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GEOPHYSICAL
MN73-254 LT NX
Concrete Scanning
Survey Systems

MN73-254 LT NX Concrete Scanning Geophysical Survey Systems User Guide

Contents

GEOPHYSICAL

Geophysical MN73-254 LT NX Concrete Scanning Survey Systems

Specifications

- **Model:** Flex LT
- **Physical Features:**
    - Fully adjustable and removable handle
    - Colored markers for layout
    - 7in (17.8cm) High-Resolution Touchscreen
    - External USB Port
    - Environmental Rating: IP65
    - User Programmable Buttons Power On/Off

Product Usage Instructions

Flex LT Handle Adjustments
To adjust the handle:

1. Loosen the knob.
2. Reorient the handle to the desired position.
3. Tighten the knob to secure the handle.
4. To remove the handle, fully loosen the knob.

Powering Flex LT
To power on:

1. Press both buttons simultaneously.
2. Hold both buttons to power off.
3. Make sure the battery contacts are facing toward Flex LT and facing upward when inserting the battery.

Antenna and Marker Positions
Flex LT incorporates two GPR antennas with colored markers:

- Red markers indicate the center points of the Standard Orientation antenna.
- Green markers indicate the center points of the Cross Polarized antenna.

Flex LT Dashboard

The Main Dashboard is where Flex LT starts every new session. You can access system settings and start a 2D scan from this dashboard.

Flex LT Settings

The Settings Menu allows you to customize your Flex LT experience by assigning quick button options, adjusting volume, screen brightness, time/date, changing units, and language settings.

