

**BY2671 Digital  
Insulation Resistance Tester**



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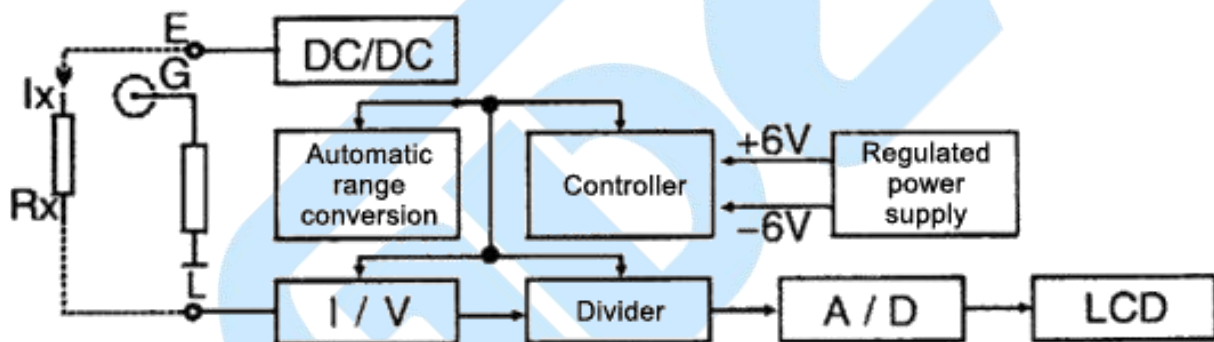
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## I 、 Product Overview

The instrument is made up of large scale integrated circuits. This table has high output power, high short circuit current value and many output voltage grades (each type has four voltage grades). The principle of operation is that the DC high voltage generated by DC/DC converter using in-machine batteries as power source goes from E pole to L pole through the tested product, thus generating a current from E to L pole. The measured insulation resistance value is displayed directly by LCD through I/V conversion and division operation.

## II 、 Schematic Diagram

As shown in the figure:



## III、 Scope Of Application

This instrument is indispensable for the installation and maintenance of electric power, post and telecommunications, telecommunications, electromechanical equipment, and the use of electric power as industrial power or energy in industrial enterprises. It is suitable for measuring the resistance value of various insulation materials and the insulation resistance of transformers, motors, cables and electrical equipment.

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#### **IV、 Product features**

1. the output power is large, the load carrying capacity is strong, and the anti-interference ability is strong.
2. The outer shell of this table is made of high strength aluminium alloy, equipotential protection ring and fourth-order active low-pass filter are installed in the machine, which can effectively shield the external power frequency and strong electromagnetic field. Because the output short-circuit current is greater than 1.6mA, it is easy to make the test voltage rise rapidly to the rated value of the output voltage. For the low resistance measurement, the voltage drop does not affect the test accuracy due to the design of the proportional method.
3. this instrument does not require manpower to work. It is powered by batteries, and the range can be automatically converted. The panel operation and LCD display at a glance make the measurement very convenient and fast.
4. the output short circuit current of this table can be directly measured without the need of measurement with load.

#### **V、 Technical indicators**

##### ① Conditions of Use

Ambient temperature: 0°C~+45°C

Relative humidity: ≤85%RH

##### ② Output voltage level, measurement range, resolution and error

model	Output voltage	measuring range	relative error	Resolution
2670	100V,250V 500V,1000V	0~1999MΩ	≤±5%±1d	0.001MΩ,0.01MΩ 0.1MΩ, 1.0MΩ
2671	500V,1000V 2000V,2500V	0~19990MΩ	≤±5%±1d	0.01MΩ,0.1MΩ, 1.0MΩ,10.0MΩ
2672	500V,1000V 2500V,5000V	20~1999GΩ	<±10%±1d	0.01MΩ,0.1MΩ 1.0MΩ

### ③ Output maximum voltage carrying capacity and short circuit current

model	Voltage / load	Voltage drop	short-circuit current
2670	1000V/2MΩ	≈10%	>2.0mA
2671	2500V/20MΩ	≈10%	>1.6mA
2672	5000V/20MΩ	≈10%	≥3.0mA

### ④ Power supply range and power loss

DC: 7~9V (7 sections of 5# rechargeable battery pack) external AC 220V power supply for charging.

Power waste: Static power≤160mW; Maximum power≤2.5W

### ⑤ Volume and weight

Volume: 220×200×105mm;

weight: <1.4kg

## VI、 Method of operation

### 1. Measurement steps

Turn on the power switch "ON", select the desired voltage level, tap the indicator light to light to represent the selected voltage file, tap the high voltage start/stop button, the high voltage indicator lights, the LCD display value is the measured insulation resistance value, close When pressing high voltage, just press the high pressure button again, and press the power "OFF" when turning off the power of the whole machine.

## 2、 Terminal symbol meaning

When measuring insulation resistance, line "L" is connected with the conductive part of the insulation between the measured object and the earth; ground "E" is connected with the outer shell or ground part of the measured object; shield "G" is connected with the protective shield part of the measured object or other parts not involved in the measurement, so as to eliminate the error caused by table leakage. When measuring the insulation resistance between components of electrical products, the "L" and "E" ends can be connected to any set of wire heads. For example, when measuring the insulation between generators, three sets can be exchanged in turn, leaving a corresponding safety grounding.

## VII、 Notes

1. When storing and using this watch, pay attention to the ambient temperature and humidity. It should be placed in a dry and ventilated place. It should be dustproof, moisture proof, shockproof, acid and alkali resistant and corrosive.
2. When the measured object is a normal charged body, it must be powered on first, then measured, otherwise it will endanger the safety of personal equipment! After the high voltage is turned on between the E and L terminals of this watch, there is a high DC voltage, and the human body parts cannot be touched during the measurement operation.
3. This instrument is equipped with a rechargeable battery pack. When the rechargeable battery pack voltage is lower than 7.2V, the undervoltage symbol "Left" is displayed in the upper left corner of the meter. It is

recommended to charge the battery pack in the machine for 8 to 14 hours in a timely manner. When the meter is not used for a long time, the rechargeable battery pack should be charged and maintained regularly.

### VIII、 Packing list

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|--------------------------------|---|
| 1. Host                        | 1 |
| 2. Test line                   | 1 |
| 3. Manual                      | 1 |
| 4. Test Report                 | 1 |
| 5. Certificate / Warranty Card | 1 |

