# **Preface**

Thanks for choosing our product, you have got our comprehensive support and services.

Before use the instrument for test ,please read the manual of this instrument first. If you have any question you can contact us timely.

According to electric power equipment preventive test procedure the request of "DL/T 596-596" The test current that The conducive loop resistance test of the switching equipment, shall be not less than 100A. If the interface of the switching contact had oxidation, of poor contact, must causes to increase contact resistance of the switching. If the switching in the large current flows, the temperature of switching contact will rise. In serious, it will cause accident. So it is necessary to constantly or periodically on the contact resistance measurement.

Our instrument adopts the top open structure or vehicle mounted horizontal chassis. It has that vantage: more small volume, more light weight, more strong functions, and the simple operation. It designed for field tester design. The high output voltage is 10V. Display is 160\*128 large LCD screen. Test current optionally, test time can be set, test process dynamic tips, suitable for different working environment. It can save 200 test record, the records can be printed and uploaded to the computer.

### The product selection

Type selection	Test current		
□-100Amp	100Amp		
□-200Amp	100Amp、200Amp		
□-300Amp	100Amp、200Amp、300Amp		
□-400Amp	100Amp、200Amp、300Amp、400Amp		
□-500Amp	100Amp、200Amp、300Amp、400Amp、500Amp		
□-600Amp	100Amp、200Amp、300Amp、400Amp、500Amp、600Amp		

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#### Part one: Panel of the instrument

A. Wiring terminal

Current output "I+ I-"

Voltage input "V+ V-"

Ground protection

B, Power socket: AC 220V in.

C. Power switch: Turn on or Turn off AC 220V.

D. Contrast: revolve around slotted to adjust contrast.

E. USB socket: Data Communication.

F. Button: "adjust the position and the value "confirmation" as the name.

G. Screen: Display.

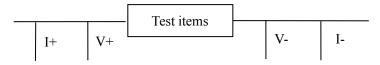
H, Printer: Print the tested data.

#### Attention:

Please don't demolition the test line when the instrument was testing.

# Part two: wiring and operation

Make the instrument reliable grounding and connect test line as the following illustration in the below.



Then connect AC Power turn on the instrument into the following illustration menu.

#### 1. Main menu:

Data	Test		Setup
	Test cur:	-	
	Start Return		
2007-10-2	23	13: 3	30: 30

Shadow zone is the position of cursor. Enter the Buttons "UP or DOWN" can move the cursor. Enter the Button " Enter " to into the option.

Test cur: choice the test current.

Test time: choice the test flow time.

Start: begin the test.

Return: back to the top menu.

#### 2. Test menu:

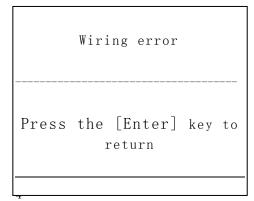
Resistance:  $100.1 \mu\Omega$ Test time: 04 SecVoltage: 60.01 mVCurrent: 600.1 Amp

Press the [Enter] key to stop

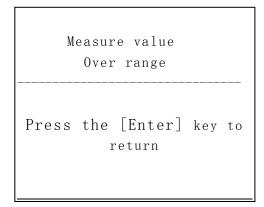
Resistance: the testing result.

Test time: Testing time.
Voltage: as the name.
Current: as the name.

When the beginning of the test if the wiring is error, the instrument will auto into the Error menu as the following illustration.



When the beginning of the test if the test items is large than the max range of the instrument, the instrument will auto into the over range menu. The menu is as the following illustration in the below.



#### 3. Test results menu

			Equipment number default blank. Enter "confirmation"
Resistance: $100.1 \mu\Omega$		ιΩ	to edit the number.
			The instrument will automatically display the last input
Number:			equipment number.
Number:	•		The equipment numbers can include that chars :"A~Z",
Print	Store	Return	"a ~z"、" "、"0~9".
			Instrument can store 200 test data. Enter "Store" the
			screen will show storage number and surplus number.

#### 4. Data menu

Data	Test	Setup
Recent data		
Archives		
Export		
Return		
2007-10-23		13: 30: 30
1		

Into the data menu can view the current data and also can view the history data.

#### 5. Data -Current Data menu

The equipment number can be edit. The current data can be print, and before it, you can change the time and name.

