MINELAB 3303-0124

Minelab Excalibur II Waterproof Deep Dive Metal Detector

Model: 3303-0124 | Brand: MINELAB

1. Introduction

The Minelab Excalibur II is a state-of-the-art waterproof metal detector designed for serious underwater and beach treasure hunting. Utilizing Minelab's unique Broad Band Spectrum (BBS) multi-frequency technology and Reduced Current Boost (RCB) circuitry, this detector offers exceptional depth and sensitivity, even in highly mineralized environments like saltwater beaches and underwater sites.

Its robust construction allows for operation at depths up to 200 feet (66 meters), making it an ideal tool for divers and serious aquatic explorers. This manual provides essential information for the proper setup, operation, maintenance, and troubleshooting of your Excalibur II detector to ensure optimal performance and longevity.

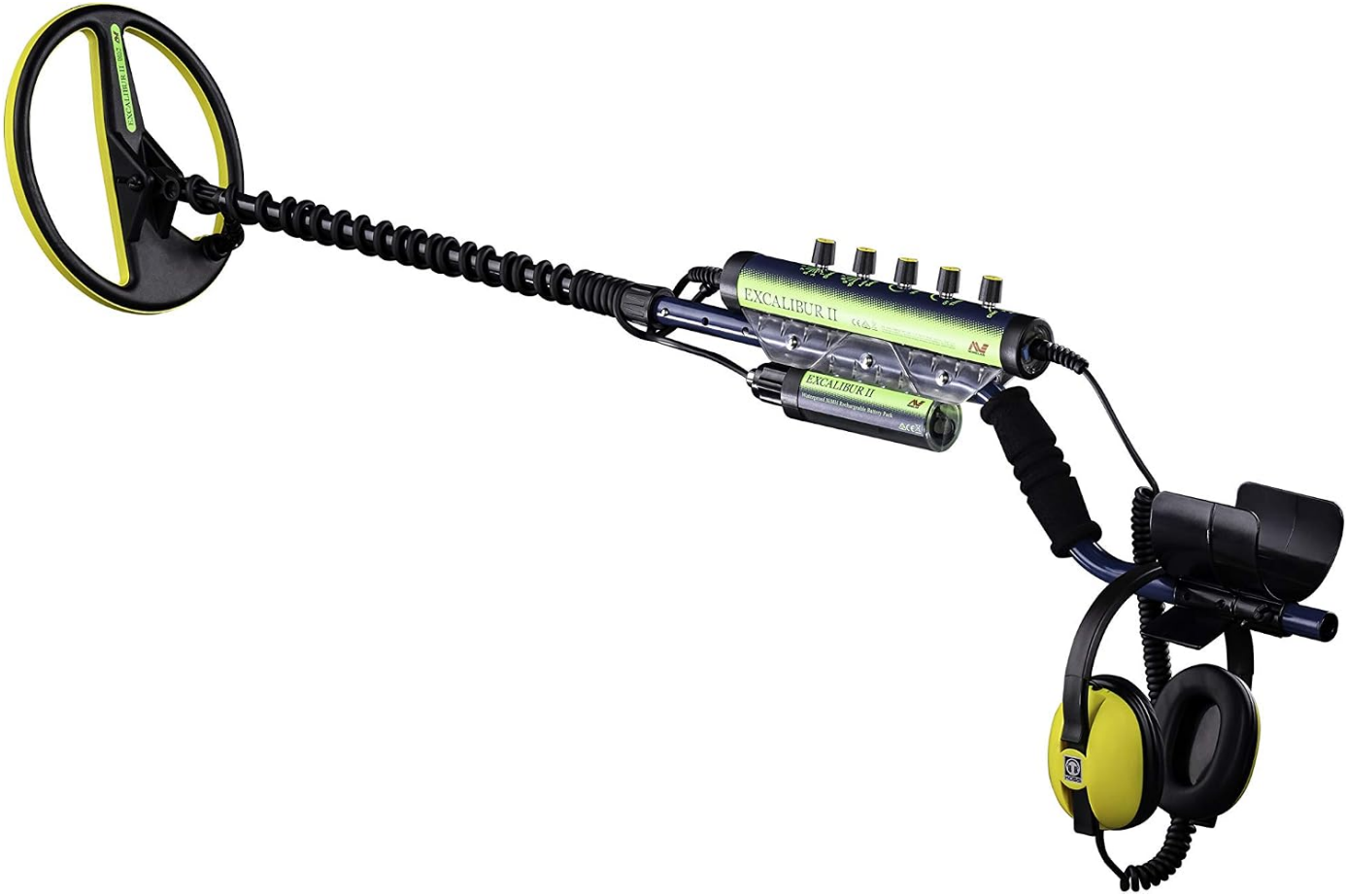


Figure 1.1: The Minelab Excalibur II metal detector, showcasing its main components including the control box, shaft, 10-inch slimline coil, and waterproof headphones.