Have Questions?
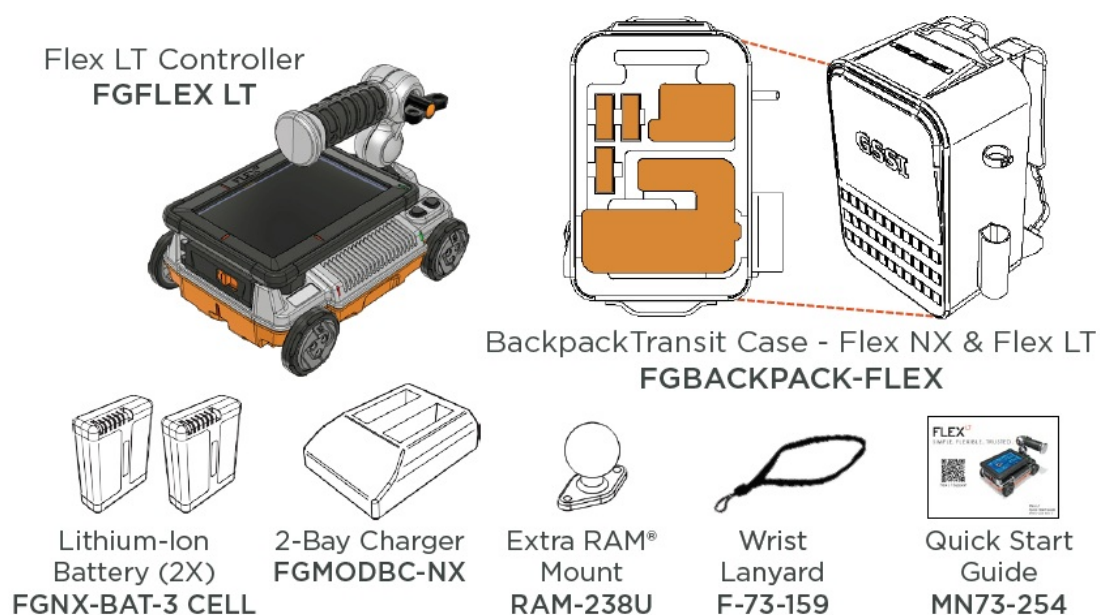
We've Got Your Back

Our promise to you is to provide comprehensive training, unrivaled customer support, and world-class expertise. That's why your Flex LT comes with our industry-leading two-year warranty, complimentary training, and technical support access. For more information, visit us at **www.geophysical.com.**
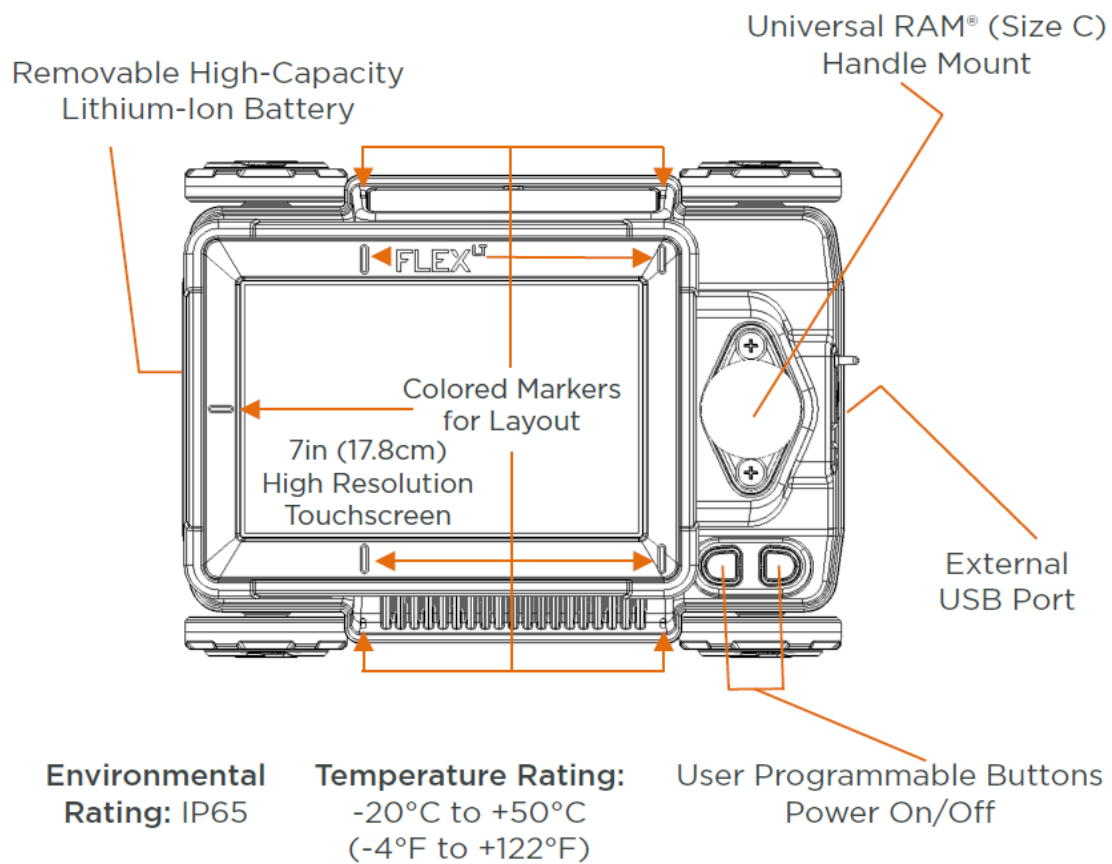
We're Committed to Your Success

Our team of dedicated technical trainers is ready to work with users of all experience levels. GSSI Academy classes are offered on a revolvingannual schedule. Check out the GSSI Academy offerings at **www.geophysical.com/gssi-academy.**
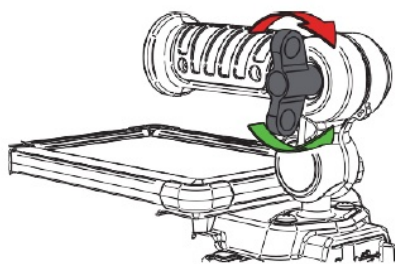

