

AlgoForce™

E1500

plus

User Manual V1.1.3



*Uncover Gold with Ultra-Fine Pulse Induction Technology:
VLF Sensitivity, PI Power, Affordable Excellence!
Designed & Assembled in Australia by ALGOFORCE PTY LTD*

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Introduction

Metal detectors serve as indispensable tools for treasure hunters and gold prospectors. They come in two basic types: VLF (very low frequency) and PI (pulse induction), with each technology having its own positive and negative characteristics. In this brief introduction, we will discuss the differences between these two types, and introduce you to the AlgoForce E1500 Plus, a pulse induction metal detector distinguished by its exceptional performance, unique features and cost-effectiveness.

VLF metal detectors are effective at locating relatively shallow gold nuggets in soils with low mineralisation, and their generally lower cost makes them an attractive proposition for novices. However, their performance is drastically reduced as soil mineralisation levels increase, and the presence of hot rocks can quickly turn excitement into frustration.

PI, or Pulse Induction metal detectors generally provide superior performance in mineralised terrains, being able to ignore most of the minerals you don't want to detect. Virtually all serious gold prospectors opt for PI detectors owing to their ability in handling highly mineralised soils, but when it comes to the detection of small gold nuggets, many pulse induction detectors released in the past have often fallen short in sensitivity compared to VLF detectors. Furthermore, most PI detectors come at a much higher price tag compared to their VLF counterparts.

The AlgoForce E1500 Plus is a pulse induction metal detector that excels at locating small gold nuggets in often complex mineralised soils found in most goldfields, all at a remarkably reasonable cost. Developed by AlgoForce Pty Ltd, it harnesses patented Ultra-Fine pulse induction technology, which is capable of detecting even the tiniest of gold nuggets. This sensitivity matches that of VLF gold detectors in low mineral soils, but being a PI detector, it has a bigger advantage in highly mineralised terrains. Additionally, the detector incorporates a dual ground balanced detection channel design, enabling the detection of nuggets of varying sizes.

For experienced PI users accustomed to estimating nugget size from audio cues, the AlgoForce E1500 Plus can also help to estimate size or conductivity through its stable conductive target ID (0-99), even in highly mineralised soils.

High single frequency VLF detectors typically struggle with signals on wet ocean sand, where PI detectors are far more capable of detecting through the salt mineralisation. Capitalising on its Ultra-Fine pulse induction technology and stable conductive target ID (0-99), the AlgoForce E1500 Plus excels on the beach, proving to be a versatile tool for searching fine jewellery, coins, rings, and other treasures.

With its patented built-in microphone for ambient sound awareness, real-time scrolling detection signal display, a frequency noise level graph for effortless manual frequency selection, ergonomic and lightweight mechanical design, compatibility with aftermarket coils, the convenience of universal USB power bank support, and an integrated loudspeaker, the AlgoForce E1500 Plus emerges as a robust and user-friendly metal detector. This versatile tool has been carefully engineered to cater to the needs of both amateur gold hunters and seasoned prospectors.

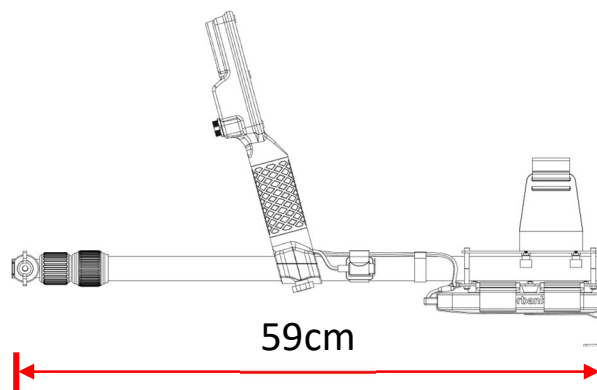
In conclusion, both VLF and PI metal detectors come with their own array of advantages and limitations. The choice between the two hinges on the user's specific requirements and budget. The AlgoForce E1500 Plus bridges the gap, offering a high-performance, cost-effective PI alternative for users seeking a detector that combines VLF's sensitivity to small nuggets and fine jewellery, but with Pulse Inductions ability to detect in mineralised soils and on beaches.

AlgoForce E1500 *plus*

Key Features

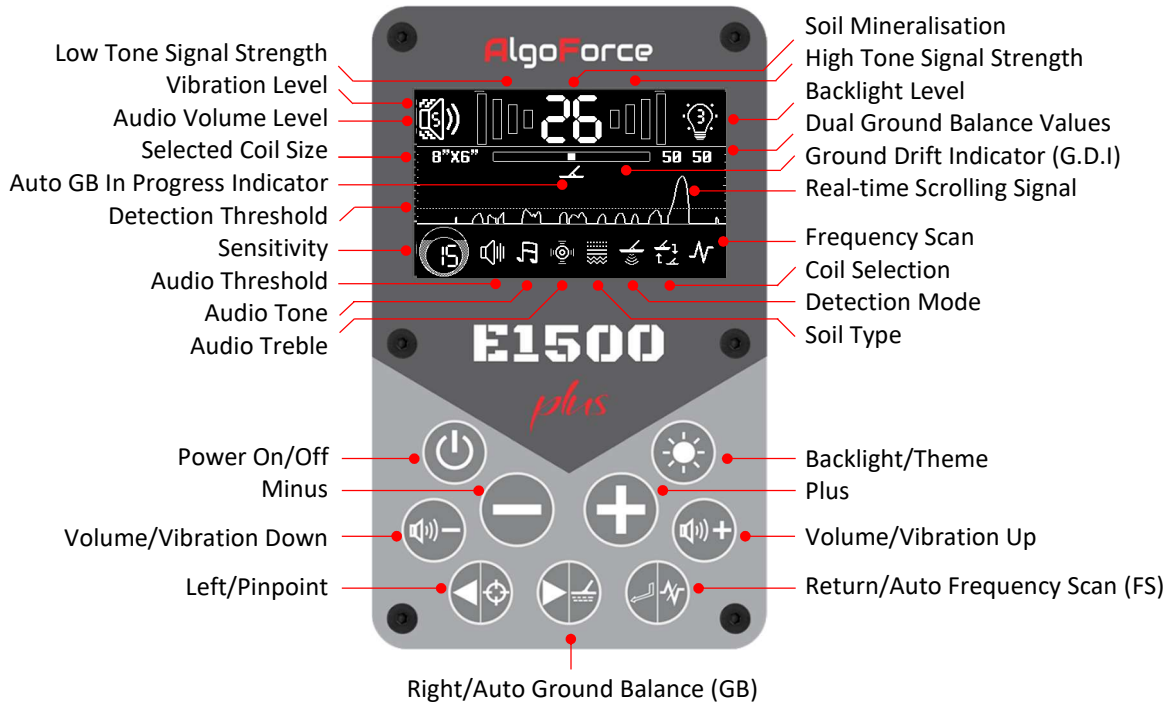


- Lightweight (835g without coil or power bank)
- Collapsible to 59cm for compact storage



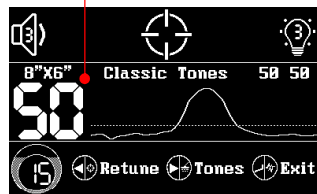
NOTE: Neither the power bank nor the coil is included in the AlgoForce E1500 Plus Basic Package. Coils larger than the Nugget Finder 14"x9" Evolution Mono with electrical parameters within spec will work with the E1500 Plus control box. However, the shaft may become wobbly with extra-large, heavy coils. Over-tightening the spin locks could also cause damage.

