

F-NIRSI 菲尼瑞斯

DST-201

多功能示波器万用表说明书 V1.3

MULTIFUNCTIONAL OSCILLOSCOPE MULTIMETER USER MANUAL



※使用产品前请仔细阅读本说明书,并妥善保管。

※Please read this instruction manual carefully before using the product and keep it properly.

目录

一、安全要求	>>>	01
二、产品概览	>>>	01
三、技术规格	>>>	08
四、操作指南	>>>	11
五、快速入门	>>>	13
六、故障排查	>>>	14
七、维护保养	>>>	14
八、生产信息	>>>	16
九、保修说明	>>>	16
保修卡	>>>	页末

CONTENTS

1.SECURITY REQUIREMENT	>>>	17
2.PRODUCT OVERVIEW	>>>	17
3.TECHNICAL SPECIFICATION	>>>	26
4.OPERATION GUIDE	>>>	29
5.QUICK START GUIDE	>>>	31
6.TROUBLESHOOTING	>>>	32
7. MAINTENANCE	>>>	32
8.CONTACT US	>>>	34
9.WARRANTY INFORMATION	>>>	34
WARRANTY CARD	>>>	Last Page

一、安全要求

1.1 环境要求

! 注意事项

- 避免高温、明火、腐蚀性气体、潮湿或多尘环境，以防设备故障。
- 防止错误使用仪表方面的安全规程为保证您的人身安全，请使用随表提供的测试笔。在使用前，检查并确保它们是完好的。
- 必须使用正确的输入端、功能、量程来进行测量。输入值切勿超过每个 量程所规定的输入极限值，以防损坏仪表。

! 远离以下物品

- 加热器：避免过热或火灾风险。
- 水源、化学品：溶剂：泄漏可能损坏设备或引发火灾。
- 强磁性设备：防止磁场干扰设备正常运行。
- 空调、通风设备：防止结露造成短路。

 请勿随生活垃圾丢弃废旧电池或设备，应按国家或当地法规处理。

二、产品概览

2.1 产品简介

DST-201是一款由 FNIRSI 推出的功能全面、实用性强的多功能万用表示波器，专为维修和研发行业设计。它集 示波器、信号发生器、万用表于一体。

产品主要特点有：

示波器功能：

- 采样率：5MSa/s
- 模拟带宽：1MHz
- 电压保护：±400V

信号发生器功能：

- 支持 13 种波形输出，频率范围 0-10KHz，输出电压可调3V。
- 输出参数（频率、幅值、占空比）可调，灵活适配多种需求。

万用表功能:

•**功能齐全:**具备记录模式、自动测量、交直流电压、交直流电流、电阻、电容、二极管/通断、频率、温度、数据保持、LIVE零火线等功能,具有过载保护和电池欠压指示等功能。

便携设计:

- 配备 2.8 英寸 TFT 彩屏,画面清晰直观。
- 内置大容量可充电锂电池 (3000mAh),支持长时间待机 (15 小时)。
- 小巧轻便,适合移动使用。

FNIRSI-DST-201致力于为用户提供强大、灵活的功能与便携的操作体验,无论专业人员、工厂、学校、爱好者或家庭使用,均为一台理想的多功能仪表。

2.2 产品操作示意图



旋钮档位键：

Ⓐ : 自动档

Ω : 电阻

✚ : 二极管

Hz : 频率

mA : 交直流毫安电流

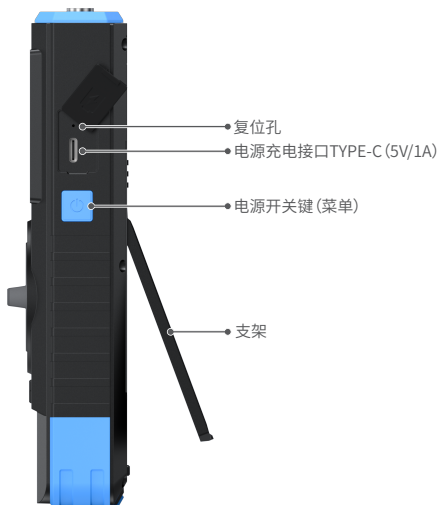
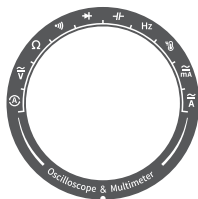
$\tilde{V}$: 交直流电压

🔊 : 蜂鸣档

F : 电容

🌡 : 温度测量

$\tilde{A}$: 交直流电流



2.3 功能模式页面示意图

①**功能页面显示**:此区域显示此刻选择的功能名称。

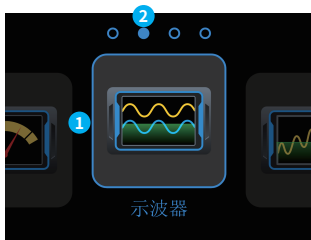
②**模式切换**:点击左右键或者上下键,实现功能选择,共4个板块:

