VM-810 Receiver

A. Typical Applications

Item	Parameter
Description	Single high frequency locator receiver
Uses	Locating & pinpointing the position of buried pipes and cables

B. Receiver Assembly

Item	Parameter
Construction	- Aluminum - High impact thermoplastic (ABS) injection molded housing
Weight	3lbs *(1.36kg)(with battery)*
Dimensions	Collapsed: 22in(L) x 8.3in(W) x 11in(H) *(560mm x 210mm x 280mm)* Extended: 31.1in(L) x 8.3in(W) x 11in(H) *(790mm x 210mm x 280mm)*
Display Type	Black & white TFT 2.7" LCD WQVGA display (400 x 240 pixel)
Receiver Antennas	3 x Peak antennas, 1 x compass antenna
Batteries	2 x Standard D-Cell alkaline batteries
Battery Life	Alkaline – typically 65 hours continuous use at 70ºF *(21ºC)*
External Connectors	- 1 x 3.5mm Headphone jack (Use headphone with volume control) - 1 x Mini USB socket for software update - 1 x 4 pin Accessories jack
Compliance/Approvals	- Complies with European standard CE (Directive 99/5/EC) • EN 55011 • EN 61000-4-3 • EN 61000-4-2 • EN 61000-4-8 - Complies with FCC Rules Part 15 • CFR 47 Part 15: 2006
Standard Accessories	- Hard case - User handbook
Optional Accessories	- Headphone - Mini USB cable - Clamp

C. Operational

Item	Parameter
Information Displayed	- Signal strength : Numeric value - Distance sensitive Left/Right Centerline offset needle indicator - Compass: +/- 90° line direction indicator - Battery indicator - Depth and current reading
Sound Indication	- Tones for Left or Right - Fading when close to centerline - Silence when centered or signal is too weak
Configuration	Easy One button operation: - Automatic back light control - Short press – On - Long press – Off - Short press when unit is switched On – Depth and Current reading

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Operating Frequencies	83.1kHz (83,077.5 Hz)
Operating Modes	- Peak - Sonde
Gain Control	Automatic Gain control
Performance Using Single Undistorted Signal Source	Trace accuracy: - Distance Sensitive Left/Right Guidance™
	Current measurement accuracy: - 5% of actual current – up to 10ft *(3m)* - 10% of actual current – up to 20ft *(6m)*
	Depth measurement accuracy: - 10 feet (3m): +/-5% or 2” - 20 feet (10m): +/-10%
	Depth range: Dependent on strength of signal radiating to locator
Compatible with Transmitter	Loc-1Tx, Loc-5Tx, Loc-10Tx, 810, 810 classic, 810DX, VM-550 Tx

D. Sensitivity

Item	Parameter
Mode	Sensitivity at 3.2ft *(1m)*
83.1kHz	2 µA with fully functional L/R
Depth operational	Minimum 20µA

E. Environmental

Item	Parameter
Temperature Range	Operating: -4ºF to 122ºF *(-20ºC to 50ºC)*
Weather Proof	IP54 and NEMA 4
Shipping Weight	18.7lbs *(8.5kg) (With transmitter) (estimation)*
Shipping Dimension	22.7in(L) x 13.8in(W) x 4.3in(H) *(577mm x 350mm x 109mm) (estimation)*

F. Warranty

Item	Parameter
Warranty	12 months

G. Upgrade

Item	Parameter
Software	Software can be upgraded using a PC with USB port.

H. Features

Item	Parameter
Enhanced Features	- New look and ergonomic design - One button operation - Compass: +/- 90° line direction indicator - Automatic back light control – Excellent isolation from adjacent utilities – Efficient high power 1 watt transmitter facilitates long distance locating – Transmitter impedance matching maximizes battery life – Shows you the path – Left/right guidance system and audible tone pinpoints your utility and indicates strength of transmitted signal – digital signal strength – No manual gain adjustments – Fully automatic

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	- Determines depth – Quick and easy push button depth lightweight, and all readouts are line-of-sight, reducing user fatigue

VM-810 Transmitter

A. Typical Applications

Item	Parameter
Description	Pipe & cable locator transmitter
Uses	Transmitting active signals for the location of buried pipes and cables

B. Transmitter Assembly

Item	Parameter
Construction	High impact ABS
Weight	2.95 lbs *(1.34kg) (Excluding battery)*
Dimension	14.6in(L) x 4.5in(W) x 3.3in(H) *(370mm x 115mm x 85 mm)*
Power Supply	- Standard battery pack - using 6 x alkaline “D” cells
Battery Life	At 70ºF (*21ºC*) - continuous use **Output Power** **Alkaline** 1 watt > 60 hours
External Connectors	- 1 x 3 pin connection socket – (XLR)
Output Protection	Output protected against accidental connection to up to 240V AC (50/60Hz)
Approvals	- Complies with European standard CE (Directive 99/5/EC) • EN 55011 • EN 61000-4-2 • EN 61000-4-3 • EN 61000-4-8 - Complies with FCC Rules Part 15 • CFR 47 Part 15
Standard Accessories (Supplied With Transmitter)	- 1 x direct connection lead (XLR plug with two cables each 10ft *(3.5m)* long with crocodile clips) - 1 x T type ground stake
Optional Accessories	- Transmitter only “shoulder bag” - 2in *(50mm)* transmitter clamp - 4in *(100mm)* transmitter clamp - 5in *(125mm)* transmitter clamp - 1 x ground lead (30ft *(10m)* long)

C. Operational

Item	Parameter
Location Modes	- Induction mode – applies signal inductively using internal antenna - Direct connection mode - applies signal directly to the cable by clipping one output lead to the cable, the other to an independent ground - Clamp mode – applies signal using an inductive clamp (toroid) that is placed around the target cable * Modes are selected automatically when accessories are plugged in. * Default mode (no accessories) is induction.
Transmitting Frequency by Mode	- ***Induction mode / Direct connection mode / Clamp mode:*** 83.1kHz (83,077.5Hz)

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Transmitting Mode **Power output**	In accordance with FCC part 15: *1 watt – in High output level* *1/3watt – in Low output level*
Output Voltage	Maximum output voltage = 60V RMS
Output Current	Maximum output current = 150mA RMS constant power
Audio indication	- Connection quality – variable beep rate sound showing the better signal applied - Low battery warning
Controls	Use pushbuttons to select: - Power button: On / Off - Output level button: Low / High - Audio button: Off / Low / High
Compatible With Receivers	vLocPro, vLocML, vLocPro2, vLocML2, VM-810, 810DX, 810 classic
Compatible Accessories	Signal Clamp, 2in Clamp, 4in Clamp, 5in Clamp, Flexible Clamp

D. Environmental

Item	Parameter
Temperature Range	Operating : -4ºF to 122ºF *(-20ºC to 50ºC)* Storage : -40ºF to 140ºF *(-40ºC to 60ºC)*
Weather Proof	IP54 and NEMA 4
Shipping Weight	18.7lbs *(8.5kg) (With Receiver) (estimation)*
Shipping Dimension	22.7in(L) x 13.8in(W) x 4.3in(H) *(577mm x 350mm x 109mm) (estimation)*

E. Warranty

Item	Parameter
Warranty	12 months(Limited warranty)

F. Upgrade

Item	Parameter
Software	Software can be upgraded by using a PC with an internal USB port (just for factory or repair center, not accessible from outside).

Disclaimer: Product and accessory specification and availability information is subject to change without prior notice.

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