AlgoForce E1500 *plus*



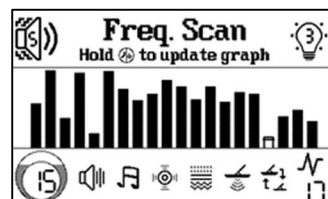
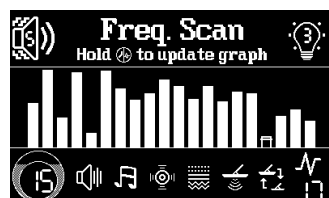
- Patented Ultra-Fine Pulse Induction Technology for Detecting Small Gold Nuggets
- Patented Technology for Ambient Sound Awareness in Headphone Mode
- Stable Conductive Target ID (0-99) in Pinpoint Mode even in Highly Mineralised Soils

Conductive Target ID



Pinpoint UI

- Dual Ground Balanced Detection Channels for Different Sized Nuggets
- Four Detection Modes (Ultra-Fine, Fine, Normal, Large)
- Three Pulse Delay Options for Large Detection Mode
- Three Soil Type Options (Mineralised, Mild, and Beach)
- Exceptional Performance in Finding Fine Jewellery, Coins, and Other Treasures on the Beach
- Two Display Themes (Dark, Light)



- Frequency Noise Level Graph for Effortless Manual Frequency Selection
- Free and Intuitive Software Upgrade

AlgoForce E1500 *plus*

Carton Contents

AlgoForce E1500 *plus* BASIC Package

Control box



Quick start guide



Shaft



Armrest



Coil rubber washers
(2 in use + 2 spares)



M5 Screws (2 in use + 1 spare)



USB-C to USB-A cable



Armrest strap



Coil bolt & nut



Thick Power bank straps



Armrest cover



Cable straps



Thin Power bank straps (1 in use + 1 spare)



Velcro strap with buckle



Power bank dust caps (2 Micro USB, 2 USB-C, and 2 USB-A)



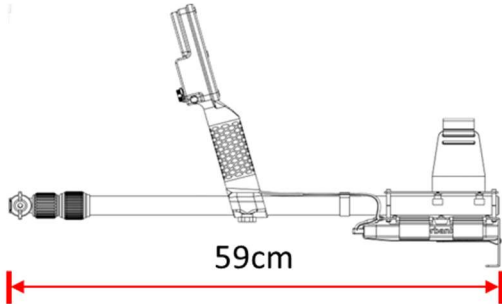
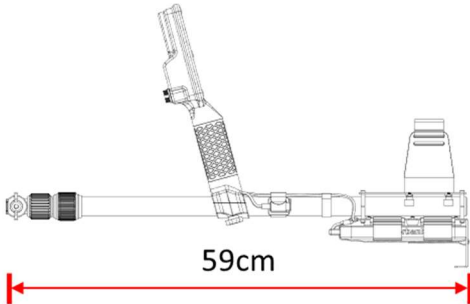
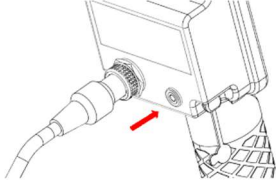
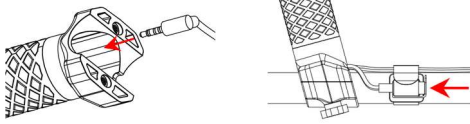
Headphone extension cable and dust cap



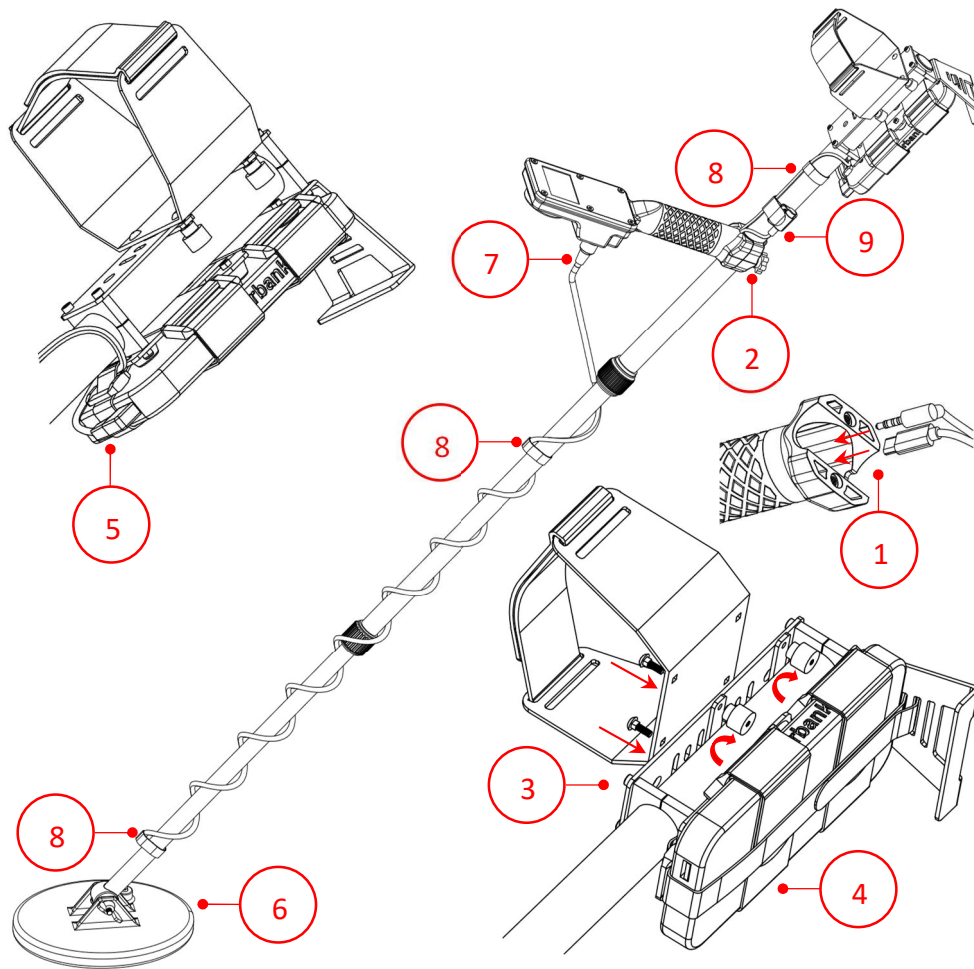
- * Images are for illustrative purposes only and do not represent actual size.
- * Cables, screws, straps, and armrest cover may vary by package.
- * The AlgoForce E1500 Plus Basic Package does not include a coil or power bank.

E1500 Evolution: E1500 vs E1500 Plus

The primary differences between the E1500 and E1500 Plus lie in speaker volume and headphone connector placement. The E1500 Plus offers a **significantly louder and crisper** speaker, making it ideal for environments that require higher sound output. Additionally, while the E1500's headphone connector is positioned at the rear of the control box, the E1500 Plus places it conveniently in the handle, with an extension cable secured along the upper shaft for **easier user access**.

