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 **Sensors &
Software**



LMX[®]
LOCATE & MARK[™]
Ground Penetrating
Radar for Utility
Locating



LMX[®] System Overview

The simple, affordable way to Locate & Mark[™] utilities in the field

LMX Ground Penetrating Radar (GPR) systems are designed & optimized for utility locating, making the LMX a natural addition to your locating workflow.

LMX[®] GPR systems complement traditional pipe and cable locators and allow you to Locate & Mark[®]:

- Metal utilities, including pipes and cables
- Non-metallic pipes, including PVC and asbestos cement
- Concrete storm and sewer systems
- Utilities where installed tracer wiring has failed
- Underground storage tanks and drainage tiles
- Septic system components
- Non-utility structures such as vaults, foundation walls and concrete pads



High visibility touch screen display unit

- Free lifetime system software updates
- User selectable languages
- Metric and US Standard units



GPR Sensor

- Patented ultra-wideband (UWB) 250 MHz GPR antenna
- DynaT[™] for Dynamic Target enhancement
- Offers perfect balance of depth penetration (up to 8m/26 ft) & high resolution



Lead Acid Gel Cell Battery

- Long lasting
- Swappable



On-site Reports

Produce instant on-site reports from your display unit



Integrated GPS

Integrated GPS receiver for geo-referencing data



Lightweight Fiberglass Cart Frame

- No metal parts that would interfere with GPR signals
- Rugged, all-terrain cart with integrated odometer, easily maneuverable over any surface



USB

USB for easy data transfer



Wi-Fi

Built-in Wi-Fi capability

LMX200™ Features

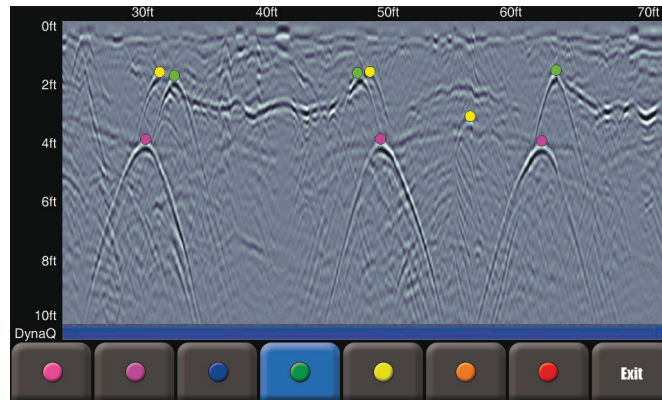
The premier GPR locating tool in the market today

LMX200 increases locate confidence by adding depth slice imaging and in-field interpretations



Color-coded field interpretations

Classify your targets in real-time by selecting a color option and touching the screen

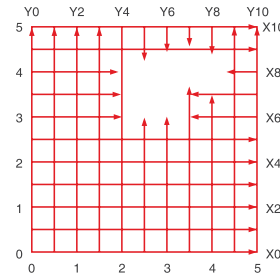
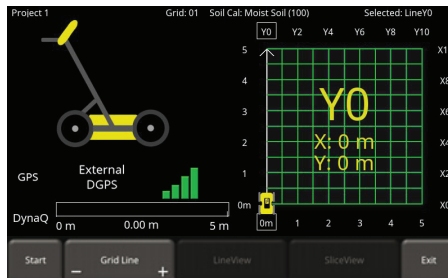


Grids & Depth Slices

Complete coverage of complex areas

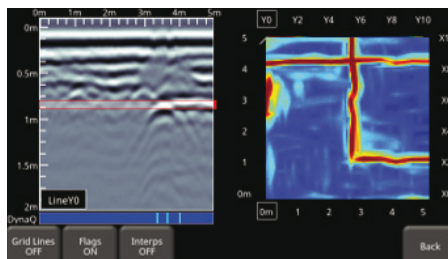
Flexible & guided grid collection

The LMX200™ guides you through setup with pre-selected grid sizes. Stop lines early, or skip lines.



In-field Depth slices

Process grid data into depth slices and move down through your data to visualize targets at different depths.

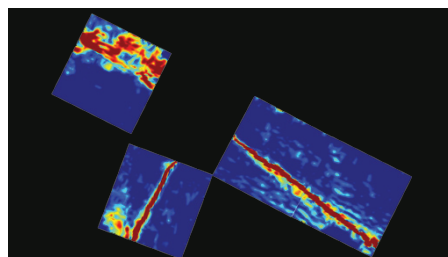


Obstacle avoidance

System guides data collection around an obstacle in your grid.

Depth Slice through multiple grids on-site

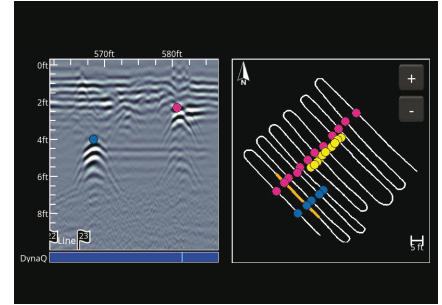
In MapView, visualize all your grids at once for a complete picture.



