

A. Typical Applications

Item	Parameter
Description	VM-585 Pipe and Cable Locator with Ferrous Metal Detect Mode
Uses	Locating & pinpointing pipe, cable and buried ferrous objects

B. Receiver Assembly

Item	Parameter
Construction	<ul style="list-style-type: none"> - Carbon fiber reinforced antenna tube - High impact thermoplastic (ABS) injection molded housing
Weight	1.37lbs (0.74kg) (Excluding battery)
Dimensions	43in(L) x 2.6in(W) x 3.0 in(H) (1090mm x 67mm x 76mm)
Digital Display	<p>Indicates signal level and battery condition in line locate mode</p> <p>Indicates signal, battery condition, polarity and power signal warning in ferrous metal detect mode.</p>
Piezo Speaker	Tone frequency increases or decreases with gradient field intensity.
Receiver Antennas	<ul style="list-style-type: none"> - 3 x ferrite antennas - Dual magnetometers
Batteries	- 2 x AA (LR06) Alkaline batteries
Battery Life	- Alkaline – typically 20 hours continuous use at 70°F (21°C)
Controls	- Pushbutton keypad: On/Off/Speaker, sensitivity “+” and “-”, depth measurement / frequency selection / sensitivity set
Connectors	- 1 x mini USB socket for programming
Approvals	<ul style="list-style-type: none"> - Complies with European standard CE (Directive 99/5/EC) <ul style="list-style-type: none"> • EN 55011 • EN 61000-4-2 • EN 61000-4-3 • EN 61000-4-8 - Complies with FCC Rules Part 15 <ul style="list-style-type: none"> • CFR 47 Part 15: 2006
Standard Accessories	<ul style="list-style-type: none"> - 1 watt transmitter - Soft carry bag - User guide


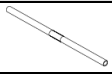




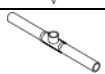

C. Receiver Operational

Item	Parameter
Configuration	<ul style="list-style-type: none"> - On/off/speaker <ul style="list-style-type: none"> • Short press to turn on • Short press toggles volume (on, off) • Long press to turn off - Auto Time Off <ul style="list-style-type: none"> • Unit will shut down if no control button is touched for 15 minutes. - ‘+’ increases sensitivity - ‘-’ decreases sensitivity - Depth Measurement / Frequency Selection / Sensitivity Set pushbutton <ul style="list-style-type: none"> • Short press for depth measurement • Long press for frequency selection • In ferrous metal detect mode, short press to adjust sensitivity to the center for given magnetic field
Operating Frequencies	Passive: 60Hz

- Active: 512Hz, 8kHz (8192Hz), 83kHz (83077.5Hz)

D. Receiver Ferrous Metal Detect Mode

Typical metal (ferrous or steel) objects are shown here. Depth indications are typically distances. The Depth range depends on mass of the metal and may vary greatly from what is indicated below.

Depth	Ferrous or Steel	Depth	Ferrous or Steel
Small PK Nail Up to 6 in (15 cm)		Cast Iron Pipe Joint Up to 9 ft (2.7m)	
1½ in(4 cm) Large PK Nail Up to 10in (25 cm)		Manhole cover Up to 10ft (3m)	
Marker Stake Up to 8ft (2.4m)		5in Iron Pipe Up to 10ft (3m)	
Valve Box Up to 10ft (3m)		Large Iron Tank Up to 16ft (4.8m)	

E. Transmitter Assembly

Item	Parameter									
Construction	High impact ABS									
Weight	1.57lbs (0.78kg)(Excluding battery)									
Dimension	16.9in(L) x 3.1in(W) x 1.7in(H) (430mm x 79mm x 44mm)									
Power Supply	- Standard battery pack - using 4 x alkaline "D" cells									
Battery Life	At 70°F (21°C) - continuous use <table border="1"> <thead> <tr> <th>Power</th> <th>Output Power</th> <th>Alkaline</th> </tr> </thead> <tbody> <tr> <td>Full Power</td> <td>1 watt</td> <td>28 hours</td> </tr> <tr> <td>Low Power</td> <td>0.1watt</td> <td>150 hours</td> </tr> </tbody> </table>	Power	Output Power	Alkaline	Full Power	1 watt	28 hours	Low Power	0.1watt	150 hours
Power	Output Power	Alkaline								
Full Power	1 watt	28 hours								
Low Power	0.1watt	150 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) <ul style="list-style-type: none"> • EN 55011 • EN 61000-4-2 • EN 61000-4-3 • EN 61000-4-4 • EN 61000-4-5 • EN 61000-4-8 - Complies with FCC Rules Part 15 <ul style="list-style-type: none"> • CFR 47 Part 15 									
Standard Accessories	- 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	- Soft carry bag - 2in (50mm) transmitter clamp - 4in (100mm) transmitter clamp - 5in (125mm) transmitter clamp LPC Separation Filter (to connect and use transmitter on lines carrying up to 240V AC)									

F. Transmitter Operational

Item	Parameter
Location Modes	- Induction mode – applies signal inductively using internal antenna

	<ul style="list-style-type: none"> - 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 <p>* Modes are selected automatically when accessories are plugged in. * Default mode (no accessories) is induction.</p>
Transmitting Frequency by Mode	<ul style="list-style-type: none"> - Direct connection mode / Clamp mode: 512Hz (direct connection only)/ 8 kHz (8192Hz) / 83.1 kHz (83077.5Hz) - Induction Mode 83.1 kHz (83,077.5Hz)
Transmitting Mode Power output	In accordance with FCC part 15: <i>1 watt – in High output level</i> <i>0.1 watt – in Low output level</i>
Output Voltage	Maximum output voltage = 60V RMS
Output Current	Maximum output current = 150mA RMS constant current
Audio indication	<ul style="list-style-type: none"> - Connection quality – variable beep rate sound showing the better signal applied - Beep constantly – for high voltage detected
Controls	Use pushbuttons to select: <ul style="list-style-type: none"> - Power button: On / Off (Press and hold); Low / High output (Short press) - Frequency select
Compatible With Receivers	vLocpro,vLocML,vLocPro2,vLocML2,vLoc-9800,VM-550, VM-560
Compatible Accessories	Signal Clamp, 2in Clamp, 4in Clamp, 5in Clamp, Flexible Clamp

G. Environmental

Item	Parameter
Temperature Range	Operating: -4°F to 122°F (-20°C to 50°C) Storage: -40°F to 140°F (-40°C to 60°C)
Weather Proof	IP54 and NEMA 4
Shipping Weight (with transmitter)	7.7lbs (3.52kg)
Shipping Dimension (with transmitter)	47.2in(L) x 4.1in(W) x 5.9in(H) (1200mm x 105mm x 150mm)

H. Warranty

Item	Parameter
Warranty	12 months (limited warranty)

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

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All products are designed and manufactured in accordance with ISO 9001:2008

Updated: June 2014

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