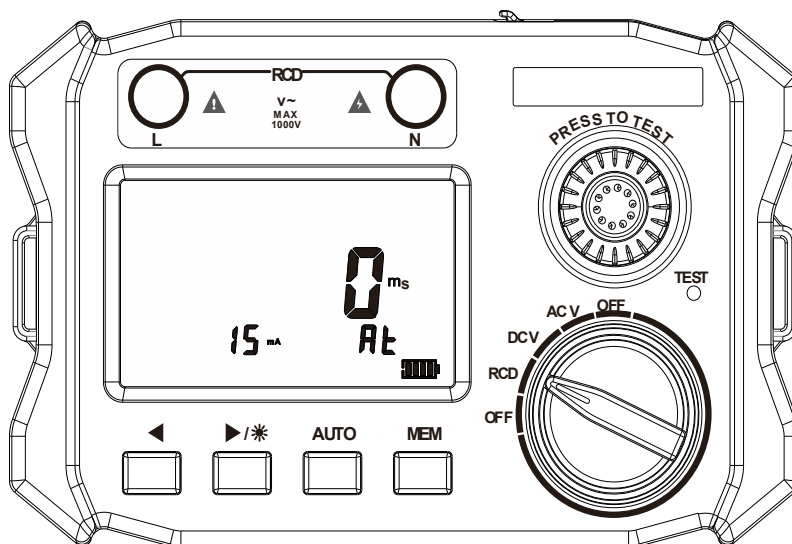


Leakage switch tester



ES9032 Contents Wireshark

Guangzhou Zhengneng Electronic Technology Co Ltd



CATALOG

1. Safety rules and precautions	1
2.Introduction	2
3.Measuring range and accuracy	3
4. Technical specifications	3
5.Instrument structure	6
6.operation method	7
6.1. Battery voltage check	7
6.2. Voltage test	7
6.3. Operating Instructions	8
6.4. Leakage switch test wiring method	8
6.5.Backlight Control	9
6.6. Data lock/storage	9
6.7. Data reading and deletion	10
7. Packing list	11

1. Safety rules and precautions

Thank you for purchasing the leakage switch tester of our company. Before you use the instrument for the first time, in order to avoid possible electric shock or personal injury, please read carefully and strictly abide by the safety rules and precautions listed in this manual.

- ✧ In any case, special attention should be paid to safety when using this instrument.
- ✧ When measuring, do not use high-frequency signal generators such as mobile phones next to the instrument to avoid errors.
- ✧ Pay attention to the words and symbols on the label on the body of the instrument.
- ✧ Before use, confirm that the instrument and accessories are in good condition, and that the insulation layer of the instrument and test wires is not damaged, exposed, No broken line can be used.
- ✧ During the measurement, it is strictly forbidden to touch the exposed conductor and the circuit being measured.
- ✧ Confirm that the connecting plug of the wire has been tightly inserted into the instrument interface.
- ✧ Do not measure in flammable places, sparks may cause explosion.
- ✧ When the instrument is in use, if the case or test line breaks and the metal is exposed, please stop using it.
- ✧ Do not in high temperature and wet with dew of place and placed under direct sunlight for a long time and storage instrument.

- ✧ When replacing the battery for the meter, please confirm that the test line has been removed from the meter and the meter is turned off.
- ✧ The meter displays the low battery voltage symbol "  ", the battery should be charged or replaced in time.
- ✧ Do not measure when the battery cover is open or when there is thunder.
- ✧ Pay attention to the measuring range and operating environment stipulated by this instrument.
- ✧ The use, disassembly, calibration and maintenance of this meter must be operated by authorized personnel.
- ✧ Due to the reason of this instrument, if continuing to use it will bring danger, stop using it immediately and seal it immediately. It is handled by an authorized institution
- ✧ The safety warning sign “  ” in the instrument and the manual, the user must be strictly in accordance with this manual Allow safe operation.

