



# UNDERWATER METAL DETECTOR

## INSTRUCTION MANUAL



**WARNING:**  
**CHOKING HAZARD** – Small parts.  
Not for children under 3 years.



**WARNING:**  
This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**x1**  
**NOT INCLUDED**

Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc), or rechargeable (ni-cad, ni-mh, etc.) batteries. Non-rechargeable batteries are not to be recharged. Please recycle batteries responsibly.

**IMPORTANT SAFETY INSTRUCTIONS**READ AND FOLLOW THE INSTRUCTIONS BEFORE USE.  
KEEP THESE INSTRUCTIONS FOR LATER USE.

- **CHOKING HAZARD:** CHILDREN SHOULD ONLY USE DEVICE UNDER ADULT SUPERVISION. KEEP PACKAGING MATERIALS LIKE PLASTIC BAGS AND RUBBER BANDS OUT OF THE REACH OF CHILDREN AS THESE MATERIALS POSE A CHOKING HAZARD.

- **RESPECT PRIVATE PROPERTY:** DO NOT USE THIS METAL DETECTOR TO SEARCH PRIVATE PROPERTY UNLESS YOU HAVE OBTAINED THE OWNER'S PERMISSION.

- **CHILDREN SHOULD ONLY USE THE METAL DETECTOR UNDER ADULT SUPERVISION.** KEEP PACKAGING MATERIALS LIKE PLASTIC BAGS AND RUBBER BANDS OUT OF THE REACH OF CHILDREN AS THESE MATERIALS POSE A CHOKING/SUFFOCATION HAZARD.

**BATTERY SAFETY GUIDELINES:**

USE ONLY RECOMMENDED BATTERY TYPES AND BE SURE TO INSERT THEM CORRECTLY ACCORDING TO POLARITY MARKINGS. NEVER MIX OLD AND NEW BATTERIES. REPLACE ALL BATTERIES AT THE SAME TIME. NEVER MIX ALKALINE, STANDARD CARBON-ZINC AND RECHARGEABLE NICKEL-CADMIUM BATTERIES. NEVER SHORT CIRCUIT THE DEVICE OR BATTERIES OR THROW EITHER INTO A FIRE. EXPOSURE TO HIGH TEMPERATURES OR MISUSE OF THE DEVICE CAN LEAD TO SHORT CIRCUITS, FIRES OR EVEN EXPLOSIONS. LEAKING OR DAMAGED BATTERIES CAN CAUSE INJURY IF THEY COME INTO CONTACT WITH THE SKIN. IF YOU NEED TO HANDLE SUCH BATTERIES, WEAR SUITABLE SAFETY GLOVES. REMOVE BATTERIES FROM THE PRODUCT BEFORE EXTENDED STORAGE TO PREVENT LEAKING. DO NOT IMMERSE THE BATTERY COMPARTMENT IN WATER.

- **DO NOT DISASSEMBLE THIS DEVICE:** IN THE EVENT OF A DEFECT, PLEASE CONTACT YOUR DEALER. THE DEALER WILL CONTACT THE CUSTOMER SERVICE DEPARTMENT AND CAN SEND THE DEVICE IN TO BE REPAIRED IF NECESSARY.

- **DO NOT SUBJECT THE DEVICE TO TEMPERATURES EXCEEDING 60 °C (140 °F).**



- **DISPOSAL:** KEEP PACKAGING MATERIALS, LIKE PLASTIC BAGS AND RUBBER BANDS, AWAY FROM CHILDREN AS THEY A POSE A RISK OF SUFFOCATION. DISPOSE OF PACKAGING MATERIALS AS LEGALLY REQUIRED. CONSULT THE LOCAL AUTHORITY ON THE MATTER IF NECESSARY AND RECYCLE MATERIALS WHEN POSSIBLE.



- THE WEEE SYMBOL IF PRESENT INDICATES THAT THIS ITEM CONTAINS ELECTRICAL OR ELECTRONIC COMPONENTS WHICH MUST BE COLLECTED AND DISPOSED OF SEPARATELY.

