Proster XL830L Digital Multimeter
User's Manual

I.Safety Precautions and Procedures

This proster multimeter is designed according with relevant clauses of IEC1010, before using, please read the following items carefully:

Before using, please read " user's manual " carefully.

※Should check and confirm there is not damage in the instrument, the insulating barrier of test lead is intact before using.

※While holding the test lead, should pay special attention not to hand exceeding the plastic of the testing needle root is protruding, otherwise have danger of shocking by electricity.

※Before opening the back cover, must pull out the test lead; After closing the back cover and screwing the screw on,can carry on measurement, otherwise have danger of being shocked by electricity.

※In measure course, disconnect instrument input and then rotate function / range switch.

※Never input signal electronic voltage exceeding the limited value to avoid electronic shock or damaging the instrument.

※The potential difference between the measurement public terminal COM and earth can't exceed 600V to avoid electric short or damage the instrument.

※Pay attention if the tested voltage is over DC 60V and AC 42V to avoid electric shock

※ If there is a symbol  on the LCD display, it indicates low battery. Replace the battery to ensure measurement accuracy.

※For the fuse, it must be replaced with an identical model if necessary. For the concrete specification, please see the clause of maintenance or label on the instrument board.

II. General Description

XL830L series manual measuring-range digital multimeters design to be excellent,the appearance is novel and natural. The large liquid crystal screen dresses up the background clearly and make the demonstration artistic. All measurements are surveyed by the multimeter subtus three test inputs jack,namely use the test lead to test. Facilitates your operation and strengthen the security. Sensor component is connected within the VΩmA jack input terminus and the 200mA/250V fuse, which has fully protected the key part of the multimeter --Function / range switch and improved security and lengthened the use life-span greatly.

Function List:

Model	XL830L
DC Voltage	√
AC Voltage	√
DC Current	√
AC Current	√
Resistance	√
Diode	√
Continuity	√
Battery Test	√
Backlight	√

Display:
The large screen liquid crystal display: visual area 46*23.5mm, word height 19mm.
Max display:1999 (3 1/2)
Automatic polarity display,over range instruction and battery changing instruction.
AC/DC 600V display ”HV”

Measurement:
Low power consumption CMOS double integration, A/D transform integrated circuit, auto zero calibration
DC basic precision:±0.5％（3 1/2）
Full range over loading protecting function

Power Supply:
One 9V battery (NEDA1604, 6F22 type or equivalently type)

External dimension: 135×70×36mm

Complete set weight: about 240g (include the battery).

Environment condition:

Working temperature: 0℃~40℃ The relative humidity: < 85%
Store temperature: -10℃~50℃ The relative humidity < 85%
Guarantee the temperature of the precision: 23℃±5℃
The relative humidity < 75%

III. Electronic Symbol

⎓ DCC or DCV ∼ ACC or ACV ⏩ Diode

Buzzer Low battery

⚠ Warning

Double insulation

High voltage danger

HV High Voltage

IV. Function Panel

1. LCD
2.Backlight Button
3. Funtion/ranges switch
4. V ΩmA jack
5. COM jack
6. 10A range input jack
7. Meter housing

V. Operations instruction

1.DC Voltage measurement

A. Insert the red test lead into “VΩmA” socket and the black test lead into the “COM” socket .
B. Rotate”function/range switch” to “ V ⎓ ”,choose the suitable range, if can’t sure, choose the highest range.
C. Connect the test leads in parallel to both ends of voltage source examined.

2.DC current measurement

A. The current less than 200mA, insert the red test lead into “VΩmA” socket, the current is more than 200mA, insert the red test lead into “10A” socket, insert the black test lead into the “COM” socket .
B .Rotate “function/range switch”to ”A ⎓ ” position,and choose the suitable range.
C. Connect test leads in series into the electric current source examined.

3.AC voltage measurement

A. Insert the red test lead into “VΩmA” socket and the black test lead into the “COM” socket .

B. Rotate”function/range switch” to “ V ~ ”,choose the suitable range。

C. Connect the test leads in parallel to both ends of voltage source examined.

4.Resistance measurement

A. Insert the red test lead into “VΩmA” socket and the black test lead into the “COM” socket .

B. Rotate”function/range switch” to “Ω”,choose the suitable range。

C. Connect the test lead in parallel to resistance examined.

D. When test resistance,turn off the power supply. Perform measurement after the capacitance is completely discharged.

5.Diode test

A.Insert the red test lead into “VΩmA” socket and the black test lead into the “COM” socket .

