FNIRSi DSO152 Digital Oscilloscope Instruction Manual

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FNIRSi DSO152 Digital Oscilloscope



Product Information

DSO152 Digital Oscilloscope

The DSO152 is a digital oscilloscope with a 2.8-inch 320*240 resolution high-definition LCD screen. It features a built-in 1000mAh high-quality lithium battery, which can be used continuously for about 4 hours after being fully charged.

Key Features:

- **Sampling rate:** 2.5MS/s
- **Bandwidth:** 200K
- **Vertical sensitivity:** 10mV/Div-20V/Div (Progress according to the 1-2-5 way)
- **Time base range:** 10s/Div-50s/Div (Progress according to the 1-2-5 way)
- **Voltage range:** X1:40V (Vpp:80V), X10: 400V (Vpp :800V)
- **Trigger method:** Auto/Normal/Single
- **Coupling method:** AC/DC
- **Display:** 2.8 inches/PPI:320*240
- **USB charging:** 5V/1A
- **Lithium battery capacity:** 1000mAh
- **Square wave calibration:**
  - **Frequency:** 1K
  - **Duty cycle:** 50%
- **Size:** 99×68.3×19.5mm
- **Weight:** 100g

Product Usage Instructions

Panel Introduction

The DSO152 digital oscilloscope has the following panel features:

- Signal input probe (MXC) interface
- Square wave calibration
- Trackwheel buttons (Left, OK, Right)
- Reset hole
- Charging indicator light (red light during charging, green light when fully charged)
- TYPE-C charging interface (5V/1A)
- 2.8-inch LCD screen
- AUTO button
- MODE button
- Up button
- Down button
- RUN button
- Switch button

Key Function

The trackwheel buttons on the DSO152 digital oscilloscope have the following functions:

Button	Operation	Function
Short press		Control parameters function selection
		Parameter addition adjustment
Long press		Exit auto calibration (Auto calibration page)
		Parameter subtraction adjustment
Short press		Short press
Long press		Run/pause waveforms (other pages)
Short press		Enter auto calibration (Auto calibration page)
Short press		Show/close detailed parameters

Screen Instructions
The DSO152 digital oscilloscope provides the following screen instructions:

- **Trigger mode indicator icon:** Auto (automatic trigger), Single (single trigger), Normal (normal trigger)
- **Baseline indicator icon:** Indicates the current position is OV voltage
- **Vertical sensitivity:** Represents the voltage by a large grid in the vertical direction
- **1X/10X mode indicator icon:** Must be consistent with the 1X/10X switch the setting on the probe handle