- NEVER DISPOSE OF ELECTRICAL OR ELECTRONIC WASTE IN GENERAL MUNICIPAL WASTE. COLLECT AND DISPOSE OF SUCH WASTE SEPARATELY.

- MAKE USE OF THE RETURN AND COLLECTION SYSTEMS AVAILABLE TO YOU, OR YOUR LOCAL RECYCLING PROGRAM. CONTACT YOUR LOCAL AUTHORITY OR PLACE OF PURCHASE TO FIND OUT WHAT SCHEMES ARE AVAILABLE.

- ELECTRICAL AND ELECTRONIC EQUIPMENT CONTAINS HAZARDOUS SUBSTANCES WHICH, WHEN DISPOSED OF INCORRECTLY, MAY LEAK INTO THE GROUND. THIS CAN CONTRIBUTE TO SOIL AND WATER POLLUTION WHICH IS HAZARDOUS TO HUMAN HEALTH, AND ENDANGER WILDLIFE.

- IT IS ESSENTIAL THAT CONSUMERS LOOK TO RE-USE OR RECYCLE ELECTRICAL OR ELECTRONIC WASTE TO AVOID IT GOING TO LANDFILL SITES OR INCINERATION WITHOUT TREATMENT.



### Parts Overview

- 01. Flashing LED Light
- 02. Detection Coil
- 03. Vibrating Handle
- 04. Wrist Strap
- 05. Waterproof Battery Compartment
- 06. O-Ring Seal

### Features:



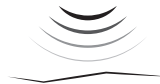
**Waterproof up to 32 ft**



**Lightweight**



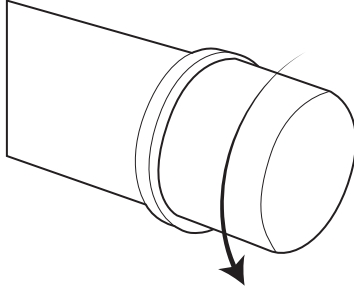
**Light & Pulse Targeting**



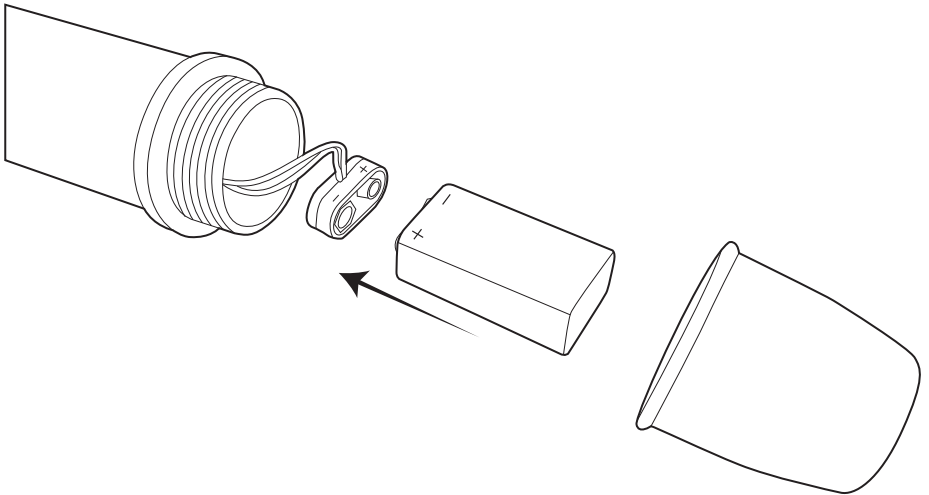
**Automatic Sensitivity**

**Battery Installation:**

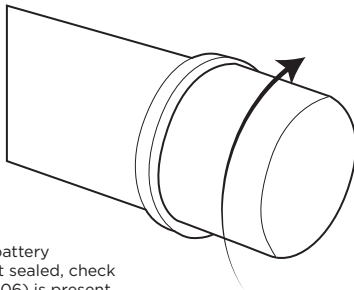
To open the battery compartment, rotate the battery cover counter-clockwise.