2. Safety Information

- Always ensure all seals and connections are clean and properly secured before submerging the detector in water to prevent leaks and damage.
- Do not attempt to open the control box or battery compartment underwater. This must only be done in a dry environment.
- Use only the charger supplied by Minelab. Using unauthorized chargers may damage the battery or detector and void your warranty.
- When diving, always adhere to safe diving practices and local regulations. Never rely solely on the detector for navigation or safety.
- Keep the detector and its components out of reach of small children.
- Avoid exposing the detector to extreme temperatures or direct sunlight for prolonged periods when not in use.

3. Package Contents

Upon unpacking your Minelab Excalibur II, please verify that all the following items are included:

- Minelab Excalibur II Metal Detector with 10" Slimline Coil
- Waterproof Headphones
- NiMH Rechargeable Battery Pack (pre-installed or separate)
- AC Wall Charger
- Rubbish & Finds Bag

- Coil Bolt and Washers
- Instruction Manual (this document)

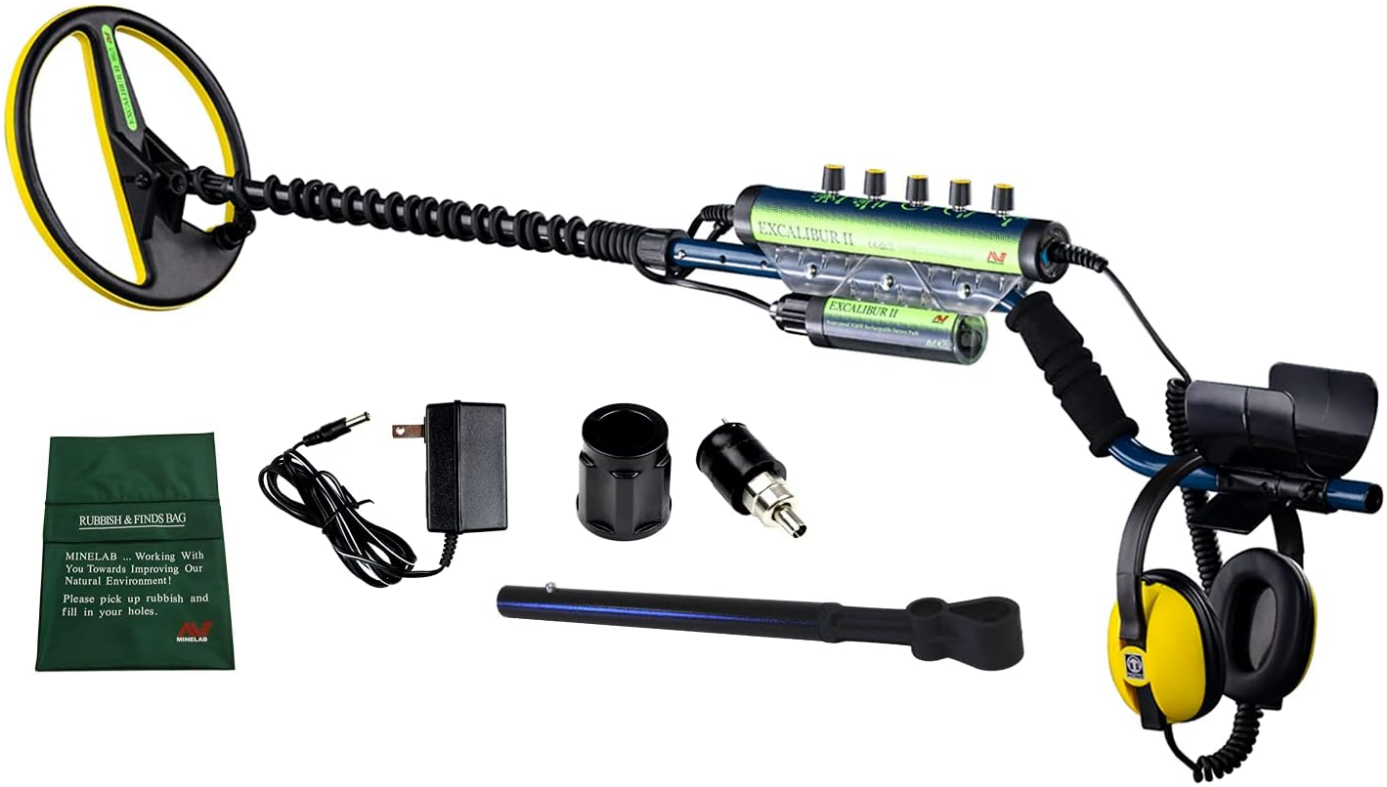


Figure 3.1: All components included in the Minelab Excalibur II package.

4. Setup

4.1 Assembly

1. **Attach the Coil:** Secure the 10" Slimline Coil to the lower shaft using the provided coil bolt and washers. Ensure it is firmly tightened but do not overtighten.
2. **Connect the Shafts:** Slide the lower shaft into the middle shaft, and then connect the middle shaft to the upper shaft (control box assembly). Adjust the length to a comfortable position for your height and preferred detecting style.
3. **Secure the Coil Cable:** Wrap the coil cable snugly around the shaft, ensuring it is not loose or dangling, which could cause false signals. Secure it with any provided clips or ties.
4. **Connect Headphones:** Plug the waterproof headphones into the designated port on the control box. Ensure a secure, watertight connection.

4.2 Battery Charging

The Excalibur II comes with a NiMH rechargeable battery pack. For optimal performance, fully charge the battery before first use.

- Locate the charging port on the control box. Ensure it is clean and dry before connecting the charger.
- Connect the supplied AC wall charger to the charging port.
- Plug the charger into a standard wall outlet. The charging indicator (if present) will illuminate.
- Allow approximately 12-14 hours for a full charge. Do not overcharge.
- Once charging is complete, disconnect the charger and ensure the charging port cover is securely replaced to maintain waterproof integrity.

