SIMPLEX+

USER
MANUAL

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 3 meters / 10ft. **(except for the wireless headphones included in the WHP 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 Makro 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.
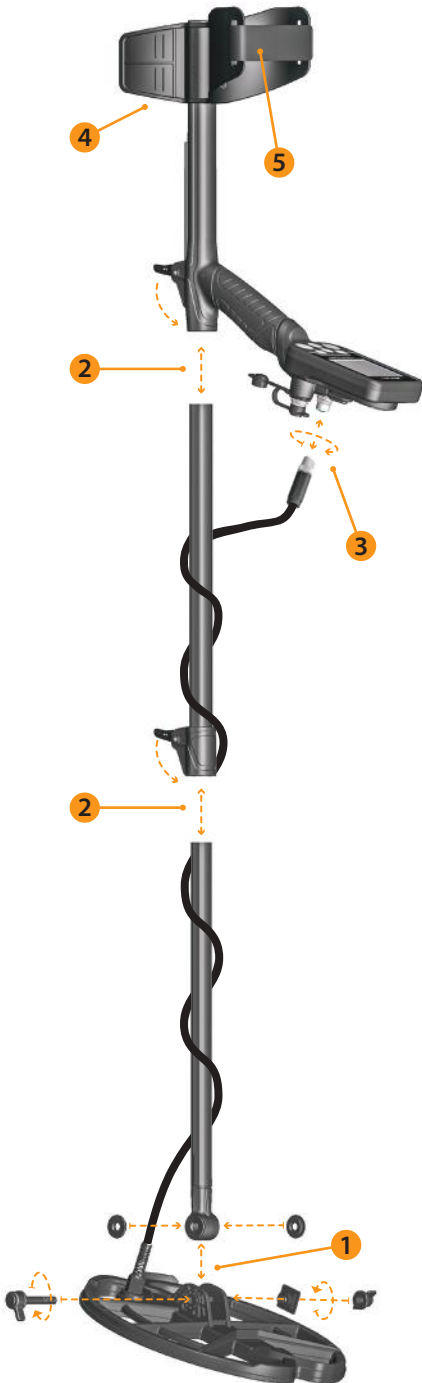
FCC STATEMENT
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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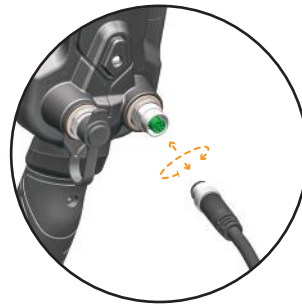
(4) If you want to adjust the armrest, first remove the screws. After sliding the armrest up or down one level, align the holes and secure by tightening the screws. You can attach the spare screw to the empty hole if you do not want to lose it.

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

Settings button to access all settings

Pinpoint / Confirm button

Down Arrow: On–Off/Hard Reset/Sensitivity Decrease

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

Up Arrow / Back: Sensitivity Increase / Back

In the main screen the up arrow is used to increase the sensitivity and in the settings menu, it is used to exit the settings and go back to the main screen.

Right Arrow (+): Right side navigation in notch discrimination and mode selection & change the value of any setting

Left Arrow (–): Left side navigation in notch discrimination and mode selection & change the value of any setting

Speaker

LED Flashlight

Wired headphones and charger input socket

IMPORTANT! When the connectors are not in use, keep them closed with the plastic cap! When putting the plastic cap on, make sure that you let the air out! Otherwise, the cap may pop off.

Search coil input socket

(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) Settings

(6) Wireless Connection

(7) Instant Depth Indicator

(8) Battery Level Indicator

(9) Magnetic Mineralization Indicator

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, 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 the charging adapter (5V 2A).

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 Makro Detectors** or its authorized service centers.

INFORMATION ABOUT HEADPHONES

SIMPLEX+ WHP (Wireless Headphones Pack) comes with 2.4 GHz wireless headphones. **The wireless headphones are NOT waterproof.**

The wireless 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.

For land use only, you can also purchase our optional headphones adapter should you want to use the SIMPLEX+ with your own wired headphones. This adapter is included in the SIMPLEX+ packages without the wireless headphones.