#### 6. Data -History Data menu

Record 12/36		
2007-07-20	17:	07
100.0 μΩ		
2007-07-19	14:	10
100.1 μΩ		
2007-07-18	14:	15
100.0 μΩ		

The history menu show the saved tested data in date order.

The top right corner of the screen show the total number of history data and the number of the tested data which one the cursor on it. Every history data include save time, equipment number and resistance. If you need the detail of the history data, you can enter the "confirmation" User can print the data and delete it too.

#### 7. Print format

TEST REPORT

\_\_\_\_\_

Resistance: 100.1  $\mu\Omega$ 

Current: 600Amp

\_\_\_\_\_

Number:

Operator:

Site:

Date/Time: 2007-10-23 13: 30

#### 8. System menu

Data	Test	Setup
		Clock set
		Options
		Operator
		Site
		Return
2007-10-23	13	: 30: 30

Clock set: Set the date and time.

Options: Accuracy of the calibration.

Operator: You can enter your name.

Site: You can enter the location name.

Return: back to the main menu.

#### Part three: technical index

1.Category: This instrument is in the third group of GB6587.1-86"Environmental tests program for electronic measuring instruments"

2. Structure and dimensions

Type: portable

packing: aluminum alloy chassis

weight: 14kg

3. Power

♦ Working Power: voltage: AC220V±10%, frequency: 50Hz±10%.

♦ Current output: constant current:100Amp、200Amp、300Amp、400Amp、500Amp、600Amp.

4. Work environment

 $\lozenge$  Ambient temperature:  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$ ; Relative humidity:  $\leq 80\%$ 

♦ Cooling way: intermittent air cooled.

5. Test time: 100Amp: 5-60S; 200Amp: 5-30S; 300Amp-600Amp: 5-10S.

6. Test indicator

 $\Diamond$ Test range: 0-20000. 0  $\mu$   $\Omega$  (100Amp)

```
0–10000.0 \mu \Omega (200Amp)
0-6000.0 \mu \Omega (300Amp)
0-5000.0 \mu \Omega (400Amp)
0–4000.0 \mu \Omega
                (500Amp)
0-3000.0 \mu \Omega (600Amp)
```

 $\Diamond$ Accuracy: 0.5% $\pm$ 2bit; resolution: 0.1 $\mu\Omega$ .

7. Max storage volume: 200.

# Part four: Appendix and Accessories

#### Packing list

1.	Host	1
2.	Power cord	1
3.	Test cord	1
4.	Fuses	2
5.	User Manual	1
6.	Print paper	2
7.	Standard resistor	1

The standard resistor can be used to test the instrument's basic function.

# Part five: Simple analysis and troubleshooting

Fault phenomenon	Cause analysis	Elimination method	Remarks
	1) Power is not connected	Connect the power	Fuse should be the
Can't open	2) Fuse is break	Replace with a new fuse	same type with the old one
Have no output	1) Not connected	Check connection	

No display	Contrast Potentiometer is changed	Adjusting potentiometer	
	1) No printing paper	Replacement new paper	
Can't print	2) The Direction of the	Turn around the printing	
	printing paper is Error	paper	
If these methods still cannot solve, Please send the instrument to us to repair it.			

## Part six: After-sale service

In three years form the date of sale, if the instrument has quality problems, we will repair it for free. Also, we guarantee life-long maintenance.

# Part seven: Contact resistance of circuit breaker standard reference value

Туре	Contact resistance	Type	Contact resistance
	(μΩ)		(μΩ)
SN1-10	<95	DW1-60G	200
SN2-10G	75	SW1-110	700
SN4-10	50—60	SW2-110I	180
SN4-20	50—60	SW3-110	160
SN4-10G	20	SW4-110	300
SN4-20G	20	SW6-110	180—220
SN5-10	100	SW2-220	400
SN6-10	80	SW4-220	600
SN10-35	<75	SW6-220	<400
DW1-35	550	SW7-220	<190
DW1-60	500	KW1-220	400
DW3-110	1100—1300	KW2-220	170
DW2-110	800	KW3-220	110
KW1-110	150	KW4-220	130
KW3-110	45	DW2-220	1520

KV4-110A	60	DW3-220	1200
DW3-110G	1600—1800	SW6-330	≯600