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## SUNPOW OT-MD14

# SUNPOW OT-MD14 Professional Metal Detector

User Manual

## 1. INTRODUCTION

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Thank you for choosing the SUNPOW OT-MD14 Professional Metal Detector. This device is designed for high-precision metal detection, featuring an advanced DSP chip, a large backlit LCD screen, and a waterproof search coil. This manual provides detailed instructions for assembly, operation, maintenance, and troubleshooting to ensure optimal performance and a rewarding treasure hunting experience.



Figure 1.1: SUNPOW OT-MD14 Metal Detector and included accessories.

## 2. SAFETY INFORMATION

- Always operate the metal detector in a safe environment, away from active electrical lines or hazardous areas.
- Do not attempt to open or modify the control box, as it is not waterproof and contains sensitive electronics.
- Ensure the search coil cable is securely connected and not damaged before use.
- Keep batteries out of reach of children. Dispose of batteries responsibly.
- Wear appropriate footwear and gloves when digging to avoid injury.

## 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- SUNPOW OT-MD14 Metal Detector Unit
- Waterproof Search Coil (30 cm)

- Adjustable Stem
- Control Box with LCD Display
- Armrest
- Headphones
- Shovel
- 9V Battery (1 included)
- User Manual

## 4. PRODUCT OVERVIEW AND COMPONENTS

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Familiarize yourself with the main components of your metal detector:

- **Control Box:** Houses the LCD display, control buttons, and electronic circuitry.
- **Stem:** The adjustable shaft connecting the control box to the search coil.
- **Search Coil:** The circular component that detects metal objects. This model features a 30cm IP68 waterproof coil.
- **Armrest:** Provides support and comfort during operation.
- **Handle:** Ergonomically designed for comfortable grip.



Figure 4.1: Adjustable stem, handle, and control box position for personalized use.

## 5. SETUP AND ASSEMBLY

Follow these steps to assemble your metal detector:

1. **Attach the Search Coil:** Connect the search coil to the lower stem using the provided bolt and knob. Ensure it is secure but allows for slight angle adjustment.
2. **Assemble the Stem:** Connect the middle stem to the lower stem, and then the upper stem (with the control box and armrest) to the middle stem. The quick-lock design allows for fast assembly.
3. **Adjust Length:** Loosen the quick-lock clamps and adjust the stem length to a comfortable position (adjustable from 48 cm to 150 cm). Tighten the clamps securely.

4. **Install Batteries:** Open the battery compartment on the control box and insert the 9V battery, observing the correct polarity. Close the compartment securely.
5. **Connect Coil Cable:** Wrap the search coil cable around the stem and plug the connector into the corresponding port on the control box. Ensure a snug fit.



Figure 5.1: The robust spiral structure and quick-lock design facilitate easy and stable assembly.

## 6. OPERATING INSTRUCTIONS

### 6.1 Powering On/Off

- To power on, press and hold the **POWER** button.

- To power off, press and hold the **POWER** button again until the display turns off.

## 6.2 LCD Display

The large backlit LCD screen provides clear information about detected targets, operating modes, sensitivity, and battery status. It is 2x larger for enhanced visibility in various lighting conditions.



Figure 6.1: The large, backlit LCD screen provides clear detection information.

## 6.3 Operating Modes

The OT-MD14 offers 5 distinct detection modes:

- **ALL METAL Mode:** Detects all types of metal objects. This mode offers the deepest detection depth.

- **DISC (Discrimination) Mode:** Allows you to eliminate unwanted metal targets (e.g., iron nails) and focus on valuable items.
- **JEWELRY Mode:** Optimized for finding jewelry, filtering out common trash metals.
- **MEMORY Mode:** Stores and focuses on specific metal types you've previously identified.
- **PP (Pinpoint) Mode:** Used to precisely locate the exact position of a detected target before digging.

Press the **MODE** button to cycle through the different detection modes.



Figure 6.2: Overview of the five detection modes and their functions.

## 6.4 Sensitivity and Volume Adjustment

- Use the **SENS** buttons (+/-) to adjust the detector's sensitivity. Higher sensitivity increases detection

depth but may also increase false signals.

- Use the **VOL** buttons (+/-) to adjust the audio volume of the target signals.

## 6.5 Target Identification

The LCD screen provides numerical target identification (VDI) values, helping you identify the type of metal detected before digging. Different metals will display different numerical ranges.



Figure 6.3: Numerical target identification values displayed on the LCD screen.

## 6.6 Waterproof Search Coil

The 30 cm search coil has an IP68 rating, making it fully waterproof for use in shallow water, beaches, and wet environments. **Note: The control box is NOT waterproof and must not be submerged.**



Figure 6.4: The IP68 waterproof search coil allows for detection in various wet conditions.

## 7. MAINTENANCE

- **Cleaning:** After each use, wipe down the detector with a damp cloth. For the search coil, rinse with fresh water if used in saltwater, then dry thoroughly.
- **Battery Care:** Remove the battery if the detector will not be used for an extended period to prevent leakage.
- **Storage:** Store the detector in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Cable Inspection:** Regularly check the search coil cable for any signs of wear or damage.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power	Dead battery; Incorrect battery installation	Replace battery; Reinstall battery with correct polarity
Erratic signals / False signals	High sensitivity; Electromagnetic interference; Mineralized ground	Reduce sensitivity; Move away from power lines/electronics; Use DISC mode
No detection / Weak signals	Low sensitivity; Coil not properly connected; Deep target	Increase sensitivity; Check coil cable connection; Sweep slower and closer to ground
LCD display not clear	Low battery; Extreme temperature	Replace battery; Operate within recommended temperature range

## 9. SPECIFICATIONS

Feature	Specification
Model Number	OT-MD14
Product Dimensions (L x W x H)	44 x 28.5 x 17 cm
Item Weight	2 Kilograms
Power Source	Battery Powered
Battery Type	1 x 9V Battery (included)
Material	Metal
Extended Length	150 cm (48"-150 cm adjustable)
International Protection Rating	IP68 (Search Coil only)
Recommended Product Uses	Metal Detection
Manufacturer	SUNPOW
Country of Origin	China

## 10. WARRANTY AND SUPPORT

SUNPOW products are manufactured to high-quality standards. For warranty information, technical support, or any questions regarding your OT-MD14 metal detector, please refer to the contact information provided on the product packaging or the official SUNPOW website. Please retain your proof of purchase for warranty claims.

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