Huazheng®

HZ-3510
Grounding Continuity Tester

USER MANUAL

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Dear user:

Thank you for choosing HZ-3510 Grounding Continuity tester.

We hope that this instrument can make your work easier and more enjoyable, so that you can get the feeling of office automation in the test and analysis work.

Before using the instrument, please read this manual, and operate and maintain the instrument according to the manual to prolong its service life. "Just a light press, the test will be completed automatically" is the operating characteristics of this instrument.

If you are satisfied with this instrument, please tell your colleagues; if you are not satisfied with this instrument, please call (0312) 6775656 to tell you to serve you at all times-Baoding Huazheng Electric Manufacturing Co., Ltd., our company will definitely make you satisfied !

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I.Uses And Characteristics Of The Instrument

The reliable and effective connection between the grounding down conductor of the power equipment and the ground network is the fundamental guarantee for the safe operation of the equipment. The grounding down conductor is the connection part of the power equipment and the grounding grid. During the long-term operation of the power equipment, the connection may be affected by damp and other factors, and the contacts may be corroded or even broken. The resistance of the connection point of the grounding grid is increased, which cannot meet the requirements of the electric power regulations, causing unsafe hidden dangers in the operation of the equipment, and in serious cases, the equipment will lose ground. Therefore, in the "Twenty-Five Key Requirements to Prevent Major Accidents in Electric Power Production", it is clearly stated that the continuity test of the down conductor of the grounding device should be carried out once a year.

The HZ-3510 grounding continuity tester is a portable tester with a high degree of automation developed by our company. It is used to measure the continuity resistance between the ground conductors of various power equipment in the substation. The instrument is controlled by a high-performance single-chip microcomputer, which can realize the intelligent test process. It has small size, convenient carrying, simple operation, high precision, fast test speed, good retestability, and intuitive reading. It is an ideal special instrument that meets the requirements of regulations.

II.Main Specifications

Item	Technical indicators and parameters	Remarks
Test current	1A、3A、5A、10A	
Measuring range	0.8mΩ-0.8Ω (10A) 1mΩ-2Ω (5A) 5mΩ-3Ω (3A) 10mΩ-10Ω (1A)	
Min resolution	0.1μΩ	
Accuracy	±(0.5%+2dgt)	
Display	LCD Monitor	Resistance display

		effective digits are 4 digits
Data storage	1000 groups	
Working environment	Ambient temperature: 0℃～40℃ Relative humidity: <90%RH, no condensation	
Power supply	Built-in lithium battery AC 220V±10V，50Hz±1 Hz	Fuse 2A
Maximum power consumption	100W	
Dimensions	L 300mm×W 240mm×H 140mm	
Weight	Instrument: 3.8Kg Wire box: 8.5Kg	

III.Features

1. The whole machine is controlled by high-speed single-chip microcomputer, with high degree of automation and easy operation.

2. The instrument adopts brand new power supply technology, with many current gears and wide measuring range.

3. Intelligent power management technology, the instrument always works in the minimum power state, effectively reducing the internal heating of the instrument and saving energy.

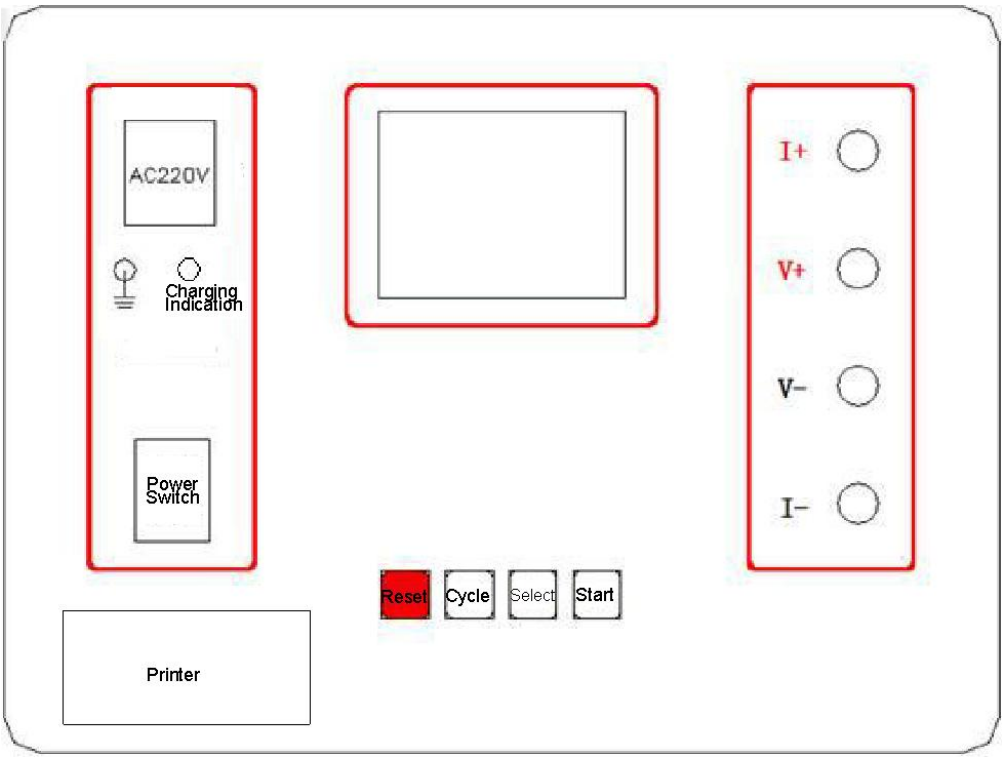
4. 320X240 dot matrix ultra-small pixel 65K true color LCD, clear display under strong light