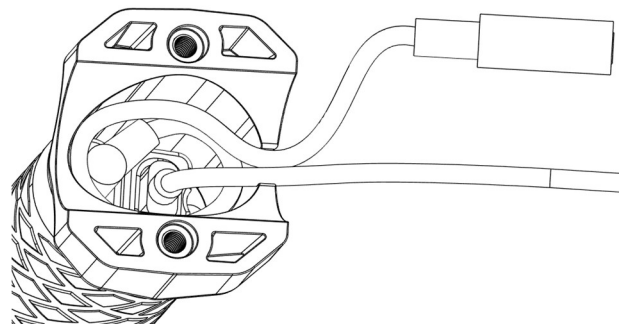
	E1500	E1500 Plus
		
Speaker Volume	We redesigned the audio circuit in the E1500 Plus, resulting in significantly louder and crisper speaker volume compared to the original E1500.	
Headphone Connector	 <p>The headphone connector is situated at the rear of the control box.</p>	 <p>The headphone connector is positioned within the handle. An extension cable, included in the package, is connected to this internal headphone jack. The other end of the cable is secured to the upper shaft, providing easy access for headphone use.</p>

Assembly



- ① Plug the USB cable and headphone extension cable into the control box.

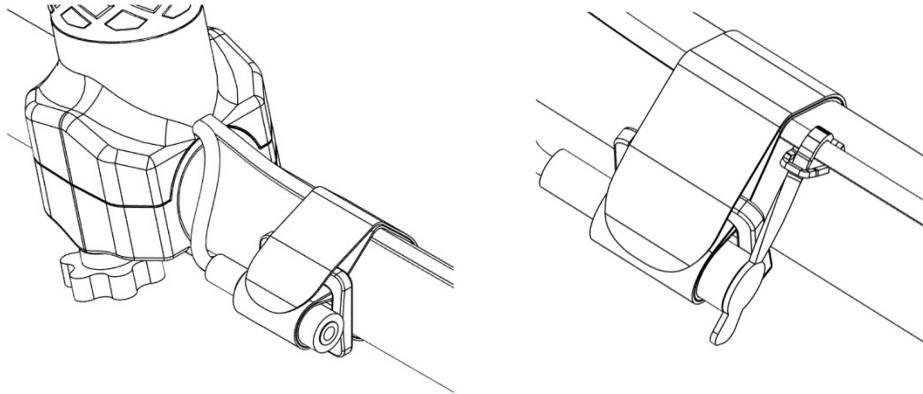
Note: To keep the exposed length of the headphone extension cable short, you can store any excess cable inside the handle, as illustrated in the following picture.



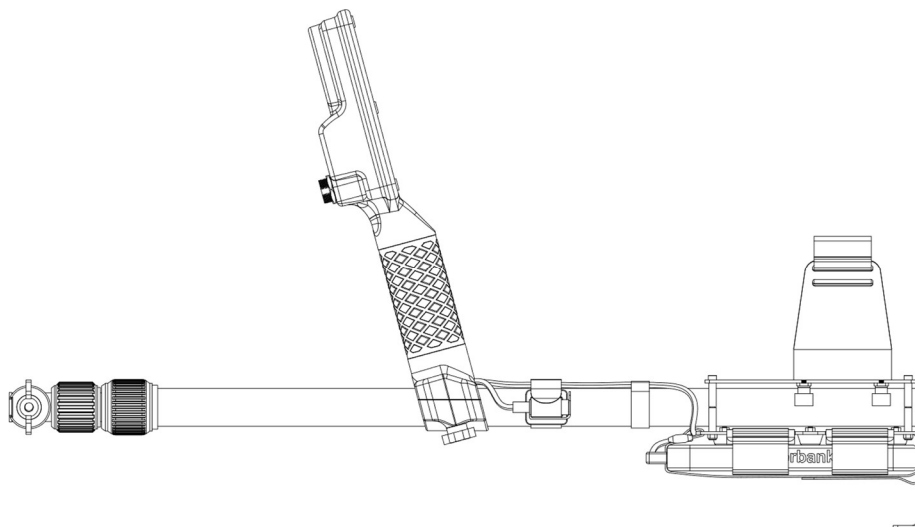
- ② Secure the control box to the shaft using two M5 screws.
- ③ Attach the armrest to the sliding rail.
- ④ Secure the power bank with the straps.
- ⑤ Connect the USB cable to the power bank.

- ⑥ Set the shaft to the appropriate length and attach the coil.
- ⑦ Plug the coil connector into the control box.
- ⑧ Use cable straps to tie the coil cable and USB cable to the shaft.
- ⑨ Use the Velcro strap with buckle to secure the headphone socket to the shaft.

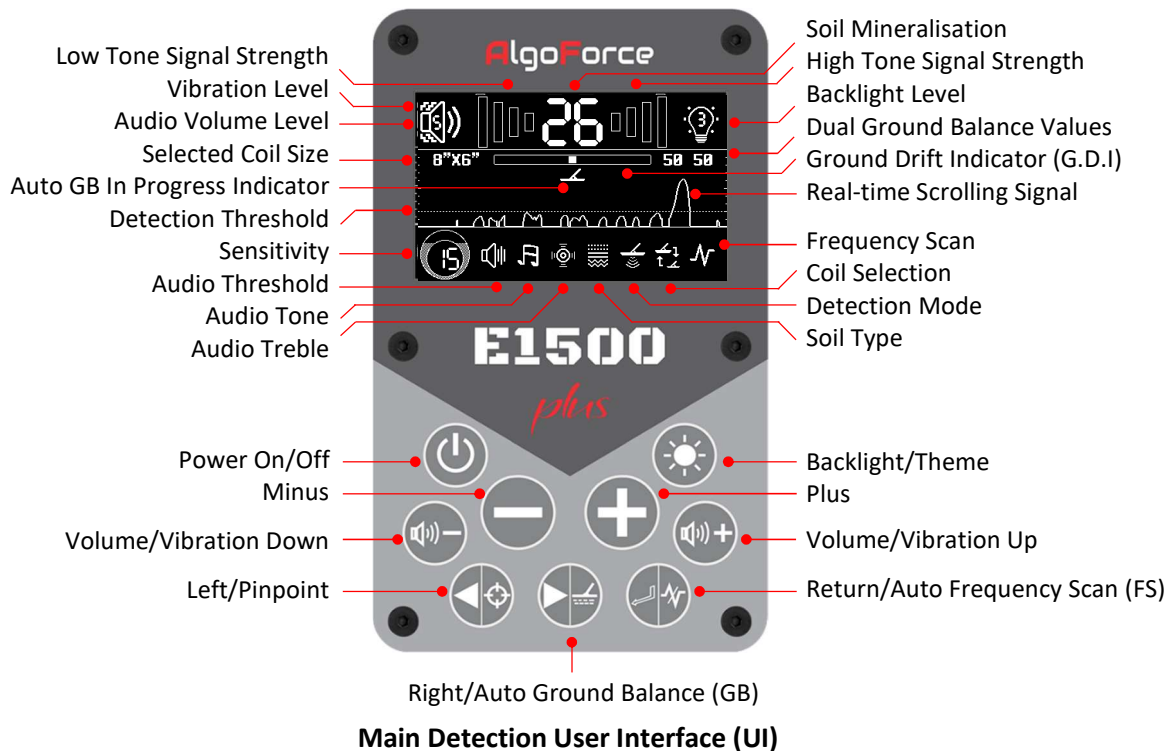
Note: The following images offer a close-up view of the fastening mechanism for the headphone socket. When the socket is not in use, a dust cap can be applied to keep it dust-free.



