

FNIRSI 菲尼瑞斯

HRM-10

高精度内阻测试仪

HIGH-PRECISION INTERNAL RESISTANCE TESTER



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NOTICE TO USERS

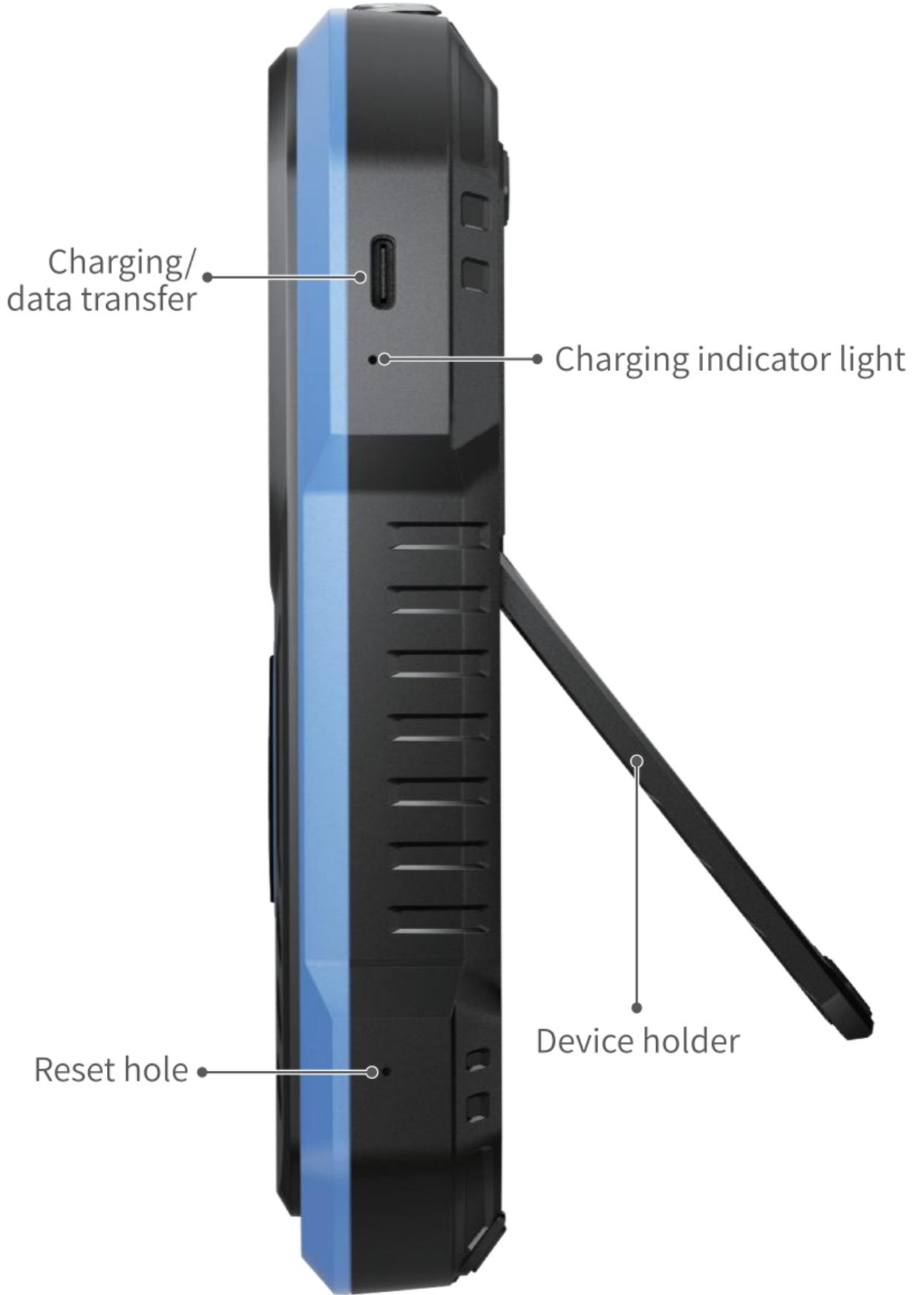
- This manual provides detailed instructions on how to use the product, safety precautions, and relevant information. Before using the product, please read the manual carefully to ensure optimal performance of the product.
- Do not use the instrument in flammable or explosive environments.
- Disposed batteries and obsolete instruments should not be disposed of with household waste. Please follow the relevant national or local laws for disposal.
- If there are any quality issues with the instrument or if you have any questions about using the instrument, please contact "FNIRSI" online customer service or the manufacturer. We will promptly assist you.

