

ZX267 High Voltage Withstand Tester



In order to ensure safety, please note

* In the testing process, the operator should not touch the location or area of the following; otherwise it will cause the occurrence of electric shock accident.

- 1) High voltage output port of test instrument;
- 2) Crocodile clip of the test line connecting with the tester;
- 3) Tested product;
- 4) Any object that is connected to the output port of the tester;

* In order to prevent the accident of electric shock, please follow the steps below.

- 1) In order to prevent the occurrence of electric shock accident, before using the tester, please wear insulated rubber gloves and then engaged in the work with the tester.
- 2) Grounding connect safely and reliability: There is a grounding terminal on the rear face plate of this series of tester, please connect this terminal to the ground. If there is no reliable grounding connection, when the power supply and casing are short circuit will have high pressure, this is very dangerous. As long as any human contact the shell, are likely to cause the electric shock, so it must connect this grounding Terminal to earth reliability.
- 3) After turn on the power switch, please don't touch any objects connected with the high voltage output port;

* The following situation is very dangerous:

- 1) After pressing the "RESET" key, the high pressure indicator light is still on;
- 2) The voltage value of the display don't changed any more and the high voltage indicator is still on; Meet the above situation, turn off the power switch and unplug the power plug immediately, don't use it any more; please contact with the GDZX instrument or designated dealer immediately.

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I 、 Product Overview

This tester is the basic type withstand voltage tester,with excellent cost performance; the voltage regulate the output through the regulator,with high reliability,high durability.Using high brightness LED digital tube to display test time,voltage,current,and can display the breakdown current value and voltage value real-time;the alarm current value can preset arbitrary;the test time display by three digital tube,the minimum resolution of time is 0.1s and the range of preset time is from 0.0s to 999s.It with the interface of signal input and output for PLC,can easily form an integrated test system with PLC.It is able to measure the compression strength of electronic components,household appliances,insulating materials,instruments and meters,electric lighting, electric heating appliance quickly and accurately.

This series of testing instruments according with the following standards:

Standard for household electrical appliances(IEC6035,GB4706.1-2001,GB4706.1-1998)

Standard for lamp(IEC60598-1-1999,GB7000.1-2000)

Standard for information(GB8898-2001,GB12113.GB4943-2001,IEC60065,IEC60950)and so on.

II 、 Function Introduction

1. Detecting the connection of the input power whether is correct

This series of safety tester all adopt the I type working mode of the shell grounding to ensure the safety of the operator,but when the power circuit is connected to the wrong polarity(the correct connection for the left,right,upper grounding)will cause the risk of shell charged.This series of tester with detection function of power safety,plug in the power supply when tester shutdown,there is the "power supply security" indicator on the front face plate,if the lamp bright,that the input power is correct,it can use when bootstrap,if the lamp doesn't bright,that the input power is wrong,please don't boot-strap,please eliminate power failure before use.

2. Timing test function

After setting the timing value(greater than 0),the counter start to the countdown when test.After the countdown value reaches 0,it will stop time and cut off the output voltage automatically.When the test time is settled to "0.0s",the tester will be tested after starting the test continuously until the user press the "REST" key to stop testing.Whether timing testing or continuous testing,the user can press the "REST" button to stop testing and close high voltage output at any time.

3. The interface of remote control and PLC

The series of tests can be equipped with remote control stick, as long as received (CONTROL) port, can realize the machine startup or reset control; and can also be connected to the button through the corresponding terminal of the PLC interface on the machine, it can realize the machine startup or reset control.

4. High voltage warning lamp function

This series of safety tester using a bright red LED indicator to ensure the safety of the operator. This indicating lamp isn't bright when the tester starts testing but the output voltage is lower than the settled voltage, the indicating lamp will be bright when the output voltage is higher than the settled voltage, even if the tester is in stop state, if the output voltage of high voltage output port is greater than the set voltage the indicator light will be lit, to warn of a high pressure, it should not touch any objects of the H.V output port, to prevent electric shock.

III、 Technical Parameters

1. Model function comparison table

ZX2670A	The maximum output voltage of AC withstand voltage tester is 5kV, The maximum testing current of AC withstand voltage tester is 20mA
ZX2671A	The maximum output voltage of AC and DC withstand voltage tester is 10kV, The maximum testing AC current is 20mA, DC current is 10mA
ZX2671B	The maximum output voltage of AC and DC withstand voltage tester is 10kV, The maximum testing AC current is 50mA, DC current is 20mA
ZX2671C	The maximum output voltage of AC and DC withstand voltage tester is 10kV, The maximum testing AC current is 100mA, DC current is 20mA
ZX2672A	The maximum output voltage of AC and DC withstand voltage tester is 5kV, The maximum testing AC current is 20mA, DC current is 10mA
ZX2672B	The maximum output voltage of AC withstand voltage tester is 5kV, The maximum testing current of AC withstand voltage tester is 100mA
ZX2672C	The maximum output voltage of AC and DC withstand voltage tester is 5kV, The maximum testing AC current is 100mA, DC current is 20mA
ZX2672D	The maximum output voltage of AC and DC withstand voltage tester is 5kV, The maximum testing AC current is 200mA, DC current is 20mA
ZX2674A	The maximum output voltage of AC and DC withstand voltage tester is 20kV, The maximum testing AC current is 20mA, DC current is 10mA

2. Model parameter comparison table

1) Technical parameter of ZX2670A、ZX2672A、ZX2672B、ZX2672C、ZX2672D

	Model		ZX2670A	ZX2672A	ZX2672B	ZX2672C	ZX2672D
AC W	Output voltage range		(0.00~5.00)kV				
	Maximum output power		100VA (5.000kV/20mA)		500VA (5.0kV/100mA)		1000VA (5.0kV/200mA)
	Maximum rated current		20mA		100mA		200mA
	Current stalls		2mA,20mA		2mA,20mA,100mA		2mA,20mA,200mA
	Output waveform		Sine wave				
	Output waveform distortion		≤5%(No-load or pure resistive load)				
	Test time		0.0s~999s 0.0=continuous test				
DC W	Output voltage range		_____	(0.00~5.00)kV	_____	(0.00~5.00)kV	
	Maximum output power		_____	50VA(5.00kV/10mA)	_____	100VA(5.00kV/20mA)	
	Maximum rated current		_____	10mA	_____	20mA	
	Current stalls		_____	2mA、10mA	_____	2mA、20mA	
	Ripple factor		_____	≤5%	_____	≤5%	
	Test time		_____	0.0s~999s 0.0=continuous test	_____	0.0s~999s 0.0=continuous test	
V	Range		(0.00~5.00KV)				
	accuracy		±(5%+3 words)				
	Resolution		10V				
	Display the value		Root mean square value				
A	measuring range	AC	0.100mA~20.0mA		0.100mA~100mA		0.100mA~200mA
		DC	_____	0.100mA~10.0mA	_____	0.100mA~20.0mA	
	Resolution		2mAfile:1uA,20mA file:10uA,100mA(200mA) file:0.1mA				
	measurement accuracy		±(5%+3 words)				
Time r	range		0.0s~999s				
	Minimum resolution		0.1s				

	Accuracy	$\pm(1\% + 50\text{ms})$			
Interface of PLC		Optional			
Remote control interface		Yes			
Exterior dimension		315*285*175mm		440*380*180mm	430*375*190mm
Weight		8.76Kg	9.10Kg	13.72Kg	18.2Kg
					24.6Kg

2) Technical parameter of ZX2671A、ZX2671B、ZX2671C

	Model		ZX2671A	ZX2671B	ZX2671C
ACW	Output voltage range		(0.00 ~10.00) kV		
	Maximum output power		200VA(10.0kV/20mA)	500VA(10.0kV/50mA)	1000VA(10.0kV/100mA)
	Maximum rated current		20mA	50mA	100mA
	Current stalls		2mA,20mA	2mA,20mA,50mA	2mA,20mA,100mA
	Output waveform		Sine wave		
	Output waveform distortion		≤5%(No-load or pure resistive load)		
	Test time		0.0s~999s 0.0=continuous test		
	DCW	Output voltage range		(0.00~10.0) kV	
Maximum output power		100VA(10.0KV/10mA)	200VA(10.0KV/20mA)		
Maximum rated current		10mA	20mA		
Current stalls		2mA,10mA	2mA,20mA		
Ripple factor		≤5 %			
Test time		0.0s~999s 0.0=continuous tes			
V	Range		(0.00~10.0KV)		
	accuracy		± (5%+3 words)		
	Resolution		10V		
	Display the value		Root mean square value		
A	measuring range	AC	0.100mA~20.0mA	0.100mA~50mA	0.100mA~100mA
		DC	0.100mA ~10.0mA	0.100mA ~20.0mA	
	Resolution		2mA file:1uA, 20mA file:10uA,50mA(100mA) file:0.1mA		
	measurement accuracy		± (5%+3 words)		

