



2-in-1 Transformer Test System

6235/7620/F7721

User Manual

Safety

General

This equipment has been designed to meet the requirements of EN61010-1 'Safety requirements for electrical equipment for measurement, control & laboratory use' and has left the factory in a safe condition.

The following definitions in EN61010-1 are applicable:

OPERATOR	Person operating equipment for its intended purpose. Note: The OPERATOR should have received training appropriate for this purpose.
RESPONSIBLE BODY	Individual or group responsible for the use and maintenance of equipment and for ensuring that operators are adequately trained.

The RESPONSIBLE BODY must ensure that this equipment is only used in the manner specified. If it is not used in such a manner, the protection provided by the equipment may be impaired.

This product is not intended for use in atmospheres which are explosive, corrosive or adversely polluted (e.g. containing conductive or excessive dust). It is not intended for use in safety critical or medical applications.

The equipment can cause hazards if not used in accordance with these instructions.

Read them carefully and follow them in all respects.

Do not use the equipment if it is damaged. In such circumstances the equipment must be made inoperative and secured against any unintentional operation.

MICROTEST CORP. and the associated sales organizations accept no responsibility for personal or material damage, or for any consequential damage that results from irresponsible or unspecified operation or misuse of this equipment.

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CHAPTER 1. BEFORE USE

WARNING!

- This equipment is intended for use by suitably trained and competent person.
- This product is capable of having hazardous voltages of 6000V DC for testing, appropriate precautions should be taken for safety.
- This product can cause hazards if it is not used in accordance with these instructions.

Read them carefully and follow them in all respects. Double-check connections to the unit before use.

DO NOT USE THIS EQUIPMENT IF IT IS DAMAGED.

1.1 ELECTRIC SHOCK

To prevent any electric shock accident, please wear the wrist strap while using the equipment.

1.2 STATIC ELECTRICITY

The unit supplied uses static-sensitive devices.

- 1) The work surface should be a conductive grounded mat
- 2) Soldering irons must be grounded and tools must be in contact with a conductive surface to ground when not in use.
- 3) Any person handling static-sensitive parts must wear a wrist strap which provides a leaky path to ground impedance not greater than 1M.
- 4) Components or circuit board assemblies must be stored in or on conductive foam or mat while work is in progress.

1.3 GROUNDING

Disconnection of the protective ground terminal is likely to make the equipment dangerous. Check connections to the ground terminal on the back panel carefully.

1.4 AC POWER SUPPLY

Power cable and connector requirements vary between countries, always use a cable that conforms to local regulations, terminated in an IEC 320connector at the instrument end .If the plug is fused, a 3-amp fuse should be fitted .If the

power cable electrical connection to AC power plug is through screw terminals, then adjusted the rear panel 115v\230v on or off button ensure that is set to voltage of the local AC power supply.

1.5 CONECTING TEST LEADS TO HIGH VOLTAGE OUT PUT TERMINAL

Turn off the equipment before connecting the test leads to the high voltage output terminal. Ensure the wires and leads are in a safe condition.

1.6 WARM-UP

This equipment can begin work immediately after turned on, for more accurate results, please wait 15 minutes for the tester to warm-up.

1.7 EXTERNAL CONTROL

The tester can be controlled by external signals. Be sure that the operator can not reach the high-tension output terminal and the object during the external control.

1.8 MALFUNCTION

If find there are malfunctions with the tester (For Example: There is a great difference on value between the voltage displayed by the voltmeter and the voltage you set, or the signal lamp for high-tension output terminal steadily on while there is not high voltage outputting), please stop using it immediately, contact us for repairing.

1.9 SWITCHING THE UNIT OFF

When the tester is not in use, please switch it off.

1.10 PRESERVATION

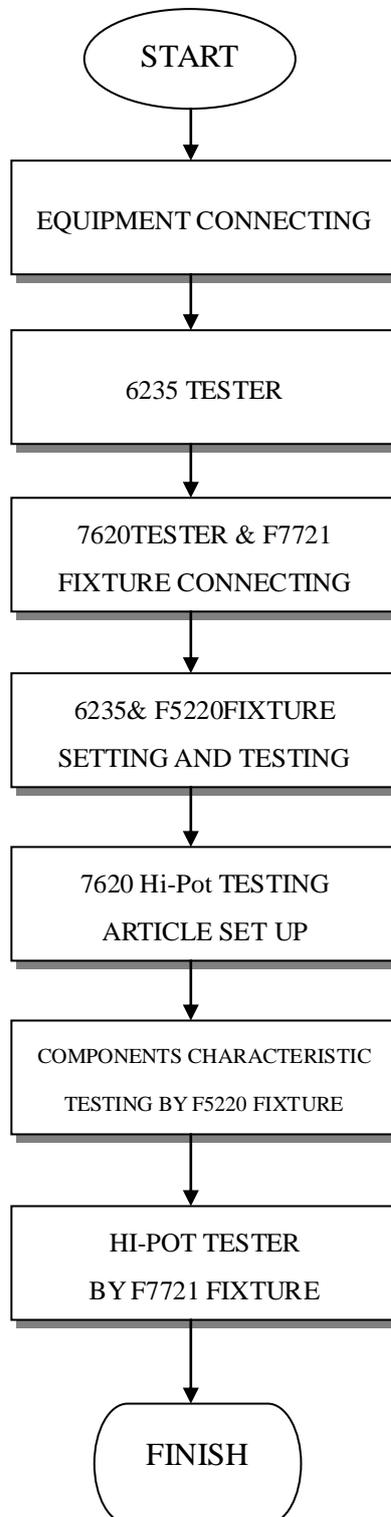
The unit can work efficiently at temperature of 5 oC ~ 40 oC , humidity of 80% RH, and can be stored in a place of -20 oC ~ 70 oC, 80% RH. Please do not put the tester at a dusty place or a place of high-temperature, high-humidity. Shaking frequently and isolation is also forbidden.

1.11 IN CASE EMERGENCY

If receiving an electric shock or the tester is causing fire, please turn off the tester and disconnect the power source.

