Hantek TO1112C

Hantek TO1112C Touch Screen Tablet Oscilloscope User Manual

Model: TO1112C | Brand: Hantek

Introduction

This manual provides comprehensive instructions for the safe and effective operation, maintenance, and troubleshooting of your Hantek TO1112C Touch Screen Tablet Oscilloscope. Please read this manual thoroughly before using the device to ensure optimal performance and longevity.

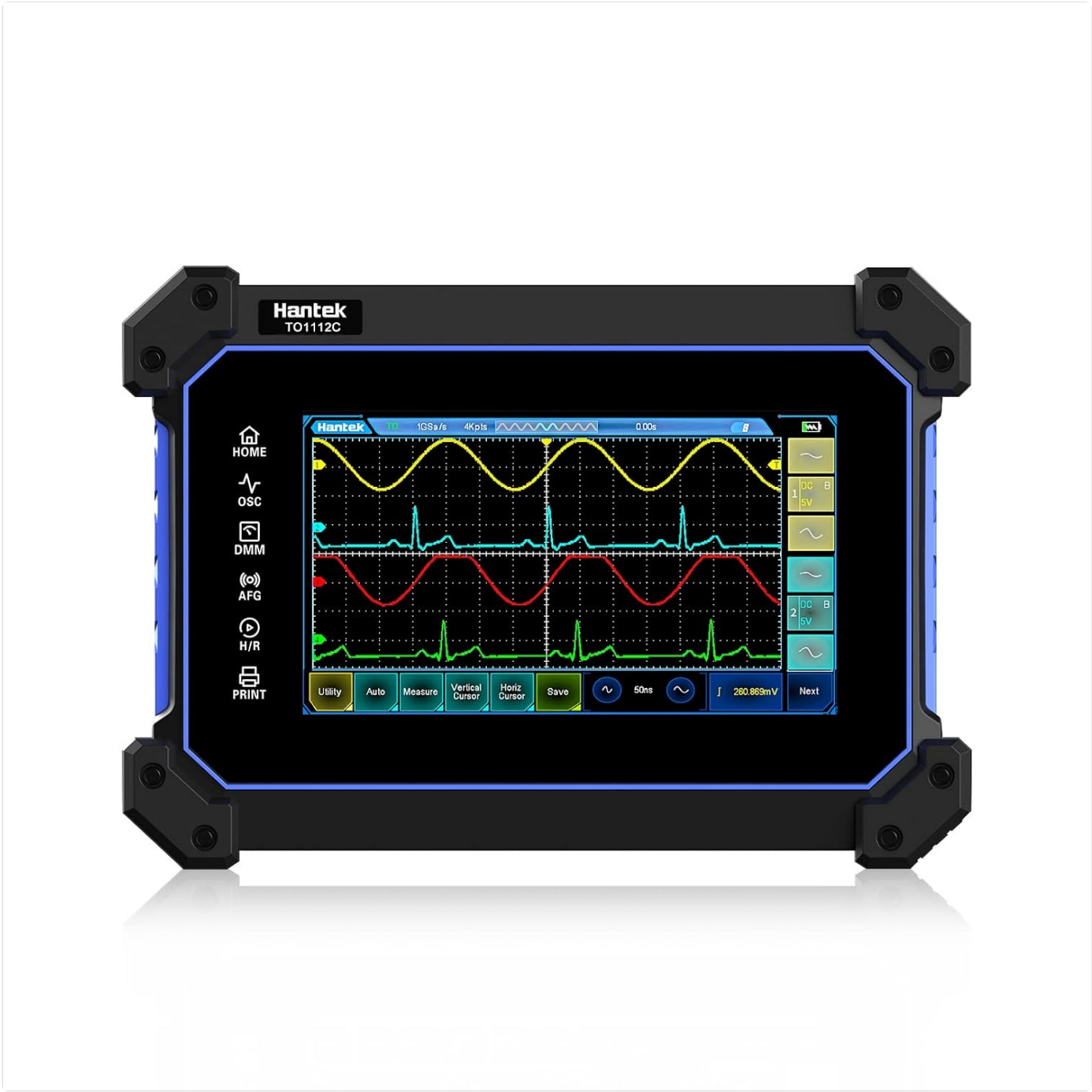


Figure 1: Hantek TO1112C Touch Screen Tablet Oscilloscope, front view showing the display and side buttons.

