KOBLE

SURGE PROTECTION DEVICE (SPD) LIFE TESTER
(Designed For On-Site Testing of SPDs)
(MODEL-KOBLE 3700ST)

KOBLE 3700ST , SPD Life Tester is designed with shock-proof, dust-proof and moisture-proof structure, firm and durable. It is most suitable for the application in Railways, meteorological lightning protection, power, communication, mechanical and electrical installation, maintenance, and lightning protection components. . Very suitable for harsh working environment,

It is widely used for testing the performance parameters of over-voltage protection component such as lightning arrester, lightning protector, surge protector, metal oxide Varistor (MOV) , Gas discharge tube (GD Tube) , vacuum lightning arrester, etc.

Salient Features :

- **KOBLE 3700ST is** used for checking and indicating the health parameters of:
    1. Gas Discharge Tube (GDT) / Metal oxide Varistor (MOV) based SPDs of Voltage Range more than 1000V and up to 2000V.
    2. Insulation resistance testing

- It indicates the status of SPDs by measuring its electrical parameters.

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The instrument has the functions of:

1. High voltage short-circuits protection.
2. over current protection,
3. high voltage preset,

a. automatic range adjustment and self-test,

b. large output power,

c. initial action voltage U1Ma

d. measurement range: 0~2000V, leakage

e. current measurement range: 0~1000uA,

f. DC breakdown voltage measurement range: 20 ~2000V,

g. Excellent stability and repeatability. It also has the function of qualification range setting, judging and screening.

Features:

- touch color screen,
- the function is visual,
- one key measurement
- easy and fast operation,
- accurate and reliable,
- excellent test stability and anti-interference ability,
- Professional level parameter setting function.
- Large capacity rechargeable lithium battery,
- data storage, data access,
- qualification judgment, automatic shutdown,
- USB data upload and export functions

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Measurement Range and Accuracy:

Function	Output	Measure Range	Accuracy	Resolution
MOV	Voltage 0~2100V	20～2000V	±2%rdg±3dgt	1V
	Current 0~1.5mA	0～1000μA	±2% rdg±10dgt	0.1uA
GDT	Voltage 0~2100V/1.5mA	20～2000V	±2%rdg±3dgt	1V
Insulation Resistance	500V	0.5MΩ～3000MΩ	±3%rdg±10dgt	0.1M

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Technical Specification (KOBLE- 3700ST:

Display Mode	**Touch color LCD, LCD size:** 108mm×65mm
LCD Size	108mm×65mm
Test mode	DC power drop method
Shift	Automatically
Overvoltage Protection	Yes
Test Mode	Single time: measurement with one key, no need to preset Continues: can setting the preset voltage, continues testing quickly and fast.
Test Wire	Red wire 1M, black wire 1M
Data Upload	USB interface, storage test record can be uploaded to computer
Data Storage	MOV 1000 groups; GDT 1000 groups; Insulation resistance: 1000 groups, storage space used and remaining capacity indication
Data Access	Yes
Auto Shut down	15 minutes after boot up, the meter shuts down automatically without any operation
Overflow Indication	Exceed measure range overflow "9999.99" symbol display
Battery Voltage	Battery charge indication, low battery voltage remind to replace the battery
Power Supply	DC 7.2V 2600mAH rechargeable lithium battery (continues working above 3 hours)
Power Consumption	Standby: about 140mA; Measurement : about 830mA
Host Dimension	215mm×178mm×83mm
Weight	1200g