CHAPTER 2. START TO USE

2.1 SETTING THE PROCEUDRE



2.2 HARDWARE FRAMEWORK SETTING

- 2 In 1 TRANSFORMER TESTER MAIN FRAMEWORK

This product is combined by 2 equipments which are 6235, 7620 and F5220 Low Voltage Fixture & F7721 Hi-Pot Fixture

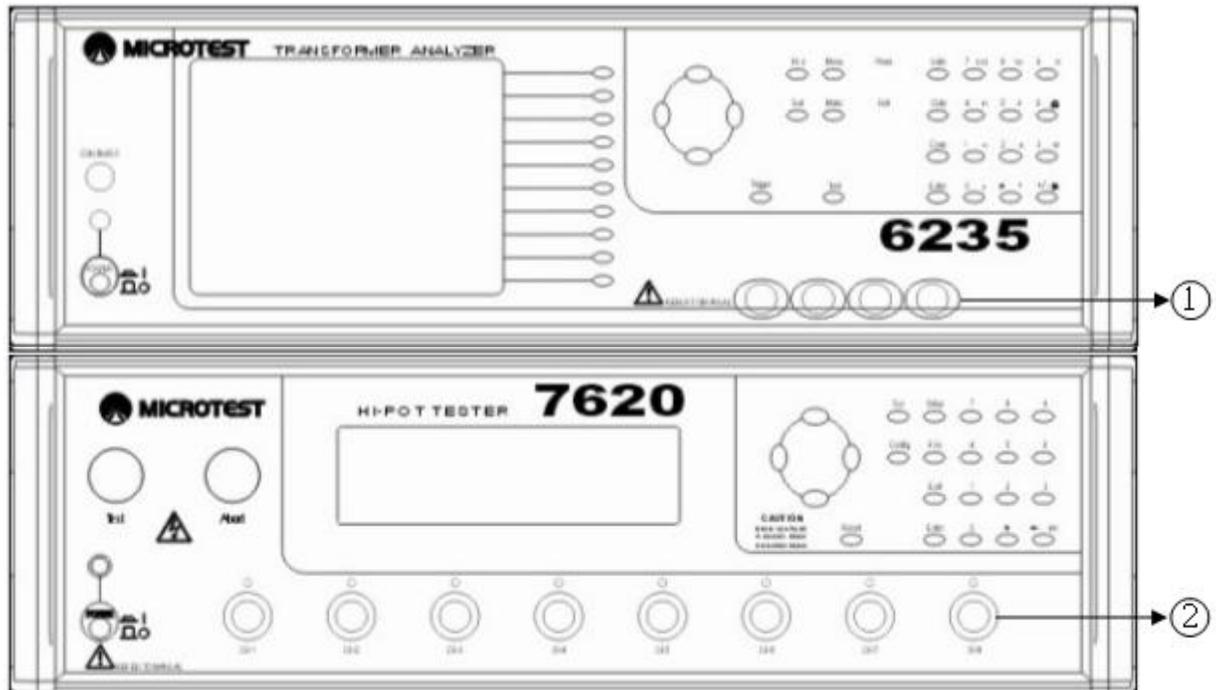


Figure 2-2-1 6235 · 7620 Tester Front Panel

6235 · 7620 Front Panel Connection Illustration (Figure 2-2-1)

1. Connect F7721 fixture test line in 6235 test terminal by BNC Box
2. Using connect line to connect the CH01~CH20 high voltage terminal on F7721 fixture and the core on the fixture box.

- 2 In 1 TRANSFORMER TESTER BACK PANEL

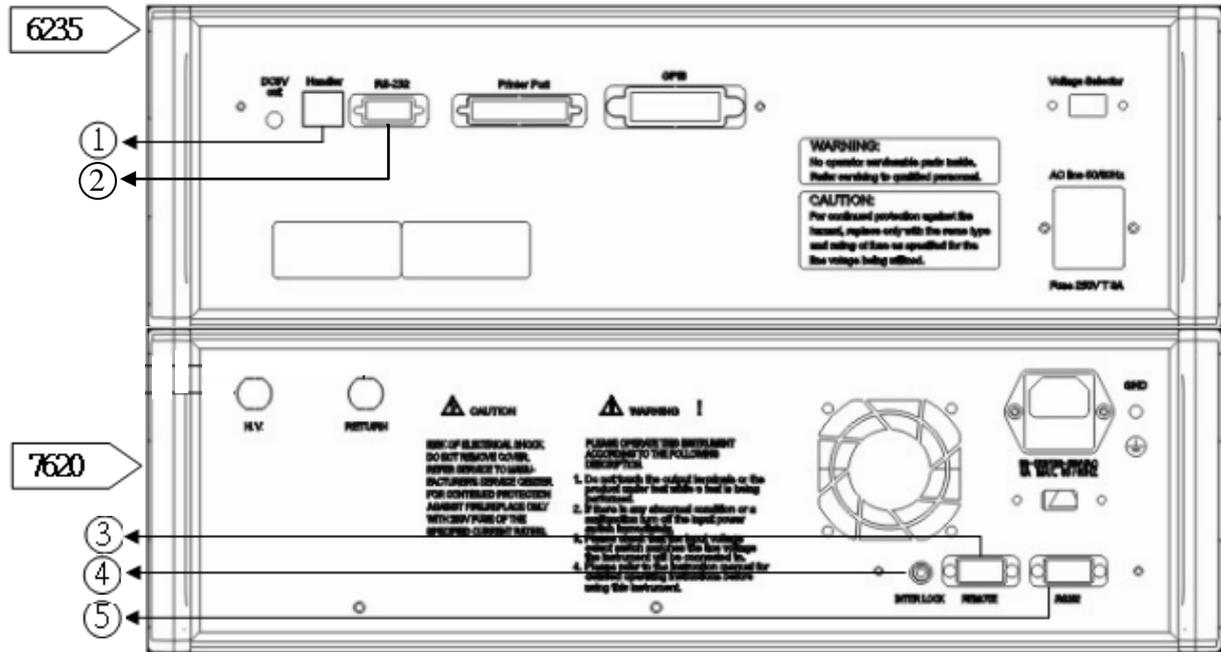


Figure 2-2-2 6235 · 7620 Tester Back Panel

1. Handle: Use RJ-45 connects the Remote Control on the F7721 Fixture.
2. RS-232: Use RS-232 connects to RS-232 terminal of 7620 (Link to PC when PC control testing)
3. Remote: Use connecting line to connect 7620 and F7721 Impulse Remote terminal
4. Inter Lock: Use high voltage socket connects Intre Lock terminal
5. RS-232: Use RS-232 connecting line connects 7620 and RS-232 terminal of 6235 (Link to PC when PC control testing)

