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# INSTRUCTION MANUAL

## V80 V60

Version: V2308

As an innovative brand, We might change settings or tech specs to improve users experience and may not always notify you in advance. Thanks for your understanding~



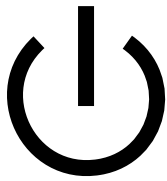
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# QUICK START

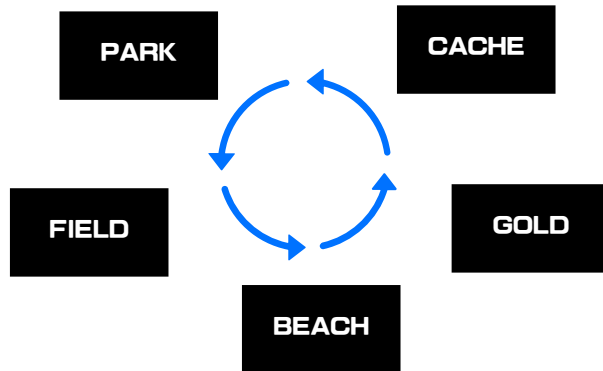
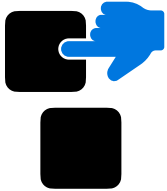


## POWER ON

Click upper right side button to power on

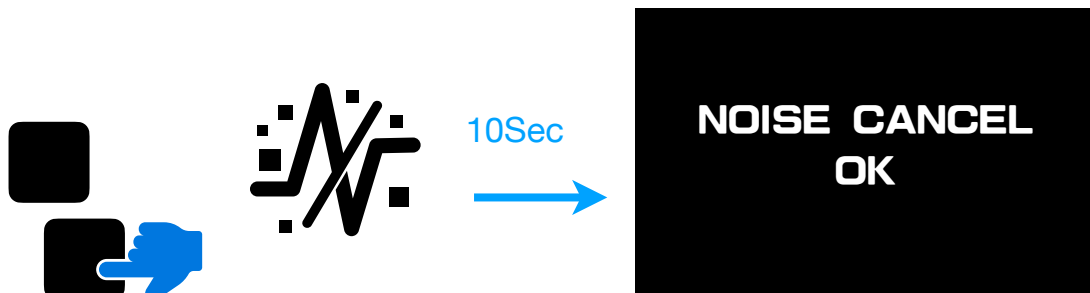


## SELECT MODE



Click upper square button to change modes based on your location

## NOISE CANCEL

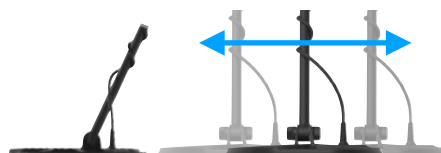


Hold lower square button for 1 Sec for noise canceling

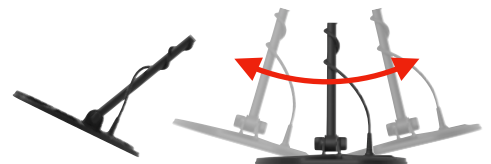
## READY TO SWING



Correct



Incorrect



Keep a 50% overlap and parallel sweeping over ground for best result.



## ASSEMBLING



**1** Remove the main unit, pry open the locking lever at the bottom of the handle, align the part of the handle with the groove on the lower part of the main unit with the raised rib on the rod, push into the bottom of the rod, and press down the locking lever.

**2** Push the armrest into the rod according to the method described above, and tighten the two bolts.

**3** Remove the search coil, loosen the nuts and bolts, pass the yoke bracket through the circular hole at the end of the lower rod, assemble them in the order shown in the diagram, and tighten the bolts and nuts.

**4** Connect the coil connector to the control box and tight the locking ring to secure.

## FLAT FOLDING

To **flat fold** the search coil, simply retract the lower rod that connects to the search coil to the lowest position, and you can then rotate the search coil freely to achieve the most compact storage state.





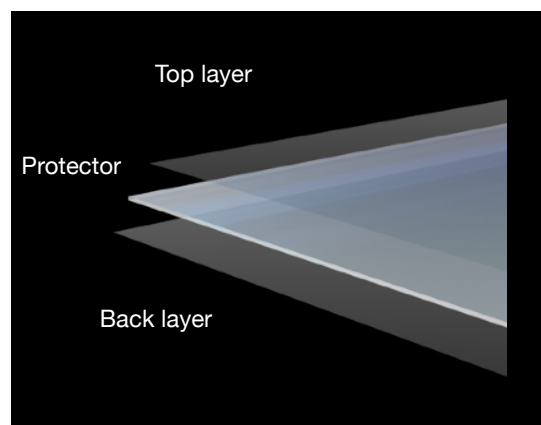
# PREPARATION

## RECHARGE



Before first use, it is recommended that you fully charge the battery for 6 hours. Use a high-quality mobile phone charger plug to charge the detector. The specific steps are as follows: Remove the charging cable, unscrew the protective cap of the detector, insert the larger end of the charging cable into a socket or a computer with a standard plug, or a solar power bank, and insert the smaller end (Type-C) into the metal detector plug

## PROTECT



### Apply LCD screen protective film

1. Take off the thin plastic covering from the detector's screen. Check that there's no dust or fingerprints on the screen.
2. Carefully remove the protective backing from the screen protector.
3. Hold the screen protector by its edges, line it up with the screen, and gently place it down. If there are any bubbles, use a soft and clean cloth to push them to the edge.
4. Finally, remove the top layer from the screen protector.




	KEY FUNCTION	ALTERNATIVE FUNCTION	IN-MENU FUNCTION
1	<b>Power on</b>	Hold 0.5 sec to Power off	Hold 0.5 sec to Power off
2	<b>Change modes</b>	Hold for All-Metal	Confirm, Accept/Reject ID
3	<b>Change frequency</b>	Hold to perform noise cancelling	Return to higher level MENU
4	<b>MENU Setup</b>		Exit MENU
5	<b>Pinpoint</b>	Hold for Ground Balance	
6	Volume up	Hold to + volume quickly	
7	Volume down / Vibration	Hold to - volume quickly	
8	Increase sensitivity	Hold to + sensitivity quickly	Scroll up/Increase
9	Decrease sensitivity	Hold to - sensitivity quickly	Scroll down/Increase
10	Backlight adjust	Hold to turn on/off flashlight	



## WIREEFREE PRO



### Instructions

**Turn On/Off:** Press and hold the "O" /  button to power the headphones on or off.

**Adjust Volume:** Press the upward arrow(+) to increase the volume. Press the downward arrow(-) to decrease the volume.)

**Pairing New Devices:** Make sure the detector or smartphone is under pairing mode. When the headphones are off, hold the power button for 5 seconds to enter pairing mode for connecting with a new detector or smartphone.

**Erase All Pairings(reset):** To remove all previously paired devices, turn off the headphones and then hold the power button for 10 seconds.

**Fit Adjustment:** If the headphones feel too tight on your head, extend the arms to ensure your whole ears fit comfortably inside the ear cups.

