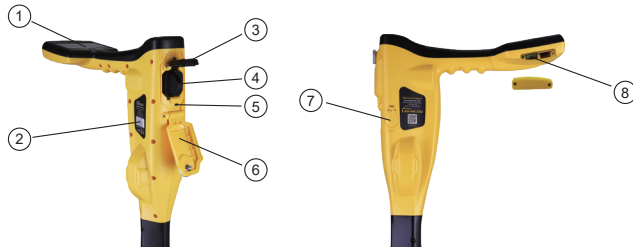


vLoc3 Series Quick guide* V1.2

(vLoc3-Pro, vLoc3-5000, vLoc3-ML, vLoc3-XLF)

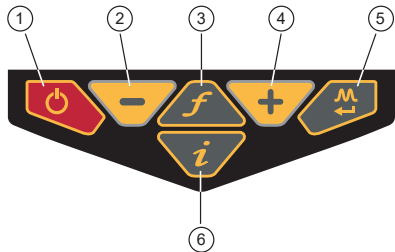


vLoc3 Series Receivers - Overview



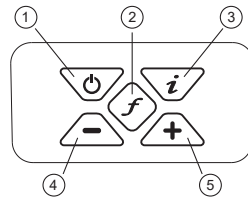
1 Pushbutton keypad & display	5 Mini-USB Port for data transfer and firmware updates
2 Model & Serial numbers	6 Battery compartment cover
3 Battery retaining clip	7 Accessory socket and charging port
4 Battery compartment - Li-ion or Alkaline battery packs	8 Bluetooth module expansion port

Receiver Keypad



1 On/Off button
2 Reduce sensitivity (scroll up when in the user menu)
3 Frequency selector
4 Increase sensitivity (scroll down when in the user menu)
5 Short press = Change between Peak, Null, Sonde, etc. Long press = Change operational screen
6 Short press = Enter information screen (Depth/Current/GPS) Long press = Enter user set-up menus

Transmitter Keypad (Loc3 series transmitters)



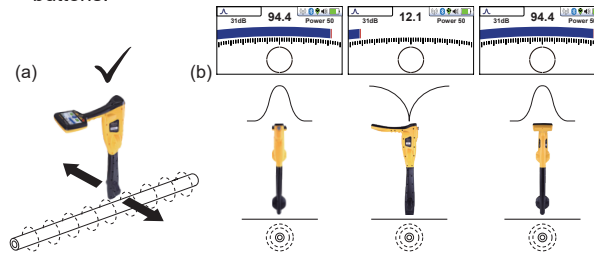
1 On/Off button
2 Frequency selector
3 Info = Volume, Volts, Ohms, multi-frequencies, LCD contrast, frequency menu
4 Output decrease
5 Output increase

Locating Utilities**

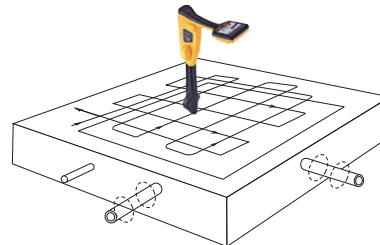
Passive location Power 60Hz and Radio

(No compass indicator is available in Power 60Hz or Radio Modes) All other Passive locate modes will show the Compass line direction indicator. And left/right arrows as seen in the Classic Locate Mode section of this document.

1. Select the passive frequency with the "f"-button. (If the desired frequency is not preset, switch to the user menu by pressing and holding the "i"-button and choose it in the sub-menu "frequency." Press the "Enter" button to highlight it. Go back with a short press on the "i" button.)
2. Hold the receiver vertically and adjust the sensitivity by pressing the "+" / "-" buttons so that the bar graph shows a signal.
3. Continue locating in a grid across the area. See illustration (a) below.
4. Determine signal maximum by carefully moving the receiver back and forth. Adjust the sensitivity again with the "+" "-" buttons.



