DEWIN 1013D

DEWIN 1013D Portable Digital Oscilloscope User Manual

Model: 1013D | Brand: DEWIN

1. Introduction

The DEWIN 1013D is a high-performance, portable digital oscilloscope designed for a wide range of applications, from electronic DIY to professional equipment debugging and scientific research. It features a 7-inch TFT LCD touchscreen, dual-channel input, a 100MHz bandwidth, and a 1GSa/s real-time sampling rate. This manual provides essential information for the safe and effective operation of your device.

2. Safety Information

- Always use the provided probes and accessories.
- Ensure the device is powered off before connecting or disconnecting probes.
- Do not exceed the maximum input voltage ratings (1X: 40V, 10X: 400V).
- Avoid operating the device in wet or damp conditions.
- Do not attempt to disassemble or modify the oscilloscope, as this may void the warranty and pose a safety risk.
- Keep the device away from strong electromagnetic fields.

3. Package Contents

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

- DEWIN 1013D Digital Oscilloscope
- Matching Probes (x2)
- Type-C USB Cable (x1)
- User Manual (x1)
- Power Adapter
- Small Screwdriver

- Color Rings for Probes



Figure 3.1: DEWIN 1013D Oscilloscope and included accessories.

4. Product Overview

The DEWIN 1013D features a compact design with a 7-inch touchscreen for intuitive operation. Key components include input channels, a USB Type-C port for charging and data transfer, and a foldable stand for convenient viewing.



Channels	2	Cursor	Position XY Trigger Y
Display	7 inch 800 * 480 pixels	Roll mode	Support
Bandwidth	100MHz	One-Button AUTO	Support
Sampling Rate	1GSa/s	Waveform Storage	1000 Picture +1000 Waveform
Rise time	< 3nS	Waveform Manager	Support
Storage Depth	240 Kbit	Voltage Accuracy	±2%
Input Resistance	1MΩ	Frequency Precision	+0.01% High Precision
Sensitivity	50mV ~ 500V	Parameter	12 Kinds in Total
Time Base	505 ~ 10nS	Battery	6000mah Lithium
Trigger Mode	Single/Normal/Auto	Standby	4 Hours
Trigger Edge	Rising/Falling	Extension	USB Export
Coupling	AC/DC	Charging	Type-C 5V 2A/3A/4A
Highest Test Voltage	1X:40V 10X:400V		

Figure 4.1: Front view with approximate dimensions.



Figure 4.2: Side view displaying input/output ports.

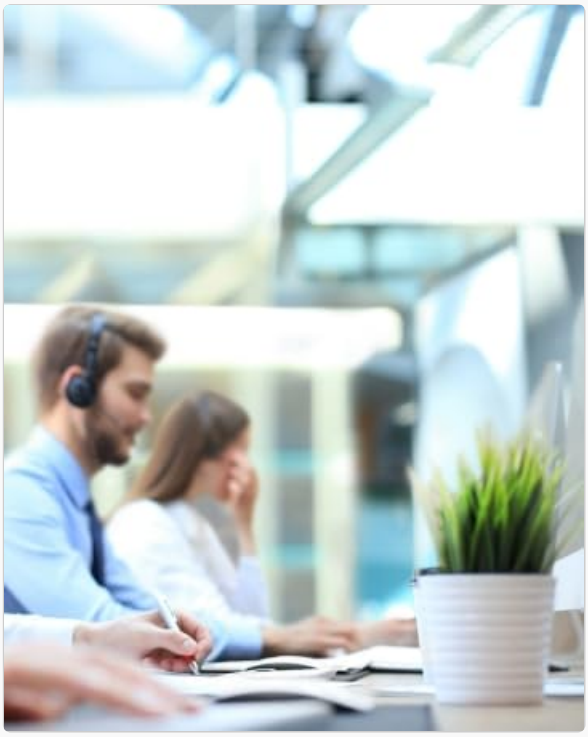


Figure 4.3: Back view with integrated stand.