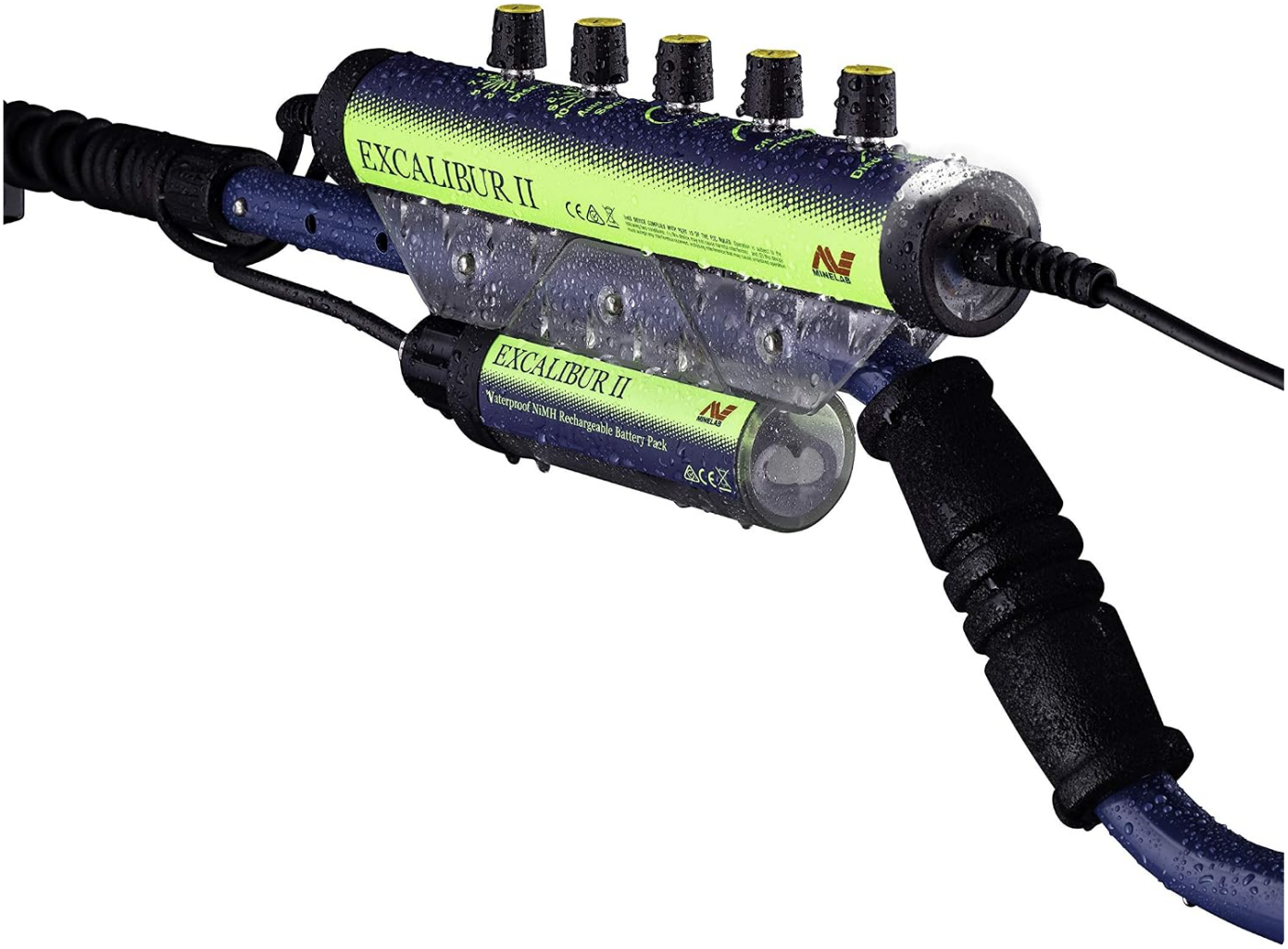
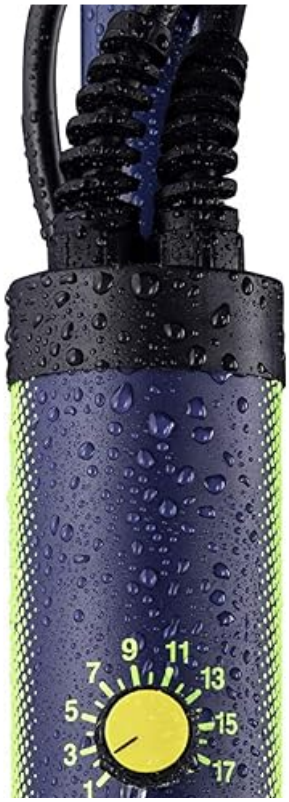


Figure 4.1: Detail of the battery pack and charging connection point on the Excalibur II.

5. Operating Instructions

The Minelab Excalibur II features intuitive controls designed for ease of use in various detecting environments.



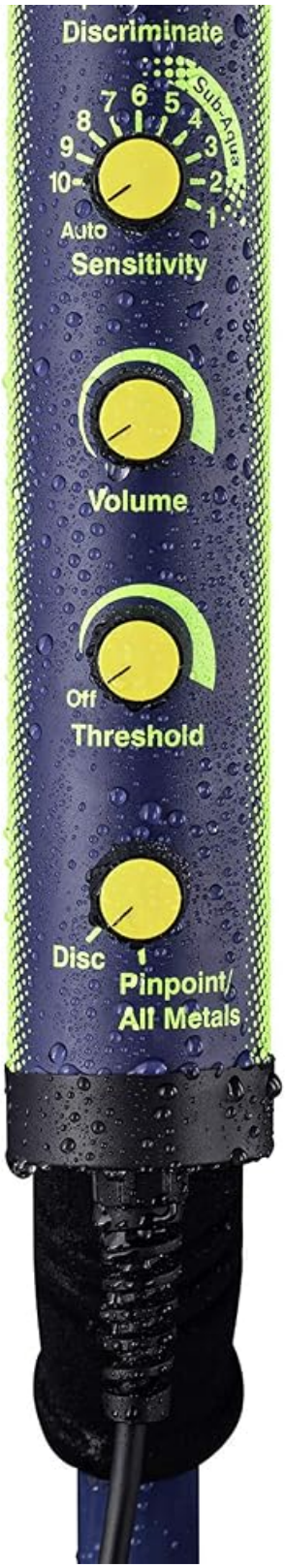


Figure 5.1: The control panel of the Excalibur II, showing the various adjustment knobs.