**Features
unlocked
with GPS**

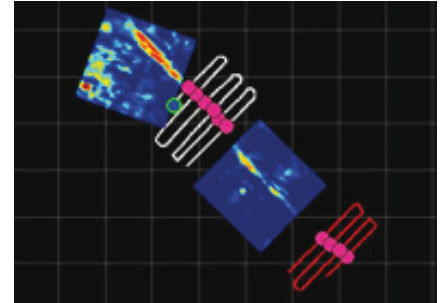
SplitView - Real-time MapView during data collection

- Ensure full site coverage by visualizing your survey path
- See interpretations as you add them
- Review data for subtle targets that you may have missed
- Know your location, and go back to areas of interest



Visualize your entire survey in MapView

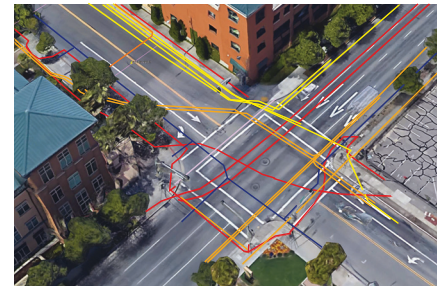
- See your survey path, depth slices, field interpretations, flags and lines
- Toggle layers on and off to focus on the elements of interest



Export geo-referenced data

	A	B	C	D	E	F
1	Tool	Position (m)	Depth (m)	Latitude	Longitude	GPS-Elevation
2	Point	0.72	0.18	38.8345202	-9.1821844	16.63
3	Point	0.83	0.7	38.8345201	-9.1821826	16.6
4	Point	1.12	0.75	38.8345187	-9.1821798	16.59
5	Point	1.63	0.19	38.8345172	-9.1821759	16.56
6	Point	1.63	0.68	38.8345172	-9.1821759	16.56

Spreadsheet (.CSV) file with flags and interpretations



KMZ output of lines, grid locations, interpretations, and screenshots

LMX[®] Family Hardware Specifications

Weight & Dimensions

Size: 100 x 70 x 115 cm (39.4 x 27.6 x 45.3 in)

Weight: 22 kg (48 lbs)

Display Unit size: 21 cm (8 in) diagonal

Power

12 Volt Sealed Lead Acid Gel Cell

Battery Capacity: 9.0 Ah

Weight: 3.6 kg (7.9 lbs)

Battery Life: 4 - 6 hours

Charger: 110 - 240V

Environmental & Temperature

Ruggedized, environmentally sealed unit and connections

IP65

Operating temperature range: -104 to 122°F (-40 to 50°C)

Regulatory Specifications

Meets FCC 15.509, IC RSS-220 and ETSI EN-302066



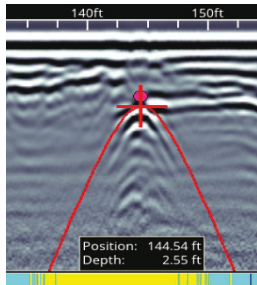
LMX100 and LMX200 Features

Rapidly locate metallic and non-metallic utilities

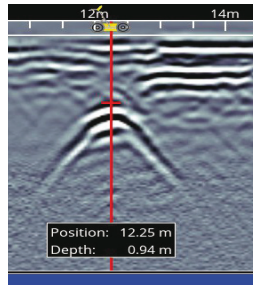
Enhance your productivity

No complex settings – Just press Start and push the cart

Easy Depth Calibration



Pinpoint Depth & Location



Dynamic Stacking (DynaQ®)



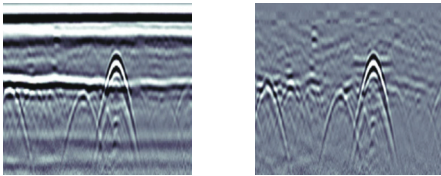
- White = No Data (too fast!)
- Yellow = Moderate quality
- Light blue = Better quality
- Dark Blue = Highest quality

Better data quality with DynaQ - automatically adjusts stacking (averaging) based on your survey speed

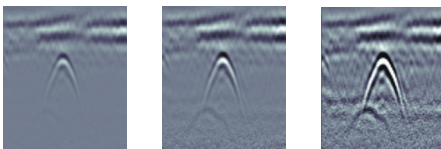
Use hyperbola-fitting to ensure accurate depth measurements and backup over the target to display its location and depth

