MS-BDTP1A

MEET Pen Type Smart Multimeter MS-BDTP1A User Manual

Model: MS-BDTP1A | Brand: MEET

1. Introduction

The MEET Pen Type Smart Multimeter is designed for accurate and safe electrical measurements. This device is suitable for both professional and DIY applications, offering features such as auto-ranging voltage measurement, resistance, diode, and continuity testing. It also includes Non-Contact Voltage (NCD) detection and Single Probe Test (SPT) for enhanced utility. The multimeter features Bluetooth connectivity for real-time data transmission to a smartphone or tablet application.

2. Package Contents

Verify that all items listed below are present in your package:

- 1 x Digital Multimeter Detector with attached Test Lead
- 1 x Operating Manual (this document)
- 2 x 1.5V Batteries (L1154/LR44/AG13)

3. Product Features

- **Smart Multimeter with TX Function:** Connects to Android/iOS apps for real-time measurement data viewing and recording.
- **Auto-Ranging:** Automatically selects the correct range for DC/AC voltage, resistance, and continuity measurements.
- **High Efficiency Single Probe Test (SPT):** Patented numerical digital display for AC voltage in a circuit, improving measurement efficiency.
- **Multiple Functions:** Measures AC/DC 300V voltage, continuity, resistance, diode, Non-Contact AC (NCD), and Single Probe Test AC (SPT).
- **Enhanced Safety:** Features 250V Anti-Burn Protection, dual insulation, and overload protection, meeting CAT III 300V safety standards.
- **Display and Power:** Digital display with backlight for dimly lit areas, 'OL' over-range display, low battery warning.
- **Convenience:** Software calibrated, Freeze/Hold reading function, and auto power-off after 5 minutes of inactivity (can

be set to always 'On').