🎧 L1 L2 L3 L4
H1 H2 H3 H4 When you plug in any wired headphones to SIMPLEX+, 2 sets of audio levels will show in the volume setting: Low and High adjustable between 1–4.

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 5cm (~2") above the ground.

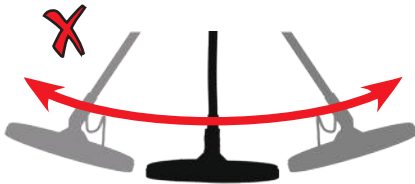# CORRECT WAY OF SWEEPING

Wrong search coil angle
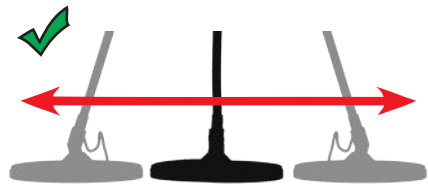
Wrong search coil angle

Correct search coil angle

Incorrect way of sweeping

Correct way of sweeping

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

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

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

2) Push the on/off button 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 also change the frequency of the device on this model. You can find more details on search modes and frequencies 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+ has 20 pixels or "notches" of discrimination, shown under the TARGET ID scale with small boxes. Each box represents a group of 5 IDs (01–05, 06–10, 11–15 and so on). Any combination of these boxes 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 Iron Volume setting to lower or completely turn off the volume of ferrous metals. This will provide more depth.

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 and its position on the ID scale 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 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 00–99.

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.

SIMPLEX+ has 5 search modes designed for different terrains and targets. You can navigate between the modes easily by using the right and left arrow buttons. The selected mode will be highlighted in black.

Field
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 0–15. For non-ferrous targets with IDs 16–99, it produces a higher tone which increases in pitch as the coil approaches the target.

PARK MODES: These are the 3-tone discrimination modes designed for coin hunting especially in trashy sites such as parks.

Park 1
It is relatively deeper but a bit slower than Park 2 mode.

In this mode, the device produces a low tone for ferrous targets with 0–15 IDs, a medium tone for gold and non-ferrous metals with IDs 16–69 and a high tone for non-ferrous metals with IDs 70–99 such as silver, brass and copper.

Park 2
In this mode, the device produces a low tone for ferrous targets with 0–15 IDs, a medium tone for gold and non-ferrous metals with IDs 16–42 and a high tone for non-ferrous metals with IDs 43–99 such as silver, brass and copper.

Beach
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 0–15 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 16–99.

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 (17).

All Metal
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 this mode, the threshold setting for each sensitivity level is optimized to provide the best performance on different terrains. You can modify these settings based on ground conditions.

As the sensitivity is lowered, the threshold tone gets weaker and cannot be heard at the lowest sensitivity levels.

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.

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 7 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.

IMPORTANT! The sensitivity level 7, which has been added to the SIMPLEX+ after its release via software update, has provided extra depth. However, please keep in mind that the device may run noisier at this level depending on conditions and that this is totally normal.

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 3 and 6, then 6 should be preferred.

You can increase and lower the setting by using the up and down buttons on the main screen. The bar on the left indicates the level of sensitivity.

IMPORTANT! If you want to lower the sensitivity setting, pay attention to pressing the down button one by one and not holding it down for a long time. As the down button is also the power button, holding it down will cause the device to shut down.

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.

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 2.5cm (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 2.5cm (1") coin and less depth for a larger target.
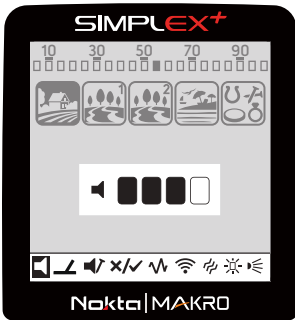
Push the settings button to access all settings. When settings button is pressed, the volume setting, which is the first setting on the settings bar located at the bottom of the screen, will be highlighted in black. Each time you press the settings button, the next setting on the bar will be selected 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 up arrow / back button or press the settings button one by one until the main screen is displayed. While in the settings bar, if no button is pressed for a while, settings will time out and the device will revert back to the main screen.

