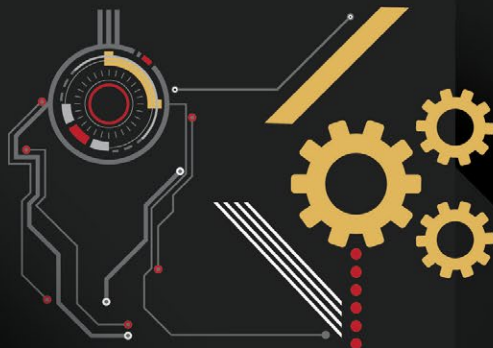




USER MANUAL



Primeron **MD15**



A collection of line drawings of various scientific instruments, including a GRADIO SMART antenna, a tablet, a probe, a control unit, a coil, and cables. The drawings are arranged on a grid background. The GRADIO SMART antenna is a long, thin rod with a control unit at the top. A tablet is shown next to it. A probe is shown with a control unit. A coil is shown with a control unit. Cables are shown connecting the various units.

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This manual has been prepared to serve as the primary reference for operating the **Primero MD15** detector. It aims to assist the user in correctly and accurately operating the detector and benefiting from its various systems throughout all stages of field exploration.

The **Primero MD15** detector operates as a multi-system detection platform, integrating four comprehensive system groups that combine detection, analysis, and ground-imaging technologies. These systems enable the user to conduct search operations starting from the initial exploration of large areas, progressing through verification and analytical stages, and ultimately reaching precise target localization prior to excavation.

Due to the diversity of systems and the differences in their operating mechanisms, achieving optimal results depends on a correct understanding of how each system functions, as well as selecting the appropriate system according to the target type, soil characteristics, and search environment. Accordingly, this manual has been structured to provide clear and direct instructions that help the user apply these principles practically in the field.

This manual is designed to be suitable for two categories of users:

Beginner User:

A user who is operating the **Primero MD15** detector for the first time and seeks to understand the correct operating procedure step by step and who relies on automatic systems as an entry point for the search process.

Professional User:

Users with field experience, exploration teams, and specialized research groups who rely on manual settings and advanced analytical capabilities.

Acknowledgment

Thank you for choosing the **Primero MD15** detector.

This manual has been prepared to assist you in using the detector efficiently and achieving the best possible performance during field operations.

We recommend carefully reading this manual before starting use and adhering to the guidelines and instructions provided to ensure accurate results and a safe, stable operating experience.

Adhering to safety instructions is an essential requirement for the correct and safe operation of the Primero MD15 detector, and for ensuring accurate results during field search operations.

Failure to comply with these instructions may result in incorrect readings or expose both the detector and the user to unnecessary risks.

General Safety Instructions:

-  Use the detector only for its intended purposes as described in this manual.
-  Do not open the detector or modify any of its internal components, as this may cause damage to the components or void the warranty.
-  The detector must be operated only by trained adults familiar with fieldwork procedures.
-  Avoid using the detector in extreme weather conditions such as heavy rain or severe sandstorms.

Avoiding Interference Sources:

Many systems of the Primero MD15 detector rely on signal reception and analysis; therefore, it is necessary to:

Keep away from electromagnetic interference sources such as:

- High-voltage power lines.
- Communication towers.
- Radio transmission stations.

Avoid nearby metallic objects within the search area, such as:

- Vehicles.
- Metal tools.
- Mobile phones.
- Jewelry and watches.

Warning

The presence of nearby interference sources may lead to:
False signals → Loss of targeting accuracy → Unreliable results

Safety Instructions During Field Operations:

- Ensure that the detector is carried correctly, as explained in the operating sections.
- Maintain a stable detector position during calibration or measurement.
- Do not change settings or switch systems while performing a sensitive measurement.
- Avoid rapid or irregular movement during tracking or ground-imaging operations.

Safety Instructions for Probes and Ground Tools:

When using geophysical systems or ground-imaging systems:

- Insert the ground probes carefully to avoid slipping or injury.
- Ensure that the probes are positioned vertically to the ground and firmly fixed in the soil.
- Do not touch the probe tips or cables during the measurement process.
- Make sure that all cables and clamps are properly connected before starting the search operation.

Electrical and Battery Safety Instructions:

- Use only the charger supplied or specified for the detector.
- Do not charge the detector in humid environments or near water sources.
- Do not store the detector for long periods with a fully depleted battery.

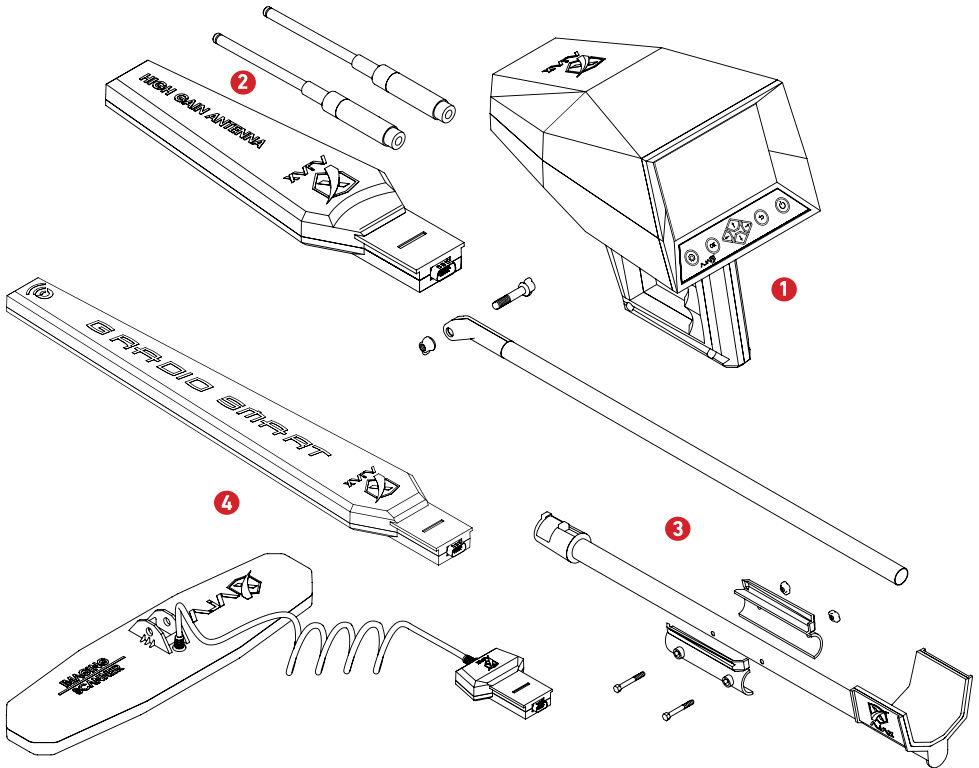
Important Note

Compliance with safety instructions not only protects the user and the detector, but also contributes to:
Improved result accuracy + Reduced false signals + Stable performance in challenging environments.

The Primero MD15 detector is supplied in a durable field carrying case designed to protect all components during transportation and use in various environments. The contents of the case are arranged to ensure that all parts operate in full harmony within the detector's integrated system.

Contents

The case includes the following components:



1

Main Control Unit of the Primero MD15 Detector

Includes the display screen, control interface, and the detector's internal processing systems.

2

Long-Range Search Antennas and Sensors

Designed for use with long-range detection systems (Automatic, Manual, and Ionic modes).

3

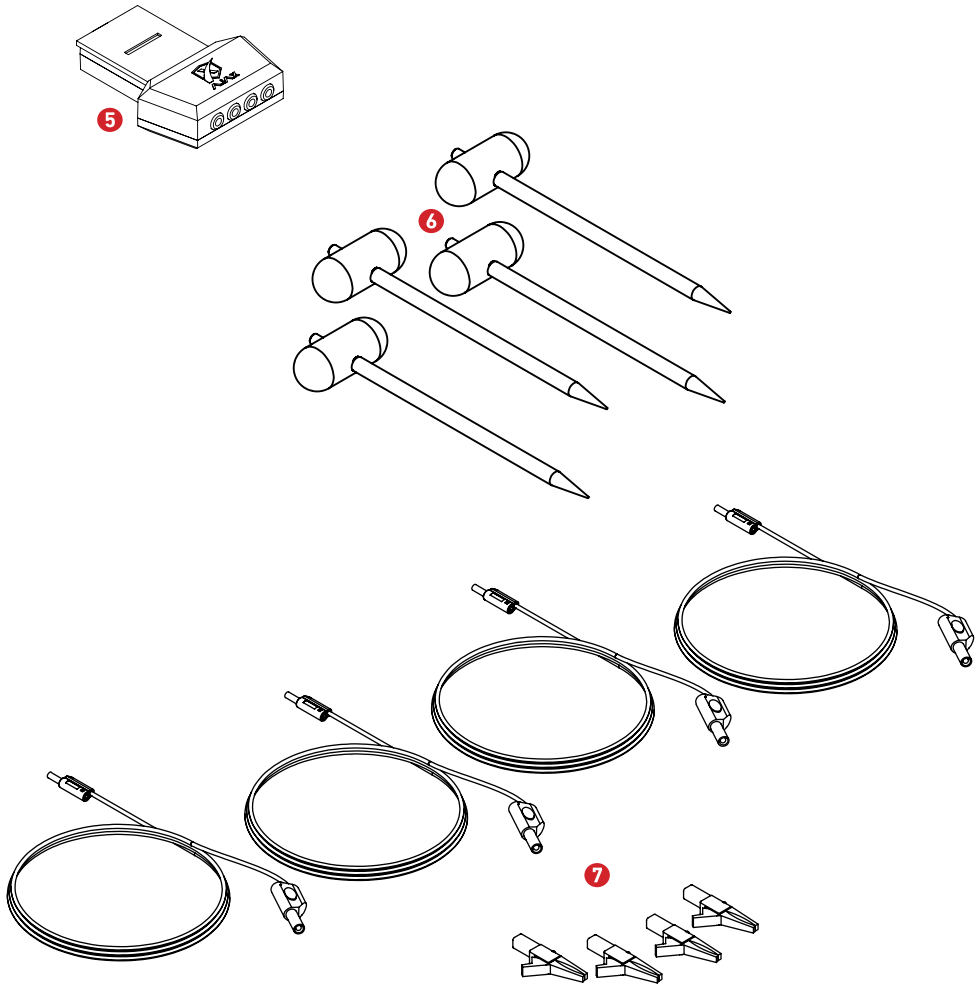
Extension Shaft (Main Detector Shaft)

Used to carry the detector and mount the main unit and search tool at the front of the arm, with adjustable length and working angle for field scanning.

4

Ground Imaging System Accessories

Imaging scanner + Gradio Smart sensor.



5

Geophysical System Connection Box

Used to connect ground probes to the detector during operation of geophysical systems.

6

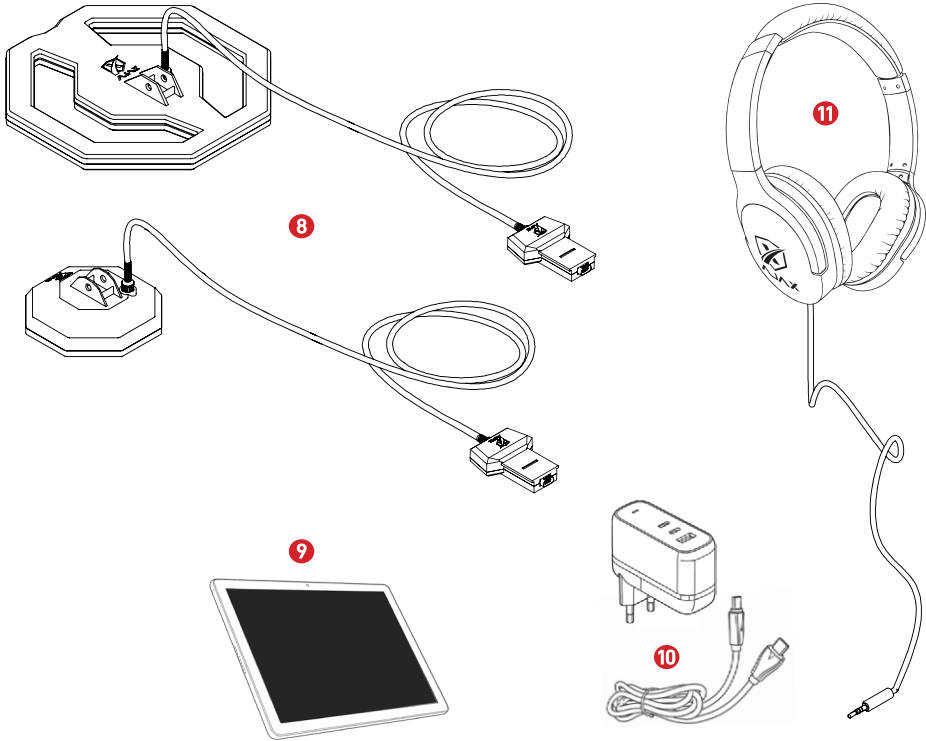
Geophysical Ground Probes

Used to measure and analyze soil resistance and electrical signal response.

7

Connection Cables and Clamps

Designed to securely connect the probes and connection box to the main detector unit.



8

Two Search Coils in Different Sizes

Used with EFM technology systems for detecting surface and medium-depth targets.

9

Tablet Device

Used to display and analyze ground imaging system results through the dedicated software.

10

Charger

Designed to charge the detector battery according to approved specifications.

11

Professional Headphones

Used to enhance the clarity of audio signals during search operations.

12

User Manual and Warranty

Includes operating instructions and essential guidelines, along with the warranty card and quality certificate.

Important Notes

Some components may vary depending on the detector version or supplied package.

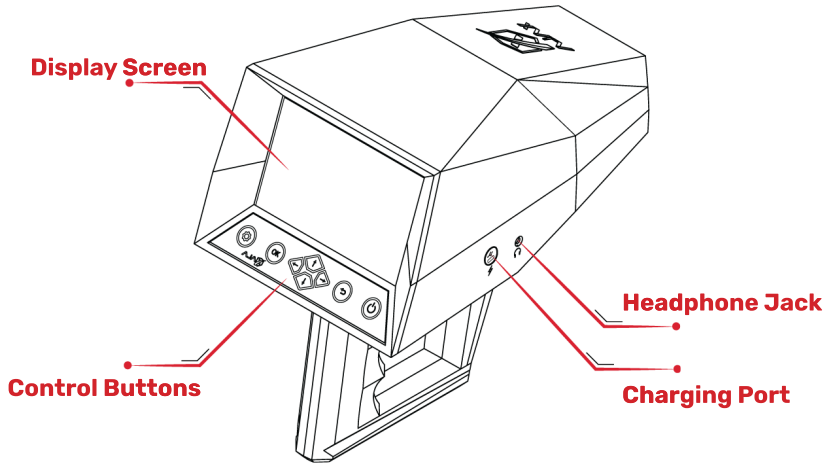
Ensure that all components are present before first use.

In case of any missing or damaged items, it is recommended not to operate the detector and to contact the supplier immediately.