万用表

示波器

信号发生器

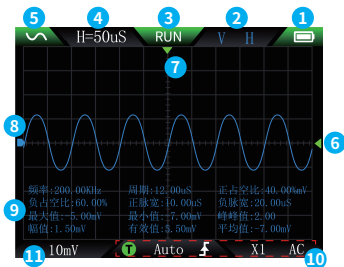
设置



按键	操作	功能
	长按	切换开机/关机
	短按	菜单键
	短按	进入切换模式功能板块页面,选择模式
ENTER 	短按	ENTER确认键,确认进入当前选择的模式
 MODE	短按	MODE模式切换键,快速切换模式。
旋钮档位键	拨动	快速跳转到对应的万用表功能,测量档位。

2.4 示波器页面示意图

- ①电量显示:此区域显示电量剩余。
- ②模式切换:短按ENTER确认键,可切换水平垂直单位、水平触发移动、通道波形上下移动、触发电平上下移动。
- ③运行/暂停指示:短按运行/暂停按键,RUN为运行,STOP为停止。
- ④系统时基:指水平方向一大格代表时间长度,由采样速率决定。
- ⑤函数信号发生器指示:绿色代表开启函数信号发生器,红色代表未开启,展示的图形代表设置的波形类别。
- ⑥触发电压指示图标:即触发阈值。
- ⑦触发X位置指示箭头:指此处为触发点。
- ⑧通道波形:通道采集的波形信号。
- ⑨测量数据:可长按运行/暂停键开启/关闭测量参数显示。
- ⑩触发设置:可长按MODE键,可以设置触发模式、触发沿、探头比例、耦合类型。
- ⑪系统电压:指垂直方向一大格代表电压长度,由采样速率决定。



按键	操作	功能
	短按	菜单键, 返回到功能菜单。
	长按	开启关闭电源
	短按	切换到其他模式
	长按	打开示波器设置菜单, 可设置耦合类型、探头比例、触发方式、触发沿等。再次长按, 关闭参数菜单。
	短按	自动测量
	长按	自动校准

按键	操作	功能
ENTER ↵ 50%	短按	可切换水平垂直单位、水平触发移动、通道波形移动、触发电平移动。若在参数菜单中，短按为确认设置。
	长按	50%居中
RUN SAVE	短按	单击暂停，再次单击运行
	长按	快捷显示/关闭参数测量

2.5 信号发生器页面示意图

①电量显示:此区域显示电量剩余。

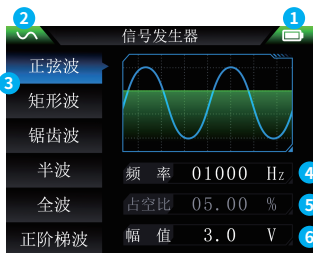
②状态显示:此区域显示信号发生器开启状态，绿色开启，红色关闭。

③波形类别:短按上下键选择波形类别，共13种波形可选择。

④频率设置:单击确认键,进入频率/占空比/幅值选择，单击键选择频率进入三级导航，设置频率值，点击返回键保存即可。

⑤占空比设置:单击确认键,进入频率/占空比/幅值选择，单击键选择占空比进入三级导航，设置占空比，点击返回键保存即可。

⑥幅值设置:单击确认键,进入频率/占空比/幅值选择，单击键选择幅值进入三级导航，设置幅值，点击返回键保存即可。

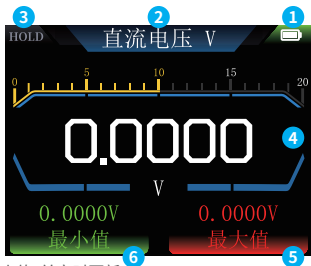


按键	操作	功能
⏻	短按	菜单键，跳转到功能菜单
	长按	开启关闭电源
⚙ MODE	短按	切换到其他模式
AUTO OFF	短按	返回键

按键	操作	功能
ENTER ↔ 50%	短按	确认, 进入频率/占空比/幅值选择, 配合上下左右键设置对应值
RUN SAVE	短按	单击开启/关闭, 再次单击开启/关闭

2.6 万用表页面示意图

- ①电量显示: 此区域显示电量剩余。
- ②档位显示: 此区域显示为万用表测量选择的档位。
- ③数据保持: 短按运行/暂停按键, 实现HOLDS数据保持功能。
- ④测量数据显示: 此区域显示为万用表测量选择档位的测量数据。
- ⑤最大值: 此区域显示测量过程中的最大值, 并实时更新。
- ⑥最小值: 此区域显示测量过程中的最小值, 并实时更新。