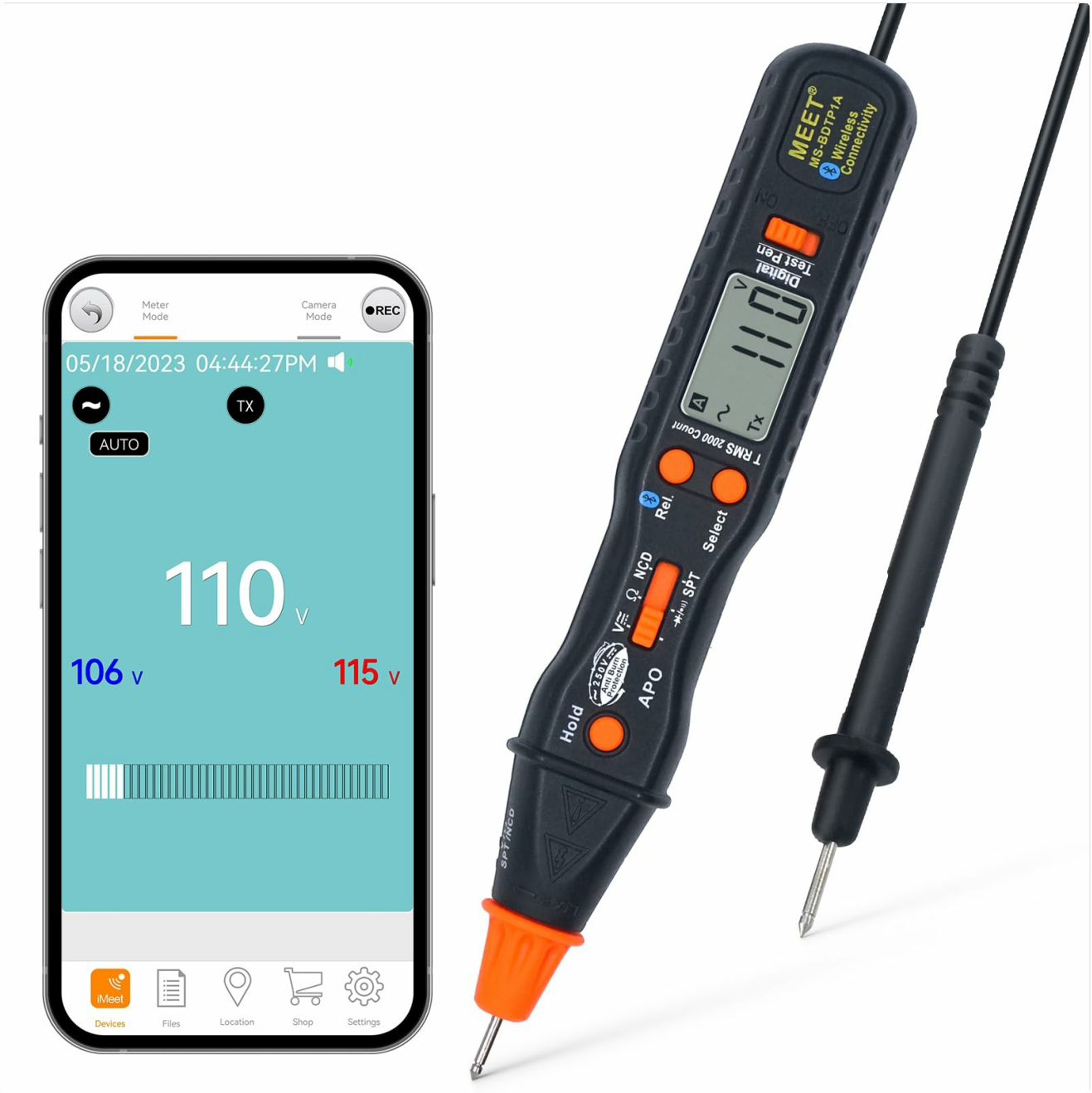

Figure 1: Overview of the MEET Pen Type Smart Multimeter and its core functions, including AC/DC Voltage, Resistance, Diode, Continuity, NCD, SPT, Data Hold, and Bluetooth integration.

4. Setup

4.1 Battery Installation

1. Locate the battery compartment cover on the back of the multimeter.
2. Use a small screwdriver to open the battery compartment.
3. Insert the two 1.5V (L1154/LR44/AG13) batteries, ensuring correct polarity (+/-).
4. Replace the battery compartment cover and secure it with the screw.