Standard and Optional Accessories

Flex LT Controller
FGFLEX LT

BackpackTransit Case - Flex NX & Flex LT
FGBACKPACK-FLEX

Lithium-Ion Battery (2X)
FGNX-BAT-3 CELL

2-Bay Charger
FGMODBC-NX

Extra RAM® Mount
RAM-238U

Wrist Lanyard
F-73-159

Quick Start Guide
MN73-254

Flex LT Physical Features

Removable High-Capacity Lithium-Ion Battery

Universal RAM® (Size C) Handle Mount

Colored Markers for Layout

7in (17.8cm) High Resolution Touchscreen

External USB Port

Environmental Rating: IP65

Temperature Rating: -20°C to +50°C (-4°F to +122°F)
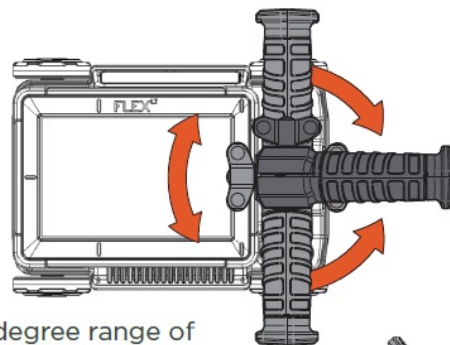
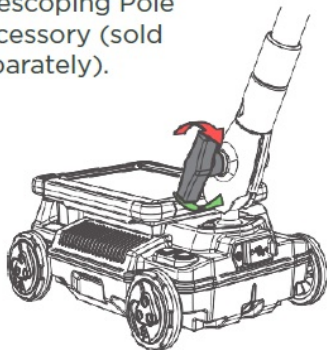User Programmable Buttons Power On/Off
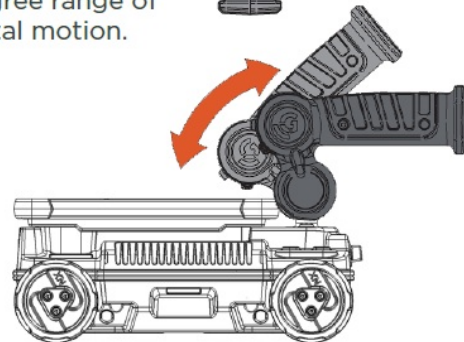
Flex LT Handle Adjustments

Your Flex LT features a fully adjustable and removable handle. To adjust, simply loosen the knob, reorient the handle, and tighten. To remove the handle, fully loosen the knob.

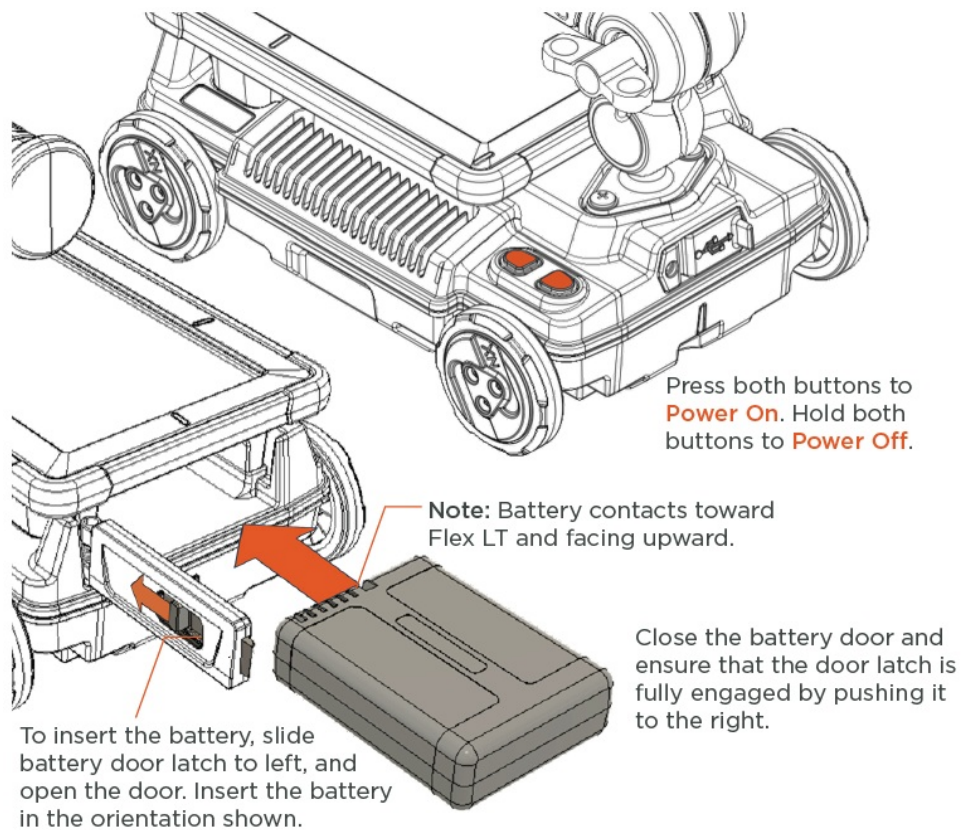Remove the Flex LT handle to attach the Telescoping Pole Accessory (sold separately).

360 degree range of horizontal motion.