5.1 Controls Overview

- **Discriminate Knob:** Adjusts the level of discrimination to filter out unwanted trash targets. Turning it clockwise increases discrimination, rejecting more ferrous and low-conductive items.
- **Sensitivity Knob:** Controls the detector's sensitivity to targets. Higher sensitivity settings increase detection depth but may also increase susceptibility to electrical interference or ground noise. Start with a moderate setting and adjust as needed.
- **Volume Knob:** Adjusts the audio output level of the headphones.
- **Threshold Knob:** Sets the continuous background hum (threshold tone). A slight, barely audible hum is usually

ideal for detecting faint targets.

- **Mode Switch (Disc/Pinpoint/All Metals):**
  - **Disc:** Activates the discrimination circuit, allowing you to reject specific target types.
  - **Pinpoint:** Provides a non-motion all-metal mode for precise target location. The audio pitch will increase as you move the coil closer to the target.
  - **All Metals:** Detects all metal types without discrimination. This mode offers maximum depth and sensitivity.

5.2 Powering On/Off

To power on the detector, turn the **Volume** knob clockwise from the "Off" position. To power off, turn the **Volume** knob counter-clockwise until it clicks into the "Off" position.

5.3 Detecting Techniques

- **Sweeping:** Hold the coil parallel to the ground or seabed, sweeping it slowly from side to side in overlapping passes. Maintain a consistent height above the surface.
- **Target Response:** When a target is detected, the detector will produce an audible signal. The characteristics of the signal (pitch, strength) can provide clues about the target's size and conductivity.
- **Pinpointing:** Once a target is detected, switch to **Pinpoint** mode. Move the coil slowly over the target area until the loudest and highest-pitched signal is heard, indicating the center of the target.