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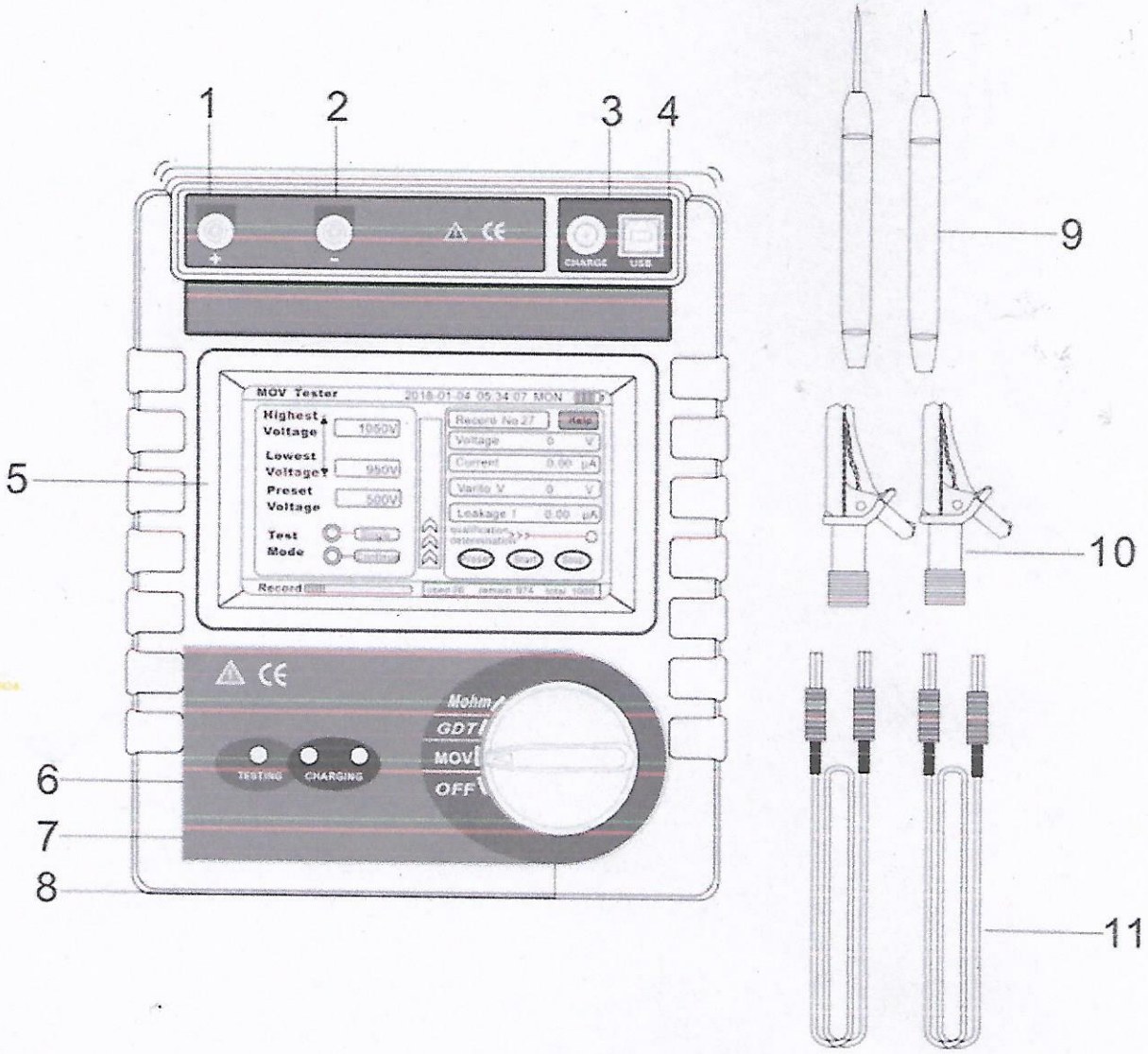
4/11

STRUCTURE :



4.1 Test interface (positive)
4.2. Common interface (Cathode)
4.3. Charge interface
4.4. USB interface
4.5. Touch screen
4.6. Test indicator
4.7. Charge indicator
4.8. Function selection rotary knob
4.9. Probe
4.10 Alligator clip
4.11 Test wires