Item	Specification
Search Principle	Multi-system detection and functional platform, featuring 15 search systems
Processing Type	Advanced signal processing architecture
Operating Processor	ARM Microcontroller – 32-bit
Display Screen	Color TFT display, WVGA resolution 800 × 480
Main Battery	Built-in – 12 V / 3500 mAh
Power Consumption	Average 400 mA
Battery Operating Time	Up to 5 hours (varies depending on screen brightness, audio levels, and active functions)
Power Charger	USB Type-C / PD
Memory Storage	Up to 50 saved records
Audio Output	High-quality sound
Audio Alerts	Yes, with full volume control across all functions
Vibration Alert	Yes, optional
Bluetooth	Yes, 2.4 GHz, sensitivity up to -80 dBm
Languages	Yes, supports 8 languages
Date & Time	Yes
Password Protection	Yes, can be reset or disabled
Assembled Detector Dimensions	Ranges from 49 × 21 × 15 cm up to 140 × 44 × 24 cm, depending on the active system
External Packaging Dimensions	88 × 52 × 20 cm
Total Weight (with case)	8.9 kg
Weight with External Packaging	10.2 kg
Operating Temperature	From -10°C to +60°C
Storage Temperature	From -10°C to +80°C
Humidity	Operable and storable at humidity levels up to 100%

The Primero MD15 detector has been designed as an integrated structure that includes a central control unit along with multiple accessories and search systems operating together within a single unified platform.

Understanding the detector components and the function of each part helps ensure correct system operation and prevents errors during field use.



Main Detector Components

Main Unit

The main unit serves as the central control and processing hub of the detector and includes:

- Display screen.
- Control buttons.
- Accessory connection ports.
- Dedicated processing systems for all search modes.

The main unit is used to select search systems, adjust settings, display results, and perform measurement and calibration operations.

Connection Ports

The detector is equipped with several dedicated ports for connecting:

- Long-range antennas and detection systems.
- Ground imaging tools and systems.
- Geophysical system connection box.
- Charger and headphones.

Ensure that each accessory is connected to the correct port before activating any search system.

Long-Range Search Antennas

These include the high-gain antenna and the movable antennas. They are used with long-range detection systems and function to:

- Receive target signals.
- Guide the user toward the target location.
- Assist in path tracking and precise target point localization.

The antennas must be properly installed, and the detector must be held correctly to ensure accurate guidance.

Ground Imaging Tools and Systems

These include:

- Imaging scanner.
- Gradio Smart sensor.

These tools are used to generate two-dimensional or three-dimensional images of the subsurface, helping to determine the target's shape, estimate its depth, and distinguish between metals and cavities.

Geophysical Ground Probes

Used with geophysical systems, these probes function to:

- Measure soil resistance.
- Analyze electrical signals.
- Detect water and metals.

The probes are connected to the detector through the dedicated connection box.

Search Coils

The coils are used with EFM technology systems and are available in different sizes to suit:

- Small targets.
- Medium targets.
- Larger targets.

The appropriate coil is selected based on the type of search and the nature of the target.

Important Notes

Understanding the function of each component and using it correctly is an essential step before proceeding to operate the different systems or conducting any field search operation.

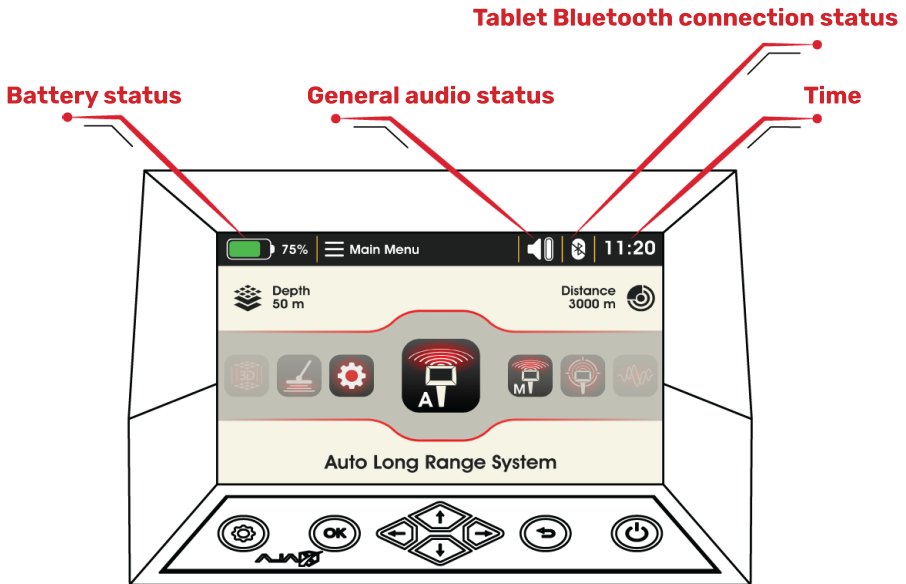
The user interface of the Primero MD15 detector includes the control elements, menus, icons, and on-screen indicators, enabling proper and precise control of the detector during field operations.

Display Screen (User Interface)

The detector's display presents all operational information related to the search systems, including:

- Current system status.
- Signal and direction indicators.
- Graphs and ground imaging visuals.
- Alert messages and connection status.

The display interface is designed to be clear and easy to read under various lighting conditions, with a well-organized layout that allows efficient monitoring of results while in motion.



Main Menu

Upon powering on the detector, the main menu appears, allowing the user to access the following systems:

Long-Range Detection Systems

Includes three different systems:

1. Automatic Long-Range System.
2. Manual Long-Range System.
3. Ionic Long-Range System.

Geophysical Detection Systems

Includes three different systems:

4. Automatic Geophysical System.
5. Manual Geophysical System.
6. Imaging Geophysical System.

EFM Technology Detection Systems

Includes five different systems:

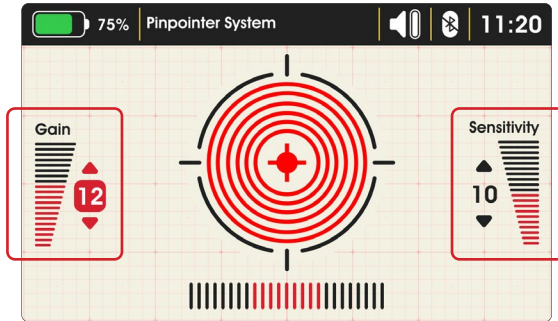
7. Spectrum Analyzer System.
8. Graph System.
9. Discrimination System.
10. Pinpointer System.
11. Quick Scan System.

Ground Imaging Detection Systems

Includes four different systems:

12. Live Scan System.
13. Gradio Smart System.
14. Ground Imaging System.
15. Ground Sonar System.

The desired system or option is selected using the navigation buttons and confirmed using the Confirm /  button.



Signal Indicators and Control

Sensitivity Indicator:

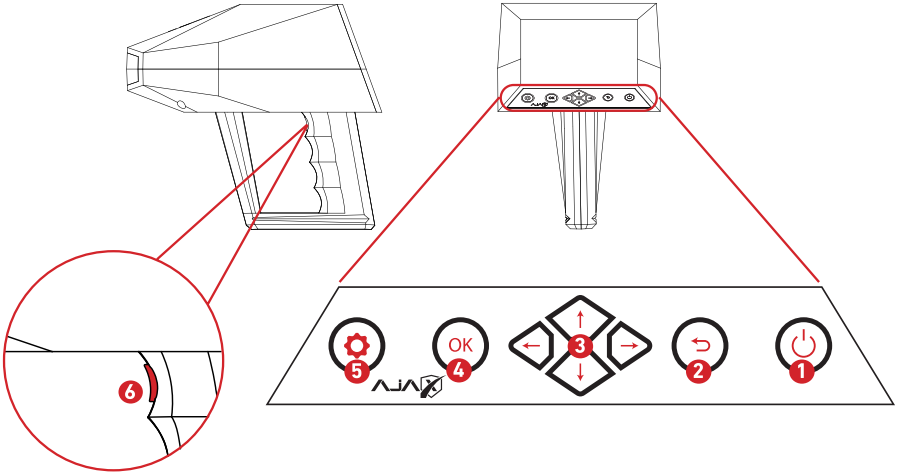
- The sensitivity indicator displays the detector's level of response to signals received from targets.
- Increasing the sensitivity value enhances the detector's ability to capture weak signals; however, in certain environments, it may also increase the detector's response to interference.

Gain Indicator:

- The gain indicator displays the level of signal amplification after the signal is received from the target.
- Adjusting the gain enhances the clarity of the signal displayed on the screen without affecting the signal reception process itself.
- Gain is used to improve signal readability after the sensitivity has been properly adjusted.

Note

It is recommended to adjust both sensitivity and gain values according to soil conditions, the level of interference caused by unwanted metals, and the type of search system in use.



1

Power On / Off

Used to turn the detector on or off.

2

Back Button

Returns to the previous menu or exits the current system.

3

Directional Buttons

Used to select systems and navigate through menus within the user interface.

4

OK / Confirm Button

Used to enter a system, confirm selections, and proceed to the next interface.

5

Quick Settings Button

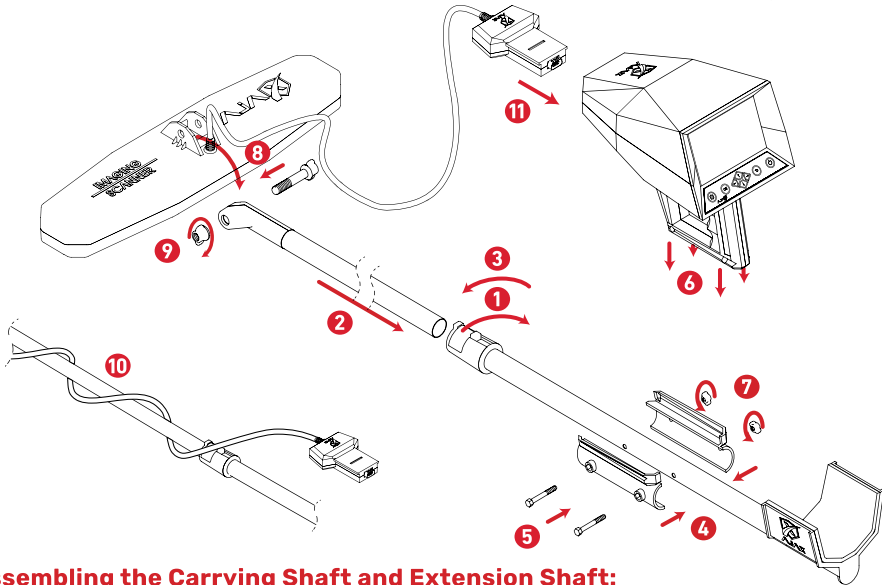
Press to display the quick settings menu.

6

Handle Button

Used to execute quick commands such as starting a measurement or performing ground balancing, depending on the active system.

The assembly steps of the Primero MD15 detector and its accessories must be carried out in the correct order before operation to ensure stability, measurement accuracy, and safe use during field operations.



Assembling the Carrying Shaft and Extension Shaft:

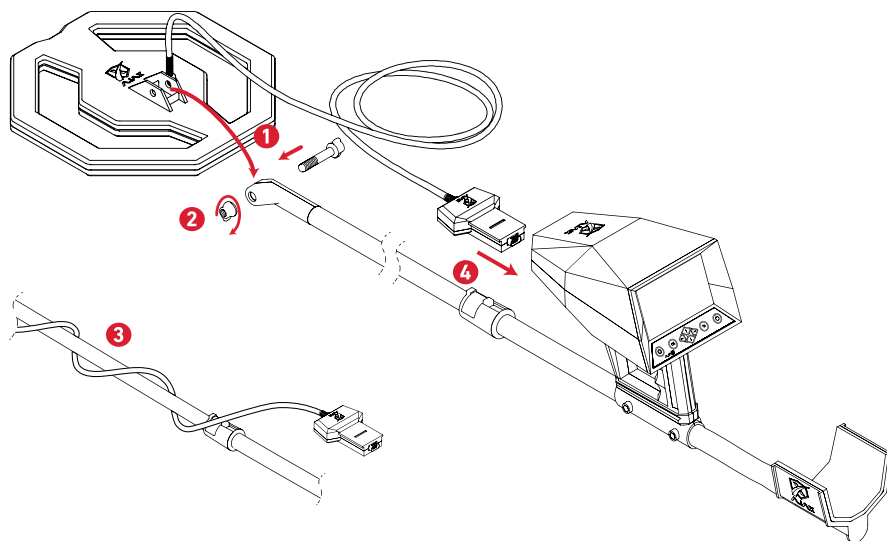
- 1 Open the lock of the carrying shaft.
- 2 Insert the extension shaft into the carrying shaft until the desired length is reached. Adjust the length to allow comfortable handling of the detector while keeping the search tool parallel to the ground surface.
- 3 Securely close the extension shaft lock to ensure shaft stability during use.

Installing the Main Unit:

- 4 Align the holder openings with the shaft mounting holes.
- 5 Insert the screws into their designated positions.
- 6 Place the detector handle into the holder on the carrying shaft.
- 7 Tighten the nuts moderately to secure the unit firmly within the holder.

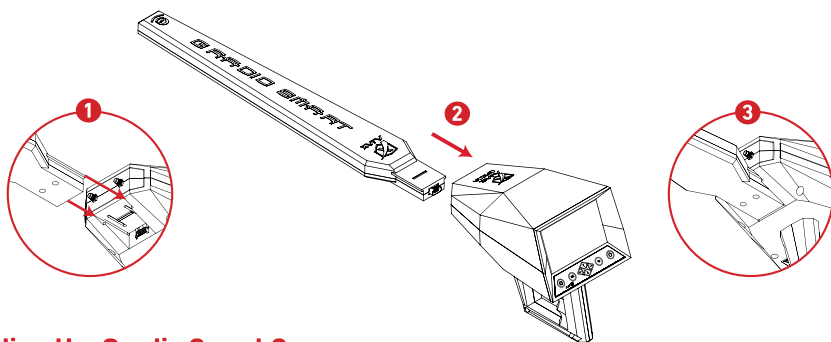
Assembling the Imaging Scanner:

- 8 Align the imaging scanner with the head of the extension shaft and insert the designated fixing bolt to mount the scanner.
- 9 Adjust the scanner angle so that it is parallel to the ground surface, then tighten the nut until the scanner is fully secured.
- 10 Wrap the scanner cable neatly around the extension shaft without over-tightening.
- 11 Connect the scanner connector to the dedicated port on the front of the main unit and ensure a secure connection before activating the system.



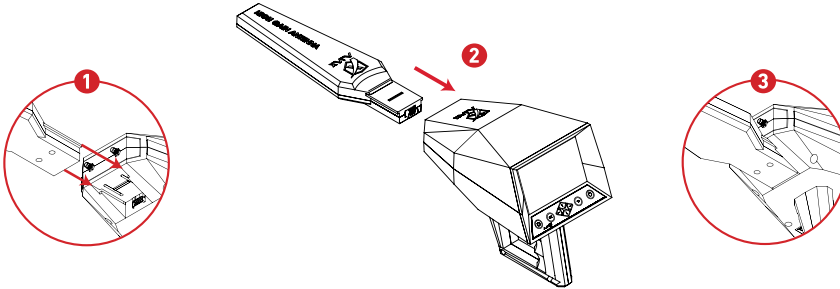
Assembling the Search Coil:

- 1 Attach the search coil (C1 or C2) to the front of the extension shaft, then insert the designated mounting bolt. Adjust the coil angle so that it is parallel to the ground surface.
- 2 Tighten the nut until the coil is fully secured.
- 3 Wrap the coil cable neatly around the extension shaft without over-tightening.
- 4 Connect the coil connector to the dedicated port on the front of the main unit and ensure a secure connection before activating the system.