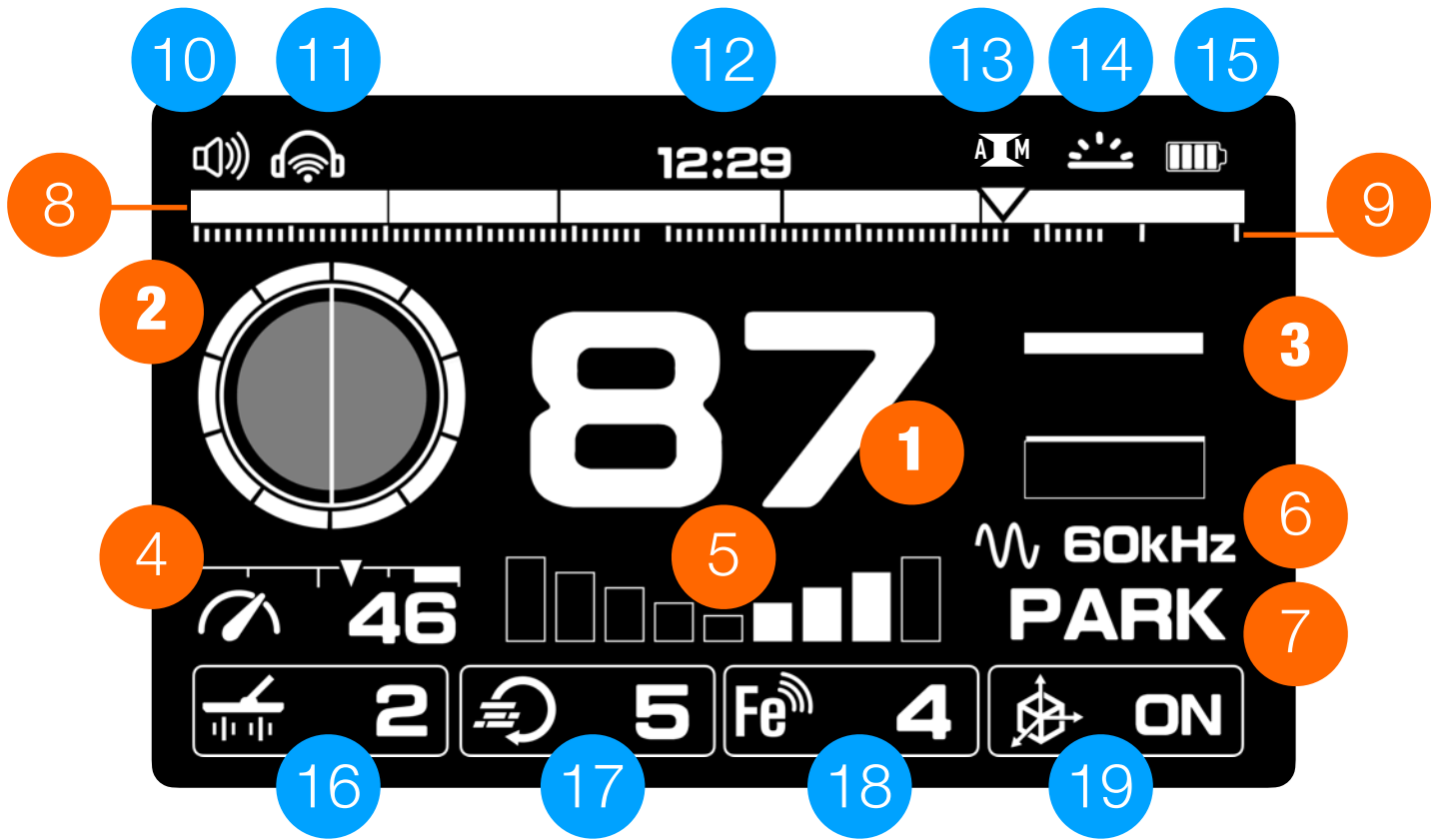
**Volume Safety:** For the safety of your hearing, avoid setting the volume too high.

**Wired Connection:** If the battery is drained, use a 3.5mm to 3.5mm audio cable to connect the headphones to the detector.

**Initial Charge:** Before using the headphones for the first time, make sure to fully charge them.

## WIREFREE VIBE





## Essential info display

- 1 Target ID
- 2 Ground effect ball
- 3 Signal strength
- 4 Sensitivity
- 5 Good target scale

## Utility function display

- 10 Speaker volume
- 11 Wireless headphones
- 12 Clock
- 13 All metal status
- 14 Backlight
- 15 Battery status

## Programmable info

- 6 Frequency
- 7 Search modes
- 8 Tone space
- 9 Target ID bars

## Essential setup display

- 16 TX power
- 17 Recovery speed
- 18 Ferrous sense
- 19 Gyro status



## 1. Target ID.



**Target Identification (Target ID)** in metal detectors is a complex feature that offers a numeric representation of a detected object, ranging from 0 to 99. This number helps identify a target's ferrous or non-ferrous properties, such as a US quarter displaying a Target ID of 82.

However, Target IDs can sometimes be inconsistent. Factors like orientation, depth, metal purity, corrosion, soil mineralization, and the swing direction of coil can cause multiple IDs for the same target. In certain situations, the device may even fail to provide an ID, especially for deep or smaller targets, as a strong, clear signal is needed. Different frequency or coils may cause minor differences too.

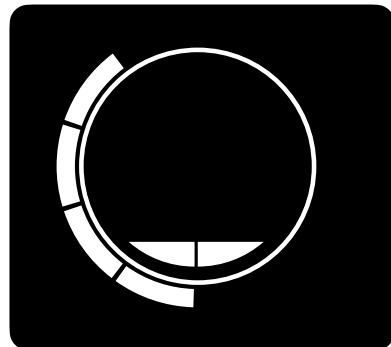
HyperQ enhances Target ID accuracy, especially in mineralized ground, maximizing depth and stability. However, it may take time and experience to make optimal use of Target ID, as different detectors produce varying numbers, and local variations in metals and sizes may require testing and adjustment.



## 2. Ground Effect Ball.

**Salt-Water Condition (left half):** This refers to the presence of salt in water environments, such as beaches. The conductive nature of saltwater can create interference similar to mineralization, generating false signals and potentially affecting the detector's ability to differentiate between various metals.

**Mineralization (right half):** Mineralization in metal detecting refers to the presence of minerals like iron in the ground. These can interfere with the detector's electromagnetic field, causing false signals



and making it difficult to distinguish real metal targets from minerals in the soil. The higher the level, the more severe the mineralization.

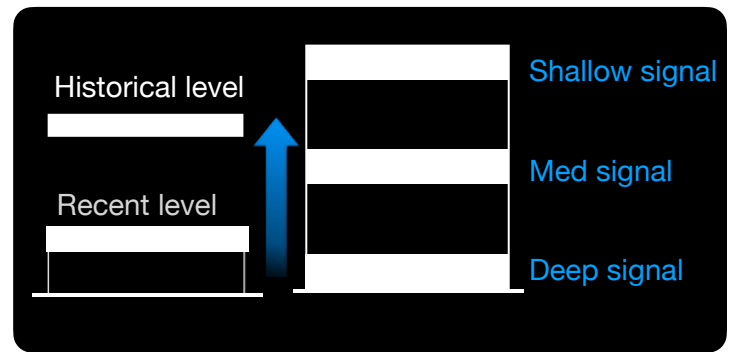
**Correction Index (outside circle):** This shows the ground effect correction. The microcontroller will apply preset programs to balance the ground effects caused by mineralization or saltwater, or even both, automatically without setup. The Ground Balance process will adjust the correction index. Turn to **Ground Balance** page for more info.

### 3. Dynamic Signal Strength Meter

The V Series metal detectors introduce a dynamic meter offers several unique advantages that enhance the user's ability to analyze and interpret signals:

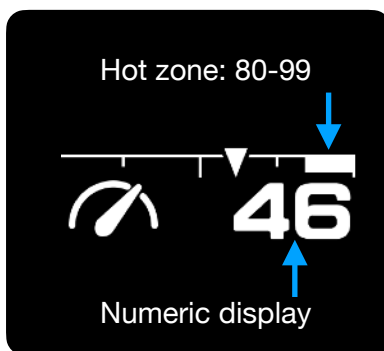
1. Time-Based Signal Representation: Unlike traditional depth gauges that only show the most recent information, the dynamic meter on the V Series displays a solid bar representing the signal strength over a specific period. This visual representation provides a more comprehensive view of the target's characteristics.

2. 3-Sec Signal Retention: The dynamic meter retains the latest 3-second signal, allowing users to compare it with recent results. This extended retention enables a more nuanced understanding of the target,



helping to find the strongest signal between different places.

3. Real-Time Comparison and Analysis: By dynamically displaying signal strength over time, users can observe fluctuations and patterns in real-time. This assists in identifying the nature of the target, whether it's a consistent, valuable object or inconsistent, potentially undesirable debris.



**4. Sensitivity.** 99 levels sensitivity with indication arrow. 99 is highest level. Sensitivity higher than 80 might be noisy in high EMI interference areas.



### 5. FeScale.

In the process of differentiating metals into ferrous and non-ferrous categories, relying solely on Target ID may sometimes be inadequate. FeScale enhances the user's ability to identify targets more precisely by visually displaying the ratio between ferrous and non-ferrous components.