- 2 in 1 Transformer Tester Appropriate Fixture Figure

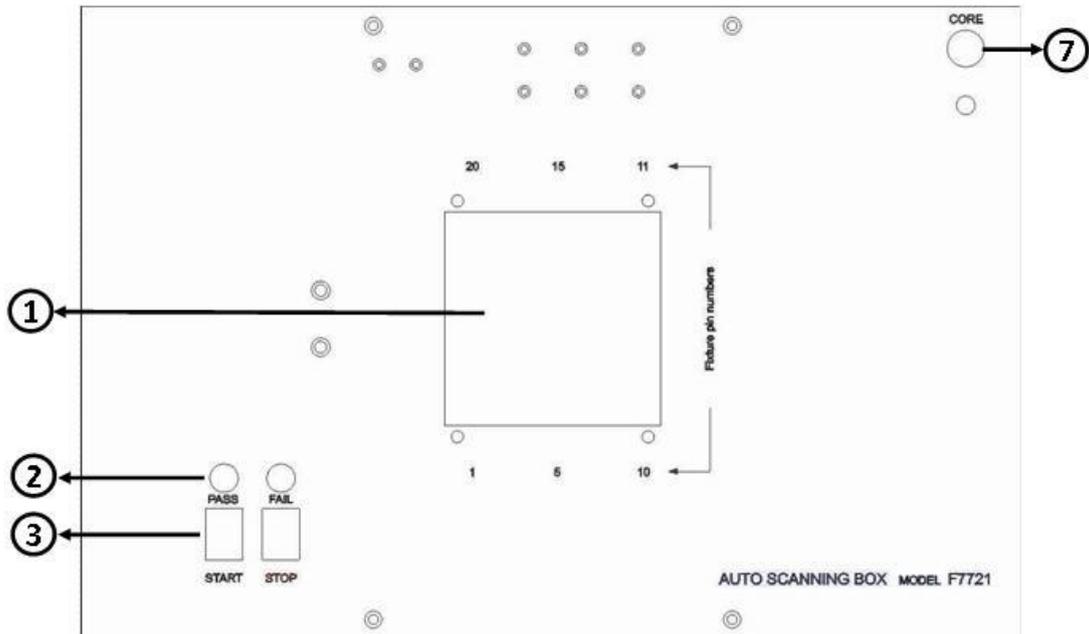


Figure 2-2-3 F57721 Transformer Tester Fixture Overlook

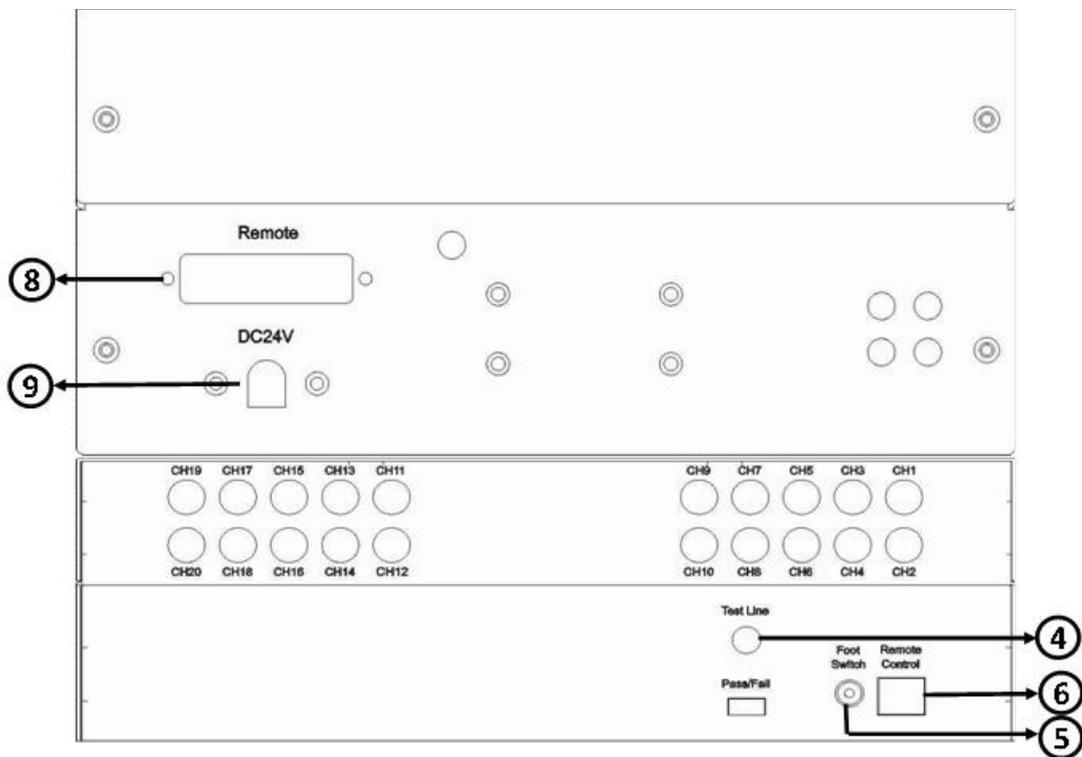


Figure 2-2-4 Transformer Tester Fixture Profile

F7721 Connecting Illustration (Compare with Figure 2-2-3 & 2-2-4)

1. Transformer terminal starts with the below left hand side (PIN 1) to upper left hand side (PIN 20)
2. PASS ∨ FAIL: PASS and FAIL flash light
3. START ∨ STOP: Start & stop button
4. Test Line: Use F5220 Fixture terminal connects into 6235
5. Foot Switch: Foot Switch terminal
6. Remote Control: Use RJ-45 connects with 6235 back panel Handler
7. Core: Provide the Core with 7721 core terminal
8. Remote: Connect to 7620 back panel Remote terminal
9. DC84V: Connect the adapter with fixture

2.3 NOTICING BEFORE OPERATION

Before operation 3 in 1 transformer tester, please make sure there have enough and stable alternating current to provide each automatic testing system' equipment.

CHAPTER 3. OPERATION

3.1 6235 SYSTEM SET UP

Press **MENU**, menu display on the screen, press **SYSTEM** to enter system set up, use **▲ ▼** to shift the items. Figure 3-1-1

```
Transformer Analyzer 6235   Prog
Ver 1.72 Sep 20 2007
Lock edit key      : No
Inverse LCD       : No      Set password
Beep              : OFF
Trigger mode      : Single

Trigger delay     : 20 mS
Display test data: All steps
Display font      : Large
Print test data   : No
Break test        : No      Set RS232
Fail lock         : No
Upload test data  : No

EXIT
```

Figure 3-1-1

1. Lock Edit Key

Function key ON/OFF setting

2. Inverse LCD

LCD back light setting

3. Beep

Prompt sound for testing result, use **PROG** to select.