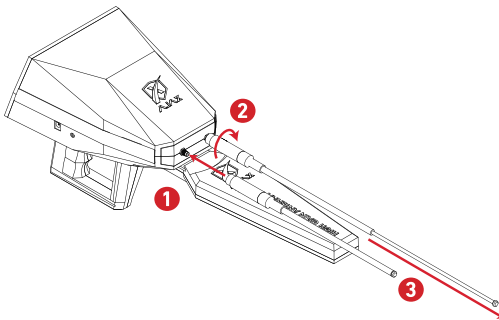
Assembling the Gradio Smart Sensor:

- 1 Align the end of the Gradio Smart sensor with the dedicated connection port on the front of the main unit.
- 2 Insert the sensor toward the main unit until it seats correctly in place.
- 3 Press the sensor firmly toward the main unit until it is securely locked.



Assembling the High-Gain Antenna:

- 1 Align the end of the high-gain antenna with the dedicated connection port on the front of the main unit.
- 2 Insert the antenna toward the main unit until it seats correctly in place.
- 3 Press the antenna firmly toward the main unit until it is securely locked.

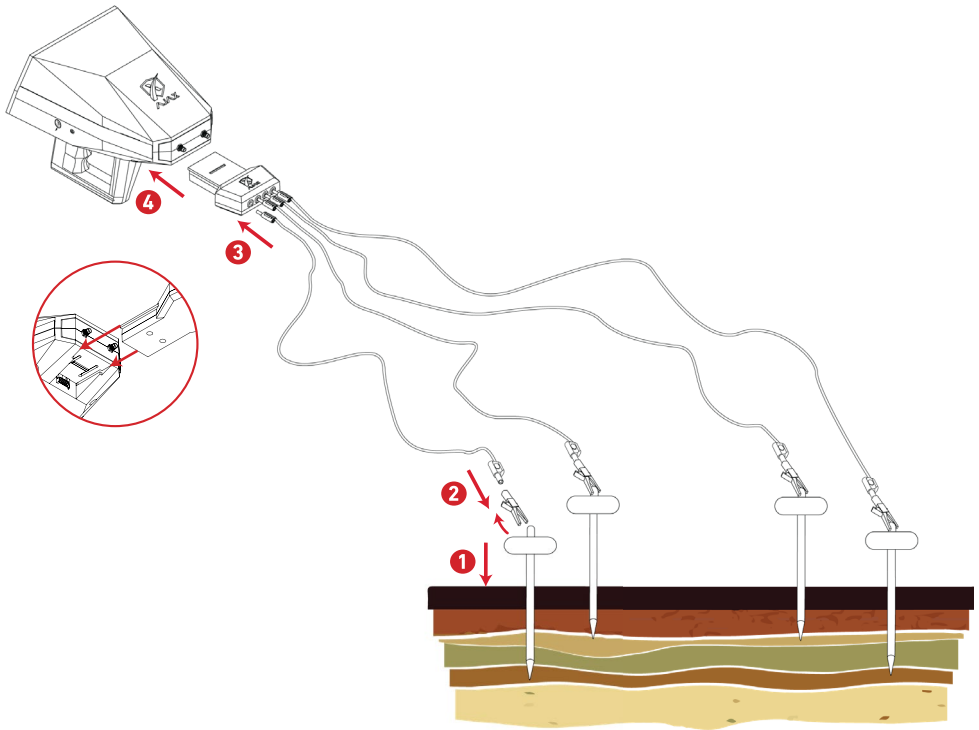


Assembling the Movable Antennas:

- 1 Insert the movable antennas into the designated ports located on the front of the main unit.
- 2 Securely screw the antennas into place and ensure they are firmly seated within the ports.
- 3 Hold the front of the antennas and gently pull them forward to their full operating position, ensuring free movement and smooth rotation without friction.

Important Notes

The movable antennas and the high-gain antenna are used only with long-range search systems.



Geophysical Probes Assembly:

- 1 Insert the probes vertically into the ground within the search area according to the number of survey lines defined by the selected geophysical system.
- 2 Connect the clamps and wires to the probes.
- 3 Connect the probe cables to the dedicated connection box.
- 4 Connect the connection box to the main unit, then ensure that all cables are secured away from the movement path to prevent interference or disconnection during scanning.

To ensure the highest standards of stability and efficiency for the Primero MD15 detector, the initial setup steps outlined below must be followed carefully. Adhering to this sequence helps the user understand the detector's response before beginning actual prospecting, which is essential when using the detector for the first time or when calibrating it for a new search environment.

Pre-Operation Preparation

Before powering on the detector, ensure the following:

- Fully charge the detector battery using the designated charger to guarantee stable voltage during operation.
- Select an open area that is as free as possible from electromagnetic interference sources.
- Stay away from power lines, communication towers, and vehicles or large metallic equipment.
- Remove all personal metallic items such as mobile phones, watches, keys, or any metal objects close to the body.

This preparation is a critical step, as the surrounding environment directly affects signal accuracy in most of the detector's systems.

Component Installation According to the Search System

Component installation depends on the system to be used and must comply with the following:

Long-Range Detection Systems (Automatic or Manual):

- Securely install the high-gain antenna.
- Install the movable antennas and ensure their freedom of movement and proper balance.

Long-Range Detection Systems (Ionic):

- Securely install the high-gain antenna only.

EFM Technology Systems:

- Select the appropriate search coil based on the expected target type.
- Mount the coil and ensure the cable is properly connected without twisting or tension.

Ground Imaging Systems:

- Connect the imaging scanner or the Gradio Smart sensor, depending on the selected system.
- Ensure the scanning tool is correctly secured before operation.

Geophysical Systems:

- Insert the ground probes firmly into the soil in a vertical position.
- Connect the probes to the connection box, then link the box to the main unit.



Any incorrect connection may result in inaccurate results or warning messages displayed on the screen.

Powering On and Readiness Check:

- Press and hold the power button until the detector starts booting.
- Wait for the main user interface to appear.

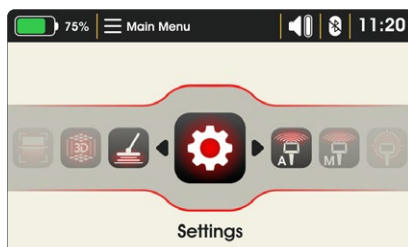
After Power-On:

- Check the battery charge level.
- Ensure that the detector recognizes the connected tool or system.
- If any warning message appears, do not start the search until the displayed issue has been resolved.

The Settings menu of the PRIMERO MD15 detector is used to adjust the detector's basic parameters, customize the user interface, and manage various system functions in accordance with user requirements and field operating conditions.

Accessing the Settings Menu

- Use the arrow  buttons to navigate until reaching the Settings icon.
- Press the  / Confirm button to enter the Settings menu.



Language

This option is used to select the user interface language.

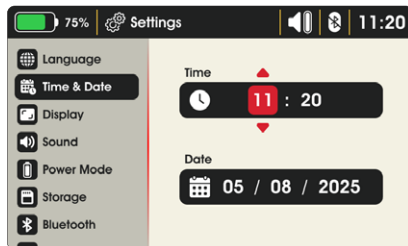
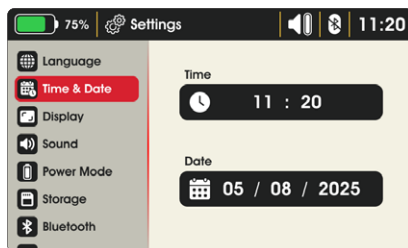
- Navigate to the Language option within the Settings menu.
- Press  to display the list of available languages.
- Select the desired language using the arrow  buttons.
- Press  to confirm the selection.
- Press the Back  button to return to the Settings menu.



Date and Time

This option is used to set the detector's internal date and time.

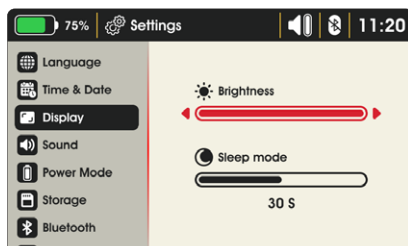
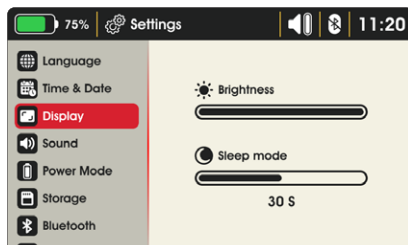
- Navigate to the Date & Time option and press .
- Use the Up / Down   arrows to change the value.
- Use the Right / Left   arrows to move between date and time fields.
- After completion, press the  Button to save the settings and return.



Display

This option is used to adjust the display brightness level or standby mode.

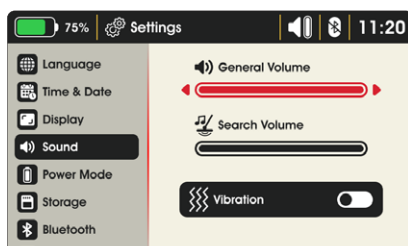
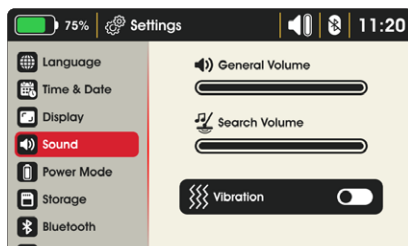
- Adjust the settings using the arrow  buttons and confirm with  as desired.



Sound and Vibration

This option is used to control the audio level and enable or disable vibration mode.

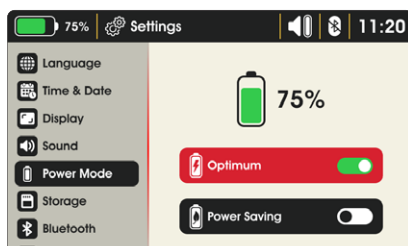
- Includes control of the general volume level, search tones, alert sounds, and vibration as an additional notification method during operation.
- Adjust the settings using the arrow  buttons and confirm with  as desired.



Power Mode

This option is used to manage the detector's power consumption.

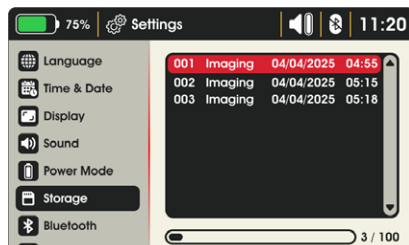
- Allows selection between normal operating mode or activation of power-saving mode to reduce battery consumption and extend operating time.
- Adjust the settings using the arrow  buttons and confirm with  as desired.



Storage

This option is used to manage data stored in the detector's memory.

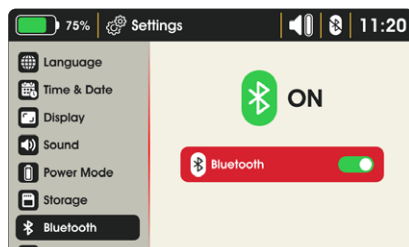
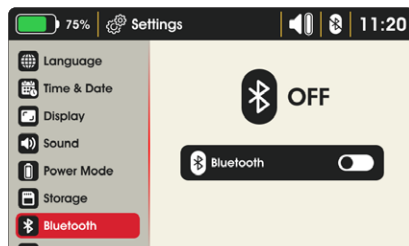
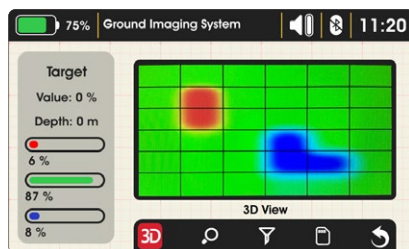
- Includes viewing saved records and managing data recorded during search operations.



Bluetooth

This option is used to enable or disable Bluetooth connectivity.

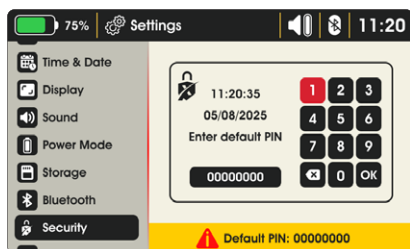
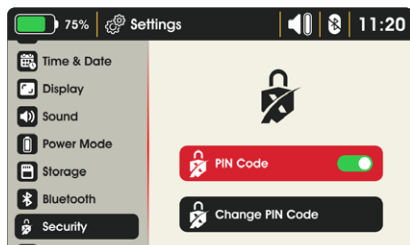
- Controls the wireless Bluetooth function when pairing the detector with compatible accessories or external devices.



Security

This option is used to set or change the detector's default password.

- Navigate to the Security option and press  then enter the new password using the arrow  buttons and confirm with .



Reset

The Initialization icon contains three independent options used to manage detector data and settings. Each option must be used carefully according to its intended purpose.

Clear Memory

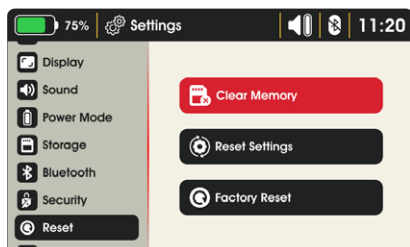
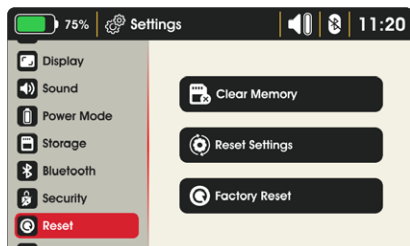
Used to delete all saved records and previous search results stored in the detector's memory.

Reset Settings

Used to reset the current operating settings of the detector.

Factory Reset

Used to restore the detector to its original factory default settings.



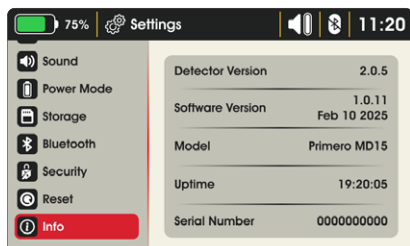
Warning

This operation cannot be undone once executed.

Device Information

This section displays technical information about the detector, including.

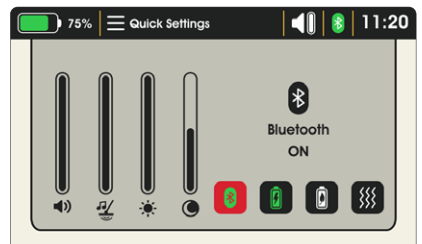
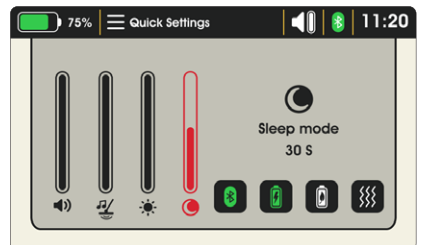
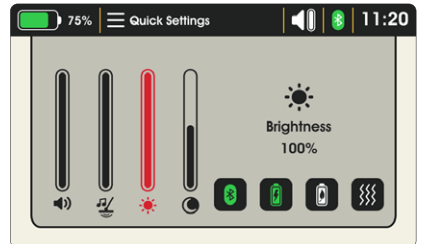
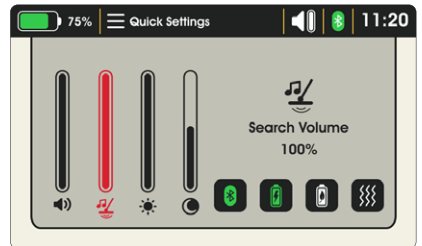
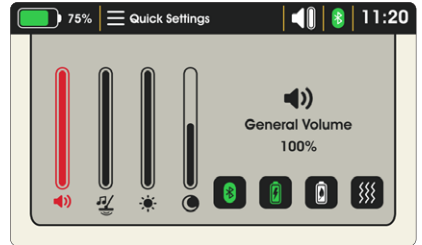
- Detector name
- Software version number and release date.
- Total operating time.
- Serial number.