2.Introduction

ES9032 Leakage Switch Tester, also known as Leakage Switch Detector, Leakage Protector Tester, Residual Current Action Protector Detector, Residual Current Action Protector Tester, is an essential testing instrument for engineering quality supervision stations and construction companies. Measure the action time and action current of the leakage switch. It is mainly used to test the leakage action current, leakage non-operation current and leakage action time of the leakage protector. It can be widely used in power supply departments, agricultural power departments, leakage protector manufacturers, labor safety inspection departments in construction, mining, machine tool and other

industries, as well as electricians.


- ES9032 leakage switch tester is composed of host, test line, etc. Simple and portable, 4-digit super large LCD display, gray and white screen display, clear at a glance, easy to operate and use. Large-capacity storage of 500 sets of data, Ac voltage measurement range:1.0V ~ 750V, Dc voltage measurement range:1.0V ~ 1000V, measurement accuracy: $\pm 5\% \text{rdg} \pm 5 \text{dgt}$. The test leakage current is from 15 to 500mA, which is divided into ten gears (15; 30; 50; 75; 100; 150; 200; 250; 300; 500mA), and the test leakage current action time range is 0 to 999mS.

3.Measuring range and accuracy

Leakage current gear	15,30,50,75,100,150,200,250,300,500 mA	measurement accuracy: $\pm 10\% \text{rdg} \pm 3 \text{dgt}$	resolution ratio: 1mA
leakage current action time	Action time: 0~999mS	measurement accuracy: $\pm 4\% \text{rdg} \pm 6 \text{dgt}$	resolution ratio: 1mS
AC voltage measurement	1.0~750V	measurement accuracy: $\pm 5\% \text{rdg} \pm 5 \text{dgt}$	resolution ratio: 0.1V
DC voltage measurement	1.0~1000V	measurement accuracy: $\pm 5\% \text{rdg} \pm 5 \text{dgt}$	resolution ratio: 0.1V