- ⑩ For compact storage, release the two twist locks, collapse the shaft and remove the coil.



Quick Start



Press **Volume/Vibration** buttons to modify Audio Volume. Hold **Volume/Vibration** buttons to adjust Vibration. Press the **Backlight/Theme** button to adjust the backlight. Hold the **Backlight/Theme** button to switch between dark and light display themes. Use the **Minus** and **Plus** buttons to modify Sensitivity.

To adjust other settings:

- 1) Press **Return/Auto FS** in the Main Detection UI to access the menu.
- 2) Navigate with **Left/Pinpoint** or **Right/Auto GB**.
- 3) Modify selected setting with **Minus** or **Plus**.
- 4) Press **Return/Auto FS** to go back to the Main Detection UI.

I. Power On

Connect the power bank to the control box and turn it on. To power the detector, hold the **Power On/Off** button for 3 seconds, then release. Repeat to turn it off.

Note:

1. Some power banks may enter standby mode when no demand is detected, such as when a connected USB device is turned off. In this case, the power bank must be manually turned on before turning on the detector. To do this, press the power button if the power bank has one, or unplug and reconnect the USB cable if it does not.
2. Some power banks may turn on the detector as soon as it's plugged in.

II. Factory Reset (if necessary)

Hold the **Minus** and **Plus** buttons for 3 seconds in Miscellaneous.

III. Calibrate Coil (see Coil Selection in page 13)

IV. Select Soil Type (see Soil Type in page 12)

V. Perform Auto Frequency Scan (Auto FS)

(if necessary to select the quietest frequency to eliminate electromagnetic interference)

Activate Auto FS by holding the **Return/Auto FS** button in the Main Detection UI. The noise levels of the scanned frequencies will be displayed.

VI. Set Sensitivity, Audio Settings, and Vibration (to preferred levels)

Adjust Sensitivity so that the peak of the Real-time Scrolling Detection Signal is close to the Detection Threshold when there is no target.

VII. Perform Auto Ground Balance (Auto GB)

(to eliminate ground response if Mineralised Soil Type is selected. No ground balance is required for Mild and Beach Soil Types.)

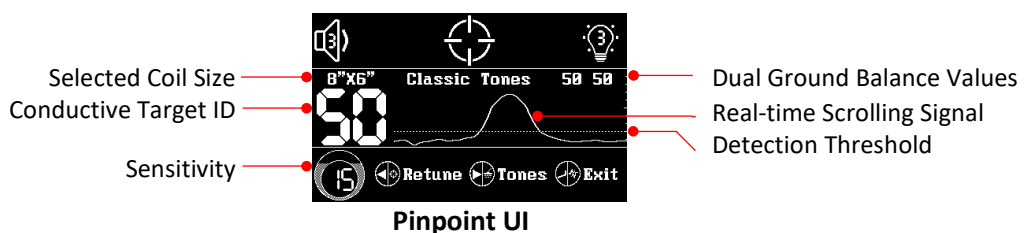
Hold the **Right/Auto GB** button. Raise and lower the coil until the ground response is minimized or two short beeps are heard, then release the button. The Auto GB In Progress Indicator flashes when Auto GB is in progress. Auto GB can be performed in both the Main Detection UI and Pinpoint UI.

VIII. Begin Detecting

Keep the coil close to the ground and swing it left and right at a pace of about 1 m/s. Ideally, maintain a constant distance between the coil and the ground surface during the swing to avoid picking up excess ground noise. The detector will continuously monitor the ground drift in the background, presenting it as a horizontal bar in the Main Detection UI. If the Ground Drift Indicator bar widens, initiate Auto GB once more. It is essential to be aware that target signals can influence the Ground Drift Indicator. Therefore, for precise ground drift monitoring, ensure that no targets are detected.

IX. Pinpoint detected target (if needed)

Enter the Pinpoint UI by pressing the **Left/Pinpoint** button in the Main Detection UI. In the Pinpoint UI, adjust Sensitivity with the **Minus** or **Plus** button. To retune the detection threshold due to ground variation or temperature drift, press the **Left/Pinpoint** button as needed. Switch audio settings by pressing the **Right/Auto GB** button. Perform Auto GB if needed by holding the **Right/Auto GB** button. Return to the Main Detection UI by pressing the **Return/Auto FS** button.



The Sensitivity and Volume/Vibration settings in the Pinpoint UI are separated from the Main Detection UI. This separation ensures that while the main detection Sensitivity and Volume/Vibration are set for general detection, the pinpoint Sensitivity and Volume/Vibration can be finely adjusted for the accurate location of metal targets.

Pinpoint is a non-motion mode where the coil doesn't have to move to indicate a target. The detection signal gets stronger as the coil approaches the target, causing the audio (if audio output is on) or vibration (if vibration mode is on) to intensify. In Pinpoint mode, the detector tracks the target signal peak. When the target signal reaches 90% of this peak, the pinpoint icon on the top centre of the LCD screen will flash, helping users centre on targets more efficiently. If the coil is moved off the target and the signal volume decreases, the flashing stops. Moving back over the target resumes the flashing. As mentioned, pressing the **Left/Pinpoint** Button retunes the detection threshold due to ground variation or temperature drift. Pressing this button also resets the target signal peak to zero.

The Conductive Target ID (0-99) displayed in the Pinpoint UI remains stable even in highly mineralised soils. Generally, a higher number indicates a larger or more conductive target. To obtain an accurate target ID, it is recommended to follow these steps:

- Move the coil away from but close to the target.
- Ensure the coil is resting on the ground surface and press the **Left/Pinpoint** button to retune.
- After that, slide the coil on the ground surface until the target is positioned just below the centre of the coil.

The conductivity target ID is also useful for assessing the target's shape. If the target ID fluctuates significantly when the coil is moved slightly off but still above the target, it likely indicates an irregularly shaped target, such as a bottle cap or a nail with a large head.

There are three audio settings within the pinpoint mode: Classic Tones, 5 Tones and 100 Tones. Users can seamlessly switch between audio settings by briefly pressing the **Right/Auto GB** button while in pinpoint mode.

Classic Tones:

In Classic Tones audio setting, audio pitch correlates with signal strength, with higher pitches indicating stronger signals. Tailored for precise pinpointing of target locations.

5 Tones:

Audio pitch is determined by conductivity target ID, providing distinct audio feedback for different target ranges. Conductivity target ID ranges 0-19, 20-39, 40-59, 60-79, and 80-99 correspond to audio pitches of 330Hz, 490Hz, 650Hz, 810Hz, and 970Hz, respectively.

5 Tones Inv.:

Audio pitch varies by conductivity target ID in reverse order. Conductivity target ID ranges 0-19, 20-39, 40-59, 60-79, and 80-99 correspond to audio pitches of 970Hz, 810Hz, 650Hz, 490Hz, and 330Hz, respectively.

100 Tones:

Each conductivity target ID is associated with a unique audio pitch ranging from 250Hz to 1042Hz. **Higher** conductivity target IDs produce **higher** audio pitches, facilitating differentiation of targets.

