

## Dear Customer!

Congratulations on your purchase of a **SPHINX** product and thank you for choosing our brand. We are glad to welcome you among the SPHINX metal detectors users.

For effective use, we strongly recommend that you read the instructions carefully. Keep the manual together with the purchase documents for warranty repairs or a case of theft.

**Gratefully,  
SPHINX team**

### 1. Purpose

The pinpointer is designed to search for and locate metal objects made of ferrous and non-ferrous metals.

### 2. Technical specifications

The pinpointer provides detection of objects made of non-ferrous and ferrous metals in non-motion mode at speeds up to 0.5 m/s.

- 12 kHz operating frequency;
  - 9V power supply (9V battery, 6F22 type);
  - 7.5 mA current consumption (in scan mode);
  - 60 hours continuous operation time (in scanning mode with a battery capacity of at least 400 mAh);
  - Dimensions 231x45x41mm;
  - Weight 0.16 kg;
  - Proportional light indication of battery discharge;
  - "Loss" mode - a short audible signal once every 10 seconds for 40 minutes. Switching to the mode is automatic after 2 minutes of downtime;
  - Dust- and moisture-proof housing with IP68 protection;
- Operating conditions:
- Operating temperature range - 20° to +60° C;
  - Relative humidity 98% at T. +25° C;
  - Atmospheric pressure 630 to 800 mm of mercury.

### 3. Principle of operation

The SPHINX #02 pinpointer is a portable metal detector with an eddy current probe built into a case made of impact-resistant plastic which also houses the electronic circuit elements and a power source.

The principle of operation of the device is based on the harmonic (single-frequency) eddy current method for detecting hidden metal objects. When the search element gets closer to an electrically conductive object, eddy currents are induced in the object to create a secondary electromagnetic field that changes the primary field of the metal detector. The electronic circuit detects the change and signals the presence of an electrically

conductive object in the metal detector's scanning area. In this case, the closer/more massive the electrically conductive object is, the higher the frequency of the signals is.

### 4. Switching on the pinpointer

Switching on the pinpointer should be carried out away from any metal objects. Press the button. Release the button after a single beep and/or a vibration signal. The pinpointer is ready for operation after a triple "ascending" sound signal (or a double vibration signal in the silent mode) and when the green indicator light turns on. If LED was on at the time of the previous switch-off, LED will also be on at the next device activation.

### 5. Switching off the pinpointer

Press the button. Release the button after a triple "descending" signal and/or a single vibration signal. When the pinpointer is switched-off, its operating mode, sensitivity level, and the status of LED are stored in non-volatile memory and are automatically restored the next time it is switched-on.

### 6. Quick retune

To quickly set up the pinpointer to work in saltwater, on mineralized soils, wet sand, or at large temperature differences, bring the operating pinpointer to the scanned surface under study, press and immediately release the button ("Quick retune"). An alternative way to retune for interfering factors is to switch on the device in the environment where the search will be carried out (for example, in saltwater). If retuning for interfering factors does not allow achieving the absence of false signals positives then the sensitivity level should be reduced.

**Please note:** Sensitivity reduction is recommended to prevent false signals on highly mineralized soils;

### 7. Exact localization of objects

Slowly scan the device following the direction of the object until the signal is constant in level. Then push the button once to retune the pinpointer and reduce its area of response.

Go on scanning in the direction of the object to find its exact location. To further reduce the response area, repeat the "Quick retune" procedure.

### 8. Changing the signaling method and sensitivity level

In the switched-on state, press and hold the button until the second "trill" sounds (the first signal is the metal detector off). Release the button immediately after the second sound (see "Entering menu" in the diagram "General menu settings of the pinpointer"). The device is in the mode of changing the signaling method and the sensitivity level (see the diagram "Sensitivity

setting menu"). Changing the signaling method and sensitivity level is carried out by short single presses of the buttons, the first pressing returns current settings. With further one-time presses, the settings are altered cyclically:

**1 sound + vibration** signal means minimum sensitivity level, sound and vibration signaling;

**2 sounds + vibrations** mean medium sensitivity level, sound and vibration signaling;

**3 sounds + vibrations** mean maximum sensitivity level, sound and vibration signaling;

**4 sounds + vibrations** mean custom sensitivity level, sound and vibration signaling.

**1 vibration signal** means minimum sensitivity level, vibration signaling;

**2 vibration signals** mean medium sensitivity level, vibration signaling;

**3 vibration signals** mean maximum sensitivity level, vibration signal;

**4 vibration signals** mean custom sensitivity level, vibration signaling;

To exit the mode of changing the signaling method and sensitivity level, press and hold the button until the "trill" sound is heard, or do not press the button for 3 seconds, in the latter case, the exit from the mode is performed automatically.

### 9. Turning LED on/off

In the switched-on state, press and hold the button until LED turns on/off.

### 10. Low battery indication

As the battery is discharged (the voltage of the power supply decreases), a proportional light indication of the battery discharge is triggered: green - the battery is charged, yellow means medium battery level, and red stands for the low battery level.

When the power supply voltage decreases further, the metal detector emits a characteristic beep and turns off.

### 11. Setting the custom sensitivity level

Make sure that there are no metal objects near the pinpointer. Switch on the pinpointer, press and hold the button while it is switched-on until the red indicator and the "trill" sound signal turn on. Release the button. The device is in the mode of setting the custom sensitivity level. In this mode, the signaling system for detecting metal objects works with a minimum frequency. Bring the metal object to the desired detection distance and press the button once, after which the device will remember the set distance. Make sure that the metal object is detected at the set distance. If necessary, adjust the distance and press the button once again. The procedure for changing the distance can be performed an unlimited number of times while the

pinpointer is in the mode of setting the custom sensitivity level. After setting the desired sensitivity level, switch off the pinpointer (hold down the button) and the set sensitivity level will be remembered as the custom level.

**IMPORTANT:** when setting a high sensitivity level (higher than the factory default setting), the detection distance must be set slightly less than the required distance. In addition, setting an excessively high level of sensitivity can lead to unstable operation of the pinpointer.

### 12. Reset the custom sensitivity level to the factory default setting

In the switched-on state, press and hold the button until the red indicator and a long single-tone beep are activated. Release the button after the beep. The user level is returned to the factory default value.

### 13. Changing the volume of the sound signaling

In the switched-on state, press and hold the button until you hear one loud beep and a second quieter beep, or one quiet beep and a second louder beep (depending on the previously set volume). Release the button. The sound has become louder or quieter depending on the previously set volume level. See the diagram of the general pinpointer setup menu.

### 14. Changing the sound scheme of the "Pulse" or "Tone" signaling

In the switched-on state, press and hold the button until you hear the "Pulse" or "Tone" sound scheme (depending on the previously set sound scheme). Release the button. The sound scheme is changed to "Pulse" or "Tone" depending on the previously set sound scheme. See the diagram of the general pinpointer setup menu.

### 15. SPHINX Magnetic™ feature

Remove the device from the belt holster, turn on the device (see "Turn on"). In the switched-on state, place the pinpointer in the belt holster. The pinpointer signals with two sound and/or vibration signals that it is in the belt holster (the 1st signal is on when placing it in the belt holster; the 2nd signal when switching it off to sleep mode). Cross-check: bring a metal object to the search element of the pinpointer in the belt holster and make sure that the device is in a sleep mode and does not react to metal objects. The device is completely switched off by pressing the button (see the "Switching off" part). When the pinpointer is removed from the belt holster, the device is set up automatically similar to the setting when manually switched on. Data on detuning from the ground ("Quick retune") is stored in the device's memory when placed in the belt holster, so

repeated detuning from the ground is not required each time the pinpointer is removed. If at the end of using the pinpointer, the user does not switch off the device with the button and the device is in the belt holster, then, after 30 minutes, the device will automatically switch off completely letting the user know respectively with a sound signal.

### 16. "Dive" function

The "Dive" function is designed to prevent the button from being activated under pressure when diving in water. To activate the "Dive" function remove the device from the belt holster. Switch it on. Insert the pinpointer into the belt holster and remove it before the second sound + vibration signal are emitted (before going into sleep mode). Immediately repeat the described steps two more times within 3 seconds. Deactivation of the "Dive" function is performed similar to the activation's sequence of actions. A characteristic beep indicates that the function has been successfully activated/deactivated.