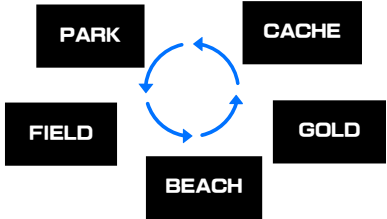



### 6. Frequencies

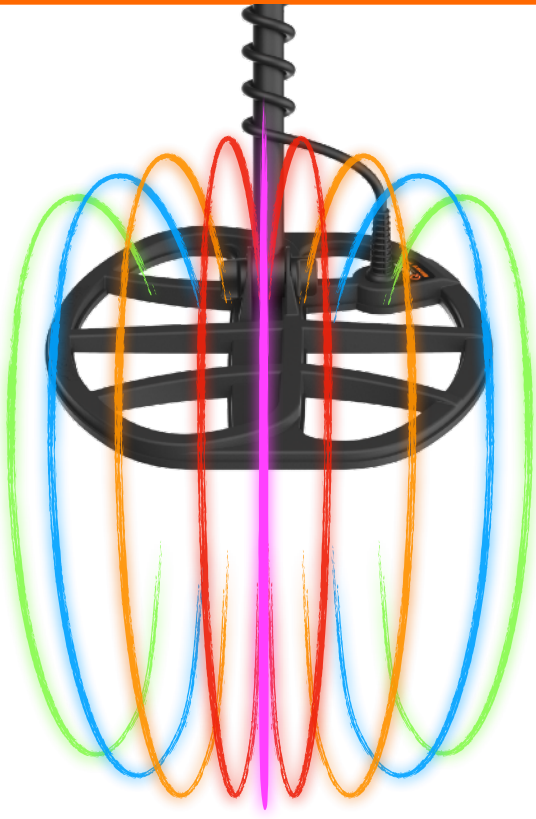
Choose the right frequency for your detection scenarios. We offers up to 5 single frequencies and 1 HyperQ multi-frequency to select. For more info check out at Frequencies page.





7	<b>Search Modes</b>	 <p>Press the upper square button to toggle through the five different search modes.</p>
8	<b>Tone space</b>	<p>The factory default setting for tone space is divided into five sections, each corresponding to a specific range of Target ID values. These settings define how different targets are identified by their corresponding audio tones. Customize yours at <b>SOUND</b> menu. These sections are as follows:</p> <p>0-19: Associated with an audio tone of 117Hz                  20-39: Associated with an audio tone of 351Hz                  40-59: Associated with an audio tone of 527Hz                  60-79: Associated with an audio tone of 790Hz                  80-99: Associated with an audio tone of 966Hz</p>
9	<b>Target ID bars</b>	 <p>The factory default setting masks TIDs ranging from 1 to 19. You can customize this range by selecting or deselecting any TID from 1 to 99 within the <b>DETECT-DISCRIMINATION</b> menu.</p> <p>To select all TIDs, simply hold down the upper square button. When this action is performed, the "AM" symbol will appear in the upper right corner of the display, indicating that all TIDs are selected.</p> <p>During the detection process, the detected TID value will be indicated on the display by a triangle pointing to the corresponding TID bar. This feature helps you quickly identify the nature of the detected target.</p>
10	<b>Speaker Vibration</b>	<p>Use the left side buttons on the control box to adjust the speaker's volume. Click to increase or decrease, and a vibration symbol will appear when muted, activating a tactile alert instead of sound.</p>
11	<b>Wireless Audio</b>	<p>When wireless devices are connected the symbol will appear. Previously paired headphones will be connected automatically. Go to <b>SET-WIRELESS AUDIO</b>.</p>
12	<b>Clock</b>	<p>Set clock at <b>SET-CLOCK</b> menu. The time will be reset when battery run out.</p>
13	<b>All-metal status</b>	<p>When all-metal shortcut button been pressed the AM(all metal) symbol will show up</p>
14	<b>Backlight</b>	<p>Press the button on the lower right side to adjust 9 levels backlit. Hold for flashlight</p>
15	<b>Battery</b>	<p>Indicating the real time battery status</p>
16	<b>TX Power</b>	<p>Indicating the TX power level which can be set in <b>DETECT-TX POWER</b> menu</p>
17	<b>Recovery speed</b>	<p>Indicating the recovery speed level which can be set in <b>DETECT-RECOVERY</b> menu</p>
18	<b>FeSen Level</b>	<p>Indicating the Iron Volume level which can be set in <b>SOUND-TONE VOLUME</b> menu</p>
19	<b>Gyro sensor</b>	<p>Indicating the Gyro status which can be set in <b>GROUND-GYRO SENSOR</b> menu</p>





## Advantageous of HyperQ

Thanks to the high performance STM32H750 series micro controller with high sensitivity and low noise ADC TLV320ADC5140, metal detectors equipped with HyperQ technology can transmit 4 essential frequencies from 7 to 80kHz to the ground, simultaneously. Key features include:

- Higher detection frequency.
- Highly accurate results.
- Auto noise canceling by 1 click.

The V series detectors are equipped with HyperQ, allowing them to operate with simultaneous multi-frequency. Additionally, users have the option to choose from specific single frequencies.

Adjusting the frequency only affects the current Search Mode Profile, leaving other profiles untouched.

## How to Change the Frequency:

1 Select Frequency: Use the Frequency button to cycle through the available frequencies. The HyperQ symbol will be displayed when HyperQ(simultaneous Multi-frequency) is selected.

Single frequencies are shown in kHz, with options such as 5, 10, 15, 20, 40 kHz,60kHz\*.

2 Noise Cancellation: Perform a Noise Cancel to minimize interference (refer to page 25 in the manual).

## Multi-Frequency Operation (HyperQ):

HyperQ operates across the entire frequency spectrum at once, enhancing the detection range. It is generally recommended for its ability to detect various targets while providing more stable and precise target IDs.

## Single Frequency Operation:

Certain situations might benefit from using a single frequency. For example:

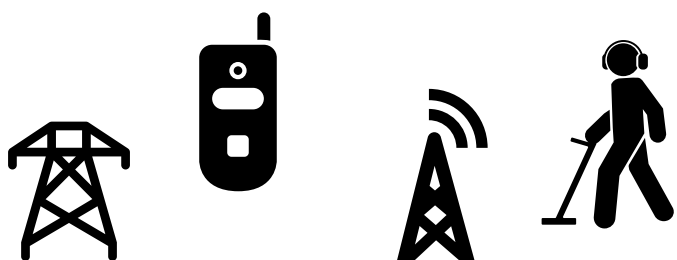
For detecting larger, highly conductive objects at deep levels, 5 or 10kHz might be advantageous.

For finding fine gold jewelry at shallow depths, 40 kHz or 60 kHz\* could yield better results in specific environments, like dry sand at a beach.

However, in areas with high Electromagnetic Interference where noise cancellation is less effective, using a single frequency might reduce noise. This might limit target sensitivity across a broader range, but it could be preferable in specific conditions.

By offering both multi-frequency and single-frequency options, the V Series detectors provide versatility to adapt to various detecting situations and preferences.

# NOISE CANCEL



## Electromagnetic Interference (EMI) Noise

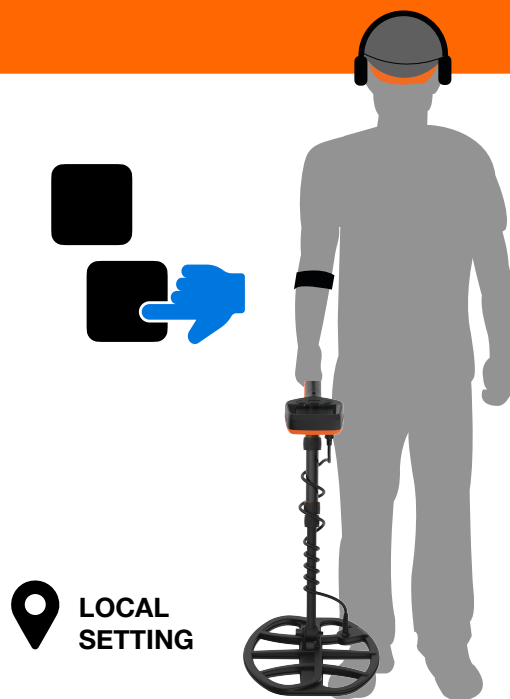
In metal detecting, 'EMI noise' refers to electrical or electromagnetic interference from sources such as power lines, electronic devices, or other detectors. This interference can cause false signals, inconsistent readings, reduced sensitivity, and difficulty in pinpointing targets, leading to confusion and potentially hindering the detection process.

## Auto Noise Canceling and how it works

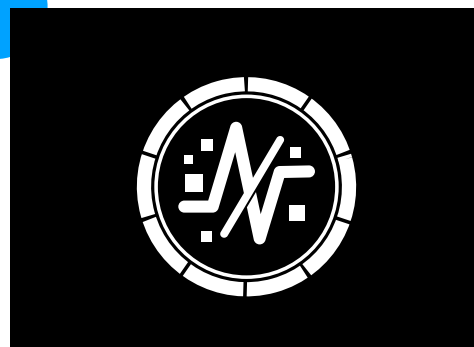
Auto noise canceling technology in metal detectors is a sophisticated process that enhances the accuracy of detection by filtering out unwanted interference. Initially, the detector "listens" to all available frequencies or channels, scanning the environment to identify where the noise or unwanted signals are coming from, much like scanning radio stations to find static. The detector's internal algorithm consists of specific rules and patterns that recognize the particular patterns resembling interference. Once identified, the detector picks the quietest frequency or channel, where the noise is least pronounced, and aligns itself to that frequency. By doing so, it minimizes responsiveness to the noise and maximizes focus on genuine metal signals. This process of scanning, identifying, and aligning ensures that the detector can operate in various environments, providing clear readings and reducing false detections, even in areas filled with electronic devices or power lines.

