# SIMPLEX

LITE BT ULTRA

# USER MANUAL


Nokta
DETECTION TECHNOLOGIES

Authorized
R&D CENTER

**READ CAREFULLY BEFORE OPERATION OF THE DEVICE**

LEGAL DISCLAIMERS

Comply with applicable laws and regulations governing use of metal detectors while using this detector. Do not use the detector without authorization in protected or archeological sites. Do not use this detector around unexploded ordnance or in restricted military zones without authorization. Notify appropriate authorities with details of any historical or culturally significant artifacts you find.

WARNINGS

SIMPLEX is a state-of-the-art electronic device. Do not assemble or operate the device before reading the user manual.

Do not store the device and search coil under extremely low or high temperatures for extended periods. (Storage Temperature: - 20°C to 60°C / - 4°F to 140°F)

The device has been designed with IP68 rating as a waterproof unit up to 5 meters / 16ft. **(except for the Bluetooth® headphones included in the ULTRA WHP-wireless headphone pack!)**

**Pay attention to the items below after using the device especially under salty water:**

1. Wash the system box, shaft and the coil with tap water and be sure no salt water is left in the connectors.

2. Do not use any chemicals for cleaning and/or for any other purposes.

3. Wipe the screen and the shaft dry with a soft, non-scratch cloth.

Protect the detector against impacts during normal use. For shipping, carefully place detector in original carton and secure with shock resistant packaging.

SIMPLEX metal detector may only be disassembled and repaired by Nokta Authorized Service Centers. Unauthorized disassembly/intrusion into the metal detector control housing for any reason voids the warranty.

IMPORTANT

Do not use the device indoors. The device may constantly give target signals indoors where there are many metals present. Use the device outdoors, in open fields.

Do not let another detector or an electromagnetic device come in close proximity (10m (30ft.)) to the device.

Do not carry any metal objects while using the device. Keep the device away from your shoes while walking. The device may detect the metals on you or inside your shoes as targets.

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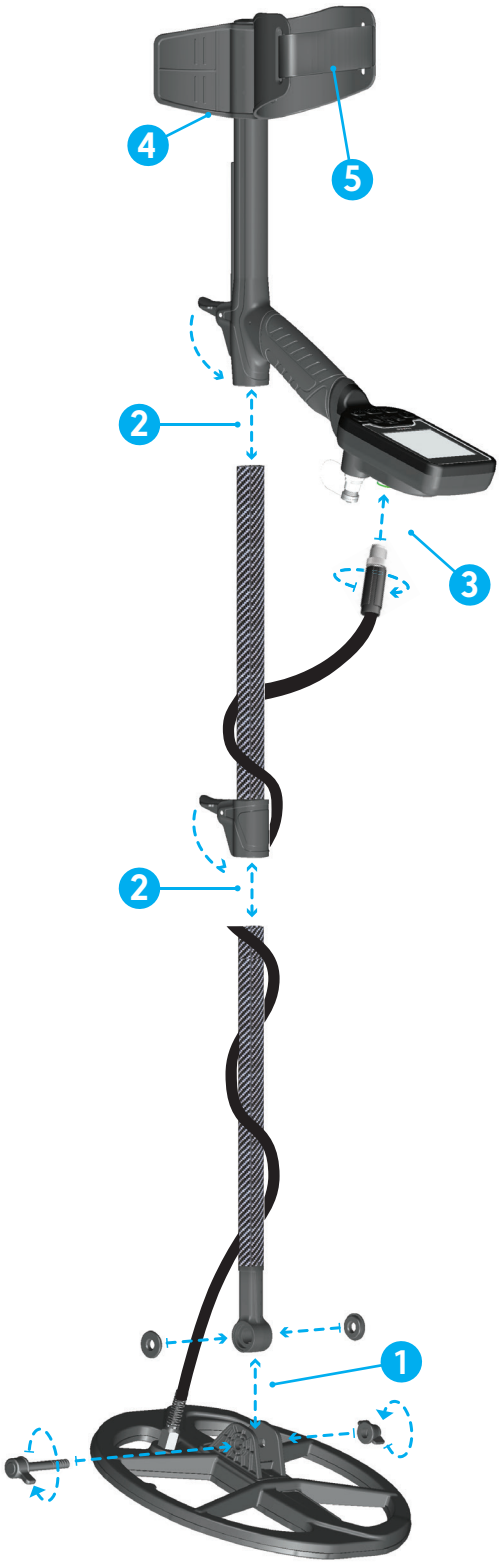


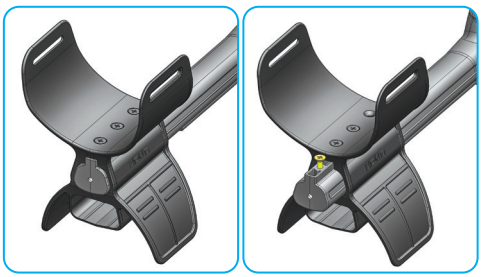

## ASSEMBLY

(1) After inserting the washers on the lower shaft, place the lower shaft in its location on the search coil. Secure by tightening the screw and nut. Do not overtighten.

(2) To join the middle rod with the upper and lower rods, open the lever latches and engage the pieces together. After adjusting the length of the device to your height, press the latches to secure.

(3) Wind the search coil cable on the shaft without stretching too much. Then, plug the connector to the search coil input socket on the system box and secure by tightening the nut. While tightening, you may hear clicks indicating that the connector is secured.

(4) If you want to adjust the armrest, first remove the screws. After sliding the armrest up or down one level, align the holes and secure by tightening the screws. You can attach the spare screw to the empty hole if you do not want to lose it.



(5) Insert the armrest strap as shown in the picture and adjust it to your arm size and tighten.



## INTRODUCTION TO THE DEVICE

(1) LCD Display

(2) Power & Settings Button

Press the button once to turn the device on. To turn off the device, press and hold it for around 3 seconds. For a hard reset in case of any unresponsiveness of the system, press and hold down for about 6 seconds.

(3) Pinpoint / Back Button

(4) Minus (-) Button: Reduce Sensitivity / Values of Settings

(5) Plus (+) Button: Increase Sensitivity / Values of Settings

(6) Right Arrow: Right side navigation between the search modes and settings.

(7) Left Arrow: Left side navigation between search modes and settings.

(8) Ground Balance / Confirm Button

(9) Speaker

(10) LED Flashlight

(11) Search coil input socket

(12) Wired headphones and charger input socket

IMPORTANT! When the connector is not in use, keep it closed with the cap!

# DISPLAY


(1) Target ID scale

Shows the ID of the detected target on the ID scale. It also indicates the IDs filtered by Notch Discrimination setting.

(2) Search Modes

(3) Sensitivity Indicator

(4) Section which shows the Target ID upon target detection, pinpoint mode as well as the warning icons. In addition, the value of any setting selected from the menu is displayed in this field.

(5) Magnetic Mineralization Indicator

(6) Wireless Connection

(7) Instant Depth Indicator

(8) Battery Level Indicator

(9) Settings

# BATTERY INFORMATION

SIMPLEX has an internal 2300mAh Lithium Polymer battery.

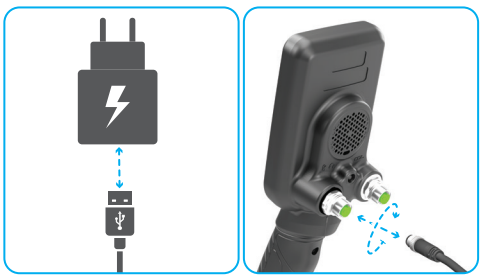
Battery runtime is approximately 12 hours. Factors such as usage of speaker or wired/wireless headphones (not applicable in the LITE version), display backlight, LED flashlight etc. will affect battery runtime.

## Charging

Charge the SIMPLEX before initial use.

Charging will take approximately 3 hours.

To charge the battery, insert one of the ends of the cable to the wired headphones / charger input socket and the other end to a USB charging adapter.



## Optional Waterproof Battery Pack

You can purchase the optional battery pack and use it when the device's internal battery is dead and you cannot charge it. You can attach the battery pack easily to the back of the armrest as shown in the pictures.

The battery pack takes 4 AA Alkaline or rechargeable NiCd or NiMH batteries.

The battery pack does not come with the device, it is an optional accessory and it does not include the 4 AA batteries.

Because the input socket for the wired headphones cannot be used when the optional battery pack is attached to the device, you can attach your wired headphones to the input socket on the battery pack.

When the battery pack is detached, the device will shut down and you need to turn it on again.

**IMPORTANT!** Optional battery pack cannot be recharged and 2 optional battery packs cannot be attached back to back to the device. When you want to charge the internal battery of the device, do not forget to disconnect the optional battery pack! Do not attempt to attach the charging adapter to the connector on the optional battery pack. This input is for wired headphones only!