Key Features

- **2-Channel Digital Oscilloscope:** Maximum bandwidth of 110 MHz and sampling rate of 1GSa/s.
- **Large Storage:** 8M memory depth for waveform data.
- **Multi-touch Large Screen:** High resolution of 800 x 480 pixels for clear display and intuitive interaction.
- **Integrated Multimeter:** Provides high-precision measurements including voltage, current, resistance, capacitance, and diode testing.
- **Spectrum Analyzer:** Built-in FFT spectrum analysis capabilities.
- **Data Recorder:** Functions for data recording, storage, trend charts, and statistical analysis.
- **Portable Design:** Thin, light, anti-fall, and earthquake-resistant with a unique suspension design for hands-free operation.
- **Long Battery Life:** Built-in ultra-large capacity battery with Type-C fast charging support (18W charger).

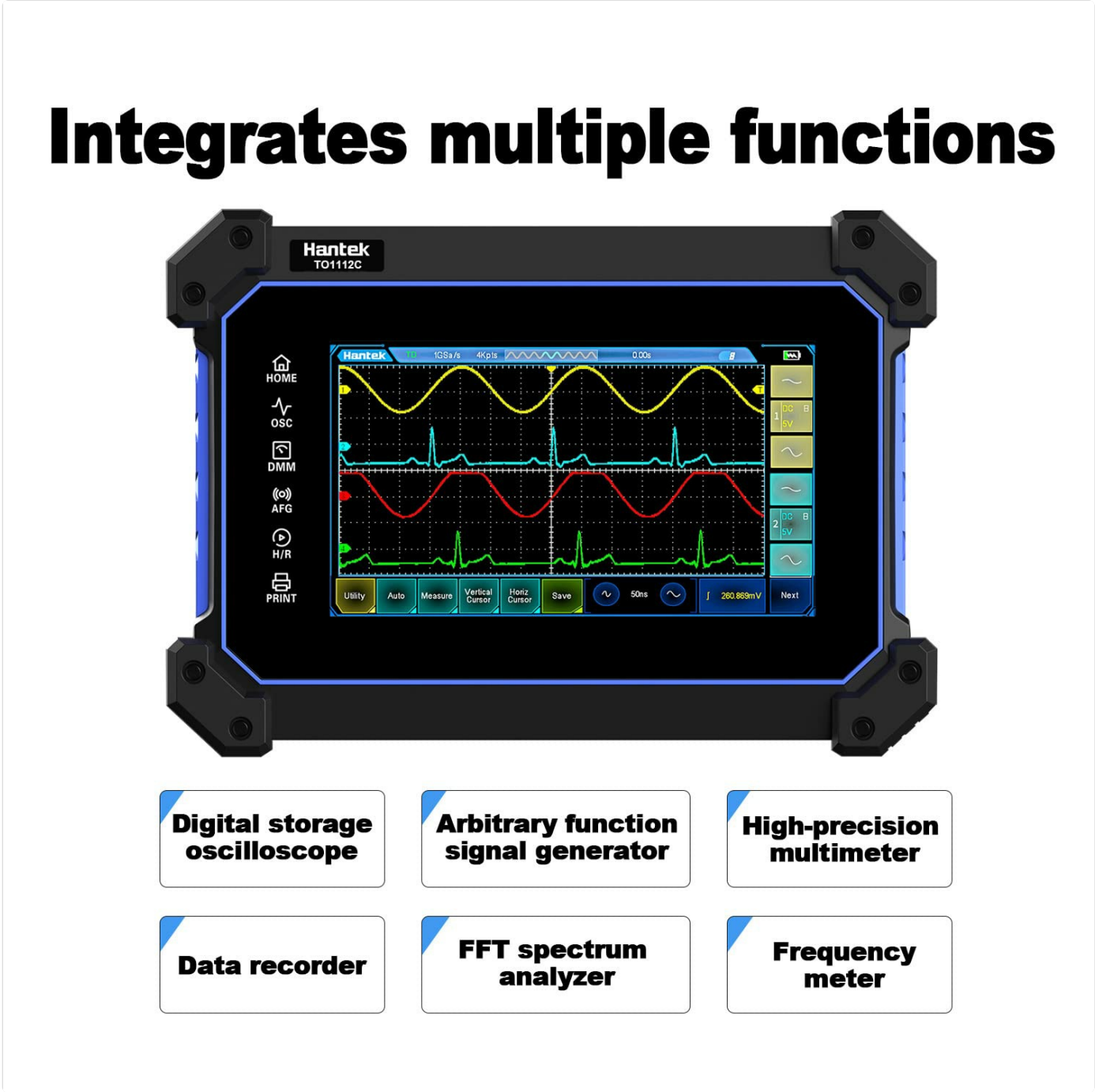


Figure 2: The Hantek TO1112C integrates multiple functions including digital storage oscilloscope, arbitrary function signal generator, high-precision multimeter, data recorder, FFT spectrum analyzer, and frequency meter.

