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BTMETER BT-570CAPP

BTMETER Digital Clamp Multimeter BT-570S-APP User Manual

Model: BT-570CAPP | Brand: BTMETER

1. Introduction

This manual provides instructions for the safe and effective operation of the BTMETER Digital Clamp Multimeter, model BT-570S-APP. This True-RMS clamp meter is designed for professional and home use, offering a wide range of measurement capabilities including AC/DC voltage, AC/DC current, resistance, capacitance, frequency, temperature, diode, and continuity tests. It also features Non-Contact Voltage (NCV) detection and Bluetooth connectivity for app-based data monitoring and logging.

2. SAFETY INFORMATION

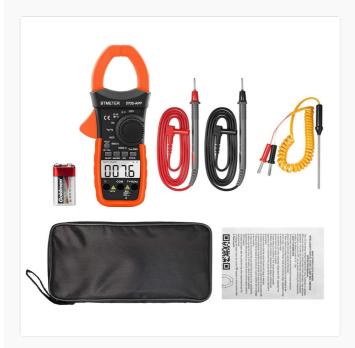
Always adhere to basic safety precautions when using this product to reduce the risk of fire, electric shock, or personal injury. Read all instructions before use.

- Do not exceed the maximum input values specified for each measurement range.
- Ensure the test leads are properly connected and the function switch is set to the correct range before making measurements.
- Exercise extreme caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Before measuring current, ensure the circuit is de-energized and the clamp jaws are properly closed around a single conductor.
- Do not operate the meter if it appears damaged or if the test leads are damaged.
- Replace the battery immediately when the low battery indicator appears to ensure accurate readings.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, contact

BTMETER customer support.



The image displays the complete package contents for the BTMETER BT-570S-APP. This includes the main clamp multimeter unit, a pair of red and black test leads, a yellow temperature probe, a 9V battery, a small screwdriver for battery compartment access, a black zippered carrying case, and the user manual.

- 1 x BTMETER BT-570S-APP Digital Clamp Multimeter
- 1 x Pair of Test Leads (Red and Black)
- 1 x K-Type Temperature Probe
- 1 x 9V Battery (6F22)
- 1 x Small Screwdriver
- 1 x Carrying Case
- 1 x User Manual

4. PRODUCT OVERVIEW

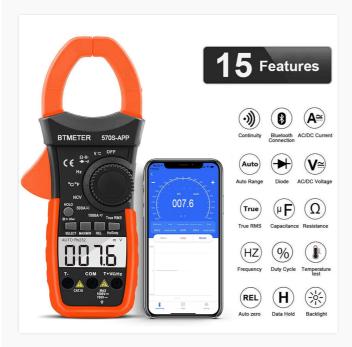
The BTMETER BT-570S-APP is a versatile clamp multimeter designed for various electrical measurements. Familiarize yourself with its components and features.



This image provides a detailed breakdown of the multimeter's physical features. It shows the large LCD display capable of 6000 counts, the 26mm opening clamp jaws for non-contact current measurement, the central rotary switch for function selection, and the double insulation design for enhanced safety. The overall dimensions of the device are also indicated: 225mm (8.8in) length, 77mm (3.0in) width, and 45mm (1.7in) height.

Key Features:

- LCD Display: 6000 counts digital display with full function symbol indication.
- Clamp Jaws: Opens up to 26mm to enclose conductors for current measurement.
- Rotary Switch: Used to select desired measurement functions and ranges.
- Double Insulation Design: Provides enhanced protection during operation.
- Test Lead Ports: COM, VΩHzT+ for connecting test leads and temperature probe.
- Function Buttons: SELECT, MAX/MIN, REL, Hz/Duty, HOLD.
- NCV Sensor: For non-contact voltage detection.



This graphic illustrates 15 distinct features of the BT-570S-APP. These include Continuity testing, Bluetooth connectivity, AC/DC Current measurement, Auto Ranging, Diode testing, AC/DC Voltage measurement, True RMS

capability, Capacitance measurement, Resistance measurement, Frequency measurement, Duty Cycle measurement, Temperature testing, Relative Value (REL) function for auto zero, Data Hold, and Backlight for the display.

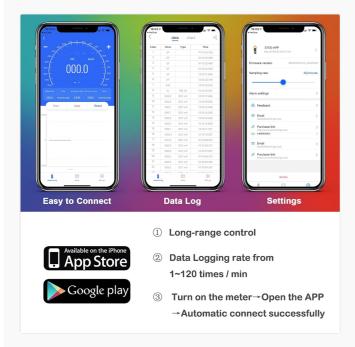
5. SETUP

5.1 Battery Installation

- 1. Locate the battery compartment cover on the back of the multimeter.
- 2. Use the provided screwdriver to loosen the screw securing the cover.
- 3. Remove the cover and insert the 9V battery, observing the correct polarity (+/-).
- 4. Replace the battery compartment cover and tighten the screw.

5.2 App Download and Bluetooth Connection

The BT-570S-APP features Bluetooth connectivity for remote monitoring and data logging via a dedicated mobile application.



