



# MT 512+ Locator/Receiver User Manual

## Important Notices

**WARNING!** Failure to follow these warnings could result in serious injury or death.

- Only persons qualified and trained to operate cable & pipe locators may operate this equipment.
- Follow appropriate safety procedure, your companies policies and applicable safety codes and/or laws.
- Do not connect to utilities, cables or pipes without authorization and training. Use tool only for intended purpose as described in this manual
- Do not expose tool to rain or moisture.
- Do not expose to hazardous chemicals, hazardous gas or explosive environment.
- **SHOCK HAZARD** - Lethal voltages may be present at the transmitter's output. Turn off transmitter before touching test lead or any un-insulated conductor. Make connection to ground and target conductor before turning on transmitter.
- **SHOCK HAZARD** Do not connect to live voltage or active utility lines. De-energize any circuits in or around the work area.
- This tool is designed to detect electro-magnetic field emitted from cables and buried metallic utilities.
- There are buried cables, pipes, and utilities this instrument CANNOT detect.
- LOCATING is not an exact science. The only certain way to be sure of the existence, location, or depth of buried utilities is to carefully expose (dig up) the utility.

### DISCLAIMER OF LIABILITY

MYTANA LLC SHALL NOT BE LIABLE TO ANY PERSON FOR ANY INCIDENTAL, INDIRECT, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, OR INJURY OF ANY TYPE WHATSOEVER, CAUSED DIRECTLY OR INDIRECTLY BY PRODUCTS SOLD OR SUPPLIED BY MYTANA LLC.

The MT 512+ Locator detects transmitted signals in order to:

- find the position of a sonde or inspection camera head
- find and trace buried pipes and cables

This guide provides information for using the Locator to locate 512Hz sondes. For more in-depth instructions on using Line Mode operations, see separate instruction sheet for MT 512+ Locator and the multi-frequency Transmitter Box.

For safety and for best operation, please read and understand this manual in its entirety before using the product.

As you unpack the Locator, inspect for any shipping damage. Notify us right away if you see anything.

The MT 512+ is powered by a rechargeable Lithium ion battery, a recharging cord and power adaptor are included.

It is recommended to charge the Locator for at least 5 hours before use.

The recharging port is on the back of the Locator housing.



### IMPORTANT – TEST the Locator before every job.

Tests alert you to any miscommunication between the sonde and Locator, low battery or other problems that could cause difficulties on an actual locate.

- Insert the camera or sonde a few feet inside the cleanout and locate the signal.

**It's worth your time to do a quick test!**



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# Interface

Indicators

Left/Right Guidance

Relative Signal Strength Bar Graph

Gain Level

Depth Estimate

Battery Life

Frequency

Controls/Operation

Power Button

Mode Select Button

Frequency Button

Gain Buttons (down / up)

554

105"

512 hz

848 mA

512 hz

Absolute Signal Strength

see notes below

Line Orientation

Current

N/A in Sonde mode

Operational Mode

Sonde   Line

Antenna Locate Mode

N/A in Sonde mode

Absolute signal strength

Absolute Signal Strength is displayed as 3 digits ranging from 0 (very weak signal) to 999 (very strong signal).

The number is independent of the Gain setting and Signal Strength bar graph meter readings, however Absolute Signal Strength will not be displayed if the bar graph meter reading is too high or too low. Adjust the Gain to move the meter reading to mid-scale.

The Absolute Signal Strength measurement is more sensitive to signal changes than the bar graph. Peaks and nulls can be more precisely pin-pointed, and signal loss can be monitored as a conductor is being traced.

Modes

There are 2 main operational modes SONDE and LINE

(Line mode requires a multi-frequency Transmitter).

Power Button

• Short press to power on/off, programmed settings will load. Unit also shuts off automatically after 10 minutes of no use

• Access programming mode to customize operations (pg 4)

Mode Select Button

• Short press to toggle through and select **pre-programmed** operational / antenna modes

Frequency Button

• Short press to toggle through and select operating frequency – NOTE: only **pre-programmed** frequencies in the active mode will be available to select

• Also used in Programming (pg 4)

Gain Buttons (down / up)

• Short press the applicable button to adjust the gain down or up in small amounts. If the Signal Strength meter reading is very low or high, adjusting Gain will re-center the meter.