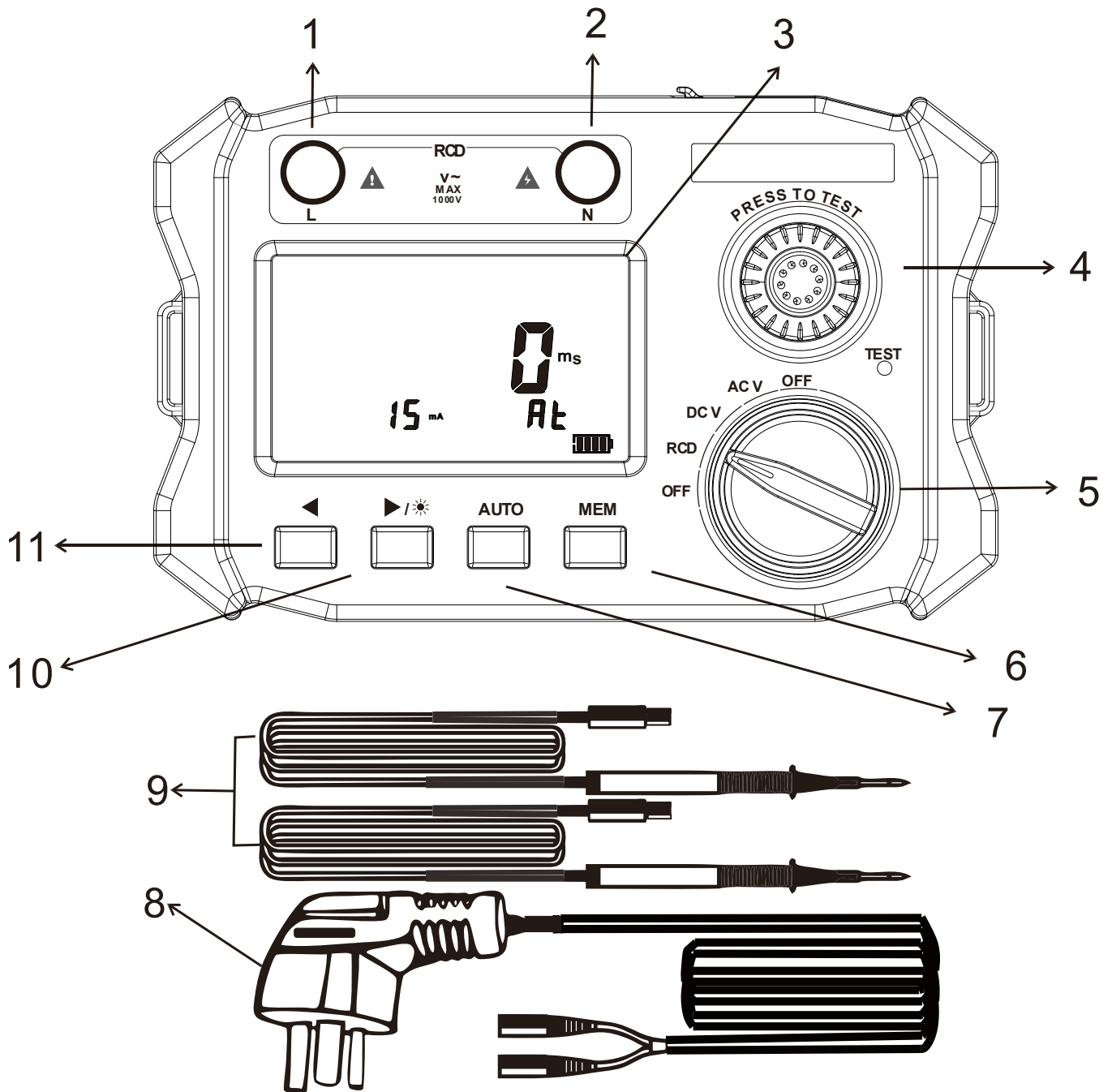
4. Technical specifications

Function	Leakage protector action time measurement, leakage protector action current measurement, voltage measurement.
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DC voltage range	1.0~1000V
DC voltage resolution	0.1V
AC voltage range	1.0~750V
AC voltage resolution	0.1V
Leakage current gear	15 , 30 , 50, 75, 100, 150, 200, 250, 300, 500 mA
Leakage action time	0~999 mS
Test mode	Manual (nt) or automatic (At)
Power supply	8 1.5V (AA) alkaline batteries
Back light	Controllable gray and white screen backlight, suitable for use in dark places
Auto off	Instrument shut down after 15 minutes without operation
Display mode	4-digit super large LCD display, gray and white screen backlight
LCD display size	73mm×43mm
Meter size	175mm (length)×112mm (width)×53mm (high)
Test line	Test line red 1 meter, black 1 meter
Data storage	500 groups, flashing "FULL" symbol means storage is full
Data review	Data query function: "MEM" symbol display
Power consumption	Standby: 53mA Max (backlight off)
	Power on backlight: 75mA Max
	Measurement: 108mA Max (backlight on)
Battery voltage	The battery voltage is low, and the low battery symbol is displayed“  ”
Quality	1230g(battery included)

Operating Temperature and Humidity	-10°C~+50°C<85%RH
Storage Temperature and Humidity	-15°C~+55°C<90%RH
Suitable for safety regulations	IEC61010-1 CAT III 600V, IEC61010-031, IEC61326, Pollution Degree 2

5.Instrument structure




1.L interface 2.N interface 3.LCD display 4.Test key

5.Dial key 6. “MEM” save key / read key 7. Auto and manual mode key

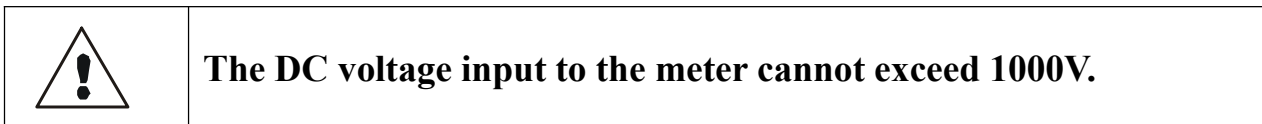
8. Socket test line 9. Test line 10. Right key/backlight key 11. Left key