Time meter	range	0.0s~999s		
	Minimum resolution	0.1s		
	Accuracy	$\pm (1\% + 50\text{ms})$		
PLC interface		Optional		
Remote control interface		Yes		
Exterior dimension		380*305*195mm	443*390*220mm	440*380*180mm
Weight		14.76Kg	25Kg	18.2Kg

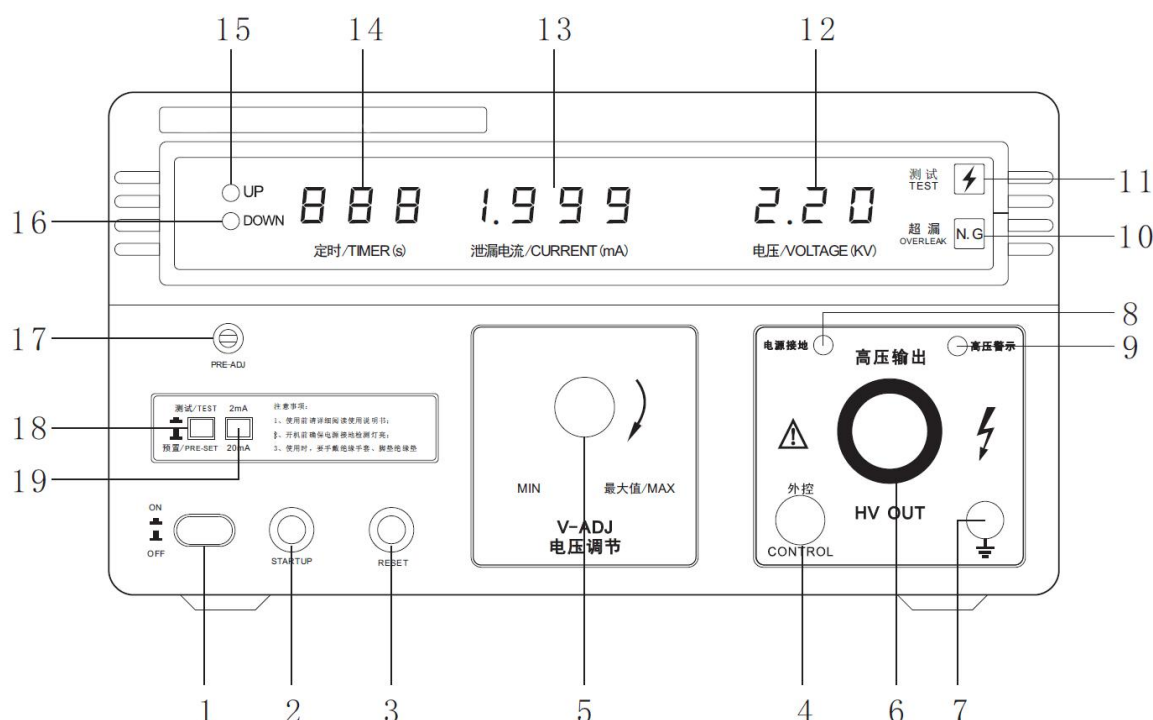
3) Technical parameter of ZX2674A

	Model		ZX2674A	
AC W	Output voltage range		(0.00~20.0)kV	
	Maximum output power		400VA(20.00kV/20mA)	
	Maximum rated current		20mA	
	Current stalls		2mA,20mA	
	Output waveform		Sine wave	
	Output waveform distortion		$\leq 5\%$ (No-load or pure resistive load)	
	Test time		0.0s~999s 0.0=continuous test	
DC W	Output voltage range		(0.00~20.0)kV	
	Maximum output power		200VA(20.0kV/10mA)	
	Maximum rated current		10mA	
	Current stalls		2mA,10mA	
	Ripple factor		$\leq 5\%$	
	Test time		0.0s~999s 0.0=continuous test	
V	Range		(0.00~20.0kV)	
	accuracy		$\pm(5\%+3 \text{ words})$	
	Resolution		10V	
	Display the value		Root mean square value	
A	measuring range	AC	0.100mA~20.0mA	
		DC	0.100mA~10.0mA	
	Resolution		2mA file:1uA,20mA file:10uA	
	measurement accuracy		$\pm(5\%+3 \text{ words})$	
Time meter	range		0.0s~999s	
	Minimum resolution		0.1s	

	Accuracy	$\pm(1\%+50\text{ms})$
	PLC interface	Optional
	Remote control interface	Optional
	Exterior dimension	450*515*230mm
	Weight	34.9Kg

IV、Panel Description

1. ZX2670A Front panel



① Power switch: press the power switch for the instrument power on (open), pop-up for the instrument power off (off).

② START test key: under reset, press this button to START testing.

③ REST stop key: the switch used as interrupt test during the test. When the tested object fails, the over leakage lamp (10) is bright. When the button is pressed, the tester can stop the alarm and enter the next state to be tested.

④ Remote control interface: this interface can be matched with the test and test stick using remote control gun.

⑤ Output voltage adjustment knob: in the test process, the knob is adjusted clockwise, the output voltage is increased; the knob is adjusted counterclockwise, the output voltage is reduced. Please confirm that the knob is in 0 position when booting.

⑥ High voltage output port: the high voltage output of the tester; when testing, this port will

have high voltage output, please do not touch the high voltage port, high voltage output line, high pressure probe, crocodile clip and the object to be measured.

⑦ Current measurement return end: this terminal is the input of measuring current. In the process of testing, we must pay attention to this terminal can not fall off, if the fall off, the test body is full of high pressure, which may cause electric shock accident.

⑧ Power supply detection indicator "power grounding, safety" green light: connect the instrument with the power cord of the municipal power supply, and the power switch of the tester is in OFF state; If the N, L and G of the municipal electricity are correct, the power grounding safety indicator is on. If the connection of N, L and G is wrong, the green light is not bright. Please check the power supply.

⑨ High voltage output indicator light: this lamp is not controlled by the main control circuit. If the voltage of the high voltage outlet is greater than 110V, then the lamp flashes. If the lamp blinks in the reset state, then the high-voltage output port may have high voltage output, which is strictly prohibited to touch any part of the test loop.

⑩ Over leakage indicator lamp: when the test is not qualified, the lamp is bright.

⑪ Over leakage indicator lamp: when the test is not qualified, the lamp is bright.

⑫ Voltage display window

⑬ Current display window

⑭ Time display window

The range of time is 0.0s ~ 999s. When time is less than 100s, the resolution of time is 0.1s; When time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0 s, the time is counted when the test is tested; When time is not set to 0, time is reduced.

⑮ UP key: when setting the time, press this button, the time setting value increases;

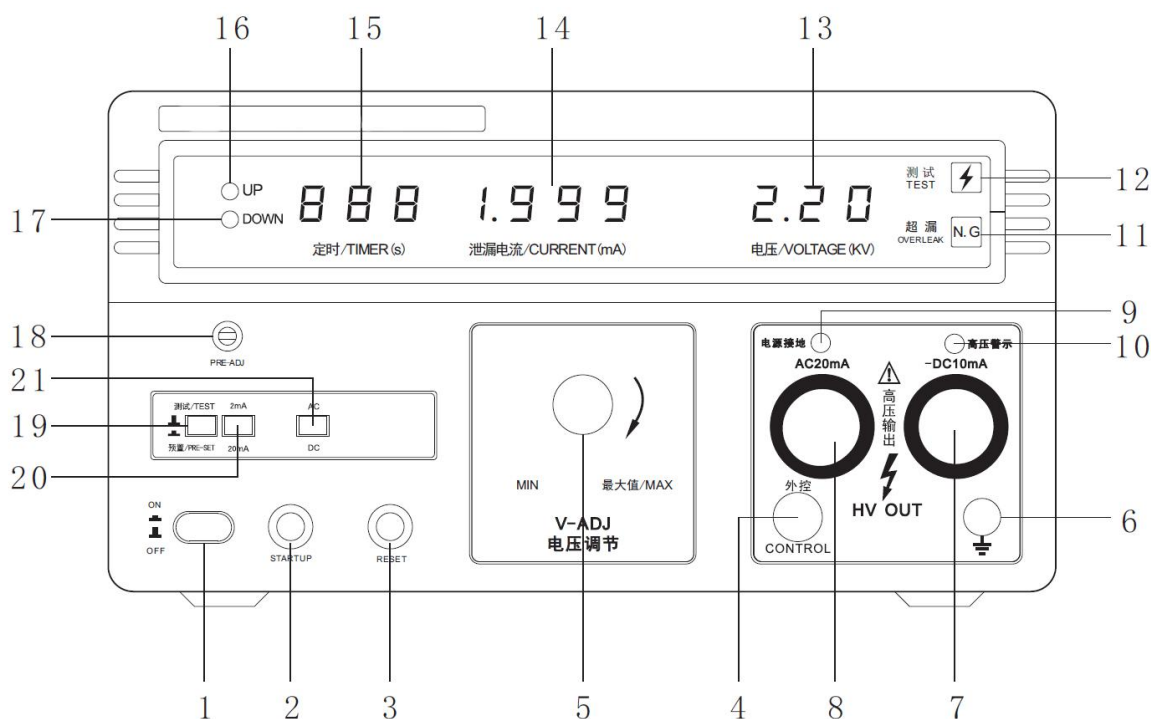
⑯ DOWN key: when setting the time, press this button to reduce the time setting value;