## Operating with a Powerbank

You can also power and charge the battery with a powerbank. To do this, just insert one of the ends of the cable the wired headphones / charger input socket and the other end to the powerbank. Please note that you will not be able to attach wired headphones to the device when a powerbank is attached to the device.

**IMPORTANT!** Do NOT use the detector underwater while connected to a power bank.

## Low Battery Level

Battery icon on the display shows the battery life status. When the charge decreases, the bars inside the battery icon decrease, too. A battery icon with an exclamation mark (!) appears on display when the batteries are depleted and after flashing 6 times, the device shuts down.

## BATTERY WARNINGS

Do not expose the device to extreme temperatures (for example a car's trunk or glove compartment)

Do not charge the battery in temperatures over 35° C (95° F) or below 0° C ( 32° F).

The SIMPLEX battery can only be replaced by Nokta Detectors or its authorized service centers.

## INFORMATION ABOUT HEADPHONES

SIMPLEX ULTRA WHP (Wireless Headphones Pack) comes with Bluetooth® headphones. The wireless headphones are NOT waterproof.

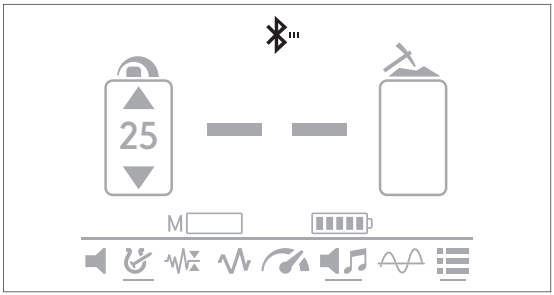
Turning the Bluetooth® connection On/Off (this setting is NOT available in the LITE version):

1. Press the Power & Settings Button once. Select "Options" in the settings and press the Ground Balance / Confirm button. The first setting Bluetooth® will be selected.


2. You can turn on or off the Bluetooth® connection using the plus (+) and minus (–) buttons. When it's off, the box will be displayed in white, when it's on, it will be in black.

When the Bluetooth® connection is enabled, you can wait to go back to the main screen (approximately 10 seconds) or press the Power & Settings button.

3. When the Bluetooth® connection is turned on, the Bluetooth® icon will start blinking in the middle of the screen with 3 dots.




The device will search for the headphones it has been paired with initially and try to connect to those. This will prevent the device from connecting to other Bluetooth® devices when the Bluetooth® setting is on. If you want to pair the device with different Bluetooth® headphones (other than those it was initially paired with) you must perform a factory reset (this will also affect all your other settings).

Once it pairs with any Bluetooth® headphones (Nokta BT Headphones or other), one of the icons below will be displayed in the info section:

Standard Bluetooth® headphones connected.

aptX™ Low Latency headphones connected.

The Bluetooth® connection will work as long as the system box of the device is not submerged in the water. In other words, you can use your wireless headphones while searching in shallow water with the coil submerged underwater. Please remember though that the wireless headphones should not contact with water.

In case of the system box being submerged underwater, the wireless connection will not work. In this case, you need to purchase our optional waterproof headphones for land and underwater use. If you will not submerge the headphones underwater but just the system box, then you can also purchase our Nokta Koss Headphones with waterproof connector.

For land use only, you can also purchase our optional headphones adapter (included in the LITE version only) should you want to use the SIMPLEX with your own wired headphones.

For more information on the Nokta BT Headphones, please refer to the user guide supplied with the headphones.

## CORRECT USE

### Shaft height is wrong

It is very important to adjust the shaft to your height correctly to be able to search without discomfort and fatigue.

### Shaft height is correct

Adjust the height of the shaft so that you are standing in an upright position, your arm is relaxed and the search coil is approximately 5 cm (~2") above the ground.

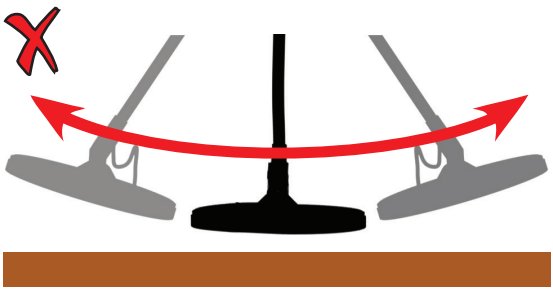
## CORRECT WAY OF SWEEPING

### Wrong search coil angle

### Correct search coil angle

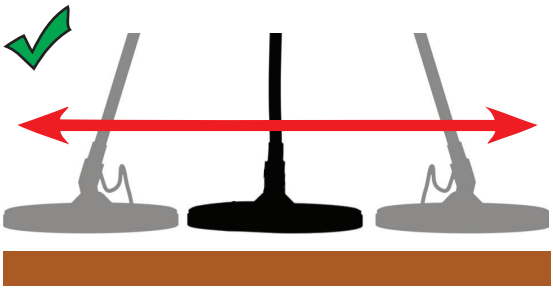
### Incorrect way of sweeping

It is important to keep the search coil parallel to the ground in order to get accurate results.



### Correct way of sweeping

The search coil must be parallel to the ground at all times.



# QUICK GUIDE

1) Assemble the device as per the instructions on page 2.

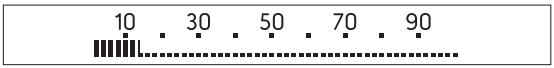
2) Press the Power & Settings Button once to turn on the device.


3) When the device is turned on, it will start in the 2-tone Field mode. You can change the mode based on ground conditions. For instance, if you are detecting on wet beach sand, you may want to select the Beach mode. You can find more details on search modes further in this manual.

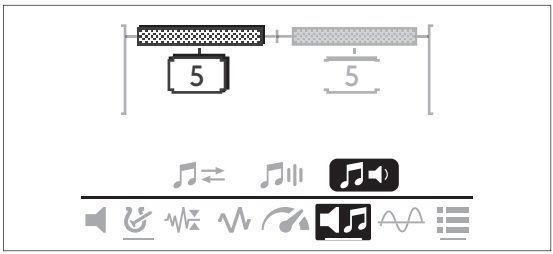

4) You can increase the sensitivity if needed. Increasing the sensitivity will offer you greater depth. However, if the surroundings or the ground cause excessive noise in the device, you need to lower the sensitivity setting.


5) Testing the device with various metals would be helpful for getting familiar with the sounds produced by the device.

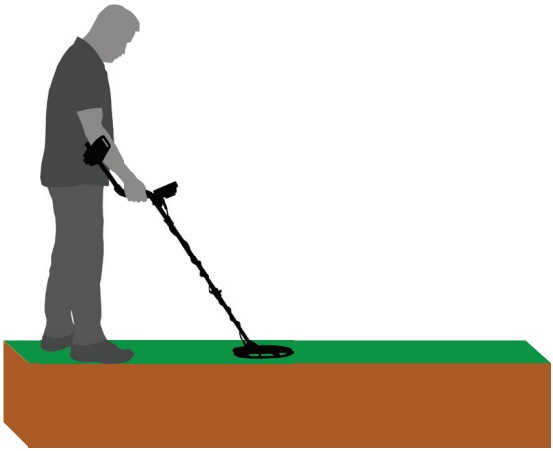
6) Use the Notch Discrimination setting to eliminate unwanted metals from detection such as trash. SIMPLEX's Notch Discrimination consists of 50 small boxes shown under the TARGET ID scale. Each box represents two IDs. A single ID or multiple IDs can be rejected or accepted based upon your preference.



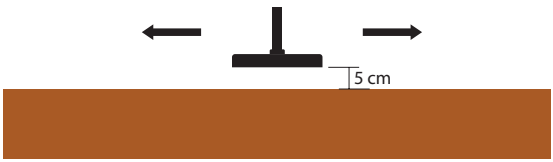

7) If you are detecting in a very trashy area and the device is getting too many iron signals, instead of Notch Discrimination, you can use the Tone Volume setting to lower or completely turn off the volume of ferrous metals. This will provide more depth (this setting is available in the ULTRA version only).



8) You can now start searching.



9) Since your device operates with the motion principle, swing the search coil right and left maintaining 5cm (2") distance above the ground. If the search coil does not move, the device will not provide any audio responses even if the coil is over a metal target.




10) When a target is detected, the ID of the target will be displayed on the screen. The device will also produce an audio response according to the search mode selected.


11) Upon target detection, you can pinpoint the exact location of the target by pressing and holding the PP button. The audio volume will increase and the audio pitch will also increase as you approach the target.


## TARGET ID

TARGET ID is the number produced by the metal detector based on the conductivity of the metals and gives an idea to the user about what the target may be. Target ID is shown with two digits on the display and ranges between 01-99.


**NOTE:** Keep in mind, large targets will ID higher than expected, even though they may be of lower conductance.

In some cases, the device may produce multiple IDs for the same target. In other words, the IDs may be jumpy. This may result from several factors. Target orientation, depth, purity of the metal, corrosion, mineralization level of the soil etc. Even the direction of the search coil swing may cause the device to generate multiple IDs.