Packing List

Upon unpacking, please verify that all items listed below are present and in good condition:

- Hantek TO1112C Tablet Oscilloscope Unit
- Probe (2 CH*1, 4CH*2) - *Note: The image shows 2CH*1 and 4CH*2, which might be a typo or refer to different models. For TO1112C, it's a 2-channel device. Assuming standard probes for 2 channels.*
- HT324 (2 CH*1, 4CH*2) - *Similar note as above regarding channels.*
- 18W Charger, Type-C
- Multimeter Probe
- Carrying Package/Bag



Figure 3: Contents of the Hantek TO1112C package, including the device, probes, charger, multimeter probe, and carrying bag.

Setup and Initial Use

Charging the Device

Before first use, fully charge the Hantek TO1112C. Connect the provided 18W Type-C charger to the device's USB-C port. The charging indicator will show the charging status. A full charge ensures maximum battery life and uninterrupted operation.



Figure 4: The Hantek TO1112C features a Type-C charging port and a high-capacity battery for extended use.

Physical Overview and Connections

Familiarize yourself with the device's ports and controls.

- **USB Connector:** Located on the side, used for data transfer and charging.
- **V/Ω/C Diode Jack:** Input for voltage, resistance, capacitance, and diode measurements when using multimeter function.
- **COM Jack:** Common ground for multimeter measurements.
- **mA Jack:** Input for milliampere current measurements.
- **A Jack:** Input for ampere current measurements.
- **Oscilloscope BNC Connectors:** For connecting oscilloscope probes (Channels 1 and 2).

Handheld Oscilloscope

TO1000 Series Functional Parameters

Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1112	2CH	110MHz	250MSa/s	8M	/	/
TO1112C	2CH	110MHz	250MSa/s	8M	/	YES
TO1112D	2CH	110MHz	250MSa/s	8M	YES	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1152C	2CH	150MHz	1GSa/S	8M	/	YES
TO1202C	2CH	200MHz	1GSa/S	8M	/	YES
TO1252C	2CH	250MHz	1GSa/S	8M	/	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1152D	2CH+1CH	150MHz	1GSa/S	8M	YES	YES
TO1202D	2CH+1CH	200MHz	1GSa/S	8M	YES	YES
TO1252D	2CH+1CH	250MHz	1GSa/S	8M	YES	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1154C	4CH	150MHz	1GSa/S	8M	/	YES
TO1204C	4CH	200MHz	1GSa/S	8M	/	YES
TO1254C	4CH	250MHz	1GSa/S	8M	/	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1154D	4CH+1CH	150MHz	1GSa/S	8M	YES	YES
TO1204D	4CH+1CH	200MHz	1GSa/S	8M	YES	YES
TO1254D	4CH+1CH	250MHz	1GSa/S	8M	YES	YES

Figure 5: Side view of the Hantek TO1112C showing the USB connector and multimeter input jacks (V/Ω/C, COM, mA, A).

Using the Suspension Foot

The device features a unique suspension foot design, allowing it to stand freely on a surface for hands-free operation. Simply extend the foot from the back of the unit to prop it up at a convenient viewing angle.