6.operation method

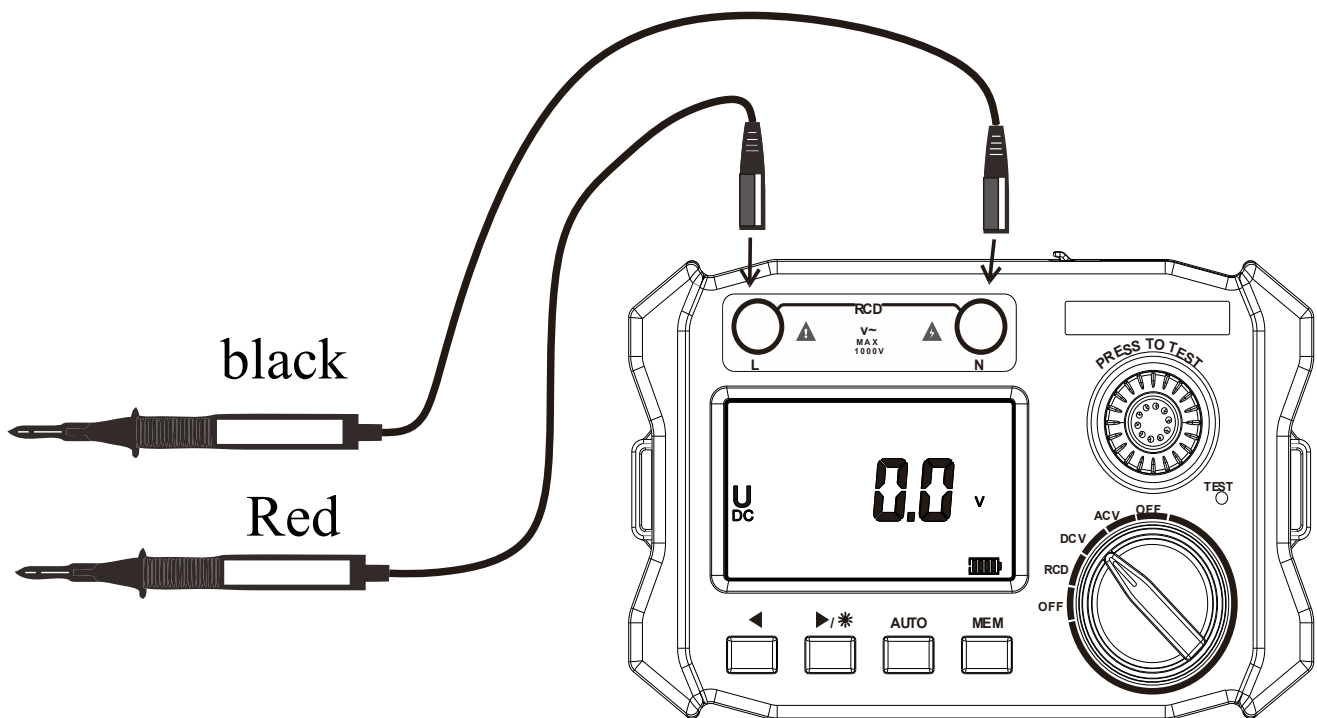
6.1. Battery voltage check

After starting up, if the LCD displays the low battery voltage symbol "  ", it means that the battery is low, please charge it in time. Only when the battery power is sufficient can the accuracy of the measurement be guaranteed.

6.2. Voltage test



Wiring method: When measuring voltage, connect the red test lead to the positive pole of the power supply, and the black test lead to the negative pole of the power supply.