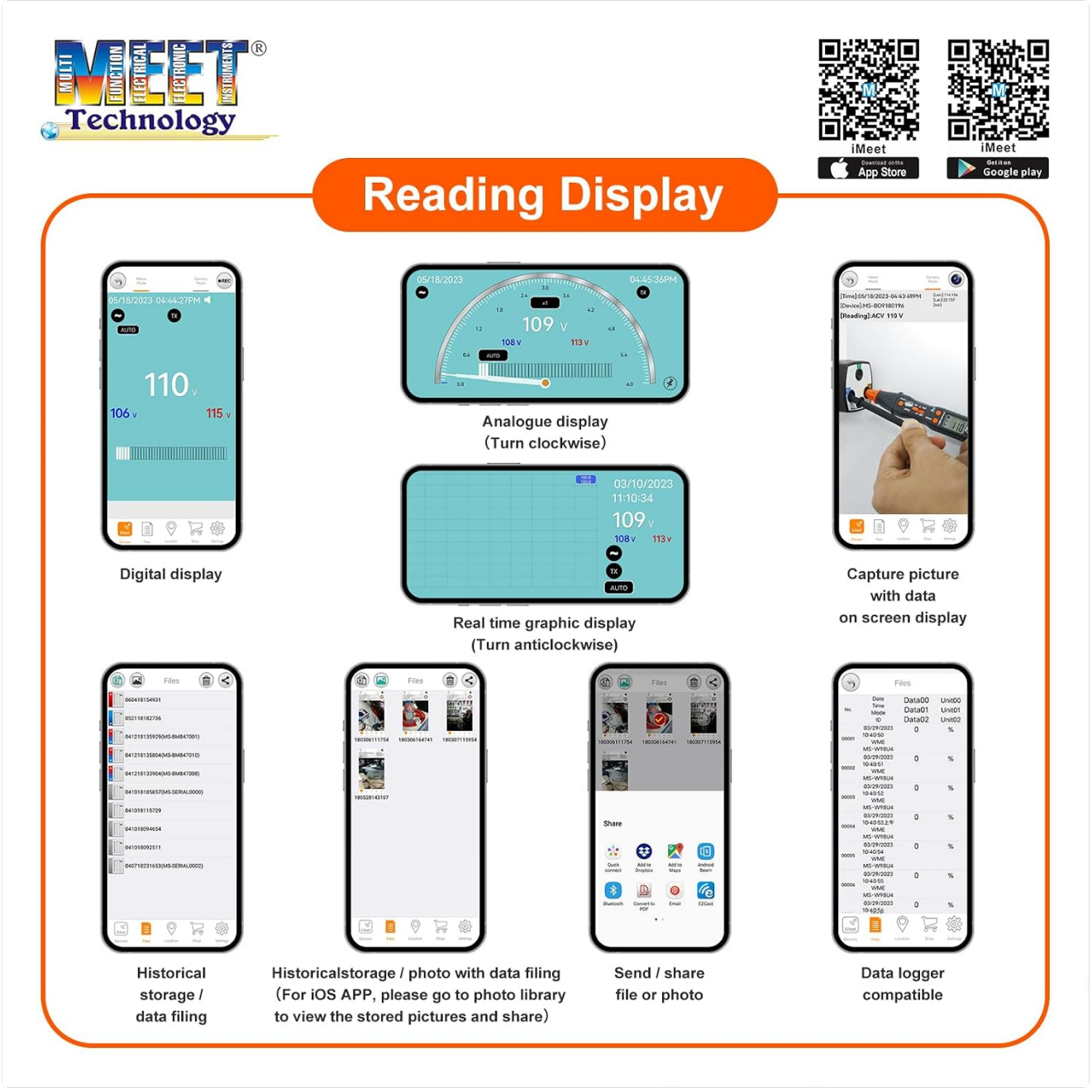

Figure 2: Illustration of the battery compartment for installing 1.5V batteries.

4.2 App Download and Bluetooth Connection

1. Scan the QR code provided in the physical manual (or search for the "MEET Multimeter" app) to download the companion application for your iOS or Android smartphone/tablet.
2. Ensure Bluetooth is enabled on your smart device.
3. Turn on the multimeter. The Bluetooth indicator on the multimeter display will activate.
4. Open the MEET Multimeter app on your smart device and follow the in-app instructions to pair with the multimeter. The connection range is approximately 15 meters.