按键	操作	功能
⏻	短按	菜单键, 返回到功能菜单
	长按	开启关闭电源
⚡ MODE	短按	切换到其他模式
	长按	切换到记录模式, 此模式会将测量数据可视化
AUTO RANGE	短按	切换到零火线检测, 再次点击, 退出
RUN SAVE	短按	开启/关闭数据保持HOLD
	长按	在记录模式下显示, 记录此刻的测量数据, 并显示在屏幕右侧区域
ENTER ↔ 50%	短按	可快速切换当前档位其他选项

2.7 系统设置页面示意图

- ①**电量显示**:此区域显示电量剩余。
- ②**模式显示**:此区域显示为模式系统设置。
- ③**语言设置**:中文、English可切换。
- ④**声光设置**:单击确认键进入声光设置,上下键选择声音/亮度,左右键进行调节,声音可设置为静音。
- ⑤**开机启动**:共3种功能模式可选择开机默认进入,也可以都不选择。
- ⑥**主题设置**:设备提供两种主题:黑夜、日光。
- ⑦**自动关机设置**:可设置自动关机时间15min、30min、1hour,在不进行操作时间待机设置时间,自动关机。
- ⑧**关于**:显示产品品牌信息与当前版本号。
- ⑨**恢复出厂设置**:点击确定可选择是否进行恢复出厂设置



三、技术规格

3.1 机型参数

参数	规格
产品型号	DST-201
屏幕材质	2.8英寸 TFT彩屏
背光	背光亮度可调
供电电源	TYPE-C (5V1A)
电池	3000mAh
语言	中文、English
产品尺寸	≈177.43×87.47×34.5mm
裸机重量	≈300g

3.2 示波器参数

参数	规格描述	备注
实时采样率	5MSa/s	
模拟带宽	1MHz	
输入阻抗	1M Ω	
耦合方式	AC/DC	
测试电压范围	1:1探头:80Vpp($\pm 40V$) 10:1探头:800Vpp($\pm 400V$)	示波器置于X1 示波器置于X10
垂直灵敏度	10mV/div~10V/div	X1档
垂直位移	可调,并带有指示	
水平时基范围	500ns~20s	
触发模式	自动、常规和单次 (Auto/Normal/Single)	
触发种类	上升沿、下降沿	
触发电平	可调,并带有指示	
波形冻结	有 (HOLD功能)	
自动测量	最大值、最小值、平均值、有效值、 峰峰值、频率、周期、占空比	

3.3 万用表参数

参数	量程	精度度
直流电压	1.9999V/19.999V/199.99V/1000V	$\pm(0.5\%+3)$
交流电压	1.9999V/19.999V/199.99V/750.0V	$\pm(1\%+3)$
直流电流	19.999mA/199.99mA/1.9999A/9.999A	$\pm(1.2\%+3)$
交流电流	19.999mA/199.99mA/1.9999A/9.999A	$\pm(1.5\%+3)$
电阻	19.999M Ω /1.9999M Ω /199.99K Ω /19.999K Ω	$\pm(0.5\%+3)$
	1.9999K Ω /199.99 Ω	$\pm(2.0\%+3)$
电容	999.9 μ F/99.99 μ F/9.999 μ F/ 999.9nF/99.99nF/9.999nF	$\pm(2.0\%+5)$
	9.999mF/99.99mF	$\pm(5.0\%+20)$
频率	9.999MHz/999.9KHz/99.99KHz/9.999KHz/ 999.99Hz/99.99Hz/9.999Hz	$\pm(0.1\%+2)$
温度	(-55~1300°C)/(-67~2372°F)	$\pm(2.5\%+5)$
二极管 / 通断	✓	
单表笔交流电压 探测 (LIVE)	✓	

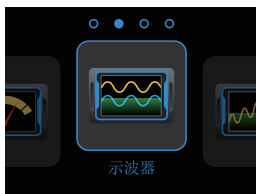
3.4 信号发生器参数

参数	规格描述
输出波形	支持13种波形输出
波形频率	0-10KHz
方波占空比	0-100%, 矩形波、锯齿波可调
波形幅值	0.1V-3.0V

四、操作指南

4.1 开机

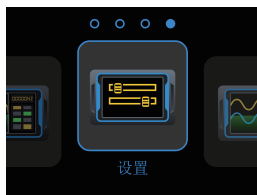
长按  开机, 等待系统加载, 进入系统设置默认界面。



默认界面

4.2 语言设置

在默认界面, 短按选择键选择系统设置, 短按确认键进入系统设置, 短按选择键选择语言, 后短按确认键进入语言设置, 上下键选择需要设置的语言即可



短按 ENTER

短按 



五、快速入门

5.1 快速测量

- 1、开启多功能万用表示波器，等待系统加载，可选择模式：示波器、信号发生器、万用表等，举例选择信号发生器。
- 2、首先将接口连接好，进入信号发生器，选择需要输出的波形。点击确认键，确认设置频率、占空比、幅值等。
- 3、当设置好对应参数，点击运行/暂停键开启信号发生器即可。
- 4、点击模式切换按键，即可进行其他功能。