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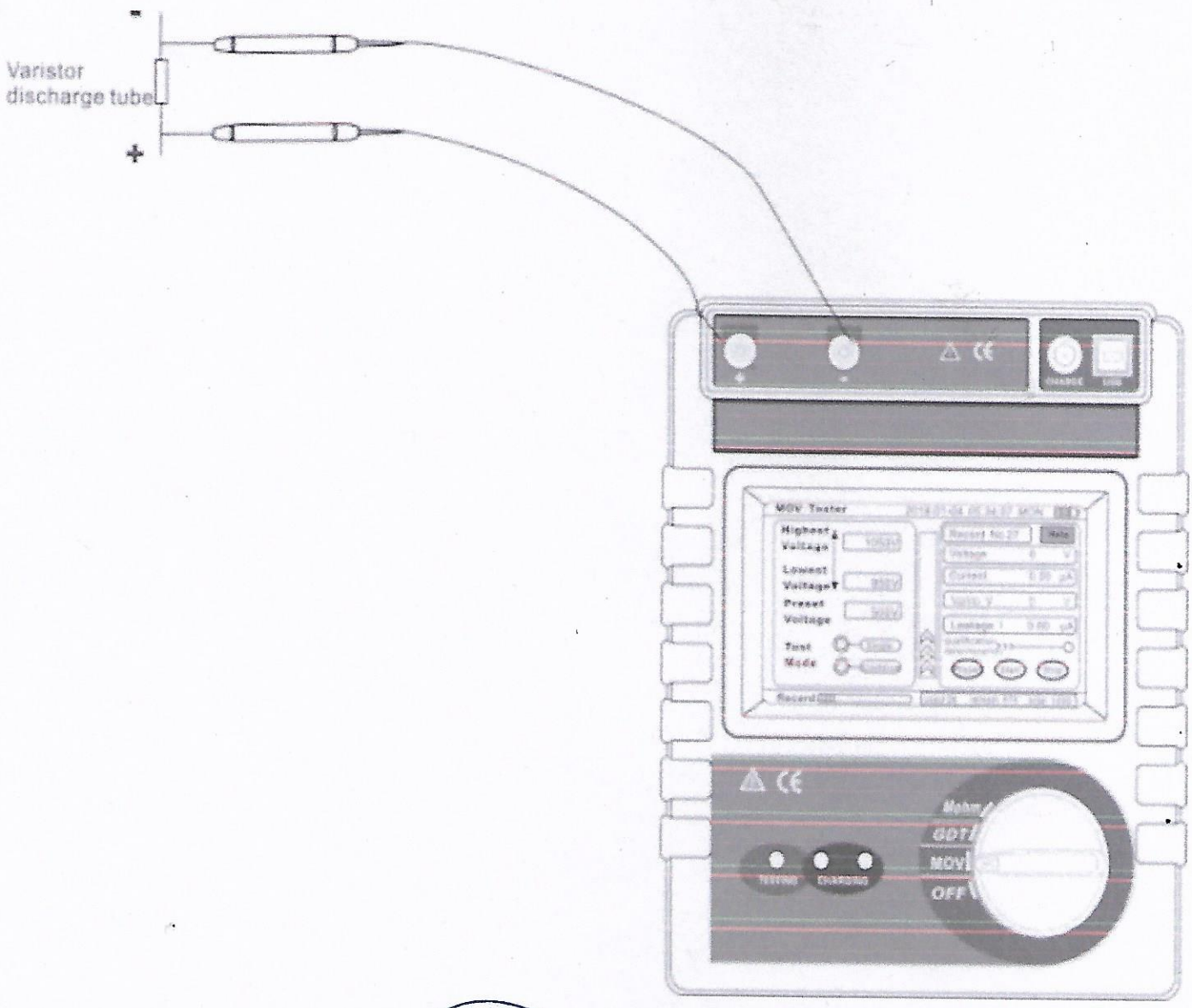
Measurement Method:



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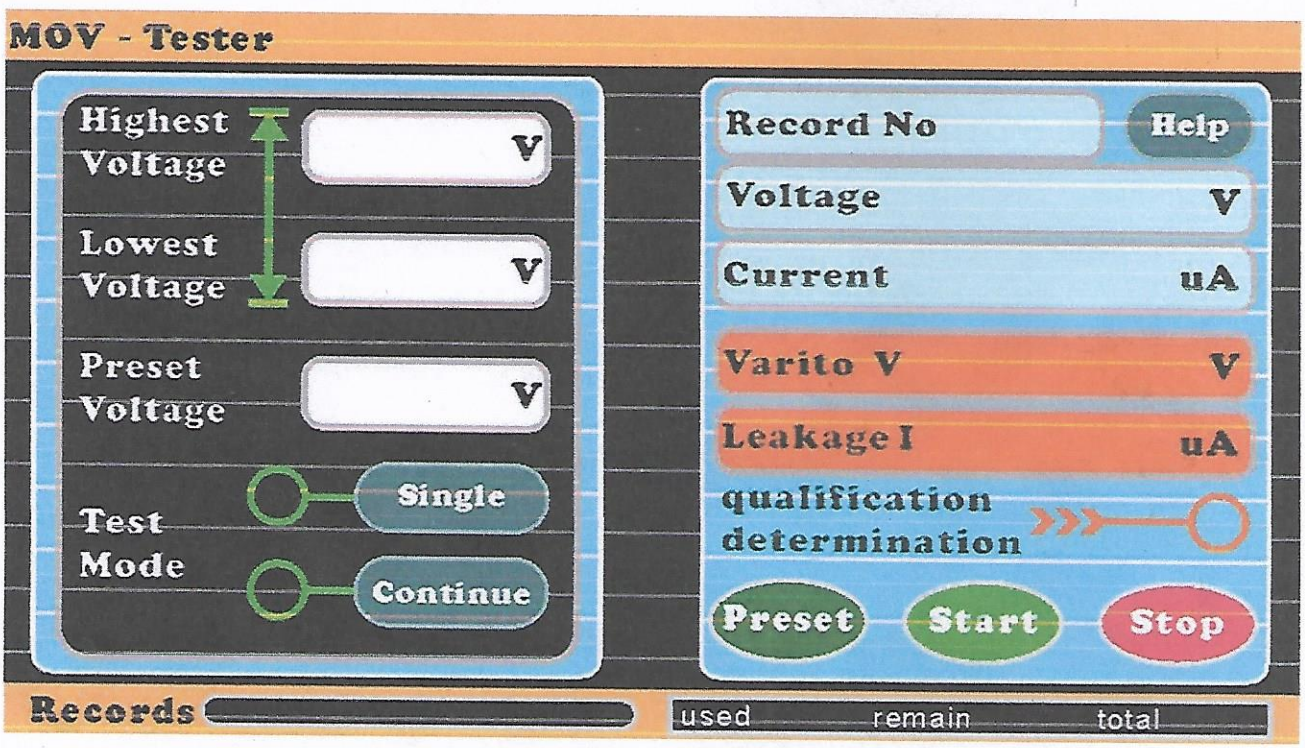
6/11

5.1. Metal Oxide Varistor Test:



Preset voltage: For continuous testing, raise to preset voltage value in advance. Click the display value to set the value using the small pops up keyboard.

Upper and lower limit of qualified range: the test product which initial action voltage is located in this range will be judged as qualified. Click the display value to enter the value through the small pops up keyboard.

Test:

5.1.1. Single time mode- use for a small quantity test

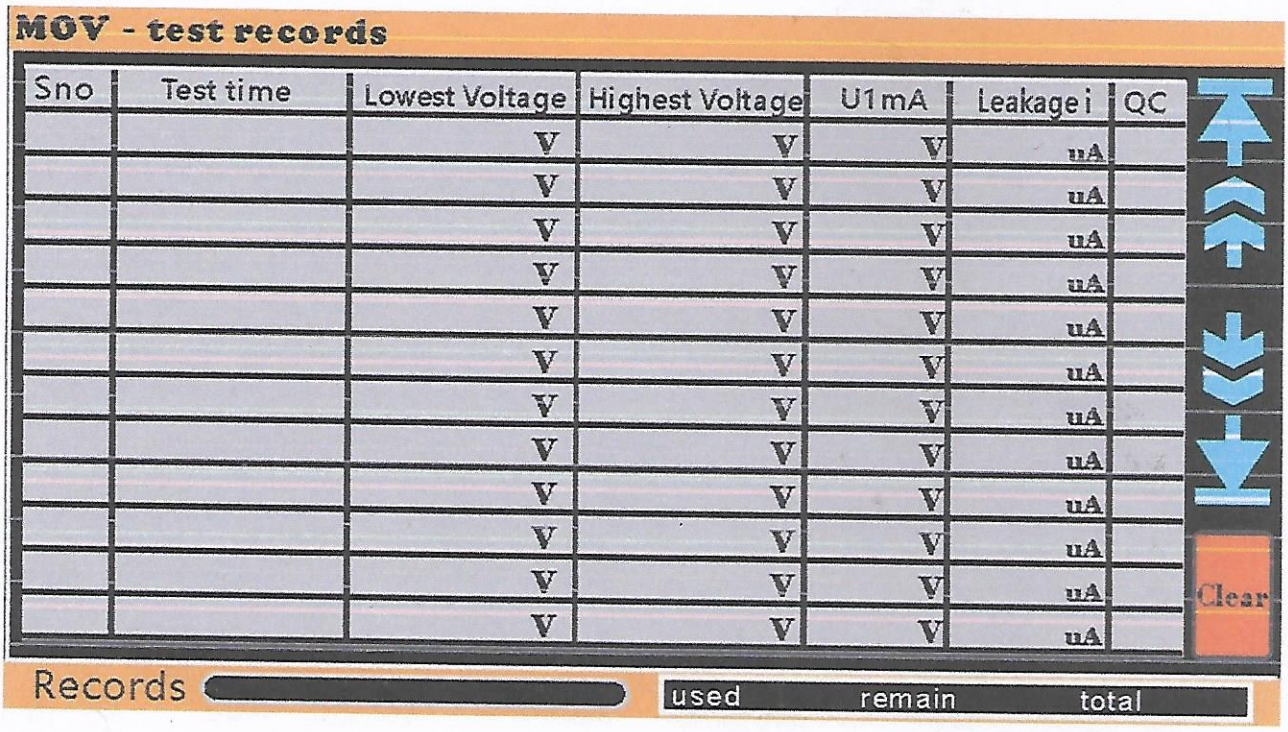
Click the "start" button and the test will begin. The test voltage will rise from 0V to 2200V and the test will stop when current reaches 1mA.

5.1.2. Continuous mode- for batch test, quickly and fast.

Click the "Preset" button after setting preset voltage, output voltage up to 90% of the preset voltage, and then click on "start" button, In the process that the test voltage from preset voltage up to 2200V, will stop testing when the current reach 1mA, output automatically keep in a preset voltage, after replacing tested products, can press the "start" button directly to test next MOV.

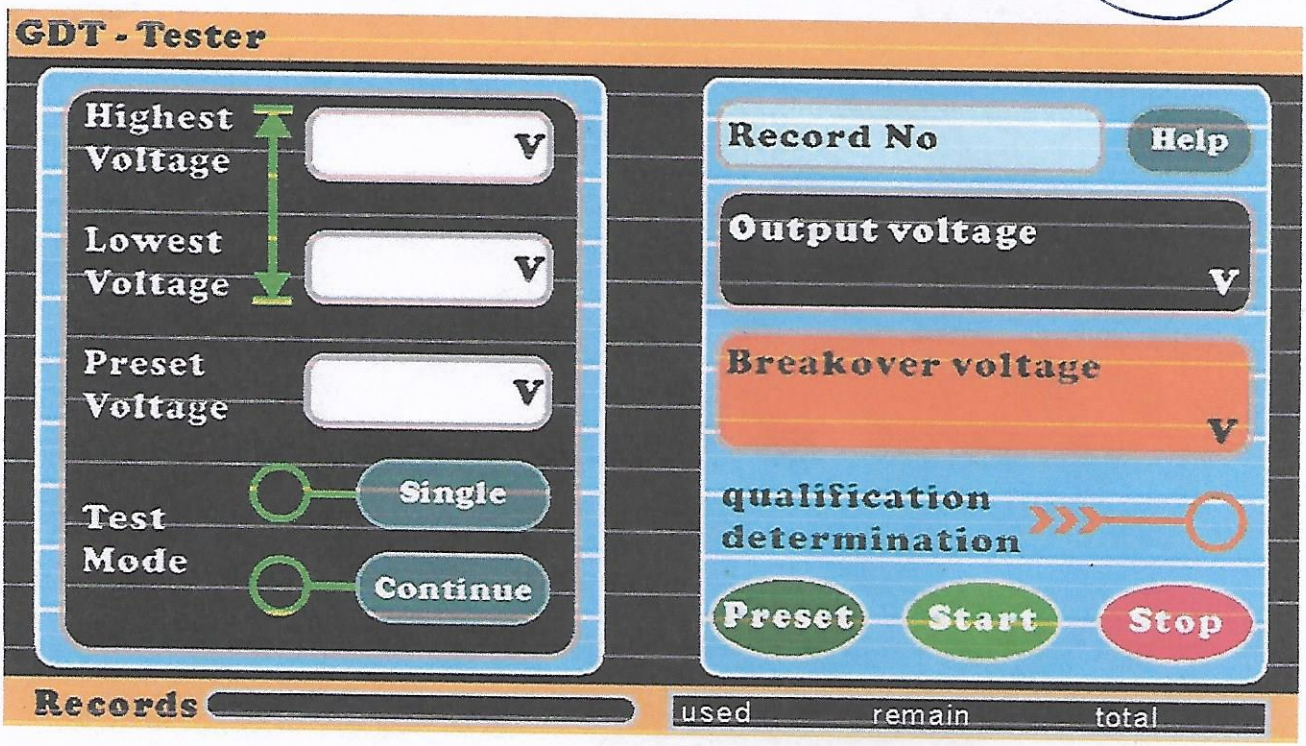
After receiving all the tests, press the "stop" button and the output voltage will be released. The test is finish.

