Huazheng®

HZ2102

Transformer Tester

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Dear user:

Thank you for choosing HZ2102Transformer 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 !

Contents

Chapter 1 Preparation before using the instrument

When you receive the instrument, some check must be necessary, and the condition must be understood and available before installing the instrument.

1.1 Package check

Thank you for purchasing our product, you should check ifthere is surface damage due to transportation. We recommend you not to charge the instrument under the circumstance of damage.

Then confirm according to the packing list, if there is inconsistency, you can contact with our company or to stick up your rights.

1.2Power connection

（1） Power-supplying voltage range： 100 ～ 120 Vac or 198 ～ 242 Vac. Being related with the power setup on the rear panel.

（2） Power-supplying frequency range：47 ～ 63 Hz。

（3） Power-supplying power range：less than 80 VA。

（4） Power-supplying input phase line L、zero line N、ground lead E should be as same as the power plug ofthe instrument.

（5） After careful design, the instrument can reduce the clutterinterferencecaused by AC power terminal input; however, it should be used under the environment with low-noise. Please install power filter if being unavoidable.

Warning：In order to prevent user and instrument being hurt by leakage, it is necessary for user to guarantee the ground line of supplying power to connect to the ground reliably.

1.3Fuse

The instrument has been installed fuse, so user should use the installed fuse of our company.

Warning：Be sure if the location of fuse is consistent with power-supplying voltage range before charging.

1.4Environment

（1）Please do not operate the instrument in the place that is vibrative, dusty, under direct sunlight, or where there is corrosive air.

（2）The normal working temperature is 0℃～40℃，relative humidity ≤75% ，so the instrument should be used as possible under such condition to guarantee the accuracy.

（3）There is heat abstractor on the rear panel to avoid the inner temperature rising. In

order to keep good airiness, please don’t obstruct the left and right airiness holes to make the

instrument maintain the accuracy.

（4）Although the instrument has been specially designed for reducing the noise cased by ac power, a place with low noise is still recommended. Ifthis cannot be arranged, please make sure

to use power filter for the instrument.

（5）Please store the instrument in the place where temperature is between 5℃ and 40℃, humidity is less then 85% RH. If the instrument will not be put in use for a time, please have it

properly packed with its original box or a similar box for storing.

（6）The instrument, especially the test cable should be far from strong electro-magnetic field ， to avoid the jamming on measurement.

1.5 Use of test fixture

Please use the accessory fixture or cable, the test fixture made by user or from other companies may cause the incorrect measurement result. The test fixture or cable should be kept clean, as well as the pin of DUT, thus to guarantee the good connection between DUT and

fixture.

Connect the fixture or cable to four test terminals Hcur、Hpot、Lcur、Lpot on the front panel. As for the DUT with shielding shell, connect shielding layer and ground “⊥” .

Note：when test fixture or cable not being installed, the instrument will display an unstable test result.。

1.6 Warm-up

（1）To guarantee the accurate measurement, the warm-up time is no less than 15 min.

（2）Please not turn on or off instrument frequently, in order to avoid the inner data fluster.

1.7 Other features

（1）Power：consumption power≤80VA。

（2）Dimension （W*H*D）：400mm*132mm*300mm；

（3）Weight ：about 8.5kg；

Chapter 2 Introduction

In this chapter, the basic operation features of series are described. Please read the content carefully before using series instruments, thus you can learn the operation of series.

2.1Discription of front panel

Figure 2- 1 front panel of is described

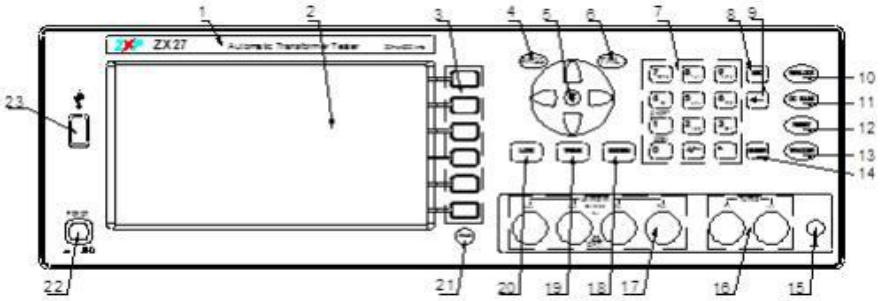

Figure 2- 1 Front panel description

（1）Brand and model

Brand and model

⑵LCD

800×480 dot-matrix LED, displaying test result and condition etc.