6.3. Operating Instructions

Under the leakage current test interface:

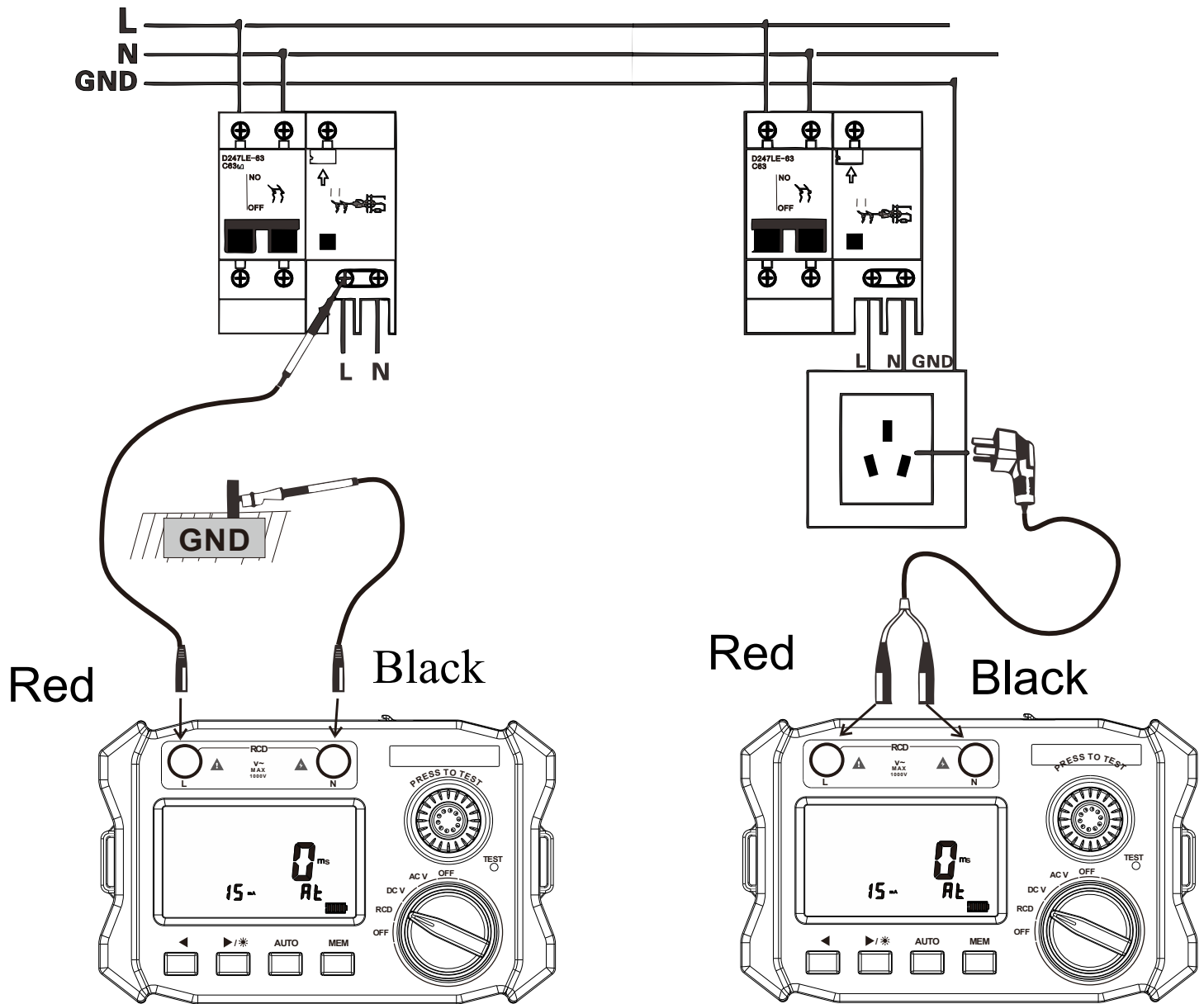
There are both manual (nt) and automatic (At) test modes, in which the leakage current interface is measured

