

## CHIPEL TC-600

# CHIPEL TC-600 Professional Metal Detector Instruction Manual

Model: TC-600

## 1. INTRODUCTION

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Thank you for choosing the CHIPEL TC-600 Professional Metal Detector. This device is engineered for high-accuracy detection of various metal objects underground, making it ideal for treasure hunting and archaeological exploration. Operating at a 19.2KHZ frequency, it features a waterproof search coil for versatile use in different environments.

This manual provides detailed instructions for the proper assembly, operation, and maintenance of your TC-600 metal detector. Please read it thoroughly before use to ensure optimal performance and longevity of your device.

## 2. SAFETY INSTRUCTIONS

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**Always observe the following safety precautions to prevent injury or damage to the detector:**

- Do not operate the metal detector near live electrical lines or underground cables. Always check the area for potential hazards before digging.
- Use only the specified 9V battery. Ensure correct polarity when inserting the battery.
- Remove the battery if the detector will not be used for an extended period to prevent leakage and damage.
- Avoid exposing the control unit to extreme temperatures, direct sunlight for prolonged periods, or heavy rain. The search coil is waterproof, but the control unit is not.
- Keep the device out of reach of children.
- Handle the search coil and stem carefully to avoid bending or breaking.

## 3. PACKAGE CONTENTS

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Upon unpacking, please verify that all the following components are present:

- 1 x Host (Control Unit)
- 1 x Search Coil (Waterproof)
- 1 x Armrest
- 3 x Connecting Rods
- 1 x Protective Rain Cover for Control Unit



Image 3.1: All components of the CHIPEL TC-600 Metal Detector.

## 4. ASSEMBLY AND SETUP

### 4.1. Assembling the Detector

1. **Attach the Search Coil:** Connect the search coil to the lower connecting rod. Ensure it is securely fastened.
2. **Connect Rods:** Join the three connecting rods together. The length can be adjusted later.
3. **Mount the Control Unit:** Attach the control unit (host) to the upper connecting rod.
4. **Install the Armrest:** Secure the armrest to the upper part of the stem for comfortable operation.
5. **Connect Cables:** Carefully route the cable from the search coil up the stem and plug it into the control unit. Ensure the connection is firm.
6. **Adjust Stem Length:** Adjust the stem length to a comfortable height (500mm to 1200mm / 20.0 to 47.2 inches) for your posture.

## FEATURES



Image 4.1: Key components and adjustable features of the detector.

### 4.2. Battery Installation

The TC-600 requires one 9V battery (not included). Locate the battery compartment on the control unit, open it, insert the 9V battery observing the correct polarity (+/-), and close the compartment securely.

## 5. OPERATING INSTRUCTIONS

### 5.1. Power On/Off

Press and hold the power button on the control unit to turn the detector on or off. The backlight will illuminate upon power-on.

### 5.2. Operating Modes

- **All Metal Mode:** This mode is highly sensitive and designed to detect all types of metal objects in the ground. It is generally used for initial scanning of an area to ensure no targets are missed.
- **Discrimination Mode:** In this mode, the detector can differentiate between various types of metals and "eliminate" certain unwanted metals (e.g., iron trash). The detector will emit different tones for different metal types, allowing you to focus on specific targets.
- **Pinpointing Mode:** Pinpointing is crucial for accurately locating a buried object. Once a target is detected, switch to pinpointing mode to narrow down its exact position, which helps in precise

excavation.

### 5.3. Ground Balancing

Ground Balancing is the detector's ability to ignore or "see through" naturally occurring ground minerals. This prevents false signals from mineralized soil and ensures that only metal objects are detected. The TC-600 offers a ground balancing range of 0-99.9 in all metal mode. Refer to the on-screen display and specific controls for adjusting ground balance in your detection environment.

### 5.4. Gain Adjustment

The gain setting (1-100 adjustable in all metal mode) controls the detector's sensitivity. Increasing the gain can improve detection depth, but may also increase susceptibility to electrical interference or ground mineralization. Adjust the gain to the highest stable setting for your specific search conditions.



*Image 5.1: The waterproof search coil allows for detection in shallow water up to 40 inches (100 cm).*

## 6. MAINTENANCE

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- **Cleaning:** After each use, wipe down the detector with a damp cloth. Avoid using abrasive cleaners or solvents. Ensure the control unit is dry before storage.
- **Battery Care:** Always remove the 9V battery if the detector will not be used for more than a week.

This prevents battery leakage which can damage the electronics.

- **Storage:** Store the detector in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Cable Inspection:** Periodically check the search coil cable for any signs of wear or damage.

## 7. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Detector does not power on.	Dead or incorrectly installed battery.	Replace the 9V battery with a fresh one. Check battery polarity.
False signals or erratic behavior.	High ground mineralization, electrical interference, or high sensitivity.	Perform ground balance. Reduce gain setting. Move away from power lines or other electronic devices.
Poor detection depth.	Low sensitivity (gain), incorrect ground balance, or small/deep target.	Increase gain setting (if stable). Re-ground balance. Ensure proper sweep technique.
No sound from detector.	Volume too low, faulty headphones (if used), or internal issue.	Check volume settings. Test with/without headphones. If problem persists, contact support.

## 8. SPECIFICATIONS

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- **Model:** TC-600
- **Material:** ABS
- **Color:** Black
- **Backlight:** Yes
- **Battery:** 1 x 9V battery (not included)
- **Working Frequency:** 19.2KHZ
- **Height Adjustment Range:** 500mm ~ 1200mm (20.0 ~ 47.2 inches)
- **Ground Balancing:** 0 ~ 99.9 (in All Metal Mode)
- **Gain:** 1 ~ 100 adjustable (in All Metal Mode)
- **Search Coil:** 11-inch DD oval, waterproof
- **Product Weight:** Approximately 1.7 kg (3.7 lb)
- **Package Dimensions:** 54.5 x 24.5 x 10 cm (21.5 x 9.6 x 3.9 inches)



Image 8.1: Detailed dimensions of the CHIPEL TC-600 Metal Detector.

## 9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided at the time of purchase or contact your retailer/seller directly. Specific warranty terms may vary by region and seller.