In some cases, the device may fail to provide any ID. The device needs to receive a strong and a clear signal from the target in order to provide an ID. Therefore, it may not be able to provide an ID for targets at fringe depths or smaller targets even if the device detects them.

Keep in mind that target IDs are "probable", in other words, estimated values and it would not be possible to know the properties of a buried object exactly until it is dug out.

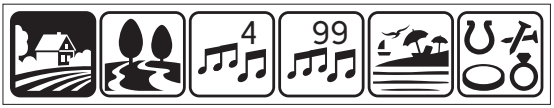
IDs of non-ferrous metals such as copper, silver, aluminum and lead are high. Target ID range of gold is wide and may fall within the same range of metal wastes such as iron, foil, screw caps, and pull tabs. Therefore, if you are looking for gold targets, digging out some trash metals is expected.

Coins searched throughout the world are made of different metals and in different sizes in different geographical locations and historical eras. Therefore, in order to learn the Target IDs of the coins in a specific zone, it is suggested to perform a test with the samples of such coins, if possible.

It may take some time and experience to make best use of the Target ID feature in your search area. Different brands and models of detectors produce different target ID numbers. The numbers vary even more depending on target depth, ground mineralization, and adjacent metals. But after some practice, you will quickly become comfortable with the meanings of the SIMPLEX's Target IDs.

## SEARCH MODES

### SIMPLEX ULTRA




### SIMPLEX BT


### SIMPLEX LITE

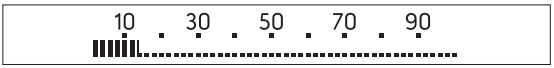
SIMPLEX has different number of search modes based on the version but all designed for different terrains and targets. There are 6 search modes in the ULTRA, 5 in the BT and 4 in the LITE version. You can navigate between the modes easily by using the right and left arrow buttons. The selected mode will be highlighted in black.

### Field

### (SIMPLEX LITE/BT/ULTRA)

Recommended especially for relic hunting. It produces good results particularly on clean sites which do not contain waste metal. More depth can be obtained on sites which are rocky or trashy, by using the notch discrimination setting and swinging the search coil more slowly (one right/left pass per approximately 1 second).

In this mode, the device produces a low tone for ferrous targets with IDs between and including 01 and 14. For non-ferrous targets with IDs 15-99, it produces a higher tone which increases in pitch as the coil approaches the target.




## PARK MODES

Designed for coin and jewelry hunting in urban areas and parks where there are lots of modern trash (aluminum foil, pull-tabs, bottle caps etc.) present.

### SIMPLEX LITE

### Park

In this mode, the device produces a low tone for ferrous targets with 01-14 IDs, a medium tone for gold and non-ferrous metals with IDs 15-41 and a high tone for non-ferrous metals with IDs 42-99 such as silver, brass and copper.

### SIMPLEX BT

### Park 1


In this mode, the device produces a low tone for ferrous targets with 0-14 IDs, a medium tone for gold and non-ferrous metals with IDs 15-69 and a high tone for non-ferrous metals with IDs 70-99 such as silver, brass and copper.

It is relatively deeper but a bit slower than Park 2 mode.

### Park 2


In this mode, the device produces a low tone for ferrous targets with 0-14 IDs, a medium tone for gold and non-ferrous metals with IDs 15-41 and a high tone for non-ferrous metals with IDs 42-99 such as silver, brass and copper.

### SIMPLEX ULTRA

### Park

In this mode, the device produces a low tone for ferrous targets with 0-14 IDs, a medium tone for gold and non-ferrous metals with IDs 15-69 and a high tone for non-ferrous metals with IDs 70-99 such as silver, brass and copper.

The Park mode is set to Recovery Speed 3 by default. You can change the Recovery Speed, Tone Breaks as well as the Tone Frequency manually. For detailed information, please refer to the "Settings" section of the manual (page 16).

## Beach
(SIMPLEX LITE/BT/ULTRA)

This is a special mode of the SIMPLEX developed for conductive grounds (salty wet sand beach, grounds with alkali soil etc.). The feature of this mode presents the ability to ignore iron and similar targets in this group and to be able to perform ground balance on any type of ground. While the device performs ground balance in the range of 20–99.9 automatically in the other discrimination modes, the device ground balances in the range of 0–99.9 in this mode. This enables easier ground balancing on conductive grounds where normally ground balance cannot be performed at all or performed with difficulty.

Different than the other modes, targets with 0–14 IDs are notched out by default and cannot be changed in order to ignore ferrous metals or ground noise. In this mode, the device produces a medium tone for gold and non-ferrous metals with IDs 15–99.

Salt water and alkali grounds are significantly conductive due to high ionization and cause effects similar to that of iron in detectors. These effects may make it impossible to search for metals with a standard detector. Existence of an iron elimination feature in a detector can improve the situation but may not be sufficient.

SIMPLEX's beach mode eliminates such effects and ground noise. Aspects to be taken into consideration while searching on conductive grounds are explained in more detail in the section titled Detection on the Beach and Underwater.

## All Metal
(SIMPLEX LITE/BT/ULTRA)

Different than the other modes, this mode features a threshold tone which is continuously heard in the background. You cannot search in the All Metal mode without ground balancing.

In this mode, the device does not discriminate targets and detects them all (metals, mineralized rocks etc.). ID of the detected target is shown on the display (except for negative hot rocks) and the same audio tone is provided for all targets. The audio tone increases in pitch as the coil approaches the target.

In the All Metal mode, search is performed with a continuous humming sound in the background, also referred to as the threshold sound. The loudness of this hum directly impacts the detection depth of smaller and deeper targets and it is adjusted by the Threshold setting. If the threshold is set too high, a weak target signal may not be heard. On the contrary, if the threshold is too low, you give up the depth advantage this setting offers. In other words, weak signals of smaller or deeper targets may be missed. It is recommended for average users to leave this setting at its default value and for experienced users to adjust to the highest level where they can still hear the weak target signals.

We recommend using the All Metal Mode when discrimination is not important and not using it in heavy trash areas or areas containing many hot rocks.

## 4-Tone
(SIMPLEX ULTRA)


In this mode, the device produces a low tone for ferrous targets with 0–14 IDs, a medium tone for gold and non-ferrous metals with IDs 15–70, a medium-high tone for metals with 71–80 IDs, and a high tone for non-ferrous metals with IDs 81–99.

The 4-Tone mode is set to Recovery Speed 3 by default. You can change the Recovery Speed, Tone Breaks as well as the Tone Frequency manually. For detailed information, please refer to the "Settings" section of the manual (page 16).

## 99-Tone
(SIMPLEX ULTRA)


Multi-tone discrimination mode designed for coin hunting in various mineralization. In this mode, the device produces a low tone for ferrous targets with 0–14 IDs. For targets with IDs greater than 14, the device will produce a different tone for each ID. The tone will be higher in pitch as the conductivity of the metal increases and vice versa.

The 99-Tone mode is set to Recovery Speed 3 by default. You can change the Recovery Speed. For detailed information, please refer to the "Settings" section of the manual (page 16).

## SENSITIVITY


Sensitivity is the depth setting of the device. It is also used to eliminate the ambient electromagnetic signals from the surrounding environment and noise signals transmitted from ground.

NOTE: To obtain maximum depth performance, to eliminate the noise caused by electromagnetic interference, try shifting the frequency first.

Sensitivity setting consists of 30 levels and is pre-defined for each mode. All modes start at the default setting. They can be manually modified when necessary. Sensitivity adjustment applies to the selected mode; the modified setting does not affect the sensitivity setting of the other modes.

Sensitivity setting is a personal preference. However, It is important to set the sensitivity to the highest level possible where no major popping sounds are heard to avoid missing smaller and deeper targets. For example; if the noise level is suitable for searching and is the same at level 25 and 30, then 30 should be preferred.

You can increase and lower the setting by using the (+) and (–) buttons on the main screen. The bar on the left indicates the level of sensitivity.


## TARGET DEPTH

The device provides an estimated target depth according to the signal strength during detection.

Depth Indicator: It shows the target's proximity to the surface in 5 levels during detection. As the target gets closer, the levels decrease and vice versa.

Shallow Target

Deep Target

Because each mode of the SIMPLEX has different depth, the depth indicator will display a different depth level for the same target in different modes.

Depth detection is adjusted presuming that the target is a 2.5 cm (1") coin. Actual depth varies according to the size of the target. For instance, the detector will indicate more depth for a target smaller than a 2.5 cm (1") coin and less depth for a larger target.

# GROUND BALANCE

SIMPLEX is designed to work without ground balancing in Field and Park modes on most terrains. However, for experienced users and on highly mineralized grounds, ground balancing will bring extra depth and stability to the device.