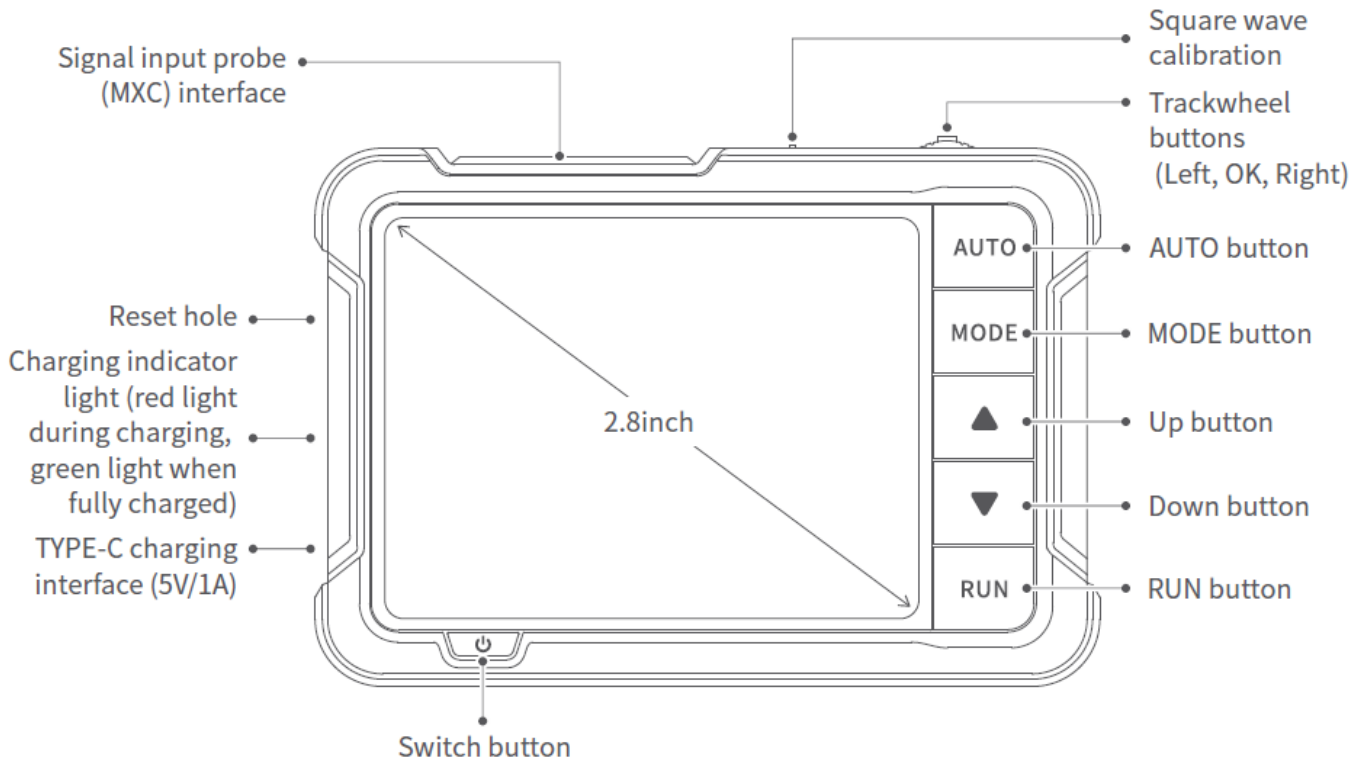
Notice to users

- This manual introduces the usage method, precautions, and related matters of the product in detail. Before using the product, please read the manual carefully in order to give full play to the best performance of the product.
- Do not use the device in a flammable or explosive environment.
- The used batteries are replaced by the device and the discarded device cannot be disposed of together with domestic waste. Please dispose of them according to relevant national or local laws and regulations.
- When there is any quality problem with the device or you have any questions about its use of it, please contact the online customer service or the manufacturer of “FNIRSI”, and we will solve it for you in the first time.

Product introduction

“DSO152” is a highly practical and cost-effective handheld oscilloscope launched by our company, which is aimed at the maintenance industry and the research education industry. The oscilloscope has a real-time sampling rate of 2.5MS/s, a bandwidth of 200KHz, and complete trigger functions (single, normal, and automatic). It can be used freely for both periodic analog signals and non-periodic digital signals and can measure voltages up to ±400V. Equipped with an efficient one-key AUTO, it can display the measured waveform without cumbersome adjustments. Equipped with a 2.8-inch 320*240 resolution high-definition LCD screen. Built-in 1000mAh high-quality lithium battery, can be used continuously for about 4 hours after fully charged.

Panel introduction



Key Function

Button	Operation	Function
	Short press	Control parameters function selection
	Short press	Exit auto calibration (Auto calibration page)
	Long press	Enter the automatic calibration page
	Short press	Control parameters function selection
AUTO	Short press	Automatic adjustment (frequency below 45Hz cannot be calibrated co rrectly)
MODE	Short press	AUTO/Single/Normal switching
	Long press	Rising edge/falling edge switching

▲	Short press	Parameter addition adjustment
▼	Short press	Parameter subtraction adjustment
RUN	Short press	Run/pause waveforms (other pages) Enter auto calibration (Auto calibration page)
	Long press	Show/close detailed parameters
⏻	Short press	OFF
	Long press	On