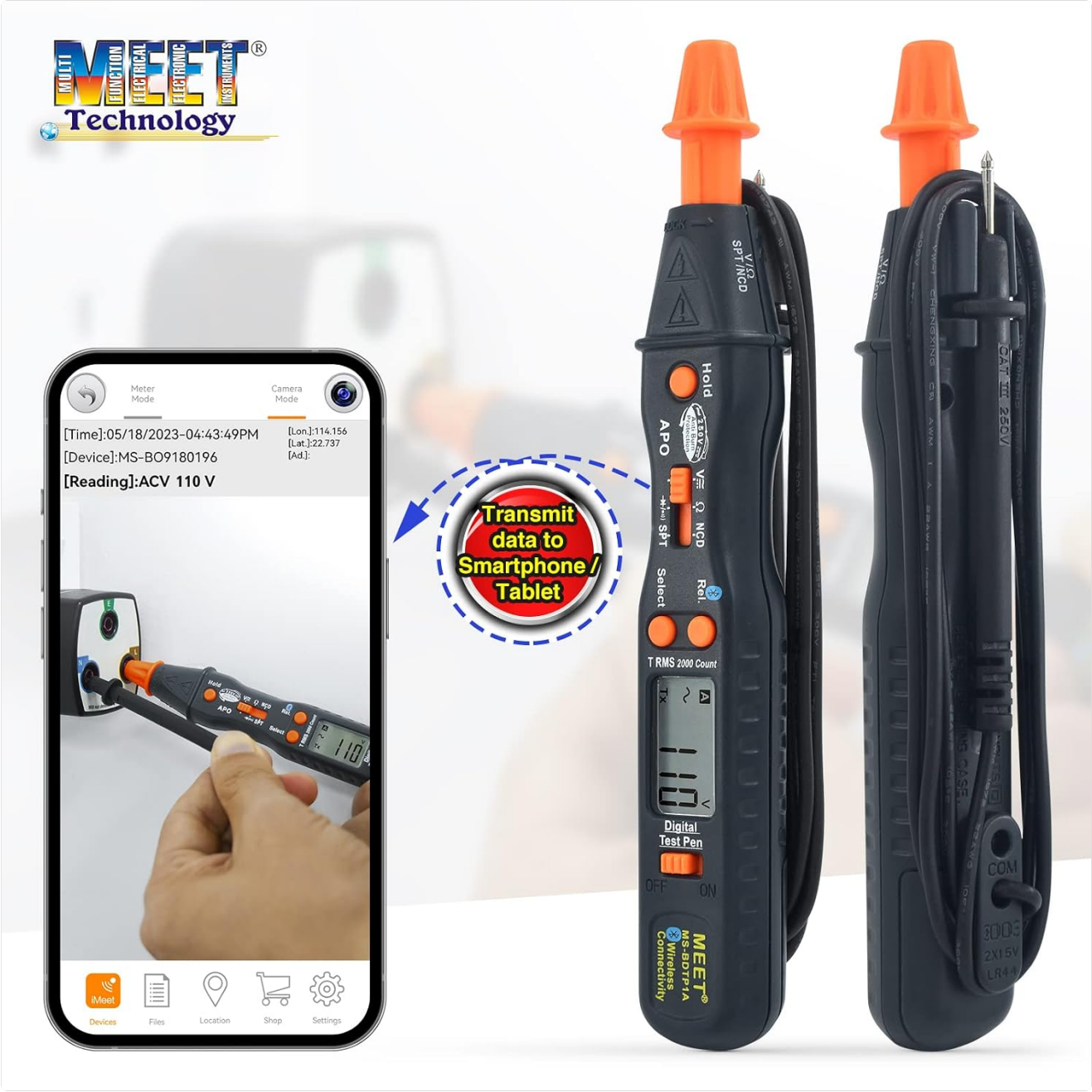

Figure 3: The multimeter transmitting data wirelessly to a smartphone application.

5. Operating Instructions

Before operation, ensure the multimeter is powered on. The device features auto-ranging for most measurements, simplifying usage.

5.1 Power On/Off

- To power on, slide the switch to the 'ON' position.
- The device will automatically power off after 5 minutes of inactivity to conserve battery. This feature can be disabled if continuous operation is required.
- To manually power off, slide the switch to the 'OFF' position.

5.2 Measuring AC/DC Voltage

1. Ensure the multimeter is in the voltage measurement mode (indicated by 'V' on the display). The device automatically detects AC or DC voltage.
2. Connect the test lead to the circuit or component you wish to measure.
3. Read the voltage value displayed on the screen.