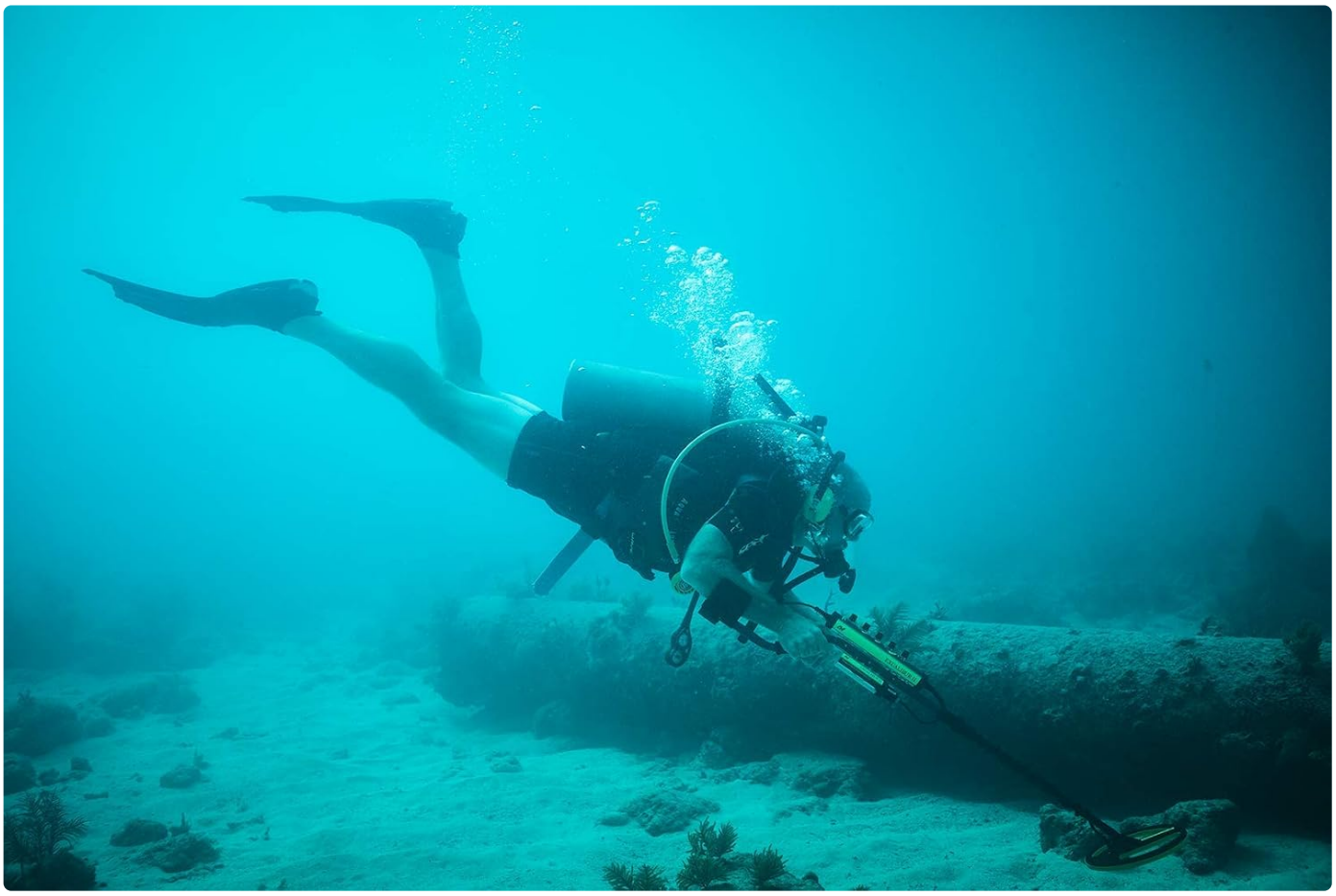


Figure 5.2: An individual using the Excalibur II for underwater metal detecting.