⑰ Current preset adjustment potentiometer: when the "test/preset" (18) button is pressed to the current preset state; The current display window displays the preset current value, and the preset current is increased clockwise. The preset current is reduced counterclockwise.

⑱ Test / preset button: this button is pressed as preset current state and is ejected as test state.

⑲ 2mA / 20mA switch button: This button is pressed to 20mA file, pop-up 2mA file.

2. ZX2672A Front Panel



① Power switch: The power switch is pressed down to switch on (on) the instrument power supply, and is ejected to switch off (off) the instrument.

② START test button: Press this button to start the test in the reset condition.

③ REST stop button: During the testing process, as the switch of the interrupt test, when the test object test fails, the super leak lamp (11) will bright, press this button to test the instrument can stop the alarm, and enter the next state.

④ Interface of remote control: This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob: In the test process, adjust the knob clockwise, the output voltage will increase; adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

⑥ Current measuring return port: This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

⑦ DC high voltage output port: The DC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

⑧ AC high voltage output port: The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑨ Power detection indicator lamp, "power supply: grounding, safety" lamp Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑩ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑪ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑫ Test indicator lamp This lamp is on when the start button is pressed.

⑬ Voltage display window

⑭ Current display window

⑮ Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count;

⑯ DOWN button When setting the time, press this key, the time setting value will decrease;

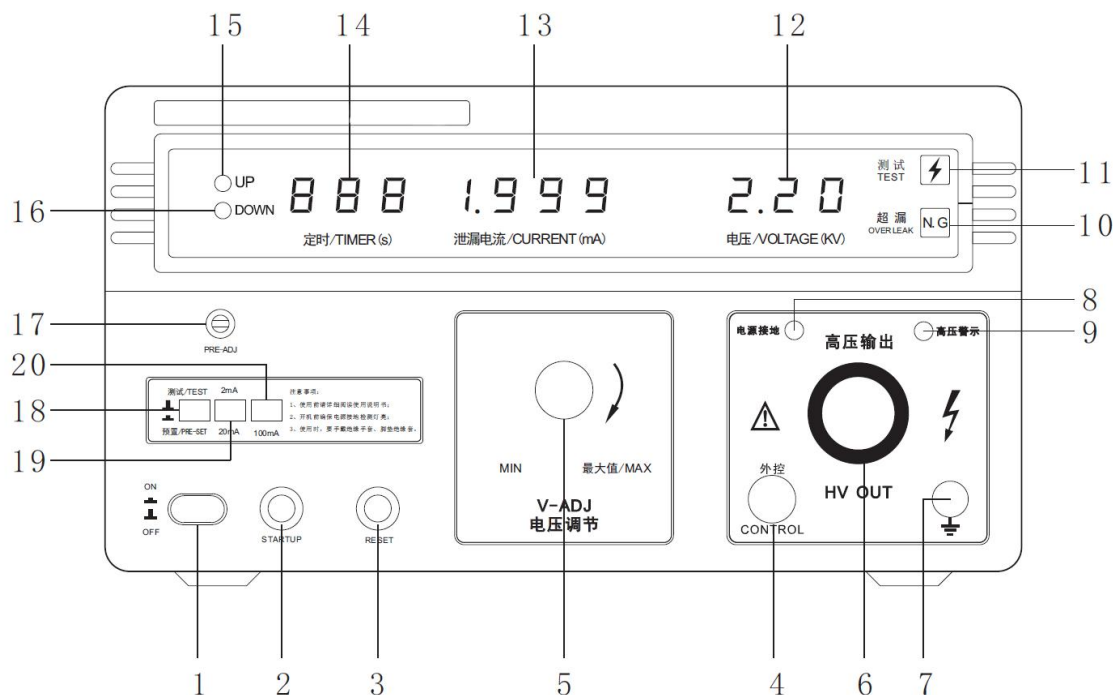
⑰ Current preset adjusting potentiometer: When the "test/preset" (19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.

⑱ "test/preset" button: This button is pressed for the preset current state, and pop-up for the test status.

⑲ 20、2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

⑳ AC/DC switch button: This button switches the display voltage is the AC voltage or DC voltage; the window display the DC voltage when it is pressed, the window display the AC voltage when it is pop-up.

3. ZX2672B Front Panel



① Power switch: The power switch is pressed down to switch on (on) the instrument power supply, and is ejected to switch off (off) the instrument.

② START test button: Press this button to start the test in the reset condition.

③ REST stop button: During the testing process, as the switch of the interrupt test, when the test object test fails, the superleak lamp (10) will bright, press this button to test the instrument can stop the alarm, and enter the next state.

④ Interface of remote control: This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob: In the test process, adjust the knob clockwise, the output voltage will increase; adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

⑥ High voltage output port: The high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑦ Current measuring return port: This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

⑧ Power detection indicator lamp, "power supply: grounding, safety" green lamp Connecting

the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑨ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑩ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑪ Test indicator lamp This lamp is on when the start button is pressed.

⑫ Voltage display window

⑬ Current display window

⑭ Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count;

⑮ UP button When setting the time, press this key, the time setting value will increase;

⑯ DOWN button When setting the time, press this key, the time setting value will decrease;

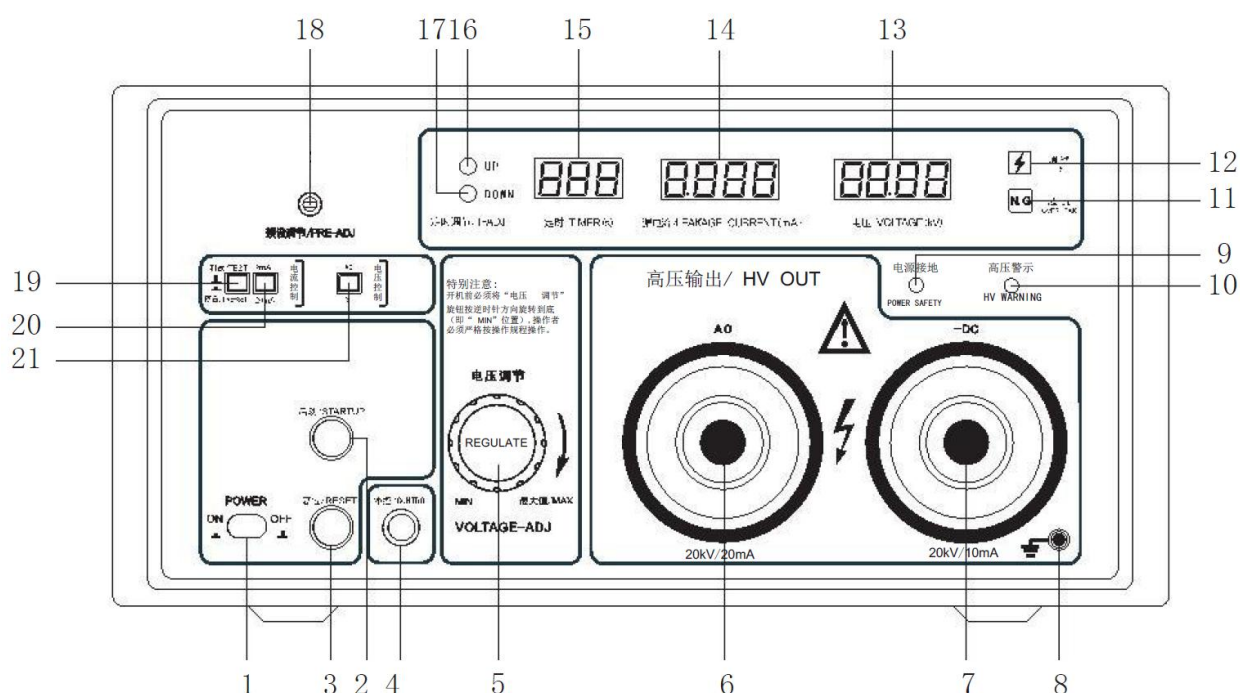
⑰ Current preset adjusting potentiometer: When the "test/preset" (19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.