• Also used in Programming (pg 4)

## Programming/Presets

- See page 4 for:
- List of frequencies available for each mode
  - Programming options
  - Instructions to change preset modes and frequencies

The MT 512+ is Factory preset to:

Operational mode	Frequencies programmed w/ this mode
Sonde	512 Hz
Line – Wide Peak w/ LR guidance	8 kHz   82 kHz 33 Hz   Passive 60

In LINE operational mode, there are 7 antenna modes available:

Wide Peak

Pin-point Peak

Null

L/R Guidance only

each has L/R guidance option

# Locating a Sonde or Camera Head

The Locator is factory preset to detect a signal from a 512Hz sonde or camera head transmitter.

- The Locator can also detect 640Hz, 815Hz or 33kHz sondes, but these frequencies must be programmed (added) to the Sonde operational mode first, see page 4.

Practice and patience are key to locating success. Before going on your first job, take your Locator and sonde out see how the unit detects the signal and become familiar with the display feedback and information.

## Starting Out

Keeping the MT 512+ Locator in a vertical position, move the Locator left to right (don't swing) as you walk across the suspected area of the pipe.



When the Locator detects the transmitter's signal, the audio signal will rise and the signal bar graph will fill in black. If you move away, the meter reading and audio will drop off.

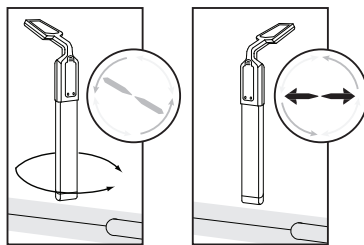
The guidance arrows will help to direct you to the strongest signal as well.

If the audio is very high pitched or the meter bars are in the upper half of the display, adjust the Gain down to bring meter bars back to the middle.

Keep moving and adjusting Gain, to keep the Absolute Signal Strength increasing.

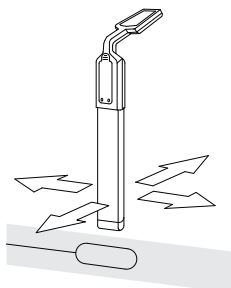
As it increases:

**Rotate the Receiver** as shown right. When pivoting the Receiver, do not change the vertical position. The Line Orientation arrows will be at 3:00 and 9:00 when properly aligned with the sonde.



**When signal strength seems to be at a peak, check for ghost signals**

- Move the Locator side to side and forward and back as shown right.
- Look ghost signals ahead of and behind the sonde and on either side of the pipe.

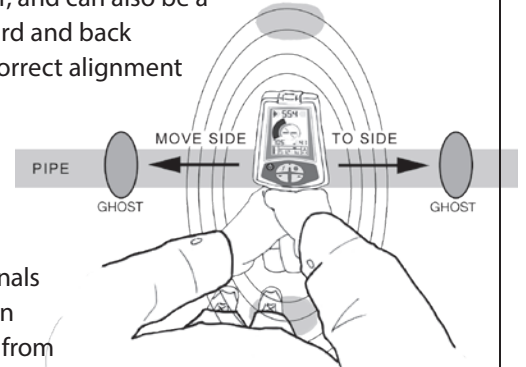


If ghost signals are not detected, keep moving down the line.

## Ghost Signals

When you are very close to the sonde, be aware of false peak meter spikes which indicate ghost signals generated by the radiation pattern of the sonde (see below).

Ghost signals are generally a few feet to left and right of the transmitter, and can also be a few feet forward and back as you are in correct alignment with the pipe.

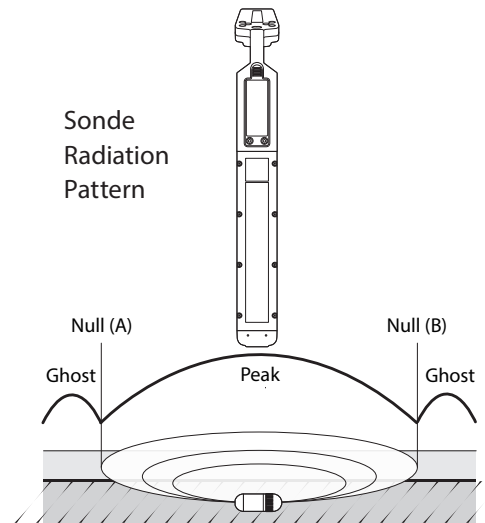


These false signals are weaker than the true signal from the sonde, and can be confusing. However, they should be used to pinpoint and verify the location of the sonde.