The above values set by users will be automatically remembered to facilitate the next quick access to the test.
During the test, click the "stop" button to terminate the test.
Slide to left or right side to enter the check test record interface.



Slide the screen to the left and return to the MOV test interface.
Note: click the **Help** button to enter the test process description!

5.2. Gas Discharge Tubes (GDT) Test :



Qualified range: the test product which break over voltage in this range will be judged as qualified
Test Mode:

5.2.1. Single time test mode:

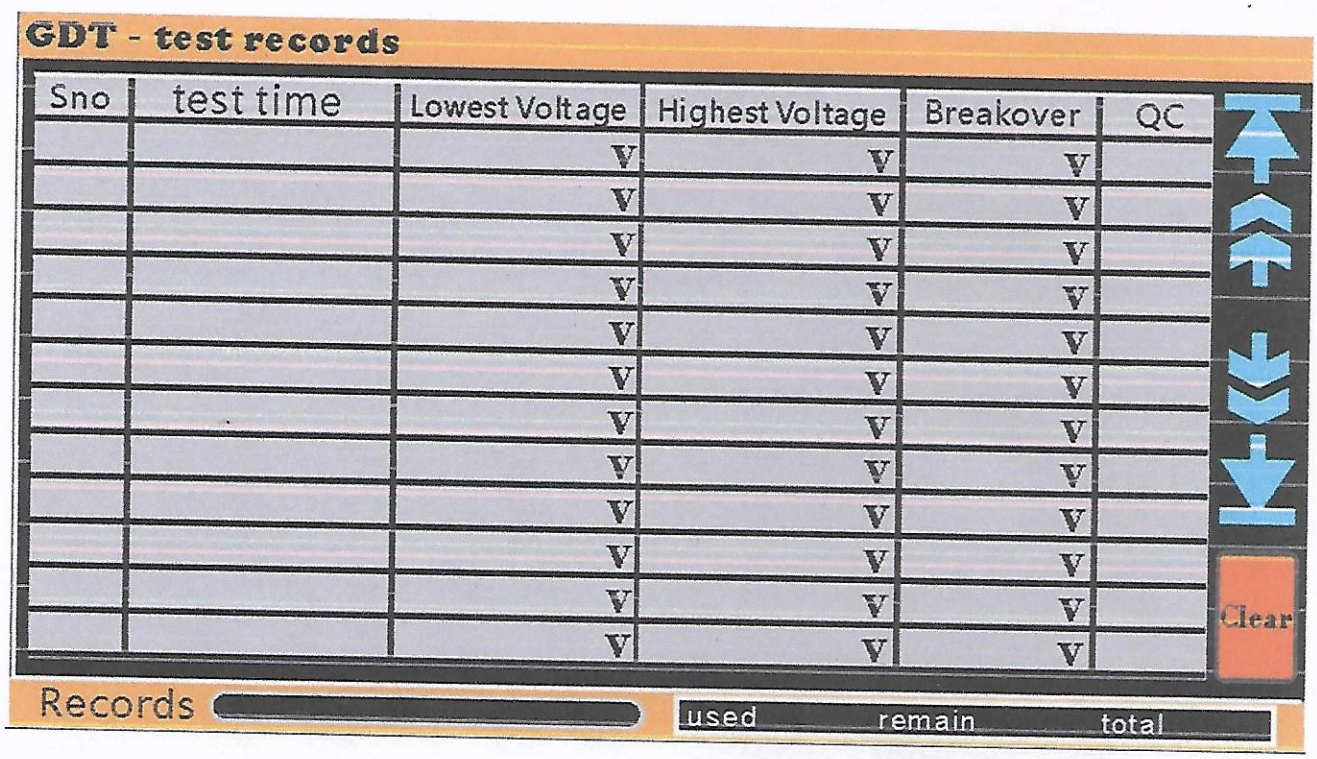
Click the "start" button directly in single time test mode, the test voltage raise from 0V to 2100V and automatically stop the test when reach the breakover voltage of GDT.