⑱ "test/preset" button: This button is pressed for the preset current state, and pop-up for the test status.

⑲ 2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

⑳ 100mA button This button is pressed for the 100mA file, pop-up for the 2mA/20mA file.

4. ZX2674A Front Panel



① Power switch: The power switch is pressed down to switch on (on) the instrument power supply, and is ejected to switch off (off) the instrument.

② START test button: Press this button to start the test in the reset condition.

③ REST stop button: During the testing process, as the switch of the interrupt test, when the test object test fails, the superleak lamp (11) will bright, press this button to test the instrument can stop the alarm, and enter the next state.

④ Interface of remote control: This interface must be used with the interface of PLC, it belongs to the optional accessories.

⑤ Output voltage regulating knob: In the test process, adjust the knob clockwise, the output voltage will increase; adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

⑥ AC high voltage output port

⑦ DC high voltage output port The DC voltage output from this port is negative voltage.

⑧ Current measuring return port: This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

⑨ Power detection indicator lamp, "power supply: grounding, safety" green lamp Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator

lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑩ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑪ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑫ Test indicator lamp This lamp is on when the start button is pressed.

⑬ Voltage display window

⑭ Current display window

⑮ Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

⑯ UP button When setting the time, press this key, the time setting value will increase;

⑰ DOWN button When setting the time, press this key, the time setting value will decrease;

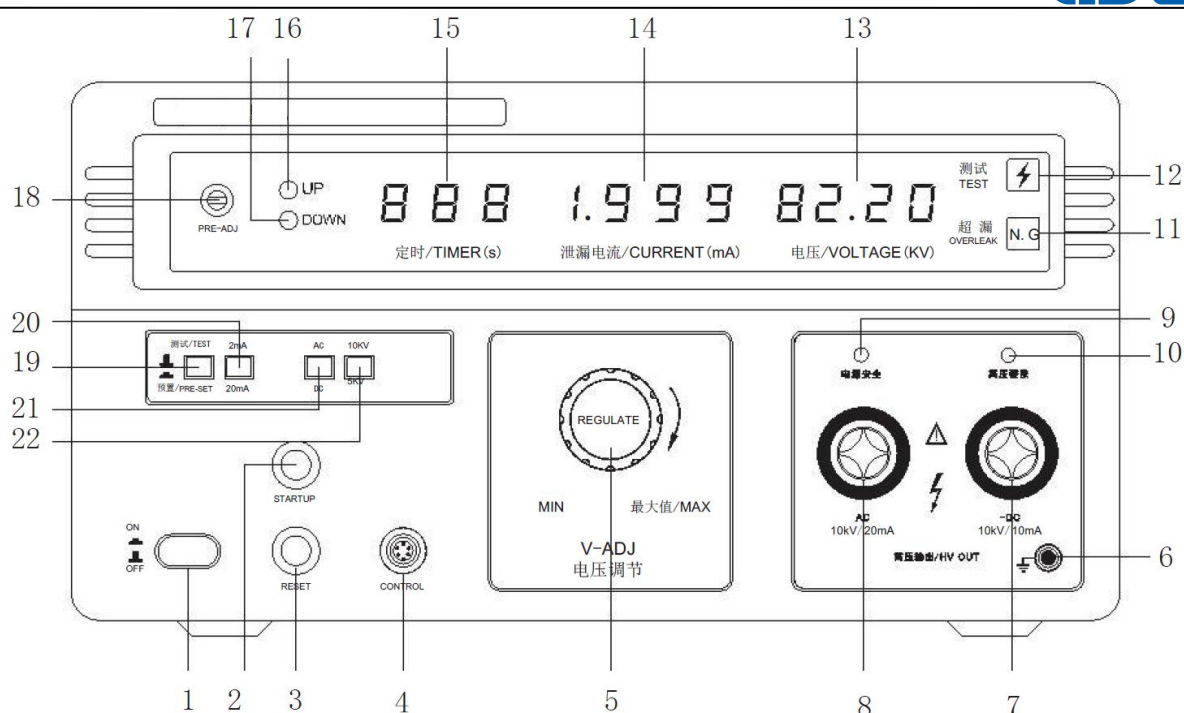
⑱ Current preset adjusting potentiometer: When the "test/preset" (18) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.

⑲ "test/preset": button This button is pressed for the preset current state, and pop-up for the test status.

⑳ 2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

㉑ AC/DC switch button This button switches the display voltage is the AC voltage or DC voltage; the window display the DC voltage when it is pressed, the window display the AC voltage when it is pop-up.

5. ZX2671A Front Panel



① Power switch: The power switch is pressed down to switch on (on) the instrument power supply, and is ejected to switch off (off) the instrument.

② START test button: Press this button to start the test in the reset condition.

③ REST stop button: During the testing process, as the switch of the interrupt test, when the test object test fails, the superleak lamp (11) will bright, press this button to test the instrument can stop the alarm, and enter the next state.

④ Interface of remote control: This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob: In the test process, adjust the knob clockwise, the output voltage will increase; adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

⑥ Current measuring return port: This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

⑦ DC high voltage output port: The DC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

⑧ AC high voltage output port: The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑨ Power detection indicator lamp, "power supply: grounding, safety" green lamp Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑩ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑪ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑫ Test indicator lamp This lamp is on when the start button is pressed.

⑬ Voltage display window

⑭ Current display window

⑮ Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

⑯ UP button When setting the time, press this key, the time setting value will increase;

⑰ DOWN button When setting the time, press this key, the time setting value will decrease;

⑱ Current preset adjusting potentiometer: When the "test/preset" (19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.

⑲ "test/preset" button: This button is pressed for the preset current state, and pop-up for the test status.

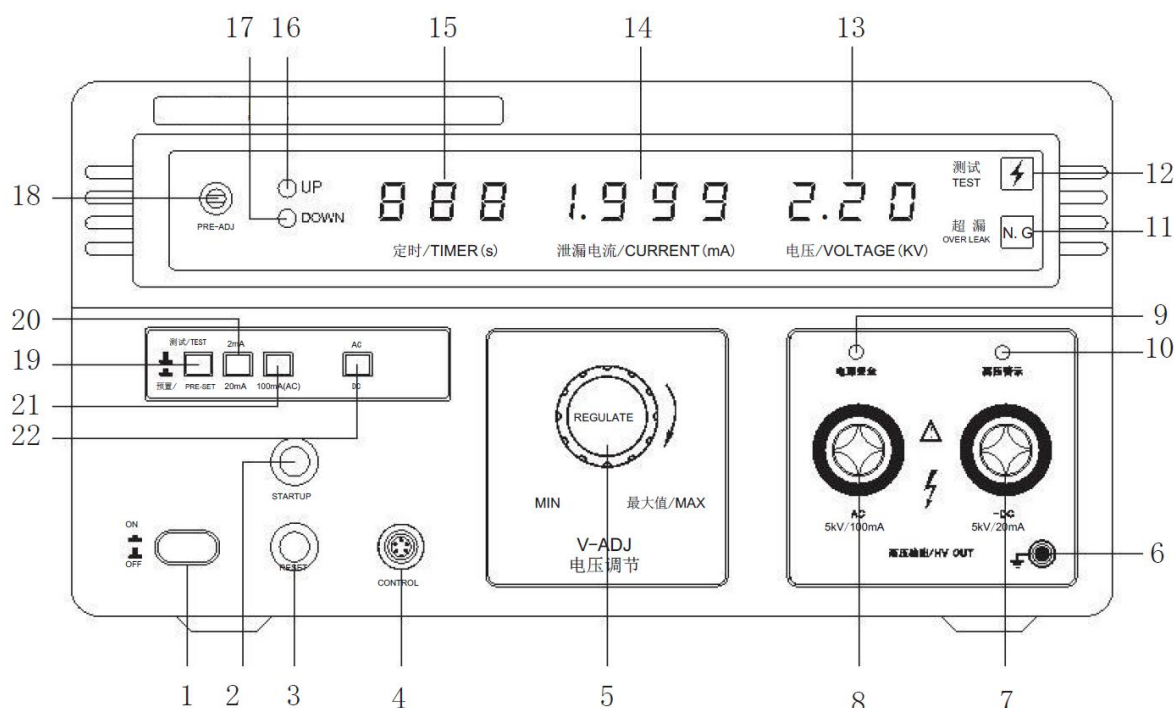
⑳ 20、2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

㉑ AC/DC switch button: This button switches the display voltage is the AC voltage or DC voltage; the window display the DC voltage when it is pressed, the window display the AC voltage

when it is pop-up.

