



## A. Typical Applications

Item	Parameter
<b>Description</b>	<ul style="list-style-type: none"> <li>- Multi-purpose precision locator receiver</li> <li>- Electronic marker-ball detection</li> </ul>
<b>Uses</b>	<ul style="list-style-type: none"> <li>- Locating &amp; pinpointing the position of buried pipes and cables</li> <li>- Frequency compatible marker types</li> <li>- Detection of any one of nine marker balls types buried to a depth of 6ft (2m)</li> <li>- Detection of large flat markers to a depth of 9ft (3m)</li> </ul>

## B. Receiver Assembly

Item	Parameter
<b>Construction</b>	<ul style="list-style-type: none"> <li>- Carbon fiber reinforced antenna tube</li> <li>- High impact thermoplastic (ABS) injection molded housing</li> </ul>
<b>Weight</b>	5.95lbs (2.7kg)
<b>Dimensions</b>	10.3in(L) x 5in(W) x 28in(H) (262mm x 128mm x 711.7mm)
<b>Display Type</b>	Sharp TFT LCD VGA color display, 3.52in (89mm)
<b>Receiver Antennas</b>	2 x Peak antennas, 1 x null antenna, 1 x compass antenna, 1 x marker transmit antenna, 1 x marker receiver antenna.
<b>Batteries</b>	<ul style="list-style-type: none"> <li>- Rechargeable Lithium-ion batteries with 100-240V AC mains charger.</li> <li>- Replaceable (6 x standard Alkaline AA batteries) batteries can be used when required</li> </ul>
<b>Battery Life</b>	<ul style="list-style-type: none"> <li>- Alkaline – typically six hours intermittent use at 70°F (21°C)</li> <li>- Lithium-ion – typically 20 hours intermittent use at 70°F (21°C) (with full backlight turned on). Re-charging cycles approx. 500 times life cycle. Battery life varies with temperature.</li> </ul>
<b>Bluetooth</b>	- Plug and play custom Bluetooth interface
<b>External Connectors</b>	<ul style="list-style-type: none"> <li>- 1 x Socket for accessories port (analog &amp; digital)</li> <li>- 1 x Mini USB socket for data transfer/programming</li> <li>- 1 x Socket for battery charger</li> <li>- 1 x Standard USB (memory stick) socket for data transfer</li> </ul>
<b>Approvals</b>	<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</li> <li>• EN 61000-4-2: A1 &amp; A2</li> <li>• EN 61000-4-3</li> <li>• EN 61000-4-8: A1</li> <li>• ETSI EN 300 330-2</li> <li>• ETSI EN 301 489-1</li> <li>• ETSI EN 301 489-3</li> </ul> </li> <li>- Complies with FCC Rules Part 15 <ul style="list-style-type: none"> <li>• CFR 47 part 2</li> <li>• CFR 47 Part 15</li> </ul> </li> </ul>
<b>Standard Accessories</b>	<ul style="list-style-type: none"> <li>- USB data cable</li> <li>- 100-240V AC mains charger (Lithium-ion battery)</li> <li>- Soft carry bag</li> </ul>



<p><b>Optional Accessories</b></p>	<ul style="list-style-type: none"> <li>- User handbook</li> <li>- Portable Transmitters: Loc-1Tx, Loc-5STx, Loc-10Tx</li> <li>- Sondes (waterproof self-contained transmitters for use in pipes &amp; ducts)             <ul style="list-style-type: none"> <li>• D18-33-SR44 - 0.75in(Dia.) x 3.1in(L) (18mm x 80mm), 33 kHz, range 15ft (4.5m), 2 x button cell batteries</li> <li>• D38-33-AA – 1.5in(Dia.) x 4.1in(L) (38mm x 105mm), 33 kHz, range 16.3ft (5m), 1 x AA battery</li> <li>• D38-09-AA – 1.5in(Dia.) x 4.1in(L) (38mm x 105mm), 9.82 kHz, range 16.3ft (5m), 1 x AA battery</li> <li>• D38-83-AA – 1.5in(Dia.) x 4.1in(L) (38mm x 105mm), 83 kHz, range 16.3ft (5m), 1 x AA battery</li> <li>• D64-33-6LR61 – 2.5in(Dia.) x 7.3in(L) (64mm x 186mm), 33 kHz, range 26ft (8m), 1 x 6LR61 battery</li> <li>• D64-09-6LR61 – 2.5in(Dia.) x 7.3in(L) (64mm x 186mm), 9.82 kHz, range 26ft (8m), 1 x 6LR61 battery</li> <li>• D64-83-6LR61 – 2.5in(Dia.) x 7.3in(L) (64mm x 186mm), 83 kHz, range 26ft (8m), 1 x 6LR61 battery</li> <li>• D23F-512-AA / D23F-640-AA – 1in(Dia.) x 18in(L) (23mm x 456mm), 512Hz or 640Hz, range 20ft (7m), flexible sonde in three sections for use in cast-iron as well as non-metallic pipes, 1 x AA battery</li> </ul> </li> <li>- A-frame USB (for sheath fault finding)</li> <li>- Remote Antenna (USB)</li> <li>- Custom Bluetooth Module (Easy fit)</li> <li>- GPS Module (Requires custom Bluetooth module above)</li> <li>- Vehicle charging lead (Lithium-ion battery)</li> </ul>
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### C. Operational