Quick Settings are used to provide instant access to the most important adjustments during field operations. Press the Quick Settings  button on the control panel to immediately display the Quick Settings interface on the screen.

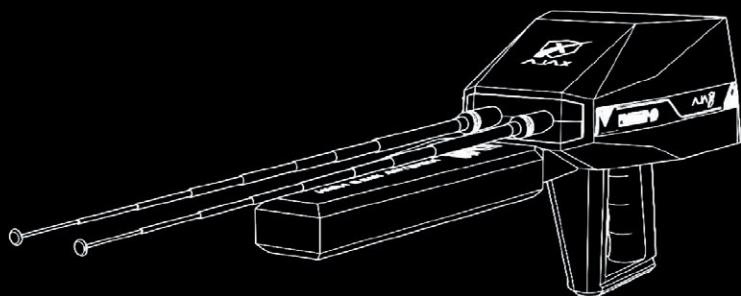
The Quick Settings menu includes:

- General volume  and search volume 
- Screen brightness 
- Standby mode 
- Bluetooth 
- Battery mode (Normal  / Power Saving ).
- Vibration 



Long Range Detection Systems

Auto Long Range System



Primerom 15

The detector includes three specialized long-range detection systems:

the Automatic System, the Manual System, and the Ionic System.

These systems differ in their method of operation; however, all are based on a unified working principle that relies on receiving target frequencies through the signal receiver and guiding the user accurately toward the target location.

Long-range detection systems are intended for use in open areas and require maintaining a safe distance from interference sources such as power lines, radio waves, and communication towers.

All metallic objects (jewelry, watches, mobile phones, vehicles, etc.) must also be kept at a distance of no less than 200 meters from the search area.

These systems are suitable for detecting targets that have been buried for a period of no less than five years, during which the targets interact with the surrounding soil and natural environmental factors, leading to the formation of an electromagnetic field that the detector can capture and track.



1. Automatic Long-Range System



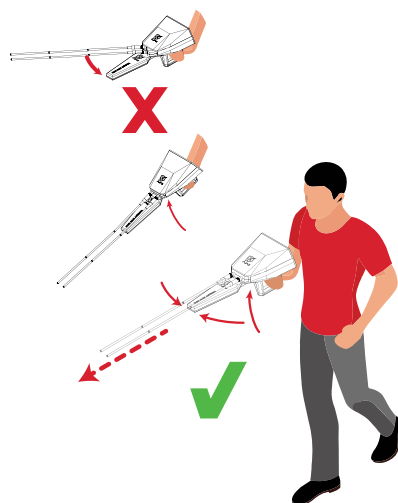
This system is used in open and unfamiliar areas and has been developed to serve as the primary starting point for any search operation. It helps the explorer identify the types of targets present within the search area and track them before using any other system, thereby saving time and effort.

Operating Method:

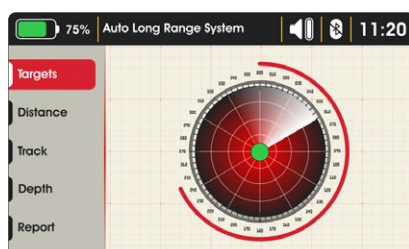
- Connect the high-gain antenna and the movable antennas.
- Use the arrow  buttons to select the Automatic Long-Range Search System, then press .

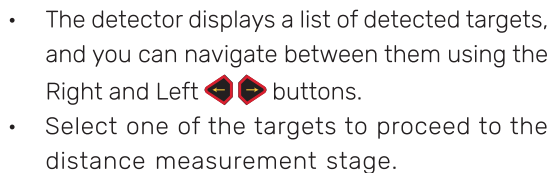


- Hold the detector correctly so that it remains upright and parallel to the ground, keeping the movable antennas centered, then press .
- Orient the detector toward the south  opposite to the direction of electromagnetic field propagation.
- Direct the detector toward the search area and wait for signal reception.

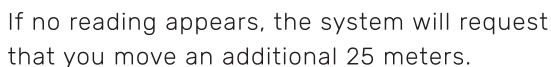
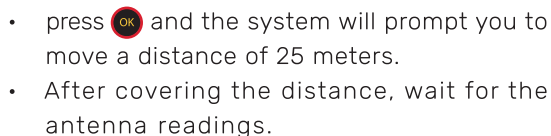


The detector will automatically scan for all target signals within the search range until the interactive indicator completes its cycle.





- Define a starting point to the right or left of your current position.



press  to display directional arrows forming a triangle that indicates the target distance. The system then automatically transitions to the target tracking stage.



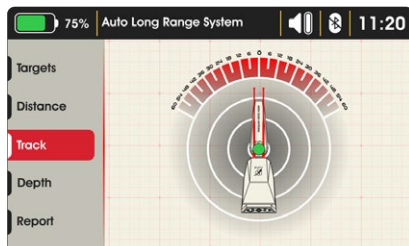


1. Automatic Long-Range System

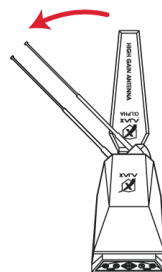


Target Tracking Stage:

- Hold the detector correctly while keeping the carrying indicator ● centered on the interface.



- Wait for signal reception, indicated by the movable antennas shifting from their balanced position.

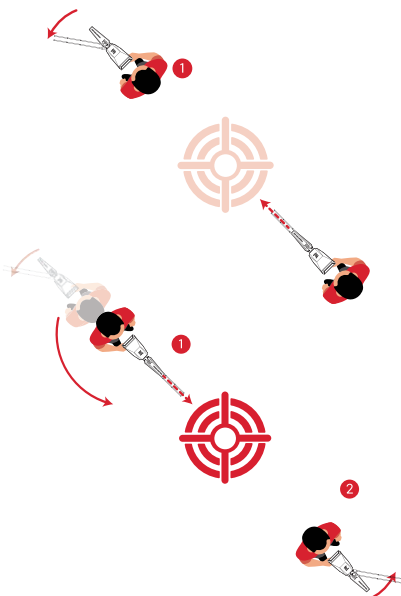


- Move in the direction indicated by the antennas.
- Repeat the procedure from a different direction. If the antennas continue to indicate the same direction, the path is correct; if the direction changes, repeat the previous steps.

- When passing over the target point, the antennas will fully deflect to the right or left this marks the **first stopping point 1**

- Turn in the direction of the antennas and continue walking until they deflect again this marks the second stopping point. **The target point** is located at the midpoint between the **two stopping points 2**

- Press **OK** to proceed to the depth measurement stage.



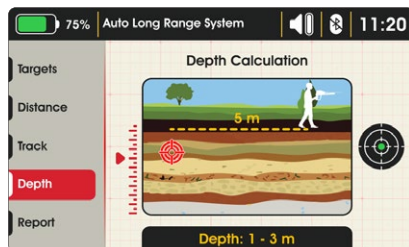


1. Automatic Long-Range System



Depth Measurement:

- Move 5 meters away from the target point.
- Press the handle button and wait for the reading.
- Once the measurement is complete, the detector displays the depth result on the screen, and the system automatically transitions to the final report.



Report:

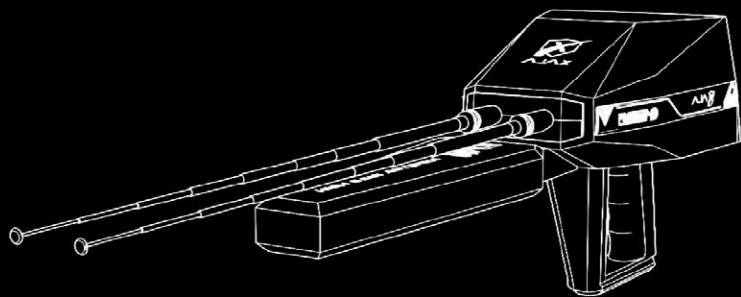
The report provides a complete summary of the search operation and includes:

- Target type.
- Distance.
- Depth.



Long Range Detection Systems

Manual Long Range System



Primerom 15



2. Manual Long-Range System



The manual long-range detection system gives the user full control over search parameters, allowing manual adjustment of the settings according to site conditions and detection requirements.

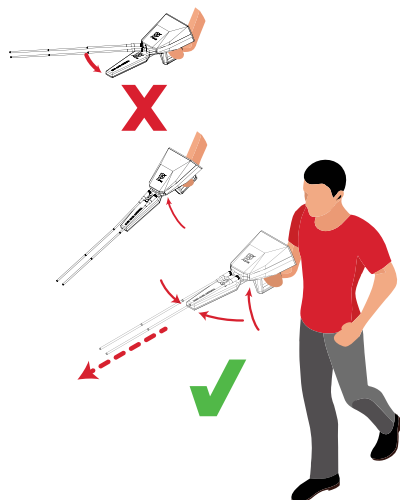
This system enables the user to define the target type, forward search distance, and search depth, providing higher accuracy in specific areas compared to the automatic system.

Operating Method

- Connect the high-gain antenna and the movable antennas to access the search interface.
- From the main menu, select the Manual Long-Range Detection System.



- Hold the detector correctly so that it remains upright and parallel to the ground, keeping the movable antennas centered, then press .





2. Manual Long-Range System



Target

The target type can be selected from the following list:

Gold – Raw Gold – Silver – Copper – Bronze – Iron – Tin – Lead – Aluminum – Meteorite – Diamond – Emerald – Water – Cavity.

Distance

The search distance starts from 100 meters and extends up to 3000 meters.

It is adjusted using the arrow buttons.

Depth

The search depth starts from 1 meter and extends up to 70 meters.

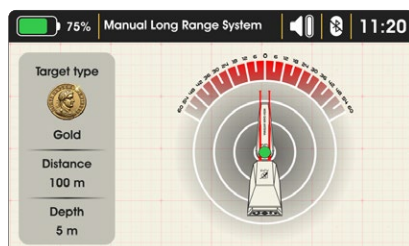
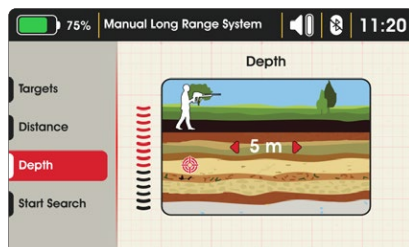
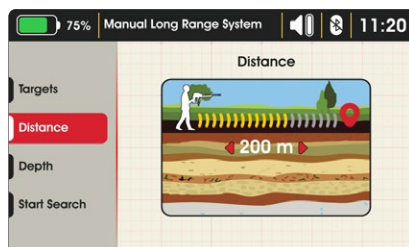
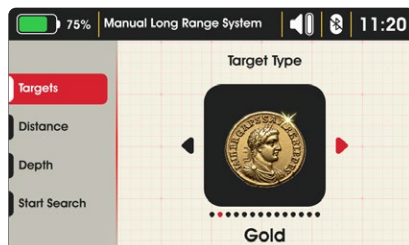
It can be increased or decreased using the arrow buttons.

Start Scanning

- After configuring all settings, the system displays an overview of the search parameters.
- Press  to proceed to the search interfaces.

The green circle represents an indicator  that helps the user hold the detector correctly and must always be kept centered.

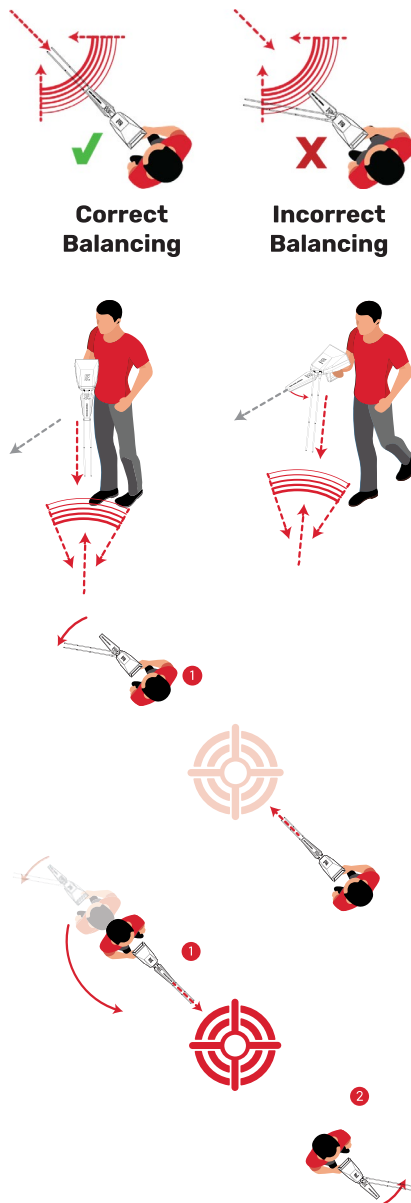
The other indicator shows the current direction of the antennas relative to the detector.





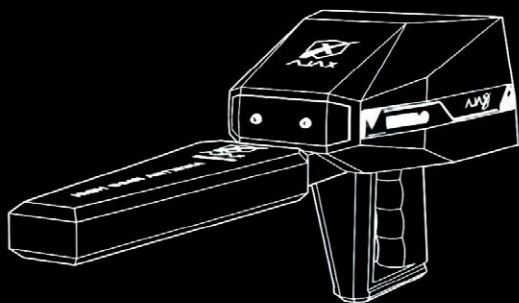
Target Tracking Method

- Hold the detector correctly and perform the balancing process.
- Keep the detector holding indicator ● centered on the interface while moving.
- Wait for signal reception, indicated by the movable antennas shifting from their balanced position.
- Move in the direction indicated by the antennas toward the new path.
- Repeat the same procedure from a different direction. If the antennas continue to indicate the same direction, this confirms that the target path is correct; if the direction changes, the previous steps must be repeated.
- Continue walking to track the target path and determine its location. When passing over the target point, the antennas will fully deflect to the right or left this marks the **first stopping point** ①
- Turn in the direction of the antenna movement to follow the new path. The antennas will stabilize along the same path line as the first pass but in the opposite direction.
- Continue walking until the antennas deflect again this marks the **second stopping point** ② The **target point** is located at the midpoint between the **first and second stopping points**.



Long Range Detection Systems

Ionic Long Range System





3. Ionic Long-Range System

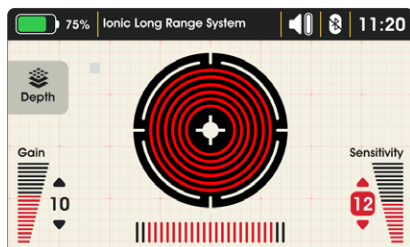
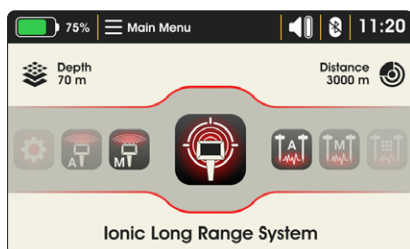


The ionic long-range system is used to detect treasures that have been buried for hundreds of years, during which an ionic field forms around the buried metal over time.

This ionic field enables the system to capture the signals emitted by the target and track them with high accuracy.

Operating Method

- Select the Ionic Long-Range System from the main menu.
- Connect the high-gain antenna to access the search interface.
- Point the detector toward the search area and begin tracking the audio signal. If the signal is weak or slow, increase the sensitivity  until the signal becomes clear.
-  Hold the detector horizontally and move it from right to left until a signal indicating a potential target is received.
- Then advance toward the target while monitoring the detector screen.



Note

The detector features an automatic balancing system, allowing it to be ready for operating immediately.