② 5kV/10kV voltage file switch This button is pressed for the 5kV file,popup for the 10kV file.

6. ZX2672C Front Panel



① Power switch:The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

② START test button:Press this button to start the test in the reset condition.

③ REST stop button:During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright,press this button to test the instrument can stop the alarm,and enter the next state.

④ Interface of remote control:This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob:In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

⑥ Current measuring return port:This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off,if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

⑦ DC high voltage output port:The DC high pressure output port of test instrument will have

high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

⑧ AC high voltage output port: The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑨ Power detection indicator lamp, "power supply: grounding, safety" lamp Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑩ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑪ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑫ Test indicator lamp This lamp is on when the start button is pressed.

⑬ Voltage display window

⑭ Current display window

⑮ Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

⑯ UP button When setting the time, press this key, the time setting value will increase;

⑰ DOWN button When setting the time, press this key, the time setting value will decrease;

⑱ Current preset adjusting potentiometer: When the "test/preset" (19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.

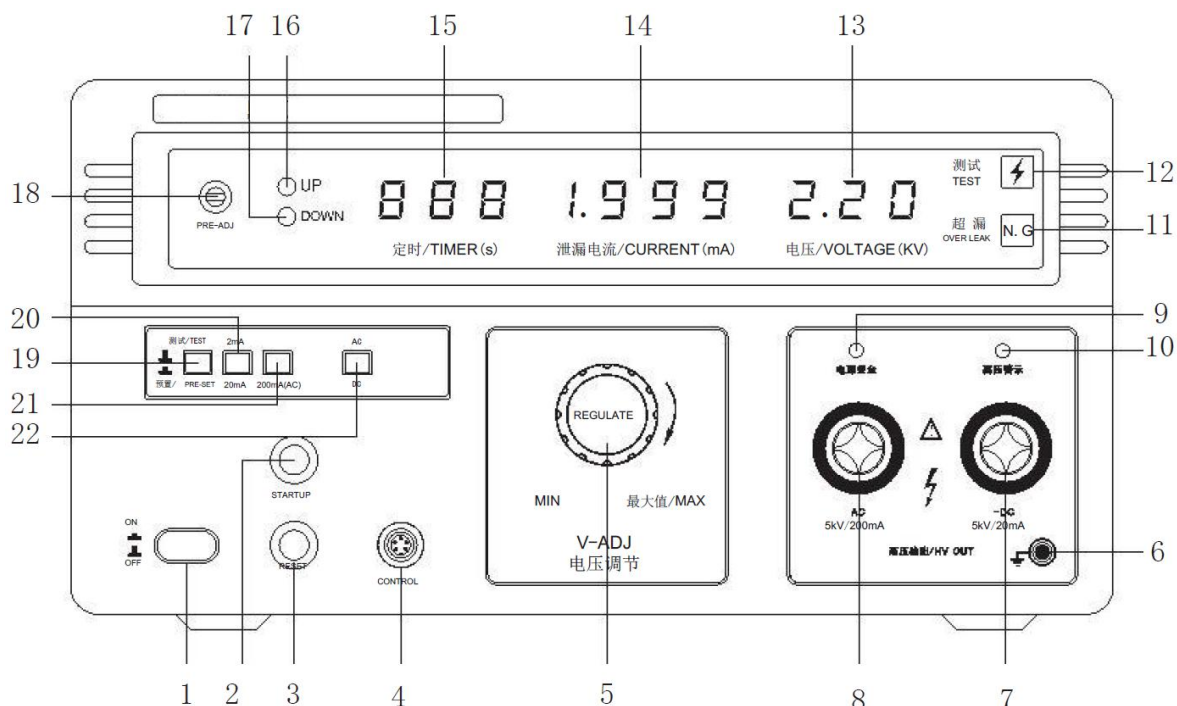
⑲ "test/preset" button: This button is pressed for the preset current state, and pop-up for the test status.

⑳ 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

㉑ 100mA(AC) file This button is pressed for

㉒ AC/DC switch button 100mA(AC):This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

7. ZX2672D Front Panel



① Power switch:The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

② START test button:Press this button to start the test in the reset condition.

③ REST stop button:During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright,press this button to test the instrument can stop the alarm,and enter the next state.

④ Interface of remote control:This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob:In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

⑥ Current measuring return port:This terminal is the input port of the measuring current.In

the test process, we must pay attention to this terminal can't fall off, if it falls off, the test object will be full of high pressure, that it may cause the occurrence of electric shock accident.

⑦ DC high voltage output port: The DC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

⑧ AC high voltage output port: The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑨ Power detection indicator lamp, "power supply grounding, safety" lamp: Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑩ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑪ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑫ Test indicator lamp This lamp is on when the start button is pressed.

⑬ Voltage display window

⑭ Current display window

⑮ Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

⑯ UP button When setting the time, press this key, the time setting value will increase;

⑰ DOWN button When setting the time, press this key, the time setting value will decrease;

⑱ Current preset adjusting potentiometer: When the "test/preset" (19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the

preset current will increases;adjust anticlockwise the preset current will decreases.

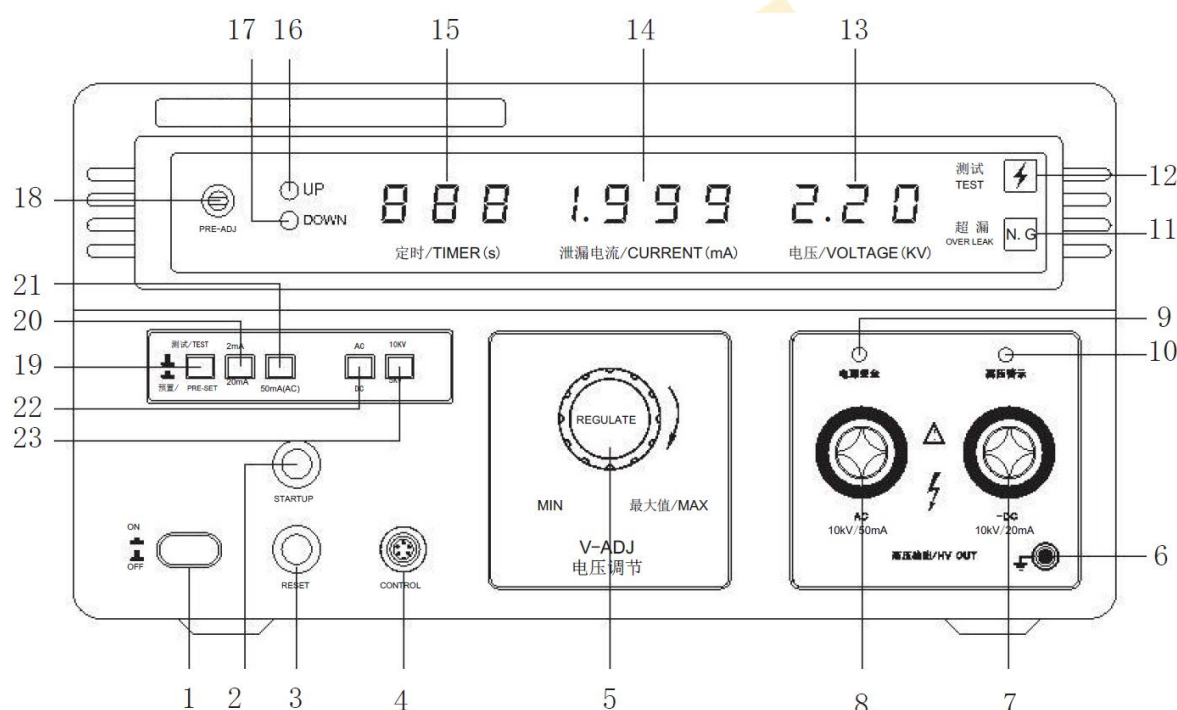
⑲ "test/preset"button:This button is pressed for the preset current state, and pop-up for the test status.

