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TOTAL TMT460013

TOTAL TMT460013 Digital Multimeter User Manual

Model: TMT460013

1. Introduction

Thank you for choosing the TOTAL TMT460013 Digital Multimeter. This device is designed for safe and accurate measurement of various electrical parameters, including AC/DC voltage, DC current, resistance, and continuity. It is an essential tool for electricians, technicians, and hobbyists for electrical testing and troubleshooting. Please read this manual thoroughly before use to ensure proper operation and safety.

2. Safety Information

Always adhere to basic safety precautions when using this multimeter to reduce the risk of fire, electric shock, or personal injury. Failure to follow these instructions can result in severe injury or damage to the device.

- **Do not** exceed the maximum input values specified for each measurement range.
- **Do not** use the multimeter if it appears damaged or if the test leads are compromised.
- **Always** ensure the test leads are correctly connected to the appropriate input jacks for the desired measurement.
- **Never** attempt to measure voltage on a circuit with the function switch set to current, resistance, or continuity mode.
- **Be cautious** when working with voltages above 30V AC RMS, 42V peak, or 60V DC, as these pose a shock hazard.
- **Remove** the test leads from the circuit before changing the function switch position.
- **Replace** the battery immediately when the low battery indicator appears to ensure accurate readings.
- **Adhere** to local and national safety codes.

3. Product Overview

The TOTAL TMT460013 Digital Multimeter is a compact and robust device designed for various electrical measurements. Its intuitive interface and clear display make it easy to use for both professionals and DIY enthusiasts.



Figure 1: Front view of the TOTAL TMT460013 Digital Multimeter, showing the LCD display, function buttons, and input terminals.

Controls and Display

- **LCD Display:** Shows measurement readings, units, and function indicators.
- **Power Button (Red):** Press to turn the multimeter ON or OFF.
- **SMART FUNC Button (Green):** Cycles through different measurement functions within a mode (e.g., AC/DC voltage, resistance/continuity).
- **HOLD Button (Blue):** Freezes the current reading on the display. Press again to release.
- **Input Jacks:** Terminals for connecting test leads (COM, VΩmA).

4. Setup

4.1 Battery Installation

The multimeter is powered by internal batteries. Ensure batteries are correctly installed before first use or when replacing them.

1. Turn off the multimeter by pressing the Power button.
2. Locate the battery compartment cover on the back of the unit.

3. Use a screwdriver to loosen the screw(s) securing the cover.
4. Remove the cover and insert the batteries, observing correct polarity (+ and -).
5. Replace the battery compartment cover and tighten the screw(s).

4.2 Connecting Test Leads

Proper connection of test leads is crucial for accurate and safe measurements.

1. Insert the black test lead into the **COM** (Common) input jack.
2. Insert the red test lead into the **VΩmA** input jack for voltage, resistance, or current measurements.
3. Ensure connections are firm before proceeding with any measurements.

5. Operating Instructions

5.1 Powering On/Off

Press the red Power button once to turn the multimeter ON. Press and hold the Power button for a few seconds to turn it OFF.

5.2 Selecting Measurement Functions

The TMT460013 features an auto-ranging function, simplifying measurement selection. The device will automatically detect the type of measurement (AC/DC voltage, resistance, continuity) when the leads are connected. Use the **SMART FUNC** button to cycle between specific functions if needed (e.g., between AC and DC voltage, or resistance and continuity).

5.3 Taking Measurements

- **Voltage Measurement (AC/DC):**

Connect the test leads in parallel to the circuit or component you wish to measure. The multimeter will automatically detect AC or DC voltage.

- **Resistance Measurement:**

Ensure the circuit is de-energized before measuring resistance. Connect the test leads across the component.

- **Continuity Test:**

Ensure the circuit is de-energized. Connect the test leads across the component or wire. A low resistance (typically less than 50Ω) will indicate continuity, often accompanied by an audible beep.

- **DC Current Measurement:**

WARNING: To measure current, the multimeter must be connected in series with the circuit. Ensure the circuit is de-energized before connecting the multimeter. Break the circuit, then connect the red lead to the higher potential side and the black lead to the lower potential side.

5.4 Data Hold Function

Press the blue **HOLD** button to freeze the current reading on the display. This is useful for recording measurements in difficult-to-read locations. Press the button again to release the hold and resume live readings.

6. Maintenance

6.1 Cleaning

Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the device is completely dry before use.

6.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries as described in Section 4.1. Always use the specified battery type.

6.3 Storage

If the multimeter is not used for an extended period, remove the batteries to prevent leakage and damage. Store the device in a cool, dry place away from direct sunlight and extreme temperatures.

7. Troubleshooting

Refer to the table below for common issues and their solutions.

Problem	Possible Cause	Solution
No display or dim display	Low or dead batteries; Incorrect battery installation	Replace batteries; Check battery polarity
Incorrect readings	Incorrect function selected; Poor test lead connection; Damaged test leads	Ensure correct function; Check lead connections; Replace damaged leads
No continuity beep	Circuit not continuous; Multimeter not in continuity mode	Check circuit for breaks; Select continuity function using SMART FUNC button
Multimeter does not respond	Internal fault; Completely drained battery	Replace batteries; Contact customer support if issue persists

8. Specifications

Key technical specifications for the TOTAL TMT460013 Digital Multimeter.

Feature	Detail
Manufacturer	Total
Model Number	TMT460013
Measurement Type	Multimeter
Power Source	Battery Powered
Item Weight	209 g (0.21 Kilograms)
Product Dimensions	10 x 20 x 37 cm
Color	Turquoise
Safety Standards	UL 61010-1, IEC 61010-2-030
ASIN	B09QZWHFNR
GTIN	06941639846475

9. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official TOTAL Tools website. Keep your purchase receipt as proof of purchase for any warranty claims.