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USER NOTICE

● This manual provides detailed instructions on product usage, precautions, and related matters. Before using the product, please read the manual carefully to ensure optimal performance of the product.

●Do not use the instrument in flammable or explosive environments.

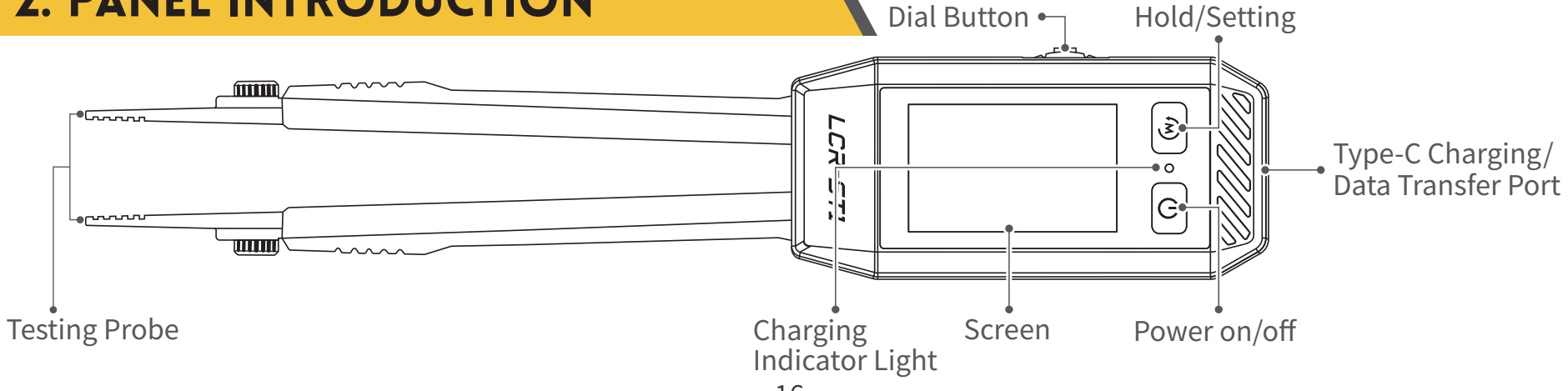
●Waste batteries replaced by the instrument and scrapped instruments should not be disposed of together with household waste. Please dispose of them according to relevant national or local laws and regulations.

●If there are any quality issues with the instrument or if you have any questions about its use, please contact "FNIRSI" online customer service or the manufacturer. We will promptly assist you.

1.PRODUCTS OVERVIEW

LCR-ST1 is our latest developed tweezer-type LCR bridge. This product is a multifunctional and portable testing instrument that supports precise measurement of resistance, capacitance, inductance, and diodes. Utilizing advanced measurement technology, it ensures high accuracy and stability. Its 1.14-inch color screen display and magnetic suction feature enhance usability. With a built-in 250mAh lithium battery, it provides long-lasting usage time and supports three frequencies: 100Hz, 1kHz, and 10kHz. The unique tweezer-type design makes it particularly suitable for fine operations in narrow spaces, enabling quick testing of electronic components. Its lightweight and portable nature make it an indispensable and efficient tool for field engineers and laboratories.

2. PANEL INTRODUCTION



Button	Operation	Interface	Function	Button	Operation	Interface	Function
	Short Press	/	Power On		Short Press	Main Interface	Select and adjust voltage, resistance
		Main Interface	Reset			Settings Interface	Confirm/exit selection
	Long Press	/	Power Off				
	Short Press	Main Interface	Hold Data		Scroll left/right	Main Interface	Adjust numerical values left/right
	Long Press	/	Enter/exit Settings			Settings Interface	Select options up/down

3.PARAMETER INTRODUCTION

Product Model	LCR-ST1	**Screen**	1.14inch
Size	28×19×150mm	**Power Supply Voltage**	250mAh rechargeable lithium battery
Weight	41g	**Charging Specifications**	USBType-C, 5V/1A

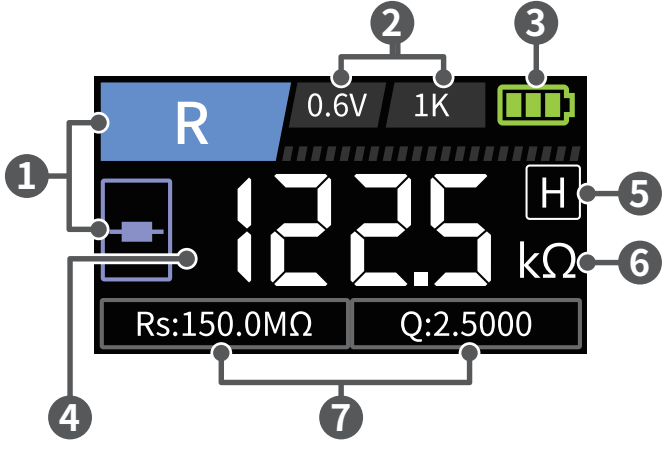
Type	Range	100Hz	1KHz	10KHz
Capacitance	1mF-22mF	5%reading±3	5%reading±3	- - -
	1uF-1mF	2%reading±3	2%reading±3	2%reading±3
	1nF-1uF	2%reading±3	0.5%reading±3	0.5%reading±3
	1pF-1nF	- - -	2%reading±3	2%reading±3