- a. Pass: Given a prompt sound when test result is success.
- b. Fail: Given a prompt sound when test result is fail.
- c. All: Given a prompt sound in every test result.
- d. Off: Turn off all prompt sound.

4. Trigger Mode

- a. Single: Single testing
- b. Repeat: Repeat testing

5. Trigger Delay

Trigger time delay setting

6. Display Test Date

- a. All Steps: Display all testing information.
- b. Fail Steps: Display only failure information

7. Display Font

Character size setting

8. Print Test Data

Printed automatically for test result, or press the **PRINT** key for printing.

9. Break Test

Choose On 1 NG 、 On 3 NG & On 5 NG will stop testing while meeting failure on 1 、 3 、 5 times. If choose No, than it will not stop the testing.

10. Fail Lock

Fixture will not automatically withdraw only press the **STOP** key, it reminds that the testing items is defective products.

11. Upload Test Data

Set-up RS-232 in order to make the test result transferred to computer through RS-232.

12. Set RS-232

RS-232 information transmitted setting. Figure 3-1-2

- a. Tester ID number
- b. Baud Rate
- c. Character Length
- d. Stop Bits
- e. Parity
- f. Terminator

```
RS232 configuration
Tester ID number : 0
Baud rate       : 9600
Character length : 8 bits
Stop bits       : 1 bit
Parity          : Non-parity
Terminator      : 0xa (LF)
Prog
EXIT
```

Figure 3-1-2

3.2 7620 SYSTEM SET UP

Press **SYS** to enter the system option menu. Figure 3-2-1

```
<< SYSTEM >>
1 .TEST MODE : ALL STEP
2 .STEP TEST FAIL : STOP
3 .TEST NEXT STEP BY : AUTO
4 .OUTPUT STEP SIGNAL : NO
5 .ALARM : NO
6 .PASSWORD
```

Figure 3-2-1

1. Test Mode

Using the numeric key “1” to shift the test mode between **SINGLE STEP** & **ALL STEP**, if choose **ALL STEP** mode.

2. Step Test Fail

User can select this option to stop the instrument from further testing when a low quality item is detected in a multi-step test. User can shift between the options by pressing numeric key “2”. If choose **STOP**, the test will end as a low quality item is detected while choosing **CONTINUE** may ignore such a condition.

3. Test Next Step By

This mode is the trigger for the steps in a test. User can shift between the options by numeric key “3”. If choose **TEST KEY**, the test will pause until the **TEST** key is pressed for every step while choosing **AUTO** may ensure a continuous test.

4. Output Step Signal

User can use this option to set the signals for every step in a multi-step test. User can shift between the options by numeric key “4” . If choose YES, the tester will display the signal results for every step while choosing NO the tester may display the judgment at the end of the test (in this condition, the judgment will be FAIL even there is only one low quality item.)

5. Alarm

It is the switch for FAIL alarm. User can shift between the options by numeric key “5” . If choose ON, the FAIL signal lamp will bright with a beep while choosing OFF the signal lamp will bright without a beep.

6. Password

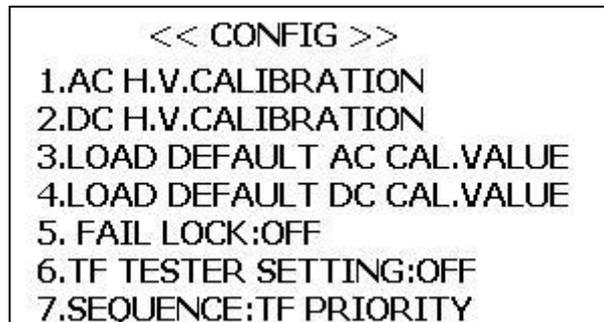
Change password. Input the original password first, then input the new password and confirm it. (The original password for the system is 7620)

7. Ramp Time

Ramp time setting, in order to make fixture have enough time to work.

3.3 CONFIG

This key is used to enter the system option menu shown on Figure 3-2-2.



```
<< CONFIG >>
1.AC H.V.CALIBRATION
2.DC H.V.CALIBRATION
3.LOAD DEFAULT AC CAL.VALUE
4.LOAD DEFAULT DC CAL.VALUE
5. FAIL LOCK:OFF
6.TF TESTER SETTING:OFF
7.SEQUENCE:TF PRIORITY
```

Figure 3-2-2

3.3.1 AC H.V. CALIBRATION

User can use it to correct the AC H.V. when there is something wrong with the voltage. Press numeric key “1” in system option menu followed by the password, take off the two clamps in order to avoid the influence on output voltage of terminal load. Enter the AC H.V. CALIBRATION menu (Figure 3-2-1), there will be a value of preset voltage to the left, a correcting code for voltage in the middle and the voltage detected

to the right. At the beginning, the cursor will be on the line marked 500V and detect the voltage of it. Use up arrow and down arrow to adjust the detected voltage to the preset voltage by change the correcting code. The higher the correcting code is, the higher the output voltage will be. Press **ENTER** to shift to the next line, correct the AC H.V. in the same way. If you press **ENTER** while the cursor is on the line marked 2500V, the cursor will back to the line marked 500V. You can turn to the next page to continue the work by press the right button. When the work is finished, press **EXIT** to exit, the values will be saved automatically.

3.3.2 DC H.V. CALIBRATION

User can use it to correct the DC H.V. when there is something wrong with the voltage. The method is the same as the AC H.V. correcting. Notice that the maximum voltage for DC is 6000V and there will be two more line than the AC H.V. correcting.

3.3.3 LOAD DEFAULT AC CAL. VALUE&LOAD DEFAULT DC CAL. VALUE

User can load Default AC/DC Cal. Values by press **S3/S4** followed by the password in the system option menu. The system will warn user with a message that “Current correcting code will be lost”. Press **ENTER** to load the default values or press **EXIT** to abort.

3.3.4 FAIL LOCK

When the function is ON, the clips of fixture head will grip the fail sample for noticing staff the sample is defective product.

3.3.5 TF TESTER SETING

When the function is ON, fixture will switch to Transformer Test mode (low frequency) then you could use transformer tester (6237) to test your sample, 6237 will learn the standard value of sample. If leave the test window or turn off this function, fixture will switch to stand by status.