5. Setup

1. **Charging the Device:** Connect the oscilloscope to a power source using the provided Type-C USB cable and power adapter. The built-in 6000mAh lithium battery provides approximately 4 hours of continuous use on a full charge.
2. **Attaching Probes:** Connect the oscilloscope probes to the CH1 and CH2 input ports. Ensure a secure connection.
3. **Power On:** Press and hold the power button to turn on the device.

6. Operating Instructions

6.1 Basic Operation

- **One-Button AUTO:** For quick setup and waveform display, press the 'AUTO' button. The oscilloscope will automatically adjust the time base and voltage scale to display a stable waveform.
- **Touchscreen Navigation:** Use the 7-inch TFT LCD touchscreen for intuitive navigation through menus and settings.
- **Trigger Functions:** The device supports various trigger modes including Single, Normal, and Automatic. Adjust the trigger level and edge (rising/falling) to capture specific events in your waveform.



Figure 6.1: Key operational features of the oscilloscope.

6.2 Advanced Features

- **Waveform Data Management:** The oscilloscope has 1GB of internal memory, capable of storing up to 1000 screenshots and 1000 sets of waveform data. Use the waveform image manager for thumbnail browsing, detailed viewing, zooming, panning, and resizing.
- **FFT Display:** Utilize the Fast Fourier Transform (FFT) function to analyze signals in the frequency domain,

providing precise information about the signal's frequency content.

- **Lissajous Figures:** Compare the amplitude, frequency, and phase of two signals using Lissajous figures.

