Dear Client,

Thank you for Purchasing our HT2670 Insulation Resistance Tester. Please read the manual in detail prior to first use, which will help you operate the equipment skillfully.

Our aim is to continually improve and perfect the company's products, so there may be slight differences between your purchase equipment and its instruction manual. You can find the changes in the appendix. Sorry for the inconvenience. If you have further questions, welcome to contact with our service department.

The input/output terminals and the test column may bring voltage, when you plug/draw test wire or power outlet, they will cause electric spark. PLEASE CAUTION RISK OF ELECTRIC SHOCK! To avoid risk of electric shock, be sure to follow the operating instructions!

◆ SERIOUS COMMITMENT

Within three months from the date of delivery, if our products have quality defects, implementation of replacement; in one year (including one year), repair for free; more than one year, implementation of lifetime maintenance with charge. Except otherwise provided by contract.

◆ SAFETY REQUIREMENTS

Please read the following safety precautions carefully to avoid personal injury and to prevent the product or any other attached products being damaged. In order to avoid possible danger, this product can only be used within the scope of the provision..

Only qualified technician can carry out maintenance or repair work.

--**To avoid fire hazard or personal injury**:

Use Proper Power Cord

Only use the power wire supplied by the product or meet the specifications of this product.

Connect and Disconnect Correctly

When the test wire is connected to the charged terminal, please do not connect or disconnect the test wire at will.

Grounding

The product is grounded through the power cord; besides, the ground pole of the shell must be grounded. To prevent electric

shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, please do check that the product is properly grounded.

Pay Attention to the Ratings of All Terminals

To prevent the fire hazard or electric shock, please be care of all ratings and labels/marks of this product. Before connecting, please read the instruction manual to acquire information about the ratings.

Do Not Operate without Covers

Do not operate this product when covers or panels removed.

Use Proper Fuse

Only use the fuse with type and rating specified for the product.

Avoid Touching Bare Wire and Charged Conductor

Do not touch the bare connection points and parts of energized equipment.

Do Not Operate with Suspicious Faults

If you encounter operating faults/suspect there is damage to this product, do not continue. Please contact with our maintenance staff.

Do Not Operate in Wet/Damp Conditions.

Do Not Operate in Explosive Atmospheres.

Ensure Product Surfaces Clean and Dry

—Security Terms

Warning: indicates that death or severe personal injury may result if proper precautions are not taken

Caution: indicates that property damage may result if proper precautions are not taken.

Contents

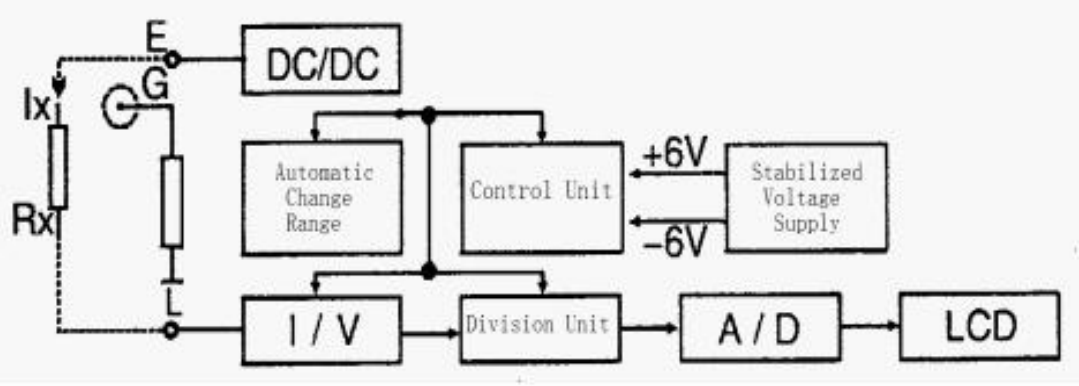
I. Introduction

1. Principle of the meter

HT2670 Insulation Resistance Tester consists of medium and large scale integrated circuit with high output power and high short-circuit current value features. The output voltage is up to four grades. The built-in battery served as power supply become high DC voltage by DC/DC transformation, which goes from E pole to L pole via the object being tested. By this way, it produces a current from pole E to pole L, which converted by I/V and computed by the divider. The value of insulation resistance will display on the LCD finally.