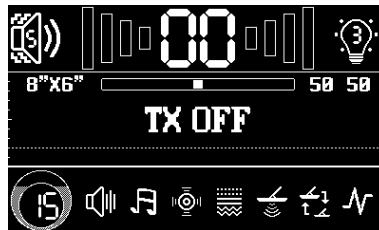
100 Tones Inv.:

Each conductivity target ID is associated with a unique audio pitch ranging from 250Hz to 1042Hz. **Higher** conductivity target IDs produce **lower** audio pitches, facilitating differentiation of targets.

5 Tones Inv. and **100 Tones Inv.** are added to provide an alternative audio feedback option, leveraging the fact that human ears are more sensitive to high-pitched sounds. When users are searching for highly conductive targets with higher target IDs, **5 Tones** and **100 Tones** can be used to emphasise these signals. However, when targeting small items, such as small gold nuggets with lower target IDs, **5 Tones Inv.** and **100 Tones Inv.** can be utilised to highlight these signals with higher-pitched tones, improving detection and identification.

In Classic Tones audio setting, users retain the ability to adjust the audio threshold through the Threshold setting. In both 5 Tones audio setting and 100 Tones audio setting, the audio threshold is fixed at zero. This ensures ease of differentiation between conductivity target IDs solely based on unique audio pitches, eliminating potential confusion with the audio threshold.

If a pinpointer is used to pinpoint the target and you find that the detector is interfering with the pinpointer, you can turn off the detector's transmitter by double-clicking the **Power On/Off** button. To turn back on the transmitter, simply press any button.



Ground Balancing Methods in Metal Detectors

There are three common ground balancing methods for metal detectors, each with unique advantages and limitations:

Manual Ground Balance:

This method allows the user to adjust the detector's settings manually to compensate for soil mineralisation. While manual ground balance offers maximum sensitivity to small and deep targets, it requires skill and attention, as the user must listen to feedback and make precise adjustments. Once set, the ground balance remains fixed until the user changes it, making it unsuitable for highly variable ground conditions unless regularly recalibrated.

Auto Ground Balance:

Auto ground balance simplifies operation by automatically calculating and setting the optimal ground balance based on current soil conditions. Users initiate this process with a simple action, such as pressing a button, making it quick and convenient. Though it does not adapt to changing ground conditions like tracking ground balance, it provides a reliable and efficient setup for most detecting environments without the complexity of manual adjustments.

Tracking Ground Balance:

Tracking ground balance continuously adjusts in real-time as the detector moves across the terrain, making it useful for highly variable soil conditions. However, the constant adjustments can filter out faint signals from small or deep targets, significantly reducing sensitivity. This trade-off makes tracking ground balance less desirable for detecting in areas where finding small targets is critical.

Why the E1500 Plus Uses only Auto Ground Balance

The Algoforce E1500 Plus is purposefully designed with only auto ground balance to strike a balance between ease of use and maximum sensitivity. Manual ground balance, while effective, can be intimidating or impractical for new users, requiring constant attention and expertise. Conversely, tracking ground balance risks filtering out weak signals, especially in mineralised soils, making it less suitable for finding small gold.

By focusing on auto ground balance, the E1500 Plus simplifies operation, ensuring users can achieve optimal sensitivity without sacrificing performance. The detector's advanced Ground Drift Indicator (G.D.I) display provides real-time insights, allowing users to monitor and adjust settings quickly if necessary. This design mirrors best practices in high-performance detectors, where fixed or auto ground balance settings are often preferred by experienced prospectors for maximising success.

The E1500 Plus's auto ground balance empowers users with a combination of precision, simplicity, and confidence, ensuring no gold target—however small—goes unnoticed.

User Settings

Audio Volume: Modify by pressing the **Vol/Vibration** buttons.

Vibration: Adjust by holding the **Vol/Vibration** buttons.

Note: Pinpoint mode has separate volume and vibration controls from the main detection mode.

Backlight Level: Control by pressing the **Backlight/Theme** button.

Display Theme: Hold the **Backlight/Theme** button to switch between dark and light display themes.

Sensitivity: Modify in the Main Detection UI or the Pinpoint UI using the **Minus** and **Plus** buttons.

To adjust other settings:

- 1) Press **Return/Auto FS** in the Main Detection UI to access the menu.
- 2) Navigate with **Left/Pinpoint** or **Right/Auto GB**.
- 3) Modify selected setting with **Minus** or **Plus**.
- 4) Press **Return/Auto FS** to go back to the Main Detection UI.

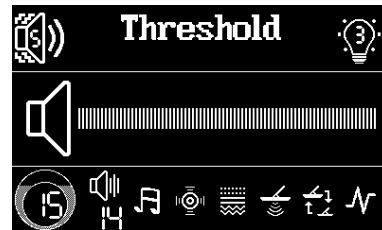
1. Sensitivity

Adjust Sensitivity so that the peak of the Real-time Scrolling Detection Signal is close to the Detection Threshold when there is no target.



2. Audio Threshold

Audio Threshold adjusts the volume of the constant background hum added to the detection audio. It's recommended to set it to a level that's just barely audible.



3. Audio Tone

The Audio Tone setting adjusts the frequency of the constant background hum added to the detection audio. The tone can be set according to personal preference.



4. Audio Treble

Users can adjust the treble to enhance or reduce the prominence of higher-pitched sounds, affecting the overall tonal balance of the audio. Increasing the treble results in a brighter, crisper sound. Decreasing the treble produces a softer, mellower sound. This feature provides the flexibility to tailor audio feedback to match individual detecting styles, whether you prefer crisper or softer audio responses.



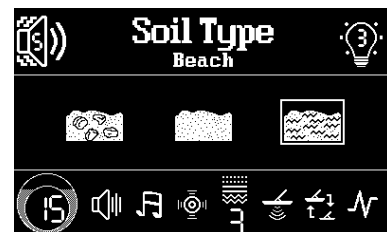
5. Soil Type

The Soil Type Setting allows users to select the appropriate soil type for their detecting environment, optimising the detector's performance. The available soil types are Mineralised, Mild, and Beach.

Mineralised: This option maintains the performance of previous software versions, suitable for mineralised soils.

Mild: This option utilises AlgoForce's ZeroGB technology, which disables ground balance to enhance sensitivity for nuggets, coins, and treasures of all sizes in extremely mild gold fields, parks, and fields. Users do not need to perform ground balance when using the Mild option. If the soil mineralisation indicator reads 00 or 01 when you pump the coil up and down, you can try the Mild option. However, if selecting the Mild option reduces sensitivity by 4 or more compared to the Mineralised soil type with proper ground balance, it is not suitable for the soil. In that case, please select the Mineralised soil type.

Beach: This option also uses AlgoForce's ZeroGB technology, yet aggressively rejects seawater signals and provides smooth operation on dry sand, wet sand, and even with the coil submerged in seawater. This option offers high sensitivity to coins and treasures commonly found on beaches without the need for the user to perform ground balance.



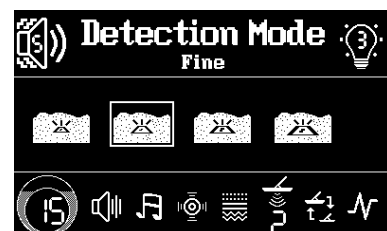
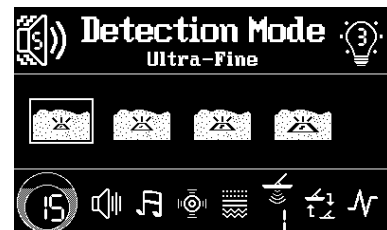
6. Detection Mode

The device offers four distinct detection modes: Ultra-Fine, Fine, Normal, and Large.