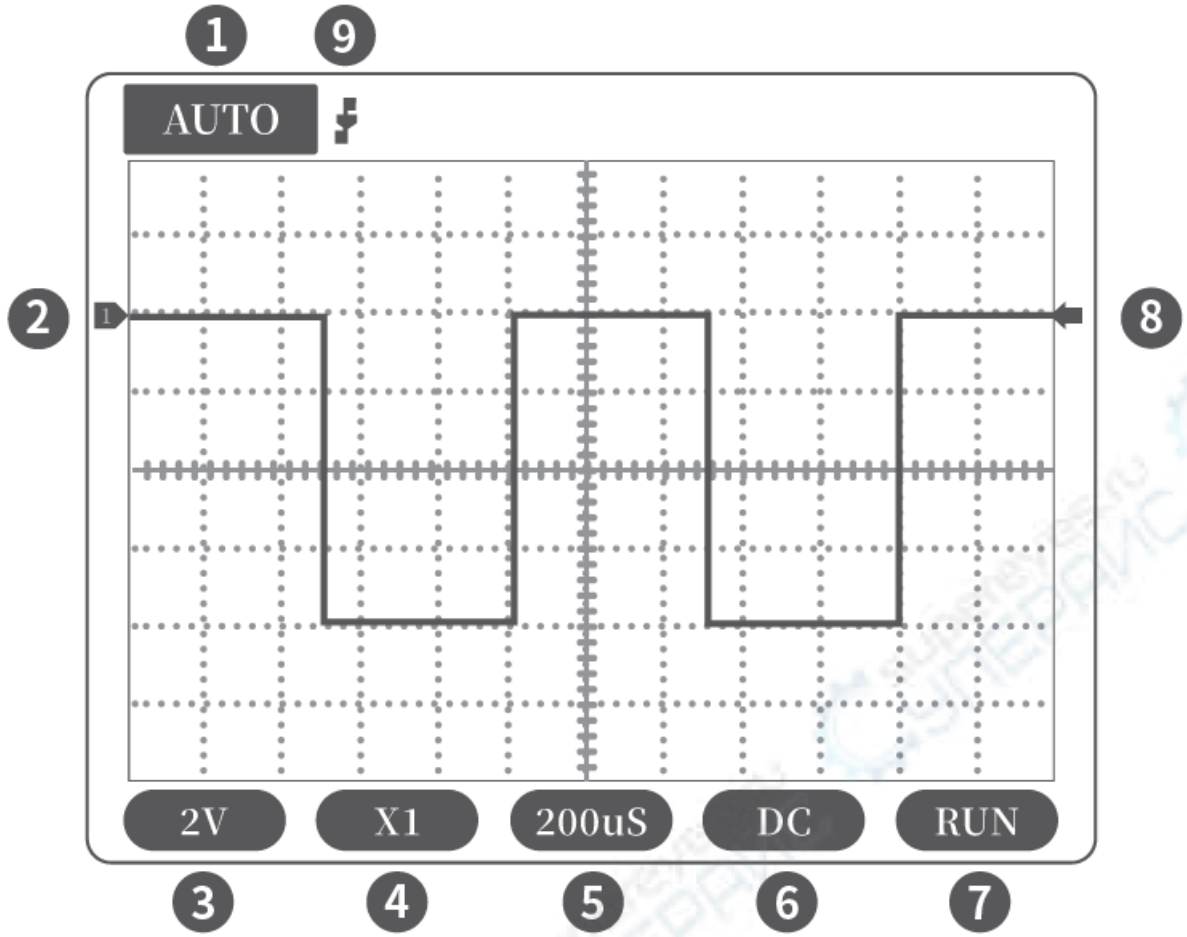
Parameter index

Sampling rate	2.5MS/s
Bandwidth	200K
Vertical sensitivity	10mV/Div-20V/Div(Progress according to the 1-2-5 way)
Time base range	10μs/Div-50s/Div(Progress according to the 1-2-5 way)
Voltage range	X1: 40V (Vpp:80V)
	X10: 400V (Vpp :800V)
Trigger method	Auto/Normal/Single
Coupling method	AC/DC
Display	2.8 inches/PPI:320*240
USB charging	5V/1A

Lithium battery capacity	1000mAh
Square wave calibration	Frequency: 1K Duty cycle: 50%
Size	99×68.3×19.5mm
Weight	100g

Size and weight are measured manually, there may be some errors, please refer to the actual product.

Screen instructions



1. Trigger mode indicator icon, Auto means automatic trigger, Single means single trigger, Normal means normal trigger.
2. Baseline indicator icon, this icon indicates the current position is OV voltage.
3. Vertical sensitivity, which means the voltage represented by a large grid in the vertical direction.
4. 1X/10X mode indicator icon, this must be consistent with the 1X/10X switch setting on the probe handle if the probe is in 1X mode, then the oscilloscope should also be set to 1X mode, 1X measures ±40V voltage, 10X measures ±400V voltage.
5. Horizontal time base, indicating the length of time represented by a large grid in the horizontal direction.
6. Input coupling indicator icon, AC means AC coupling and DC means DC coupling.
7. Pause running indicator icon, RUN means running, STOP means pause.
8. Trigger voltage indicator icon
9. Trigger edge indicator icon

Firmware upgrade

The device currently uses a USB analog U disk for firmware upgrade, and the upgrade steps are as follows:

1. Press the “OK” button after pressing the power button so that to enter the U disk upgrade mode.
2. Use the Type-C cable to connect the Type-C port on the board to the computer. At this time, the computer will pop up a U disk named “DSO BOOT”.
3. Pull the firmware into the U disk, and the firmware upgrade will complete.

Note

The firmware upgrade is only supported on the computer Windows 10 system.

Precautions

- After receiving the device, please use it after fully charged.
- When using the oscilloscope, pay attention to the selection of the gear, the gear of the oscilloscope should be consistent with the gear of the probe.
- When measuring high voltage, it is forbidden to touch any metal part of the oscilloscope to avoid the risk of electric shock.
- Try not to perform a high-voltage test while charging.
- When calibrating, need to unplug the BNC probe, or short the positive and negative poles of the probe.
- The USB firmware upgrade only supports WIN10 or above, and it is forbidden to drag in files other than the released firmware, otherwise, it may cause unrecoverable consequences.
- Please use the voltage within the specification range of the manual for charging.

Contact us

Any FNIRSI users with any questions who come to contact us will have our promise to get a satisfactory solution + an Extra 6-Month Warranty thanks for your support!
By the way, we have created an interesting community, welcome to contact FNIRSI staff to join our community.

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