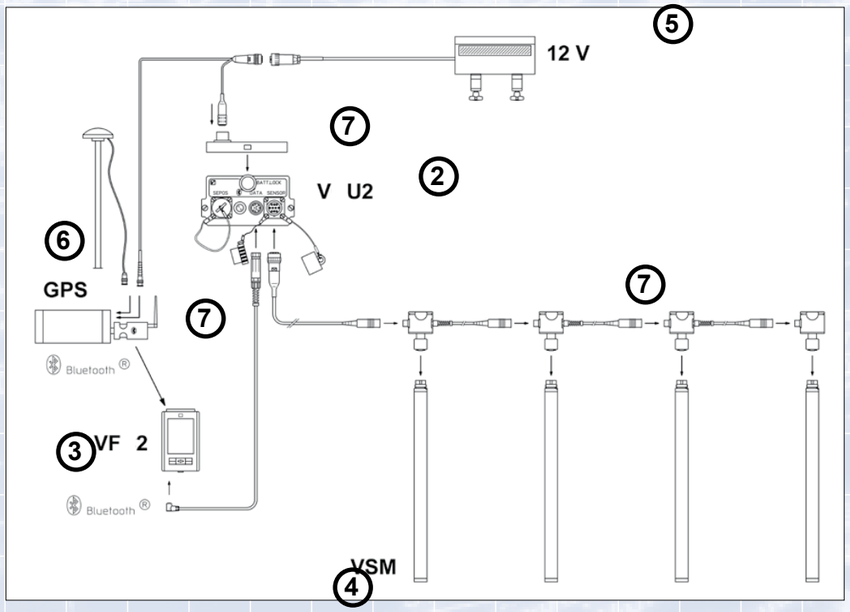
The device incorporates many features for flexible operation, including three bi-directional COM ports, a rugged enclosure, access to strobe signals and field-upgradeable software.

For further technical data please refer to the separate leaflet of OmniSTAR 8305HP.

Bluetooth ® - registered trademark of Bluetooth SIG, licensed to Vallon GmbH for use

*) PDA = personal digital assistant

Installation



Data Acquisition

Preparation

Simple menus for setting the parameters with a stylus.

Data Acquisition

During data acquisition, the screen can switched over to a navigation aid which visualizes the scanned tracks.

Result

The typical functions required for data acquisition are entered via the rigid push buttons of the VF2.

Evaluation

The evaluation of the recorded data is done with a PC using ours software.
The automatic object evaluation is very useful, allowing time-saving survey of large areas.