⑳ 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

㉑ 200mA(AC) file This button is pressed for the 200mA(AC)

㉒ AC/DC switch button:This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

8. ZX2671B Front Panel



① Power switch:The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

② START test button:Press this button to start the test in the reset condition.

③ REST stop button:During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright,press this button to test the instrument can stop the alarm,and enter the next state.

④ Interface of remote control:This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob:In the test process,adjust the knob clockwise,the output

voltage will increase;

⑥ adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

⑦ Current measuring return port: This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

⑧ DC high voltage output port: The DC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

⑨ AC high voltage output port: The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑩ Power detection indicator lamp, "power supply grounding, safety" lamp: Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑪ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑫ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑬ Test indicator lamp This lamp is on when the start button is pressed.

⑭ Voltage display window

⑮ Current display window: Time display window: The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

⑯ UP button When setting the time, press this key, the time setting value will increase;

⑰ DOWN button When setting the time, press this key, the time setting value will decreases;

⑱ Current preset adjusting potentiometer:When the "test/preset"(19)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.

⑲ "test/preset"button:This button is pressed for the preset current state, and pop-up for the test status.

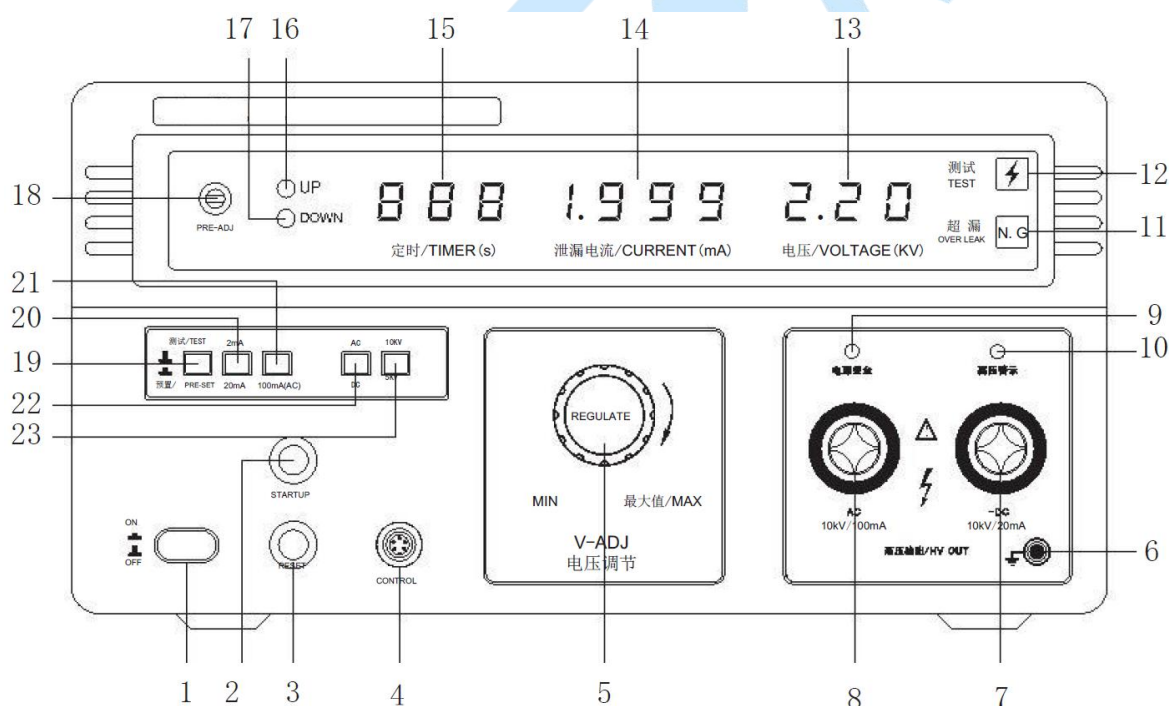
⑳ 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

㉑ 50mA(AC) file This button is pressed for the 50mA(AC).

㉒ AC/DC switch button:This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

㉓ 5kV/10kV voltage file switch This button is pressed for the 5kV,and popup for the 10kV.

9. ZX2671C Front Panel



① Power switch:The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

② START test button:Press this button to start the test in the reset condition.

③ REST stop button:During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright,press this button to test the instrument can

stop the alarm, and enter the next state.

④ Interface of remote control: This interface can be matched with the test gun and remote control test stick.

⑤ Output voltage regulating knob: In the test process, adjust the knob clockwise, the output voltage will increase; adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

⑥ Current measuring return port: This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

⑦ DC high voltage output port: The DC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

⑧ AC high voltage output port: The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

⑨ Power detection indicator lamp, "power supply grounding, safety" lamp: Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the

⑩ connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

⑪ High voltage output indicator lamp: This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

⑫ Super leakage indicator lamp This lamp is on when the test is not qualified.

⑬ Test indicator lamp This lamp is on when the start button is pressed.

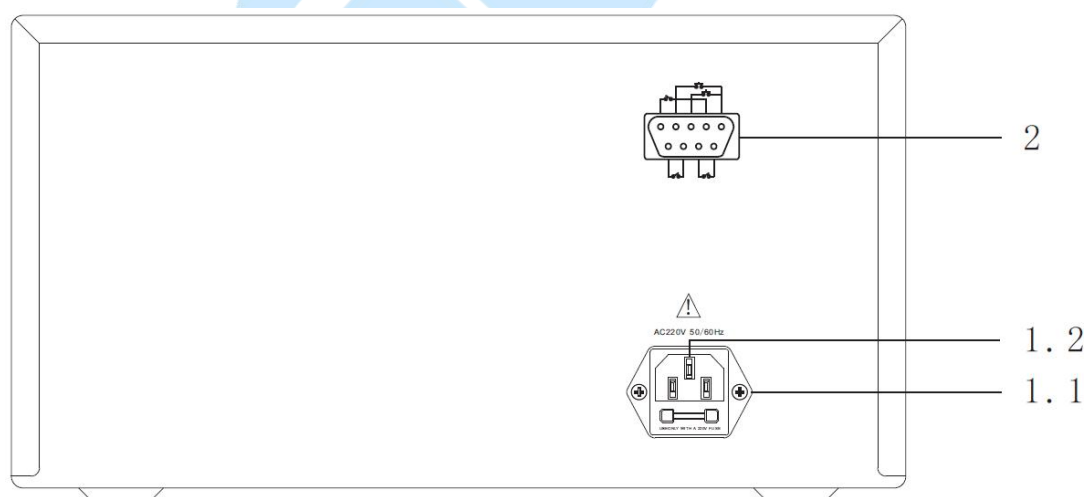
⑭ Voltage display window

⑮ Current display window: Time display window: The range of time is 0.0s~999s. When the

time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

- ⑩ UP button When setting the time, press this key, the time setting value will increase;
- ⑪ DOWN button When setting the time, press this key, the time setting value will decrease;
- ⑫ Current preset adjusting potentiometer: When the "test/preset"(19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.
- ⑬ "test/preset" button: This button is pressed for the preset current state, and pop-up for the test status.
- ⑭ 2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.
- ⑮ 100mA(AC) files This button is pressed for the 100mA(AC)
- ⑯ AC/DC switch button: This button switches the display voltage is the AC voltage or DC voltage; the window display the DC voltage when it is pressed, the window display the AC voltage when it is pop-up.
- ⑰ 5kV/10kV voltage file switch This button is pressed for the 5kV, pop-up for the 10kV.