### 17. Battery replacement

Turn the battery cover anticlockwise to change the battery, and clockwise to close it.

Make sure that the O-ring is free of damage and foreign objects such as sand. Observe the polarity when changing the battery, align the large battery contact with the large hole in the battery compartment. If the pinpointer is not used for a long time, it is recommended to remove the battery.

### 18. General recommendations

- When a metal object is detected, the device emits a sound + vibration signal, or vibration signal. The frequency of the sound and/or vibration signal increases proportionally as the device gets closer to the metal object.

- To ensure maximum sensitivity according to the settings, do not turn on the pinpointer near metal objects.

- Do not use the pinpointer as a digging tool. The body of the device is strong, still, it is not designed for excessive force.

- When working underwater, immersing the device deeper than 6 meters is not recommended. When in service, make sure that there are no foreign objects in the connections (sand, etc.) and lubricate the O-ring located on the battery cover with silicone grease.

- Use soap and water and a cloth to remove dirt from the device. Use no abrasives and no chemical compounds to clean the housing.

### 19. Kit includes:

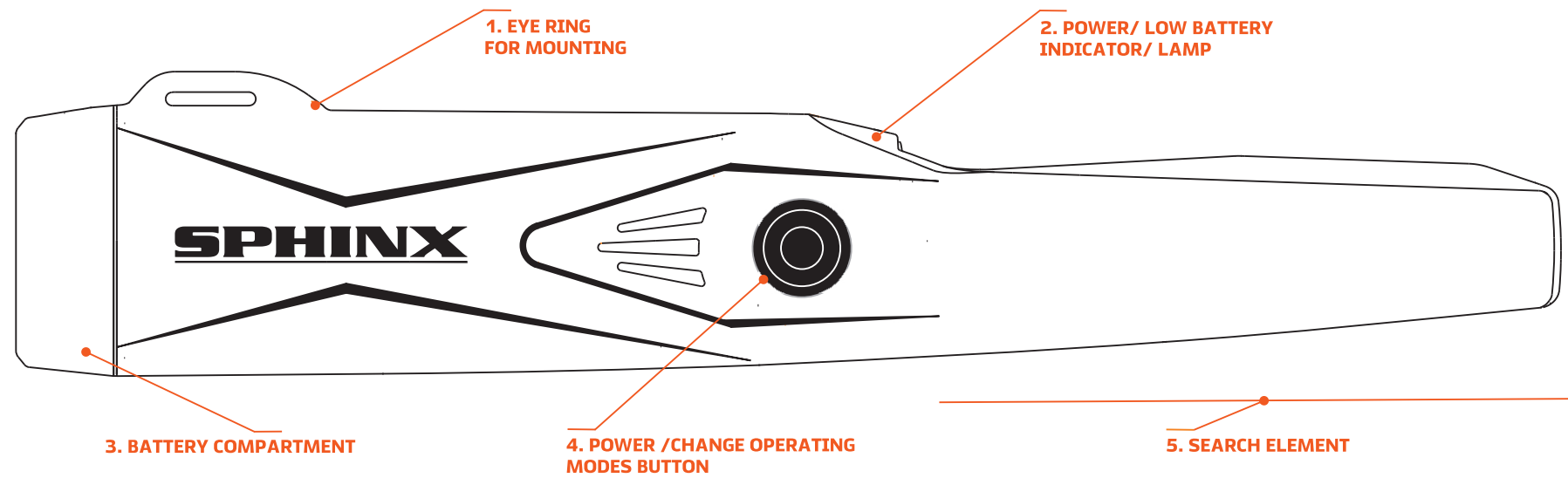
Pinpointer SPHINX #02  
Belt holster  
Leg holster  
Safety cord  
User Manual

### 20. Warranty

The warranty period is 24 months from the date of sale.