5.2 固件升级

- 设备关机,同时按住MODE键和电源键,此时设备会弹出Firmware Upgrade界面,插入USB Type-c数据线连接电脑,进入Firmware Upgrad界面进行固件升级。
- 进入Firmware Upgrad后,电脑识别出U盘,把固件文件直接拷贝到U盘即可。
- 拉取固件文件到U盘指定文件夹下即可。如果固件升级完成,会显示关机充电界面

※**注意:**固件升级只支持在电脑Windows10及以上系统使用。

六、故障排查

6.1 无法开机

可能原因：

- 电池电量耗尽
- 电池连接松动或损坏

解决方法：

- ① 检查电池电量，若电量不足请充电。
- ② 如果电池无法充电或设备依然无法开机，尝试重新安装电池，或更换电池。

6.2 屏幕无法显示

可能原因：

- 屏幕背光关闭
- 显示屏硬件故障
- 系统软件异常

解决方法：

- ① 按照手册检查并调节背光亮度设置。
- ② 尝试重启设备，确保系统恢复正常。
- ③ 如果屏幕仍无法正常显示，可能需要维修或更换显示屏。

七、维护保养

清洁设备外部

- **频率：**每月清洁一次，具体取决于使用环境。
- **方法：**使用柔软的布轻轻擦拭设备表面。避免使用化学清洁剂，特别是含有酒精或强酸、强碱的清洁剂，以免损坏外壳或屏幕。
- **注意事项：**
 - 定期清理通风口和按钮周围的灰尘，以保持设备通风散热良好。
 - 确保设备无任何液体、灰尘或杂物进入设备接口。
 - 输入插孔如果弄脏或潮湿可能会影响读数。
 - 用新的棉花球沾上清洁剂或润滑剂，清理每个插孔，润滑剂能防止和 湿气有关的插孔污染。

检查电池与电源

- **电池保养：**对于内置电池的示波器，定期检查电池的健康状态。避免电池完全放电，建议定期充电并避免长时间不使用设备。

- **充电规范:**使用官方提供的充电器进行充电,避免过充或过放,确保电池处于适宜的工作电压范围。
- **电池更换:**若电池表现出过度衰减(如无法正常充电或极快放电),应及时更换。

存放与携带

- **存放环境:**仪器应存放在干燥、通风的环境中,避免高温、高湿或剧烈的温度变化。避免将其放置在阳光直射的地方。
- **携带:**使用时应小心避免摔落,尤其是在携带过程中。推荐使用保护套或专用包进行携带。

软件更新

- 定期检查设备是否有新的固件更新。最新的固件可以修复已知的BUG并提升设备性能。
- 更新时确保操作步骤正确,使用官方发布的固件文件,并避免断电或其他干扰。

恢复出厂设置

- 若设备出现异常或无法正常工作,可尝试恢复出厂设置。恢复设置后,设备将清除所有自定义配置,恢复到初始状态。
- 恢复出厂设置的方法可以参考用户手册或联系厂商客服。

八、生产信息

产品名称:多功能示波器万用表

品牌/型号:FNIRSI / DST-201

服务电话:0755-28020752

生产商:深圳市菲尼瑞斯科技有限公司

地址:广东省深圳市龙华区大浪街道伟达工业园C栋西边8楼

服务邮箱: support@fnirsi.com

商务邮箱: business@fnirsi.com

官方网站:www.fnirsi.cn

执行标准:GB/T 32194-2015

九、保修说明

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- 产品安装环境中相关配件不符合产品要求、标准和相关规范造成的损坏;
- 用户对产品使用不当、保管不妥或擅自拆机、私自维修等原因造成的损坏;
- 超过保修期。

1.SECURITY REQUIREMENT

1.1 Environmental Requirement

Precautions

- Avoid high temperature, open flame, corrosive gas, humid or dusty environment to prevent equipment failure.
- To prevent incorrect use of the instrument, please read the instruction manual carefully and follow the safety regulations. To ensure your personal safety, please use the test leads provided with the meter. Before use, check and make sure they are intact.
- Measurements must be made using the correct input terminal, function, and range. The input value must not exceed the input limit value specified for each range to prevent damage to the instrument.

Keep away from the following items

- Heaters: Avoid overheating or fire risks.
- Water sources, chemical solvents: Leakage may damage the device or cause a fire.
- Strong magnetic equipment: Prevent magnetic fields from interfering with the normal operation of the device.
- Air Conditioning and Ventilation Equipment: Prevent condensation from causing short circuits.



Please do not dispose of used batteries or equipment with regular household waste. They should be handled according to national or local regulations.

2.PRODUCT OVERVIEW

2.1 Production Introduction

The DST-201 is a highly practical multifunction oscilloscope multimeter launched by FNIRSI, specifically designed for the electronics repair and R&D industries. The product combines an oscilloscope, signal generator, and multimeter into one, meeting a wide range of measurement needs.

