



VIVAX
METROTECH

VM-550 Service Drop Locator Kit

Technical Specifications V1.6



Worldwide Locations

World Headquarters, United States of America

Vivax-Metrotech Corporation

3251 Olcott Street, Santa Clara, CA 95054, USA

T/Free : 1-800-446-3392

Tel : +1-408-734-3880

Fax : +1-408-904-4964

Website : www.vivax-metrotech.com

Email : SalesUSA@vxmt.com

Central/South America and the Caribbean

Ventas para América Latina

3251 Olcott Street, Santa Clara, CA 95054, USA

T/Free : 1-800-446-3392

Tel : +1-408-734-3880

Fax : +1-408-743-5597

Website : www.vivax-metrotech.com

Email : LatinSales@vxmt.com

Canada

Vivax Canada, Inc.

41 Courtland Ave Unit 8, Vaughan, ON L4K 3T3, Canada

Tel : +1-289-846-3010

Fax : +1-905-752-0214

Website : www.vivax-metrotech.ca

Email : SalesCA@vxmt.com

United Kingdom

Vivax-Metrotech Ltd.

Unit 1, B/C Polden Business Centre, Bristol Road, Bridgwater, Somerset, TA6 4AW, UK

Tel : +44(0)1793 822679

Website : www.vivax-metrotech.co.uk

Email : SalesUK@vxmt.com

France

Vivax-Metrotech SAS

Technoparc - 1 allée du Moulin Berger, 69130 Ecully, France

Tel : +33(0)4 72 53 03 03

Fax : +33(0)4 72 53 03 13

Website : www.vivax-metrotech.fr

Email : SalesFR@vxmt.com

Germany

Metrotech Vertriebs GmbH

Am steinernen Kreuz 10a
96110 Schesslitz

Tel : +49 9542 77227-42

Website : www.vivax-metrotech.de

Email : SalesEU@vxmt.com

China

Vivax-Metrotech (Shanghai) Ltd.

Building 10, Lane 1158 Zhongxin Rd.,
Songjiang District, Shanghai, China, 201615

Tel : +86-21-5109-9980

Website : www.vivax-metrotech.com

Email : SalesCN@vxmt.com.cn

A. Description and Typical Applications

Item	Parameter	
Model Number	VM-550 Receiver	VM-550 Transmitter
	VX215-01	VX215-02
Description	VM-550 Three Frequency Locator Kit	
Uses	General-purpose locator used to detect buried pipe and cable services	

B. Receiver Characteristics

Item	Parameter	
Construction	High-impact ABS plastic housing with a carbon fiber reinforced antenna tube.	
Weight	1.41lbs (0.64kg)	
Dimensions	34.6in(L) x 3.1in(W) x 2.8in(H) (880mm x 80mm x 70mm)	
Display Type	Dot Matrix, 98 x 64 dots, COG LCD with backlight	
Controls	Four-button keypad	
Power Options	2 x AA (LR06) Alkaline batteries	
Battery Life	Typically 20 hours of continuous use at 70°F (21°C)	
Environmental	IP54	
Manufacturing	Designed and manufactured per ISO 9001:2015	
External Connectors	1 x Mini USB socket for programming	
Temperature Range	Operating: -4°F to 122°F (-20°C to 50°C)	Storage: -40°F to 140°F (-40°C to 60°C)
Compliance and 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 61000-4-8 	Complies with FCC Rules Part 15 <ul style="list-style-type: none"> • CFR 47 Part 15: 2006
What's In the Box	<ul style="list-style-type: none"> - VM-550 Receiver - Battery holder - Mini USB lead 	<ul style="list-style-type: none"> - Kit carry bag - Manual

C. Receiver Operational

Item	Parameter
Information Displayed	<ul style="list-style-type: none"> - Signal level - Battery condition - Mode selected
Operating Frequencies	<ul style="list-style-type: none"> - Passive: 50Hz, 60Hz - Active: 512Hz or 640Hz, 8.192kHz, and 83.1kHz <p>*North America version use 60Hz power and 512Hz low frequency. All other versions use 50Hz power and 640Hz low frequency</p>
Operating Modes	Passive Power and active locate modes
Gain / Scaling Control	Manual gain using "+" or "-" with one touch to return to center (60% of FSD)
Sensitivity	<p>Frequency: 50/60Hz 5mA for 20dB SNR and 10Hz bandwidth</p> <p>512/640Hz 1.5mA for 20dB SNR and 10Hz bandwidth</p> <p>8.192kHz 27uA for 20dB SNR and 10Hz bandwidth</p> <p>83.1kHz 6uA for 20dB SNR and 10Hz bandwidth</p>
Accuracy	<p>Depth range 5m (16ft), accuracy +/-5% of depth</p> <p>Locate and depth accuracy are quoted for 20 degC and average soil conductivity.</p> <p>It is also assumed the return current localisation is deep compared to the target cable</p>
Compatible Transmitters	VM-550FF, All Loc series transmitters with the matching frequency range