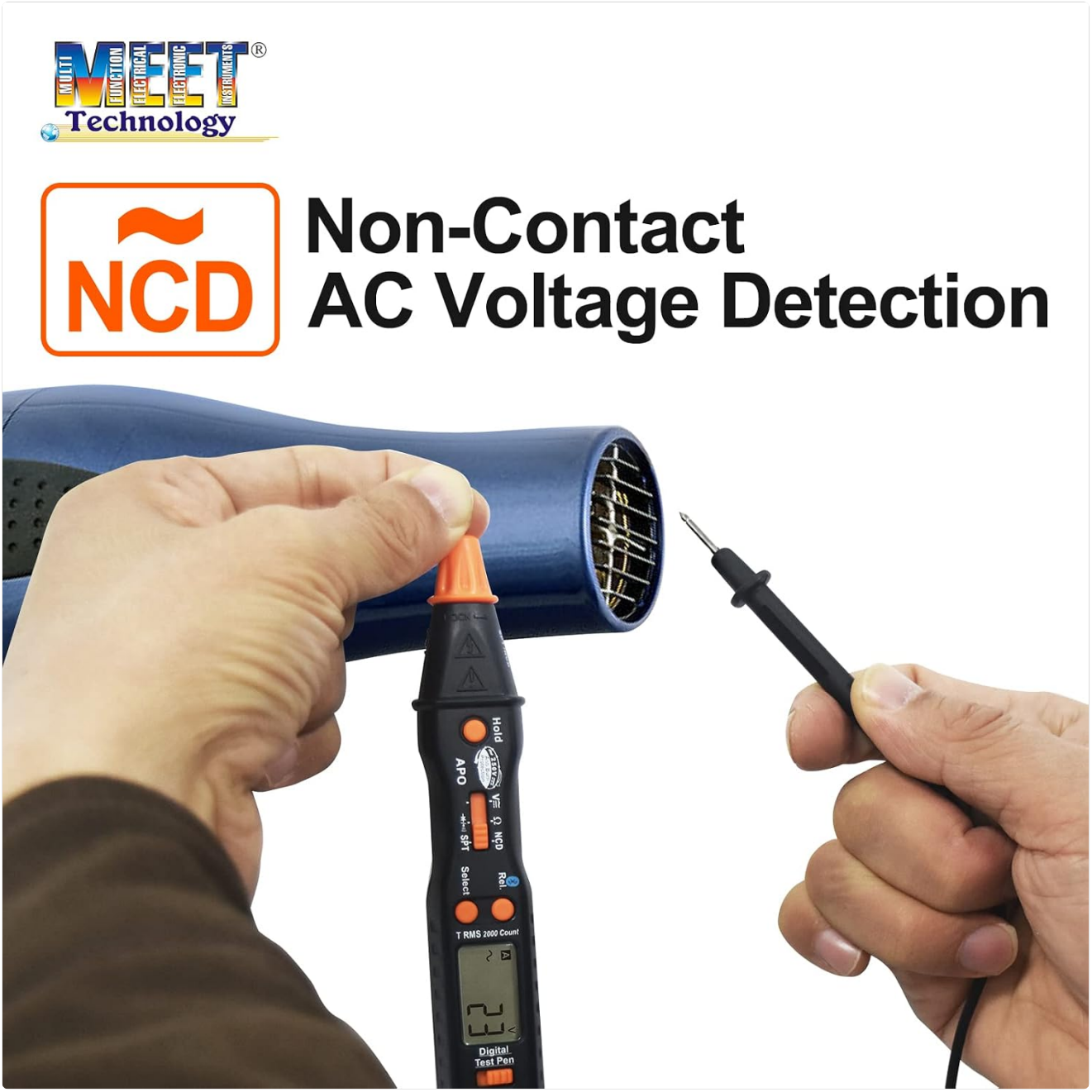

Figure 4: The multimeter displaying a voltage measurement, indicating 109V.

5.3 Resistance, Diode, and Continuity Testing

1. Press the 'Select' button to cycle through Resistance (Ω), Diode (→|), and Continuity (•))) modes.
2. For resistance, connect the test lead across the component. The resistance value will be displayed.
3. For diode testing, connect the test lead across the diode. The forward voltage drop will be displayed.
4. For continuity, connect the test lead across the circuit. A buzzer will sound if continuity is detected (typically below 50Ω).