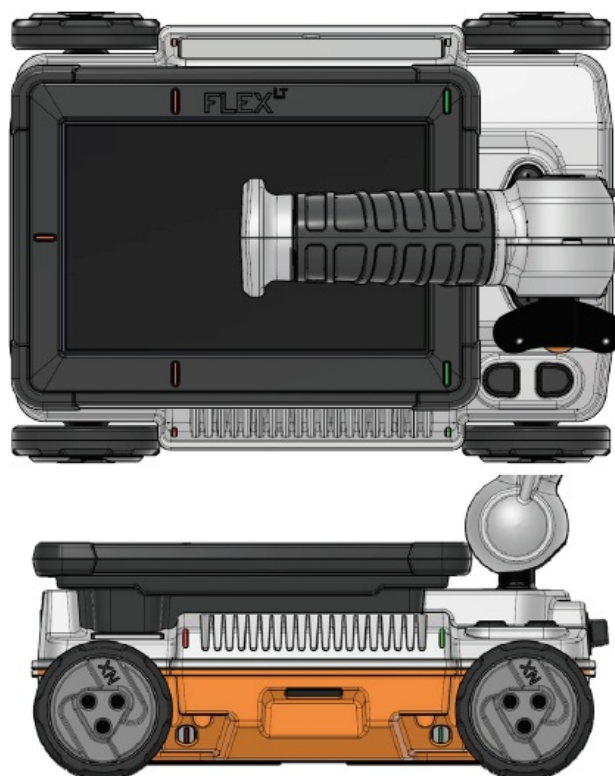Vertical range of movement is limited to prevent display damage.

Powering Flex LT

Press both buttons to **Power On**. Hold both buttons to **Power Off**.

Note: Battery contacts toward Flex LT and facing upward.

Close the battery door and ensure that the door latch is fully engaged by pushing it to the right.

To insert the battery, slide battery door latch to left, and open the door. Insert the battery in the orientation shown.
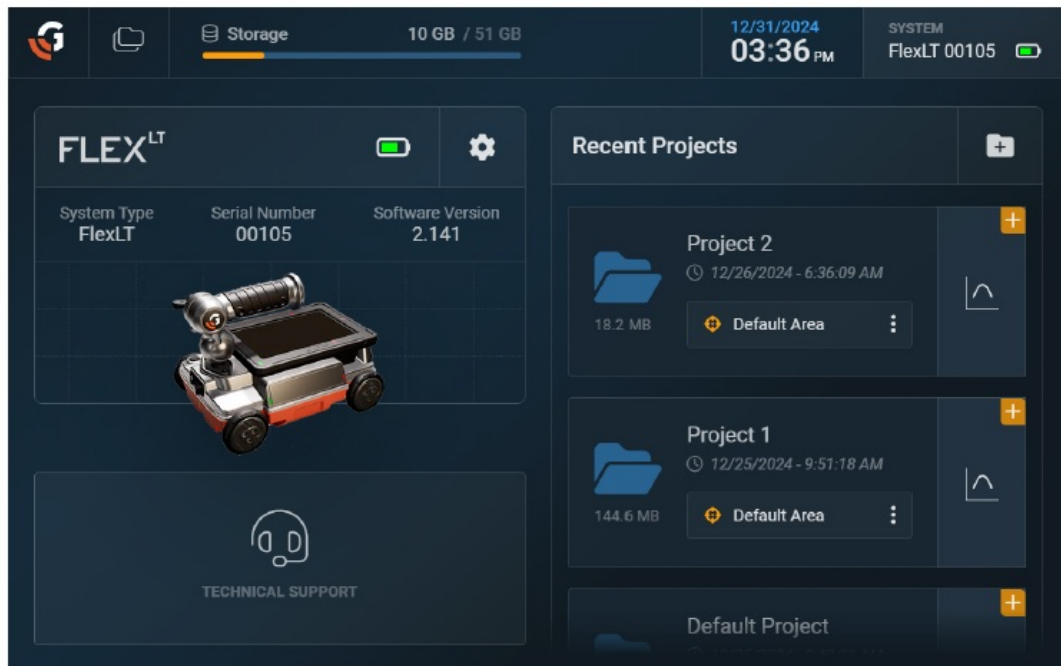
Antenna and Marker Positions