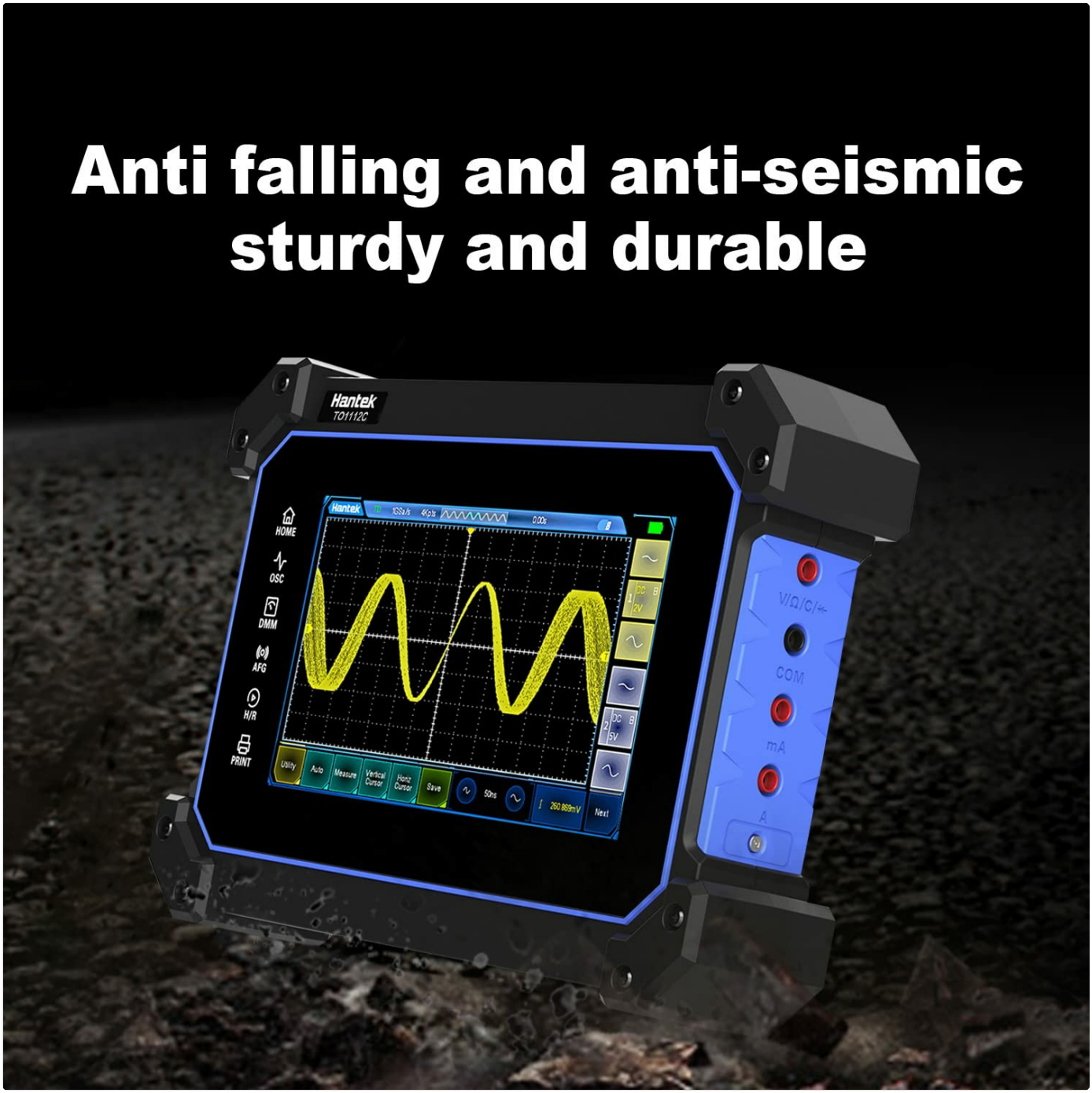


Figure 6: The Hantek TO1112C with its integrated suspension foot extended, providing a stable viewing angle.

Operating Instructions

Power On/Off

Press and hold the power button (usually located on the side or top) for a few seconds to turn the device on or off. The multi-touch screen will illuminate upon startup.

Navigating the User Interface

The Hantek TO1112C features a multi-touch large screen with a resolution of 800x480, providing an intuitive user experience. Navigate through menus and settings by tapping and swiping on the screen. Dedicated icons on the left side of the screen allow quick access to different functions:

- **HOME:** Returns to the main menu or dashboard.
- **OSC:** Activates the Oscilloscope function.

- **DMM:** Activates the Digital Multimeter function.
- **AFG:** Activates the Arbitrary Function Generator (if applicable to model).
- **H/R:** Likely for Hold/Run or History/Record functions.
- **PRINT:** For saving or exporting data/screenshots.



Figure 7: The Hantek TO1112C's multi-touch screen, demonstrating touch interaction for waveform analysis and menu navigation.

Oscilloscope Function

To use the oscilloscope, connect the probes to the BNC connectors and the circuit under test. Use the on-screen controls to adjust vertical scale (Volts/Div), horizontal time base (Time/Div), trigger settings, and measurement cursors. The 8M memory depth allows for capturing long waveforms.