5.4 Non-Contact AC Detection (NCD)

1. Select the NCD mode.
2. Bring the tip of the multimeter close to an AC voltage source (e.g., a live wire).

3. The device will indicate the presence and strength of the AC signal (typically for voltages >25V AC) without direct contact.

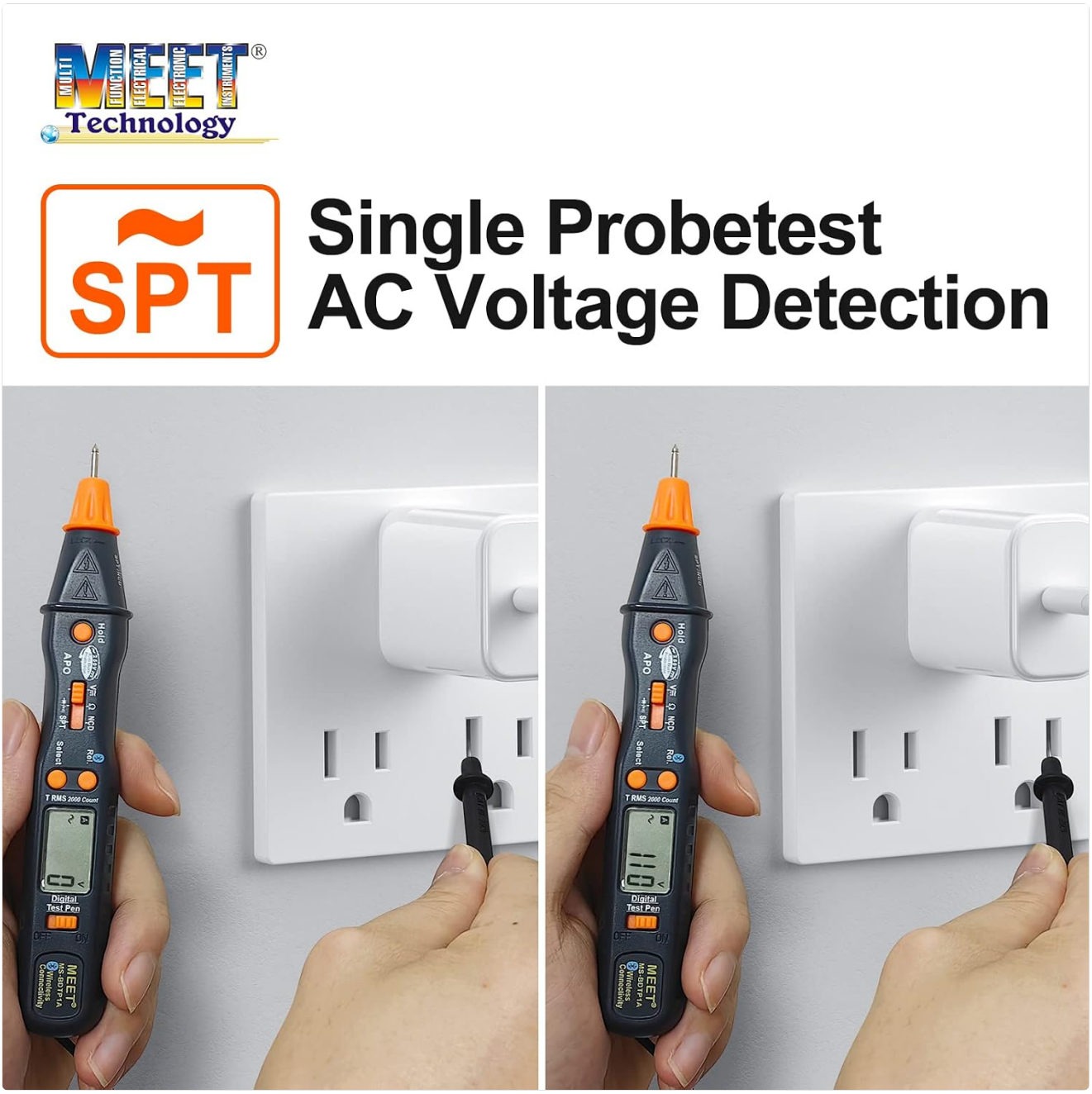

Figure 5: The multimeter's NCD function detecting AC voltage without physical contact.

