PalliPartners 970B

PalliPartners 970B Waterproof Metal Detector User Manual

Model: 970B | Brand: PalliPartners

1. INTRODUCTION

The PalliPartners 970B Metal Detector is designed for both novice and experienced treasure hunters. Featuring a high-accuracy, waterproof search coil and an advanced DSP chip, this detector offers five distinct operation modes to help you efficiently locate various metals. Its intuitive LCD display provides clear information on detection mode, sensitivity, battery status, and volume. The adjustable stem and ergonomic design ensure comfortable use for adults and children alike, making it an ideal tool for exploring beaches, streams, backyards, and other outdoor environments.

Figure 1: PalliPartners Metal Detector in use, highlighting its treasure-hunting capabilities.

2. PACKAGE CONTENTS

Upon unboxing your PalliPartners 970B Metal Detector, please ensure all the following items are present:

- 1 x PalliPartners Metal Detector Unit (with 12-inch search coil)
- 1 x Carrying Bag
- 1 x Folding Shovel (more durable and strong)
- 1 x Headset (for private audio alerts)
- 2 x 9V Batteries
- 1 x User Manual

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Video 1: Unboxing and overview of the PalliPartners Metal Detector and its included accessories.

3. ASSEMBLY

Assembling your metal detector is a straightforward process. Follow these steps to get started:

1. **Attach the Search Coil:** Secure the 12-inch search coil to the lower stem using the provided bolt and knob. Ensure it is firmly attached but can still pivot.

2. **Connect the Lower and Middle Stems:** Slide the lower stem into the middle stem. Use the spring clip or button-lock mechanism to secure the connection.

3. **Attach the Control Box:** Connect the control box (with the armrest) to the upper stem. The cable from the search coil should be wrapped securely around the stem to prevent tangling.

4. **Insert Batteries:** Open the battery compartment on the control box and insert the two 9V batteries, observing the correct polarity. Close the compartment securely.

5. **Adjust Length:** Loosen the locking collar on the stem and adjust the length to a comfortable height. Tighten the collar to secure the stem. The adjustable stem ranges from 41.3 inches to 47.6 inches.

6. **Adjust Armrest:** Position the armrest for comfortable support during use.

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Video 2: Detailed assembly process of the metal detector, including connecting components and inserting batteries.

Figure 2: Comprehensive diagram of the metal detector's components and adjustable features.

4. CONTROLS AND DISPLAY

The PalliPartners 970B features an intuitive LCD display and easy-to-use controls:

Figure 3: LCD Display and Control Panel Overview.

- **Power Button:** Turns the detector ON/OFF.
- **Mode Button:** Cycles through the different detection modes.
- **SENS Button:** Adjusts sensitivity level.
- **PP (Pinpoint) Button:** Activates pinpoint mode for precise target location.
- **Up/Down Arrows:** Adjust settings like sensitivity, volume, or discrimination levels.
- **Volume/Light Button:** Adjusts audio volume and toggles the LCD backlight.

The LCD screen displays:

- **Detection Mode:** Indicates the currently selected operating mode.
- **Sensitivity Level:** Shows the current sensitivity setting.
- **Battery Condition:** Displays remaining battery life.
- **Volume Level:** Indicates the current audio volume.
- **Target ID:** Provides a numerical identification for detected metals.
- **Depth Indicator:** Estimates the depth of the detected object.

5. OPERATING MODES

The PalliPartners 970B offers five specialized operating modes for various detection needs:

Figure 4: Overview of the Five Operating Modes.

1. **All Metal Mode:** Detects all types of metal. This mode is ideal for general searching when you want to find any metallic object without discrimination.
2. **Disc (Discrimination) Mode:** Allows you to eliminate certain types of metal from detection. Use the Up/Down arrows to set the discrimination level and ignore unwanted metals like iron.
3. **Notch Mode:** Press the "NOTCH" button, then use the "+" or "-" buttons to select specific target categories to be eliminated. This provides more precise control over what the detector ignores.
4. **Memory Mode:** This mode allows the detector to "remember" a specific metal type you are searching for and focus on it, while eliminating others.
5. **Jewelry Mode:** Specifically designed to eliminate iron signals and primarily respond to other metals, making it suitable for finding jewelry.
6. **PP (Pinpoint) Mode:** Once a target is detected in another mode, press the PP button to narrow down the exact location of the object, helping you dig more efficiently.

Figure 5: Three Tone Audio Discrimination and Target ID.