The main features of the product are:

Oscilloscope function:

- Sampling rate: 5MSa/s
- Analog bandwidth: 1MHz
- Voltage protection: $\pm 400V$

Signal generator function:

- Support 13 waveform output, frequency range 0-10KHz, output voltage is adjustable from 0-3V.
- Output parameters (frequency, amplitude, duty cycle) are adjustable, which is flexible to meet various needs.

Multimeter Functions:

• **Comprehensive features:** Includes recording mode, auto measurement, AC/DC voltage, AC/DC current, resistance, capacitance, diode/continuity, frequency, temperature, data hold, LIVE wire detection, and more. Also offers overload protection and low battery warning.

Portable Design:

- Equipped with a 2.8-inch TFT color screen, providing clear and intuitive display.
- Built-in high-capacity rechargeable lithium battery (3000mAh) supports long standby time (15 hours).
- Compact and lightweight, making it ideal for mobile use.

The FNIRSI-DST-201 is designed to provide users with powerful, versatile functionality and a portable operating experience. Whether used in factories, schools, home environments, or by professionals and enthusiasts, the DST-201 is an ideal multifunctional instrument.

2.2 Operation Diagram



Knob Selector:

Ⓐ :Auto Range

Ω :Resistance

∇ :Diode

Hz :Frequency

mA :AC/DC mA Current

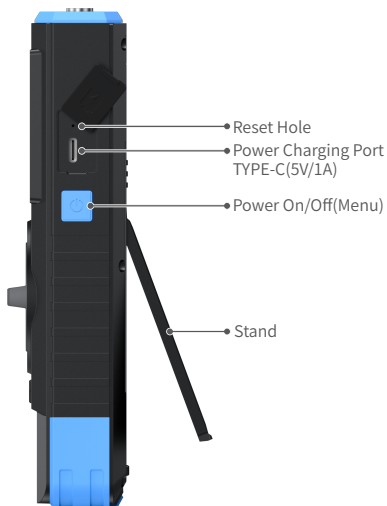
∇ :AC/DC Voltage

∇ :Buzzer

∇ :Capacitance

∇ :Temperature Measurement

A :AC/DC Current



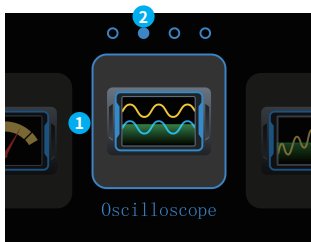
2.3 Function Mode Page

- ① **Function page display:** This area displays the function name selected at the moment.
- ② **Mode switch:** Click the left and right keys or the up and down keys to select the function. There are 4 sections in total:

Multimeter

Oscilloscope

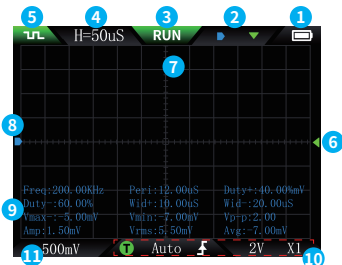
Signal generator Settings



Key	Operation	Function description
	Long press	Switch on/off
	Short press	Menu button
	Short press	Enter the mode switch function menu and select the mode.
ENTER 	Short press	ENTER "Confirm key", press to confirm and enter the selected mode.
 MODE	Short press	MODE "Mode switch key", used to quickly switch between modes.
Knob Gear	Rotate	Quickly jump to the corresponding multimeter function and measurement range.

2.4 Oscilloscope

- Battery display:** This area displays the remaining battery.
- Mode switch:** Short press the ENTER confirmation key to switch horizontal and vertical units, horizontal trigger movement, channel waveform up and down movement, and trigger level up and down movement.
- Run/Stop indication:** Short press the Run/Stop button, RUN for running, STOP for stopping.
- System time base:** refers to a large horizontal grid representing the length of time, which is determined by the sampling rate.
- Function signal generator indication:** Green means the function signal generator is turned on, red means it is not turned on, and the displayed graph represents the set waveform category.
- Trigger voltage indication icon:** that is, the trigger threshold.
- Trigger X position indication arrow:** indicates that this is the trigger point.

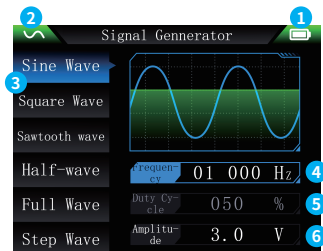


- ⑧ **Channel waveform:** The waveform signal collected by the channel.
- ⑨ **Measurement data:** You can press and hold the Run/Pause key to turn on/off the measurement parameter display.
- ⑩ **Trigger setting:** You can press and hold the MODE key to set the trigger mode, trigger edge, probe ratio, and coupling type.
- ⑪ **System voltage:** refers to a large vertical grid representing the voltage length, which is determined by the sampling rate.

