

### Overview:

The Retriever system provides an invisible fool-proof method of permanently or temporarily marking locations on the ground, such as underground cables, conduits, vegetation quadrats or archeological sites.

The system consists of transponders that are buried at the locations to be marked and a receiver unit (Retriever) that activates and detects the transponders.

### Transponders:

The transponders are low frequency radio receiver/transmitters. They are buried vertically below the surface and are therefore safe from vandals and grazing animals. Two transponders sizes can be supplied, depending on the burial depth and detection area required.

### Retriever:

The Retriever is a lightweight all-weather unit which consists of a control box and hand-held antenna. The unit is very easy to use and the search area can be rapidly scanned. The proximity of the marker is indicated by an increase in frequency of the audible output, and a maximum audible output is obtained when the antenna is directly above the marker. The exact position of the marker is then rapidly found using the pinpoint mode. GPS systems are often used to locate the 'search area'.

### Features and Benefits

#### Transponders:

- ◆ Unlimited life, no batteries
- ◆ Invisible from the surface
- ◆ Small size, fully encapsulated
- ◆ Waterproof - can be used underwater
- ◆ Robust
- ◆ Waterproof label with individual serial number

#### Receiver Unit (Retriever):

- ◆ Responds only to the markers
- ◆ Rapid location
- ◆ Precise location with pinpoint mode
- ◆ All-weather operation
- ◆ Easy to use
- ◆ Lightweight and robust

# Retriever System Specifications

## Retriever Unit:

Audible Output:	High output pulse with adjustable volume
Controls:	ON/OFF Volume Pinpoint/Search mode selector Auto-tune push button
Indicators:	Low battery alert LED
Antenna:	Waterproof with lead integral to handle
Control Box:	Waterproof polycarbonate
Batteries:	6 C size alkaline batteries

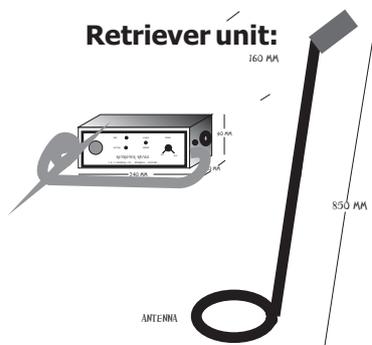
## Transponders:

Construction:	Fully encapsulated
Waterproof:	Fully waterproof and will function when submerged
Operational life:	Indefinite
Labeling:	Waterproof label with individual serial number

The transponders are positioned vertically in the ground. The vertical detection distance is the maximum depth at which the marker can be detected by the Retriever unit. The horizontal detection distance is the maximum horizontal distance that the transponder can be detected from the centre of the Retriever unit antenna. The detection area is the area over which it can be detected. Transponders can be manufactured to suit specific applications. The most popular transponders are listed below.

Order code	Dimensions (diameter x height)	Detection Distances (mm)		Detection area (metre <sup>2</sup> )
		Vertical	Horizontal	
CTT1	20 X 55	950	800	2.51
CTT6	20 X 122	2000	1900	11.34
CTT6S	26 X 122	2000	1900	11.34

\*CTT6S is a heavy duty version of CTT6 and is used in positions where the markers may be subject to mechanical stress.



**Transponder:**