10. Rear panel



1) Input power outlet

- ① Three-core two-phase power supply socket. The power socket is equipped with a fuse; please refer to 1.7. about the selection of the input voltage and the replacement of the fuse.
- ② Power supply ground wire protecting ground port, this protecting grounding port must be connected to

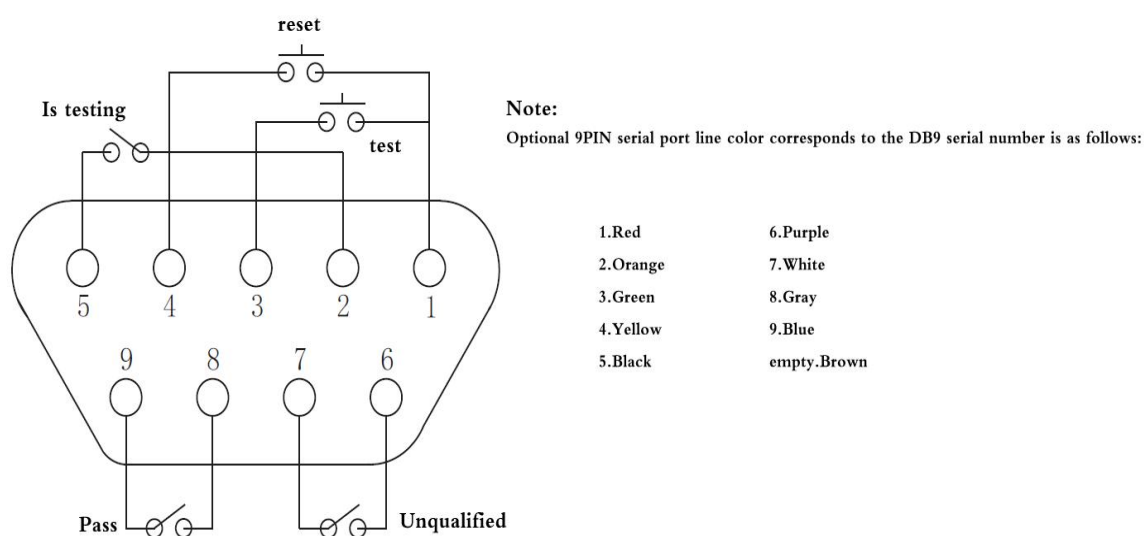
the protective ground reliably. Otherwise, the shell of the tester may be filled with high pressure, causing the occurrence of electric shock.

2) About the detailed description of the PLC interface, please refer to the sixth chapter.

V、PLC Interface

1. Input/output signal of PLC interface

Remote terminal on the back board of the tester, it can be connected to the remote operation. Terminal for standard 9PIN type terminal block, divided into input signal terminal and output connection terminal.



2. Connection

- ① TEST control: the control switch is connected between PIN1 and PIN3
- ② RESET control: the control switch is connected between PIN1 and PIN4
- ③ Testing signal output: between PIN2 and PIN5
- ④ Test qualified signals: between PIN8 and PIN9
- ⑤ Test failed signal: between PIN6 and PIN7

3. Connection instructions of remote control input signal and output signal

The tester is equipped with a remote control point, which can be operated by the external remote control device of TEST and RESET functions. These contacts provide a power supply with a control function, the "momentary contact" switch must be used as a controller.

Special note: It can not be connected to any other power supply absolutely, if you input the other power will cause damage to the internal circuit of the instrument.

The output signal provides relay contact output.

4. Electrical characteristics of PLC interface

- ① Output contact without voltage, the maximum voltage supported: 12V AC/DC the
- ② Maximum current: 100mA
- ③ The input terminal is connected to the non-voltage control contact, null terminal
- ④ Voltage: $< 10\text{VDC}$

VI. Parameter Setting

1. Setup of test time

- 1) The preset conditions of test time: The tester must be in a reset state, that is the tester can't be in a state of test and alarm.
- 2) Preset method
 - ① Time increases: In the front faceplate has a UP button, click on this button, the time preset value plus 1; if you hold this key, preset time continuous add 1, when added to a certain value, preset time continuous add 10; until 999s.
 - ② Time decreases: In the front faceplate has a DOWN button, click on this button, the time preset value minus 1; if you hold this key, preset time continuous minus 1, when reduced to a certain value, preset time continuous minus 10; until 0.0s.

2. Preset of AC current alarm value

- 1) The preset condition of AC current alarm value is that the AC/DC key on the front panel is opened, that is, the instrument is in the AC state. Note: only AC test instrument does not have this step.
- 2) Methods: press the test / preset preset button, the current display window shows the current preset value; use the debug screwdriver clockwise adjust current preset potentiometer, the preset current increases; counterclockwise regulating preset current decreases; the alarm current value preset to the required test value, pop test / preset button.

3. Presetting of DC current alarm value (Single AC withstand voltage tester without this function)

- 1) The preset condition of AC current alarm is to press the AC/DC button on the front panel, that is, the instrument is in the DC state.
- 2) Methods: press the test / preset preset button, the current display window shows the current preset value; use the debug screwdriver clockwise adjust current preset potentiometer, the

preset current increases; counterclockwise regulating preset current decreases; the alarm current value preset to the required test value, pop test / preset button.

4. Adjustment of output voltage

When the voltage regulator knob is in the 0 place, even if start the tester, it has no high voltage output; after starting the tester, adjust the output voltage adjusting knob clockwise, the output voltage increased, and reach the voltage required for testing.

VII、 Test Function

1. Preparation before testing

- 1) Anti electric shock: first put on insulating gloves, pad pad at the foot, and then engage in high voltage related operations. Attention: insulation gloves, insulation pad withstand voltage is at least two times the maximum output voltage of the operating test instrument.
- 2) Set alarm current value and test time: refer to section seventh for setting method.
- 3) Connection test and test body: before connecting test instruments and subjects, please confirm:
 - ① The test instrument is in shutdown or reset state;
 - ② The high voltage indicator is not bright;
 - ③ The voltage indication window indicates the voltage is 0 or 0.01; first, the current measuring end of the test instrument is connected with the tested body, and then the high voltage line and the tested body are connected.

2. Testing method

1) Manual test

The test time is set to 0, the test instrument does not determine the test time in the test, and the test instrument is in the continuous test state when testing. Press the "START" key, the test instrument starts to test, the test lamp is bright, adjust the output voltage adjustment knob to achieve the required test voltage value. After the test, press the "STOP" button to stop the test. In the test process, if the test current is greater than the preset value, the test instrument alarm. At this point, press the "STOP" button to clear the alarm. Change the tested body and continue testing.

2) Automatic testing

Set the test time is not 0; press the "START" button, the test instrument to start testing, test lights, timer countdown, adjust the output voltage adjustment knob to achieve the required test voltage value. In the test process, if the test current is greater than the preset value, the test

instrument alarm. At this point, press the "STOP" button to clear the alarm. If the tester does not alarm when the timer is up to 0, the test is qualified.

Note: when using dc output voltage to test, replace the test body, make sure that the measurement loop is carried out without electricity.

VIII、Matters Needing Attention

Warning: The highest output voltage of this series of testing instruments is 5kV(10kV, 20kV); it is necessary to be very careful and follow the warnings given in this chapter, notes and other instructions when operate the instrument.

1. Forbidden operation

- 1) It is forbidden to continuous and rapid switching the power supply switch

Turn off the power switch on the front panel, if you want to re open the power switch, please ensure that turn off the power switch in time a few seconds or longer. Don't switch the power switch repeat and frequently, if so, protection apparatus may not be appropriate to implement the protection function; Please do not turn off the power switch when the tester is testing the output voltage, unless it can be executed in an emergency.

- 2) It is forbidden to output the high voltage and grounding short circuit

Don't make the high voltage test line of instrument and the AC power line nearby connected to the ground or the electrical equipment nearby short circuit. If it is short circuit, the outer shell of tester may be filled with high pressure, it will be very dangerous. Ensure that the protective earthing port of the instrument is safe and reliable connection. If the grounding end is safe and reliable connected with ground, even if the high voltage output port and current return port shorted, the instruments will not be in danger and the shell would not have high pressure. The specific methods of ground connection please refer to IX.7.

- 3) Don't use external voltage

Don't put the high pressure produced by the external device on the high voltage output port of tester. Since the internal voltmeter of instrument can't be used as a separate voltmeter. External voltage is likely to damage the voltmeter.

2. Emergency handling

In case of emergency (the occurrence of an electric shock or the test object combustion), you must take the following actions: can complete ① or ② first, but both must be completed.

- ① Closing the power switch of instrument;
- ② Unplug the power cable from the power socket.

3. Preventive measures in the testing process

1) Prevent electric shock proof with insulated gloves

In order to prevent the electric shock accident, please bring the rubber gloves with insulation and then engage in electrical related work before using this tester.

2) Connecting with test line and current measurement port

The test line is connected to the current measurement port, the test line must be checked whether is connected loose or fall off any time when the tester is in use, when connect the test objects with test line, please connect the object with the test line of current measuring port. If the test line of the current measurement port was incomplete or fall off, that is very dangerous. Because the whole test object will likely be filled with high voltage.

3) Connecting the test line to the high voltage output port

When the test line is connected to the current measurement port, then connect the high voltage output line as the following program.