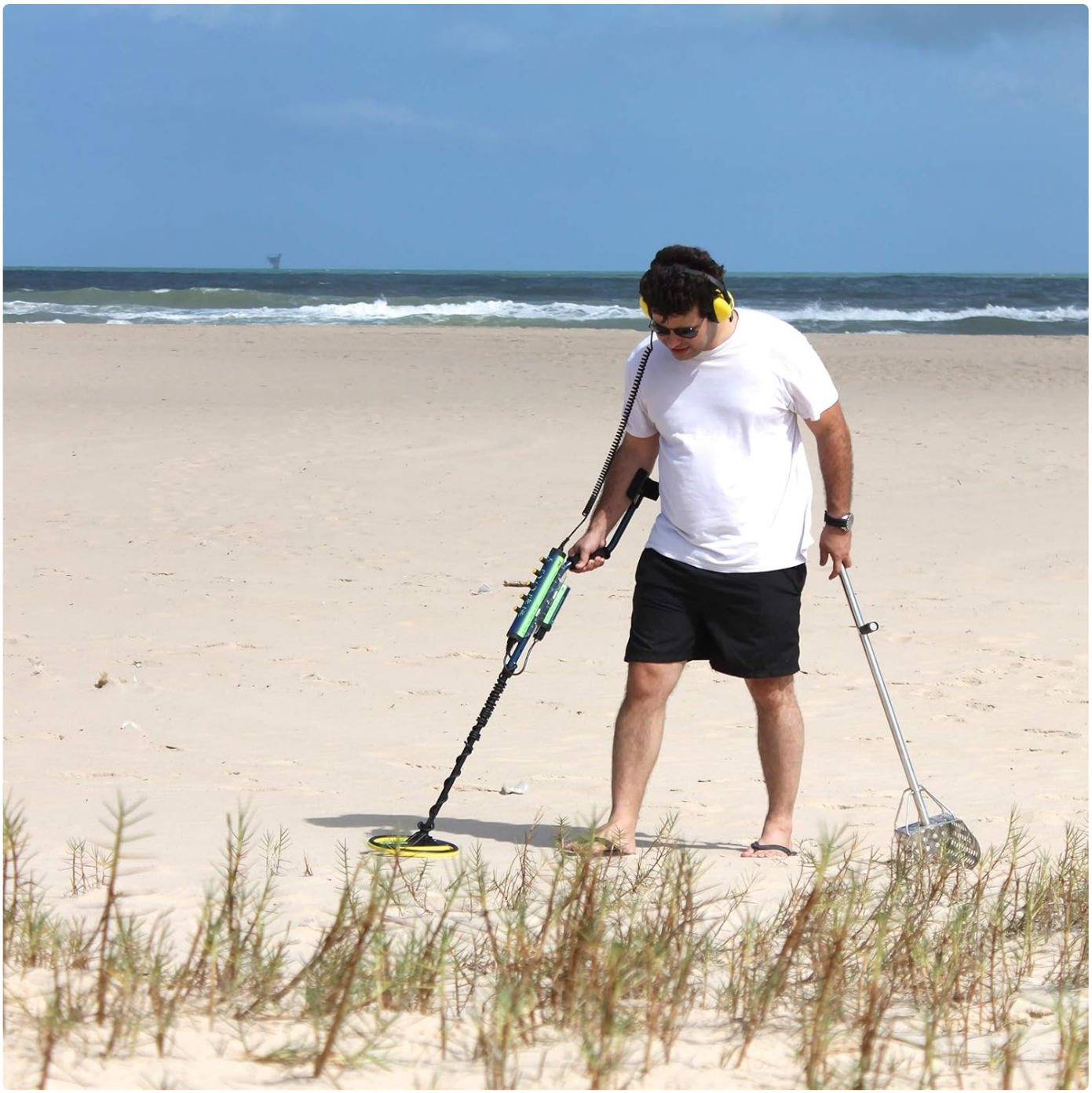


Figure 5.3: The Excalibur II being used for metal detecting on a beach.

6. Maintenance

- **Cleaning:** After each use, especially in saltwater, rinse the entire detector thoroughly with fresh water. Pay close attention to the coil, shaft, and control box. Wipe dry with a soft cloth.
- **Battery Care:**
  - Always fully charge the battery before long-term storage.
  - If storing for extended periods, recharge the battery every 3-6 months to maintain its health.
  - Do not store the battery in extreme temperatures.
- **Seal Inspection:** Regularly inspect all O-rings and seals for cracks, dirt, or damage. Clean them gently and apply a thin layer of silicone grease if necessary to ensure waterproof integrity.
- **Storage:** Store the detector in a cool, dry place, away from direct sunlight and extreme temperatures.

7. Troubleshooting

Problem	Possible Cause	Solution
No power or detector does not turn on.	Battery is depleted or not properly connected.	Ensure battery is fully charged. Check battery connections.
No sound from headphones.	Headphones not connected, volume too low, or faulty headphones.	Check headphone connection. Increase Volume knob. Test with another compatible headphone if available.
Excessive false signals or erratic behavior.	High sensitivity setting, electrical interference, or highly mineralized ground.	Reduce Sensitivity. Move away from power lines or other electronic devices. Adjust Threshold.
Poor detection depth.	Low sensitivity, incorrect ground balance (not applicable for Excalibur II's auto-tracking), or high discrimination.	Increase Sensitivity. Reduce Discriminate setting. Ensure proper coil sweep technique.