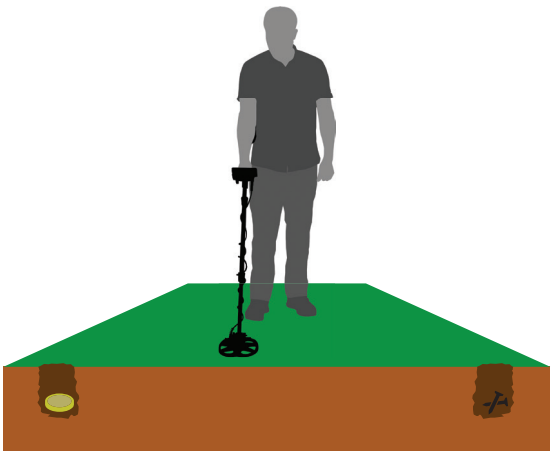
Ground balance can be performed in two ways with the SIMPLEX: Automatic and Manual.

When you press the Ground Balance / Confirm button, the device will switch to All Metal mode automatically regardless of the selected search mode and the threshold will be heard.

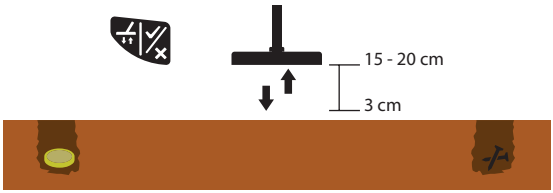

## Automatic Ground Balance

Automatic ground balance is performed as follows in all search modes:

1. Find a spot where there is no metal.



2. Press and hold down the Ground Balance / Confirm button and start pumping the search coil up and down from about 15–20 cm (~6"– 8") above the ground down to 3 cm (~1") off the ground with smooth movements and keeping it parallel to the ground.




3. Continue until a beep, indicating the completion of ground balance, is heard. Based on ground conditions, it usually takes about 2–4 pumps for the ground balance to be completed.

4. Upon completion of the ground balance, ground balance value is shown on the display. The device continues to ground balance and produce a beep sound as long as you keep pumping the coil. In order to ensure that the ground balance is proper, ground balance at least 2–3 times and check the ground balance values on the display. In general, the difference between the values shall not be higher than 1–2 numbers.


5. If you cannot ground balance, in other words, if no beep sound is produced, it means that either the ground is too conductive or not mineralized or there is a target right below the search coil. In such a case, retry ground balance at a different spot.

NOTE: If the ground mineralization is too low, automatic ground balance may fail to work in other modes except for the Beach mode.

## Manual Ground Balance

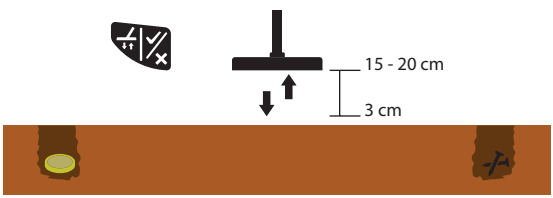
Allows you to manually modify the ground balance value. It is not preferred mostly because it takes time. However, it is the preferred option in cases where automatic ground balance cannot be performed or fine tuning is necessary for the automatic ground balance value.

SIMPLEX is designed to allow for automatic ground balancing conveniently on any type of ground. However, the ground may not be suitable for automatic ground balancing in some cases and the device cannot ground balance on such grounds. For instance, wet beach sand, soils containing alkali or salty water, trashy sites, ploughed fields, highly mineralized grounds and grounds with very low mineralization are not suitable for automatic ground balance. In such terrains, you can try manual ground balancing. However, manual ground balance requires a skill which develops over time through practice.

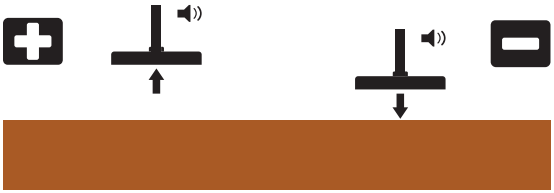
## To perform manual ground balance:

1) Find a clear spot without metals and press the Ground Balance / Confirm button once.

2) You need to listen to the sounds coming from the ground in order to perform manual ground balance. Pump the search coil up and down from about 15–20 cm (~6"– 8") above the ground down to 3 cm (~1") off the ground with smooth movements and keeping it parallel to the ground.




If the sound gets higher when lifting off the search coil above the ground, the ground balance value is too low, in other words, the effect from the ground is negative and the ground balance value needs to be increased by using the plus ( + ) button. On the other hand, if the sound gets higher when lowering the search coil to the ground, the ground balance value is too high, in other words, the effect from the ground is positive and the ground balance value needs to decreased by using the minus (–) button.



3) The ground balance value will be shown on the display and remain there for a moment. You can return to the ground balance screen by pressing the Ground Balance / Confirm button again if the screen switches.

Manual ground balance functions within the range of 0–99.9. Press plus (+) or minus (–) buttons to increase or decrease the ground balance value, respectively. If the buttons are pressed once at a time, the values count one by one and if they are held down, the values will change quickly.

4) Repeat the above procedure until the sound heard from the ground is eliminated.

The sound may not be eliminated completely in some areas. In these cases, listen to the sounds produced when moving the search coil towards and away from the ground to check if the ground balance is correct. If there is no difference between the two sounds then the ground balance is set properly.

**IMPORTANT!** Experienced detectorists adjust the ground balance setting to a slightly positive response (weak but audible sound is produced when moving the search coil closer to ground). This method may produce favorable results for experienced users in certain fields where small targets are searched for.

## Ground Balance Value

Ground balance value provides information about the ground you are searching on. Some typical ground types are as follows:

0–25 Wet salt water or wet alkali soils.

25–50 Wet salt water and wet alkali soils covered with dry layers.

50–70 Regular, low-quality soils.

70–90 Highly magnetic soils, magnetite or maghemite and similar highly mineralized soils, black sand.

# SETTINGS

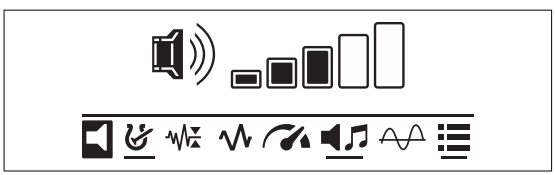
Press the Power & Settings button to access all settings. When the Power & Settings button is pressed, the volume setting, which is the first setting on the settings bar located at the bottom of the screen, will be displayed in a black window. Each time you press the right or left button, the next setting on the bar will be selected and its value will be displayed on screen. You can change the value using the plus (+) and minus (–) buttons.


To exit the settings, press the Power & Settings button again. While in the settings menu, if no button is pressed for a while, settings will time out and the device will revert back to the main screen.

## COMMON SETTINGS IN ALL VERSIONS (LITE/BT/ULTRA)

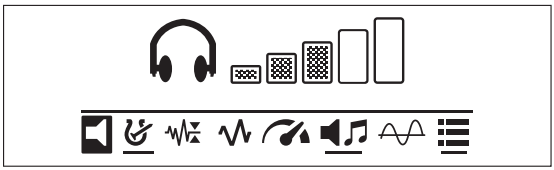
### Volume

This control allows you to increase or decrease the device's volume based on your preference and environmental conditions. After pressing the Power & Settings button, use the right and left buttons to select the Volume setting. Volume setting consists of 5 levels and is adjusted by using the plus (+) and minus (–) buttons.



When you turn off and on the device it will start with the last volume level you chose. This setting is common to all modes; changes will take effect in all modes.

When you plug in any wired headphones to SIMPLEX, a headphone icon will appear in the settings and main screen. The volume level will be indicated with boxes with dots instead of black boxes.

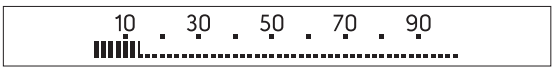


Because the volume level affects power consumption, we recommend you not to increase it more than necessary.

### Notch Discrimination

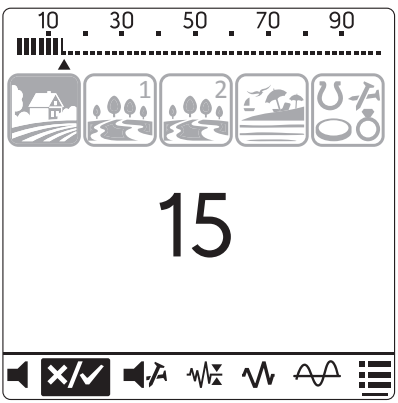
Use the Notch Discrimination setting to eliminate unwanted metals from detection such as trash.

SIMPLEX's Notch Discrimination feature consists of 50 boxes and each box represents 2 IDs. With the Notch Discrimination setting each ID can be rejected or accepted based upon your preference.

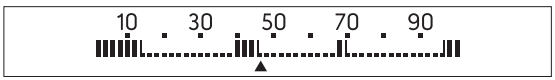



### LITE and BT versions:

1. After entering settings by pressing the Power & Settings button, use the right and left buttons to select the Notch Discrimination setting. The Target ID will be displayed on the screen and arrow cursor will appear underneath the ID scale at the top of the screen.