5.2.2. Continuous testing mode:

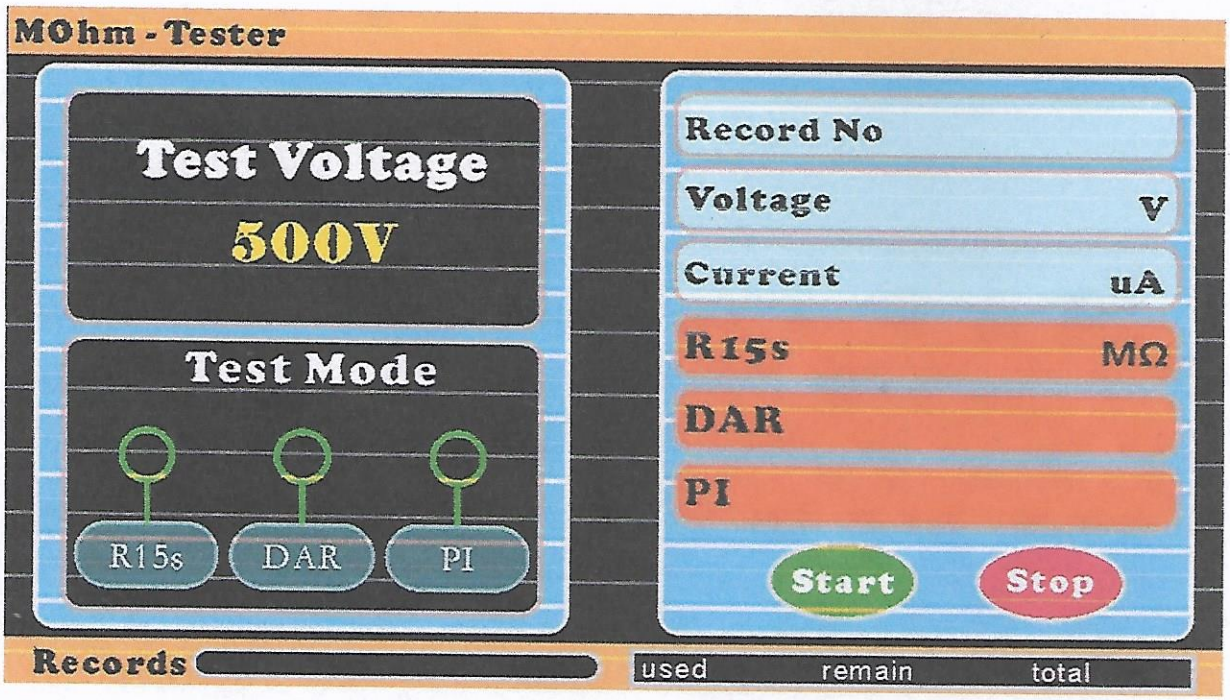
Preset voltage can be set when batch test. Input the preset voltage in advance, click the "Preset" button, and the test voltage will rise from 0V to the preset voltage, from the preset voltage to the ignition voltage, and then automatically rise the voltage to the preset voltage after the test. Change the sample and click the "start" button to quickly test the next sample. The preset voltage shall be lower than the lower limit of the qualified voltage. Click the "stop" button after all the tests are completed, and the instrument will stop to output the test voltage after discharging. During the test, click the "stop" button to terminate the test.