Flex LT incorporates two individual GPR antennas:
A Standard Orientation antenna (in front) and a Cross Polarized antenna (in back). The center of each antenna has colored markers for highly accurate markouts. Red markers, located on the top, front, and sides, show the center points of the Standard Antenna. These markers are aligned to the red backup cursor during collection. Green markers, located on the top, back, and sides, show the centerr points of the Cross Polarized Antenna. These markers are aligned to the green backup cursor during collection. Scanning with both antennas produces a more detailed and informative view of concrete targets, especially for complex jobs.
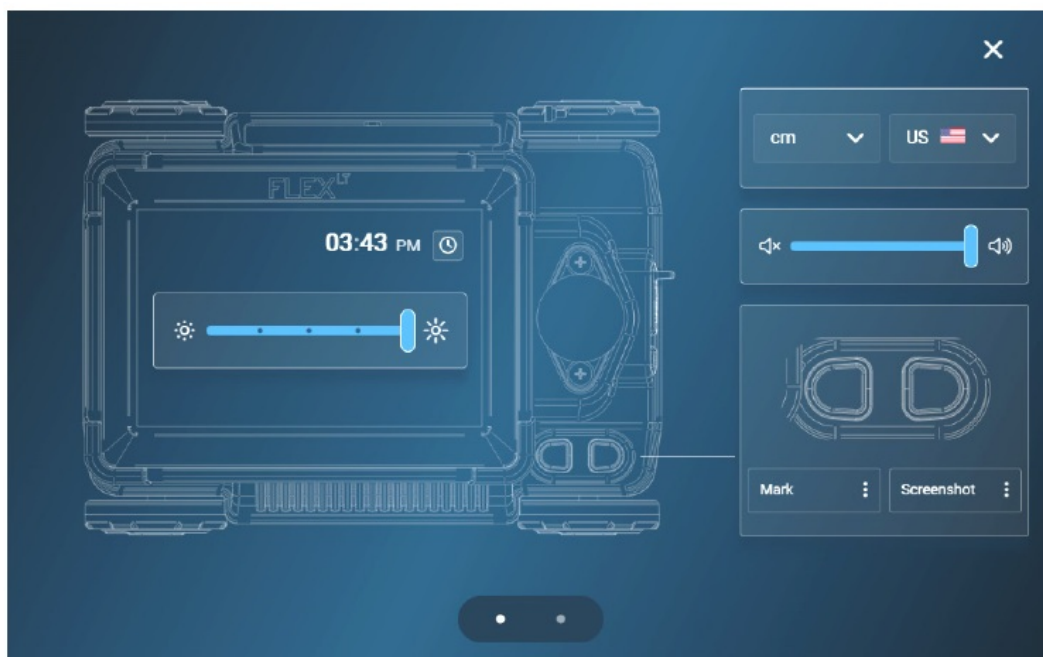
Flex LT Dashboard

- After powering on, Flex LT will start every new session on the Main Dashboard.

- Tap the ⚙ icon to access system settings. Tap the ∧ icon to start a 2D scan
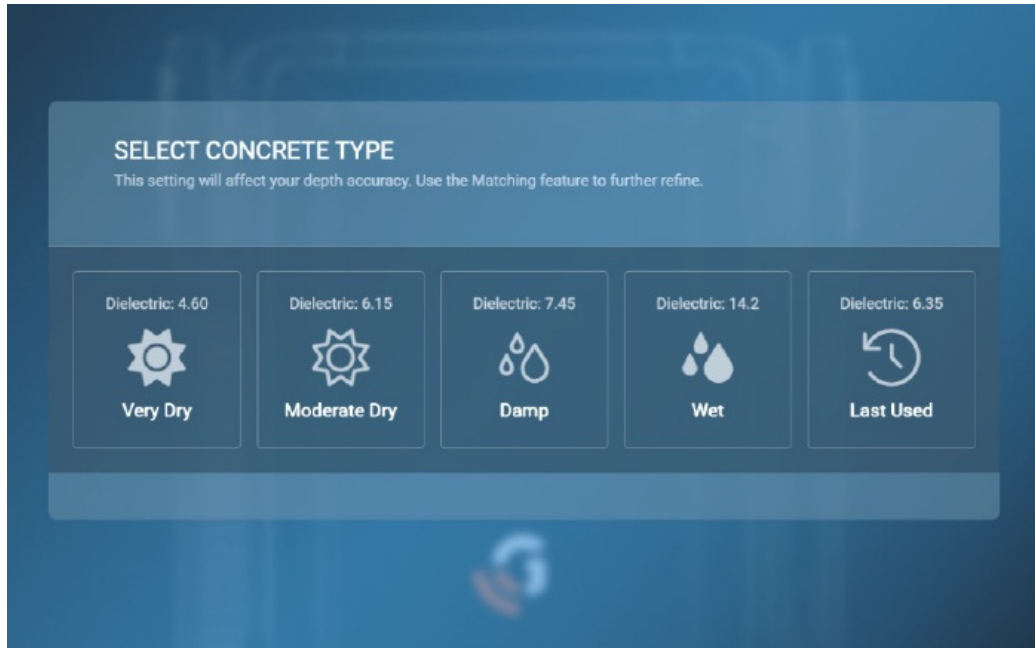