3.3.6 SEQUENCE

Using this function to adjust the test sequence, there are TF PRIORITY、HV PRIORITY、ONLY TF and ONLY HV four modes. If choose TF PRIORITY mode,

system will first start Transformer Test mode then Hi-Pot Test mode for measurement. If choose HV PRIORITY mode, system will first start Hi-Pot Test mode then Transformer Test mode for measurement. If choose ONLY TF mode, system will only start Transformer Test mode for measurement. If choose ONLY HV mode, system will only start Hi-Pot Test mode for measurement.

3.4 6235 TESTING ITEM SET UP

After set up all of the machines, you can start to edit the testing article, pls. find below for system set up

3.4.1 ENTER MAIN MENU

Press **SET** to enter the system option manual (Figure. 3-4-1)

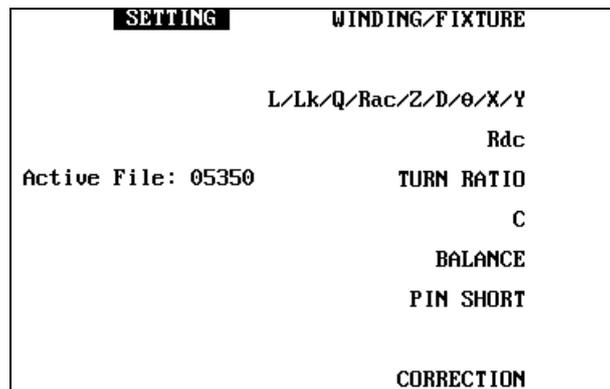


Figure 3-4-1

3.4.2 WINDING / FIXTURE ILLUSTRATION

Transformer Fixture Setting				6.WINDING
File: NONAME				
TF Pin	Fixture Channel	TF Pin	Fixture Channel	2.Mapping
1 →	2	11 →	12	
2 →	3	12 →	13	
3 →	4	13 →	14	3.Clear
4 →	5	14 →	15	
5 →	6	15 →	16	
6 →	7	16 →	17	4.Clear all
7 →	8	17 →	18	
8 →	9	18 →	19	
9 →	10		19	
10 →	11		20	5.EXIT

Figure 3-4-2

Transformer Fixture / Winding Setting Set Up Illustration:

1. Transformer Fixture Setting: Set-up the transformer Pin to corresponding fixture channel
 TF Pin: No need to set up
 Fixture Channel: Use number key to set up
2. Mapping: Use the Mapping to set channels automatically, it can also be set manually.
 Transformer Total Pin: Fill in total PINs of transformer
 Fixture Start Channel: Fill in PIN 1 location on the fixture
3. Clear: Clear current setting
4. Clear all: Clear all current settings
5. Exit: Return to main menu
6. Winding: Press **WINDING** key to enter transformer winding setting
 Wind: Transformer winding name (N1~N20)
 Pin+: Use number key to set up
 Pin-: Use number key to set up
 Swap: Pin+ & Pin-

Transformer Winding Setting						FIXTURE
File: NONAME						
Wind	Pin+	Pin-	Wind	Pin+	Pin-	Swap
N1	2	1	N11	-	-	
N2	3	4	N12	-	-	
N3	5	6	N13	-	-	Clear
N4	7	8	N14	-	-	
N5	8	7	N15	-	-	
N6	10	11	N16	-	-	Clear all
N7	12	13	N17	-	-	
N8	14	15	N18	-	-	
N9	15	14	N19	-	-	
N10	2	1	N20	-	-	EXIT

Figure 3-2-2-2

3.4.3 SEQUENCE / BIN ILLUSTRATION

Test Sequence Setting: Figure 3-4-3-1

BIN Sort Setting Illustration:

1. BIN Function: BIN classification setting, includes Ls、Lk、Q、Rsand Rdc. If not used any classify functions, please turn the OFF button to close the function.
2. BIN Number: BIN range setting. Based on the difference setting on Bin method, classification limited is difference, Equal can be classified into 32 levels, Sequential、tolerance and random can be divided into 15 levels.
3. BIN Method: Classification set up, including Equal, Sequential, Tolerance and Random
 - Equal: Equally classified BIN (Figure 3-4-3-3). User just need to set BIN 1 & BIN 4 limitation and system will classify equally.

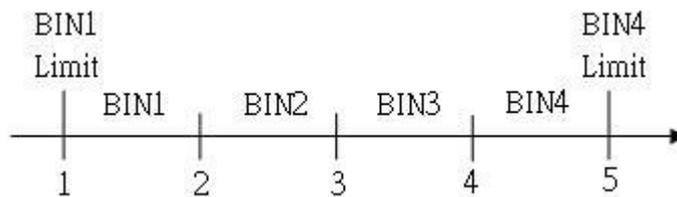


Figure 3-4-3-3

- Sequential: Set up BIN between the continuous sequences (Figure 3-4-3-4). User not only need to set the BIN 1、BIN4 Limit but also need to select **Prog** to enter the self-setup

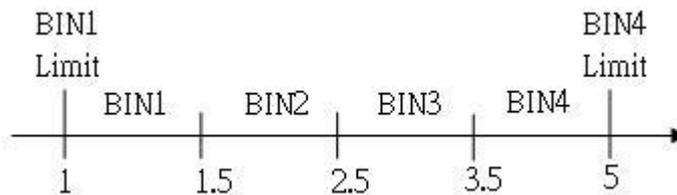


Figure 3-4-3-4

BIN 1	1.0000 H
BIN 2	1.5000 H
BIN 3	2.5000 H
BIN 4	3.5000 H
	5.0000 H
EXIT	

Figure 3-4-3-5

- Tolerance: Use tolerance to set up BIN (Figure 3-4-3-5). Firstly, users need to set up the Nominal value and then select the **Porg** to enter each positive and negative tolerance (Figure 3-4-3-6). Set up the tolerance range from minor to major and use Nominal value as a standard, use this standard extends outwards to positive and negative direction.