D. Transmitter Characteristics

Item	Parameter
Construction	High-impact ABS plastic
Weight	<ul style="list-style-type: none"> - With Alkaline battery tray: 2.47 lbs. (1.12kg) - With Rechargeable Li-ion battery tray: 2 lbs. (0.92 kg.)
Dimensions	18.1in(L) x 3.5in(W) x 2.6in(H) (460mm x 90mm x 65mm)
Display	Flashing red LED lights show active transmit and output modes.
Power Options	<ul style="list-style-type: none"> - 4 x Alkaline "D" cells - Optional Li-Ion rechargeable battery pack
Battery Life	<p>At 1 watt, i.e., full output setting.</p> <ul style="list-style-type: none"> - Alkaline – typically 12 hours - Li-ion – typically 36 hours - Based on maximum output into 300-ohm load and 50% duty cycle. At 70°F (21°C)

Environmental	IP54
External Connectors	1 x 3-pin XLR socket
Temperature Range	- Operating: -4°F to 122°F (-20°C to 50°C) - Storage: -40°F to 140°F (-40°C to 60°C)
Compliance/Approvals	Complies with European standard CE (Directive 99/5/EC) Complies with FCC rules part 15 <ul style="list-style-type: none"> • EN 55011 • EN 61000-4-4 • EN 61000-4-3 • EN 61000-4-5 • EN 61000-4-2 • EN 61000-4-8 <ul style="list-style-type: none"> • CFR 47 part 15
Manufacturing	Designed and manufactured per ISO 9001:2015
What's In the Box	<ul style="list-style-type: none"> - VM-550FF Transmitter - Direct Connection Leads (XLR plug with 10-foot (3.5m) red/black leads) - Ground stake - Carry strap
Compatible Accessories Options	<ul style="list-style-type: none"> - 2-inch (50mm) transmitter clamp - 4-inch (100mm) transmitter clamp - 5-inch (125mm) transmitter clamp - 9-inch (230mm) transmitter clamp - 18-inch (450mm) flexible transmitter clamp - Ground Extension Spool - Live Plug Connector (LPC Separation Filter) - to connect and use the transmitter on lines carrying up to 240V AC - LCC Live Cable Connector - to connect and use the transmitter on lines carrying up to 480V AC - Rechargeable Battery Pack - custom Li-Ion battery pack and charger - 12V DC Vehicle Power Lead - for charging the optional rechargeable battery from a vehicle

E. Transmitter Operational

Item	Parameter
Information Displayed	Solid and blinking LED shows <ul style="list-style-type: none"> - Frequency selected - Output power level
Transmitting Modes	<ul style="list-style-type: none"> - Induction mode – applies signal inductively using the 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 (aka toroid or coupler) that is placed around the target pipe or cable <p>Modes are automatically selected when accessories are plugged in. The default mode (noaccessories) is Induction.</p>

Shipping Weight	1.38lb (0.63kg)
Shipping Dimension	9in(L) x 3.7in(W) x 2.8in(H) (228mm x 95mm x 70mm)
Warranty	12 month

G. Kit Shipping and Packaging

Item	Parameter
Shipping Weight	<ul style="list-style-type: none"> - With alkaline batteries: 10.8lbs (4.9kg) - With Li-Ion batteries: 10.4lbs (4.7kg)
Shipping Dimension	39in(L) x 7.7in(W) x 4.7in(H) (990mm x 195mm x 120mm)

H. Warranty

Item	Parameter
Warranty	<ul style="list-style-type: none"> - 12 months - Extended warranty available

Disclaimer: Product and accessory specifications and availability information are subject to change without prior notice.

Performance Disclaimer Actual performance may vary depending on environmental conditions, user technique, and signal interference.

Software & Firmware Disclaimer Functionality described may depend on the software or firmware version installed. Features are subject to modification through future updates.

Battery & Power Disclaimer Battery life is estimated and may vary based on settings, usage, temperature, and battery age.

Calibration Disclaimer Self-Test results confirm system consistency with factory calibration but do not replace periodic professional calibration if required by company policy or regulation.

Compliance Disclaimer Compliance with regional standards may vary by country. Users are responsible for ensuring the product is used in accordance with local laws and regulations.

Use Case Disclaimer The system is intended for professional utility locating and should not be used for purposes outside the manufacturer's defined scope.

Third-Party Services Disclaimer Use of GNSS correction services or cloud platforms may require third-party subscriptions and are subject to their terms and availability.

Feature Availability Disclaimer: Certain features, frequencies, or accessories may only be available in specific markets due to regional regulations or product certifications. Please consult your local Vivax-Metrotech representative for availability in your area.

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