If calibration is disturbed by unwanted electromagnetic waves, the user can instantly recalibrate the detector by pressing the handle button



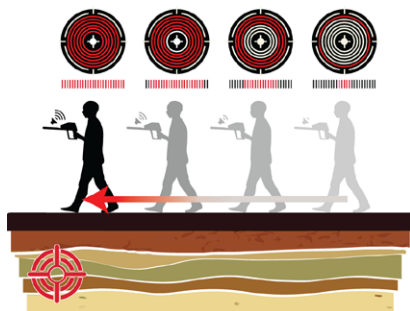


3. Ionic Long-Range System



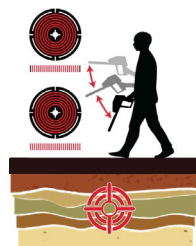
Target Proximity Indicators

- The audio tone speed increases as the detector gets closer to the target.
- The number of illuminated rings on the screen increases as the detector approaches the target.
- The lower indicator  represents the intensity of the received signal.

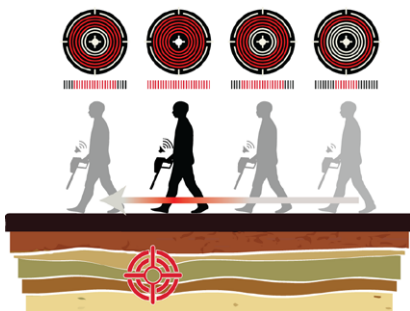


Target Point Identification and Verification

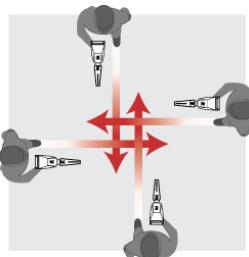
- To accurately determine the target location, move the detector up and down during tracking. This action helps indicate the correct signal direction leading to the target point.



- Stand over the potential target point and direct the detector toward it.
- Move forward until you pass over the target point, which is indicated by a decrease in signal strength.



- Repeat this process from four different directions to precisely define the target boundaries.
- Once the target location is accurately determined, proceed to the depth measurement stages.



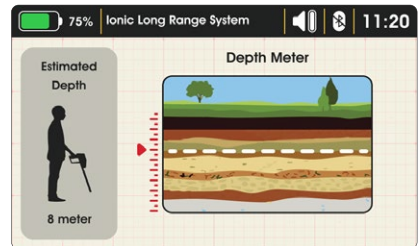
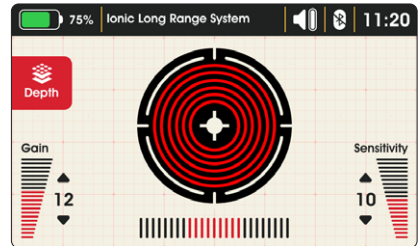


3. Ionic Long-Range System



Depth Measurement

- After determining the target point based on signal strength, select the Depth icon  from the search screen. Upon entering the depth measurement interface, the system will prompt you to press the handle button.
- Point the detector vertically toward the ground and press the handle button once.
- Begin walking forward until the detector emits a sound indicating the completion of the measurement process.
- The detector processes the static electric intensity of the target's ions, based on which the estimated depth is determined.
- The depth measurement interface displays a graphical representation of ground layers up to a depth of 10 meters.



Geophysical Detection Systems

Auto Geophysical System



Primerom 15

Geophysical systems are used to detect subsurface targets by analyzing soil resistance and the response of electrical signals through ground probes.

These systems are highly effective for detecting metals and water and are widely used in professional and deep exploration applications.

The geophysical system operates by transmitting electrical signals through probes inserted into the ground, then analyzing the returned signals to determine the target type and its approximate depth.

The Primero MD15 detector is equipped with three advanced geophysical detection systems:

- Automatic Geophysical System.
- Manual Geophysical System.
- Imaging Geophysical System.



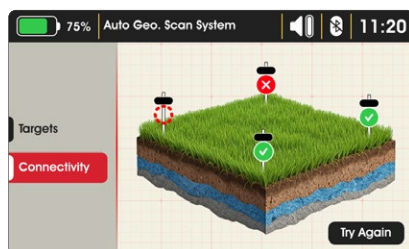
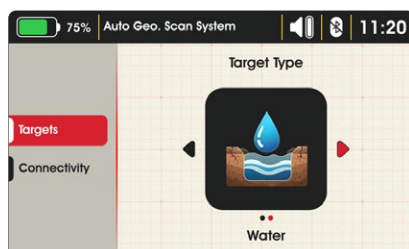
This system is used to perform a comprehensive examination of the search area through all ground probes and from all directions. It is suitable for obtaining a quick and general assessment of the soil content.

Operating Method

- Select the Automatic Geophysical System from the main menu.
- Insert the ground probes into the soil within the search area.
- Connect the clamps and wires to the probes.
- Connect the wires to the connection box.
- Connect the connection box to the main unit.

Ensure that all connections are correct; a status icon will appear on the screen to confirm proper connection.

- Select the target type (Water / Metal), then press



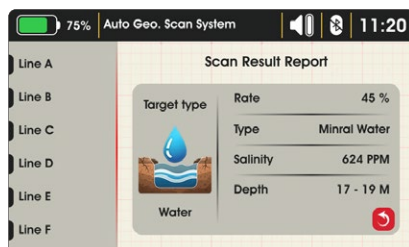
Scan Execution

- The detector automatically verifies the connected probes.
- The detector immediately starts performing a comprehensive scan across all four probes and in the six directions: A – B – C – D – E – F.

Result

After the scan is completed, the detector displays the result in the form of a report that includes the following information:

- Target type.
- Ratio (percentage indicating the presence of the target).
- Salinity.
- Optimal approximate depth for excavation.



Geophysical Detection Systems

Manual Geophysical System





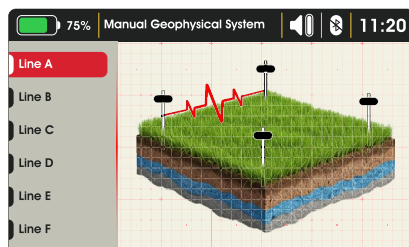
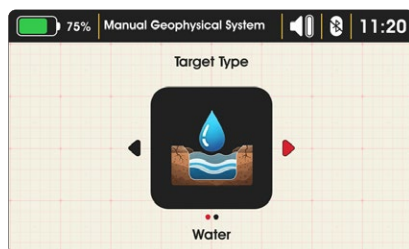
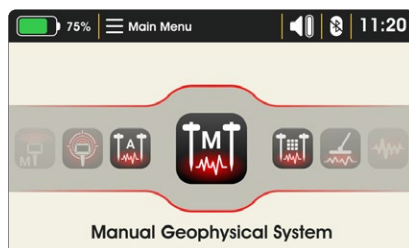
This system is used to perform a focused and precise examination between two probes (or along a single survey path) in one user-defined direction, providing more accurate readings. It is preferred for limited areas that require highly concentrated and detailed results.

Operating Method

- Select the Manual Geophysical System from the main menu.
- Insert the ground probes into the soil within the search area.
- Connect the clamps and wires to the probes.
- Connect the wires to the connection box.
- Connect the connection box to the main unit.

Scan Execution

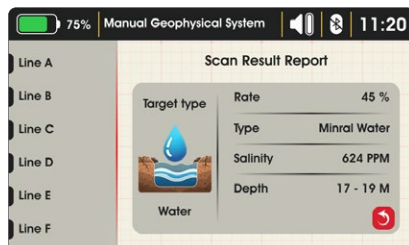
- Select the target type (Water / Metal), then press **OK**.
- The detector will prompt you to choose one of the six directions: A – B – C – D – E – F to perform the scan.



Result

After the scan is completed, the detector displays the result in the form of a report that includes the following information:

- Target type.
- Ratio (percentage indicating the presence of the target).
- Salinity.
- Optimal approximate depth for excavation.



Geophysical Detection Systems

Imaging Geophysical System





6. Imaging Geophysical System



This system is used exclusively for water detection. After performing a comprehensive soil analysis, the detector displays the results in the form of an imaging visualization that provides a clear understanding of the distribution of water sources within the scanned area, with the ability to determine depth and the probability rate of water presence.

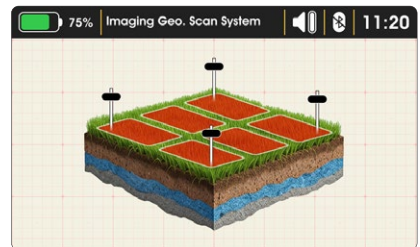
Operating Method

- Select the Geophysical Imaging System from the main menu.
- Insert the ground probes into the soil within the search area.
- Connect the clamps and wires to the probes.
- Connect the wires to the connection box.
- Connect the connection box to the main unit.
- Press  to start the scanning process.



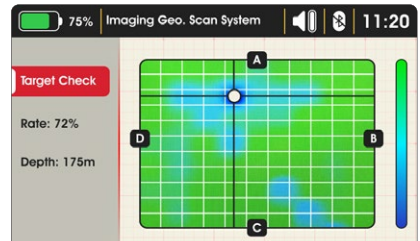
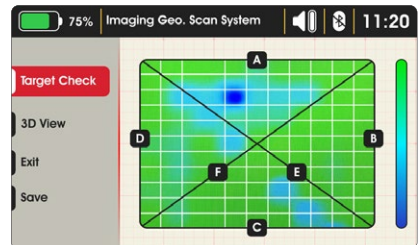
Scan Execution

- The detector automatically verifies the connected probes.
- It immediately begins a comprehensive scan across all four probes and in the six directions: A – B – C – D – E – F.



2D Result Display

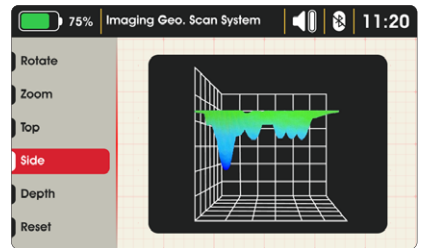
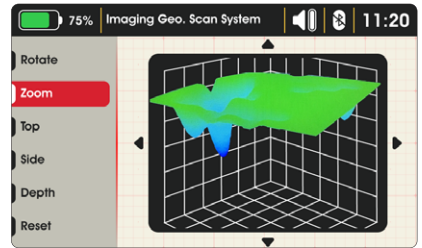
- The final result is displayed as a two-dimensional (2D) image.
- The blue color indicates the presence of water.
- By pressing the  button, each point within the scan grid can be examined.
- At each point, the detector displays the probability rate of water presence and the approximate depth.
- Based on these values, an informed decision can be made regarding the most suitable drilling point.





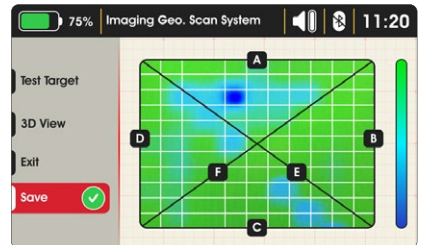
3D Display

- The 3D option can be selected to convert the scan image from two-dimensional to three-dimensional.
- The 3D display provides a more accurate understanding of depths across all points in the scan area, with the ability to rotate the model, zoom in on the target, and view top and side cross-sections.
- When selecting the Depth option and using the arrow buttons, the exact depth of each point within the scan area can be determined.



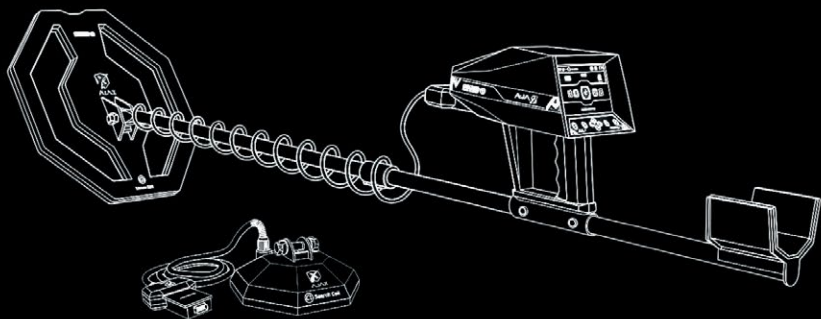
Saving Results

A save option is available, allowing scan results to be stored for later review and analysis.



EFM Technology Detection Systems

Spectrum Analyzer System



Primerom IS

AJAX has developed its own advanced audio detection system known as EFM, an integrated system that includes multiple audio and analytical detection modes. It is used to detect targets buried at shallow to medium depths, whether recently buried or buried for long periods.

The EFM system is characterized by fast response and a high capability to discriminate target types. It operates using two search coils of different sizes to cover all target sizes, from small to large.

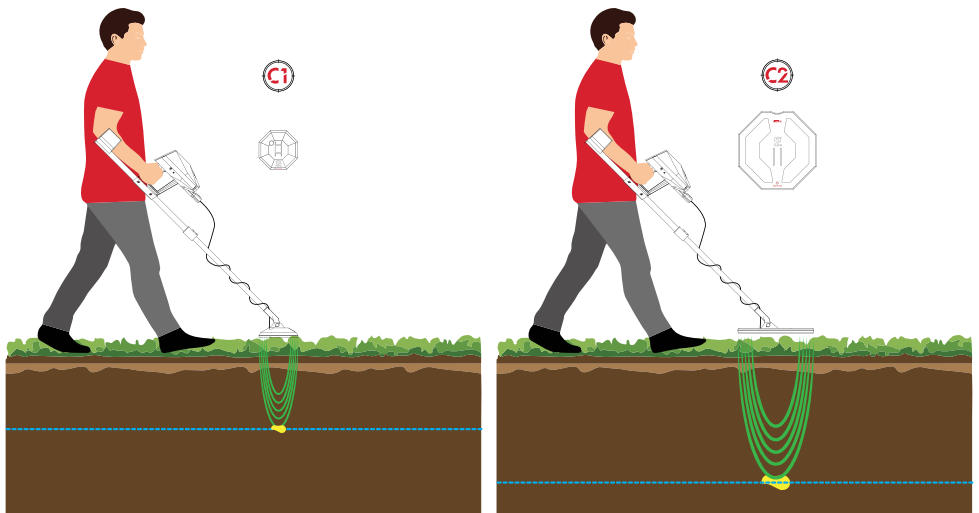
The EFM systems include:

- Spectrum Analyzer System.
- Graph System.
- Discrimination System.
- Pinpointer System.
- Quick Scan System.

Search Coils:

C1 Search Coil: The C1 search coil provides a high level of accuracy and sensitivity, enabling it to efficiently detect small and fine targets. It is lightweight and compact in size, making it the ideal choice for extended search operations and precise tracking, especially in areas that require continuous movement and high control.

C2 Search Coil: The C2 search coil represents a balanced solution between sensitivity and detection depth, making it a versatile tool suitable for various terrains and search environments. It delivers stable performance whether targets are deeply buried or close to the surface, while maintaining strong signal strength and accurate response without any loss of sensitivity.



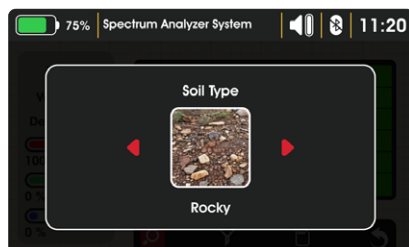


The Spectrum Analyzer System operates using EFM technology and is used after the target location has been identified by other search systems, in order to analyze the target's shape and nature. The system converts and processes the signals reflected from the search coil, then displays them as a two-dimensional image, where:

- Red indicates precious metal.
- Blue indicates non-precious metal.
- Green indicates soil characteristics.