Short press the " **AUTO** " key to switch between voltage AC automatic (At) test mode and manual (nt) test mode. When testing in automatic mode, start from the lowest gear with a rated operating current of 15mA. When you press the test button "TEST" to start, the test will stop when the leakage switch trips or the maximum action reaches the maximum gear of 500mA. " **Err** " means the value is invalid. . Short press the "◀ " or "▶ " key to switch the rated operating current range (15, 30, 50, 75, 100, 150, 200, 250, 300, 500mA).

6.4. Leakage switch test wiring method

One end of the black test lead is connected to the black "N" interface of the instrument, and the other end of the test lead is connected to the ground wire.

One end of the red test lead is connected to the red "L" interface of the instrument, and the other end of the test lead is connected to the fire wire.



6.5. Backlight Control

After powering on, press and hold the "  " button to turn on or off the backlight.

The backlight function is suitable for dark places. The default backlight is off every time you turn it on.

6.6. Data lock/storage

1. After the measurement is completed after starting up, short press the " **MEM** " button to lock the current display data and display the "DH" symbol, and automatically

store the number, short press the "**MEM**" button again to exit the lock, if the storage is full, the indicator will display the "FULL" symbol.

2. Save the display example as shown in the figure below: the measured data is the leakage current of 30mA, and the leakage current action time is 20mS. Short press "**MEM**" to display and store the data as the first group.

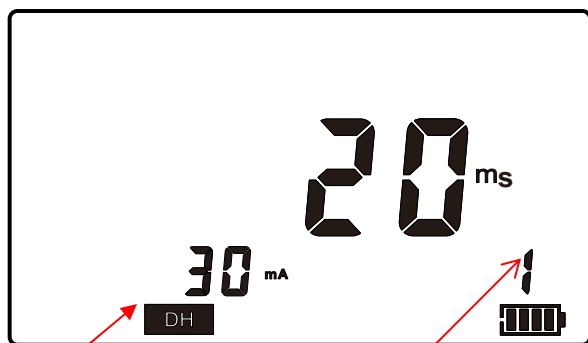


Figure 12-1 Lock and save display

"DH"lock identifier

"value" stores the index value

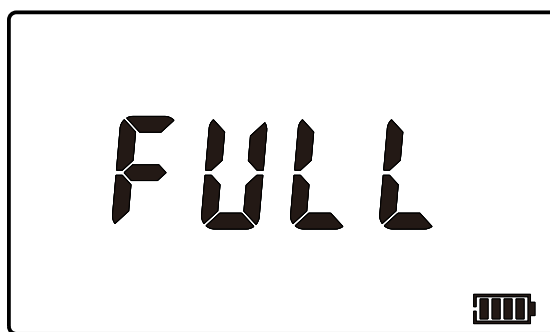


Figure 12-2 Storage full display

6.7. Data reading and deletion

After starting up, if the meter has saved data, long press the "**MEM**" button to enter the data query, and the "**MEM**" symbol on the stored data reading interface will be displayed. Short press the "**◀**" or "**▶**" key to view the corresponding data with a step value of 1, long press the "**◀**" or "**▶**" key to view the corresponding data with a step value of 10, and then short press the "**MEM**" key to exit the search.

1. As shown in the figure below: when checking, the number 1 in the lower left corner of the screen is the first data currently saved. If there is no stored data, the LCD will display "NULL".