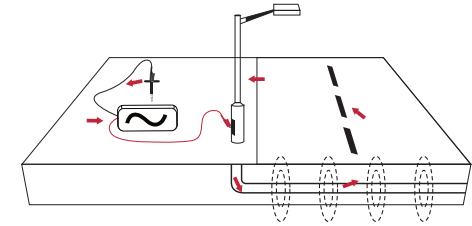
5. Continue to locate the position of the line.



Active locating

Direct connection**

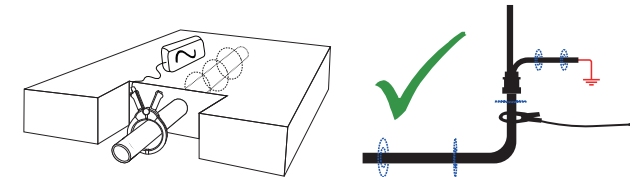
Connect the transmitter with the supplied connection leads. Connect the red wire to the target conductor and the black wire to ground. The ground stake should be at a 90o angle to the target line if possible. To help reduce signal interference, there should be no other lines (if possible) between the ground spike and the target line.



1. Switch on the transmitter and select the desired frequency with the "f" button (If the frequency is not present, use the "i" key to access "frequency selection" in the menu and mark the desired frequency with the "f" key. Press the "i" key to return. Always select the lowest possible frequency to minimize coupling to other lines.
2. Set the output power accordingly. (less is more)
3. From this point on, follow points 1 through 6 of the **Passive location 60Hz / Radio / CTV** section of this document.

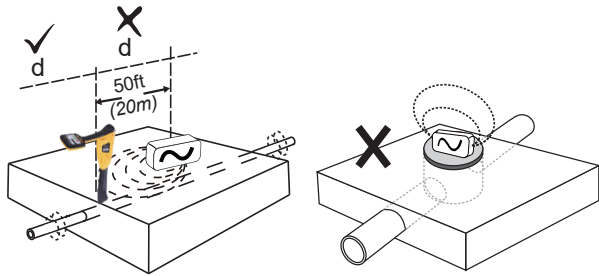
Signal clamp** (Frequencies above 8kHz):

Connect the signal clamp to the transmitter and place it around the corresponding target line. Then follow points 1 - 3 from the Direct connection section of this document.



Induction** (Frequencies above 8kHz):

Place the transmitter (without connection leads or clamp attached) on the ground with the handle in the cable's direction. Do not place the transmitter on manhole covers or other metallic objects as the signal will not be able to penetrate them. When locating, maintain a distance of at least 50ft from the transmitter. Otherwise, the airborne signal from the transmitter will be located and not the target line. Now follow points 1 through 3 in the Direct Connection section of this document.



Locate Screens**

For all subsequent locating views, except Transverse Graph and Sonde Mode:

The distortion level is displayed on the bar graph. Green = low interference, Blue = some interference, and Red = high interference level, treat the locating results with caution.



NOTE:
Locating views (classic, vector, plan view, transverse graph, and sonde) can be changed by a long press on the "Enter" key (approx. 2 seconds).

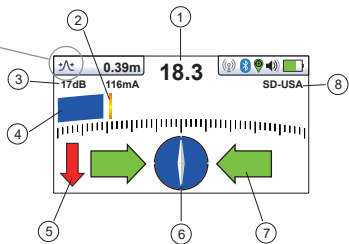
Classic locate modes (refer to the vLoc3 Series manual)

Available modes: peak, peak with arrows, null, broad peak, delta null, omni direction.

The individual modes within the classic view can be changed by a short press (<1 sec.) on the "Enter" button. If a mode is not visible or not desired, it can be switched on or off in the user menu (long press on the "i" key / classic display/selection with "Enter" key).

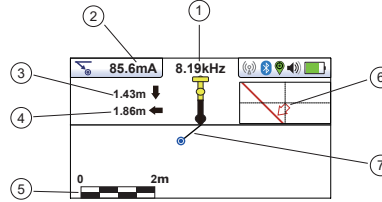
Antenna configuration:

Peak	
Null	
Delta-Null	
Peak with arrows	
Broad peak	
Omni direction	



1	Percentage signal strength
2	Peak level indicator
3	Gain setting
4	Bar graph signal strength indicator
5	Signal direction (SD) forward/backward arrows
6	Compass line direction indicator
7	Left/Right direction to target line indicators
8	Frequency selection

Vector Screen (Refer to the vLoc3 Series manual)
Shows a cross-sectional view through the ground.