5. The instrument has its own power-down storage, which can store 1000 sets of test data, which can be consulted at any time

6. The instrument comes with lithium battery, built-in charger, integrated design, easy to operate

IV. System Introduction

The panel of the instrument is shown below



AC220V Charging the instrument or AC working power. When the AC220V is connected, the instrument can start charging. When the power switch is turned on, the instrument can be charged and in working condition.

Power switch Instrument working power switch

Grounding post The grounding point of the instrument for safety protection

Reset button Press this button, the unit is in the initial state, and the output current can be preset.

Cycle key Press this key to scroll the cursor in the main menu

Select key After the unit is reset, press this key to perform current preset.

Start button Press this button after the output current is selected, the microcomputer control realizes the whole test process

I+, I- output current binding posts, I+ is the output current is positive, I- is the output current is negative.

V+, V- voltage sampling terminals, V+ is the positive terminal of the voltage line, and V- is the negative terminal of the voltage line.

Charging indicator-the green indicator light indicates the charging is complete, and the red indicator indicates the charging process.

V.Test And Operation Method

Take out and connect the special test leads provided with the machine. The red and black test pliers are respectively clamped to two of the down conductors of the grounding grid, and rub the contact points hard to ensure good contact. The other end of the test line Correspond to the wiring terminals of the instrument. After confirming that the test line is connected correctly, connect the power line and prepare for measurement. At this time, turn on the power switch and the following interface is displayed:

1. The boot interface is shown in Figure 1:

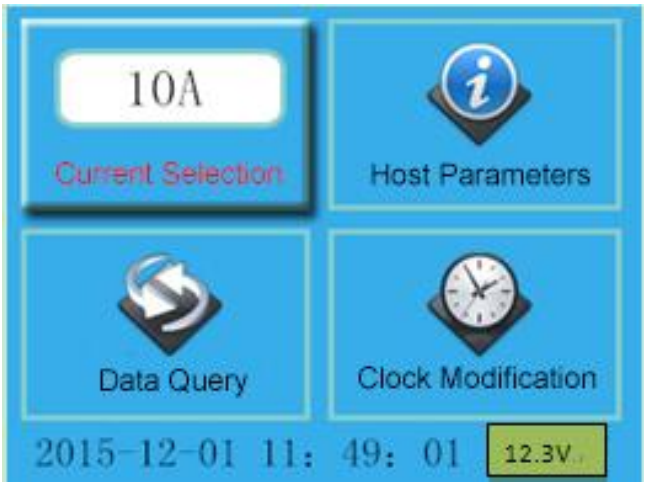


Figure 1

Press the cycle key to move the cursor between current selection, data query, host parameters, and clock modification options. Press the select key to cycle through the options contained in the above main menu, and press the start key to start the measurement.

2. After the current is selected, press the confirm button to start charging. After a few seconds after the LCD displays "Charging", it displays "Testing" at this time, indicating that the charging is completed and the test state is entered. After a few seconds, the measured resistance will be displayed, as shown in Figure 2.

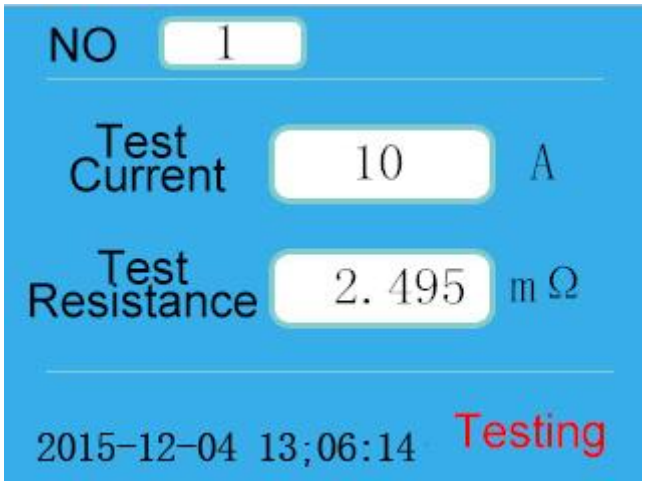


Figure2

After the test is completed, press the "Select" key to print, press the "Reset" key, the power of the instrument is disconnected, and the power is discharged at the same time, and the LCD returns to its initial state.