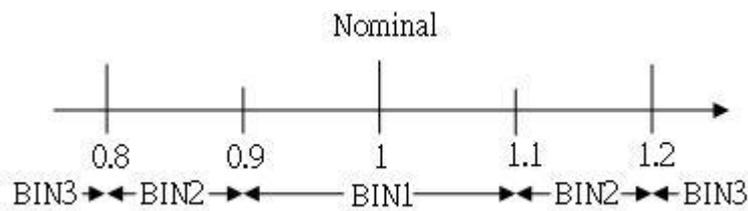


Figure 3-4-3-6

BIN 1	+100.00mH	nH
BIN 2	±200.00mH	
BIN 3	±300.00mH	µH
BIN 4	±400.00mH	mH
		H
EXIT		

Figure 3-4-3-7

- Random: User may randomly and irregularly to set up BIN (figure 3-4-3-8). Firstly select **Prog** to enter the BIN range, user can randomly set the range of BIN1 ~ BIN3 (3-4-3-9).

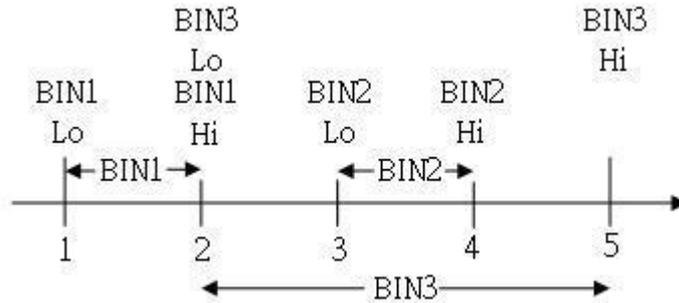


Figure 3-4-3-8

HI	LO	
2.0000 H	1.0000 H	BIN 1
4.0000 H	3.0000 H	BIN 2
5.0000 H	2.0000 H	BIN 3
10.000 H	9.0000 H	BIN 4
EXIT		

Figure 3-4-3-9

4. Limit Mode: BIN maximum and minimum setting mode, including ABS and %.
 - ABS: Absolute mode. Set by value.
 - %: Percentage mode. Nominal column will appear after selected percentage mode (figure 3-4-3-10). Bin Limit value will based on the Nominal as standard.

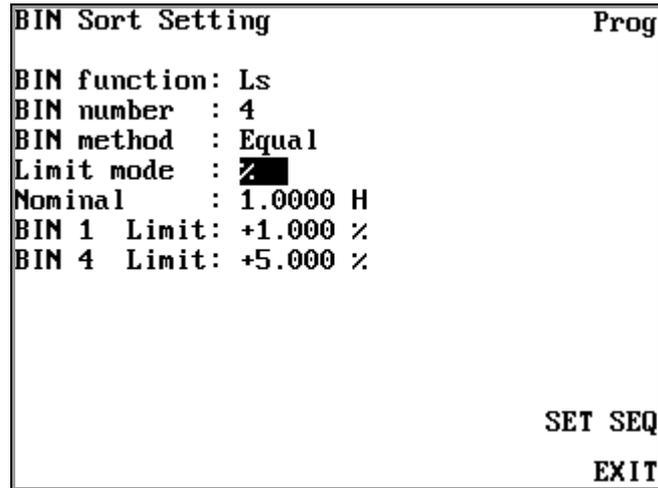


Figure 3-4-3-10

5. BIN Limit: BIN maximum range set-up. Set-up the minimum value for BIN 1 Limit and maximum value for BIN Max Limit. Maximum limit will be changed by BIN number accordingly.

3.4.4 L/LK/Q/Rac/Z/D/Ø /X/Y MEASUREMENT PARAMETERS

Press L/LK/Q/Rac/Z/D/Ø /X/Y on the main menu to enter setup menu

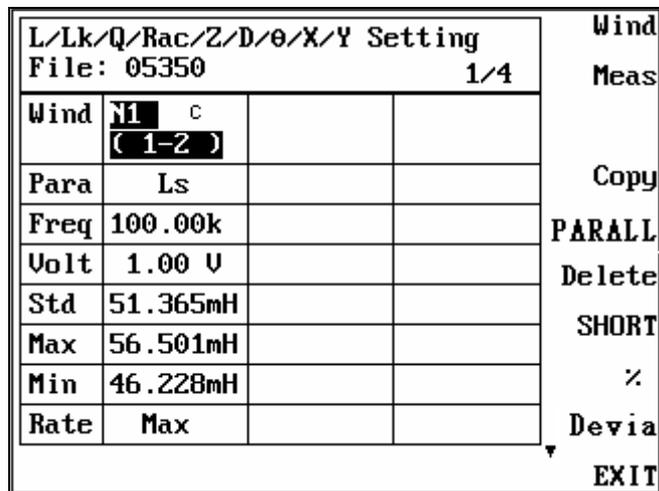


Figure 3-4-4-1

L/Lk/Q/Rac/Z/D/Ø /X/Y Setting

1. Set Wind :
 - Wind : to set winding to be tested
 - Meas : start measurement
 - Copy : copy previous setting

Delete : delete current settings

PIN SHORT : fixture relay short setting , press Short key to set up

% : Set the maximum and minimum values

Exit : return to main menu

2. Para: Select the parameters, press **Para** to select parameters which include Ls , Lp , Lk , Q , Rs , Z , D , θ , Rp , X , Y test items
3. Freq: Set-up the measurement frequency, measurement range 20Hz~200KHz
4. Volt: Volt: Set-up voltage, voltage range: 10mV~2V
5. Std: Set-up standard values, press **Meas** to start measurement and get the standards, press **Accept** to save the value, press **Quit** without saving