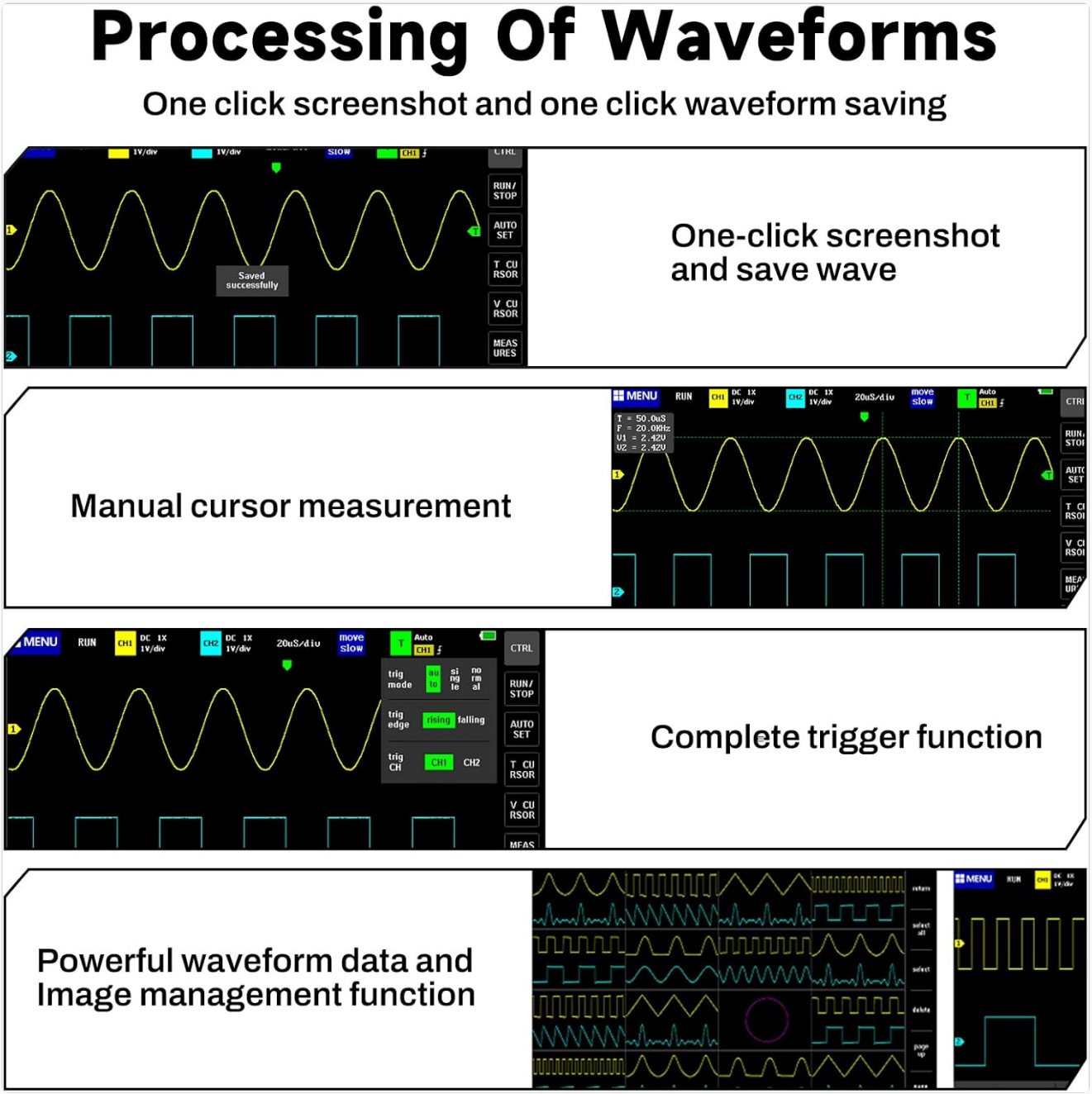


Figure 6.2: Waveform processing capabilities.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Battery Care:** Charge the battery regularly, even if the device is not in use, to maintain battery health. Avoid fully discharging the battery for extended periods.
- **Storage:** Store the oscilloscope in a cool, dry place away from direct sunlight and extreme temperatures.