1. PRODUCT INTRODUCTION

The "HRM-10" is our company's first handheld high-precision internal resistance meter. It is a true four-wire measurement internal resistance meter, designed with precision, convenient to carry. The device can automatically test internal resistance and voltage values simultaneously, with measurement results displayed on the screen. Users can also manually adjust the voltage and resistance range. The product features a sorting mode, automatically filtering the good and bad batteries based on user-set thresholds. It also supports historical records and exporting data tables of historical measurements.

2.PANEL INTRODUCTION





Charging/
data transfer

Charging indicator light

Reset hole

Device holder

3.PARAMETER INTRODUCTION

| | VOLTAGE | RESISTANCES |
|---|-------------------------------------|---|
| MEASURING RANGE | 0—±100V (DC) | 0 — 200Ω |
| ACCURACY | ±0.5% | ±0.5% |
| GEAR | Automatic, 1V, 10V, 100V | Automatic, 20mΩ, 200mΩ,2Ω, 20Ω, 200Ω |
| INSTRUMENT TEST SIGNAL FREQUENCY | AC 1Khz | |
| RECHARGEABLE | TYPE-C interface (5V/1A) | |
| BUILT-IN BATTERY | 1000mAh lithium battery | |
| USER CALIBRATION | Support | |
| SORTING MODE | Support | |
| HISTORY RECORD | Support | |
| RECORDED DATA EXPORT | Support | |
| WORKING ENVIRONMENT | -10°C——+45°C, relative humidity<80% | |
| STORAGE ENVIRONMENT | -20°C——+80°C, relative humidity<80% | |
| SIZE | 158.7×80.5×28.4mm | |
| WEIGHT | 225g | |

4. OPERATING INSTRUCTIONS

- ① **Power on:** Short press  to power on.
- ② **Shut down:** long press  to shut down.
- ③ **Adjust voltage:** short press **V** |  to select voltage, then short press  /  to switch range.
- ④ **Adjust the resistance:** short press **R** |  to select resistance, then short press  /  to switch the range.
- ⑤ **Sorting Mode:** Long press  to enter the menu, select Sorting Mode and click  to enter Sorting Mode. In sorting mode, there are 8 groups of customized threshold data groups, short press **V** |  / **R** |  to switch data groups, and  /  to select the threshold value to be set. In the sorting mode, the test results will be automatically evaluated and compared with the set threshold interval to judge whether they pass or fail, so as to filter out the qualified devices, and the evaluation will also be automatically saved in the history record.
- ⑥ **Export data to the computer:** the device through the USB to TYPEC cable connected to the computer, it will pop up a U disk, at this time the U disk inside the table is the recorded data.
- ⑦ **Voltage and resistance calibration:** Long press  to enter the menu, choose whether to calibrate voltage or resistance, click  to enter, follow the instructions to select the gear calibration. Each range is calibrated manually separately and does not affect each other. Restoring the machine to factory settings will restore the factory calibration parameters.

5.FIRMWARE UPDATE

Connect the device to the computer via USB to Type-C cable, long press the left button and the power on button to enter the upgrade page. At this time, a USB drive will pop up on the computer, pull the firmware into the USB flash drive will automatically upgrade.

6.PRECAUTIONS

- The machine cannot input DC voltage greater than 100V. AC voltage cannot be input under any conditions.
- Avoid high temperature and humid environment. Prevent the interface and circuitry from oxidizing by moisture.
- If it is not used for a long time, please keep the battery with 50% power (or battery voltage between 3.7V-3.9V) to extend lifespan.
- Use of Kelvin Plus Test Leads: When measuring the battery, the clips must be open. There should be no direct contact between the two metal pieces, and they must be in good contact with the battery electrodes, otherwise stable and accurate measurement will not be possible.

7.CONTACT US

Any FNIRSI'users with any questions who comes to contact us will have our promise to get a satisfactory solution + an Extra 6-Month Warranty to 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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