Insert a 9-volt battery in the compartment making sure to keep the proper polarities (+/-) aligned.



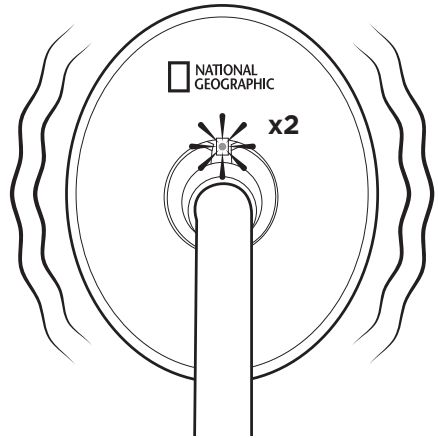
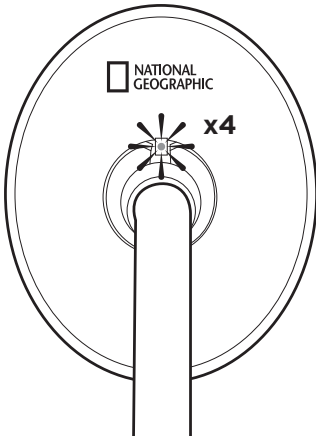
Then turn the battery cover clockwise until hand tight to assure a water-tight seal.



**WARNING:** To ensure the battery compartment is water-tight sealed, check to see if the black O-ring(#06) is present.

## Operating Instructions:

**Turn on the detector:** Hold unit with the search coil up for about three seconds. Light will flash four times first and the other two flashes will occur simultaneously with short pulses of vibration and a steady dim light indicate unit is on.

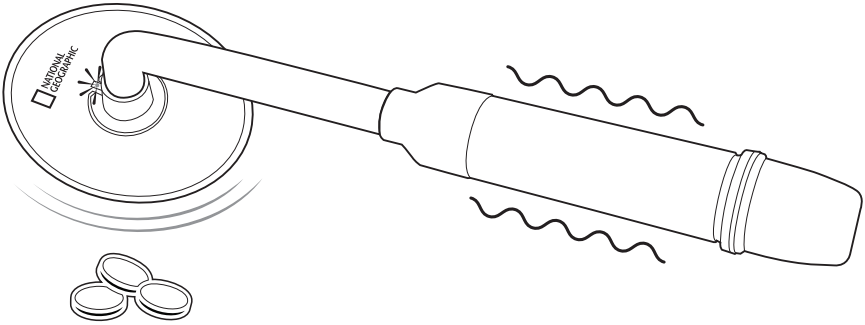


**Turn off the detector:** After use, hold unit with the search coil up for about three seconds. Light will flash four times first and the other two flashes will occur simultaneously with short pulses of vibration and no light indicate the unit is off. Note: If no metal is detected within one minute, the unit will automatically turn off.

**Low battery turn off:** When the battery is low the unit will shut down automatically indicated by four long pulses of vibration and bright light.

### Detecting a Target:

After turning on the detector, hold it with coil down to start detection. When target is located, the detector indicates with vibration and bright light. These pulses increase in quantity as the closer the search coil is to a detected target.



The quantity of pulses is proportional to the target size and distance. The bigger the target, or the closer the search coil is to the target, the higher the pulse count. Movement of the search coil is required to detect a target. Sweep the search coil back and forth along the surface you are searching. Move the coil slightly away and then re-approach the target to get the next detection.