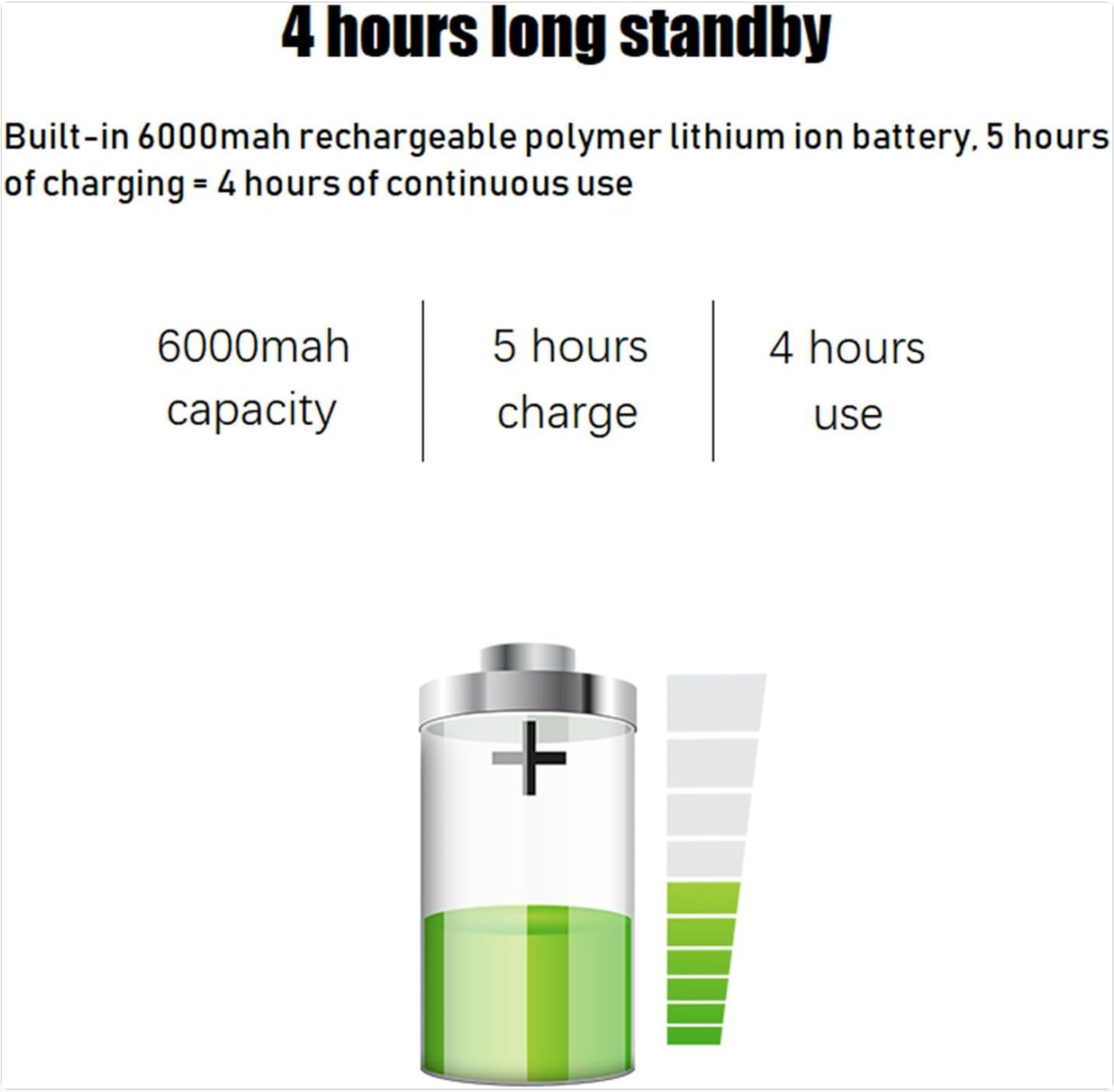


Figure 7.1: Battery specifications and usage time.

8. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on	Low battery or power adapter issue	Charge the device fully. Check the power adapter and USB cable.
No waveform displayed	Incorrect probe connection, trigger settings, or signal source	Ensure probes are correctly connected. Use 'AUTO' function. Verify signal source is active. Adjust trigger level.
Unstable waveform	Improper trigger settings or time base/voltage scale	Adjust trigger level and mode. Use 'AUTO' function. Manually adjust time base and voltage scale.
Touchscreen unresponsive	Temporary software glitch or low battery	Restart the device. Ensure battery is charged.

9. Specifications

Feature	Specification
Brand	DEWIN
Model Number	QYEBXRBRB-GS98709
Channels	2
Display	7 inch TFT LCD, 800 * 480 pixels
Bandwidth	100MHz
Sampling Rate	1GSa/s
Rise Time	<3nS
Storage Depth	240 Kbit
Input Resistance	1MΩ
Sensitivity	50mV ~ 500V
Time Base	50S ~ 10nS
Trigger Mode	Single/Normal/Automatic
Trigger Edge	Rising/Falling
Coupling	AC/DC
Highest Test Voltage	1X:40V 10X:400V
Cursor	Position XY Trigger Y
Roll Mode	Support
One-Button AUTO	Support
Waveform Storage	1000 Pictures + 1000 Waveforms
Waveform Manager	Support
Voltage Accuracy	±2%
Frequency Precision	±0.01% High Precision
Parameter	12 Kinds in Total
Battery	6000mAh Lithium
Standby	4 Hours
Extension	USB Export

Feature	Specification
Charging	Type-C 5V 2A/3A/4A
Product Weight	963 g
Package Dimensions	22.86 x 15.24 x 7.62 cm

10. Warranty and Support

Your DEWIN 1013D Portable Digital Oscilloscope comes with a standard manufacturer's warranty. Please refer to the warranty card included in your package for specific terms and conditions. For technical support, troubleshooting assistance, or service inquiries, please contact DEWIN customer service through the retailer where the product was purchased or visit the official DEWIN website.

For further assistance, you may visit the DEWIN Brand Store on Amazon.

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