Ultra-Fine: This is the go-to choice for detecting gold nuggets of all sizes and is suitable for most situations. When used with the Nugget Finder 8"x6" Sadie, the Coiltek 9" Elite, or similar-sized coils, it excels, even in highly mineralised soils. This combination is strongly recommended for locating small gold nuggets in various ground conditions.

Fine: Fine detection mode reduces sensitivity to mineralised soil and may not detect very small gold nuggets. When paired with the Nugget Finder 12"x7" Mono coil or similar-sized coils, this mode performs exceptionally well, even in highly mineralised soils.

Normal: This mode decreases sensitivity to highly mineralised soil and may not detect small gold nuggets. When used with the Nugget Finder 14"x9" Mono, the Coiltek 14"x9" Elite, or similar-sized coils, it delivers outstanding performance, even in



highly mineralised soils. It is highly recommended for locating medium to large gold nuggets in various ground conditions.

Large: Reserve Large Gold mode for use in extremely mineralised soil with high levels of wet salt. When used with the Nugget Finder 14"x9" Mono, the Coiltek 14"x9" Elite, or larger coils, this mode excels, even in highly mineralised soils. This combination is highly recommended for locating large gold nuggets in different ground conditions. There are three Pulse Delay Options for Large Detection Mode, allowing users to optimise detection for various object sizes and reduce mineralisation noise.

The Pulse Delay Options allow users to select the time delay between the transmitted pulse and the reception of the return signal. After the primary pulse is transmitted, the detector waits for a short period before it starts to listen for the secondary pulse generated by the metal object. This waiting period is known as the pulse delay.

Shorter Delay: Detects weaker signals from smaller objects.

Longer Delay: Filters out signals from small, less conductive objects, focusing on larger items. Reduces mineralisation noise in high mineralisation areas for more stable and accurate detection.

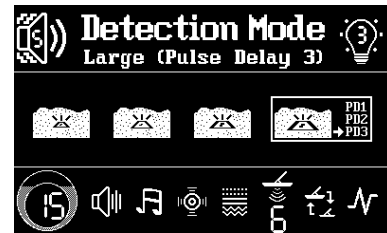
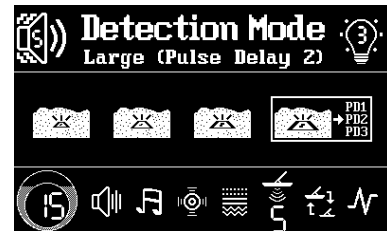
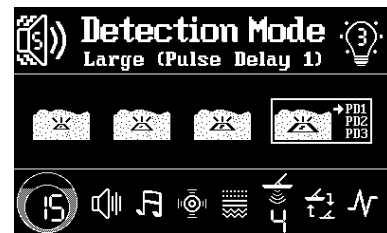
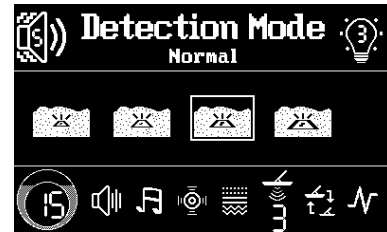
Large (Pulse Delay 1): Offers balanced performance for objects of all sizes. Audio response is fast and sharp.

Large (Pulse Delay 2): Filters out signals from very small objects, focusing on larger items. Audio response is rounded and elongated.

Large (Pulse Delay 3): Filters out signals from small objects, focusing on larger items. Audio response is rounded and elongated.

Note: Large (Pulse Delay 2) and Large (Pulse Delay 3) can be used to ignore small lead pellets for nugget detecting or small foils for beach detecting.

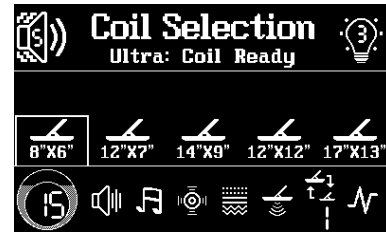
The four detection modes are not exclusively designed for gold nuggets—they can also be used to find jewellery, coins, and other treasures. With a small coil like the Nugget Finder 8"x6" Sadie or the Coiltek 9" Elite, use the Ultra-Fine or Fine detection mode for locating fine treasures. For a larger coil, such as the Nugget Finder 14"x9" Evolution Mono or the Coiltek 14"x9" Elite, utilise the Normal or Large Gold mode for deeper discoveries.



7. Coil Selection

In the Coil Selection setting, there are five coil icons, each storing the calibration parameters and the coil size for a different coil. This means the detector can store calibration parameters for up to five coils.

If the package comes with a coil, its calibration parameters will be saved as the default parameters for all the coil icons. If it doesn't, the parameters of a factory-designated standard coil will be used as the default. Factory reset does not change the coil icons' calibration parameters or coil size.



The coil size of each coil icon can be modified by following these steps:

Hold the **Return/Auto FS** button to enter the coil size editing mode. In this mode, a short underscore appears beneath the coil size number you intend to modify. Use the **Left/Pinpoint** or **Right/Auto GB** button to select the coil size number you wish to adjust. Then, make the desired modifications using the **Minus** or **Plus** button. To exit the coil size editing mode, press the **Return/Auto FS** button. After making these adjustments, you will see the selected coil size displayed in both the Main Detection UI and the Pinpoint UI.

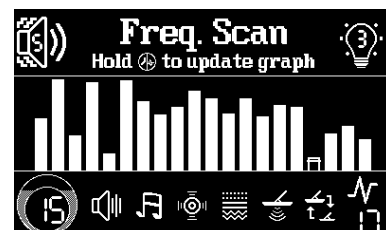
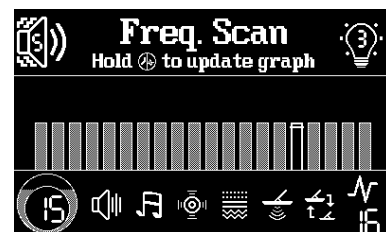
When you connect a new coil, it's recommended to calibrate it by following these steps:

- Choose an unused coil icon to save the calibration parameters and adjust its coil size to match the actual coil.
- Hold the coil in the air, keeping metal and soil at least one meter away.
- Hold the **Minus** and **Plus** buttons until coil calibration starts. Keep the coil in the air during the 25-second calibration process. Coil calibration will be performed for all detection modes one by one. Afterward, the LCD will display "**Coil Ready**". For some very rare coils, LCD will display "**Coil Not Optimal**" when Ultra-Fine detection mode is used. In those cases, if you would like to keep using the coil, you need to switch to a different detection mode until the LCD displays "**Coil Ready**".

8. Frequency Scan

The real-time noise level of the selected frequency and the past noise levels from the last Auto FS are displayed in a graph for convenient manual frequency selection. If Auto FS hasn't been run since a factory reset, the past noise levels are displayed as gray bars of equal height. To choose a relatively quiet frequency with a low noise level, press **Minus** or **Plus**.

Electromagnetic interference often changes. The past noise levels from the last Auto FS may not accurately reflect the current real-time noise levels. If necessary, hold the **Return/Auto FS** button to update the past noise level to the current real-time noise level.