2. Block Diagram of Circuit

As shown in the following diagram:



3. Applications

The meter is essential and common device in power industry, post and telecommunications, communications, mechanical and electrical installation and maintenance and industrial sector or corporate sector using electric power as

theirs industrial power or energy sources. It is suitable for measuring the resistance of different kinds of insulating materials and insulation resistance of transformers, motors, cables and electrical equipment.

II. Function and Features

The meter has the following features:

1. High output power, strong load ability, and strong anti-interference ability.

The shell body is made of aldural/high-strength aluminum alloy, equipped with potential protection ring and fourth-order active low pass filter, it can play an effective role in shielding external power frequency and strong electromagnetic field. For the measurement of capacitive specimen, since the short-circuit current is greater than 1.6mA, it’s easy to rise the test voltage to the rating of output voltage. For the measurement of low resistance, it will not affect the test by using scaling method.

2. The meter is battery powered and the measure range is converted automatically. The easy-to-read panel and LCD display make measurement very convenient and fast.

3. The output short-circuit current of the meter can be measured immediately without estimation.

III. Technique Specification

1. Operating Conditions

Temperature: 0℃~+45℃

Relative humidity: ≤85%RH

2. Output voltage grades, measuring range, resolution, error

Output voltage grades: 100V，250V，500V，1000V

Measuring range: 0~19990MΩ

Resolution: 0.01MΩ，0.1MΩ，1.0MΩ，10.0MΩ

Relative error: 0~2000MΩ≤±5%±2d,

2000MΩ~19990MΩ≤10%±2d

3. Load ability of maximum output voltage and short-circuit current

Voltage/Load: 1000V/20MΩ

Voltage drop: Approximately 10%

Short-circuit current: >1.6mA

4. Power supply, power dissipation

DC: 8×1.5V(AA, R6)battery

AC: 220V/50Hz

Power dissipation: quiescent power dissipation≤160mW; Maximum power≤2.5W

5. Dimensions and weight

Dimensions：235mm(L)×200mm(W)×135mm(D)

Weight：<1.4kg

IV. Operation Instructions

1. Measurement Procedure

Turn the power switch “ON/OFF”, the default of meter is at 500V. Select the required voltage grade and the indicator light will show the selected voltage grade. Press the high voltage “start/stop” button and the indicator light for high voltage will glow. The stable value displaying on the LCD multiplied by 10 is the measured insulation resistance value. When the tested insulation resistance value exceeds the upper limit range of the meter, the screen will only display “1” on the left-most position. Pressing “start/stop” button will turn off the high voltage. Pressing down the “ON/OFF” button will turn off the power supply.

Notes: As measure, accompanied with absorption and polarization occurring, Insulation reading gradually drifts to large values or bounces up and down, it is normal.

2. Explanation for the wiring terminals

When measuring the insulation resistance you should connect the “L” line and the measured object to the current-carrying part. The grounding “E” should be connected

to the shell of the measured object or the earth. Shield “G” is connected to the protection parts or the other parts which are not being measured of the measured object to avoid the error caused by shell leakage. When measuring the insulation resistance among components of electronic products, the “L” terminal and the “E” terminal can be connected to any line. When measuring the resistance between phases of electrical generator, you can choose two among the three phases at will, and the remaining one should be grounded.

V. Notes

1. When the meter is stored you should pay attention to environment temperature and moisture. The meter should be place in dry and ventilated environment and should be shielded from dust, humidity, vibration, acid, soda and corrosive gas damage.

2. When the measured object is charged, you should disconnect the power before starting the measurement. Otherwise, that may endanger safety of your body and the device! The DC voltage between the “E” terminal and “L” terminal is high after turning on the high voltage. Make sure any parts of your body should not touch the terminals during measuring.

3. This meter uses AC and DC power supply. When connect to AC power supply, the meter will prior use AC power supply; when not connect to AC power supply, battery will power meter.

4. “←” appearing on the top left corner of the screen says battery voltage is low and you should replace a new battery. If the meter will not be used for a long time, all batteries should be removed to prevent meters from corrosion.

VI. Packing List

1.	Host	1
2.	Test Wire	1
3.	Power Cord	1
4.	Battery	8
5.	The instruction manual	1
6.	Inspection report	1
7.	Certificate	1