### Helpful Hints:

- You have to hold the detector with coil down to start detection after turn on. If you continue to hold the detector with the coil up, the detector will not start operation.
- You can secure the detector to your wrist using the attached wrist strap.
- Before submerging the detector make sure the battery compartment seal is secure.
- Always use high quality batteries such as alkaline or nickel metal hydride (NiMH).
- The detection field projected resembles an oval shape, with the deepest depth of detection in the center of the coil.
- Raising the detector's coil up while in use will start the turn-off sequence, indicated by a blinking light and vibration. Lower the detector's coil within 3 seconds to continue detecting.
- Unit will not detect when the light is blinking in either the turn-on or turn-off sequence.
- As with any new detector you should practice with known targets to develop your searching technique.

**Places to search:**

- The beach, which is a great place to begin because you will get fewer competing signals on a sandy beach and it will be easier to dig there;
- Rivers, streams, or any large body of water;
- Under trees where people may have sat to rest;
- At the homes of your relatives — especially those that live in older homes;
- Your own front and/or back yards; or
- Areas where historic battles occurred (Be sure to ask permission first because you may not be able to remove objects from these locations)

**Know these important rules of metal detecting and digging:**

1. Some parks and public land prohibit metal detecting and digging. Always check first.
2. Always ask for permission from the property owner before entering private property.
3. Do not destroy historical or archaeological treasures. If you are not sure about an object that you have found, try contacting a museum or historical society in your area.
4. Be responsible and cover the holes that you dig.

**Cleaning tips:**

After using the search coil in water, be sure to dry it thoroughly. If it was used in salt water, rinse it with fresh water to prevent corrosion of the metal parts. Use a dampen cloth (not included) and gently wipe away any residue.



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

### **Metal detector milestones:**

Metal detectors are a common treasure hunting tool because of their ability to pinpoint and identify a variety of precious metals. However, the inventor of the first metal detector — Gustave Trouvé — had a more altruistic goal in mind for designing such a device.

When Trouvé created a handheld metal detector in 1874, he was not driven by a desire to find gold coins or ancient artifacts, he wanted to find metal fragments like bullets in wounded patients.

After decades of evolution and innovation, the uses for metal detecting technology have expanded dramatically. These devices can be found playing crucial roles everywhere from archaeological digs to abandoned minefields to airport security lines.

The following are some early milestones in the development of the metal detector:

- **1874** — French electrical engineer Gustave Trouvé creates a handheld metal detector for finding metal fragments — such as bullets — in patients.
- **1881** — After U.S. President James Garfield is shot on July 2, 1881, Alexander Graham Bell makes a metal detecting device like the one designed by Trouvé to help locate the bullet fragment that remained in the president's body. The effort was ultimately unsuccessful due in part to the fact that the bed Garfield was laying on had metal coils.
- **1925** — Gerhard Fisher is granted the first patent for a hand-held metal detector designed to detect buried precious metals and ore deposits. He began producing and selling his metal detector — the “Metallascope” — commercially in 1931.
- **1928** — American inventor Shirl Herr is granted a patent for his “hidden metal detector”. In the patent application he submitted in 1924, Herr wrote that his device was an improvement in the current technology. In 1929, Herr's invention caught the attention of Italian dictator Benito Mussolini, who asked Herr to assist in recovering artifacts from two ancient Roman barges that sank in Lake Nemi during the reign of the Emperor Caligula.
- **1941** — Polish military officer Józef Kosacki designs a portable mine detecting device that quickly becomes a staple on the battlefields of World War II. Various versions of Kosacki's device were used by the British Army for at least five decades after its introduction.



### How metal detectors work:

Electromagnetism is the scientific principle at work in a metal detector. The standard handheld metal detector used by hobbyists and treasure hunters has two coils — a transmitter coil and a receiver coil. When the detector is turned on, an electric current moves through the outer transmitter coil generating an electromagnetic field (blue line), which pushes out from the bottom of the device toward the ground. When this electromagnetic field passes over a metallic object, the electrons in the object will be energized causing the object to generate its own electromagnetic field, which will travel upward toward the device (green line). When the object's magnetic field reaches the metal detector's receiver coil, an electric current moves through the coil and sets off the alert.









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