

TOOLTOP TT-WINAPEX 810B

WinAPEX 810B Oscilloscope Multimeter User Manual

Model: TT-WINAPEX 810B

INTRODUCTION

The WinAPEX 810B is a professional-grade digital oscilloscope multimeter designed for a wide range of electrical testing and measurement applications. It combines the functionality of a powerful oscilloscope with a high-precision true RMS multimeter, making it an indispensable tool for engineers, technicians, and hobbyists. Featuring a 3.2-inch color screen, a 10MHz bandwidth, and a 50MSa/s sampling rate, this device offers accurate and reliable measurements. Its durable design and long-lasting battery ensure performance in various working environments.

SAFETY INFORMATION

Please read all safety warnings and operating instructions before using this product to prevent injury or damage to the device. Keep this manual for future reference.

- **Electrical Safety:** Always ensure the device is properly connected and that test leads are in good condition. Do not exceed the maximum input voltage or current ratings.
- **Anti-Burning Protection:** The WinAPEX 810B features a built-in dual fuse design and supports $\pm 400V$ burn protection, enhancing safety during use. However, always exercise caution and verify connections.
- **Voltage Overload:** The device includes an automatic cut-off circuit for voltage overload protection.
- **Environment:** Use the device in a dry environment. Avoid exposure to moisture, extreme temperatures, or corrosive substances.
- **Maintenance:** Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.

Professional Grade



±400V Anti-burning



Image: The WinAPEX 810B features professional-grade anti-burning protection with voltage overload automatic cut-off and double fuse protection (500mA and 10A).

PACKAGE CONTENTS

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

- WINAPEX 810B Oscilloscope Multimeter
- Test Leads
- Oscilloscope Probe
- Type-C Charging Cable
- Instruction Manual
- Carrying Case

Package List



Image: A visual representation of the WinAPEX 810B package contents, including the main unit, test leads, oscilloscope probe, charging cable, and instruction manual.

PRODUCT OVERVIEW

The WinAPEX 810B integrates a digital oscilloscope and a true RMS multimeter into a compact, handheld device. Its robust design features a dual-injection molded casing for durability and wear resistance.



Image: The front view of the WinAPEX 810B, showcasing its large display, control buttons, and input jacks.



Image: A side view of the WinAPEX 810B, emphasizing its 3.2-inch oscilloscope multimeter display, 10MHz bandwidth, 9999 counts, 20A large input, and 2500mAh lithium battery.

SETUP

Battery Charging

The device is equipped with a 2500mAh large-capacity battery. Before first use, or when the battery indicator shows low charge, connect the device to a power source using the provided Type-C charging cable.

- Connect the Type-C cable to the charging port on the side of the device.
- Connect the other end of the cable to a standard USB power adapter (not included) or a computer USB port.
- The battery indicator on the screen will show charging status.

Initial Power On

To power on the device, press and hold the **DMM / Power** button until the screen illuminates. The device will boot into its default mode, typically the multimeter function.

OPERATING INSTRUCTIONS

Oscilloscope Mode

The oscilloscope function allows for waveform visualization and analysis with a 10MHz bandwidth and 50MSa/s sampling rate. It supports various waveform measurements and features like zoom, multi-trigger, and cursor measurements.

- Press the **FUNC** button to switch to Oscilloscope mode.
- Connect the oscilloscope probe to the appropriate input jack.
- Adjust the vertical (V/div) and horizontal (Time/div) scales using the navigation buttons to properly display the waveform.
- Use the **SELECT** button to cycle through measurement parameters or trigger settings.



Image: The WinAPEX 810B displaying an oscilloscope waveform, highlighting its 10MHz wide analog bandwidth, 50MSps fast sampling, and 10mV/div~10V/div sensitivity.

Multimeter Mode

The true RMS multimeter supports up to 20A of high current input and provides 9999 counts with high

precision and an analog bar display. It measures 12 parameters including Vpp, max, min, and average.

- Press the **DMM** button to switch to Multimeter mode.
- Connect the test leads to the appropriate input jacks (e.g., VΩHz, mA, 20A, COM).
- Use the **FUNC** button to cycle through different measurement types (e.g., Voltage, Current, Resistance, Capacitance, Frequency, Diode, Continuity).
- The large 3.2-inch screen clearly displays measurement results.



Image: The WinAPEX 810B in multimeter mode, showing a voltage reading of 221.2V and a temperature of 19°C, along with the 9999 counts display.

Display and Controls

The device features a 3.2-inch clear screen with 320*240 resolution, ensuring measurement results are clearly displayed. Navigation is intuitive with dedicated buttons for DMM, AUTO, SAVE/BACK, MID/OK, FUNC, HOLD, EF/LIVE, DCA/ACA, and a central SELECT button with directional arrows.



Image: A close-up view of the WinAPEX 810B's 3.2-inch large color screen, demonstrating its 320x240 resolution with a detailed oscilloscope waveform display.

MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the device. Do not use abrasive cleaners or solvents. Ensure the device is powered off and disconnected from any power source before cleaning.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures. If storing for an extended period, ensure the battery is partially charged (around 50%) to prolong its lifespan.
- **Battery Care:** Recharge the battery regularly, even if the device is not in frequent use, to maintain battery health. Avoid fully discharging the battery for prolonged periods.
- **Probe and Lead Inspection:** Periodically inspect test leads and oscilloscope probes for any signs of damage, such as cracks in insulation or exposed wires. Replace damaged accessories immediately.

TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
Device does not power on.	Low battery; Power button not held long enough.	Charge the battery using the Type-C cable. Press and hold the DMM / Power button for a few seconds.
Inaccurate multimeter readings.	Incorrect lead connection; Damaged leads; Incorrect measurement mode.	Ensure leads are connected to the correct jacks. Check leads for damage. Select the appropriate measurement mode for the parameter being measured.
No waveform displayed in oscilloscope mode.	Probe not connected; Incorrect vertical/horizontal settings; No input signal.	Connect the oscilloscope probe securely. Adjust V/div and Time/div settings. Verify that a signal is present at the input.
Screen is dim or flickering.	Low battery; Environmental factors.	Charge the battery. Ensure the device is used within its specified operating temperature range.

SPECIFICATIONS

Detailed technical specifications for the WinAPEX 810B Oscilloscope Multimeter:

Feature	Specification
Model Number	TT-WINAPEX 810B
Display	3.2-inch Color Screen, 320x240 Resolution
Oscilloscope Bandwidth	10MHz
Sampling Rate	50MSa/s

Feature	Specification
Multimeter Counts	9999 Counts
Max Current Input	20A
Battery	2500mAh Lithium Battery (Rechargeable via Type-C)
Safety Features	Dual Fuse Design, $\pm 400V$ Burn Protection, Voltage Overload Automatic Cut-off
Dimensions	7.87 x 5.91 x 3.94 inches (Package); 90mm x 190mm (Device)
Item Weight	1 Kilogram (2.2 Pounds)
Certifications	CE, RoHS
Country of Origin	China

Product Dimensions



Image: Diagram showing the dimensions of the WinAPEX 810B: 90mm width and 190mm height.

WARRANTY AND SUPPORT

The WinAPEX 810B Oscilloscope Multimeter comes with a manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included in your package or contact TOOLTOP customer support.

For technical assistance, troubleshooting, or any inquiries regarding your product, please contact TOOLTOP Official customer service. Support contact information can typically be found on the manufacturer's website or on the product packaging.

EU Spare Part Availability Duration: 1 Year