Flex LT Settings

The Settings Menu is the control panel for customizing your Flex LT experience. Use this menu to assign quick button options, adjust volume, screen brightness, and time/date, and change units and language settings.
Tap the X to return to the Main Dashboard.

Select Concrete Type

- Select the appropriate Concrete Type based on the state of the concrete cure.
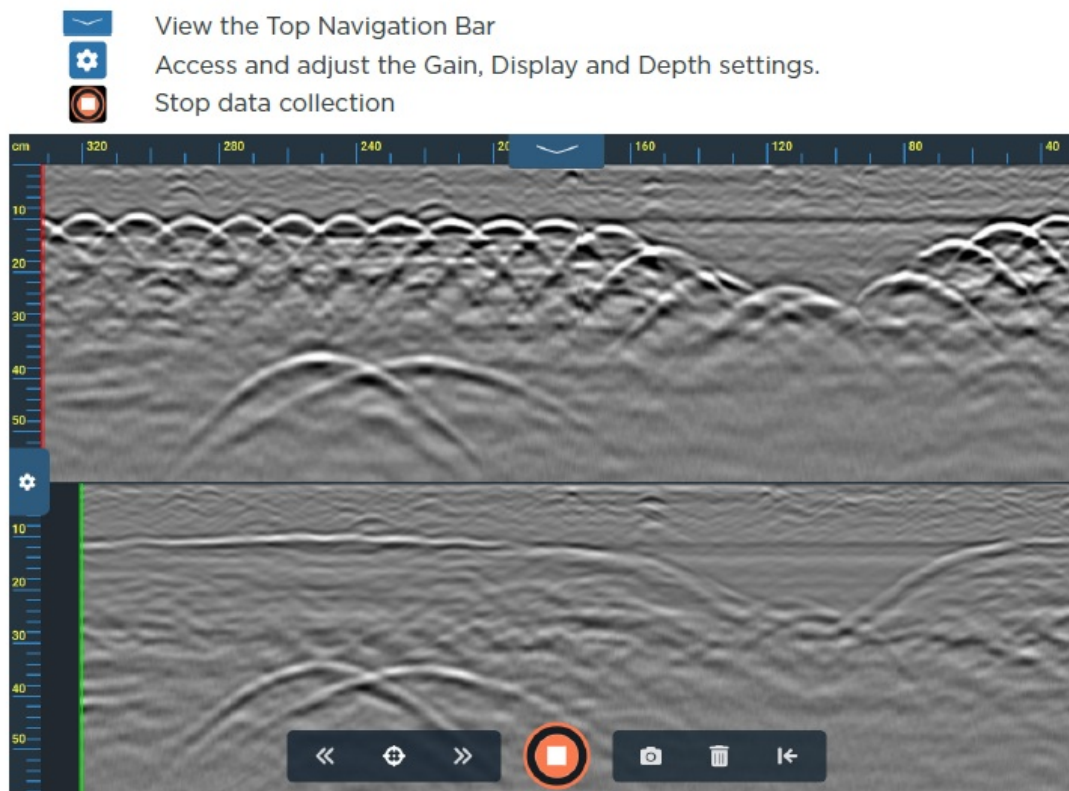
- This menu only appears once during each session.
- This setting will greatly impact depth readings. While collecting or viewing data, use the Depth Settings Menu to further refine the depth scale accuracy.