9. Mic Volume

The control box has a microphone that captures ambient sounds, which can then be immediately played back through the headphone. This feature allows the user to simultaneously hear both the ambient sounds and detection audio. The Mic Volume setting allows the user to adjust the volume of the ambient sound playback. To use this feature, a headphone must be connected.



10. Miscellaneous Setting

Information about the power supply voltage, firmware version, and hardware serial number can be found in the Miscellaneous setting.

To perform a factory reset, hold both the **Minus** and **Plus** buttons for 3 seconds. After a factory reset, the coil profiles, including the coil names and calibration data, remain intact, so you don't need to set up your coils again.



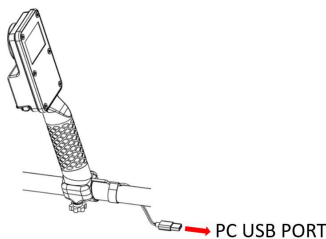
Software Upgrade Instruction

The AlgoForce E1500 and AlgoForce E1500 Plus share the same software binary file. However, it is not recommended to use software versions earlier than V1.1.2 on the AlgoForce E1500 Plus.

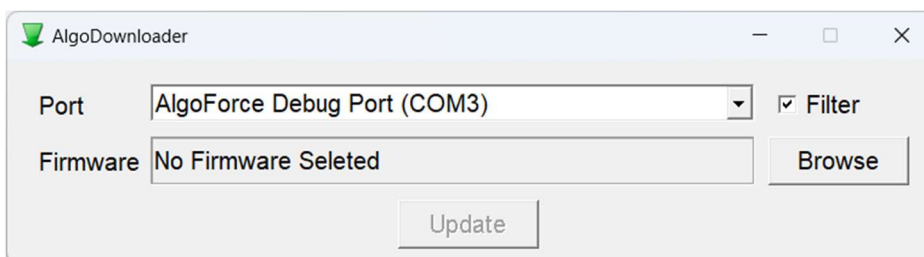
Both models follow the same software upgrade procedure, which currently can only be performed on a Windows operating system. Windows 10 or 11 are preferred.

To upgrade the software for free, follow these steps:

- First-time upgrades: download the AlgoDownloader from <https://algoforce.com.au/pages/downloads>.
- Download the latest software binary file from <https://algoforce.com.au/pages/downloads>.
- Turn off the control box. Connect it to your PC with a USB cable.
- Turn on the control box and it will automatically enter upgrade mode.



- Open AlgoDownloader and choose the appropriate port from the dropdown list. The 'Filter' option is selected by default, displaying only AlgoForce ports in the list. (Note: For Windows 7 and Windows 8, if the USB device driver is not already installed on your PC, the AlgoForce port will not be displayed. In this case, download the USB device driver from <https://algoforce.com.au/pages/downloads> and follow the instructions in the README.TXT file included in the zip file to install it.) Click 'Browse' to select the downloaded firmware binary file, and then click 'Update' to initiate the upgrade process (which takes approximately 10 seconds).



Note: The port number may vary on different PCs. Incorrect port selection will result in an upgrade error.

- Once the upgrade is complete, a window will pop up displaying 'Upgrade Successful.' After that, disconnect the control box from the PC.
- Connect the power bank to the control box and turn it on. **It is crucial to perform a factory reset to fully complete the software upgrade process.**

Bug Report and Feature Request

AlgoForce highly values customer feedback as a crucial means of enhancing our products. To ensure a seamless feedback process, we encourage you to reach out to us directly via email at admin@algoforce.com.au. If you come across any bugs or have ideas for new features that could enhance your metal detecting experience, please send us an email with a detailed description of the issue or requested feature. Kindly include the hardware serial number and firmware version of your detector (located in the Miscellaneous setting) in your email. Our dedicated team of developers will promptly review your feedback and respond to you accordingly. We appreciate your contribution and look forward to working together to improve our products.

Safety and Care

To ensure safe use and longevity of your AlgoForce E1500 Plus, please follow these guidelines:

- Do not immerse the control box in water; it is not water-resistant.
- Clean the detector with a damp cloth, not solvents.
- Avoid extreme temperatures and keep it out of vehicles in extreme weather.
- The detector has small parts that could be a choking hazard, keep it away from children.
- Avoid contacting the detector with sharp objects to prevent scratches or damage.
- Handle the detector with care during transportation or storage to prevent violent vibrations or drops.
- Stay aware of your surroundings, especially when wearing headphones.
- The detector has an ambient sound awareness feature for headphone use, but it does not guarantee that all sounds will be heard.
- Before using in public areas, check local laws and regulations.
- Avoid disconnecting or connecting the coil to the control box after the unit has been powered up, as doing so could potentially damage the control box.
- The AlgoForce E1500 Plus is specifically designed to operate with mono coils, utilizing the mono winding for both transmission and reception. While it's technically possible to plug in a DD coil, only the transmit winding would function as a mono coil, as the receive winding would remain open circuit. DD coils are not recommended for use with the AlgoForce E1500 Plus.
- When using coils heavier than the NF 14"x9" Evo, the shaft may experience slight wobbling despite tightening the spin locks.
- When the telescopic shaft is fully or nearly fully extended, it may experience wobbling. It is recommended to keep the maximum extension length of both the lower and middle shafts at least 5cm shorter than their full extension length.
- Over-tightening the spin locks could cause damage to them.

EMC Compliance

AlgoForce E1500 Plus has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

AlgoForce E1500 Plus complies with the radiated emission limits for AS CISPR11:2017(Group 1, Class A). Class A equipment is equipment suitable for use in all locations other than those allocated in residential environments and those directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

Caution: AlgoForce E1500 Plus is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

Returns Policy

If you purchase the AlgoForce E1500 Plus from a dealer, please reach out to them directly for any returns. Return policies may vary by dealer, so it's recommended to confirm these details with your dealer prior to purchase.

If you purchase AlgoForce E1500 Plus from AlgoForce's Amazon store, please contact Amazon for any returns.

If you purchase AlgoForce E1500 Plus from AlgoForce's website (<https://algoforce.com.au>) or directly from AlgoForce Pty Ltd, please refer to the following paragraphs on this page regarding the returns policy.

Change of mind returns:

Subject to your rights under the Australian Consumer Law, if you wish to return an item because you have changed your mind about your purchase, AlgoForce Pty Ltd will offer you refund provided that:

- You return the item/s within 30 days of purchase and produce your original receipt.
- The item is in re-saleable condition, meaning that:
 - It is in its original packaging, including instruction manuals and all accessories; and
 - It is unworn, unused, unassembled, and in its original condition.
- You are responsible for the transportation costs to AlgoForce Pty Ltd.

If these requirements are not satisfied, AlgoForce Pty Ltd reserves the right not to offer refund for change of mind returns.

Other Returns:

In addition to any other rights you may have under the Australian Consumer Law, AlgoForce Pty Ltd will accept product returns and provide you with the choice of an exchange (where feasible) or a refund where:

- The product is faulty or is not of acceptable quality; or
- The product is not fit for its intended purpose; or
- The product does not match the sample or our description.

For all returns, you must return the item/s within 30 days of purchase and produce your original receipt. When returning a product, you will be asked for information that is relevant to your return, or to satisfy legislative requirements. If you do not provide this information, then we may be unable to process your return. AlgoForce Pty Ltd reserves the right to assess the condition and age of returned goods prior to providing an exchange or refund. This may result in an exchange or refund being refused. Refunds will be processed using the payment method stated on your original receipt. AlgoForce Pty Ltd reserves the right not to offer an exchange or refund where the item fault is a result of misuse or neglect.