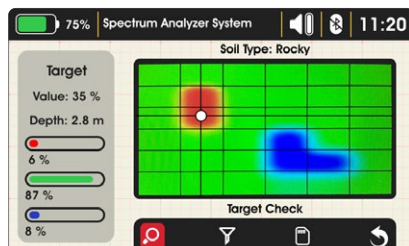
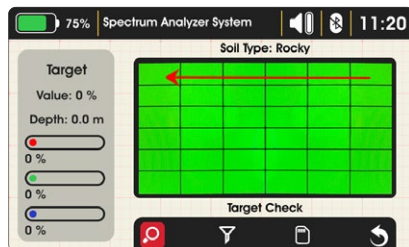
Operating Method

- Select the Spectrum Analyzer System from the main menu and press
- Connect one of the search coils (C1 or C2).
- Before starting, select the soil type according to the nature of the search area to achieve optimal system performance.
- To begin the scanning process, press and hold the handle trigger button; the detector will display guidance arrows on the screen.
- Move the detector by following the direction of the arrow displayed on the screen to ensure proper coverage of the target area.
- Continue following the arrow movements until the comprehensive target image is completed.
- The detector captures a complete image of the target, highlighting the metal type using color indicators.



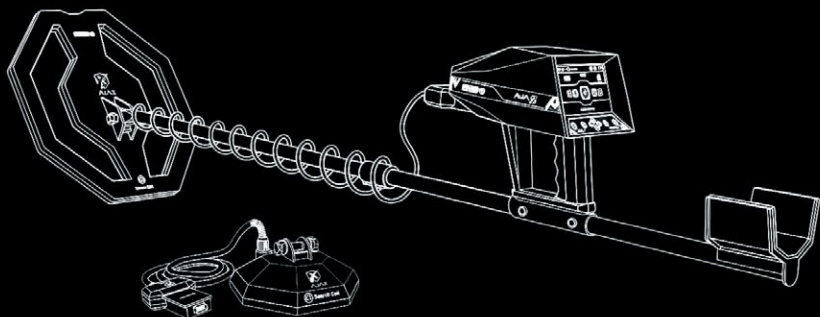
Result Analysis

- Using the arrow buttons, when selecting the Target Check icon the cursor can be moved within the scan grid to determine the depth at the selected point and the probability percentage of target presence (a positive percentage indicates a valuable target, while a negative percentage indicates a non-valuable target).
- When selecting the Target Filtering icon the red color (precious metals) or the blue color (non-precious metals) can be hidden to display only one target type.
- When selecting the Save icon the analysis results can be stored for later reference.
- When selecting the Exit icon, the system exits and returns to the main menu.



EFM Technology Detection Systems

Graph System



Primerom 15



8. Graph System

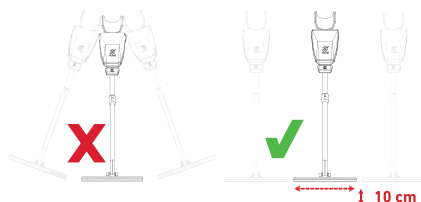
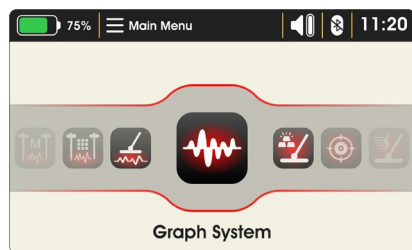


The Graph System is an analytical system used to determine the beginning and end of a target, as well as to identify its depth and size, through a two-dimensional graph that accurately illustrates the signal shape and color.

This system is widely used in professional metal detection operations.

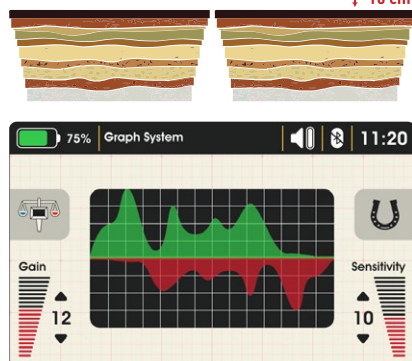
Operating Method

- Select the Graph System from the main menu.
- Connect one of the search coils (C1 or C2).
- Adjust the search settings according to the nature of the area using the Sensitivity indicator ▲▼ (right side of the screen) and the Gain indicator ▲▼ (left side of the screen).
- Hold the detector while keeping the search coil raised 5 to 10 cm above the ground surface.
- Begin walking at a moderate speed while maintaining a steady direction and keeping the coil parallel to the ground.



Signal Interpretation

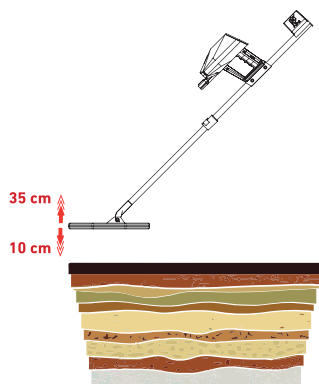
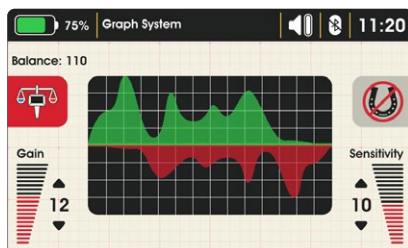
- When a target is detected, the detector emits a continuous audio tone.
- If the target is valuable, the graph appears above the baseline in **green**.
- If the target is non-valuable (ferrous), the graph appears below the baseline in **red**.
- An increase or decrease in the graph waveform indicates proximity to the target, as well as the target's size and density.





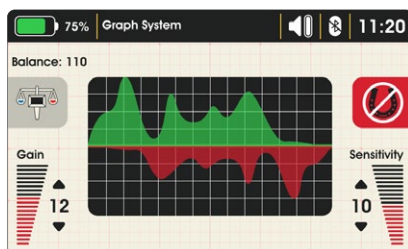
Ground Balancing

- The detector initially operates in automatic ground balance mode. Manual balancing can be performed by selecting the balance  icon located on the left side of the screen.
- Press the handle button.
- Raise the search coil 35 cm above the ground surface.
- Lower the coil to 10 cm above the ground, as illustrated.
- Ensure that the soil is free from metallic contaminants.



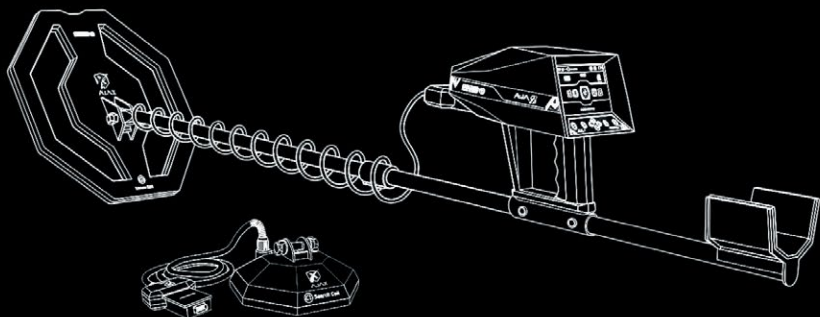
Iron Rejection Feature

- When this option is activated, the detector emits sound only when detecting valuable metals and ignores non-valuable metals.
- Signal strength, audio, and vibration intensity increase as the detector approaches the center of the target.



EFM Technology Detection Systems

Discrimination System



Primerom 15



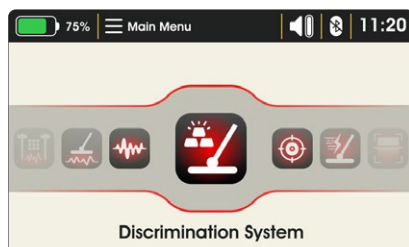
9. Discrimination System



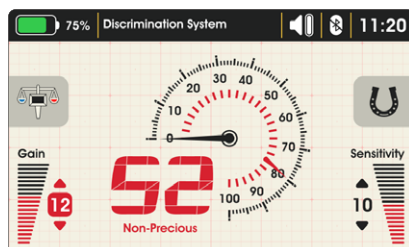
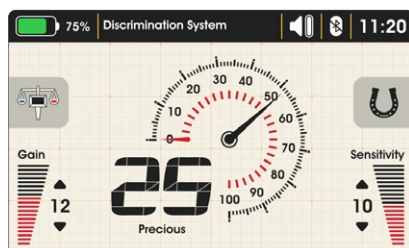
The Discrimination System is used for direct detection of targets at shallow to medium depths. It is distinguished by its ability to differentiate between precious and non-precious metals, with the option to isolate non-precious metals.

Operating Method

- Select the Discrimination System from the main menu.
- Connect one of the search coils (C1 or C2).



- In the center of the screen, a graduated scale appears accompanied by two indicators:
 - A long black indicator representing the signal received from a precious metal, along with a large black number indicating the metal's identification.
 - A short red indicator representing the signal strength received from a non-precious metal, along with a large red number indicating the metal's identification.
- Monitor the on-screen indicators to determine the target type when a signal is received.
- Signal strength can be controlled using the Sensitivity indicator (right side of the screen) and the Gain indicator (left side of the screen).





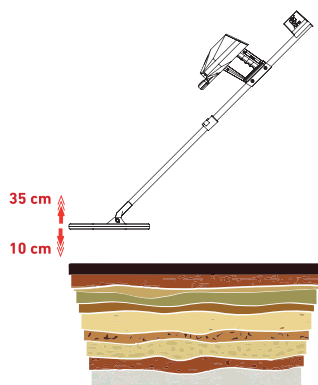
9. Discrimination System



Ground Balancing

The detector initially operates in automatic ground balance mode. Manual ground balancing can be performed by selecting the balance  icon located on the left side of the screen.

- Press the handle button.
- Raise the search coil 35 cm above the ground surface.
- Lower the coil to 10 cm above the ground surface, as illustrated.
- Ensure that the soil is free from metallic contaminants.



Iron Rejection Feature

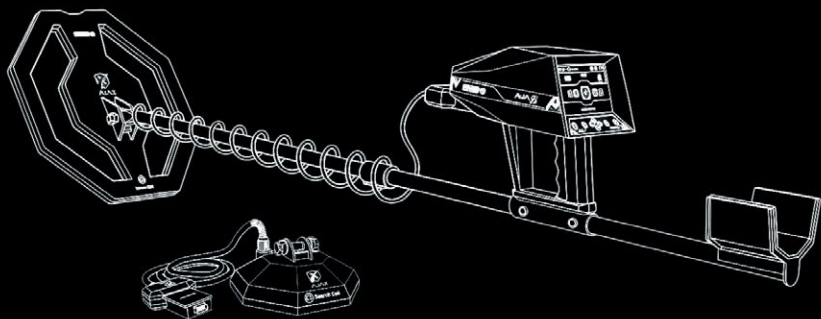
When this option is activated, the detector emits sound only when precious metals are detected and ignores non-precious metals.

Signal strength, audio, and vibration intensity increase as the detector approaches the center of the target.



EFM Technology Detection Systems

Pinpointer System



Primerom 15



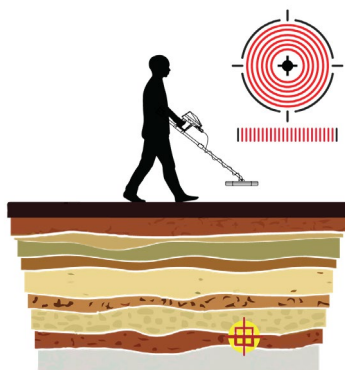
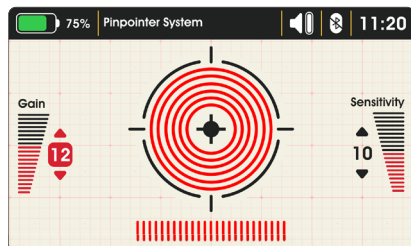
10. Pinpointer System



The Pinpointer System is designed to precisely locate the target after it has been detected using other search systems. It is used to save time before and during the excavation process.

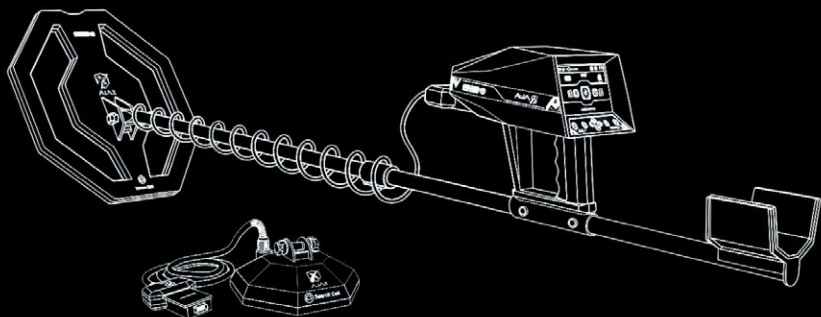
Operating Method

- Select the Pinpointer System from the main menu.
- Connect one of the search coils (C1 or C2).
- Signal strength can be adjusted using the Sensitivity indicator (right side of the screen) and the Gain indicator (left side of the screen) to achieve the optimal settings for the search area.
- Sweep the detector over the area where the target was detected.
- Signal strength increases as the detector approaches the exact target point.
- At the highest signal intensity, the target point is precisely identified.



EFM Technology Detection Systems

Quick Scan System



Primerom 15



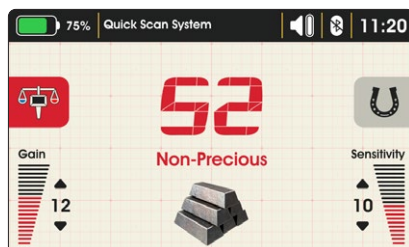
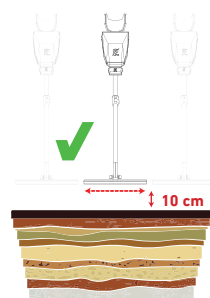
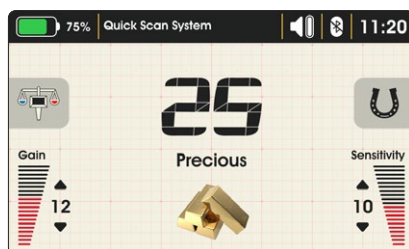
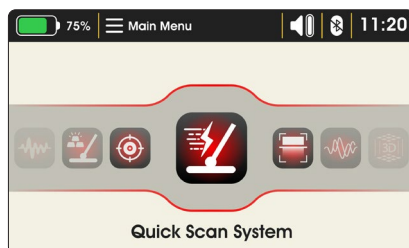
11. Quick Scan System



The Quick Scan System is used when searching large areas where targets have not yet been identified. It allows the user to cover wide areas quickly with minimal effort. This system is recommended as a starting point for search operations in open sites.

Operating Method

- Select the Quick Scan System from the main menu.
- Connect one of the search coils (C1 or C2).
- In the center of the screen, a numeric indicator appears:
 - Black indicates precious metal.
 - Red indicates non-precious metal.
- Begin walking while sweeping the search coil from right to left, maintaining a distance of approximately 10 cm between the coil and the ground surface.
- Monitor the on-screen indicators to determine the type and location of the target when a signal is received.
- Signal strength can be controlled using the Sensitivity indicator (right side of the screen) and the Gain indicator (left side of the screen).



Ground Balancing

The detector initially operates in automatic ground balance mode. Manual ground balancing can be performed by selecting the balance icon (scales) located on the left side of the screen.

