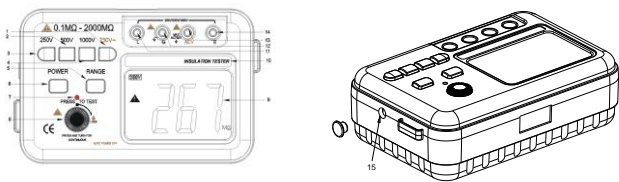


# INSULATION TESTER INSTRUCTION MANUAL

## 一、GENERAL

This instrument adopts the DC Voltage convertor of low consumption and high converter ratio inductance energy storage, to change the 9V Voltage to 250V/500V/1000V DC Voltage. It uses digital bridge to make the insulation resistance measurement had the features of user-friendly, high extent range, backlight display, data hold and auto power off. The whole instrument is stylish and superior grade in appearance and high stable in performance, it can be operated by both hands through using a shoulder strap. It is most suitable for the needs of insulation resistance check, such as electric, cable, electrical and mechanical equipment, telecommunication equipment and electrical facilities.

## 二、FRONT PANEL DESCRIPTION



- 1、2、3、4、 Voltage selection switch (AC750V/500V/250V/1000V) .
- 5、 Resistance Range selection switch (RANGE) .
- 6、 Power switch: auto-lock power switch (POWER) .
- 7、 High voltage indicator: LED display.
- 8、 Measurement button.
- 9、 LCD display: Display the measured data and units.
- 10、 Instrument model.
- 11、 L: Terminal for connecting the measured circuit.
- 12、 G: Terminal for protection, connect the electrode wire of protection loop to “G” terminal when the measured object is required to add the protection loop to eliminate the leakage effect.
- 13、 ACV: Input terminal of AC Voltage measurement.
- 14、 E: Terminal for connecting the ground of the measured object.
- 15、 Terminal of AC adaptor (+—⊕—).

## 三、TECHNIC PROPERTY

### 1、General Property

- (1) Display: 84.8×59.8mm LCD display, max. “1999”.
- (2) Over range indicator: display “1”.
- (3) Power: 5# battery LR6 (1.5V) ×6 (or external AC adaptor), no battery indicator。Auto power off (approx. 15minutes after turning on)
- (4) Power consumption: consumption is less than 300mw at unload measurement.
- (5) Operation environment: Temperature 0°C—40°C. Relative humidity 30%RH—85RH.
- (6) Dimension: 175(L) ×110(W) ×70(D) mm.
- (7) Weight: 630 g (including batteries).

### 2、Technical property

| Measured voltage  | 250V±10%                    | 500V±10%        | 1000V±10%        |
|-------------------|-----------------------------|-----------------|------------------|
| RANGE             | ■ 0.1MΩ—<br>20MΩ            | 0.1MΩ—<br>50MΩ  | 0.1MΩ—<br>100MΩ  |
|                   | ■ 20MΩ—<br>500MΩ            | 50MΩ—<br>1000MΩ | 100MΩ—<br>2000MΩ |
| Accuracy          | ±(4% of reading ± 2 digits) |                 |                  |
| Shot current      | 1.8mA                       | 1.8mA           | 1.6mA            |
| Median resistance | 2 MΩ                        | 2MΩ             | 5MΩ              |
| Terminal position | L . E                       |                 |                  |

ACV750V Accuracy: ±(1.0% of reading + 6 digits).

Terminal position: ACV G

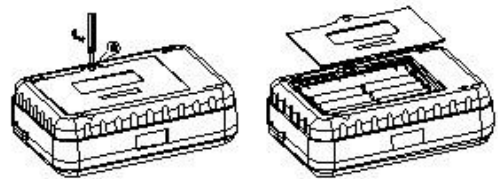
Input impedance: 1MΩ。

Frequency response: (50~200) Hz

Note: Median resistance——to ensure that the voltage of both sides of measurement is not less than 90% of lower limit of resistance measurement of measurement voltage normal value

## 四、OPERATION DESCRIPTION:

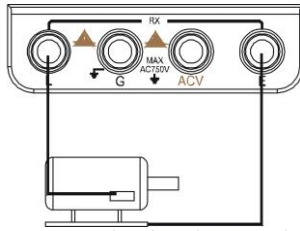
- 1、 Open the battery case and set up 6pcs of 5# batteries (see the following pictures), note the polarity of batteries.