If you need to return an item, please contact us at admin@algoforce.com.au with your order number and details about the product you would like to return. We will respond quickly with instructions on how to return items from your order.

Warranty Information

The AlgoForce E1500 Plus control box, shaft, and armrest are covered by a 2-year warranty for manufacturing defects, beginning from the original purchase date. A valid purchase receipt or tax invoice is required for warranty claims. For secondhand purchases, ensure you obtain the original purchase receipt to transfer any remaining warranty.

This warranty excludes damage caused by:

- Over-voltage or reverse voltage supply
- Misuse, abuse, modification, or alteration
- Water exposure, accidents, or neglect

Tampering with the control box voids the warranty. Any included coil is covered by the coil manufacturer's warranty, not by AlgoForce Pty Ltd.

The warranty assistance procedure depends on the purchase source. If the unit was bought from an authorised dealer, warranty support will follow a different process than for purchases made from AlgoForce Pty Ltd. Purchases made from AlgoForce Pty Ltd include those made through AlgoForce's Amazon store, the official website (<https://algoforce.com.au>), or directly from AlgoForce Pty Ltd.

For Units Purchased from a Dealer:

If you purchased an AlgoForce E1500 Plus from a dealer or own a secondhand unit originally purchased from a dealer, please follow these steps for warranty assistance:

1. Contact Your Dealer

Customers should contact your dealer directly with details of the issue and a scanned copy of the original customer receipt. The dealer assesses the problem based on the customer's description, photos, or videos and confirms if it qualifies for warranty support. If required, the dealer may request the unit be sent to them to verify the warranty status.

2. Send the item for service

2-1. If the dealer determines the issue qualifies for warranty coverage:

For customers in Australia, the unit should be sent by either the customer or the Dealer (if in possession of the unit) to AlgoForce Pty Ltd at: AlgoForce Pty Ltd, PO BOX 393, GLENSIDE SA AUSTRALIA 5065.

For customers outside Australia, the unit should be sent directly to the dealer. The customer should follow up with the dealer for diagnosis, repair, and return.

2-2. If the issue does not qualify for warranty coverage:

If the problem does not qualify for warranty coverage, the unit should be sent to AlgoForce Pty Ltd at: AlgoForce Pty Ltd, PO BOX 393, GLENSIDE SA AUSTRALIA 5065.

3. Diagnosis and Quotation

If the unit is sent to AlgoForce Pty Ltd, we will diagnose the issue upon receipt and email the customer a quote, including return postage costs. If the item is not under warranty, repair

fees may apply. Repairs will proceed, and the item will be returned after payment of any applicable charges.

Note: If the dealer fails to send an issue confirmation email to AlgoForce Pty Ltd or if the email lacks necessary details to verify the warranty status, AlgoForce Pty Ltd reserves the right to apply repair fees, even if the item is within the warranty period.

For Units Purchased from AlgoForce:

If you purchased an AlgoForce E1500 Plus from AlgoForce, or own a secondhand unit originally purchased from AlgoForce, please follow these steps for warranty assistance:

1. Email Warranty Request

Send an email to admin@algoforce.com.au with the following required information and a scanned copy of the original purchase receipt. You will receive a response with a Repair or Warranty Service Number (RWSN).

First Name: _____ Last Name: _____

Serial Number: _____

Detailed Description of the Problem: _____

Return Shipping Address: _____

Billing Address (if not the same as the return shipping address):

Return Shipping Preference:

AusPost Standard AusPost Express

2. Send the Item for Service

Once you have received the RWSN, please send the item along with a brief note that includes the RWSN to:

AlgoForce Pty Ltd, PO BOX 393, GLENSIDE SA AUSTRALIA 5065

3. Diagnosis and Quotation

After receiving your item, AlgoForce Pty Ltd will diagnose the issue upon receipt and email you a quote, including return postage costs. If the item is not under warranty, repair fees may apply. Repairs will proceed, and the item will be returned after payment of any applicable charges.

Additional Notes:

- The owner is responsible for shipping costs to and from AlgoForce Pty Ltd.

AlgoForce E1500 *plus*

- Repairs come with a 90-day warranty.
- Please be aware that user-stored data in the detector may be lost during repairs.
- Items presented for repair may be replaced with refurbished goods or parts of the same type as necessary.

Specifications

Ultra-Fine PI Technology	✓
Conductive Target ID	0-99
Fundamental Transmit Frequency	1500 Hz (adjustable)
Coil	<p>* Mono</p> <p>* Compatible with GPX 4500/5000 aftermarket mono coils</p> <p>* The Nugget Finder 8"x6" Sadie and the Coiltek 9" Elite coils are recommended for outstanding ultra-fine gold detection and excellent EMI immunity. They are also recommended for finding fine jewellery, coins, and other treasures on the beach.</p> <p>* The Nugget Finder 14"x9" Evolution Mono and the Coiltek 14"x9" Elite coils are excellent choices for versatile gold detection, offering comprehensive coverage for nuggets of all sizes across diverse soil conditions. These coils are also highly recommended for locating deep jewellery, coins, and other treasures on the beach.</p>
User Coil Calibration	✓
LCD	B/W 2.7" 400x240 pixels
Backlight Adjust	✓
Mic for Ambient Sound Awareness	✓
Handle Vibration	✓
Loudspeaker	✓
3.5mm Headphone Socket	✓
Ground Balance	Automatic, dual ground balanced channels
Sensitivity Control	✓ (Visual detection threshold for easy sensitivity control)
Audio Threshold Control	✓
Audio Tone Control	✓
Frequency Scan	Automatic and Manual (Visual representation of noise levels across all frequencies in one graph for easy manual frequency selection)
Volume Control	✓
Shaft Length (Adjustable)	Fully extended: 150cm Collapses to 59cm
Weight	835g without coil or power bank
Power Source	External 5V DC USB power bank
Average Current Consumption	800mA
Warranty	2 years, Limited Part/Labor

Release Note for Software V1.1.3

Software Version 1.1.3 is designed for both the E1500 and the E1500 Plus. By default, the E1500 Plus comes pre-installed with this version unless a newer version becomes available.

For E1500 users, rest assured that all future software versions developed for the E1500 Plus will remain fully compatible with the E1500. Users can easily upgrade their E1500 using the binary update file provided for the E1500 Plus.

Software V1.1.3 includes the following updates and improvements:

1. Enhanced Display Theme Switching:

- Previously, switching between dark and light display themes was only possible through the Miscellaneous settings menu.
- Now, users can switch display themes from anywhere by holding the Backlight/Theme button, providing greater convenience and ease of use.

2. New Audio Settings in Pinpoint Mode:

- Added 5 Tones Inv. and 100 Tones Inv. audio settings, offering an alternative feedback option.
- These settings take advantage of human sensitivity to high-pitched sounds to better target identification:
 - **5 Tones and 100 Tones:** Best for identifying highly conductive targets with higher target IDs.
 - **5 Tones Inv. and 100 Tones Inv.:** Ideal for detecting small items, such as gold nuggets, with lower target IDs, as higher-pitched tones are used to highlight these signals.

22/01/2025