Mark suspected ghost signals that you find, the true signal will be found in the middle.

## Peak Signal

The peak signal is when the Locator is held directly over the sonde, as confirmed by locating the ghost signals, and parallel with the line and sonde.




**Your goal is to get the smallest (shallowest) depth measurement with the highest Absolute Signal Strength reading.**

# Changing preset functions, modes and frequency sets


The ST512+ operating modes, frequencies and other functions can be changed through a quick activation process in the programming menu, see instructions below.

Programmed settings will be available every time you power up the Locator for use, until you change them.


## To change the programming options:

-  With the unit on, press and hold the Power button for 3 seconds. Once released "PRO" will be displayed at the top of the LCD.


### STEP 1

-  Press the frequency button to toggle through Main Menus

### STEP 2

-  To access a sub-menu (which may only show On/Off option) press the Gain UP button


### STEP 3 – IN THE SUB MENU

-  SHORT PRESS the frequency button to toggle through any sub-menu options

PRESS AND HOLD the frequency button to change a menu status from ON or OFF (your preference will show)


SHORT PRESS the frequency button to continue to toggle through any more options in the sub-menu

Once the options in a sub-menu are turned off or on to your satisfaction,

-  PRESS the Gain DOWN button to exit the sub-menu and save its settings.

Return to STEP 1 to change more main menus....

or exit the programming mode by

-  pressing the Power button and return to normal operation

MyTana ships the MT 512+ programmed ready to locate 512Hz camera heads and sondes, and a general purpose line tracing mode:

Operational mode	Frequencies progr'med w/ this mode
Sonde	512 Hz
Line – Wide Peak w/ LR guidance	Passive 60 8 kHz 33 kHz 82 kHz

*Note: you can't turn off the 512Hz frequency in the Sonde menu*

Main Menus		Sub Menus (or ON / OFF)	
Vol	select the audio volume, or mute	1, 2, 3 (low, medium, high) Off is mute	
Light	turn backlight off/on		
Units	display imperial (default) or metric units	Metric On/Off	
Orient	Line Orientation indicator		
Current	Constant Current measurement (Line mode only)	LINE Modes	
Accessory	N/A	w—Pk	Wide Peak
Vibration	Turn on/off haptic feedback (Line mode only)	w—pk ><	Wide Peak w. L/R guidance
P-Link	N/A	P - - Pk	Pin-point Peak
Battery	Select Litium-ion (default) or alkaline	P - - Pk ><	Pin-point Peak w. L/R guidance
Pa Sw rd	Set a password NOT recommended *	Null	Null
P Alert	Alert when you're near a live line	Null ><	Null w. L/R guidance
OPMode	Select mode(s) for normal operation	LR	L/R guidance only
Sonde	Select frequencies for use when in Sonde operating mode	Sonde	SONDE mode
Line	Select frequencies for use in programmed Line modes – must program the desired Line mode first in the OPMode menu	512 Hz / 640 Hz / 815 Hz / 8 khz / 8.9 khz / 9.8 khz / 33 khz	
		pwr 50 / CP5 /pwr 60 /CP6 / 512 hz / 640 hz / 797 hz / 815 hz / 4 khz / 8 khz / 8.9 khz / 9.2 khz / 9.8 khz / 33 khz / 65 khz / 82 khz / 131 khz / 200 khz / RF / WRF	

*\*We are not not able to help if password is lost or forgotten*

## Available Frequencies Overview

	512 Hz	640 Hz	797 Hz	815 Hz	4 kHz	8 kHz	8.9 kHz	9.2 kHz	9.8 kHz	33 kHz	65 kHz	82 kHz	131 kHz	200 kHz
SONDE	•	•		•		•				•				
LINE	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Passive: Power modes 50env and 60env, RF, WRF, Rectified CP 50Hz and 60Hz