- The Last Used option will reuse the dielectric value from previous sessions.
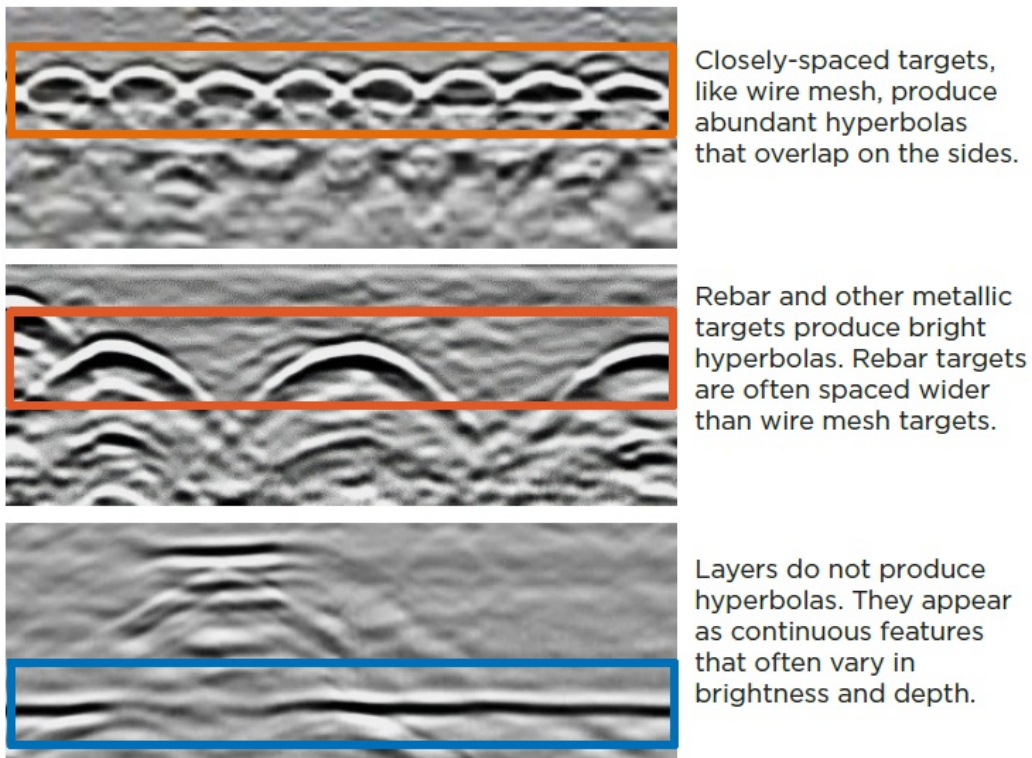
Data Collection Screen

A blank data collection screen will appear. Tap the icon to initiate a scan, and then move Flex LT forward to begin collecting data. Data will populate from left to right. Move Flex LT in reverse to view backup cursors that align with the red and green colored markers on the top, sides, and front and back of the system.
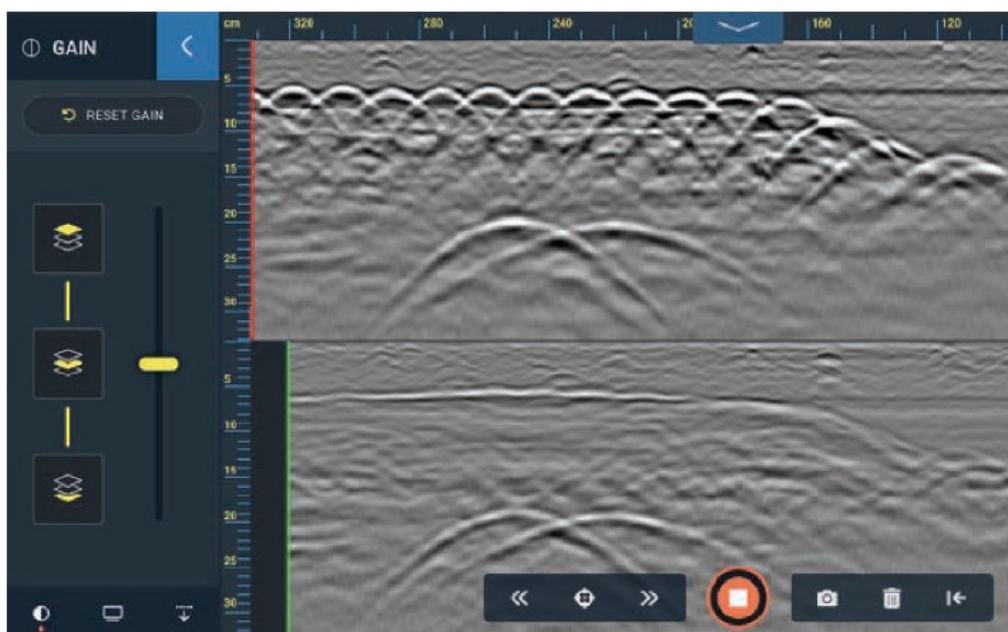