6. ADJUSTING SETTINGS

Optimize your detection experience by adjusting the following settings:

- **Sensitivity:** Press the "SENS" button and use the Up/Down arrows to increase or decrease sensitivity. Higher sensitivity can detect smaller or deeper objects but may also pick up more interference.
- **Volume:** Press the Volume/Light button to cycle through volume levels or adjust using the Up/Down arrows. Use headphones for clearer audio signals in noisy environments.
- **Backlight:** Press and hold the Volume/Light button to toggle the LCD backlight ON/OFF, useful for low-light conditions.

7. DETECTION TECHNIQUES

Proper technique enhances detection accuracy and efficiency:

- **Sweep Motion:** Hold the search coil parallel to the ground, about 1-2 inches above the surface. Sweep

the coil slowly from side to side in overlapping arcs.

- **Overlap Sweeps:** Ensure each sweep overlaps the previous one by about half the coil's diameter to avoid missing targets.
- **Slow and Steady:** Move the coil at a consistent, slow pace. Rushing can cause you to miss signals.
- **Pinpointing:** Once a signal is detected, use the PP mode to narrow down the target's exact location before digging. Move the coil in a cross-pattern over the signal area.

Figure 6: Correct sweeping technique for optimal detection.

8. WATERPROOF FEATURES

The PalliPartners 970B is equipped with a 12-inch waterproof search coil, allowing for detection in shallow water, such as beaches and streams. The coil is sealed using ultrasonic heat fusion for durability.

- **Waterproof Coil:** The search coil can be submerged in water.
- **Important Note:** The control box is NOT waterproof. Avoid submerging the control box or exposing it to heavy rain.

Figure 7: Using the waterproof search coil in shallow water.

9. Maintenance and Care

To ensure the longevity and optimal performance of your metal detector, follow these maintenance guidelines:

- **Cleaning:** After each use, especially in sandy or muddy conditions, wipe down the search coil and stem with a damp cloth. Ensure the control box remains dry.
- **Storage:** Store the detector in a cool, dry place. If storing for an extended period, remove the batteries to prevent leakage. Use the provided carrying bag for protection during transport and storage.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the LCD screen. Always use fresh 9V batteries.
- **Cable Care:** Avoid sharp bends or excessive pulling on the search coil cable to prevent internal damage.

10. Troubleshooting

If you encounter issues with your PalliPartners 970B, try the following:

Problem	Possible Cause	Solution
No power/No display	Dead or incorrectly installed batteries.	Replace batteries with fresh 9V batteries. Ensure correct polarity.
Constant beeping/False signals	High sensitivity setting; electromagnetic interference; mineralized ground; nearby metal objects (jewelry, phone).	Reduce sensitivity. Move away from power lines or other electronic devices. Remove personal metal items. Try Disc or Notch mode.
Weak or inconsistent signals	Low battery; incorrect coil height; fast sweeping speed; deeply buried object.	Replace batteries. Keep coil 1-2 inches above ground. Sweep slower. Increase sensitivity.
Cannot pinpoint target accurately	Not using PP mode correctly; ground conditions.	Ensure PP mode is activated. Sweep slowly in a cross-pattern over the target area.

11. Specifications

Key technical specifications for the PalliPartners 970B Metal Detector:

- **Brand:** PalliPartners
- **Model Number:** 970B
- **Color:** Black & Blue
- **Material:** Metal, Plastic
- **Power Source:** Battery Powered (2 x 9V batteries)
- **Item Weight:** 2.8 Pounds
- **Product Dimensions:** 17"L x 5.5"W x 11"H (Control Box)
- **Extended Length:** 60.2 Inches

- **Adjustable Length:** Yes (41.3 to 47.6 inches)
- **International Protection Rating:** IP54 (Control Box not waterproof)
- **Operating Frequency:** 9 KHz
- **Search Coil Size:** 12 Inches (Waterproof)
- **Max Detection Depth:** Up to 8.7 inches (for coin-sized objects)
- **Display:** LCD with backlight
- **Modes:** All Metal, Disc, Notch, Memory, Jewelry, Pinpoint (PP)

Figure 8: Depth detection capabilities of the metal detector.

12. Safety Information

Please observe the following safety precautions:

- Avoid using the metal detector in thunderstorms or near power lines to prevent electrical shock.
- Do not operate the detector near active construction sites or areas with known underground utilities without proper clearance.
- Always be aware of your surroundings to prevent accidents.

- Do not attempt to open or modify the control box, as this may void the warranty and pose a safety risk.

13. WARRANTY AND SUPPORT

For any questions regarding your PalliPartners Metal Detector or metal detecting technicality, please feel free to contact PalliPartners customer support. Refer to your purchase documentation for specific warranty details and contact information.