## How to perform a Auto Noise Canceling

1. Hold the detector still and keep the coil off the ground.
2. Press and hold noise canceling button.
3. Wait about 10 seconds until the speaker remind with a beep and the LCD shows OK.



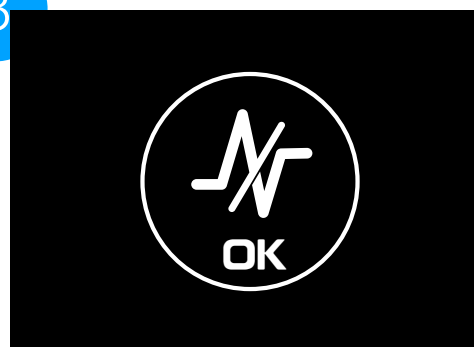
1

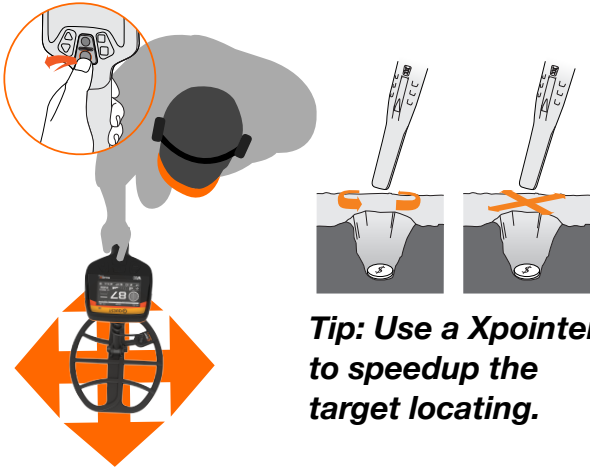


2



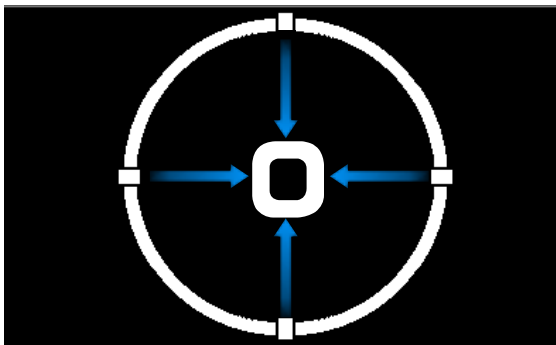
3





**Tip: Use a Xpointer to speedup the target locating.**

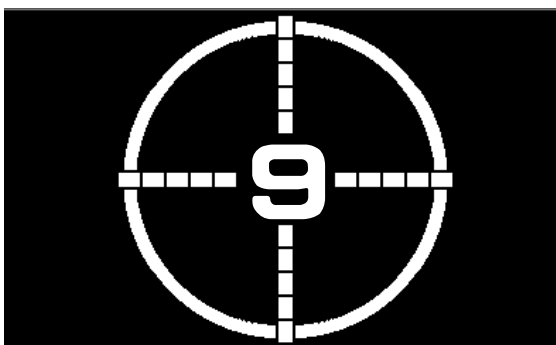
## VISUALIZATION OF PINPOINTING



Initial status of pinpoint mode



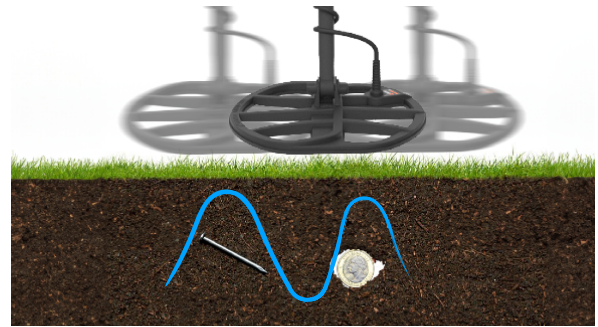
Middle signal strength



Strongest signal strength

**Pinpoint mode** produces a continuous tone with variable volume to help you accurately locate the target's location before you start digging.

It's essential for precise targeting and can be applied in two ways:



## Finding a Target with Pinpoint Mode

**Step 1:** Move the coil away from the estimated target spot, then press the Pinpoint button to activate Pinpoint Mode. A circle with four dots and a one digit numeric number will be displayed on the screen.

**Step 2:** Keep the coil level with the ground and sweep over the target area slowly a few times.

**Step 3:** Identify the target's center by listening for the strongest signal or observing the Pinpoint Visualization on the screen.

**Step 4:** Memorize the location with most segments of the cross are active and the highest digit show on screen. The target will be positioned under the coil's center.

**Step 5.** Press pinpoint button again to exit

If pinpointing becomes challenging or the detector becomes noisy, deactivate Pinpoint Mode, then repeat from Step 1.

**Note:** When Pinpoint Mode is engaged, the discrimination pattern is momentarily turned off (i.e., All Metal mode is activated), and motion detection is disabled, so targets can be detected even if the coil is still.



## Ground balance.

Ground balancing helps calibrate the detector to the local ground, eliminating false signals caused by mineralization or saltwater effect. The Ground Balance feature adjusts the detector to match the specific conditions of the local soil, thereby reducing false signals that can arise from mineralization or saltwater effect.

There are two ways to balance the ground:

**1 Auto Tracking.** The V Series metal detectors are equipped with intelligent automatic ground tracking, allowing them to operate without ground balancing on most minor mineralized terrains. This design offers flexibility and ease of use, especially for beginners or in areas with minimal ground mineralization.

**2 Auto G.B.** In highly mineralized or salty grounds, or for more experienced users seeking extra depth and stability, Auto Ground Balance (Auto G.B.) becomes essential.

### With the V Series, Auto G.B. can be performed in two ways:

- 1 Hold pinpoint button and pump coil on ground. The device automatically adjusts to the ground conditions. During the operation, the LCD will display the **Dynamic Ground Effect Ball** with a 2-digit real-time ground balance value. When the number stops changing dramatically and you don't hear much noise from the detector, that means it's ready. Then, let go of the Accept/Reject button
- 2 Just pump above ground when Gyro sensor feature "pump to GB" is on.

It's important to note that Ground Balance adjustment is local, meaning that only the current Search Mode Search Profile is affected by changes to this setting.

## VISUALIZATION OF AUTO G.B.



**Hold to AUTO G.B.  
Release to cancel**



**Park Mode** is the ideal setting for metal detecting in areas filled with metal trash, such as urban parks, recreational areas, or other places where people often gather. The recovery speed

is slightly tuned to detect in such trashy conditions. In these locations, you might find valuable items like coins and jewelry, but you'll also encounter plenty of metallic debris like aluminum foil, pull-tabs, and bottle caps. Here's what makes Park Mode a standout choice:

1. Versatility: It's not just for parks; it's also suitable for general uses, including detecting in freshwater.
2. Depth and Sensitivity: The default settings in Park Mode offer excellent depth and precise identification of targets, filtering out the junk commonly found in recreational areas. By using

Multi-Frequency, it becomes highly sensitive to various targets, ignoring most trash.

3. Frequency Options: You can choose single or HyperQ based on the target type, with HyperQ allowing for maximum depth and separation. This might create a slight noise, but it's typically manageable.

If you're new to an area or just starting with metal detecting, Park Mode is often the best first choice. Its combination of depth, sensitivity, discrimination, and adaptability makes it a reliable option for hunting coins and jewelry amidst modern trash.

Tips: Use FeScale feature to help identifying the ferrous/non-ferrous ratio of the target, helping you distinguish between valuable finds and trash metals.

Some recommended places to detect: School Playgrounds, Picnic Areas, Walking Paths, Historical Sites, Near Food Vendors Sports Fields, Parking Lots etc.

**Field Mode** is specifically designed for metal detecting in open pastures, cultivated fields, and areas rich in historical significance. This mode excels in environments that are often littered with ferrous trash such as iron nails, as well as coke—a byproduct of coal combustion from past human activities. The mode is especially useful for discriminating against these unwanted items while effectively identifying valuable finds like ancient artifacts and hammered coins.