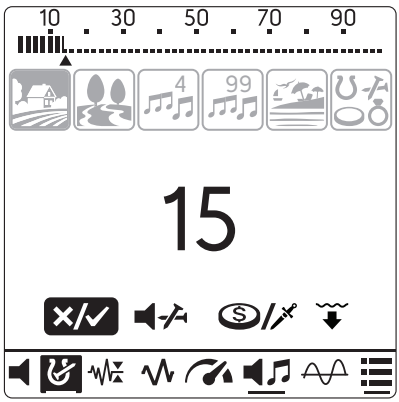


2. You can move the cursor using the plus (+) and minus (–) buttons and reject the ID you want by pressing the Ground Balance / Confirm button. Rejected IDs will be shown with lines over the ID scale.

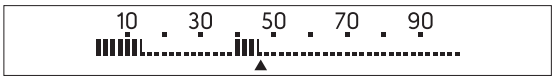



## ULTRA version:

1. After entering settings by pressing the Power & Settings button, use the right and left buttons to select the Discrimination setting. Press the Ground Balance / Confirm button to access the upper settings. The Notch Discrimination is the first setting and will come selected. The Target ID will be displayed on the screen and arrow cursor will appear underneath the ID scale at the top of the screen.




2. You can move the cursor using the plus (+) and minus (–) buttons and reject the ID you want by pressing the Ground Balance / Confirm button. Rejected IDs will be shown with lines over the ID scale.



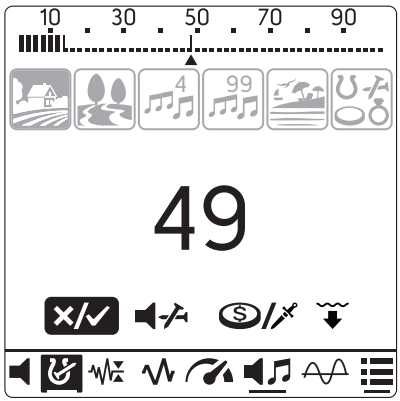

Once you are done, you can press the Pinpoint / Back button to go back to the main settings or go back to the main screen by pressing the Power & Settings button.

Different than the LITE and BT versions, you can also notch out targets automatically in the ULTRA version.

## Automatic Notch Discrimination:

1. After entering settings by pressing the Power & Settings button, use the right and left buttons to select the Discrimination setting. Press the Ground Balance / Confirm button to access the upper settings. The Notch Discrimination is the first setting and will come selected. The Target ID will be displayed on the screen and arrow cursor will appear underneath the ID scale at the top of the screen.

2. Swing the search coil over the metal you want to reject. The Target ID will be displayed on the screen and arrow cursor will appear underneath the ID scale at the top of the screen. Press the Ground Balance / Confirm button. Rejected IDs will be shown with lines over the ID scale.




The cursor will appear where you last left it the next time you use the Notch Discrimination setting.

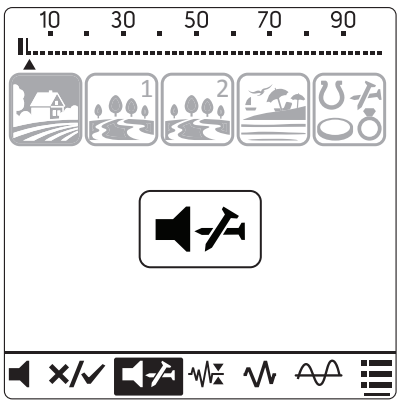
To accept back the rejected IDs, either select the IDs with the help of the plus (+) and minus (–) buttons or swing the search coil over the metal (in the ULTRA version only) and Ground Balance / Confirm button.

Notch Discrimination does not work in the All Metal mode and thus is not selectable.

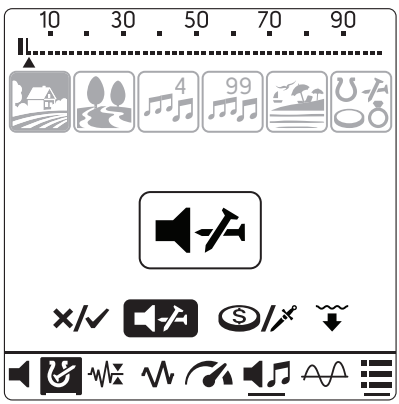
## Iron Off

Each time the SIMPLEX is turned on, iron will be off. In other words, the detector will not detect ferrous targets. To turn the iron on, first access the settings by pressing the Power & Settings button.

**In the LITE and BT versions:** After pressing the Power & Settings button, use the right and left buttons to select the Iron Off setting. You can turn the iron on by using the plus (+) and minus (–) buttons.




**In the ULTRA version:** After pressing the Power & Settings button, use the right and left buttons to select the Discrimination setting. Press the Ground Balance / Confirm button to access the upper settings. Using the right and left buttons, select the Iron Off setting which is the second setting. You can turn the iron on by using the plus (+) and minus (–) buttons.

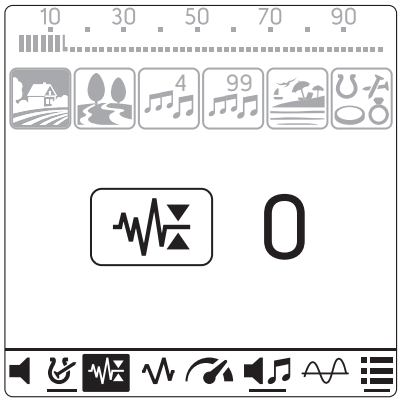



Once you are done, you can press the Pinpoint / Back button to go back to the main settings or go back to the main screen by pressing the Power & Settings button.

Iron Off setting cannot be used in the All Metal and Beach modes and thus cannot be selected.

## Ground Suppressor

It is used to eliminate false ground signals in tough terrains. If you think your device is noisy and you are getting false signals and cannot get rid of them by dropping the sensitivity to 25, first set your sensitivity back to where it was. Then increase the Ground Suppressor gradually until you get rid of the noise. As the value is increased, the sensitivity of the device will be less to high conductors (silver, copper etc.).




Ground Suppressor setting cannot be used in the All Metal mode and thus cannot be selected.

Ground Suppressor setting is set to 5 in the Beach mode and to 0 in the other modes by default. It is recommended to use this setting at the minimum levels if you are not getting noise from the ground.

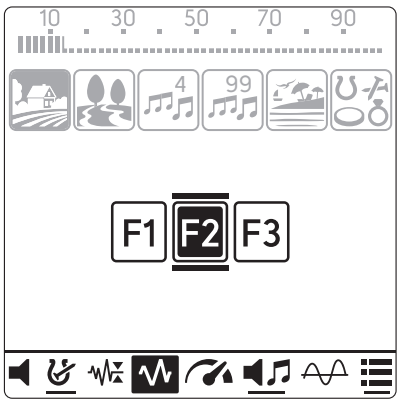
To use this setting, after accessing the settings menu, use the right and left buttons to select the Ground Suppressor setting and adjust it by the plus (+) and minus (–) buttons.

## Frequency Shift

It is used to eliminate the electromagnetic interference that the device receives from another detector which operates in the same frequency range nearby or from the surroundings. If too much noise is received when the search coil is lifted in the air, this may be caused by the local electromagnetic signals or excessive gain settings.

To eliminate the noise caused by electromagnetic interference, try shifting the frequency first before lowering the sensitivity to obtain maximum depth performance. Frequency shift consists 3 small steps (F1–F2–F3). Default setting is F2 which is the central frequency. The selected frequency will be highlighted in black.

To shift the frequency, after selecting the Frequency Shift in the settings menu, use the plus (+) and minus (–) buttons.



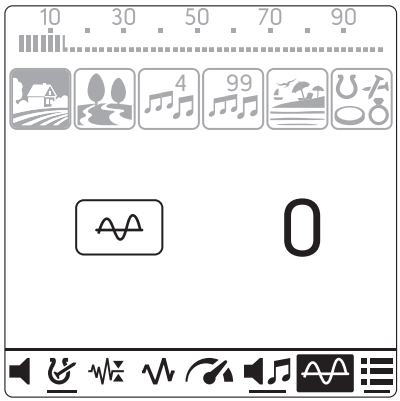

This setting is common in all modes; change made in any mode also applies to the other modes.

**IMPORTANT!** Frequency shift may impair performance. Therefore, it is suggested that you do not shift the frequency unless it is necessary.

## Threshold

In the All Metal mode, search is performed with a continuous humming sound in the background, also referred to as the threshold sound. The loudness of this hum directly impacts the detection depth of smaller and deeper targets and it is adjusted by the threshold setting. If the threshold is set too high, a weak target signal may not be heard. On the contrary, if the threshold is too low, you give up the depth advantage this setting offers. In other words, weak signals of smaller or deeper targets may be missed. It is recommended for average users to leave this setting at its default value and for experienced users to adjust to the highest level where they can still hear the weak target signals.