⑶ Softkey

Six softkeys can be used to select control and parameter, and there are corresponding function definitions on the left of each softkey. The definition of softkey is changed as the display page.

The function of circular softkey in the bottom zone is：

When more down page-turning function displays in the area of corresponding softkey, the function of circular softkey is turning page up

(4) PASS LED

PASS comparision result indication.

(5) NEXT key

Change the display page fast.

(6) FAIL LED

Fail comparision result indication.

(7) Numeric keys

Being used to input data. The key consists of numerical key [0]to [9] ，decimal point [.] and

[+/-]key.

(8) ESC key ESCAPE key

(9) [←] key

BACKSPACE. Press this key to delete the last number of input value.

(10) KEYLOCK

Press [KEYLOCK] key，[KEYLOCK] will light ，which means the function ofcurrent panel is locked；press [KEYLOCK]key again, [KEYLOCK] will be off，which means discharging the lock status. If the password function setup is “ON”，it means correct password is necessary when discharging the key-lock ，or the key can’t be unlocked. When the instrument is controlled by RS232, [KEYLOCK] key will be light. Press [KEYLOCK]key again, [KEYLOCK] key will be off，which means returning to local unlock status.

(11)DC BIAS

[DC BIAS] key is used to permit or forbid DC bias output. Press[DC BIAS] key，[DC BIAS]key will be light which means DC bias output is permitted；Press [DC BIAS] again, [DC BIAS] key will be off which means DC bias output is prohibited. The key is useless in some

figures where the DC BIAS can’t be added.

(12)RESET

Press [RESET] key, when transformer auto scanning is cancelled, other operation can’t be

executed on other pages.

(13) TRIGGER

when the trigger mode is set as MAN(manual) ，then press this key to trigger instrument manually.

(14)ENTER

[ENTER] key is used to cancel data input, confirm and store the data displaying on input line （bottom line on LCD）.

(15)Ground terminal

The ground terminal is connected with casing of instrument, which can be used to protect or shield the ground connection.

(16)Transformer secondary test terminal（TURNS） (+)：Secondary(+)terminal；

(-)：Secondary (-) terminal.

(17)Test terminal （UNKNOWN）

4-terminal pair. Being used to connect 4-terminal pair fixture or cable to measure DUT.

Hcur；

Hpot；

Lpot；

Lcur.

(18) [SYSTEM] menu key

Press [SYSTEM] to enter “system setup”page.

(19) [TRANS] menu key

Press [TRANS] to enter transformer measure menu.

(20) [LCRZ] menu key

Press [LCRZ] to enter “component measurement display” page.

(21) [FILE]

Press [FILE] key, file management page will be displayed

(22) Power Switch

This key is used to turn on or turn offthe power source.

(23) USB HOST interface Connect with U disk.

2.2 Instruction of rear panel

Figure 2-2 brief introduction of rear panel.

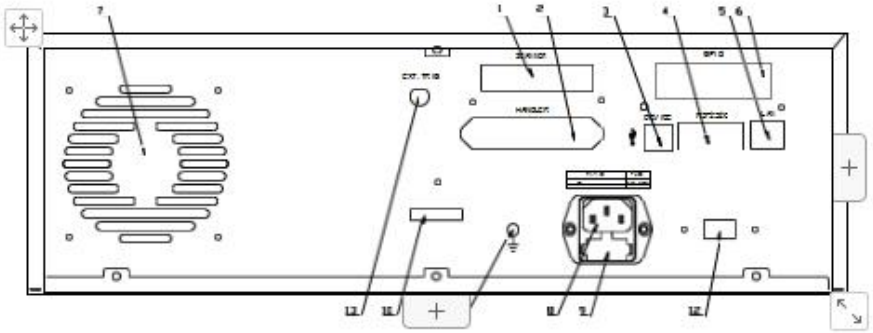

Figure 2-2. Rear panel introduction

Figure 2-2. Rear panel introduction

(1)SCANNER interface

Control transformer scanning box.

(2) HANDLER interface

You can build auto test system by handler interface to realize auto test which is widely used in auto production line. This interface will output the comarision result and the connection signal.

(3) USB Device interface.

The computer can control the transformer tester by this interface.