One of the standout features of Field Mode is its adaptability to a wide range of target sizes, making it ideal for those who are on the hunt for a diverse set of items. When the frequency is set to HyperQ the detector becomes highly sensitive across a broad spectrum of targets. This heightened sensitivity allows for more accurate identification, even for objects that are located at

the edge of the detector's depth range. In comparison to single-frequency options, Multi frequency in Field Mode offers a distinct advantage in terms of both detection depth and target identification accuracy.



In essence, Field Mode provides an optimized setting that balances sensitivity, discrimination, and depth, making it your go-to option for challenging terrains laden with historical artifacts and varying types of metal trash. Whether you are an amateur treasure hunter or a seasoned archaeologist, Field Mode offers a tailored detecting experience that maximizes your chances of making valuable finds.





**Beach Mode** is meticulously designed for metal detecting in various beach environments, from dry sand to underwater conditions up to 15feet/

5M. The mode is especially useful in tackling the challenges posed by high salt content and black sand, which can interfere with accurate target identification. Unlike single-frequency detectors that struggle in these environments, Beach Mode employs HyperQ technology to minimize noise from salt and achieve maximum performance.

Another unique feature is the black sand detection. Beaches with black sand, rich in natural iron, make metal detection extremely challenging. In such cases, Beach Mode automatically senses the presence of black sand and displays high mineral+saltwater presence, allowing you to adjust your strategy accordingly.

This mode is ideal for saltwater beaches, offering a high Recovery Speed to minimize saltwater interference without sacrificing depth. Overall, Beach Mode provides a comprehensive solution for efficient and effective treasure hunting in some of the most challenging terrains.



**Gold Mode** is specifically engineered for the challenging conditions of mineralized goldfields. Unlike other modes, it features a continuous background threshold tone, aiding in the detection

of both shallow, small gold nuggets and deeper, larger ones. The audio alerts in this mode are dynamic; their volume and frequency change in proportion to the strength of the target signal, making it easier to gauge the size and depth of detected objects.

The mode allows for the use of high single frequencies like 40kHz or 60kHz, as well as Multi frequency.

By default, Gold Mode operates at a Recovery Speed of 5 and uses continuous tone. This configuration aims to pinpoint valuable targets amidst the mineralized ground noise. Whether you're searching for small, surface-level nuggets or deeper, larger pieces, Gold Mode offers a specialized, effective toolset for navigating the complexities of goldfield terrains.

### GOLD MODE INTERFACE



**Cache Mode** is specifically designed for detecting deeper targets, making it ideal for treasure hunters seeking older, more deeply-buried items. By default, it comes with a Recovery

Speed set at 1, the lowest setting, which increases the detector's depth sensitivity. This enables the device to pick up signals from deeper objects that other modes might miss. However, the lower Recovery Speed also has its drawbacks. It makes the detector more

susceptible to false signals from mineralized soil or other kinds of interference. It also slows down the response time, which could make pinpointing smaller, closer targets more challenging.

Tips for Using Cache Mode:

Use Cache Mode in areas where you expect to find deeper, older targets, like historical sites. Due to the slow Recovery Speed, it's essential to move the coil more slowly over the ground to ensure accurate detection.



Operating the V series is quite straightforward. There are 2 levels of menus, categorized into 4 sections based on their functions. So you can access every function quickly without any guessing.

Click to enter the MENU.

- Use to navigate within the first level menu.
- Click the upper to enter the 2nd level menu.
- Use to navigate within the 2nd level menu.
- Click the lower to return to the 1st level menu.
- Click again to exit the MENU.

Settings with local mark will only affect the recent mode. Global mark means the setting is for every mode



LOCAL SETTING



GLOBAL SETTING



**Discrimination** patterns in metal detecting allow you to focus on specific targets and ignore others. Targets are identified by a Target ID number and segment on a scale from 0 to 99. You can turn segments On (accept) or Off (reject), creating a custom pattern for detecting treasure and ignoring trash. These patterns are specific to each Search Mode Profile, enabling tailored experiences for different hunting environments. By using discrimination patterns, you can make your detecting more efficient and enjoyable.



Click once to move triangle indicator forward or backward with one ID position.

Hold to move triangle indicator forward or backward at fast speed.

Click the upper to select or deselect one ID.

Click the lower to return to the 1st level menu.

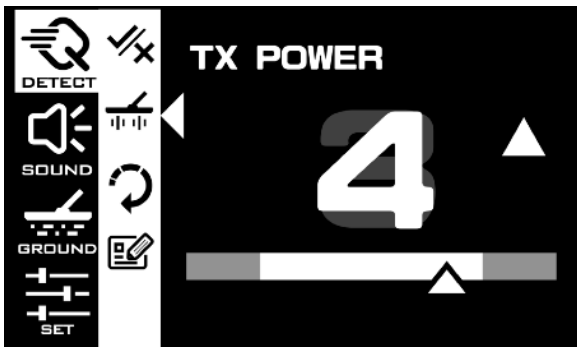
Click again to exit the MENU.



LOCAL SETTING



# DETECT



**TX Power** refers to the amount of power supplied to the transmitter coil, which creates an electromagnetic field around the coil. Effect on Detection: Increasing the TX Power increases the strength of the electromagnetic

field. This enables the detector to penetrate deeper into the ground and detect objects that are farther away from the coil. Differences with Sensitivity setting: TX Power controls the strength of the electromagnetic field, affecting the depth of detection and potentially the level of noise. Sensitivity controls how the detector responds to received signals, affecting the ability to detect small or weak signals and also influencing the level of noise or false signals.



**Recovery Speed** or so-called reactivity determines how fast the detector can recover after detecting one target to detect another nearby target. Importance: It helps in differentiating between multiple targets that are close together and assists in high-trash areas to find smaller valuable targets amongst larger iron trash. The default setting is 5, except CACHE mode and GOLD mode, which are set to 1

## Fast Recovery Speed(8,9):

Application: Useful in areas with lots of iron, mineralized debris, or magnetic black sand, such as some beaches.

Benefits: Speeds up signal analysis, allowing the detector to separate non-ferrous targets next to ferrous targets.

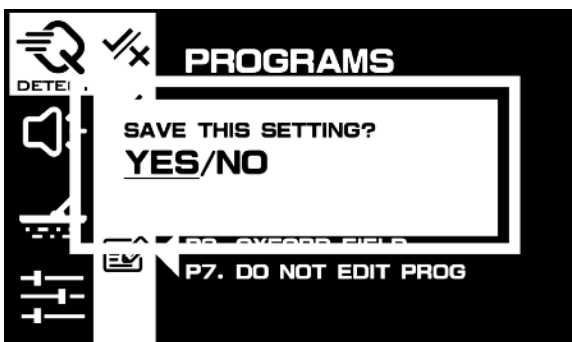
Drawbacks: Reduces detection depth and may affect Target ID accuracy.

## Slow Recovery Speed(1,2):

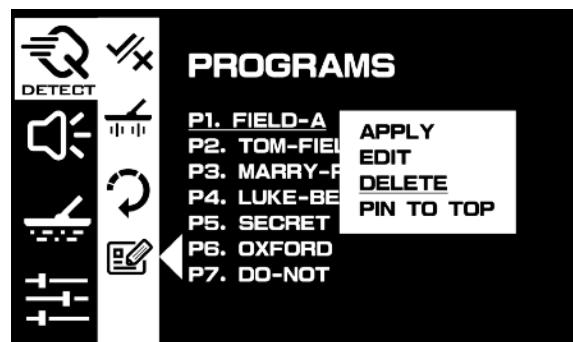
Application: Suitable for "clean" ground or beaches where targets are well spaced.

Benefits: Makes the machine more sensitive to deep targets, increasing the ability to detect objects buried further down.

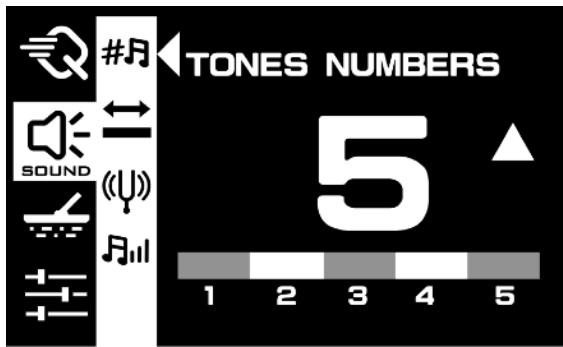
Drawbacks: Decreases the ability to detect targets in close proximity.