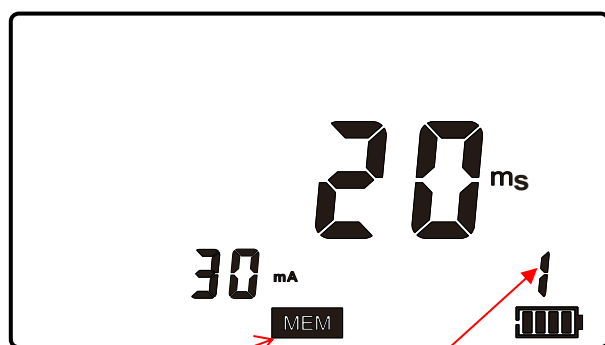


Figure 13-1 Resistance display readings

Look up Data Identifier

Look up the index value, the first data



Figure 13-2 AC voltage display readings

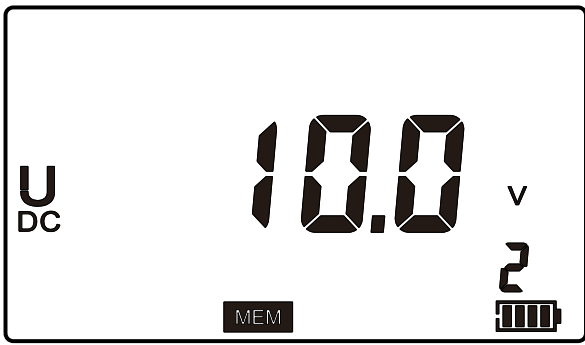


Figure 13-4 DC voltage display readings

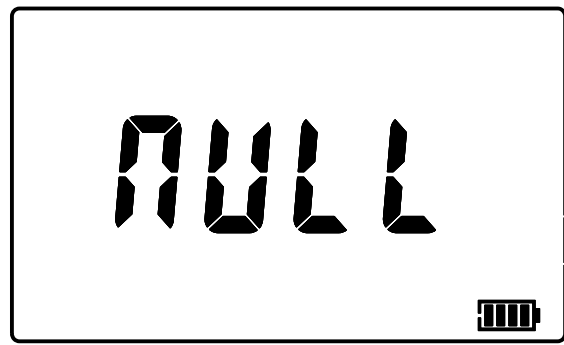


Figure 13-3 No stored data

In the data query state, long press the "AUTO" button to enter the data deletion, short press the "◀" button to delete the stored data and exit the query mode, short press the "▶" button to return to the query interface without deleting, and the deletion page is displayed as shown below.

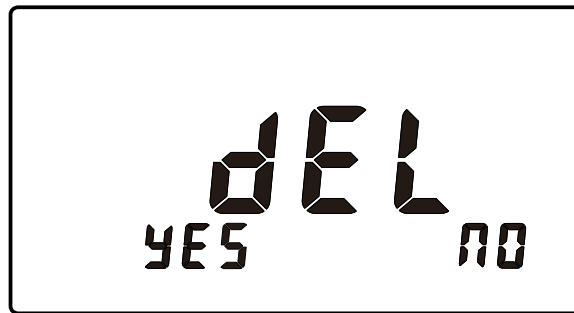


Figure 13-6 Delete display

7. Packing list

Instrument	1PC
Test line	3PCS (Red,black each 1, Socket test line 1)
Cell number	8PC
Specification,certificate of warranty	1SET
Instrument box (bag)	1PC



GuangZhou ZhengNeng Electronics Technology Co.LTD

Address: 4th Floor, No. 771, Guangcong Eighth Road, Changyaoling Village, Zhongluotan Town, Baiyun District, Guangzhou, China

Tel: 86-20-36544172

E-mail: sales@fuzrr.com

Post code: 510540

Website: <https://www.fuzrr.com>

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The company is not responsible for other losses caused by use.

The company reserves the right to modify the contents of the user manual. Changes will be made without prior notice.



Guangzhou Zhengneng Electronic Technology Co., Ltd.

Address: 4th Floor, No. 771, Guangcong 8th Road, Changyaoling Village, Zhongluotan Town, Baiyun District, Guangzhou City

Tel: 020-37319325

Fax: 020-373190

Zip code: 510540

Company website: www.znele.com

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