Type	Range	100Hz	1KHz	10KHz
Inductance	1H-10H	5%reading±3	5%reading±3	- - -
	1mH-1H	2%reading±3	2%reading±3	2%reading±3
	10uH-1mH	2%reading±3	0.5%reading±3	0.5%reading±3
	1uH-10uH	- - -	- - -	2%reading±3
Resistance	1MΩ-10MΩ	5%reading±3	5%reading±3	- - -
	1KΩ-1MΩ	1%reading±3	0.5%reading±3	1%reading±3
	1Ω-1KΩ	1%reading±3	0.5%reading±3	0.5%reading±3
	10mΩ-1Ω	2%reading±3	2%reading±3	2%reading±3

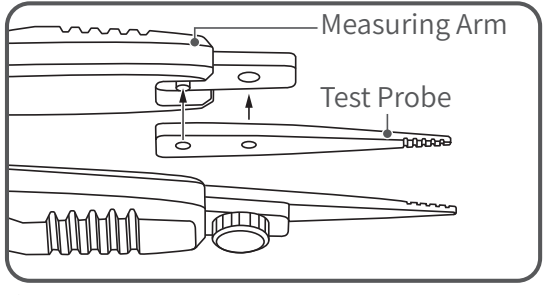
4. OPERATION INSTRUCTIONS

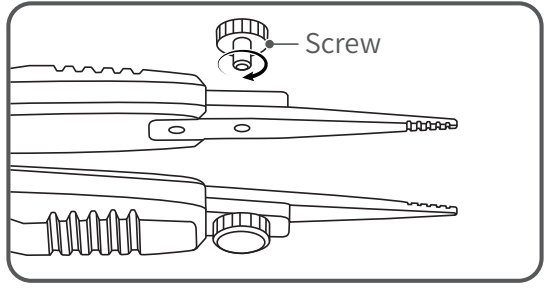
【4.1】Interface Introduction

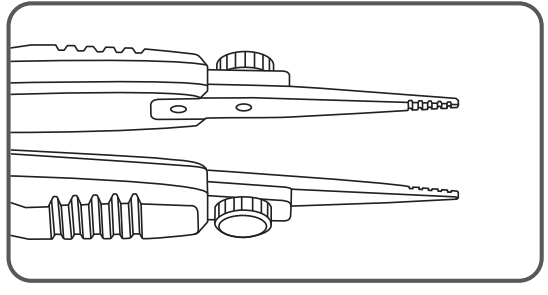
①Test range ②Test voltage/frequency
③Battery level ④Measurement parameters
⑤Data hold ⑥Units
⑦Auxiliary measurement parameters



【4.2】Installation Instructions for Test Probe







●Insert the alignment hole of the test probe into the measuring arm (ensure the serrated side of the test probe faces the inner side of the tweezers).

●Rotate the screw to tighten for installation.

※Removal follows the same principle; the measuring arm is not detachable.

【4.3】Operation Instructions

Power On/Off: Short press ⏻ Power on, long press ⏻ Power off

Main Parameter Selection: Use the  left and right dial buttons to automatically switch between resistance, capacitance, inductance, and diode measurement parameters.

Test Voltage Level Selection: Press the  middle dial button to switch the voltage level area, then use the  left and right dial buttons to switch between 0.3V and 0.6V test voltages.

Test Frequency Selection: Press the  middle dial button to switch the frequency area, then use the  left and right dial buttons to switch between 100Hz, 1kHz, and 10kHz test frequencies.

※ LCR meters use an AC test signal applied to the Device Under Test (DUT) for impedance measurement. Frequency is a primary parameter of the AC signal source. Due to component non-idealities, distributed parameters, and the influence of test leads and connections, the same component may yield different measurement results at different test frequencies.

Short Circuit Zeroing: First, select the test frequency that you want to zero. Insert a short-circuit piece into the test socket, whether using SMD test tweezers or clamps. Short-press ⏻ to enter zeroing mode. The instrument will automatically measure and execute the corresponding short circuit zeroing after identification.

Data Hold: Short press Ⓜ the data hold. At this time, the screen will display the [H] .

Settings Page: Long press the Ⓜ button to enter system settings.Use the  left and right dial buttons to switch between primary and secondary menus.Press the  middle dial button to enter or exit the secondary menu.

The system settings include the following content:

Settings	Function	Parameter Options
Language	Switch system display language	Chinese, English
Volume	Adjust system volume	0-5 level adjustment
Backlight	Adjust screen brightness	0-100 progress bar infinite dimming
Auto Power Off	Automatic shutdown without operation	Off / 5 / 15 / 30 minutes
Restore	Restore to factory settings	Clear all set parameters
About	View system information	View model and version number

5.FIRMWARE UPGRADE

- Power off the device, then long press the dial button and power button to enter the firmware upgrade page.
- Connect the device to the computer using a data transfer cable.
- A file folder popup will appear on the computer automatically. Drag and drop the firmware file into the folder.
- Once the firmware upgrade is complete, the device will automatically restart.

6.PRECAUTIONS

- Ensure good contact between the tweezer tips and the device under test to avoid measurement errors due to poor contact.
- Do not measure under live conditions to prevent damage to the instrument.
- It is not recommended for online measurements. Due to the characteristics of external PCBA connections, online measurement values are for reference only and do not guarantee accuracy.
- The automatic does not support diode measurement and automatically detected component type is for reference only and may lead to misjudgment under special circumstances.

7.CONTACT US

Any FNlRSl's users with any questions who comes to contact us will have our promise to get a satisfactory solution +an extra 6 months warranty to thanks for your support!
By the way, we have created an interesting community, welcome to contact FNiRSl staff to join our community.

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