**Programs** can be saved to apply, edit, pin to top or delete. To save your setting, just press



and hold for 3 seconds activate the window.

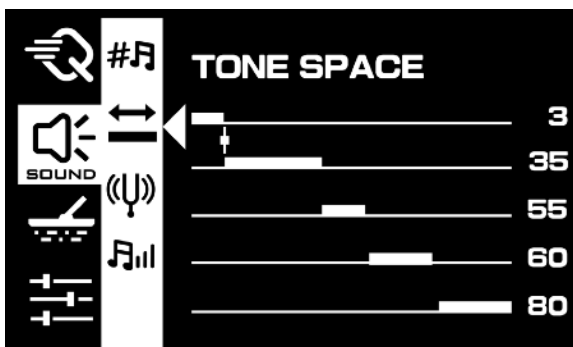


**Tone Numbers.** The ability to adjust tone numbers in a metal detector is highly influenced by personal preference and the specific goals of your treasure hunt. For example, you can set the detector to operate in '2-tone,' '5-tone,' or even in '99-tone' infinity mode, where almost each metal type is designated its own unique audio cue.

With the ability to fine-tune the audio responses based on what you're most interested in finding, you can essentially make the metal detector an extension of your own senses. This personalization makes your searches more efficient, reduces the amount of unwanted items you dig up, and overall enhances the joy and effectiveness of your metal-detecting adventures. The tone numbers you choose directly change the tone spaces quantity.

### How to adjust Tone Numbers.

When you spot the Tone Numbers setting, Then click ▲ or ▼ buttons to adjust the quantity.



The **Tone Space** setting, which adjusts the end positions of each tone region, is a powerful tool for fine-tuning your metal detecting experience. This setting is especially useful for dictating when and how different types of materials trigger specific audio responses. For example, you can manually adjust the tone spaces to make 'coke,' a common but undesirable non-ferrous target with a typical Target ID of 1, fall into the ferrous range. By doing so, it would then trigger a ferrous audio response, helping you avoid digging up this nuisance item.

However, a word of caution: altering the tone spaces can also mean that some low-

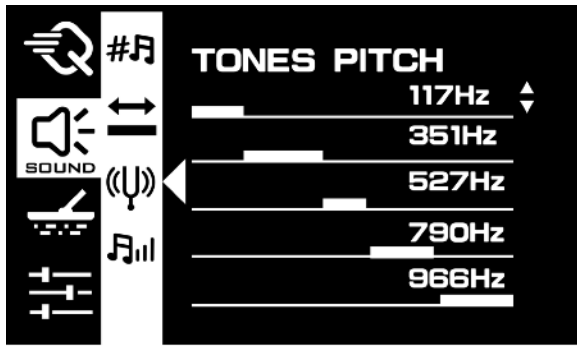
conductive, potentially valuable targets may give off the same audio cue as less desirable ferrous targets. This is something to keep in mind based on what you're hoping to find.

Another advantage of manipulating tone spaces is the ability to make more distinct separations between targets of varying conductivity levels. By finely tuning these spaces, you're essentially customizing your detector to be more attuned to the types of materials you're most interested in, thereby making your hunting more efficient and rewarding.

### How to adjust Tone Space.

When you spot the Tone Space setting, click the upper ■ repeatedly to access the specific region you want to adjust. Then click ▲ or ▼ buttons to adjust the breaking point. Hold for fast movement. The bars on the standby interface will change accordingly.





The **Tone Pitch** Setting is a customizable feature that lets you set specific audio frequencies for different types of targets. This is incredibly useful for focusing on the items you're most interested in finding. By adjusting the pitch for each Tone Space, you can easily distinguish between targets that might otherwise have similar Target IDs. For instance, if you're searching for gold coins and keep encountering aluminum tabs, you can

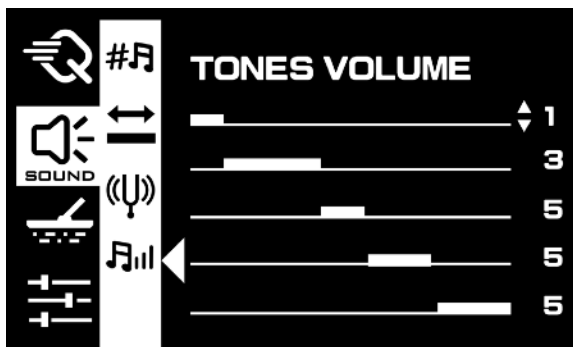
set distinct pitches for each. That way, as soon as you hear the pitch you've set for gold coins, you'll know it's time to dig.

The setting ranges from 90 to 1500Hz, giving you a wide spectrum of audio cues to choose from. Keep in mind that any adjustments you make to the Tone Pitch will only apply to the current Search Mode Profile you're using. This allows for tailored experiences across different search scenarios.

### How to adjust Tone Pitch.

When you spot the Tone Pitch setting, click the upper **■** repeatedly to access the specific tone spaces you want to adjust.

Then click **▲** or **▼** buttons to adjust the level.



**Tone Volumes** is a feature to adjust the volume of each Tone Space on your metal detector, particularly when you're searching in areas with high iron content. This customization allows you to prioritize certain metal targets over others by setting their corresponding Tone Spaces to be louder. For example, if you're hunting for gold in discrimination modes, you can set the Tone Space for gold to be louder than that for iron, making it easier to distinguish valuable finds from junk.

you have the flexibility to alter this based on your specific needs. This is particularly useful when you're in an area where you expect to find a variety of metals, and you want to be sure you don't miss anything valuable.

The number of different Tone Spaces you can adjust depends on your Tone Numbers settings. You can have up to five different Tone Spaces, each with its own volume level.

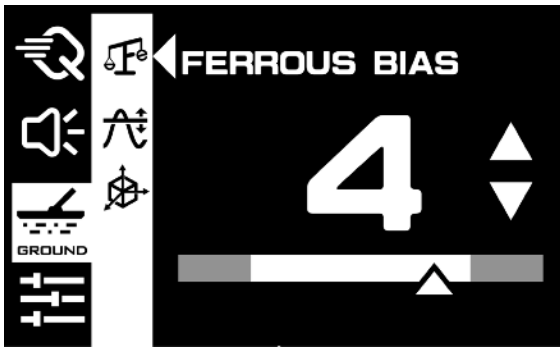
### How to adjust Tone Volume.

When you spot the Tone Volume setting, click the upper **■** repeatedly to access the specific tone space you want to adjust.

Then click **▲** or **▼** buttons to adjust the level.



By default, the detector is set to emphasize non-iron metals, making them louder. However,



The **Ferrous Bias** feature is a valuable tool that allows you to accurately sort ferrous from non-ferrous targets. By adjusting the Iron Bias settings, you can fine-tune your detector's ability to identify large or complex iron objects, such as rusty nails or bottle caps, and easily reject them. This feature is especially useful when you're operating in HyperQ frequency.

The benefits of this feature:

Firstly, it gives you the power to discriminate against unwanted ferrous targets, saving you the effort and disappointment of digging up

trash. Secondly, it allows for a more focused and efficient hunt, tailoring your detector's capabilities to the types of items you're most interested in. Lastly, the setting enhances your ability to navigate challenging terrains and conditions, adapting to different levels of iron contamination in the soil.

The Iron Bias feature and FeScale function work hand-in-hand to optimize your metal detecting experience. Iron Bias allows you to fine-tune ferrous target identification, while FeScale enhances precision by visually displaying the ferrous to non-ferrous ratio. Together, they offer a comprehensive approach to avoiding unwanted digs and focusing on valuable finds.

### How to adjust Ferrous Bias.

When you spot the Ferrous Bias setting, click ▲ or ▼ buttons to adjust the level.



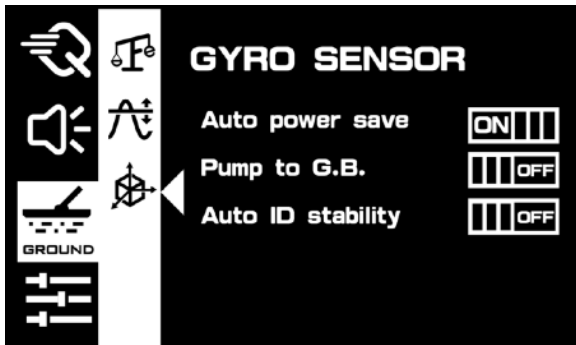
The **Threshold** feature enables you to change the amplitude of continuous background noise that helps you pick up on faint signals from potential targets. This is especially useful for identifying items that might otherwise go unnoticed. The Threshold Level can be adjusted on a scale from 0 to 25, allowing you to customize the amplitude of this background sound.