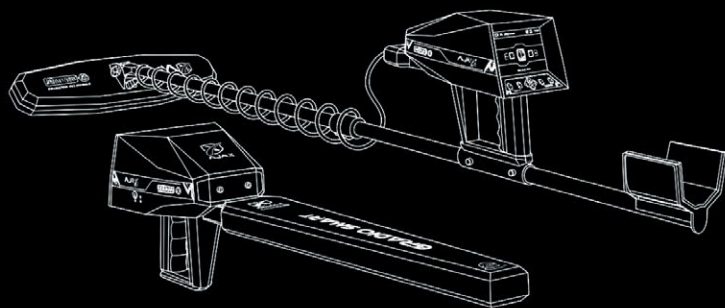
- Press the handle button.
- Raise the search coil 35 cm above the ground surface.
- Lower the coil to 10 cm above the ground surface, as illustrated.
- Ensure that the soil is free from metallic contaminants.

Iron Rejection Feature

When this option is activated, non-precious metals are ignored during detection.

Ground Imaging Detection Systems

Live Scan System



Primerom 15

Ground imaging systems are advanced systems designed to detect targets buried beneath the ground surface by generating two-dimensional (2D) or three-dimensional (3D) images that illustrate the shape and structure of subsurface formations.

These systems rely on analyzing signals reflected from the soil and displaying them in a visual format, enabling the user to accurately distinguish between metals, cavities, and underground voids.

Ground imaging systems are widely used in treasure and archaeological exploration, void and tunnel detection, and geological studies, as they provide a clear interpretation of the target's location, depth, and shape before initiating excavation.



12. Live Scan System



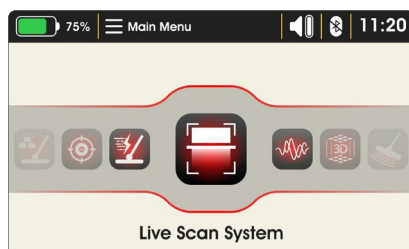
The Live Scan System is a real-time imaging system used to detect metals and cavities beneath the ground surface, displaying results instantly and directly on the detector screen during the scanning process. The system is based on analyzing ground signals and converting them into visual data, enabling the user to accurately identify the nature and location of the target. It is widely used in professional surveying and exploration operations.

The system displays results in different colors on the screen:

- **Green:** Indicates natural soil.
- **Red:** Indicates the presence of metals.
- **Blue:** Indicates cavities and underground voids.

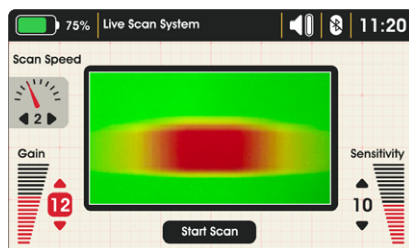
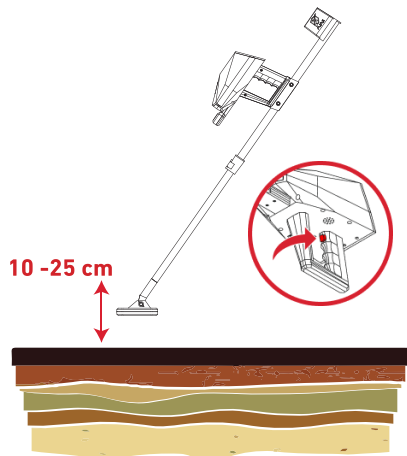
Operating Method

- Select the Live Scan System from the main menu, then press **OK**.
- Ensure that the scanning unit is properly installed on the detector according to the type of scanning tool used, either the Imaging Scanner or the Gradio Smart Sensor.



Using the Imaging Scanner

- When using the imaging scanner, a balancing process must be performed before starting the scan to eliminate the effects of surrounding environmental factors.
- Perform balancing by directing the detector toward the ground at a height of 10 – 25 cm, then press the handle button while moving until the balancing bar is completed. The soil must be free from metallic contaminants.
- Adjust signal strength using the Sensitivity indicator ▲ (right side of the screen) and the Gain indicator ▼ (left side of the screen) according to the nature of the search area.
- Begin moving across the search area while maintaining a constant distance between the detector and the ground surface.





12. Live Scan System

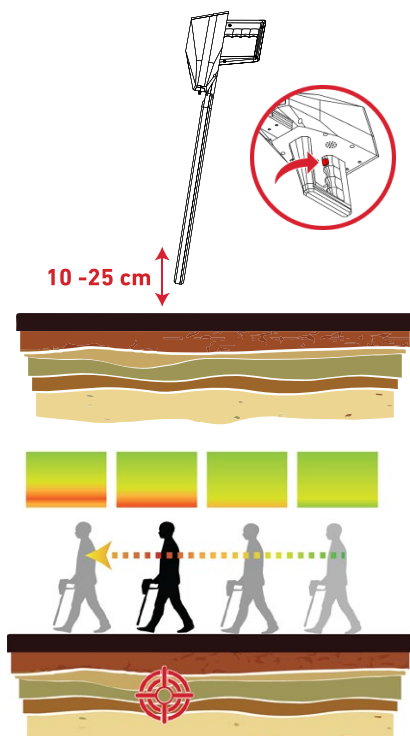


- During scanning, the detector displays results in real time on the screen, with targets highlighted by color according to their type.
- Scan speed can be adjusted via the side slider up to four levels, depending on the characteristics of the search area.



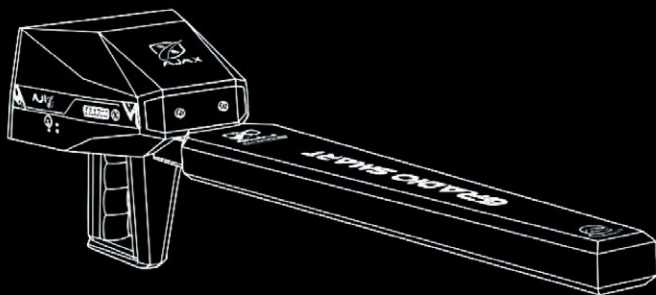
Using the Gradio Smart Sensor

- When the sensor is connected to the main unit, the detector automatically recognizes it and enters scanning mode.
- Perform the balancing process by directing the detector toward the ground at a height of 10 – 25 cm, then press the handle button while moving until the balancing bar is completed. The soil must be free from metallic contaminants.
- When using the Gradio Smart Sensor, signal strength is adjusted using the Sensitivity indicator ▲ (right side of the screen) and the Gain indicator ▲ (left side of the screen), according to the nature of the search area.
- During scanning, the detector displays results instantly on the screen, with targets highlighted by color based on their type.
- Scan speed can be adjusted via the side slider up to four levels, depending on the characteristics of the search area.



Ground Imaging Detection Systems

Gradio Smart System



Primerom 15



13. Gradio Smart System



The Gradio Smart System is an advanced detection system that relies on analyzing ground signals to accurately locate metals and cavities beneath the ground surface. It is widely used in professional surveying and exploration operations.

Operating Method

- Select the Gradio Smart System from the main menu.
- Ensure that the Gradio Smart sensor is properly installed.

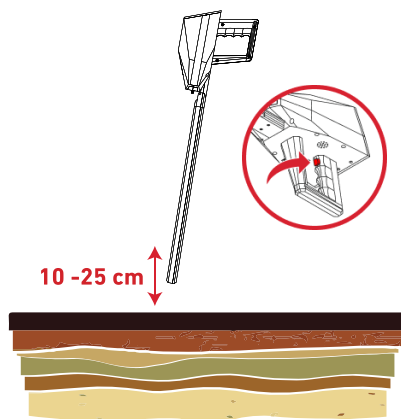
In the center of the system interface, a graduated scale appears in red and blue, and at the bottom of the screen, waveforms are displayed in red and blue:

- Red indicates metal.
- Blue indicates cavities.

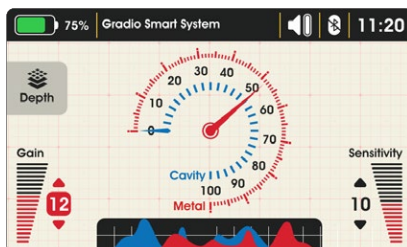
Before starting the search, a balancing process must be performed to eliminate the influence of surrounding environmental factors.

To perform balancing:

- Point the detector toward the ground and press and hold the handle button, then move randomly over the scan area until the progress bar is completed.
- Maintain a distance of 10 to 25 cm between the sensor and the ground surface during balancing.



Adjust the Sensitivity  and Gain  to achieve the optimal settings suited to the characteristics of the search area.



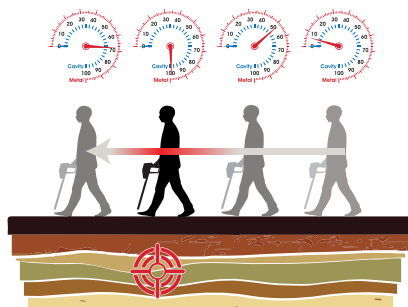


13. Gradio Smart System



After completing the balancing process, begin moving across the search area while maintaining the same distance from the ground:

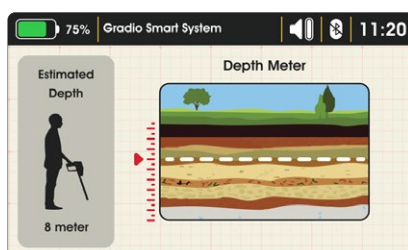
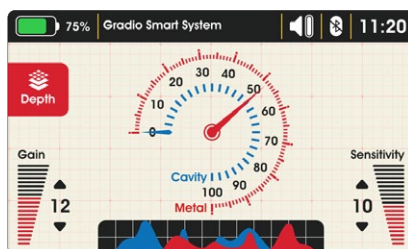
Monitor changes in the on-screen indicators and signal intensity to determine the target location.



When the target point is identified, select the Depth  icon on the left side of the screen and press .

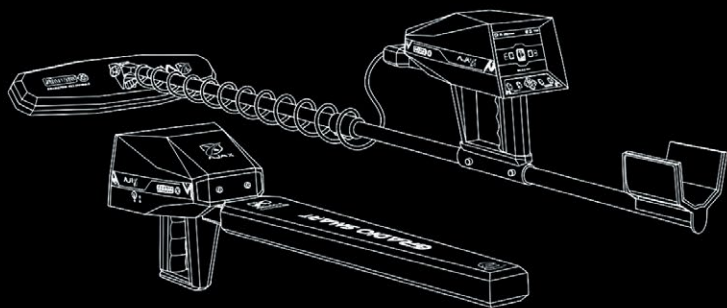
Stand over the target, point the detector toward the ground, then press the handle button and begin moving steadily.

Once the measurement is complete, the detector displays the target depth directly on the screen. If the measurement is unsuccessful, stand again over the target point and repeat the process.



Ground Imaging Detection Systems

Ground Imaging System



Primerom 15



14. Ground Imaging System



The Ground Imaging System is an advanced system used to examine subsurface formations and generate two-dimensional (2D) and three-dimensional (3D) images that clearly illustrate the distribution of targets such as metals and cavities with high accuracy.

This system is used in exploration and ground surveying operations to analyze the target's shape and depth before initiating excavation.

The system converts and processes the reflected signals, then displays them as a color-coded 2D image, where:

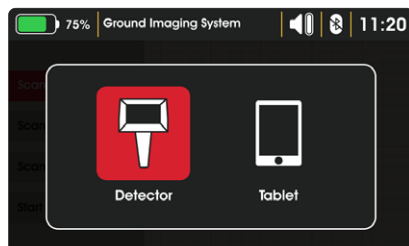
- Red indicates metals in general.
- Blue indicates cavities.
- Green indicates soil characteristics.

Note

The Ground Imaging System allows operation and analysis either directly through the detector screen or via a connected tablet.

Operating Method

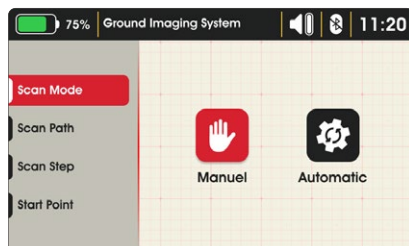
- Select the Ground Imaging System from the main menu.
- Ensure that the scanning unit is properly installed on the detector according to the type of scanning tool used, either the Imaging Scanner or the Gradio Smart Sensor.
- Choose whether to operate directly via the detector screen or by using the connected tablet.



Scan Settings

Before starting the scan, configure the following scan settings:

- **Scan Mode:** Automatic (one reading per second) or Manual (reading taken when pressing the handle button).

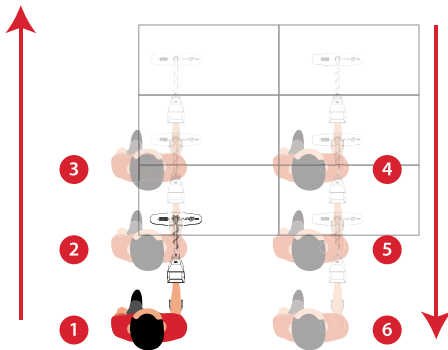
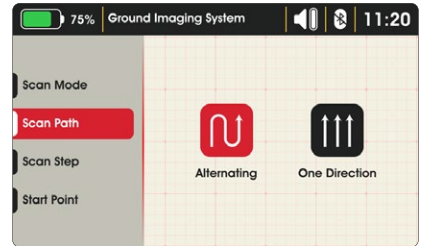




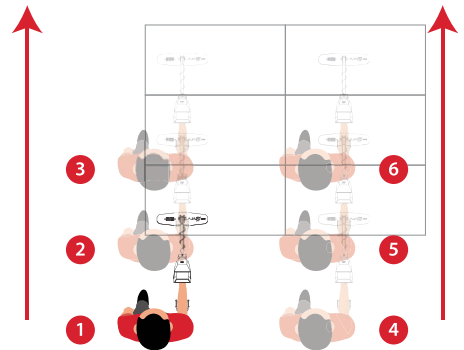
14. Ground Imaging System



- **Scan Path:** Single-direction or zigzag.



Alternating
Scan Path



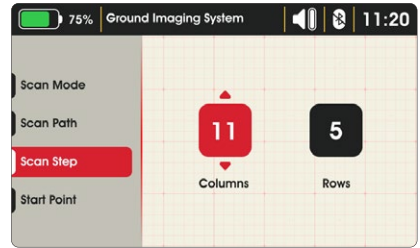
One Direction
Scan Path



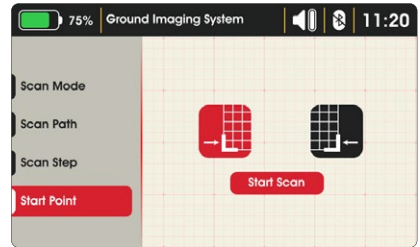
14. Ground Imaging System



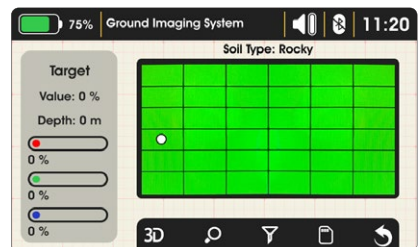
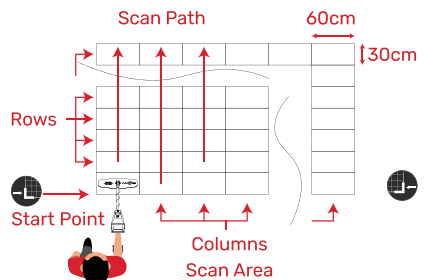
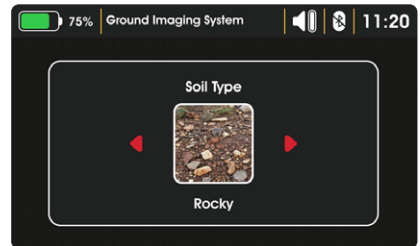
- **Scan Steps:** Number of columns (3 to 15) and number of rows (3 to 15).