NOTE: Notch discrimination is not active in the All Metal mode and iron volume setting is not active in the All Metal and Beach modes thus cannot be selected. Threshold setting appears in place of the notch setting in the All Metal mode.

Volume

This control allows you to increase or decrease the device's volume based on your preference and environmental conditions. Volume setting consists of 4 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.

L1 L2 L3 L4
H1 H2 H3 H4

When you plug in any wired headphones to SIMPLEX+, 2 sets of audio levels will show in the volume setting: Low and High adjustable between 1–4.

Because the volume level affects power consumption, we recommend you not to increase it more than necessary.
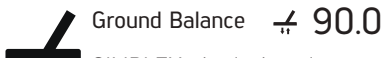
Ground Balance 90.0

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 ground balancing is selected in the settings menu, the device will switch to All Metal mode automatically regardless of the selected search mode.

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

1. Find a spot where there is no metal.

2. After selecting the ground balance setting in the settings bar, <u>press and hold down the pinpoint/confirm button</u> 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 auto ground balance in the Beach mode and then switch to other modes or 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 select ground balance from settings.

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 selecting ground balance from the settings menu 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.

IMPORTANT! If the device receives a lot of noise and/or emits false signals and you cannot eliminate it by reducing the sensitivity, first set your sensitivity back to its original level. Then increase the ground balance value between 90.1 – 91.0 one by one until the noise is eliminated. As the ground balance value is increased, the device's sensitivity to high conductive (silver, copper etc.) coins will decrease.

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.
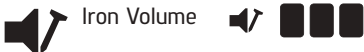
Iron Volume

It adjusts or turns off the volume of the low iron tone. It consists of 3 levels and can be adjusted using the plus (+) and minus (–) buttons.

As you lower the iron volume, the audio response volume the device produces for ferrous metals will decrease. When the iron audio is turned off, the device will detect ferrous targets, the Target ID will be displayed on the screen but the device will not produce any warning tone.

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

Iron volume adjustment applies to the selected search mode only. The change does not affect the other modes.
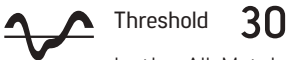
Threshold 30

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.

In the All Metal mode, the threshold setting for each sensitivity level is optimized to provide the best performance on different terrains. You can adjust the threshold setting between –50 +50 based on ground conditions. Threshold adjustment applies to that sensitivity setting only, it will not adjust the threshold at other sensitivity levels.
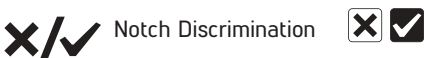
Notch Discrimination

Use the notch discrimination setting to eliminate unwanted metals from detection such as trash.

SIMPLEX+ has 20 pixels or "notches" of discrimination, shown under the TARGET ID scale with small boxes. Each box represents a group of 5 IDs (01–05, 06–10, 11–15 and so on). Any combination of these boxes can be rejected or accepted based upon your preference. The boxes rejected will be highlighted in black.

Notch discrimination can be used in 2 different ways in the SIMPLEX+: Automatic or Manual.

Automatic:

1. Press the settings button and then select notch discrimination in the settings bar.

2. Swing the search coil over the metal you want to eliminate. The box that represents the group of IDs for that metal will be highlighted in black.

3. Press the confirm button.

SETTINGS

Manual:

1. Press the settings button and then select notch discrimination in the settings bar. An X and a check mark will appear on screen along with a small arrow cursor underneath the ID bar at the top of the screen.

2. Move the arrow cursor using the plus (+) and minus (−) buttons and select the box that includes the ID you want to eliminate.

3. Press the confirm button. The box will be highlighted in black.

To give an example; let's say you want to reject a metal with 27 ID. Select the notch discrimination setting in the settings bar. The cursor will appear under the first box. Using the plus (+) button and by counting in multiples of 5, move the cursor to the 6th box which represents IDs between 26–30. Push the confirm button once. The box as well as the X icon on screen will be highlighted in black. After this, the device will not provide any audio response for metals with 26–30 ID.

