

## A. Typical Applications




Item	Parameter
Description	VM-585 Pipe and cable locator with ferrous metal detection mode
Uses	Locating and pinpointing of pipes, cables and buried ferrous metal objects




## B. Receiver Assembly

Item	Parameter
Construction	- 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	Indicates signal level and battery condition in line locate mode Indicates signal level, battery condition, polarity, power signal warning and mode selected.
Operating Frequencies (Line locate modes)	Passive: 50Hz or 60Hz Active: 512Hz or 640Hz, 8.192kHz (8192Hz), 83.1kHz (83100Hz)
Sensitivity	- Frequency <ul style="list-style-type: none"> <li>50/60Hz 5mA for 20dB SNR and 10Hz bandwidth</li> <li>512/640Hz 1.5mA for 20dB SNR and 10Hz bandwidth</li> <li>8.192kHz 27uA for 20dB SNR and 10Hz bandwidth</li> <li>83.1kHz 6uA for 20dB SNR and 10Hz bandwidth</li> </ul>
Battery Life	Alkaline – typically 20 hours continuous use at 70°F (21°C)
Controls	Pushbutton keypad
Connectors	1 x mini USB socket for programming
Approvals	- Complies with European standard CE (Directive 99/5/EC) <ul style="list-style-type: none"> <li>EN 55011 EN 61000-4-3</li> <li>EN 61000-4-2 EN 61000-4-8</li> </ul> - Complies with FCC Rules Part 15 <ul style="list-style-type: none"> <li>CFR 47 Part 15: 2006</li> </ul>
Standard Accessories (Supplied with Transmitter)	- Soft carry bag - User guide

## C. Receiver Ferrous Metal Detect Mode

Depth indications are typical distances. The Depth range depends on mass of the metal and may vary greatly from what is indicated below.

Depth	Ferrous or Steel Metals
Small PK Nail Up to 6 in (15 cm)	
1½ in (4 cm) Large PK Nail Up to 10in (25 cm)	
Valve Box Up to 10ft (3m)	

Depth	Ferrous or Steel Metals
Manhole cover Up to 10ft (3m)	
5in Iron Pipe Up to 10ft (3m)	
Large Iron Tank Up to 16ft (4.8m)	

## D. 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	4 x alkaline "D" cells
Battery Life (Assuming Alkaline batteries)	At 70°F (21°C) - continuous use Full Power: 28 hours Low Power: 150 hours
Connections	1 x 3 pin connection socket – (XLR)

<b>Output Protection Approvals</b>	Output protected against accidental connection to up to 240V AC (50/60Hz) <ul style="list-style-type: none"> <li>- Complies with European standard CE (Directive 99/5/EC) <ul style="list-style-type: none"> <li>• EN 55011                      EN 61000-4-3                      EN 61000-4-5</li> <li>• EN 61000-4-2                      EN 61000-4-4                      EN 61000-4-8</li> </ul> </li> <li>- Complies with FCC Rules Part 15 <ul style="list-style-type: none"> <li>• CFR 47 Part 15</li> </ul> </li> </ul>
<b>Standard Accessories (Supplied with Receiver)</b>	<ul style="list-style-type: none"> <li>- Direct connection lead (XLR plug with two cables each 10ft (3.5m) long with crocodile clips)</li> <li>- "T" type ground stake</li> </ul>
<b>Optional Accessories</b>	<ul style="list-style-type: none"> <li>- 2in (50mm) transmitter clamp                      5in (125mm) transmitter clamp</li> <li>- 4in (100mm) transmitter clamp                      Flexible clamp</li> <li>- LPC Separation Filter (to connect transmitter to lines carrying up to 240V AC)</li> </ul>

## E. Transmitter Operational

Item	Parameter
<b>Transmitting Frequency by Mode</b>	<ul style="list-style-type: none"> <li>- <b>Direct connection mode / Clamp mode:</b> 512Hz or 640 Hz (direct connection only), 8.192kHz(8192Hz) and 83.1kHz(83100Hz)</li> <li>- <b>Induction Mode</b> 83.1 kHz (83100Hz)</li> <li>- <b>Fault Find Mode</b> 8kFF, Fault locating mode for use with vLoc accessory A-frame or VM-510 ground fault locator (8.192kHz amplitude modulated with 8Hz and phase modulated with 2.66Hz)</li> </ul>
<b>Power output</b>	In accordance with FCC part 15: <i>1 watt – High output level setting</i> <i>0.1 watt – Low output level setting</i>
<b>Output Voltage</b>	Maximum output voltage = 60V RMS
<b>Output Current</b>	Maximum output current = 150mA RMS constant current
<b>Audio indication</b>	<ul style="list-style-type: none"> <li>- Connection quality – variable beep rate indicating connection quality</li> <li>- Beep constantly – for high voltage detected</li> </ul>
<b>Controls</b>	Keypad with three pushbuttons
<b>Compatible with</b>	vLoc range of receivers, VM-550, VM-560, VM585 receivers

## F. Environmental and Shipping

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

## G. Warranty

Item	Parameter
<b>Warranty</b>	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

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