Collecting GPR Data

The GPR data will reveal two distinct categories of reflections: targets, and layers. Targets, such as rebar and conduit, are discrete objects below the surface and are represented by hyperbolas (orange boxes). Layers are continuous features, like the slab/grade contact (blue box).
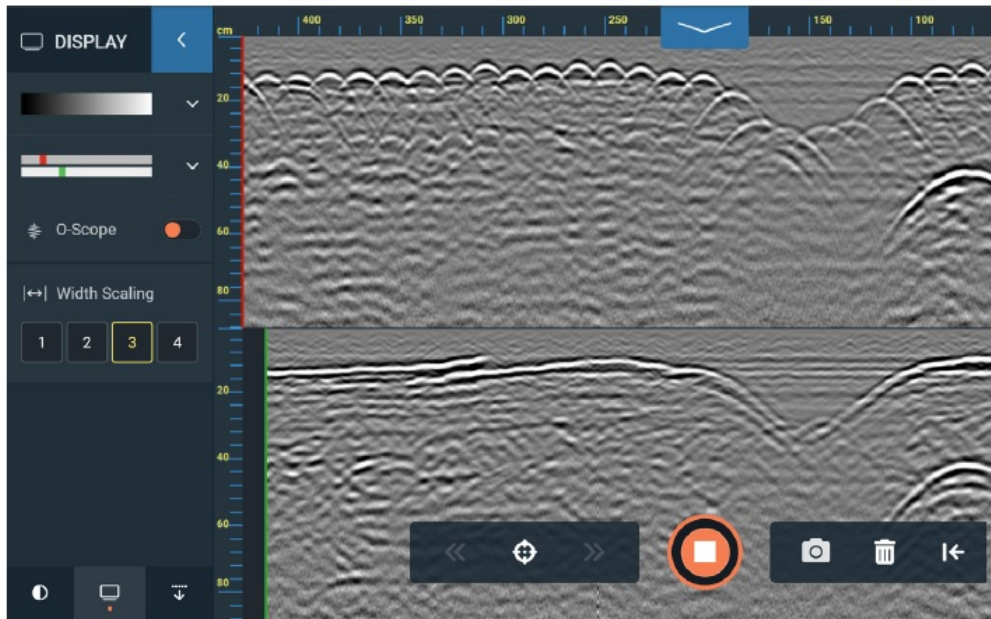

Closely-spaced targets, like wire mesh, produce abundant hyperbolas that overlap on the sides.

Rebar and other metallic targets produce bright hyperbolas. Rebar targets are often spaced wider than wire mesh targets.

Layers do not produce hyperbolas. They appear as continuous features that often vary in brightness and depth.

Improving Data Visualization

Tap the ⚙ icon on the depth scale to open a window with three nested menus: Gain, Display, and Depth. For now, click the Gain icon ◑ in the lower left. Here you can use the slider to adjust the overall contrast of the data or select one of three general depth levels (shallow, medium, deep) to selectively adjust contrast.

Adjusting Display Options

Tap the [icon] icon at the bottom of the panel to adjust the Display settings. Here you can quickly change your data display from the split screen with both antennas to full-screen options for the standard (front) and cross-polarized (rear) antennas. You can also adjust color tables, toggle the O-Scope, or adjust Width Scaling.

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Flex LT Support

FAQs

- **Q: How do I adjust the handle on Flex LT?**
  A: To adjust the handle, loosen the knob, reorient the handle, and tighten the knob. To remove the handle, fully loosen the knob.
- **Q: How do I power on/off Flex LT?**
  A: Press both buttons simultaneously to power on. Hold both buttons to power off.
- **Q: What do the colored markers on Flex LT antennas signify?**
  A: Red markers indicate the center points of the Standard Orientation antenna, while green markers indicate the center points of the Cross Polarized antenna.

Documents / Resources

Geophysical MN73-254 LT NX Concrete Scanning Geophysical Survey Systems [pdf] User Guide
MN73-254 LT, MN73-254 LT NX Concrete Scanning Geophysical Survey Systems, NX Concrete Scanning Geophysical Survey Systems, Scanning Geophysical Survey Systems, Geophysical Survey Systems, Survey Systems

References

- **Ground Penetrating Radar (GPR) Equipment | GSSI Inc. | Georadar**
- **Patents - GSSI Geophysical Survey Systems, Inc.**
- **User Manual**