- ① Press the "STOP" key first.
- ② Confirm that whether the test light is light.
- ③ Insert the high voltage output line into the high voltage output port

4) Replace the measured object

When a test object has been tested and replace another object, please confirm:

- ① The tester is in a "reset" state.
- ② The high voltage indicator doesn't twinkle.
- ③ The display window of voltage shows that the number isn't beating any more.

Warning: don't touch the high pressure probe when replace the test object!

5) Tester is in test condition

When the tester is in the test condition, the test line, the test object, the test probe and the output port are all equipped with high pressure, please do not touch.

Note: don't touch the alligator clip of the test line with your hand, because when the host was testing, the test line has a high voltage, the insulation on the alligator clip is not high, it will cause an electric shock if you touch it.

6) Stop testing

Please turn the power switch placed in the location of OFF when don't use the tester any more, or you need to leave.

7) Confirm after testing

Don't touch the high-voltage wire by hand at any time, the test object or the high voltage output port, please confirm:

- ① the power switch is in the closed state, the monitor is not bright.
- ② when in the insulated test or DC test, it may have high voltage after testing completed, this voltage needs to take a long time to discharge completely after power switch off. So please don't touch any place immediately when the discharge testing may just finished, it may cause an electric shock.

IX、Unpacking and Installation of Tester

1. Receive instrument examination

After you receive the test instrument of the GDZX instrument, according to the following steps to check:

- 1) Whether the packing case of the instrument is in good condition; If there is any breakage, we advise you not to open the box, but to contact the manufacturer.
- 2) If the packing of the instrument is in good condition, please check whether the type of instrument you ordered is the same as the type on the packing box. If not, please contact the factory. If there is no problem after checking after 1 and 2), then the instrument can be opened for inspection.

2. Packing box and packing material

Please keep the original packing materials so that you can use them in future transportation.

3. Safety rules for use of instruments

Be sure to follow the following safety rules when using instruments:

- 1) Do not use test equipment in flammable air

In order to prevent explosion or burning accidents, do not use the test instrument beside alcohol, diluent or other combustible materials, and do not use the instrument in the air containing combustible gas.

- 2) Do not use test instruments in places where high temperatures or direct sunlight are used

The components used in the instrument are precision devices and should be avoided in places

where high temperature or direct sunlight is used. Otherwise it will accelerate the aging of the instrument. Shorten the service life of the test instrument and may damage the test instrument.

- ① Operating temperature range of the instrument: $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- ② The storage temperature range of the instrument: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

3) Do not use test instruments in a high humidity environment

Do not use the instrument in boilers, kettles, humidifiers or in humid environments with water. Condensation of water droplets may cause short-circuit within the instrument and damage to the test equipment, serious may cause a fire. If the humidity in the storage environment exceeds the humidity specified below, it must be used only after the test equipment is completely dry.

- ① Use humidity range: $20\% \sim 80\% \text{RH}$
- ② Storage humidity range: $< 90\%$

4) Don't use test instruments in dusty environments. The dusty environment may short-circuit the instrument and cause a fire.

5) Do not place the test instrument on a sloping surface or use the test instrument in a sloshing position. The instrument may easily fall on the inclined surface or shake to drop the test instrument and break the test instrument.

6) Do not use test equipment near sensitive test equipment or receiving equipment

These test equipment, if used near these equipment, may cause interference with these equipment by the high voltage generated by the test equipment. To reduce the interference of these equipment with the high voltage of the test equipment, keep the equipment away from the test equipment.

7) The input power of the test instrument must have a separate switch control

The input power supply of test instrument must have individual switch control. Once the emergency occurs, the power switch should be cut off immediately, and then the accident should be dealt with.

4. Regulations for operating personnel

The test instrument output voltage is enough to cause death, so must be qualified personnel to operate the test instrument.

1) Personnel qualification

Operators must be operated by skilled personnel and must understand the basic concepts of voltage, current and resistance; The operator must know that the high voltage is flowing out of the

high pressure output port of the test instrument during the high voltage test, and the connection line that is returned by the current will flow into the test instrument after being tested. If you touch anything with high pressure, you will get an electric shock.

2) Safety rules

Operators must give special training to know the various safety rules and safety regulations and read the instructions carefully.

3) Dress code

The operator must not wear clothes that have metal decoration or wear metal accessories such as watches. The pressure-proof test apparatus must not be operated by a person with a heart or a pacemaker.

5. Check the power supply voltage

1) Switch instrument input power voltage

This instrument uses 220V AC + 10% 47 ~ 63Hz single-phase power supply, before opening the power switch on the front panel of the instrument, please ensure the voltage of the power supply and fuse and the voltage selection switch of the back panel of the instrument is consistent.

Warning: in order to prevent failure or damage to test instruments, please use test instruments within the specified voltage range.

6. Check and replace fuse

Warning:

*** In order to avoid the electric shock accident, please switch off the power switch and unplug the power plug before changing the fuse.**

*** Ensure that the fuses are in accordance with the specifications, specifications and characteristics specified in the instructions for the test instruments. Otherwise, the test instrument may be damaged.**

1) Fuse specifications

① ZX2670A、ZX2672A

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	3.15A

② ZX2671A

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	4A

③ ZX2672B、ZX2672C

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	5A

④ ZX2671B

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	7A

⑤ ZX2674A

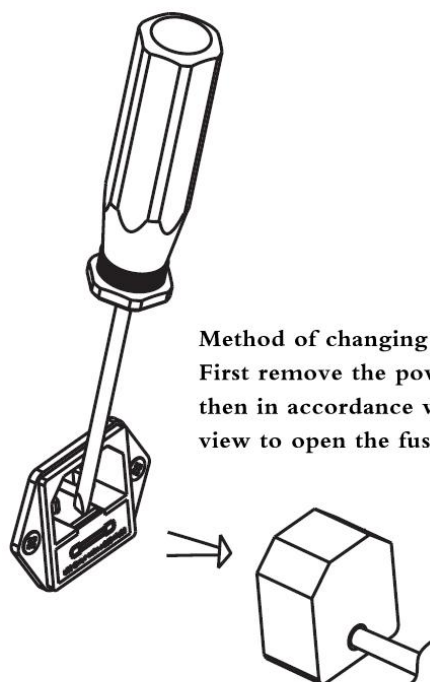
Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	8A

⑥ ZX2671C、ZX2672D

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	10A

2) Fuse replacement When replacing the fuse, please follow these steps:

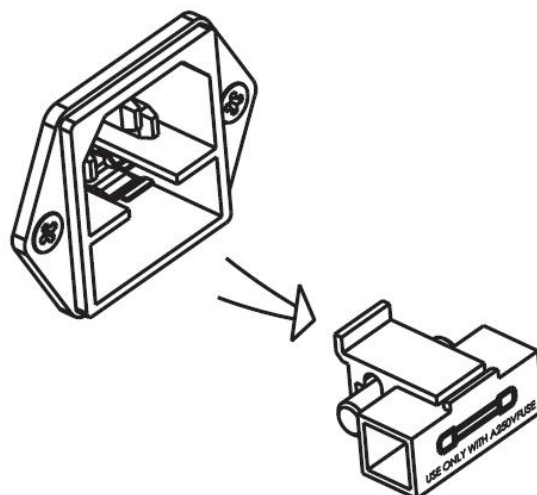
- ① Turn off the power switch on the front panel and pull out the power cord;
- ② Use a screwdriver to fix the fuse holder as shown below;



Method of changing fuse:
First remove the power plug,
then in accordance with the
view to open the fuse holder.

The fuse seat is located on the power outlet

After replacing the fuse of the same type
and specification, re-install the fuse holder.



③ Check fuse specifications and replace the fuse to the same specifications as the fuse listed in 1);

- ④ Put the supporting frame back to the original position.

7. Ground connection

Warning:* There may be an accident of electrical breakdown grounding connection in the wrong place or not connecting.

- 1) In order to ensure the safety, the instrument must be reliably grounded;
- 2) There are two ways to ensure the reliable grounding of the instrument. Please choose one of them to connect the instrument to the ground reliably.
 - ① Connect the power cord to a power socket of three-phase grounding..
 - ② If the three-phase power supply socket is not grounded, there is a protective grounding terminal on the rear faceplate of the instrument, and connected it to the safety ground.

X、Packing List

Serial no.	Name	Number
1	Host	1
2	Power cord	1
3	High pressure test clamp	1
4	High pressure stick(ZX2674A none)	1
5	Ground wire	1
6	manual	1
7	Test Report	1
8	Warranty card	1