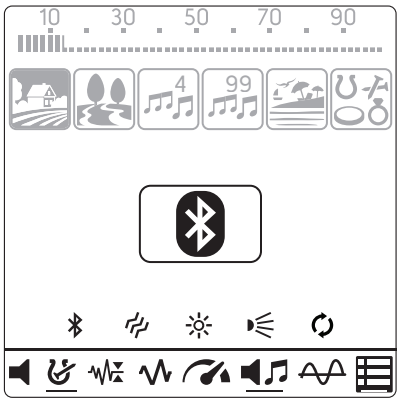
You can adjust the threshold setting between –50 +50 based on ground conditions. To adjust the Threshold setting, use the plus (+) and minus (–) buttons after selecting the Threshold in the settings menu.




Threshold setting can only be used in the All Metal mode and thus cannot be selected in other modes.

## OPTIONS

In all the versions of the SIMPLEX, to access the Options, press the Power & Settings button to go into settings and then use the right and left buttons to select the Options. Next, you can press the Ground Balance / Confirm button to access the upper settings.



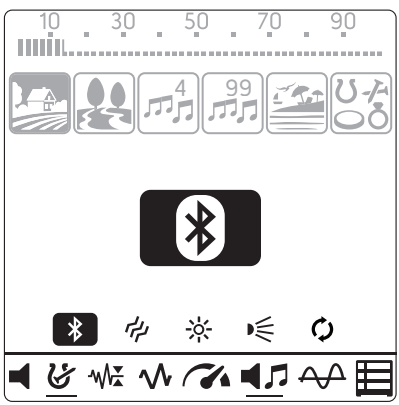

Once you are in the upper settings, you can use the right and left buttons to select any setting you want.

While in the upper settings, you can press the Pinpoint / Back button to go back to the main settings or go back to the main screen by pressing the Power & Settings button.

### Bluetooth® (■ ■ BT/ULTRA)

This setting, which is not available in the LITE version, is used to turn on and off the Bluetooth® headphones connection.

After choosing the Bluetooth® connection setting, you can turn on or off the connection with the plus (+) and minus (–) buttons. When it is off, the box will be highlighted in white and when it is on, it will be black.




For more detailed info about the wireless headphones, please read the instructions included with the headphones.

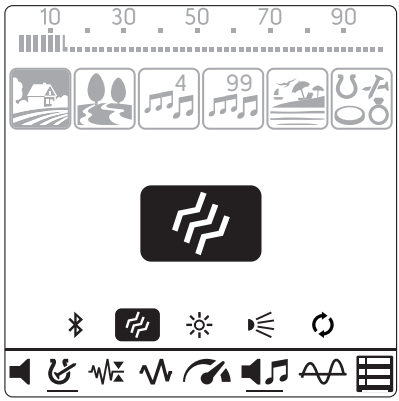
The Bluetooth® setting is restored to the final saved setting when the device is turned off and on again. This setting is common in all modes; change made in any mode also applies to the other modes.

### Vibration

This feature provides feedback to the user by producing a vibration effect when a target is detected. It can be used independently or together with the audio response. When audio response is disabled, all responses during target detection are provided to the user as vibration only.

When the Vibration is turned on, the device provides short vibration signals upon target detection. The magnitude of the vibration effect can vary according to the depth of the target and the swinging speed. This setting is common in all search modes.

To turn on or off the Vibration, after selecting vibration in the settings menu, use the plus (+) and minus (–) buttons. When it is off, the box will be highlighted in white and when it is on, it will be black.




Vibration may not be felt in the All Metal mode with weak signals; it will be felt as the signal gets stronger. In other words, vibration does not start at the depth where the audio tones are heard but at a lesser depth. Therefore, if you are detecting with vibration only and audio tones are off, you can miss weaker and deeper signals.

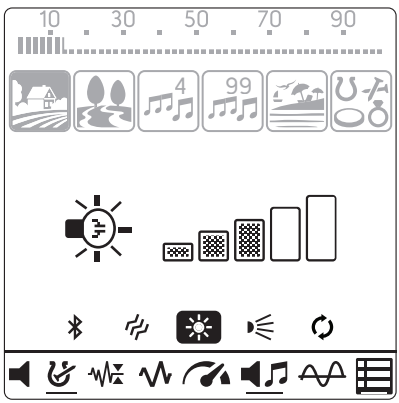
NOTE: It is recommended that you swing the detector more slowly while using the vibration to prevent missing targets.

The vibration setting is restored to the final saved setting when the device is turned off and on again. This setting is common in all modes; change made in any mode also applies to the other modes.

## Brightness

It enables you to adjust the display and keypad backlight level according to your personal preference. It works in 2 different ways: Continuously or automatically meaning the backlight lights up only for a short period of time when a target is detected or while navigating the menu and then it goes off. The default setting is automatic.

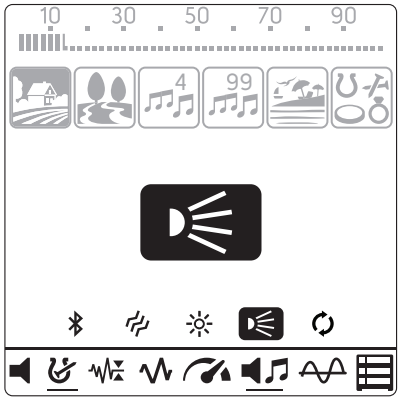
To adjust the Brightness, use the plus (+) and minus (–) buttons. The dotted boxes indicate the automatic backlight level and the solid ones indicate the continuous backlight level. To switch from automatic to continuous, keep pressing the plus (+) or the minus (–) button. When the box is not selected, it means that the backlight is off. The continuous operation of the backlight will affect power consumption, which is not recommended.




The backlight setting is restored to the final saved setting when the device is turned off and on again. This setting is common in all modes; change made in any mode also applies to the other modes.

## LED Flashlight

It is the headlight used for lighting the area you are scanning while detecting at night or in dark locations. To turn on or off the LED Flashlight, after selecting it in the settings menu, use the plus (+) and minus (–) buttons.




The LED Flashlight will always revert back to off position when the device is turned off and on again. This setting is common in all modes; change made in any mode also applies to the other modes.

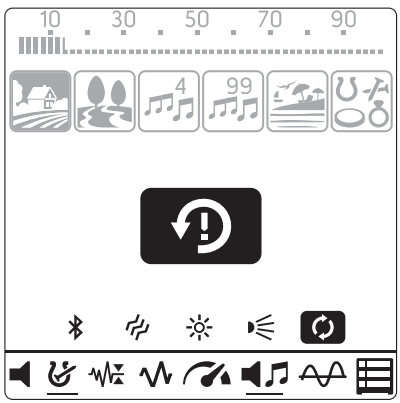
LED Flashlight does not operate when the device is off. It is recommended to turn it on only when necessary since its operation consumes extra battery power.

## Save and Factory Defaults

**SIMPLEX will save all settings automatically once you turn your detector off and on again except for the ones listed below:**

Ground Balance, Iron Off, Ground Suppressor, Frequency Shift and LED Flashlight.

To revert back to factory defaults, press the plus (+) or the minus (–) button once. After hearing 3 beeps, the device will revert back to factory defaults and go back to the main screen.



## SETTINGS FOR ULTRA VERSION ONLY

### Coin/Relic ID Scale

By using this feature, you can differentiate the Target ID scale according to the type of target you're looking for. If you are a coin hunter, using the Coin ID Scale and if you are a relic hunter, using the Relic ID Scale will enable you get more stable IDs. The default one is the Coin ID Scale.

In the coin option, the ferrous ID range is 01-14 and in the relic one it is 01-39. In other words, when the Coin ID Scale is selected, the device will produce a ferrous tone for targets with 0-14 IDs and a non-ferrous tone for those with 15-99 IDs. When Relic ID Scale is selected, the device will produce a ferrous tone for targets with 01-39 IDs and a non-ferrous tone for those with 40-99 IDs.

**Keep in mind that the ID will differ for the same target between these 2 options!**

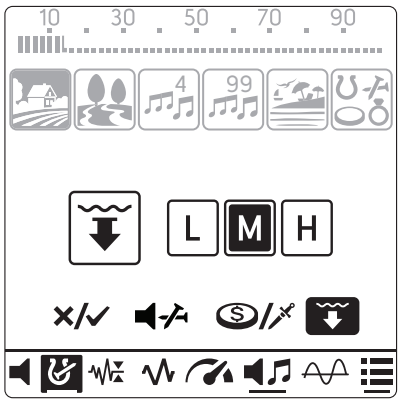
To use this setting, after pressing the Power & Settings button to go into settings, use the right and left buttons to select the Discrimination setting. Press the Ground Balance / Confirm button to access the upper settings. Using the right and left buttons, select the Coin/Relic ID Scale setting which is the third setting. You can switch between the two options using the plus (+) and minus (-) buttons.


This setting is restored to the final saved setting when the device is turned off and on again. This setting is common in all modes; change made in any mode also applies to the other modes.