B.Rotate " function / range switch "to position“ ⊣▶⊢ ”.

C.When test leads inconnect with resistance, instrument is in the ultral range state(only reveal high position " 1 ").

6.Continuity test

A. Insert the red test lead into “VΩmA” socket and the black test lead into the “COM” socket .

B. Rotate " function / range switch to ○)) position.

C. If the resistance examined between the two ends is less than about 30Ω,the instrument will send out bee's sound of chirping as the instruction.

7.Replacing the battery and fuse

The “ ▭ ” displayed on the screen as for a sign of requirement for battery replacement. If “mA” range failed to be functional, check if damage occurs on the fuse. When replace, pls use the fuse with same specification.Unscrew the back-cover bolt to open the back-cover.

7.Battery test

A. Insert the red test lead into “VWmA” socket and the black test lead into the “COM” socket .

B. Rotate " function / range switch to "1.5V"position.

C. Connect the test leads to both ends of battery, then display the current.

VI. Technic specification

Accuracy: ± (reading+w)guarantee:one year

Environment temperature: 23℃±5℃

Relative humidity: < 75%

1.DC voltage

range	Accuracy	resolution
200mV	±(0.5%+2)	100μV
2V		1mV
20V		10mV
200V		100mV
600V	±(0.8%+2)	1V

Input impedance:1MΩ

2.DC Current

range	Accuracy	resolution
200uA	±(1.0%+2)	1kΩ
20mA		11AΩ
200mA	±(1.2%+2)	2Ω
10A	±(2%+5)	0.01Ω

Overload protection:0.2A/250V fuse

10A range not fuse protect,10s at most

3.AC voltage

range	Accuracy	resolution
200V	±(1.5%+10)	100mV
600V	±(1.5%+10)	1V

Input impedance: 450kΩ
Frequency range: 40Hz-400Hz.
Overload protection: peak value 600V for AC virtual value
Reveal: Average (the average of the virtual value of sine).

4.Resistance

range	Accuracy	resolution
200Ω	±(0.8+5)	0.1Ω
2kΩ		1Ω
20kΩ		10Ω
200kΩ		100Ω
2mΩ	±(1%+2)	1kΩ
20mΩ	±(1%+5)	10skΩ
200mΩ	±(2%+15)	100kΩ

In position 200MΩ test lead short circuit and reveal number 10(more or less) after point. Subtract the number 10(more or less) from reading, you get the final result.
Input protection:max 220V

5.Diode test

Test voltage is approx 2.8V,current is1.5mA
Indicate forward voltage drop of diode unit : kΩ

6.Continuity test

Test voltage is approx 2.8V,current is1.5mA
The buzzer will beep when conductance resistance approx<30

VII. Maintenance

Your digital multimeter is an accurate electronic instrument, should pay attention to safeguarding and maintaining

1, Don't connect voltage higher than 600V DC voltage or 600V AC voltage.

2,Don’t operate it if the back-cover is not closed properly.

3,When upper left side display  symbol,it indicates low power.You need replace the battery after unfix the test lead;open the back cover then replace with battery with the same specification.

4,When replace the fuse,unfix the test lead.Unscrew the back-cover bolt to open the back-cover.Replace with fuse with same specification and screw on the bolt to close the back-cover.

5,The specification of the fuse: 200mA/250V.

6,Remove the battery and put it in a dry, ventilating and few dust place if the instrument is not used for a long time..

7,Do not change the internal circuit at will to avoid damage

VIII. Accessories Enclosure

1、user’s manual

2、one pair of test lead

IX. Caution

Please turn off the multimeter when it is not in use in order to prolong its working life.

X. Warranty

thanks for using proster product， all proster product comes with warranty of 18 months from the day of purchase, if you need any support, please feel free to contact us.

XI. Contact Address

Email: prosteruk@gmail.com
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