While most modes have a default Threshold Level of 0, meaning it's turned off, the Gold Mode starts with a default level of 10 to aid in the detection of small gold pieces.

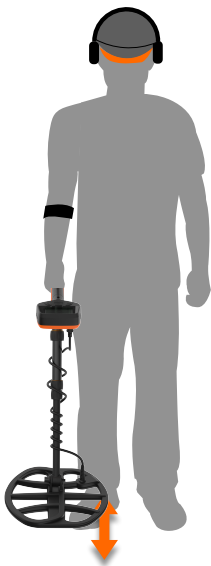
### How to adjust Threshold.

When you spot the Threshold setting, click ▲ or ▼ buttons to adjust the level.





The inclusion of a built-in **Gyro Sensor** in the metal detector adds a layer of intelligence that significantly enhances the user experience and the device's efficiency.



This sensor is capable of interpreting the user's movements and intentions, thereby streamlining the process of treasure hunting. For instance, it can automatically initiate ground balancing without requiring any manual input, which saves time and ensures that the device is always optimized for the soil conditions.

Moreover, the gyro sensor can analyze the swing speed and orientation of the detector, helping to stabilize and unify target ID readings. This means you get more consistent and reliable signals, which is crucial for differentiating between valuable finds and mere junk.

The sensor also contributes to energy efficiency. When it detects that the unit is stationary, it can automatically switch to a low-power mode, extending the battery life and allowing for longer detecting sessions. When power saving mode is on the battery with cross symbol will appear on the stand by interface.



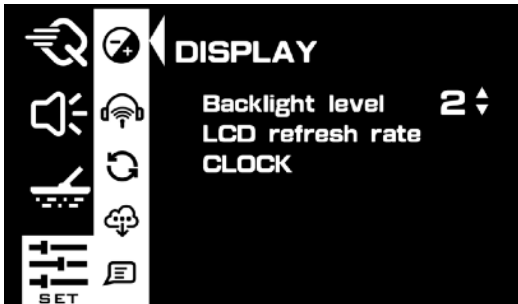
All of these features combined make for a more intuitive, efficient, and user-friendly detecting experience, allowing you to find treasure more quickly and with greater accuracy.

### How to adjust Gyro Sensor.

When you spot the **Gyro sensor** setting, click ▲ or ▼ buttons to select different functions.

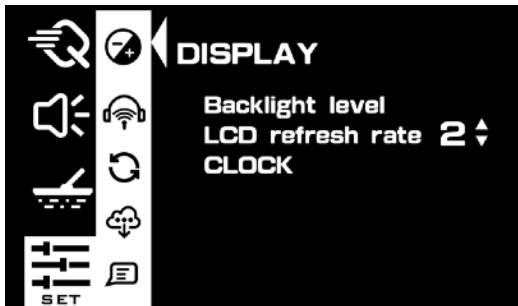
Then click the upper ■ to activate or inactivate.





### How to adjust Backlight level.

When you spot the **Display** setting, click the upper **■** to select **Backlight level**. Then click **▲** or **▼** buttons to increase or decrease the LCD backlight brightness.



Higher refresh rate provide more smooth LCD viewing experience but it consume more battery.

### How to adjust LCD refresh rate level.

When you spot the **LCD refresh rate** setting, click the upper **■** to select backlight setting. Then click **▲** or **▼** buttons to increase or decrease the LCD refresh rate.



The clock is in 24hours format and powered by the battery of detector. Once the battery is out of energy the clock will be reset to default time.

### How to adjust Clock.

When you spot the **Clock** setting, click **▲** or **▼** buttons to increase or decrease hour number, hold upper **■** to switch to minutes setting. Then click **▲** or **▼** buttons to increase or decrease minute number.



We offer a dedicated page for managing your wireless audio gear, similar to smartphone settings. Here, you can pair, unpair, delete, so you can switch between your go-to headphones freely. Our built-in Bluetooth uses low-latency technology for real-time audio. For optimal performance, we recommend using Quest headphones or devices equipped with AptXLL Low Latency tech to minimize audio delays.



**WIREFREE HE**  
Highly immersive over ear headphones



**WIREFREE VIBE**  
Compact over ear headphones

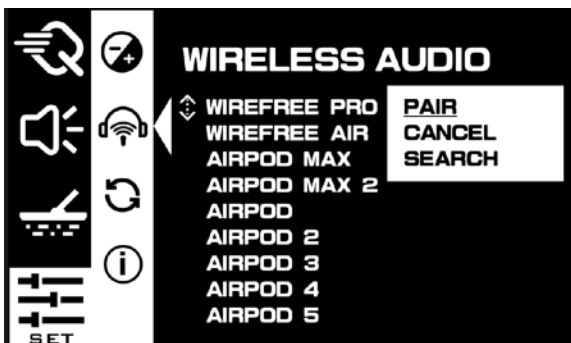


**WIREFREE AIR**  
Sweat-proof bone Conductive earphones



### Searching for new devices.

To pair Bluetooth headphones with the detector, keep them within 5 inches of the control box. Turn off the headphones, then hold the power button for 5 seconds to enter pairing mode. The headphones' name will show up on the detector's screen. Use ▲ or ▼ buttons to locate the desired headphones and click upper ■ button to pair.



### Connect to previously paired device.

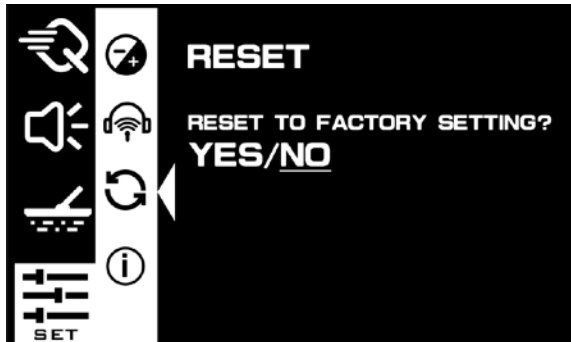
Make sure the device is on and not paired to other smartphone or detector. Use ▲ or ▼ buttons to select the desired device. Click upper ■ button to pair. Click search to continue searching for other devices.



### Disconnect to previously paired device.

Use ▲ or ▼ buttons to select the desired option. Click upper ■ button to unpair or disconnect(delete).





## Reset to factory settings

When to Reset:

- User Error: If the settings have been messed up either by accident or due to lack of understanding, resetting is the quickest way to correct any misconfigurations and start afresh.
- Adding this point highlights that sometimes users, especially those new to the device or those who share the device with multiple people, may unintentionally change settings in

a way that negatively impacts performance. In such cases, a factory reset serves as a convenient 'undo' button to revert the machine back to a state of known, reliable functionality.

- Cons:
- Loss of Customization: Any personalized settings carefully adjusted for specific conditions will be lost.
- Time-Consuming: You'll need to spend time reconfiguring the settings to suit your needs.
- Reset to factory default setting

Use ▲ or ▼ buttons to select YES/NO

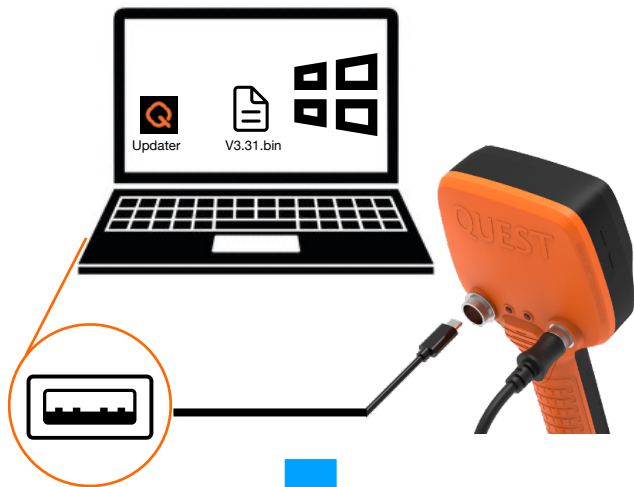
When YES underlined, click upper ■ button to reset.

The detector will be set to default instantly.



## ABOUT FIRMWARE

To view your detectors firmware or confirm your detector is been upgraded to the latest firmware.