Water ingress into control box/battery.	Improperly sealed battery compartment or damaged O-rings.	Immediately power off and dry the unit. Do not attempt to use. Contact Minelab support for repair.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact Minelab customer support.

8. Specifications

- **Brand:** MINELAB
- **Model:** 3303-0124
- **Technology:** Broad Band Spectrum (BBS) Multi-frequency (1.5 kHz to 25.5 kHz) and Reduced Current Boost (RCB)
- **Operating Frequency:** 1.5 kHz - 25.5 kHz (BBS)
- **Waterproof Depth:** Up to 200 ft (66m)
- **International Protection Rating:** IP54 (Note: While rated IP54, the unit is designed for deep underwater use up to 200ft as per manufacturer claims.)
- **Coil:** 10" Slimline Double-D Coil (Waterproof)
- **Headphones:** Waterproof Headphones (Included)
- **Battery:** NiMH Rechargeable Battery Pack (Included)
- **Battery Life:** Approximately 12 hours
- **Power Source:** Battery Powered
- **Item Weight:** 5.1 Pounds (approx. 2.3 kg)
- **Product Dimensions:** 48 x 12 x 6 inches (approx. 122 x 30.5 x 15.2 cm)
- **Adjustable Length:** Yes
- **Material:** Metal
- **Color:** Yellow accents on black/blue
- **UPC:** 811493015965, 811493012872, 689076356541, 811493012865, 689076356749

9. Warranty and Support

Minelab stands behind the quality of its products. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Minelab website. Keep your proof of purchase for warranty claims.
For technical assistance, spare parts, or service, please contact Minelab customer support through their official website or authorized service centers. Always provide your product model number (3303-0124) and serial number (if applicable) when seeking support.
Official Minelab Website: www.minelab.com