

# DIVER HELD - MAGNETOMETER

# DX-300



## SEARCH APPLICATIONS

**Wreckage** - Ideal tool for the location of buried ferrous wreck material. Unlimited applications in all types of archaeological wreck investigation, ideal diver operated tool to locate items buried deep in sediment. Allows accurate mapping of all buried ferrous material prior to seabed disturbance. Can also detect the presence of some forms of ballast material which in many cases gives a magnetic response.

**Pipes and Cables** – Ideal for locating and mapping pipes and armoured cables buried in sediment. Burial depths of between 1 metre and 7 metre dependent on the diameter of the pipe or cable.

**E.O.D & Security** - Unlimited applications in all types of underwater investigation for the presence of ordnance, weapons etc.

**Salvage** – A useful tool for the successful recovery of lost items either in low visibility or where lost in soft sediment. Ideal tool to complement surface operated searches.

## INTRODUCTION.

The *AQUASCAN DX-300* has been developed as a powerful detection tool for the diver, providing a solution for a multitude of detection requirements. One major role is to complement the towed magnetometer where solid evidence from the surface survey is met with a flat apparent debris free seabed, diver investigation with the *DX-300* can readily pinpoint deeply buried ferrous anomalies. The *DX-300* supercedes the popular and very successful *DX-200* version and features an even higher sensitivity and stability.

The system has a selectable sensitivity which in itself can assist in the progressive pinpointing of a target, response is indicated by an audible tone allowing the diver to determine the the closest proximity to a target by the progressive increase in audible tone.

## FEATURES

- ◆ DEEP DETECTION
- ◆ FAST RESPONSE
- ◆ RECHARGEABLE
- ◆ 12 HOURS BATTERY USE
- ◆ 100m (330FT) DEPTH RATED
- ◆ COMPACT DESIGN
- ◆ ROBUST HOUSING



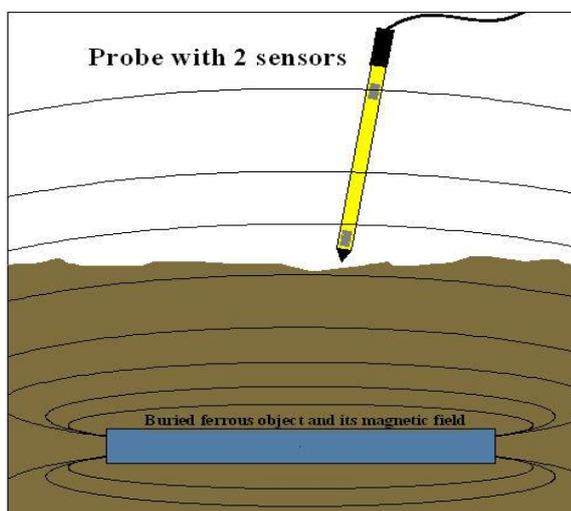
# DX-300 DIVER MAGNETOMETER

## SYSTEM DESCRIPTION

The DX-300 has been designed to utilise the same housing as the familiar AQUAPULSE (AQ1B) range of metal detectors. The system comprises a robust electronic module together with a one metre length detection probe, a slim Bonephone (or optionally Underwater Headphones) and a universal mains charger. Connections are made to the control unit with the same robust underwater Ikelite connectors as the AQ1B range.

The mains charger, Bonephone & Headphones are identical to those supplied with the AQ1B family, this allows existing AQ1B owners to utilise these items on a crossover basis. An internal NmH battery pack gives a minimum of 12 hours operation when fully charged and can be readily topped up at any time without the drawback of “memory” effects.

The system utilises a pair of high sensitivity Fluxgate magnetic sensors with a 600mm (approx 2ft) spacing, these are built into a robust GRP probe together with a pre-conditioning combiner circuit. A two metre polyurethane sheathed cable couples the probe to the control unit via an Ikelite connector. A Low Medium and High sensitivity mode can be selected, this allows the system to be progressively de-sensitised as a target is investigated. The audible output can be preset to be silent or at a low frequency such that a minor change in pitch can be observed, this is how the presence of metallic items are determined. The proportional nature of the audio response allows the object to be accurately pinpointed or tracked as in the case of a pipe or cable. The nature of a response can also be helpful in determining the way an object is lying – such as an anchor or cannon.



Basic outline of sensing a magnetic gradient

## SPECIFICATION

### MATERIALS & DIMENSIONS:

#### INSTRUMENT CASE

Housing material .....	Machined uPVC
Housing Dia .....	110mm
Overall length .....	190mm
Transit case.....	18cm x 43cm x 101cm

#### MAGNETOMETER PROBE

Probe housing.....	GRP
Probe Dia .....	25mm
Probe Length.....	750mm

#### CABLE

Construction.....	Twin core + shield
Diameter - .....	6.0 mm
Sheath .....	Polyurethane
Length.....	2m (approx 6ft)

#### POWER

Power .....	Internal Rechargeable NiMH battery
Charger .....	Universal 100-250v AC
Charge time (from fully discharged).....	12Hrs

#### CONTROLS

Power .....	On/Off – Incorporated with Sensitivity
Sensitivity Switch .....	Off/ Low/Med/High
Set Audio .....	Multi-turn control

#### WEIGHTS

Control Unit.....	1.4Kg
Probe & 2 metre cable .....	0.7Kg
Professional system in transit case .....	15 Kg



DX-300 module controls & Connections