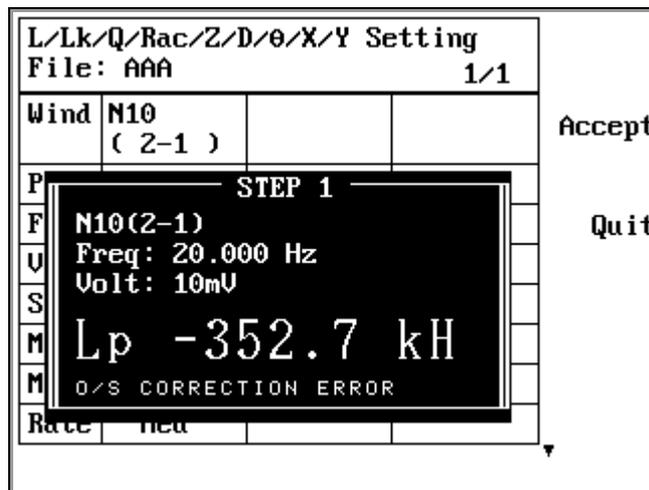


Figure 3-3-4-2

6. Max: Set-up the maximum value, press **%** to setup

7. Min: Set-up the minimum value, press **%** to setup

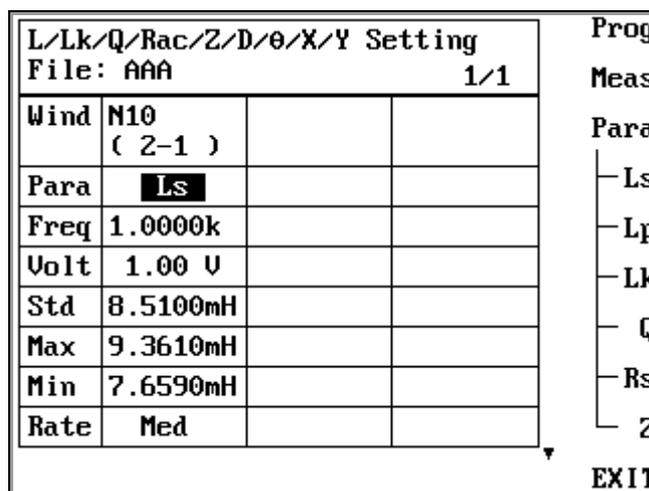


Figure 3-3-4-3

8. Rate: Set-up the speed rate, use **Prog** to adjust

3.4.5 DCR TESTING ILLUSTRATION

RDC Test Setting: DC Testing Set-up (Figure 3-4-5-1)

DCR Test Setting				Wind
File: AAA		1/2		Meas
Wind	N4 (7-8)	N6 (10-11)		Copy
Std	25.164 Ω	-14.70mΩ		Delete
Max	27.680 Ω	-16.17mΩ		%
Min	22.648 Ω	-13.23mΩ		
Rate	Max	Max		
Dly	100 mS	0 mS		EXIT

Figure 3-4-5-1

DCR Test Setting Illustration:

1. Wind : Press **Wind** and select the winding which is going to test
2. Meas : Measurement button
3. Copy : Copy previous setting
4. Delete : Delete the setting
5. % : Set the maximum and minimum values
6. Exit : Return to main menu
7. Std : Set-up standard values, press **Meas** to start measurement and get the standards, press **Accept** to save the value, press **Quit** without saving
8. Max : Set-up the maximum value, press **%** to setup
9. Min : Set-up the minimum value, press **%** to setup
10. Rate: Set-up the speed rate, use **Prog** to adjust
11. Dly : Set continuous testing time

3.4.6 TURN RATION TESTING ILLUSTRATION

Turn Ration Setting:

Turn Ratio Test Setting			Wind
File: AAA		2/2	Meas
Pri.	N4 (7-8)	N6 (10-11)	Copy
Sec.	N1 (1-2)	N6 (10-11)	
Freq	1.0000k	1.0000k	Delete
Volt	1.00 U	1.00 U	
Std	1.00 T	0.00 T	%
Max	1.10 T	0.00 T	
Min	900mT	0.00 T	
			Devia
			EXIT

Figure 3-4-6-1

Turn Ration Setting Illustration:

1. Wind: Press **Wind** and select the winding which is going to test
2. Meas: Measurement button
3. Copy: Copy previous setting
4. Delete: Delete the setting
5. %: Set the maximum and minimum values
6. Exit: Return to main menu
7. Pri: Set-up the primary winding, press **Wind** to select
8. Sec: Set-up the secondary winding, press **Wind** to select
9. Freq: Set-up the measurement frequency, measurement range 20Hz~200KHz
10. Volt: Set-up voltage, voltage range: 10mV~2V
11. Std: Set-up standard values, press **Meas** to start measurement and get the standards, press **Accept** to save the value, press **Quit** without saving
12. Max: Set-up the maximum value, press **%** to setup
13. Min: Set-up the minimum value, press **%** to setup

3.4.7 CAPACITANCE SETTING

Capacitance Testing Setting (Figure 3-4-7-1)

Capacitance Test Setting				Meas
File: AAA		1/1		
Pin+	1			Copy
Pin-	2			
Freq	10.000k			
Volt	1.00 V			Delete
Std	0.0000 F			
Max	0.0000 F			
Min	0.0000 F			%
Rate	Max			
Dly	0 mS			EXIT

Figure 3-4-7-1

Capacitance Test Setting Illustration:

*Others function will display only after insert “Pin+”

1. Wind: Press **Wind** and select the winding which is going to test
2. Meas: Measurement button
3. Copy: Copy previous setting
4. Delete: Delete the setting
5. %: Set the maximum and minimum values
6. Exit: Return to main menu
7. Pin+: Use number key to set up
8. Pin-: Use number key to set up
9. Freq: Set-up the measurement frequency, measurement range 20Hz~200KHz
10. Volt: Set-up voltage, voltage range: 10mV~2V
11. Std: Set-up standard values, press **Meas** to start measurement and get the standards, press **Accept** to save the value, press **Quit** without saving
12. Max: Set-up the maximum value, press **%** to setup
13. Min: Set-up the minimum value, press **%** to setup
14. Rate: Set-Up the speed rate
15. Dly: Set continuous testing time

3.3.8 BALANCE TESTING ILLUSTRATION

Balance Test Setting: Winding Balance Test Setting (Figure 3-3-8-1)

Balance Test Setting			
File: AAA		1/1	
RefA	N1 (1-2)		
RefB	N2 (3-4)		
Para	DCR		
Freq			
Volt			
Max	105.00 Ω		
Min	0.0000 Ω		

Copy
Delete

EXIT

Figure 3-4-8-1

Balance Test Setting Illustration:

1. RefA: Use **Wind** to set-up reference winding A
2. RefB: Use **Wind** to set-up reference winding B
3. Para: Use **Prog** to select Ls 、Lp 、Lk 、Rs 、Z 、DCR
4. Freq: Set-up the measurement frequency, measurement range 20Hz~200KHz
5. Volt: Set-up voltage, voltage range: 10mV~2V
6. Max: Set-up the maximum value
7. Min: Set-up the minimum value

3.4.9 PIN SHORT TESTING ILLUSTRATION

Pin Short Test Setting: Figure 34-9-1

Pin Short Test Setting	
File: AAA	
Step	Pin+ Pin-
1	■
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Clear

EXIT

Figure 3-4-9-1

Pin Short Test Setting Illustration:

1. Pin+: Use number key to set up

2. Pin-: Use number key to set up

3.4.10 FIXTURE CORRECTION

The purpose of correction is to eliminate the effects of stray capacitance or series impedance in the connecting leads or fixtures (Figure 3-3-10-1). The correction values are held in non-volatile memory within the instrument, and will not be lost even after switching the instrument off. To ensure accuracy of measurement, frequent correction is recommended. While drive level or test frequency changed, a correction is a must. (Please remove the transformer from the fixture before performing of correction).