This image illustrates the mobile application's interface, highlighting its ease of connection, data logging capabilities, and settings menu. It also shows icons for downloading the app from the Apple App Store and Google Play Store, indicating cross-platform compatibility. The app allows for long-range control, data logging rates from 1-120 times/min, and automatic connection upon opening the app with the meter turned on.

- 1. Download the customized BTMETER app from the Google Play Store (for Android) or the Apple App Store (for iOS). Search for "BTMETER" or refer to the QR code in the physical manual.
- 2. Ensure Bluetooth is enabled on your smartphone.
- 3. Turn on the BT-570S-APP multimeter by rotating the switch from OFF to any measurement function.
- 4. Open the BTMETER app on your phone. The app should automatically detect and connect to the multimeter.
- 5. Once connected, you can monitor live readings, view maximum/minimum/average values, graph data, record, save, and export measurements directly from the app.



This image highlights the Smart Mobile APP Connection feature, showing the BT-570S-APP multimeter wirelessly connected to a smartphone. The phone's screen displays real-time measurement data, demonstrating the app's capability to display and record maximum/minimum/average values, as well as save and export data for further analysis. The connection range is indicated as 0-15 meters.

6. OPERATING INSTRUCTIONS

6.1 General Operation

- 1. Turn the rotary switch to the desired measurement function.
- 2. The meter features auto-ranging, automatically selecting the appropriate range for the measurement.
- 3. Connect the test leads or position the clamp jaws as required for the specific measurement.
- 4. Read the measurement value on the LCD display.
- 5. To turn off the meter, rotate the switch to the "OFF" position.

6.2 Measurement Functions



This banner image titled 'Multimeter Functions' visually represents the diverse measurement capabilities of the device. It includes small illustrative images for DC Voltage, AC Voltage, DC Current, AC Current, Resistance, Capacitance, Frequency, and Continuity, demonstrating the meter's comprehensive functionality.

- AC/DC Voltage (V~ / V—): Insert test leads into COM and VΩHzT+ ports. Select V~ or V— on the rotary switch. Connect leads in parallel to the circuit.
- AC/DC Current (A~ / A—): Rotate the switch to A~ or A—. Open the clamp jaws and enclose a single conductor. Ensure the jaws are fully closed. Do not use test leads for current measurement via clamp.
- Resistance (Ω): Insert test leads into COM and VΩHzT+ ports. Select Ω on the rotary switch. Connect leads
 across the component to be measured. Ensure the circuit is de-energized.
- Capacitance (F): Insert test leads into COM and VΩHzT+ ports. Select F on the rotary switch. Connect leads across the capacitor. Ensure the capacitor is discharged before measurement.
- Frequency (Hz) / Duty Cycle (%): Insert test leads into COM and VΩHzT+ ports. Select Hz on the rotary

switch. Connect leads to the signal source. Press the Hz/Duty button to toggle between frequency and duty cycle.

Temperature (°C/°F): Insert the K-type temperature probe into the COM and VΩHzT+ ports, observing
polarity. Select °C/°F on the rotary switch. The display will show the ambient temperature. Place the probe tip
on or in the object to measure its temperature.



This image shows the BT-570S-APP multimeter actively measuring temperature. A K-type temperature probe is immersed in a blue liquid within a beaker, and the multimeter's display shows a reading of -02.72 °C. This demonstrates the device's capability for precise temperature measurement.

- **Diode Test** (→|): Insert test leads into COM and VΩHzT+ ports. Select Diode on the rotary switch. Connect the red lead to the anode and the black lead to the cathode of the diode.
- Continuity Test (**): Insert test leads into COM and VΩHzT+ ports. Select Continuity on the rotary switch. If the resistance is below approximately 50Ω, the buzzer will sound.
- Non-Contact Voltage (NCV): Rotate the switch to NCV. Move the NCV sensor area of the meter close to the conductor. If AC voltage is detected, the LED indicator will flash, and the buzzer will sound. The intensity of the alarm increases with voltage strength.



This image demonstrates the Non-Contact Voltage (NCV) detection feature. The BT-570S-APP multimeter is

shown with its NCV detection area near an electrical outlet. Visual cues (flashing 'bi' text) and an audible alarm (represented by sound waves) indicate the presence of AC voltage without direct contact. The 45mm jaws support measuring AC voltage from 90 to 1000V without contacting the wires.

6.3 Special Functions

• Data Hold (HOLD): Press the "HOLD" button to freeze the current reading on the display. Press again to release.



This image highlights the 'Backlight & Data Hold' features. Pressing the "HOLD" key briefly freezes the reading on the display for easy recording. Pressing the "HOLD" key for more than 2 seconds activates the LCD backlight, improving visibility in low-light conditions.

- **Backlight:** Press and hold the "HOLD" button for more than 2 seconds to turn on the LCD backlight. Press and hold again to turn it off.
- Relative Value (REL): Press the "REL" button to zero out the current reading, allowing subsequent
 measurements to be displayed as a relative difference from that reference point. Press again to exit relative
 mode.
- Maximum/Minimum (MAX/MIN): Press the "MAX/MIN" button to enter MAX/MIN recording mode. The meter will display the maximum value measured. Press again to cycle through minimum value and exit.