The above values set by users will be automatically remembered to facilitate the next quick access to the test.

Slide to left or right side to enter the check test record interface.



5.3. Insulation Resistance Test:



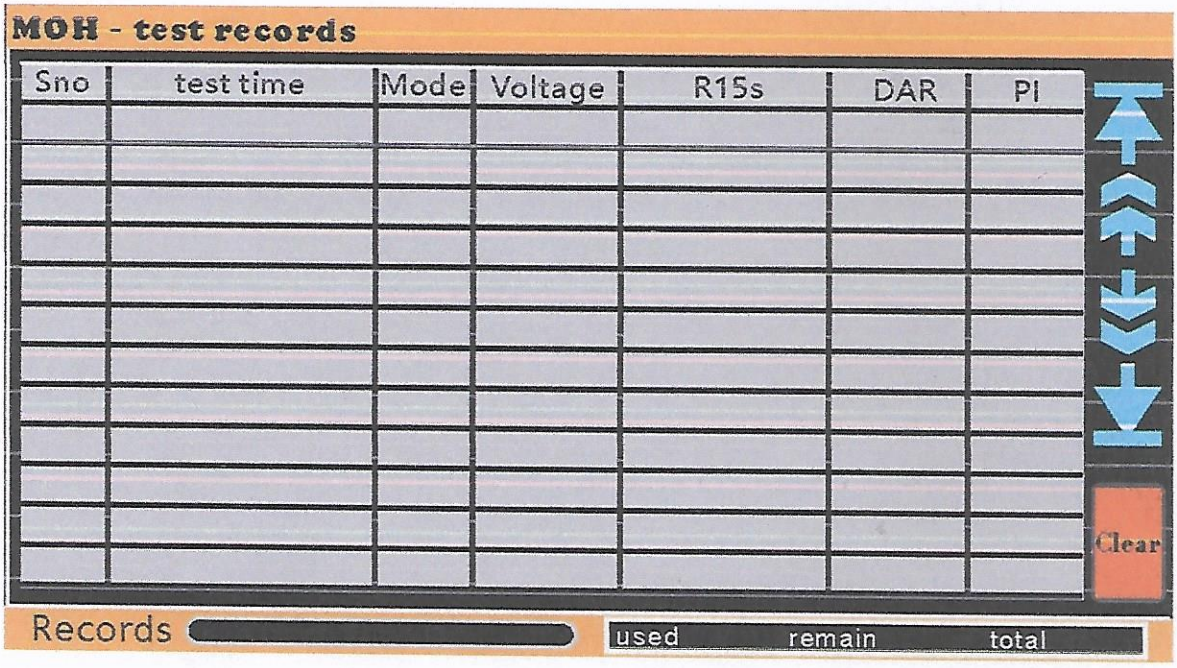
Test voltage: 500V
Test mode: R15s- insulation resistance, test time 15 seconds

DAR- dielectric absorption ratio, test time 60 seconds, which is the ratio of insulation resistance at 60 seconds to insulation resistance at 15 seconds.

PI- polarization index, test time 600 seconds, which is the ratio of insulation resistance at 600 seconds to insulation resistance at 60 seconds

Click the "start" button to start the test on the sample, and automatically stop after the test. During the test, click the "stop" button to terminate the test.

Slide to left or right side to enter the check test record interface.



Slide the screen to the left and return to the insulation resistance test interface.

Note: click the Help button to enter the test process description!

6. Attention

The instrument sets the range (test range) adjustment function. In usage, the test voltage shall be reduced as much as possible to reduce energy consumption, prolong the life of the instrument, and reduce safety hazards, also can reduce testing time and improve work efficiency. And can be used for grouping and screening, testing and discrimination. Users can make full use of this function.

- The test voltage of this instrument can be as high as 2000V. The panel, test line and work surface should be kept clean and dry, so as to avoid test error or precision reduction caused by leakage current, arc and corona.
- The charger must use two phase three wires power socket, ground wire should be well grounded.
- Operators should take necessary high voltage protection measures to avoid high voltage shock injury.

-: CONTACT US:-

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