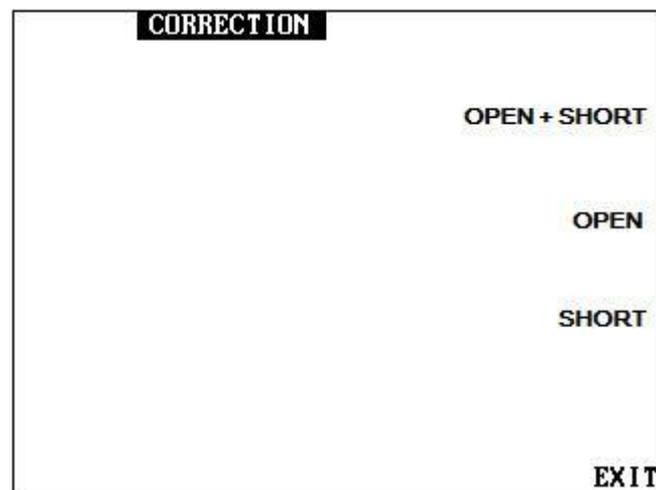


Figure 3-4-10-1

Correction Setting Illustration:

1. Open+Short: Correct the open and short circuit error
2. Open: Only correct the open circuit
3. Short: Only correct the short circuit

3.4.11 DEVIATION SETUP ILLUSTRATION

Complete Deviation: Use Golden Sample as standards to set up the tolerance balance (Figure 3-4-11-1).

Complete Deviation		START
Function	Accepted Range	
L/Lk/Q/Rac/Z/D/θ/X/Y	±30.0 %	
C	±30.0 %	
TURN RATIO	±30.0 %	
Rdc	±30.0 %	
LOAD GOLDEN SAMPLE PRESS START WHEN READY!		Clear all
* To maintain accuracy, always perform CORRECTION before running DEVIATION!		EXIT

Figure 3-4-11-1

Complete Deviation Setting Illustration

*This setting has to put Golden Sample into F5220 fixture.

1. Function: Display the deviation items
2. Accepted Range: Deviation maximum and minimum limit setting.
3. Start: Start testing and calculate the balance value. If balance value appears “Reject” it means the balance over the maximum and minimum limit, on the other hands if it shows “Accept”, it means the balance is within the range. Choose **Save** to save the data or choose **Exit** without saving.

3.5 7620、F7721 TESTING SET-UP

3.4.1 Hi-Pot Tester Set-up

Before setting, please make sure 7620 tester & F7721 fixture are all connected.

Step	: 1	Mode	: AC HIPOT
Volt	: 1.80kV	Freq	: 60Hz
HI	: 1.00mA	Lo	: 0.00mA
OFFS	: 1.00mA	Arcs	: 5
Dwel	: 01.0s	Ramp	: 00.1s
CH	: 1 2 3 4 5 6 7 8		
	HV HV HV HV RT RT RT		

Figure 3-3-4-1

7620 Hi-Pot Tester Setting Illustration:

Please ensure the safety inter lock is plug in before testing. The unit will not out put high voltage and will display “HI – POT LOCK” if safety inter lock is not in its place. When idling, press **Setup** key to enter option menu (Figure 3-4-1-1), use left and right arrow to shift the items, and use up and down arrow or numeric keyboard to change.

- Step: Display current step, use up and down arrow or numeric keyboard to audit.
- Mode: Use up arrow and down arrow to shift the modes between AC、DC、IR & LS. LS mode is different from other three, it has to
- LS Set-up step:
 1. When choosing LS mode, the screen will appear [Press **Test** button, when setup is complete.] Please set up output and 回授 channel.
 2. Press 7620 **TEST** button on the left hand side, the Hi-Pot output and 回授 will flash up the green and red light. Please make sure the output is connected by high voltage line with F7620 fixture, also the testing item is already put in the fixture
 3. After checked, please press **Learn** button on 7700 to make 7700 enter the waveform learning appearance
 4. Choose **Learn** function on the 7700 screen, 7700 will learn the last testing waveform information automatically
 5. Finished LS mode setting, please set up other testing item for 7620 directly
- **Volt:** Use up and down arrow to edit output voltage setting or key in the voltage value by numeric keypad (If the value you keyed in beyond the upper limit or below the lower limit, it will automatically fit the limit).
- **Freq:** Use up and down arrow to shift the AC frequency between 50Hz & 60Hz.
- **HI:** There will be a message showing HILIMIT as the FAIL indicator indicates when the current detected is beyond the upper limit.
- **LO:** There will be a message showing LOLIMIT as the FAIL indicator indicates when the current detected is beyond the lower limit. If the voltage is rising, the check for lower limit will pause until the process of rising finish.
- **OFFS:** There are two ways for offset calibration: Auto setting & Manual setting. Auto setting: Put the cursor at “OFF” and press “TEST”, then the tester will test the voltage and display the result, also a string of “SAVE=ENTER” shows up, press “ENTER” to save the result or press “EXIT” to abort. If the result saved, every time the test is running, the certain value would be taken out to make the test more accurate.
- **ARCS:** The way to set Arc Sensitivity is the same as the one for other settings. The higher the value is, the more sensitive it will be for the tester to arcs. And it will be ignored if the value sets at 0.
- **DWEL:** The value here determines the lasting time of test. If the value equals 00.0, there will be a continuous test.
- **RAMP:** The time needed for voltage to rise to preset voltage from 0.
- **CH:** High voltage output setting. CH1~8 correspond 7620 front panel high voltage output setting. Please define HV & RT below CH1~8, if not using the

channel the set up is unneeded.

3.6 PROGRAM AND STATISTIC INFORMATION SAVING MANAGEMENT

Based on the different tester and different testing article, the information will be saved in 6235 、7620 separately yet.

- 6235 testing information save route: Press the **Menu** button on the front panel and select **STATISTICS** function key to enter the testing information statistic screen.
- 7620 testing information save route: Press the **Stat** button on the front panel to enter the testing information statistic screen.