Item	Parameter
<p><b>Information Displayed</b></p>	<ul style="list-style-type: none"> <li>- Push button depth on marker</li> <li>- Marker reference number and icon</li> <li>- Response to marker ball</li> <li>- Circular bar graph and variable pitch tone to indicate signal strength</li> <li>- Manual EMS (Electronic Marker System) gain control</li> <li>- Signal strength - moving bar graph &amp; numeric value</li> <li>- Mode indication (“Peak”, “Null”, “Broad Peak”, “Sonde” and “Peak with proportional left/right arrows” location)</li> <li>- Proportional left/right indication</li> <li>- Compass: full 360° line direction indicator</li> <li>- Plug and play automatic recognition of accessories</li> <li>- Measurement of depth and current on target line</li> <li>- Line location - depth &amp; current measurement</li> <li>- Sonde location - depth measurement</li> <li>- Gain level (in dB)</li> <li>- Frequency selected</li> <li>- Battery condition</li> <li>- Speaker volume</li> </ul>



	<ul style="list-style-type: none"> <li>- Operating frequency</li> <li>- Bluetooth and GPS status</li> <li>- Configuration menu &amp; submenus</li> <li>- Start-up screen – product and USB accessories software revision</li> <li>- User definable start-up screen</li> </ul>																														
<p><b>Configuration</b></p>	<p>Intuitive setup menu enables user to configure alternatively use Vivax-Metrotech configuration tool:</p> <ol style="list-style-type: none"> <li>1. Setup frequency selection to toggle by "f" pushbutton</li> <li>2. Setup location mode selection to toggle by "M" pushbutton</li> <li>3. Sonde / line location</li> <li>4. Units of measure (feet/meter)</li> <li>5. Power and radio modes – 50Hz or 60Hz environments</li> <li>6. Sound (Pitch) – normal/modulated</li> <li>7. Language</li> <li>8. Continuous depth/current options</li> <li>9. Loudspeaker level</li> <li>10. Backlight</li> <li>11. Bluetooth pairing if fitted</li> <li>12. Auto shut down – after two or five minutes or never</li> </ol>																														
<p><b>Operating Frequencies</b></p>	<p>Frequency list defined below.</p>																														
<p><b>Pre-defined Marker Ball Frequencies</b></p>	<table border="1" data-bbox="481 953 1305 1351"> <thead> <tr> <th>Ref #</th> <th>Utility</th> <th>Frequency (Hz)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Power (Red)</td> <td>169,800</td> </tr> <tr> <td>2</td> <td>Water (Blue)</td> <td>145,700</td> </tr> <tr> <td>3</td> <td>Sanitary (Green)</td> <td>121,600</td> </tr> <tr> <td>4</td> <td>Telephone (Orange)</td> <td>101,400</td> </tr> <tr> <td>5</td> <td>Gas (Yellow)</td> <td>83,000</td> </tr> <tr> <td>6</td> <td>CATV (Orange/Black)</td> <td>77,000</td> </tr> <tr> <td>7</td> <td>Non-potable Water (Purple)</td> <td>66,350</td> </tr> <tr> <td>8</td> <td>EDF (French Power) (natural)</td> <td>40,000</td> </tr> <tr> <td>9</td> <td>Energy (Seba) Power (Blue/Red)</td> <td>134,000</td> </tr> </tbody> </table> <p>***Note: #9 – some markets only***</p>	Ref #	Utility	Frequency (Hz)	1	Power (Red)	169,800	2	Water (Blue)	145,700	3	Sanitary (Green)	121,600	4	Telephone (Orange)	101,400	5	Gas (Yellow)	83,000	6	CATV (Orange/Black)	77,000	7	Non-potable Water (Purple)	66,350	8	EDF (French Power) (natural)	40,000	9	Energy (Seba) Power (Blue/Red)	134,000
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<p><b>Pre-defined Frequencies for vLocML2+ Receiver</b></p>	<p>Configurable frequencies from 16Hz to 200 kHz.</p> <p>Signal Direction – Some specific models include a feature called SD (Signal Direction) in addition to the above the transmitter will have two combinations of SD frequency.</p> <table border="1" data-bbox="702 1542 1133 1617"> <tbody> <tr> <td>SD-USA</td> <td>256Hz/512Hz</td> </tr> <tr> <td>SD-EUR</td> <td>320Hz/640Hz</td> </tr> </tbody> </table> <p>Vivax-Metrotech Corporation retains the right to make additions or deletions to this list at any time.</p>	SD-USA	256Hz/512Hz	SD-EUR	320Hz/640Hz																										
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<p><b>Operating Modes</b></p>	<ul style="list-style-type: none"> <li>- vLocML2+ Line Location Receiver</li> <li>- Marker Locator</li> <li>- Dual mode operation: Peak response combined with Marker-Ball Detection</li> <li>- Peak</li> <li>- Null</li> <li>- Sonde</li> </ul>																														