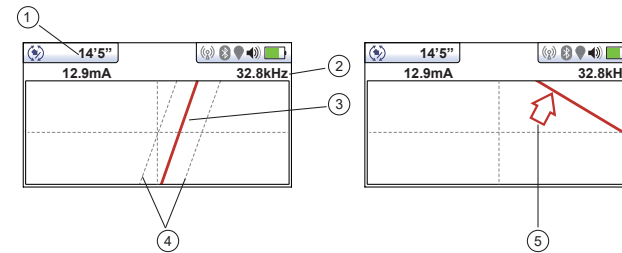


1	Frequency selected	2	Signal current
3	Vertical distance to the target		
4	Horizontal distance to the target		
5	Scaling (adjust with +/- keys)		
6	Shows plan view of the target		
7	Cross-section view that shows vectors to target		

Advantages: Automatic gain adjustment; line depth is permanently measured, even when running offset to the line.

Plan View (Refer to the vLoc3 Series manual)

Shows a picture as if you were viewing the line from above the ground.

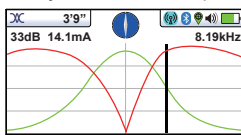


1	Depth and current readings	2	Frequency selected
3	Target line		
4	Lines of confidence (closer these are to the target line indicates more confidence)		
5	Arrow indicates the direction to move towards the line.		

Advantages: Automatic gain adjustment; easy finding/routing of lines with the 3D mode.

Transverse Plot Screen (Refer to the vLoc3 Series manual)

Analyze the field shape at a particular location.



The target line is below the receiver when both signal peaks are on the center line and the signal is not distorted.

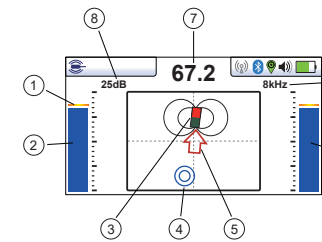
The centerline does not indicate the target line but serves as an orientation for the two signal peaks and the cable's alignment!

If the signal path is distorted, or the two signal peaks are not on the centerline, there is interference in the electromagnetic field. To determine the cable's exact position now, please refer to the user manual, section "Distorted fields."

Advantages: Automatic gain adjustment; Optimal analysis of signal distortion.

Sonde Location Mode (Refer to the vLoc3 Series manual)

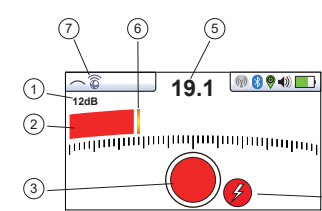
Locating non-metallic pipes with a sonde.



1	Peak signal detector
2	Signal strength bar graph
3	Sonde icon
4	Null point
5	Direction to sonde
6	Frequency selection
7	Numeric signal level
8	Gain setting

Marker detection - Pinpointing EMS Markers

Valid for vLoc3-ML or vLoc3 receiver with vLoc3-MLA attached.



1	Bar graph gain setting
2	Signal strength from marker
3	Marker detection ball
4	Marker type graphic
5	Numeric value of bar graph
6	Peak level indicator
7	Marker icon

Advantages: Simple marker location with immediate depth measurement at the push of a button. For more details on the dual-mode with parallel line and marker location, please refer to the user manual.

* Observe the manual's safety instructions regarding handling the devices, measurement results, and Li-ion batteries!
** Read the exact settings, evaluations, and safety instructions for locating in the user manual!

Warnings - Are audible sound with a vibration of the handle. Warnings can be activated or deactivated in the user menu.

Signal overload - When the receiver is too close to the inductive operated transmitter or a power transformer.

Shallow cable - When the cable is possibly less than 6-inches deep. Proceed with caution!

Swing alert - When excessively swinging the receiver. Doing so could result in misleading information.

Overhead cable - When the signal is mainly radiating from above distorting the below-ground signal.

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