- **Starting Point:** From the left or right side at the bottom of the scan grid.



- Before starting the scan, select the soil type according to the characteristics of the search area to achieve optimal system performance.
- Perform the balancing process by pointing the detector toward the ground at a height of 10 – 25 cm, then press the handle button while moving until the balancing bar is completed. The soil must be free from metallic contaminants.
- Place the detector at the starting point and press the handle button to begin scanning, during which a reading is recorded for each cell within the scan grid.
- After completing each column, move to the next column according to the selected scan path.



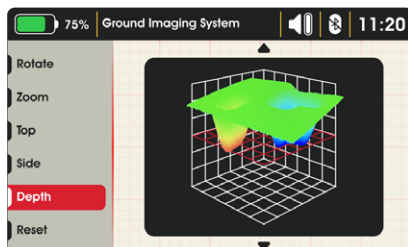
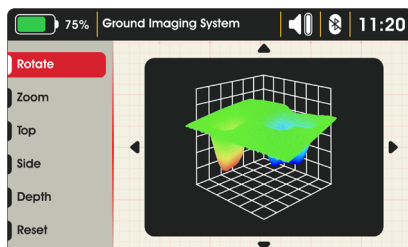
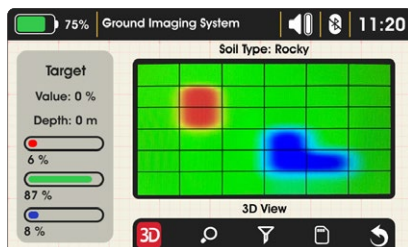
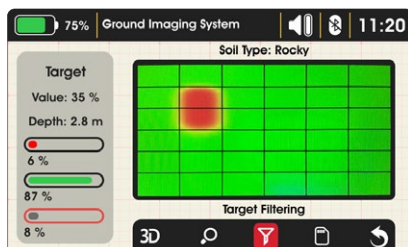
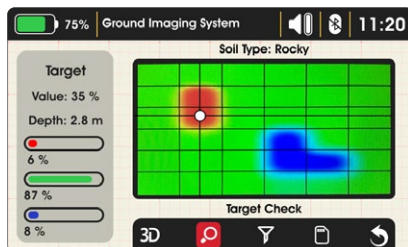


Result Analysis

- Using the arrow buttons, when selecting the Target Check icon, the cursor can be moved within the scan grid to determine the depth at the selected point and the percentage probability of target presence (positive values indicate metals, while negative values indicate cavities).
- When selecting the Target Filtering icon, the **red color** (metals) or the **blue color** (cavities) can be hidden to display only one type of target.
- When selecting the Save icon, the analysis results can be stored for later review.
- When selecting the Exit icon, the system exits and returns to the main menu.

3D Result Analysis

- When selecting the 3D icon, the image can be converted into a three-dimensional model that can be zoomed, rotated, and viewed through top or side cross-sections.
- The depth of each layer within the three-dimensional image can be examined to accurately determine the target depth.



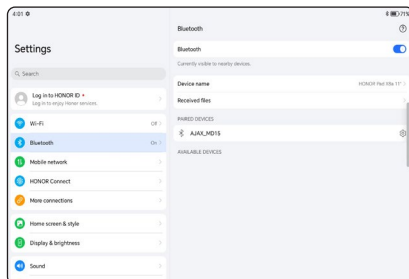
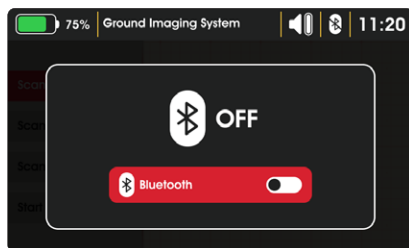
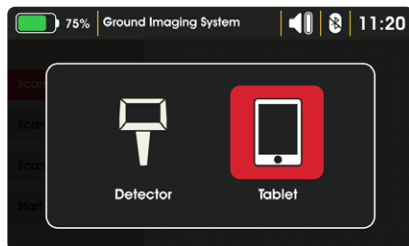


Using the Detector with a Tablet

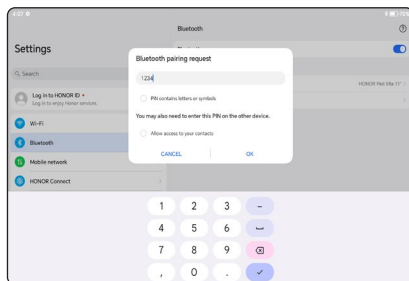
The Primero MD15 detector allows scan results to be displayed and analyzed directly on a tablet using the Ajax Analyzer application. This provides a wider display interface and advanced analysis tools that make it easier to understand and visually interpret the data.

Connecting the Detector to the Tablet

- Enable Bluetooth on both the detector and the tablet.
- From the tablet's Bluetooth settings, search for the device and select: AJAX_MD15.



- Enter the code 1234 to complete the pairing process.
- Open the  Ajax Analyzer application on the tablet.





14. Ground Imaging System

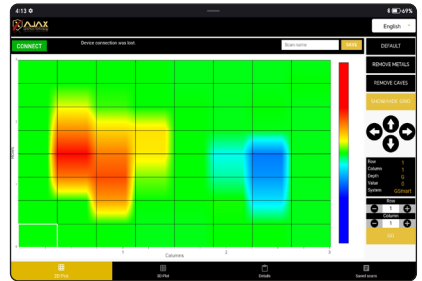
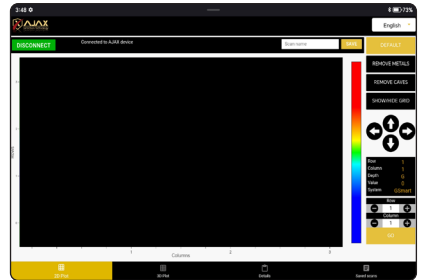


- Press the Connect button in the upper-left corner of the screen, then wait until the connection is established.

Saving a Scan

After completing the scan and fully covering the area:

- Enter a name for the scan in the field located at the top-right of the tablet screen.
- Press “Save” to store the scan.



Filtering Scan Data

Scan data display can be controlled using the filter buttons on the right side of the screen:

- “Default”: Displays all scan data.
- “Remove Metal”: Displays scan data without showing metal results.
- “Remove Cavity”: Displays scan data without showing cavity results.

The filtering feature allows the display to be refined using a color gradient for clearer data representation.

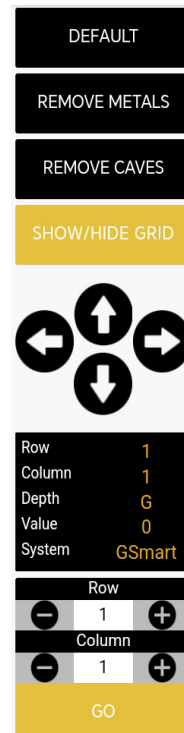
Viewing Cell Data

Navigate between cells using the “arrow buttons” below the selected cell.

Cell information is displayed in a dedicated bar at the bottom of the screen.

You can jump directly to a specific cell by:

- Entering the “row” number.
- Entering the “column” number.
- Pressing “Go”.





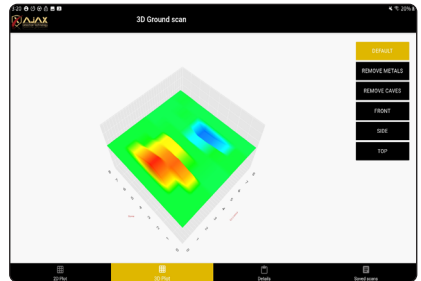
14. Ground Imaging System



3D Display

The 3D display presents scan data values as a three-dimensional surface that illustrates data distribution:

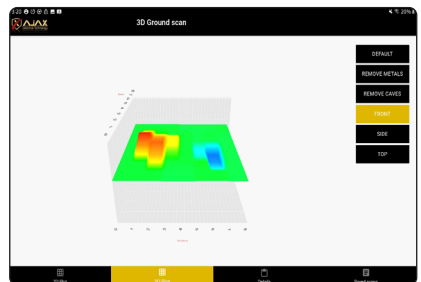
- Different viewing projections can be selected from the menu on the right side of the screen.
- Dedicated filtering for metals or cavities can be applied within the 3D view.
- The viewing angle can be changed by pressing and dragging across the 3D surface.



Scan Details

The Details window displays:

- Scan information.
- Settings selected on the detector.
- Scan date and time.
- An overview of data values.
- Scan location.

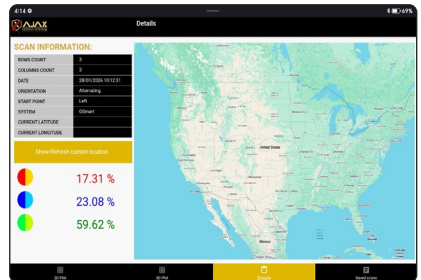


To Save the Scan Location

- Enable Location Services from the tablet settings.
- Press "Show / Update Current Location".

Note

The scan location is not saved automatically.

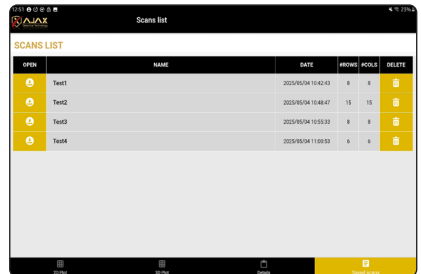


Scans List

The Records window displays a list of all previously performed and saved scans for review and verification.

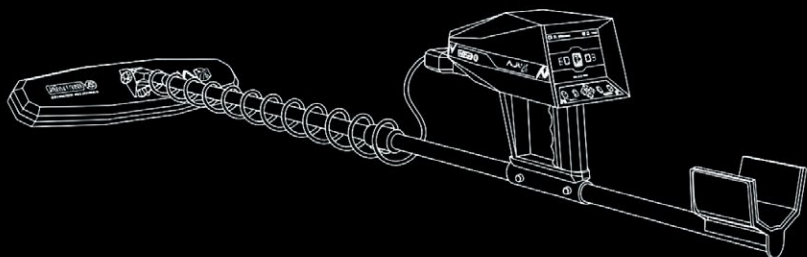
Scanning using the tablet is identical to scanning using the detector, while additionally providing:

- A more user-friendly interface.
- Clearer graphical representation.
- Scan date and time.
- An overview of data values.
- Advanced analysis capabilities.
- The ability to scan larger areas with higher efficiency.



Ground Imaging Detection Systems

Ground Sonar System



Primerom 15



15. Ground Sonar System



The Ground Sonar System is a real-time visual and audio imaging system used to detect metals and cavities beneath the ground surface, displaying results instantly during the scanning process.

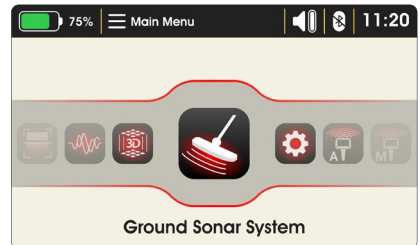
The system relies on analyzing ground signals and converting them into visual and audio data, enabling the user to accurately identify the nature and location of the target. It is widely used in professional exploration and surveying operations.

Color Indications:

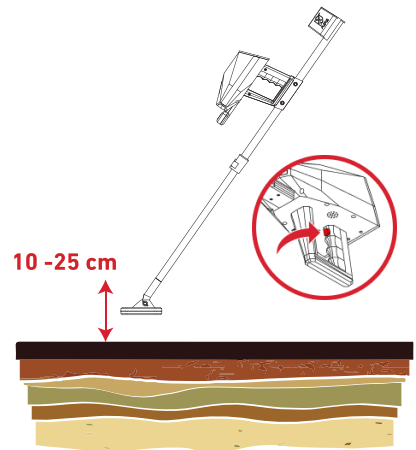
- Green Indicates natural soil.
- Red Indicates the presence of metals.
- Blue Indicates cavities and underground voids.

Operating Method

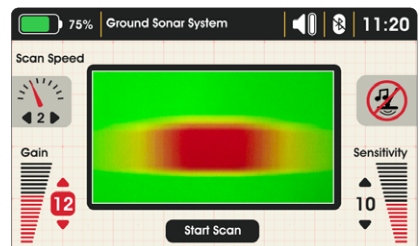
- Select the Ground Sonar System from the main menu.
- Ensure that the imaging scanner tool is properly installed.



- Perform the balancing process by directing the detector toward the ground at a height of 10 – 25 cm, then press the handle button while moving until the balancing bar is completed. The soil must be free from metallic contaminants.



- Adjust signal strength using the Sensitivity indicator ▲ (right side of the screen) and the Gain indicator ▼ (left side of the screen), according to the nature of the search area.

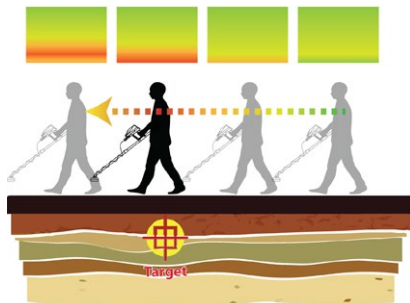




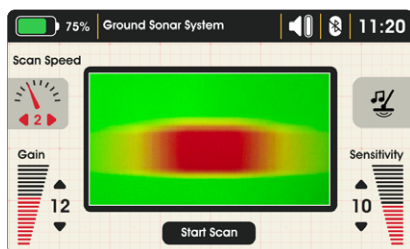
15. Ground Sonar System



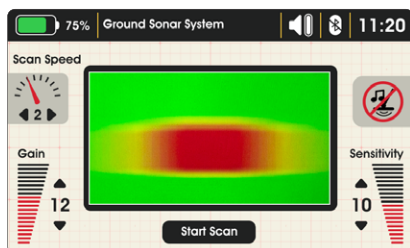
- Begin moving across the search area while maintaining a constant distance between the detector and the ground surface.
- During scanning, the detector displays results in real time on the screen with audio alerts, highlighting targets by color according to their type.



- Scan speed can be adjusted via the side slider up to four levels ◀ ▶ depending on the characteristics of the search area.



- The audio alert can be disabled using the audio  icon located on the right side of the screen.





✉ Email: info@ajaxdetector.com

🌐 Website: www.ajaxdetector.com

📍 Location: 1201 N.W. Briarcliff Parkway, 2nd Floor, Kansas City, Missouri, 64116, United States of America.

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WEEE (Waste electrical and electronic equipment) statement

European union:

Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.



Taiwan: 廢電池請回收

For better environmental protection, waste batteries should be collected separately for recycling or special disposal.



California, USA:

The button cell and Li-ion battery may contain perchlorate material and requires special handling when recycled or disposed of in California. For further information please visit:
<http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>



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Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.



To protect the global environment and as an environmentalist AJAX must remind you that Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of »electrical and electronic equipment« cannot be discarded as municipal waste anymore, and manufacturers of covered electronic equipment will be obligated to take back such product at the end of their useful life. AJAX will comply with the product take back requirements at the end of life of AJAX branded products that are sold into the EU. You can return these products to local collection points.



Environmental Policy

The product has been designed to enable proper reuse of parts and recycling and should not be thrown away at its end of life. Users should contact the local authorized point of collection for recycling and disposing of their end-of-life products.

Visit the AJAX website

and locate a nearby distributor for further recycling information. Users may also reach us at:

info@ajaxdetector.com for information regarding proper Disposal, Take-back Recycling, and Disassembly of AJAX products.

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