

# MAGNETOMETER MAGNEX 120 LW



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NSN 6695-12-349-1502

### APPLICATION

The **MAGNEX 120 LW** is used to locate ferromagnetic objects buried underground. UXO and pipes are typical search objects for the Magnetic Anomaly Detector, which is preferably used in the field of post-conflict battle area clearance.

Size position and magnetic intensity of the search object determine the possible detection range. Large ferrous objects can be located as far as up 6 meters buried underground.

The ergonomic well balanced design ensure an easy handling. The sensitivity stepping switch and the compensation knob can be operated with the same hand the detector is held with. The essential operation as well as batteries and electronics circuitry are integrated into the carrying. External battery container or electronic boxes interfering to the operator during search are now a thing of the past.



### OPERATION PRINCIPLE

The MAGNEX 120 LW is a saturation magnetometer working as differentiating field strength meter. The design is based on two inductors, which are sensitive to magnetism and placed inside the probe. They indicate magnetic anomalies in the natural field. Both inductors are connected as differential bridge to suppress the homogenous terrestrial field. Magnetic anomalies coming within the range of the probe will generate an electric difference which is transformed into a positive resp. negative reading corresponding to the magnetic signature of the detected object. This indication, is also converted into a threshold-less audio signal. Indication starts by single signal pulses, which increase in frequency when approaching an object.

### CONSTRUCTION

The MAGNEX 120 LW is a battery operated magnetometer designed for use in adverse conditions. It is designed as a compact unit, which consists of : the probe, the galvanometer, the control section with stepping switch and compensation button and the battery rod with closure.

The probe can be dismantled for immersion under water or in bore holes. A 25 meters immersion cable and non magnetic ballast can be supplied as options.



#### TECHNICAL DATA

Power supply : 6 batteries 1,5 V, type LR20  
 Operating time : 40 h to +20°C approx.  
 Sensitivity level : 3000-1000-300-100-30-10 nT approx.  
 Test rod indication : 20 parts of scale in range 5  
 Temperature range : from -20°C to + 50°C  
 Weight of the device : 4,3 kg approx.  
 Weight of transit case : 8 kg approx.  
 Dimensions : total length 1260 mm  
                   total height 760 mm  
                   probe height 600 mm  
 ABS transit case : 820 x 370 x 170 mm