	<ul style="list-style-type: none"> <li>- Broad Peak</li> <li>- Peak with proportional left/right arrows</li> </ul>
<b>Gain Control</b>	Manual gain using "+" or "-" with one touch to return to center (60% of FSD)
<b>Performance in Area of Undistorted Fields</b>	Generally locatable to 6ft (2m) depth
<b>Performance Using Single Undistorted Signal Source</b>	Locate pinpointing accuracy:
	<ul style="list-style-type: none"> <li>- up to 9ft (3m) – 3% of depth</li> <li>- over 9ft (3m) – 5% of depth</li> </ul>
	Depth measurement accuracy:
	<ul style="list-style-type: none"> <li>- 3% of depth</li> </ul>
	Current measurement accuracy:
	<ul style="list-style-type: none"> <li>- 3% of actual current – up to 9ft (3m)</li> <li>- 5% of actual current – over 9ft (3m)</li> </ul>
	Depth range :
	<ul style="list-style-type: none"> <li>- Dependent on strength of signal radiating to locator – generally up to 15ft (5m)</li> </ul>

## D. Sensitivity

Mode	Sensitivity at 3.2ft (1m)
<b>50Hz/ Power Mode</b>	7.5 mA
<b>Radio Mode</b>	20 $\mu$ A
<b>512Hz / 640Hz</b>	400 $\mu$ A
<b>8 kHz</b>	40 $\mu$ A
<b>32 kHz and Above</b>	25 $\mu$ A

## E. Environmental

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</b>	14.7lbs (6.67kg)
<b>Shipping Dimension</b>	13.2in(L) x 9.3in(W) x 30.5in(H) (335mm x 235mm x 775mm)

## F. Warranty

Item	Parameter
<b>Warranty</b>	12 months

## G. Upgrade

Item	Parameter
<b>Software</b>	Software can be upgraded using a PC with USB port. Programs & locator software are available via MyLocator2 application. Additional frequencies are available free of charge via the MyLocator2 application.



## H. Features

Item	Parameter
<p><b>Enhanced Features</b></p>	<ul style="list-style-type: none"> <li>- Reduced size and weight with enhanced ergonomic design</li> <li>- Improved power management and lithium-ion rechargeable batteries provide longer battery life (250% more)</li> <li>- Auto detects batteries type (Lithium-ion/Alkaline) and displays appropriate status</li> <li>- Non-reflective display</li> <li>- Enable / disable auto shut off mode</li> <li>- USB Data logging (Future feature)</li> <li>- Analogue channel (Future feature)</li> </ul>

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

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