Key	Operation	Function description
	Short press	Menu button, get back to menu
	Long press	Turn power on/off
 MODE	Short press	Switch to other modes
	Long press	Open oscilloscope setting menu, it can be used to set coupling type, probe ratio, trigger mode, trigger edge etc..Long press again to close the parameter menu.
 AUTO LIVE	Short press	Auto Measurement
	Long press	Auto Calibration
 ENTER	Short press	You can switch between horizontal and vertical units, horizontal trigger movement, channel waveform movement, and trigger level movement. If in the parameter menu, short press to confirm the setting.
	Long press	50% center
 RUN SAVE	Short press	Click to pause, click again to run
	Long press	Quickly display/close parameter measurement

2.5 Signal Generator

- ① **Battery display:** This area displays the remaining battery.
- ② **Status display:** This area displays the on-state of the signal generator, green for on, red for off.
- ③ **Waveform category:** Short press the up or down key to select the waveform category, a total of 13 waveforms are available.

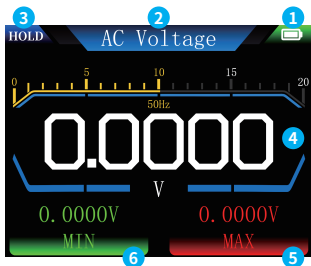


- ④ **Frequency setting:** Click the confirmation key to enter the frequency/duty cycle/amplitude selection, click the "Select the frequency" to enter the third-level navigation, set the frequency value, and click the return key to save.
- ⑤ **Duty cycle setting:** Click the confirmation key to enter the frequency/duty cycle/amplitude selection, click the "Select duty cycle" to enter the third-level navigation, set the duty cycle, and click "Return" to save.
- ⑥ **Amplitude setting:** Click the confirmation key to enter the frequency/duty cycle/amplitude selection, click the key to select the amplitude to enter the third-level navigation, set the amplitude, and click "Return" to save.

Key	Operation	Function description
	Short press	Menu button, switch to function menu.
	Long press	Turn on/off power
MODE	Short press	Switch to other modes
AUTO OFF	Long press	"Back"
ENTER 50%	Short press	Confirm, enter the frequency/duty cycle/amplitude selection, use the up,down, left, and right keys to set the corresponding value
RUN SAVE	Short press	Click to turn on/off generator

2.6 Multimeter

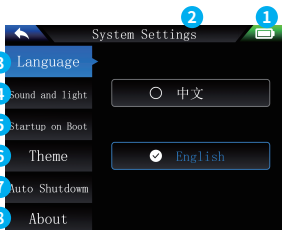
- ① **Battery display:** This area displays the remaining battery.
- ② **Range display:** This area displays the gear selected for the multimeter measurement.
- ③ **Data hold:** Short press the Run/Pause button to implement data retention.
- ④ **Measurement data display:** This area displays the measurement data of gear selected.
- ⑤ **Maximum value:** This area displays the maximum value during the measurement process and updates in real time.
- ⑥ **Minimum value:** This area displays the minimum value during the measurement process and updates in real time.



Key	Operation	Function description
	Short press	Menu key, return to function menu
	Long press	Turn power on or off
	Short press	Switch to other modes
	Long press	Switch to recording mode, this mode will visualize the measured data
	Short press	Switch to zero-live detection, click again to exit
	Short press	Turn on/off Data Retention
	Long press	Display in recording mode, record the measured data at the moment, and display it in the right area of the screen
	Short press	Quickly switch the current gear to other options

2.7 System Setting Page

- ① **Battery display:** This area displays the remaining battery.
- ② **Mode display:** This area displays the mode system settings.
- ③ **Language settings:** Chinese and English can be switched.
- ④ **Sound and light settings:** Click the confirmation button to enter the sound and light settings, use the up and down keys to select the sound/brightness, and the left and right keys to adjust. The sound can be set to mute.
- ⑤ **Default turning-on mode :** There are 3 function modes to choose to enter by default when the device is turned on, or you can choose none of them.
- ⑥ **Theme settings:** The device provides two themes: night and daylight.
- ⑦ **Auto shutdown settings:** You can set the auto shutdown time to 15min, 30min, and 1hour. When there is no operation, the device will automatically shut down after the standby time is set.
- ⑧ **About:** Display product brand information and current version number.
- ⑨ **Restore factory settings:** Click OK to choose whether to restore factory



3. TECHNICAL SPECIFICATION

3.1 Device Parameters

Parameters	Specification
Item No.	DST-201
Screen Material	2.8 inches TFT Colorful Screen
Backlight	Backlight brightness adjustable
Charging Power	TYPE-C (5V1A)
Battery	3000mAh
Languages	中文/English
Product Size	$\approx 177.43 \times 87.47 \times 34.5\text{mm}$
Net Weight	$\approx 300\text{g}$