3. Move the cursor to the data query menu in the power-on state, and then press the select key to enter the data query, as shown in Figure 3

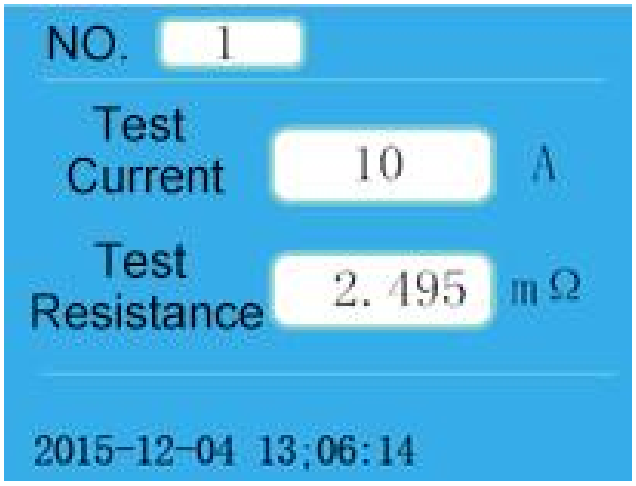


Figure 3

In Figure 3, press the select key to scroll up, and press the start key to scroll down.

4. In Figure 1, press the cycle key to move the cursor to the clock modification, press the select key to enter the clock modification interface,

As shown in Figure 4

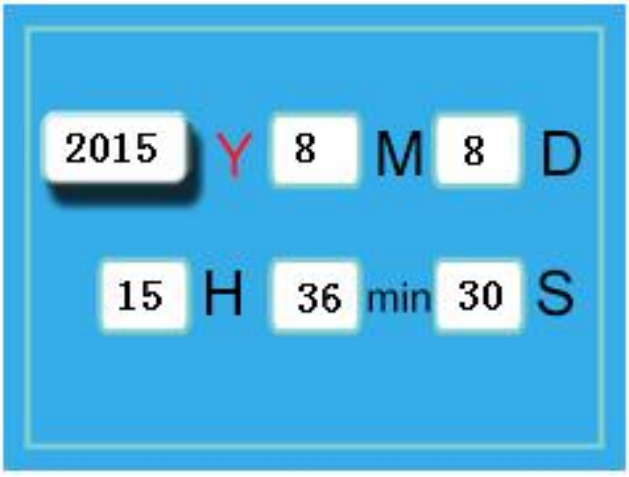


Figure 4

Press the cycle key to move the cursor between each date data, press the select key to decrease the data, and press the start key to increase the data.

VI.Four terminal wiring method

As shown in Figure 5

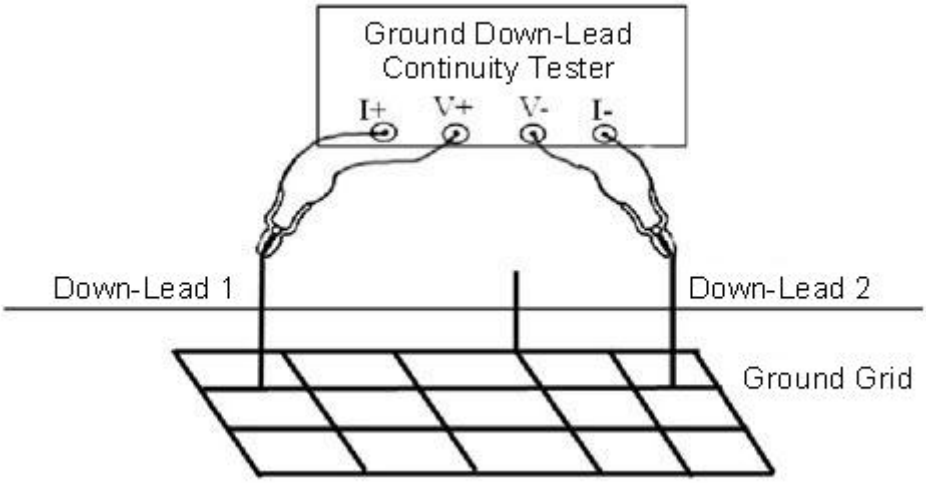


Figure 5

VII.Matters Needing Attention

1. When selecting the current, please refer to the range in the technical index column. When the range is exceeded, the instrument is always in the "charging" state because the current does not reach the preset value. At this time, press the reset button to reset the instrument and select a smaller value. The current gear.

2. After the test is completed, press the "reset" button, the power supply of the instrument will be disconnected from the unit under test, and the display will return to the initial state,

and then you can reconnect the wiring for the next measurement or remove the test wire and shut down the measurement to end.