### Target ID Depth

Adjusts the depth level that the device displays an ID for a detected target. It consists of 3 levels: L (Low), M (Medium), H (High). Factory default is set to "M". The lower the ID depth level is, the higher the ID accuracy and vice versa. At the high level, the IDs may become jumpy.

To use this setting, after pressing the Power & Settings button to go into settings, use the right and left buttons to select the Discrimination setting. Press the Ground Balance / Confirm button to access the upper settings. Using the right and left buttons, select the Target ID Depth setting which is the fourth setting. You can adjust the ID depth level using the plus (+) and minus (-) buttons.



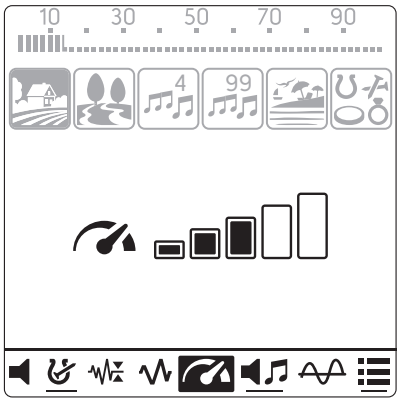

This setting cannot be used in the All Metal mode and thus cannot be selected.

### Recovery Speed

The Recovery Speed setting adjusts the speed of target response. It allows for separation between multiple targets in close proximity. Recovery Speed setting enables you to detect smaller targets among trash or ferrous targets. This setting can be adjusted between 1 and 5 with 1 being the slowest and 5 being the fastest.

Recovery Speed setting only affects the mode currently selected; changes made in one mode do not affect the others. When the Recovery Speed setting is set to a low number, the ability of the device to detect targets in close proximity decreases but its depth increases. Similarly, a high Recovery Speed setting (for example 5) will increase the ability of the device to detect targets in close proximity but will decrease the depth. It is recommended that you practice with different metals placed close to each other before starting to use this setting.

To adjust the Recovery Speed, press the Power & Settings button. Then use the right and left buttons to select the Recovery Setting. The current value will be displayed on the screen. Adjust it by using the plus (+) and minus (–) buttons.



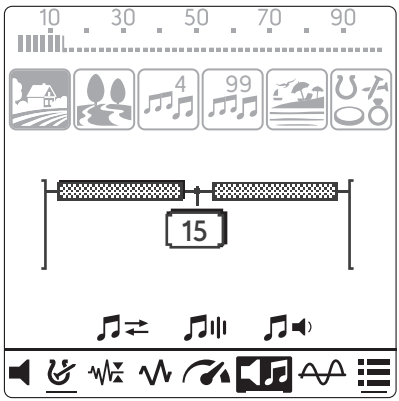

## Tone Settings

These advanced tone settings offer 3 options to modify the sounds The SIMPLEX ULTRA generates for targets.

Tone Break, Tone Frequency and Tone Volume.

Press the Power & Settings button once. Select the tone setting using the right and left buttons.

When tone is selected, you can see all the tone settings in the second row over the settings. Press the Ground Balance / Confirm button to access the upper settings. To go back to the lower settings, press the Pinpoint / Back button.




**NOTE:** To go back to the main screen from tone settings, press the Power & Settings button.

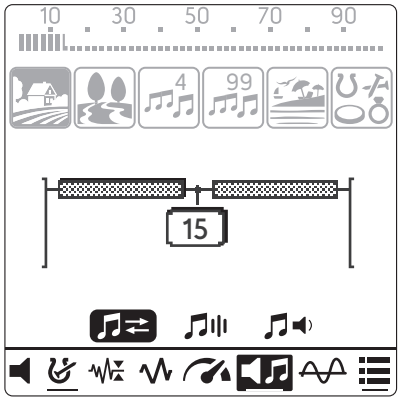
## Tone Break

The Tone Break setting allows you to move the point that separates the target zones.

The default Tone Break points may not provide you with the distinction you need between the targets you are looking for. With the Tone Break setting, you can adjust the start/end points of target zones.

Tone Break setting only affects the mode currently selected; changes made in one mode do not affect the others.

Once you are in the upper tone settings, using the right and left buttons, select the Tone Break setting. The Tone Break point of the selected zone will be displayed on screen. The selected zone will be displayed with a closed frame.



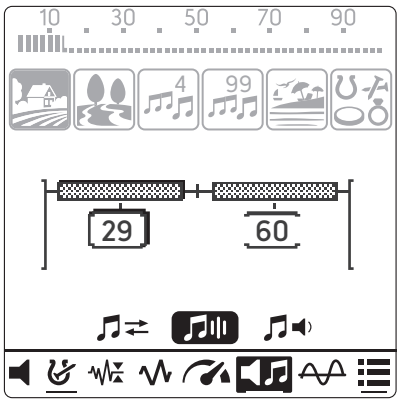

You can change the Tone Break point using the plus (+) and minus (–) buttons. To select the next zone, press the Ground Balance / Confirm button.

Once you are done, you can go back to main settings by pressing the Pinpoint / Back button once or back to the main screen, by pressing the Power & Settings button.

## Tone Frequency

This setting allows you to adjust the frequency of target response tones as well as the Threshold tone in the All Metal mode. Tone frequency ranges between 290 Hz (29) and 990 Hz (99).

Once you are in the upper tone settings, using the right and left buttons, select the Tone Frequency setting. The Tone Frequency of the selected zone will be displayed on screen. The selected zone will be displayed with a closed frame.




You can change the Tone Frequency using the plus (+) and minus (–) buttons. To select the next zone, press the Ground Balance / Confirm button.

Once you are done, you can go back to main settings by pressing the Pinpoint / Back button once or back to the main screen, by pressing the Power & Settings button.

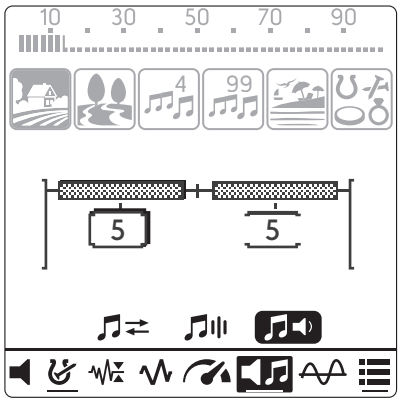
## Tone Volume

Especially in trashy sites, this setting will enable you to detect conveniently by turning off or lowering the volume of unwanted targets' audio responses.

The Tone Volume can be adjusted for each target zone. For example; in the Field mode, because there are two zones, you can determine 2 different volume levels and in 4-Tone mode, you can adjust the volume of each of the 4 zones differently.

Tone Volume setting range is from 0 to 5. At 0, the volume will be off. Tone Volume setting only affects the mode currently selected; changes made in one mode do not affect the others.

Once you are in the upper tone settings, using the right and left buttons, select the Tone Volume setting. The Tone Volume of the selected zone will be displayed on screen. The selected zone will be displayed with a closed frame.




You can change the Tone Volume using the plus (+) and minus (–) buttons. To select the next zone, press the Ground Balance / Confirm button.

Once you are done, you can go back to main settings by pressing the Pinpoint / Back button once or back to the main screen, by pressing the Power & Settings button.

**IMPORTANT! This feature will work on deeper targets only! You will not be able to lower the volume of the shallow targets. For these targets, you can turn the volume off completely instead.**

## PINPOINT

Pinpoint is to find the center or the exact location of a detected target.

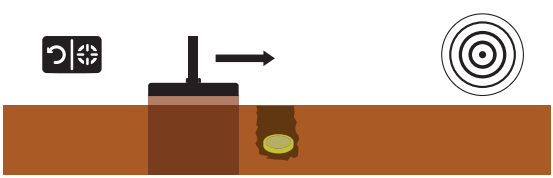
SIMPLEX is a motion detector. In other words, you are required to move the search coil over the target or the target over the search coil in order for the device to detect the target. The pinpoint mode is a non-motion mode. The device continues to give a signal when the search coil is kept stationary over the target.

When the pinpoint button is pressed and held down, a graphics consisting of a dot surrounded by 4 circles will appear in the middle of the screen. As the target is approached, the circles will disappear one by one and when the center of the target is reached, only the dot will be left on screen. In the pinpoint mode, the signal tone increases in pitch and volume as the search coil approaches the target. In this mode, the device does not discriminate or give target IDs.

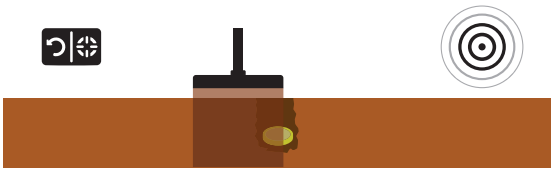
### To perform pinpoint:

1) After a target is detected, move the search coil aside where there is no target response and push the pinpoint button.