3.2 Oscilloscope Parameters

Parameters	Specification	Remarks
Real-time Sampling rate	5MSa/s	
Analog Bandwidth	1MHz	
Input Impedance	1M Ω	
Coupling Mode	AC/DC	
Test Voltage Range	1:1 Probe:80Vpp($\pm 40V$) 10:1 Probe:800Vpp($\pm 400V$)	Oscilloscope sets X1 gear Oscilloscope sets X10 gear
Vertical Sensitivity	10mV/div~10V/div	X1 gear
Vertical Displacement	Adjustable with indicators	
Level Time Base	500ns~20s	
Trigger Mode	Auto/Normal/Single	
Trigger Type	Rising Edge & Falling Edge	
Trigger Level	Adjustable with indicators	
Waveform Freeze	Support(HOLD function)	
Auto Measurement	Maximum, Minimum, Average, RMS, VPP, Frequency, Period, Duty Cycle	

3.3 Multimeter Parameters

Function	Range	Accuracy
DC Voltage	1.9999V/19.999V/199.99V/1000V	$\pm(0.5\%+3)$
AC Voltage	1.9999V/19.999V/199.99V/750.0V	$\pm(1\%+3)$
DC Current	19.999mA/199.99mA/1.9999A/9.999A	$\pm(1.2\%+3)$
AC Current	19.999mA/199.99mA/1.9999A/9.999A	$\pm(1.5\%+3)$
Resistance	19.999M Ω /1.9999M Ω /199.99K Ω /19.999K Ω	$\pm(0.5\%+3)$
	1.9999K Ω /199.99 Ω	$\pm(2.0\%+3)$
Capacitance	999.9 μ F/99.99 μ F/9.999 μ F/ 999.9nF/99.99nF/9.999nF	$\pm(2.0\%+5)$
	9.999mF/99.99mF	$\pm(5.0\%+20)$
Frequency	9.999MHz/999.9KHz/99.99KHz/9.999KHz/ 999.99Hz/99.99Hz/9.999Hz	$\pm(0.1\%+2)$
Temperature	(-55~1300°C)/(-67~2372°F)	$\pm(2.5\%+5)$
Diode/Continuity	✓	
Single Probe AC Voltage Measurement(LIVE)	✓	

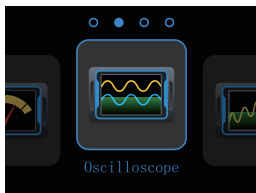
3.4 Signal Generator Parameters

Parameters	Specification
Output Waveform	Support 13 types of waveform output
Waveform Frequency	0-10KHz
Square Duty Cycle	0-100%, Square and Sawtooth are adjustable
Waveform Amplitude	0.1V-3.0V

4. OPERATION GUIDE

4.1 Boot

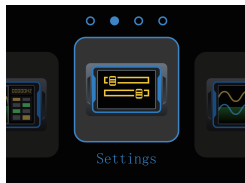
Long press  power on, wait for the system to load, and enter the default interface of system settings.



Default Boot Interface

4.2 Language Settings

In the default interface, short press select button to select "System Settings", press "Enter" to enter system settings, select language settings, and then press "Enter" to enter language settings, select the language by using the up/down buttons.



Short press



4.3 Adjust Oscilloscope Parameters

Oscilloscope Adjustment

In the default interface, short press the left or right key to select the function module oscilloscope, and click "Enter" to enter the oscilloscope. Long press the mode switch key (MODE) to enter the oscilloscope parameter setting. You can select and set parameters at relevant selection area, such as coupling type, probe ratio, trigger mode, trigger edge, etc. Long press the mode switch key (MODE) again to close the oscilloscope parameter setting.



Oscilloscope Function Interface

Long press
MODE
MODE

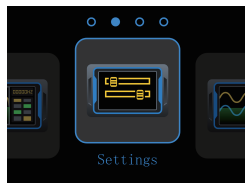


Oscilloscope Parameter Setting Interface

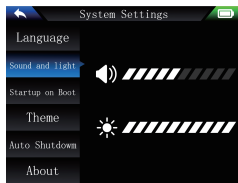
4.4 Brightness Adjustment

Brightness Adjustment

In the default interface, short press the selection key to select system settings, click "Enter" to enter the system settings, click the selection key to select sound and light settings, and then click "Enter" to enter the sound and light settings, select the brightness then press left or right selection key to adjust the brightness in real time.



Short press
ENTER



Adjust Other Functions of System Settings:

The corresponding function selection and opening are roughly the same as the above operation navigation, and the step description is omitted

5. QUICK START GUIDE

5.1 Quick Measurement

1. Turn on the multi-functional oscilloscope and wait for the system to load. You can choose the mode: oscilloscope, signal generator, multimeter, etc. For example, select the signal generator.
2. First connect the interface, enter the signal generator, and select the waveform to be output. Click the confirmation key to confirm the setting of frequency, duty cycle, amplitude, etc.
3. When the corresponding parameters are set, click the run/pause key to start the signal generator.
4. Click the mode switch button to perform other functions.