- 2、 Press the button of “POWER” .
- 3、 Select the right voltage (250V/500V/1000V/AC750V) according to the requirement of measurement.
- 4、 Select the right range (RANGE) (except AC750V), according to the requirement of measurement.
- 5、 Connect the electrode of the measured object to the relative terminal of the instrument.
- 6、 When measuring cable, connect G Terminal to the protection loop.
- 7、 Press the button of measurement and start it, turn the knob right to lock the button; when the value is stable, get the reading from LCD.
- 8、 Connect the input line “E” to the ground of the measured object, and “L” to the circuit of the measured object; require line “L” to hang in the air.
- 9、 2000MΩ。When “1” is displayed, over range is indicated, and should turn to the higher range to get reading; When the range button is in “■” “position, it expresses that the insulated resistance exceeds 2000MΩ.
- 10、 Hang the instrument on your neck to save your hands

to make measurement.

## 五、METHOD TO MEASURE THE INSULATED RESISTANCE:



## 六、SAFETY NOTES:

- 1、When voltage measurement selection button does not be pressed, it is possible to appear the high voltage at the output voltage terminal.
- 2、When measuring, first check the measurement voltage selection and if the indication of the measurement voltage on LCD is in accordance with the voltage needed
- 3、To ensure the safety of operation, the operation cannot be done until the measured object removed from the power supplied by the electricity grid system, and should be discharged fully to testify that the measured object does not have any danger of power.
- 4、When measuring, it is not allowed to handle the terminal of measurement to make sure the accuracy of reading and personal safety.
- 5、Keep the instrument away from the high temperature place, and from the direct sunshine to avoid affecting the life of the LCD.
- 6、When low battery symbol of “” appears, please replace the batteries in time. Take the batteries out when storage to avoid the leakage of batteries to damage the instrument.
- 7、When unload, reading is normal, it won't affect the measurement.
- 8、When measuring  $M\Omega$ , if the reading is unstable, it is likely caused by the interference of surrounding and unsteadiness of the insulated materials, it will make the reading stable to connect the “G” terminal to the shield side of the measured object
- 9、To ensure the safety of measurement and reduce the interference, the test leads adopt silicone rubber materials, please do not change the leads at will.
- 10、When the external AC adaptor supplies the power, the inside batteries are disconnected and the batteries can't be charged at the time. Note: please select (+--)


## 七、SETS OF INSTRUMENT

- |                             |       |
|-----------------------------|-------|
| 1、Digital Insulation Tester | 1pc   |
| 2、10A test leads            | 1set  |
| 3、5# battery (1.5V) ×6      | 6pcs  |
| 4、Operation Manual          | 1copy |
| 5、Shoulder strap            | 1pc   |

## 八、FAULT ELIMINATION

If the instrument can't work properly, the below methods can help you to solve the general problems quickly.

If the fault still can't be eliminated, please contact the maintenance centers or distributors.

| Fault   | Solution  |
|---|---|
| No display  | <ul style="list-style-type: none"> <li>● Power off-please turn on the power</li> <li>● Replace the batteries</li> </ul> |
|  symbol appearance | <ul style="list-style-type: none"> <li>● Replace the batteries</li> </ul>   |
| Error value   | <ul style="list-style-type: none"> <li>● Replace the batteries</li> </ul>   |

The instruction manual is subject to change without notice.

The contents in the instruction manual are considered to be correct, if the user find any errors or premissions, etc., please contact the manufacturer.

The manufacturer hereby will not be responsible for any accident and damage caused by the improper operation.

The functions described in this instruction manual do not be the reason for special usage.

601E-60BX-000A