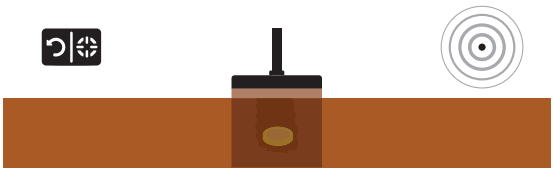

2) Keep the button pressed down and bring the search coil closer to the target slowly and parallel to the ground.



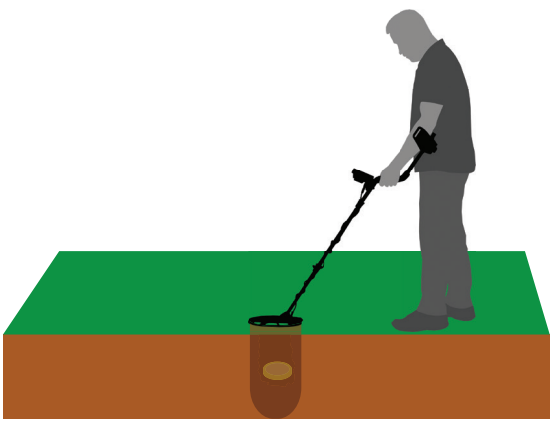
3) Signal sound becomes stronger and changes in pitch while getting closer to the target center and the circles start disappearing in the pinpoint graphics.



4) Mark the position which provides the loudest sound using a tool or your foot.



5) Repeat the above procedure by changing your direction 90°. Actions to be performed from a couple of different directions will narrow the target area and provide you with the most exact details of the target location.



NOTE: Inexperienced users may put the search coil on the ground, press the pinpoint button and then scan over the target until they get experienced to perform the above pinpointing method.

## LARGE OR NEAR-SURFACE TARGETS

Targets which are near the surface may give multiple different signals to the device. If you suspect a target near the surface, lift the search coil and swing it more slowly until a single signal is received.

## FALSE SIGNALS AND REASONS

Sometimes, the device may produce signals which are similar to a target signal although no metal target is present. There are various reasons for the false signals received by the device. The most common ones are ground mineralization or rocks with high mineral content, surrounding electromagnetic signals, operation of another nearby detector, rusted or corroded iron or foil in the soil or sensitivity value set too high.

You can see the mineralization level of the ground by following the magnetic mineralization indicator on the screen and adjust the sensitivity accordingly.

**IMPORTANT!** If the device receives a lot of noise and/or emits false signals and you cannot eliminate it by reducing the sensitivity to 25, first set your sensitivity back to its original level. Then increase the Ground Suppressor value until the noise is eliminated. As the Ground Suppressor value is increased, the device's sensitivity to high conductive (silver, copper etc.) targets will decrease.

Surrounding electromagnetic signals can be eliminated by reducing the gain. If another detector is operating nearby, you may attempt to shift the frequency or perform your search at a distance where no interference occurs.

## MAGNETIC MINERALIZATION INDICATOR

The Magnetic Mineralization Indicator consists of 5 levels. The indicator bars do not rise at low mineral levels during search and at start up. In areas where the magnetic mineral level is high, the indicator bars will rise according to the intensity. This measurement can be summarized as the level of magnetic property and intensity of the ground.

This measurement is important from two aspects. First, on grounds with high magnetic mineralization, search depth is low and users should be aware of this fact. Second, magnetic mineralization is a property which is particularly seen with mineralized rocks and this measurement plays an important role for the device to eliminate the false signals produced by these rocks.

## ROCKS AND SEARCHING IN ROCKY TERRAINS

Challenging ground conditions arise especially when conductivity and magnetic properties of the ground are too intense. Operation of the device over such ground is made possible by selecting the best operating mode, sensitivity and ground balance settings.

Stones and rocks or cavities inside the ground are as important as the ground itself in regards to the search and target detection quality.

Hot rocks are classified as negative or positive based on their ID being low or high in comparison to the ID of the soil they are in. One or both of the types may be present in a field. The negative and positive effects mentioned here will only be valid if ground balancing is properly done on the existing ground. Otherwise, soil itself will not act differently from hot rocks in terms of ID.

Positive rocks act just like metal and produce a metal sound. In the All Metal mode they produce a "zip zip" sound when the search coil is moved over them. If the signal is strong enough, the device may produce an ID for these rocks. Negative rocks in the All Metal mode, produce a long "boing" sound when the search coil is moved over them. The device does not give an ID for these rocks even if the signal is strong.

Positive rocks provide a typical metal sound in discrimination modes. Negative rocks do not provide a sound in discrimination modes (except for rare cases of false signals).

Therefore, you can make a decision by listening to the audio responses produced by the device in the field. If you receive a metal sound, it means that you either detected a positive rock or a piece of metal. If you receive a strong signal and a stable ID, you can distinguish if the detected target is a rock or metal by checking the ID. However, remember that weak signals may produce different IDs and metals under rocks may produce different metal signals. Therefore, the most appropriate action is to dig up when a metal signal is received.

## DETECTION ON THE BEACH AND UNDERWATER

SIMPLEX is a waterproof metal detector. This provides convenient detection underwater and on the beach.

As explained before, salt water and alkali grounds are significantly conductive and cause effects similar to iron in detectors. SIMPLEX's Beach mode is specially designed for such conditions. You can perform your search easily using the Beach mode without requiring any special settings.

Beach mode is ideal for salty wet beach sand. You can use the other modes while performing search over dry beach sand.

You should consider the following while performing search over wet beach sand or underwater:

1) When you swing the search coil over the holes you dig in wet beach sand, you can receive metal signals, this is a normal condition.

2) The search coil may give false signals when going into and coming out of the water so please try to keep the coil either in or out of the water.

3) While detecting on wet beach sand, avoid rubbing or hitting the search coil on the ground. Otherwise, the device may give false signals.

4) When going from wet sand to dry sand or from dry sand to wet sand while detecting on the beach, the device may emit false signals. Ground balance the detector after you switch from one another.

5) The ground balance is set to 00.0 for maximum stability in the Beach mode by default. If you cannot auto ground balance on wet sand and/or in salt water, try manual ground balancing. If you still cannot ground balance, set the ground balance value back to 00.0 manually.

Pay attention to the items below after using the device especially under salty water:

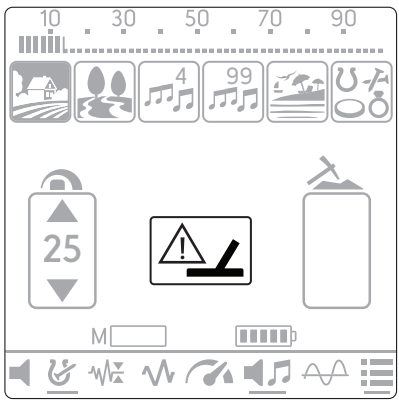
1. Wash the system box, shaft and the coil with tap water and be sure no salt water is left in the connectors.

2. Do not use any chemicals for cleaning and/or for any other purposes.

3. Wipe the screen and the shaft dry with a soft, non-scratch cloth.

## CHECK COIL ICON

It indicates an interruption in the search coil transmitter signal. The search coil connector may be unattached, loose or disconnected. If you own another detector with the same coil connector, please be sure that you have not attached the wrong coil by mistake. If none of the above exists, the search coil or its cable may have a defect. If the issue continues when you change the search coil, there may be an issue in the coil control circuit.




## SOFTWARE UPDATE

SIMPLEX has software update capability. All software updates made after the device is released to the market will be announced on the product's web page along with updating instructions.

System Version Information:
The software version of the SIMPLEX will be displayed at the bottom of the screen each time you turn the detector on.

# TECHNICAL SPECIFICATIONS



- Operating Principle: VLF
- Operating Frequency: 15 kHz
- Search Modes:
  - ULTRA (Field / Park / 4 Tone / 99 Tone / Beach / All Metal)
  - BT (Field / Park 1 / Park 2 / Beach / All Metal)
  - LITE (Field / Park / Beach / All Metal )
- Notch Filter: Yes
- Pinpoint: Yes
- Frequency Shift: Yes
- Vibration: Yes
- Sensitivity Setting: 30 levels
- Target ID: 00-99
- Search Coil: ULTRA & BT & LITE With SX28 Coil : SX28 (11") DD
  LITE : SX24 (9.5"x6") DD
- Display: Graphic LCD
- Backlight: Yes
- Keypad Backlight: Yes
- LED Flashlight: Yes
- Weight: 1.2 kg (2.6 lbs) including the search coil
- Length: 63cm – 132cm (25" – 52") adjustable
- Battery: 2300mAh Lithium Polymer
- Warranty: 3 years

**Nokta Detectors** reserves the right to change the design, specifications or accessories without notice and without any obligation or liability whatsoever.

For Consumers within the European Union: Do not dispose of this equipment in general household waste. The crossed wheeled bin symbol on this equipment indicates this unit should not be disposed of in general household waste, but recycled in compliance with local government regulations and environmental requirements.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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