5.2 Firmware Upgrade

- Shut down the device, long press "MODE" and the power button at the same time, the device will pop up the Firmware Upgrade interface, plug in the USB Type-c data cable to connect to the computer, enter the Firmware Upgrade interface to upgrade the firmware.
- After entering the Firmware Upgrade, the computer recognizes the USB drive, and the firmware file can be directly copied to the USB drive.
- Pull the firmware file to the specified folder of the USB drive. If the firmware upgrade is completed, the shutdown charging interface will be displayed

※Note: Firmware upgrade is only supported on computers with Windows 10 and above.

6.TROUBLESHOOTING

6.1 Unable to Boot

Possible causes:

- Battery exhausted.
- Loose or damaged battery connection

Solution:

- ① Check battery charge and charge if low.
- ② If battery fails to charge or device still does not power on, try reinstalling or replacing the battery.

6.2 Screen Does Not Display

Possible causes:

- Back light of screen is closed
- Display hardware malfunction.
- System software abnormality

Solution:

- ① Check and adjust the backlight brightness settings according to the manual.
- ② Try restarting the device to ensure the system returns to normal.
- ② If the screen still does not display properly, the display may need to be repaired or replaced.

7. MAINTENANCE

Cleaning The Outside of The Device

- **Frequency:** Clean once a month, depending on the usage environment.
- **Method:** Use a soft cloth to gently wipe the surface of the device. Avoid using chemical cleaners, especially those containing alcohol or strong acids or alkalis, to avoid damaging the casing or screen.
- **Note:**
 - Clean the dust around the device and buttons regularly to keep the device in good condition.
 - Make sure no liquid, dust or debris enters the device interface.
 - If the input jack is dirty or wet, it may affect the reading.
 - Use a new cotton ball dipped in a cleaning agent or lubricant to clean each jack. The lubricant can prevent moisture-related jack contamination.

Check the battery and power:

- **Battery maintenance:** For instruments with built-in batteries, check the health of the battery regularly. Avoid complete battery discharge. It is recommended to charge regularly and avoid not using the device for a long time.
- **Charging specifications:** Use the official charger to charge, avoid overcharging or over-discharging, and ensure that the battery is in the appropriate operating voltage range.
- **Battery replacement:** If the battery shows excessive attenuation (such as failure to charge normally or extremely fast discharge), it should be replaced in time.

Storage and Carrying:

- **Storage environment:** The device should be stored in a dry and ventilated environment, avoiding high temperature, high humidity or drastic temperature changes. Avoid placing it in direct sunlight.
- **Carrying:** Be careful to avoid falling when using, especially when carrying. It is recommended to use a protective case or a special bag for carrying.

Software Update:

- Regularly check whether the device has new firmware to update. The latest firmware can fix known bugs and improve device performance.
- When updating, make sure the operation steps are correct, use the officially released firmware files, and avoid power outages or other interference.

Restore Factory Settings:

- If the device is abnormal or does not work properly, try to restore the factory settings. After restoring the settings, the device will clear all custom configurations and return to the initial state.
- For methods to restore factory settings, please refer to the user manual or contact the manufacturer's customer service.

8.CONTACT US

Any FNIRSI users who contact us with questions will receive our promise of a satisfactory solution, plus an extra 6-month warranty as a token of our appreciation for your support! By the way, we have created an exciting community, and we welcome you to contact FNIRSI staff to join.

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E-mail: service@fnirsi.com (Equipment Service)



<http://www.fnirsi.com/>

9.WARRANTY INFORMATION

※This page is the basic warranty card. Please keep it.

Thank you for choosing our company's products. The warranty period of this product starts from the date of sale. During the product warranty period, if the product is installed and used in accordance with the product manual and used in normal environment and conditions, and the fault is caused by defects in the original materials and processing, you can enjoy free repair services according to the content of this warranty clause. Please keep this warranty card properly as a warranty certificate. No reissue will be issued if it is lost.

The following situations will incur paid repair services

- 1.Unable to present the original valid warranty card.
- 2.Damage caused by improper installation not meeting product requirements, standards, or relevant specifications.
- 3.Damage caused by accessories in the installation environment not meeting product requirements, standards, or relevant specifications.
- 4.Damage caused by improper use, improper storage, unauthorized disassembly, or unauthorized repairs by the user.
- 5.Expiration of the warranty period.

保修卡

产品型号	DST-201	数量	
渠道商名称 (购买商店)			
联系方式			
渠道商地址			
发票号 (订单号)			
购买时间	年	月	日
客户姓名:	地址: 		
联系方式: 	故障说明: 		

Warranty Card

Product Model	DST-201	Qty.	
Distributor Name (where to buy)			
Contact			
Address			
Invoice Number (Order Number)			
Purchase Date (as per invoice)	Year	Month	Day
User Name:	Address:		
			
Contact:	Fault Description:		
			



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