Increase your target confidence in the field with image optimization

Preset Filters

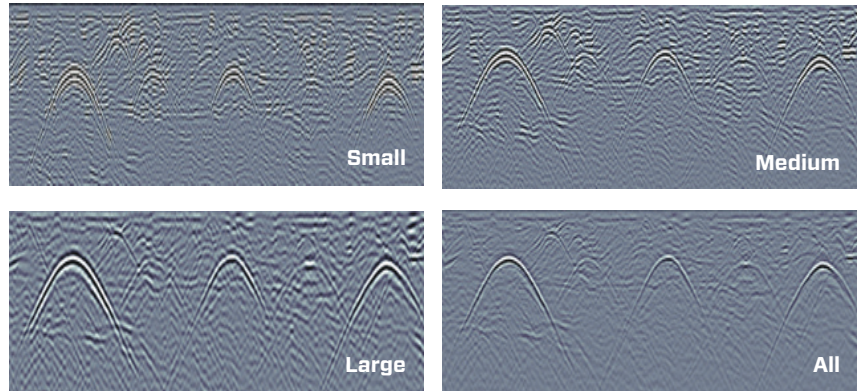


Adjustable Gain



Optimize visibility of your targets with preset filters & gain

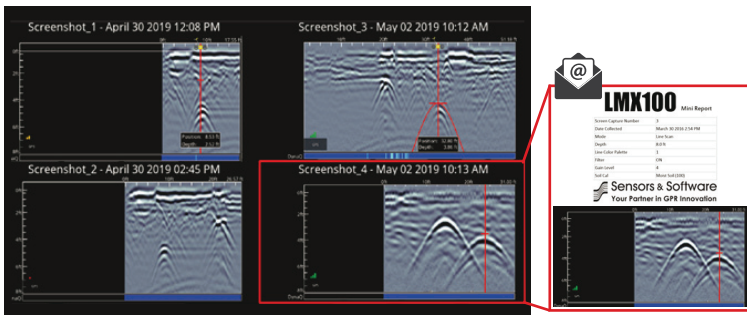
Dynamic Target Enhancement (DynaT™)



Enhance small, medium & large targets

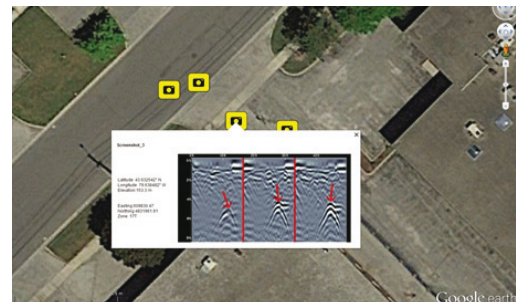
Get faster deliverables

In-field Screenshot Gallery & Wi-Fi mini-reports



Manage & review your screenshots and email them in a Wi-Fi mini-report from the field to share key collection information and images

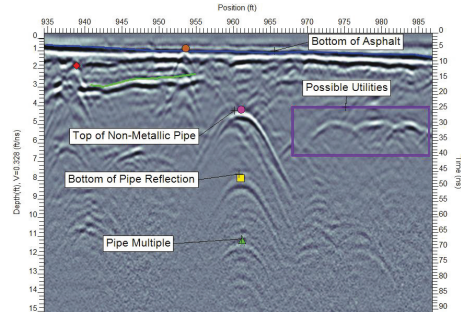
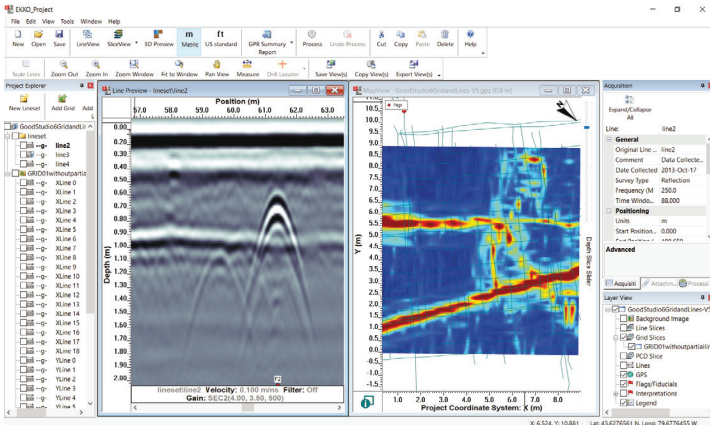
Geo-tagged information for reports & archiving



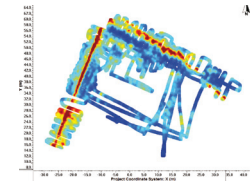
All screenshots are geo-tagged and exported in a KMZ file that is easily displayed in Google Earth™

LMX200 Enhanced Upgrade

- Project organization (up to 9 projects)
- Data export of GPR lines, grids and screenshots
- EKKO_Project™ PC software for analysis and reporting



Interpretations on GPR lines



Depth slices from GPR Lines

EKKO_Project

- Save GPR lines, grids, photos and other files as a single project (.GPZ) file
- Automatically create GPR summary reports (PDF)

Optional Utility Suite

- Includes LineView, SliceView and Interpretation modules

Comparison Table

Feature	LMX100™	LMX200™	LMX200™ Enhanced
Real-time Locate & Mark	✓	✓	✓
Grid Scan Mode		✓	✓
In-field depth slicing		✓	✓
External GPS option		✓	✓
GPR Data export and EKKO_Project GPR Analysis, Processing and Reporting Software			✓
File Management	Screenshots	Lines, Grids & Screenshots	9 Projects containing Lines, Grids & Screenshots

Useful resources to make the most of your LMX:

- Webinars, Training Videos and other Free Online Resources (Available on www.sensoft.ca)
- Contact us to learn more about our training offerings



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