Multimeter Function

Switch to DMM mode to use the device as a multimeter. Connect the multimeter probes to the appropriate jacks (V/Ω/C, COM, mA, A) based on the desired measurement (voltage, current, resistance, capacitance, diode). The device provides

high-precision readings and supports data recording and analysis.



Figure 8: The Hantek TO1112C displaying multimeter readings, showing voltage measurements and waveform data simultaneously.

Data Storage and Export

The device supports one-button waveform storage. Saved data can be reviewed on the device or exported via the USB interface for further analysis on a computer. Refer to the on-screen utility menu for specific save and export options.

Maintenance

Cleaning

Wipe the device with a soft, dry cloth. For stubborn dirt, a slightly damp cloth with mild detergent can be used, ensuring no liquid enters the ports or openings. Do not use abrasive cleaners or solvents.

Storage

Store the Hantek TO1112C in a cool, dry place, away from direct sunlight and extreme temperatures. Use the provided carrying package to protect it from dust and physical damage. Ensure the battery is partially charged (around 50%) before long-term storage to preserve battery health.

Durability Features

The Hantek TO1112C is designed to be anti-fall and earthquake-resistant, enhancing its durability for field use. However, avoid unnecessary drops or impacts to prevent damage to internal components or the screen.

Handheld Oscilloscope

TO1000 Series Functional Parameters

Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1112	2CH	110MHz	250MSa/s	8M	/	/
TO1112C	2CH	110MHz	250MSa/s	8M	/	YES
TO1112D	2CH	110MHz	250MSa/s	8M	YES	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1152C	2CH	150MHz	1GSa/S	8M	/	YES
TO1202C	2CH	200MHz	1GSa/S	8M	/	YES
TO1252C	2CH	250MHz	1GSa/S	8M	/	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1152D	2CH+1CH	150MHz	1GSa/S	8M	YES	YES
TO1202D	2CH+1CH	200MHz	1GSa/S	8M	YES	YES
TO1252D	2CH+1CH	250MHz	1GSa/S	8M	YES	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1154C	4CH	150MHz	1GSa/S	8M	/	YES
TO1204C	4CH	200MHz	1GSa/S	8M	/	YES
TO1254C	4CH	250MHz	1GSa/S	8M	/	YES
Model	Channel	Bandwidth	Sample Rate	Memory Depth	AFG	Multimeter
TO1154D	4CH+1CH	150MHz	1GSa/S	8M	YES	YES
TO1204D	4CH+1CH	200MHz	1GSa/S	8M	YES	YES
TO1254D	4CH+1CH	250MHz	1GSa/S	8M	YES	YES

Figure 9: The Hantek TO1112C features a robust, anti-falling and anti-seismic design for enhanced durability.

Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery; power button not pressed correctly.	Connect to charger and allow sufficient time to charge. Press and hold the power button firmly for several seconds.
Screen is unresponsive.	Software glitch; temporary freeze.	Perform a soft reset by holding the power button until the device restarts. If issue persists, contact support.
Inaccurate multimeter readings.	Incorrect probe connection; damaged probes; incorrect measurement mode.	Ensure probes are securely connected to the correct jacks. Check probes for damage. Verify the correct measurement mode is selected.
No waveform displayed in oscilloscope mode.	Probe not connected; incorrect vertical/horizontal settings; no signal input.	Verify probe connection to the BNC input and the circuit. Adjust Volts/Div and Time/Div settings. Ensure a signal is present at the input. Check trigger settings.

Specifications

Feature	Detail
Model	TO1112C
Channels	2 CH
Bandwidth	110 MHz
Sample Rate	1 GSa/s (Maximum)
Memory Depth	8M
Display	Multi-touch large screen, 800 x 480 resolution
Multimeter	High-precision, with data recording, storage, trend chart, statistical analysis
Battery	Built-in 10000mAh detachable lithium battery
Charging	Type-C, 18W fast charging
Dimensions	31.11 x 23.9 x 10.39 cm
Weight	1.95 kg
Manufacturer	Hantek
Country of Origin	China



Figure 10: Functional parameters table for the Hantek TO1000 series, including the TO1112C model.

Warranty and Support

For warranty information and technical support, please refer to the official Hantek website or contact your point of purchase. Keep your purchase receipt as proof of purchase for warranty claims.
The product typically comes with a manufacturer's warranty covering defects in materials and workmanship. Specific terms and conditions may vary by region and retailer.

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Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question