5.5 Single Probe Test AC (SPT)

1. Select the SPT mode.
2. Use the single probe to test AC voltage in a circuit. The patented numerical digital display will show the AC voltage (for voltages >25V AC).

5.6 Data Hold

- Press the 'Hold' button to freeze the current reading on the display.
- Press 'Hold' again to release the reading and resume live measurements.

Product Demonstration

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Video 1: Official demonstration of the MEET Pen Type Digital Multimeter, highlighting its features and Bluetooth connectivity. This video is provided by MEET Electronics.

6. Specifications

Feature	Specification
Digital Display	3 ½ digits, 1999 counts
AC/DC Voltage	Auto-ranging up to 300V
Resistance	Auto-ranging up to 20MΩ
Continuity	Buzzer sounds for <50Ω
Diode Check	Forward voltage drop up to 2.0V
NCD (Non-contact AC Detector)	Detects >25V AC with numerical display
SPT (Single Probe Test AC)	Detects >25V AC with numerical display
Data Hold	Yes
Auto Power Off	5 minutes (can be disabled)
Relative Reading	Yes
Input Impedance	10MΩ
Anti-Burn Protection (ABP)	Up to 250V (AC/DC) on full range
Low Battery Warning	Yes (<2.6V approx)
TX Connectivity	Bluetooth to iOS/Android apps
Operating Temperature	0°C - 50°C (32°F - 122°F)
Operating Humidity	80% RH max
Battery Type	2 x 1.5V (L1154/LR44/AG13)
Dimensions (LxWxD)	161 x 24 x 24mm (6.34 x 0.94 x 0.94 inches)
Model	MS-BDTP1A
UPC	842301100771

7. Maintenance

7.1 Cleaning

Wipe the multimeter's exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off and disconnected from any circuits before cleaning.

7.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries promptly to ensure accurate measurements. Refer to section 4.1 for battery installation instructions. Always use two new 1.5V (L1154/LR44/AG13) batteries.

7.3 Storage

If the multimeter will not be 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.

8. Troubleshooting

Problem	Possible Cause	Solution
Multimeter does not power on.	Dead or incorrectly installed batteries.	Check battery polarity and replace batteries if necessary.
"OL" (Over Load) displayed.	The measured value exceeds the selected range.	The multimeter is auto-ranging, but if the value is extremely high, it may still show "OL". Ensure the measurement is within the device's maximum capabilities (e.g., 300V for voltage).
Inaccurate readings.	Low battery, poor connection, or incorrect mode.	Replace batteries, ensure test lead has good contact, and verify the correct measurement mode is selected.
Bluetooth connection fails.	Bluetooth disabled on smart device, app not open, or out of range.	Ensure Bluetooth is on, the app is running, and the multimeter is within 15m of the smart device. Restart both devices if needed.

9. Safety Information

- Always adhere to local and national safety codes.
- Do not use the multimeter if it appears damaged or if the test lead is compromised.
- Do not apply more than the rated voltage (300V AC/DC) between the terminals or between any terminal and ground.
- Exercise extreme caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Ensure the correct function and range are selected before making measurements.
- The device is rated CAT III 300V. Do not use it for measurements exceeding this category or voltage.

- Keep fingers behind the finger guards on the test lead during measurements.
- Replace batteries immediately when the low battery indicator appears to prevent inaccurate readings.

10. Warranty and Support

MEET Electronics is committed to customer satisfaction. If you encounter any issues or are not 100% satisfied with your product, please contact our support team. We strive to resolve all problems and our professional support team aims to respond within 24 hours.
For support, please refer to the contact information provided with your purchase or visit the official MEET Electronics website.