This image illustrates the 'Auto Zero & MAX/MIN Mode' functions. The "REL" (relative value) key allows users to zero out a reading before measurement. The "MAX/MIN" key records and displays the maximum or minimum measured values, aiding in diagnosing problems and improving troubleshooting efficiency.

7. MAINTENANCE

7.1 Cleaning

Wipe the meter with a damp cloth and mild detergent. Do not use abrasives or solvents. Keep the meter dry.

7.2 Battery Replacement

When the low battery indicator appears on the display, replace the 9V battery as described in the "Battery Installation" section (5.1). Remove the battery if the meter is not used for an extended period.

8. TROUBLESHOOTING

- No display or erratic readings: Check battery level and replace if necessary. Ensure test leads are properly connected.
- **Bluetooth connection issues:** Ensure the meter is turned on and within range of your smartphone. Restart the app and the meter. Check phone's Bluetooth settings.
- **Inaccurate readings:** Verify the correct function and range are selected. Check for damaged test leads. Ensure proper contact with the circuit.
- NCV not detecting voltage: Ensure the NCV sensor area is close to the live conductor. The NCV function is
 designed for AC voltage only.

9. SPECIFICATIONS

Parameter	Value
Model Number	BT-570CAPP
Display	6000 Counts
DC Voltage Range	0.1mV ~ 1000V
AC Voltage Range	1mV ~ 750V
DC & AC Current Range	100mA ~ 1000A
Resistance Range	$0.1\Omega \sim 60 M\Omega$
Capacitance Range	1pF ~ 60mF
Frequency Range	0.001 ~ 9.999MHz
Temperature Range	-4 ~ 1832°F (°C/°F Optional)
Jaw Opening	45mm
Power Source	9V Battery
Item Weight	45 Grams
Package Dimensions	10.16 x 4.96 x 2.24 inches
Connectivity	Bluetooth (App for Android/iOS)
Special Features	True-RMS, Auto Ranging, NCV, Data Hold, Backlight, REL, MAX/MIN

10. WARRANTY AND SUPPORT

BTMETER provides a 12-month quality warranty for the BT-570S-APP Digital Clamp Multimeter. Life-time technical support is also available.

For technical assistance, warranty claims, or any product-related inquiries, please contact BTMETER customer service through the contact information provided in your product packaging or on the official BTMETER website.

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Related Documents - BT-570CAPP



<u>Digital Multimeter Operator's Manual - BTMETER BT-39K</u>

Operator's manual for the BTMETER BT-39K Digital Multimeter, detailing its features, specifications, operating instructions, safety precautions, and maintenance.



6000 Digits Clamp Multimeter Operation Manual

Operation manual for the 6000 Digits AC/DC Auto Cal Clamp Multimeter, detailing safety information, specifications, measuring instructions, and maintenance.



BTMETER BT-570CAPP Bluetooth Connection Guide

Step-by-step instructions for connecting the BTMETER BT-570CAPP clamp meter to your smartphone via Bluetooth.



Intelligent Digital Multimeter Operator's Manual - BTMETER BT-90EPD

Comprehensive operator's manual for the BTMETER BT-90EPD Intelligent Digital Multimeter. Covers detailed specifications, safety guidelines, operating instructions for measuring voltage, current, resistance, capacitance, frequency, duty cycle, temperature, and battery testing. Features include a 4000-count LCD, auto/manual ranging, auto backlight, and Bluetooth connectivity for mobile app data logging and analysis.



BTMETER BT-1500 Quick Start Guide

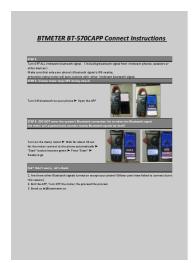
A quick start guide for the BTMETER BT-1500 infrared thermometer, covering battery installation, basic operation, and display interpretation.



BTMETER BT-1500 Non-Contact Infrared Thermometer User Manual

User manual for the BTMETER BT-1500 non-contact infrared thermometer, covering its introduction, how it works, safety warnings, quick start guide, maintenance procedures, and detailed specifications.

Documents - BTMETER - BT-570CAPP



BTMETER BT-570CAPP Bluetooth Connection Guide

Step-by-step instructions for connecting the BTMETER BT-570CAPP clamp meter to your smartphone via Bluetooth.

lang:en score:47 filesize: 436.95 K page_count: 1 document date: 2019-05-24



[pdf] Instructions

Administrator BTMETER BT 570CAPP Connect InstructionsSTEP 1 Turn OFF ALL irrelevant bluetooth signal Including from phones speakers or other devices81qm35OVLrLm media amazon images I 81qm35OVLrL |||

BTMETER **BT-570CAPP** Connect Instructions STEP 1: Turn OFF ALL irrelevant bluetooth signal. Including bluetooth signal from irrelevant phones, speakers or other devices. Make sure that only your phone s Bluetooth signal is ON nearby, otherwise clamp meter will auto connect with other irrelevant blueto...

lang:en score:45 filesize: 436.95 K page_count: 1 document date: 2019-05-24