(4)RS232C series interface

Series communication interface can realize the communication with computer. (5) LAN Interface(Optional)

LAN communication interface.

(6)GPIB Interface(Optional)

Build GPIB test system by this interface.

(7) FAN Window

Heatdissipationto maintain the normal working condition.

(8) Power outlets

AC power input

(9) Fuse base

Being used to install power fuse, protect instrument.

(10)Nameplate

Information about production date, instrument number, and manufacturer etc (11)Ground terminal

The ground terminal is connected with instrument casing, being available for protecting or shielding ground connection.

(12) 110V/220V switch

Switch 110V/220V by changing the direction of core.

Warning：Attention whether the direction of fuse is accordant with power-supply voltage range before charging.

2.3 Display zone definition

adopts 800×480 LCD ， the content displayed in LCD can be divided as the following display zones, in figure2-3.

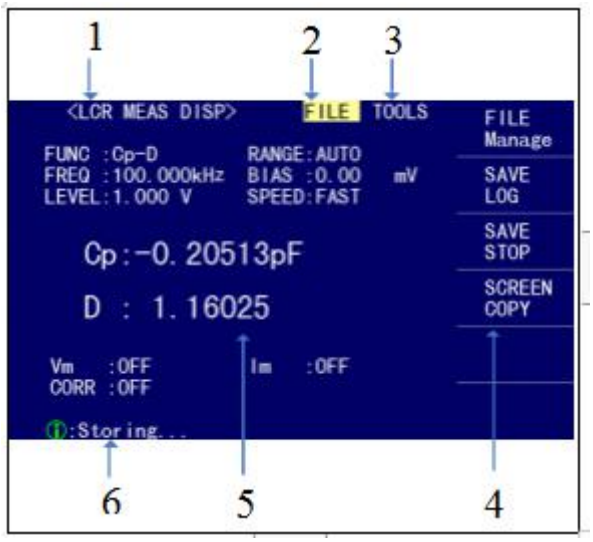

Figure 2-3. Display zone definition

1) Display page zone

The zone indicates name of the current page.

2) File zone

Move cursor to this zone, the file management can be operated. The file management operation includes: load, store and delete.

3) Tool zone

Some uncommon functions are listed in tool zone.

4) Softkey zone

The zone is used to display the function definition of softkey. The definition of softkey can be different as the difference of cursor's direction in the zone.

5) Test result/condition display zone

In this zone, test result information and current condition is displayed.

6) Assistance and data-input zone

In this zone, information about system and user data input is displayed.

2.4 Main menu key and corresponding display page

2.4.1 [LCRZ]

Being used to enter LCRZ display page. The keys are about the function menu of capacitance, resistance, inductance, impedance, the function page includes:

<LCRZ measure display>

<Bin No. display>

<Bin count display>

<List sweep display>

<Measure setup>

<Correction>

<Limit list setup>

<Lsit sweep setup>

Note: HZ2102 series have LCR function.

2.4.2 [TRANS]

Being used to enter transformer single or sweep test.

2.4.3 [SYSTEM]

Being used to enter system setup page. The keys are about the function menu of system setup, file list. The function page is：

System setup

2.5 Basic operation

Basic operation of is shown as below：

Use key（[LCRZ],[SETUP],[SYSTEM]）and softkey to select the demanded page.（Referto figure 2-5）

Use cursor key([←][↑][→][↓]) to move to the zone you want to set.When cursor moves to a zone, the zone will become reverse expression.

The current key function is displayed in “softkey zone”. Select and press the demand softkey. Numberic key,[BACKSPACE] and [ENTER]key is used to input data.

After pressing a numberic key, available unit softkey will be displayed in soft key zone.

You can use unit softkey or [ENTER] to end inputting data.When using [ENTER] to end inputting data, the unit of data is the default unit of corresponding parameter：Hz, V or A.For example, the default unit of test frequency is Hz.

2.6 Turn on the instrument

Plug in 3-line power plug, attention：Keep the power-supply voltage, frequency meeting the rules above. Power input phase line L, zero line N, ground line E should be the same as that of the instrument.

Turn on the power, and press the power switch at the left corner on the front panel.

If the password protection function is on, then password is necessary when turning on the instrument. Input the password, and press [ENTER] to enter main menu.

Note: In the series of the products, the password is set, and the password is **2786**. In the process of using the instrument, user can reset password more details can be referred in password item in <system>page.