Hold these 2 buttons and press power buttons until QUEST logo appear



## FIRMWARE UPGRADING

1. **Turn On Your PC:** Make sure it's a Windows system.
2. **Download Software:** Get the QUEST updater software and the new firmware onto your computer from [www.questmetaldetectors.com/download](http://www.questmetaldetectors.com/download)
3. **Get the Cable:** Use the USB cable that came with your detector.
4. **Connect Devices:** Plug the USB cable into both your PC and the detector.
5. **Prep the Detector:** Turn it off. Then, hold the "Gear" and "Pinpoint" buttons while turning it back on.
6. **Start Software:** Open the QUEST updater program on your PC.
7. **Find Your Detector:** Click the drop-down menu where it says "<None>" and select "USB (COM x)". The "x" could be any number between 1-9.
8. **Connect:** Click the "Connect" button in the software.
9. **Upgrade:** Click "Select Firmware", find the new firmware you downloaded, and then click "Update".

**Before You Go: Get Set Up Right**

**Check Tightness:** Before heading out, make sure all screws and cam-locks are tight. A loose part can ruin your hunt.

**Clean Hands:** If you've used bug spray or sunscreen, wash your hands or wear gloves. This prevents your detector from getting dirty.

**Using Your Detector: Pay Attention to Details**

**Protect the Screen:** Your screen can scratch easily. Use the provided screen protector to avoid damage.

**Cable and Connections:** Ensure that the coil cable isn't twisted or bent. Don't use tools to tighten the connectors.

**Avoid Sand:** Sand can jam the moving parts. If your detector gets sandy, rinse it with fresh water.

**After Your Hunt: Time to Clean Up**

**Basic Cleaning:** Use a damp cloth or running tap water to clean the detector. No harsh chemicals needed.

**Beach Cleanup:** If you've been to the beach, rinse every part of the detector to remove salt and sand.

**Maintenance: Keep It Running Smoothly**

**Battery Care:** Charge the battery every 3-4 months to extend its life. Replace worn-out batteries at authorized centers.

**Coil and coil cover:** This is the heart of your detector. If the cover looks worn, replace it to protect the coil.

**Headphone Care:** Keep the headphone socket dry and sand-free. Use a used toothbrush to clean if sand enters.

**Safety Measures: Safety First**

**No Water, No Oil:** Don't submerge your detector or expose it to gasoline or oil.

**Temperature Guidelines:** Charge between 0°C and +40°C. Store between -20°C and +70°C. Never leave it in a hot car.

**Child Safety:** Keep small parts away from kids. They can be a choking hazard.

**Speaker and Screen:** Don't poke the speaker. Clean the screen with a damp cloth and mild soap only.

# PARTS



1	Front Panel of Control Box	11	Telescopic Rod Extension Thread Cap
2	Back Panel of Control Box	12	2X Armrest Screws
3	11x10" Blizzard Search Coil	13	Control Box Locking Lever
4	Search Coil Protection Cover	14	Screw, Washers, Nut of Coil
5	Search Coil Cable and Connector	15	Rod Locking Ring w/ Rubber Band
6	Armrest Main Body	16	Rod Locking Thread(not removable)
7	Recharge Jack Waterproof Cap	17	Positioning Piece of Rod
8	Rubber Sling of Waterproof Cap	18	Fastener of Rod Lock Ring
9	Detachable Speaker Module	19	Speaker Screw
10	Armrest Stripe	20	Front Panel Film





# SPECIFICATIONS

Model	V80	V60
Frequency	HyperQ 5/10/15/20/40/60kHz	HyperQ 5/10/15/20/40kHz
Wireless headphones	WireFree Pro Bluetooth	WireFree Vibe Bluetooth
Programs	5+ 20(Profiles) Park Field Beach Gold Cache	4+ 9(Profiles) Park Field Beach Gold
Telescopic rod	4 Sections Design: 1x Aluminum 2x Carbon Fiber 1x Plastic	4 Sections Design: 3x Aluminum Round 1x Plastic
Weight	1.34kg/2.95lb	1.37kg/3lb
Receiver Dongle	Included	Optional
Waterproof ability	5 Meters / 15Ft Waterproof	
Display	2.7" B/W 400x240Pixel LCD	
Backlight	9Levels White Color	
Coil	11x10" Blizzard TurboD Coil w/ Coil Cover	
Speaker	Detachable Design	
Gyro sensor	Yes	
Battery	3.7V 4950mAh Li-Po Battery	
Headphones adaptor	Type-C to 6.5mm Included	
Vibrator	Low latency vibrator	
Target ID #	99	
Noise canceling	9 seconds automatic by 1 click	
Ground balance	Auto Track + Auto G.B.	
Gold mode	Special Gold Theme	
Iron Volume	9 Levels	5 Levels
Tones	2 3 5 99	2 3 5
Recover Speed	1 ~ 9	1 - 5
TX Power	1~5	1~3
FeScale	Yes	
Tone Space	Yes	
Tone Volume	9 Levels	5 Levels
Ferrous Bias	1-5	1-3
Tone Pitch	90-1500kHz Adjustable	
Discrimination	Yes, Definition: 1x100	
Rechargeable	Yes Type-C USB port	
Firmware Upgradable	Yes through Type-C USB port	
Waterproof Headphones	Optional	

## 1. Detector Won't Turn On or Shuts Off Unexpectedly

Check Coil: Make sure it's plugged in.

Charge Up: Put your detector on charge.

See the Light: Make sure the green charging light is blinking.

Use Right Charger: Use a USB charger with a 2A@5V rating.

Check Connections: Ensure the charging port and cable are clean and snug.

## 2. Too Much Noise Sound

Move Away: Keep distance from electronic devices or power lines.

Noise Cancel: Use your detector's Auto Noise Cancel feature.

Balance It: Perform a Ground Balance.

Lower Sensitivity: Turn down the Sensitivity setting.

## 3. No Sound with Supplied Wireless Headphones

Turn On Headphones: Make sure they are on.

Wireless On: Check if detector's wireless is on and paired.

Charge Headphones: Make sure they are charged.

Volume: Check both detector and headphone volume.

Try Wired: If all else fails, try wired headphones.

## 4. Headphones Won't Pair

Restart: Turn off headphones and try pairing again.

Close Range: Stay within 3 feet of the detector.

Less Interference: Move away from other wireless devices.

Reset: Factory reset the headphones and try again.

## 5. Sound Issues in Wireless Headphones

Stay Close: Keep headphones within 3 feet of the detector.

## 6. No Sound with Wired Headphones

Power Check: Make sure the detector is on.

Plug In: Ensure headphones Adaptor is fully plugged in.

Volume: Make sure it's loud enough to hear.

Check Headphones: Try another set if available.

## 7. No Vibration

Settings: Make sure vibration is enabled in settings.

## 8. Charging but No Indicator

Right Cable: Use a quality USB cable

Right Charger: Use a charger with 2A@5V.

Off Mode: Try charging with the detector off.

## 9. Speaker Sounds Off After Being in Cold Water

Wait and Dry: Allow up to 30 minutes for the internal air pressure in the detector to normalize.

Blow Gently: Use your mouth to blow air through the ventilation gap of the speaker to help speed up the drying process.

# V Series Metal Detector Warranty

Thank you for choosing the V Series Metal Detector. We're committed to providing you with a high-quality product, designed for optimal performance and durability. This document outlines our general warranty terms for your new detector.

## Waterproof Capability

Your V Series Metal Detector is designed to be waterproof up to a depth of 5 meters. Please note that the waterproof capability is conditional upon correct usage and preparation as outlined in the user manual. Failure to adhere to these guidelines may void this aspect of the warranty.

## Warranty Period

**Control Box:** The control box of your V Series Metal Detector comes with a 5-year warranty, effective from the date of purchase.

**Coil:** The coil component of your detector is covered under a 2-year warranty, effective from the date of purchase.

## Exclusions

This warranty does not cover damage resulting from:

- Improper usage or failure to follow the user guidelines.
- Attempts to repair or modify the device by anyone other than authorized service personnel.
- Accidental drops, impacts, or exposure to conditions outside the specified operational parameters.
- Customer Responsibility
- It is the responsibility of the customer to demonstrate that the product has been used according to the guidelines to avail of the warranty service. Any evidence of misuse may void the warranty.

## Service and Repairs

For warranty service or repairs, please contact an Authorized Service Center. Proof of purchase will be required to validate the warranty period. Any service or repair performed by unauthorized personnel will void the warranty.

## Limitation of Liability

The warranty is limited to the repair or replacement of defective parts. We are not responsible for any consequential losses or damages arising from the use of the product.

By using your V Series Metal Detector, you are agreeing to the terms of this warranty. Please keep this document and your purchase receipt in a safe place for future reference.