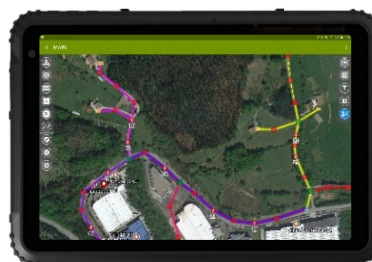# MRT-500

Underground Cable and Pipe Locator

MRT-500 Underground Cable and Pipe Locator, locates and traces quickly, easily, and accurately in the **distribution networks:**

- **Energized cables**
- **De-energized cables**
- **LV, MV and HV lines**
- **Metallic and Non-metallic pipelines**

Specially designed for utilities to trace underground lines in the distribution networks, as well as pipelines.

Compatible with **GridGIS Map Creator** app, for mapping the cable network (*developed by Ariadna Grid*).

MAIN FEATURES

- **Receiver with 5 Sensors,** strategically distributed
- **Visual and acoustic indication** of cable/pipe
- Measurement of the **depth** and **current amplitude**
- Depth measurement accuracy (<3% up to 2m; <5% up to 10m)
- Detects 4 active and 2 passive frequencies
- Up to **10 mts depth** (factory configurable for higher values)
- **Operation time >20h**
- **Transmitter with 10W** of power, user-adjustable
- Correct performance > **10 km in length**
- Rechargeable **internal battery** in both devices

ADVANCED FUNCTIONALITIES
Optional

- **App for mapping the cable network**, GridGIS Map Creator
- Tracing and detection of probes in **non-metallic pipes**

merytronic
gorlan

MRT-500 TX / Transmitter

Versatility: Injects different active tracing frequencies by three different and optional way:

- **Direct connection** with crocodile clamps:
  De-energized electric cables, communications cables, water and gas metallic pipes, etc.

Accuracy: Measures loop impedance, making it possible to choose the best working frequency for each case.

- **Induced** with a **Clamp**
  Energized / De-energized MV and LV cables, communications cables, etc.

- **Induced Built-in Antenna**
  In case user, cannot reached cable, or its position is unknown, induction can be made from the earth surface using a built-in antenna

MRT-500 RX / Receiver

High-contrast TFT LCD display for easy and intuitive interpretation. Special indicators to aid in cable location and routing.

Versatility: Detects different active/passive frequencies (sent by MRT-500 TX)

Easy to use: Its built-in antenna configuration automatically calculates the target position with a digitally processed Algorithm

Intuitive Performance: Large display with different operating modes and parameters for intuitive tracing

Continuous depth: It measures automatically cable or pipe's depth with high accuracy in real time

Acoustic indication: A sound alert indicates the location of the buried cables or pipes. Internal speakers or headphones via 3.5 mm jack plug (not included).

MRT-500 Accessories

ACCESSORIES FOR ENERGISED CABLES

LIVE CABLE CONNECTOR
For a direct connection in energized cables.
Máx. Input voltage: 480 V.
Only works from CI-Tx SW V13 and ahead.

ACCESSORIES FOR DE-ENERGISED CABLES

MULTIPLE PHASE CONNECTION KIT
Allows to connect the 3 phases to earth

GROUND EXTENSION KIT
For earth connection. Length: 10m.

ACCESSORIES FOR METALLIC PIPES

NEODYMIUM MAGNET
A quick direct connection to pipeline.

GROUND EXTENSION KIT
For earth connection. Length: 10m.

ACCESSORIES FOR NON-METALLIC PIPES

CABLE GUIDES
Different lengths.
Cable conductive o no-conductive

PROBE
Different diameters.
8kHz and 32kHz frequencies

Technical features

MRT-500 TX		MRT-500 RX	
Size	315x255x150 mm	Size	790x370x160 mm
Weight	2.5 kg	Weight	2.2 Kg
Protection	IP65	Protection	IP54
Active signal frequency	640 Hz 8 kHz 32 kHz CPS	Active signal frequency	640 Hz 8 kHz 32 kHz CPS
--	--	Passive signal frequency	50/60 Hz 8/33 kHz (sondes) 14/27 kHz (radio)
Max. output power	10W	--	--
Max. output current	500mA	--	--
Operating temperature	-20 /+ 60ºC	Operating temperature	-20 /+ 60ºC
Rechargeable interna battery	7.4 V 7.8Ah Li-ion	Rechargeable interna battery	7.4 V 7.8Ah Li-ion
Battery power supply input	100-240Vac 50/60Hz 0.55A	Battery power supply input	100-240Vac 50/60Hz 0.3A
Battery power supply output	12VDC 2A	Battery power supply output	12VDC 2A
		Internal speaker	Yes (acoustic indication)
		Headphone output	Connector jack 3.5mm

Safety standards:
IEC 61010-1:2011 / UNE-EN 61010-1:2011

EMC standards:
IEC 61326-1:2012/ UNE EN 61326-1:2013

Safety standards:
IEC 61010-1:2011 / UNE-EN 61010-1:2011

EMC standards:
IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11

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Power cable identification and location solutions