The cursor will appear where you last left it the next time you use the notch discrimination setting.

In the notch discrimination setting, all the group of IDs you turned off will be shown with the X and the ones that are not turned off will be shown with the check mark.

You can turn off multiple boxes automatically or manually.

To turn back on the IDs, either select the turned off box with the help of the plus (+) and minus (−) buttons or swing the search coil over the metal you rejected before and press the confirm button.

Frequency Shift   F1 **F2** F3

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 the minus (−) buttons.

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

Wireless Connection   0
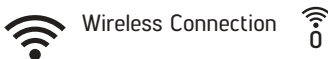
It is used to turn on and off the wireless headphones connection and to change the channel.

After choosing the wireless connection setting in the settings bar, you can change the channels between 1–5 or you can completely turn the wireless connection off by choosing the 0 position.

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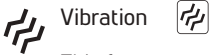
Vibration

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 the minus (–) buttons.

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: The vibration setting always comes in off position when device is turned off and on again.

Brightness

A1 A2 A3 A4
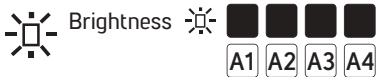
It enables you to adjust display backlight level according to your personal preference. It ranges between 0–4 and A1–A4. At 0 level, the backlight is off. When set between A1–A4, it lights up only for a short period of time when a target is detected or while navigating the menu and then it goes off. At 1–4 levels, it will be continuously lit. 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 the minus (–) buttons. 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.

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.

MUTE FUNCTION ◀×

When needed, press the pinpoint button once to mute your detector without going into settings. To unmute, press any button.

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, first set your sensitivity back to its original level. Then increase the ground balance value between 90.1 - 91.0 one by one until the noise is eliminated. As the ground balance value is increased, the device's sensitivity to high conductive (silver, copper etc.) coins 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.

METALS UNDER ROCKS
SIMPLEX+ increases the possibility of detecting metal targets under mineralized rocks through the proper adjustment of your settings. The combined effect created by the rock and metal together is lower than the effect that the metal creates by itself and the displayed ID will be different than the metal's expected ID. The displayed ID is formed by the combination of rock and metal together and gets closer to the ID of the rock if the size of the metal is smaller in relation to the rock. Keep in mind that metals under hot rocks will never appear with their own metal ID. For instance, a gold piece under a brick may produce an iron tone and ID.

Remember this very simple principle as it will save you lots of time: "If the target you detect is not a stone, it can be metal".

The key to detecting targets under mineralized rocks, particularly when positive rocks are in question, is the knowledge of the maximum ID value produced by the surrounding positive rocks. If you are performing a search in the All Metal mode, monitor the ID produced by the device. If the ID provided by your device is close to the rock and iron zone, it is quite possible that you detected a target under the rock.

If the hot rocks in your search area tend to give high IDs, then the chances of missing the signals of small metals underneath will be high as well.

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) 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 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.

SAVE AND FACTORY DEFAULTS
SIMPLEX+ will save all settings automatically once you turn your detector off and on again except for ground Balance, threshold, frequency shift and LED flashlight on/off.

To revert back to factory defaults please follow the steps below:

* Turn the detector on by pressing the power button.

* Once the SIMPLEX+ logo appears on the screen, press and hold down the Settings and Pinpoint/Confirm button simultaneously until 3 short beeps are heard.

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	:	12kHz
Search Modes	:	5 (Field/Park 1/Park 2/Beach/All Metal)
Audio Tones	:	3
Notch Filter	:	Yes
Pinpoint	:	Yes
Frequency Shift	:	Yes
Vibration	:	Yes
Sensitivity Setting	:	7 levels
Target ID	:	00–99
Search Coil	:	SP28 28cm (11") DD
Display	:	Graphic LCD
Backlight	:	Yes
Keypad Backlight	:	Yes
LED Flashlight	:	Yes
Weight	:	1.3 kg (2.9lbs.) including the search coil
Length	:	63cm – 132cm (25" – 52") adjustable
Battery	:	2300mAh Lithium Polymer
Warranty	:	2 years

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

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DETECTION TECHNOLOGIES

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