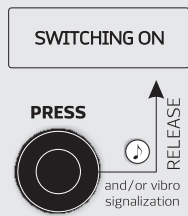
During the warranty period, the manufacturer shall repair or replace the device free of charge if the consumer discovers defects or failures in operation caused by the manufacturer.

Free-of-charge repair or replacement of the device is made when used by the customer in accordance with the operating rules.

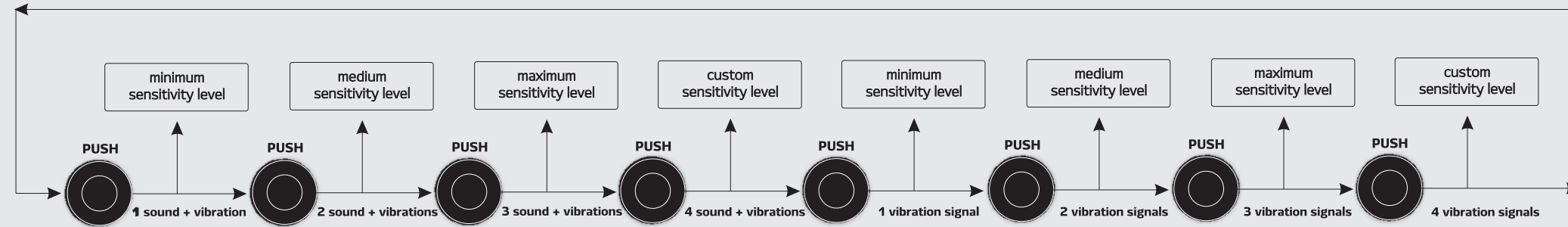


The diagram of the general pinpointer setup menu

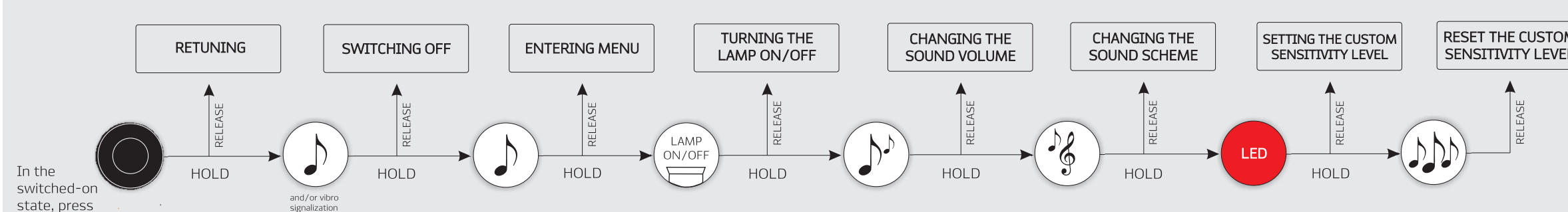
### Switching on the pinpointer



### Sensitivity setting menu



### General menu setting of the pinpointer



Important. If the pinpointer is not used for a long time, then the search element may be demagnetized. When used for the first time, this can lead to incorrect operation of the "SPHINX Magnetic"™ function. Before the first use or after prolonged inactivity, place the pinpointer with the search element on the magnet (located in the upper rear part of the belt holster) in the OFF state for 20 minutes.

Belt holster and accessories, which are used with SPHINX metal detectors and which provide the operation of "SPHINX Magnetic"™ function, contain magnets that emit electromagnetic fields that can interfere with the operation of medical devices. The magnets used for operation of the "SPHINX magnetic"™ function have very low magnetization, and it is expected that they won't create magnetic interference for medical devices. Medical devices (e.g. pacemakers) may contain sensors that are adversely affected by magnets in close contact. To avoid any potential interaction with these devices, keep the "SPHINX Magnetic"™ accessories at a safe distance from the device (at least 20 cm). Please note that it is necessary to consult your doctor and medical device manufacturer for specific recommendations.

If you suspect that accessories that provide operation of "SPHINX Magnetic"™ function are interfering with the operation of your medical device, stop using the Sphinx metal detector and "SPHINX Magnetic"™ accessories.

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## User Manual Metal Detector with function

# SPHINX™

MAGNETIC

## model SPHINX #02

### SPHINX

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