CLAMP MULTIMETER OPERATION MANUAL

1. General

It's a kind of portable digital Clamp-Shape meter, with automatic range, which may measure AC & DC voltage, AC current and resistance, diode, continuity buzzer, frequency, temperature. etc.

2. Features

Display: Maximum display 3999, Update about three times per second

Polar indicator: Negative polarity automatic display

Overload indicator: Display"OL".

Low battery indication: Displaying "▭"

Operating environment: 0°C~40°C，75%RH(Max.)

Storage environment: -10°C~50°C，80%RH(Max.)

Power supply: (Size AAA, 6f22）1.5VX2

Size: 195X69X28mm

Weight: about 206 gram

Accessories: Manual, battery, test leads, temperature probe.

3.Technical Indicators

Accuracy: ± (% reading ＋ word count); Ambient temperature with accuracy ensured: (23±5)℃; RH＜75%.

3-1.ACV（V～）

Range	Accuracy
400mV （ individual range ）/4/40/400V	±(0.8%+10)
750V	±(1.0%+10)

Input resistance：10MΩ

Frequency ： Sine wave and triangular wave :40～1KHZ, other wave40～200HZ

3-2.DCV（ V⎓ ）

Range	Accuracy
400mV （ individual range ）/4/40/400V	±(0.5%+4)
1000V	±(1.0%+6)

Input resistance：10MΩ

3-3.Resistance Ω （Auto range）

Range	Accuracy
400/4K/40K/400K/4M	±(1.0%+5)
40M	±(1.2%+10)

3-4.ACV (Auto range）

Range	Accuracy
400/600A	±(2.5%+8)

Frequency responce：40～100HZ

3-5.Duty cycle

Range	Accuracy
0.01%～99.69%	±1%

Above is the result of the 10%～90% duty cycle when resolution below 50HZ.

3-6.Frequancy Hz (Auto range）

Range	Accuracy
0～10MHZ	±(0.3%+3)

3-7.Capacitance (Auto range）

Range	Accuracy
40n/400n/4u/40u/1000uF	±(5.0%+8)

3-8.Temperature ℃/℉

Range	Accuracy
-55℃～400℃	±(3.0%+4)
-67℉～752℉	

4. Instruction on operating panel

4-1. Dada hold button（D.HOLD）

When press this key, the LCD screen will display the "HOLD" symbol and the last time

Reading, Until you press this key or the function knob is converted, the symbol disappears,and resume reading.

The key has a backlight function, press this key for more than 3 seconds, then turn on the backlight; Press this button for more than 3 seconds, then the backlight is off.

4-2. Select keys（SELECT）

Press "SELECT" key to turn on, the APO symbol on the display disappears, the auto power off function is cancelled. If toggle the knob to turn on normally, then it has auto power off function, it will automatic shutdown in 15 minutes without any operation.

When the function knob in the range Ω⊣◀)))⊣ , press this key to choose required measurement function.

When the knob is in C / Fahrenheit range function by pressing this button can be C / Fahrenheit Conversion.

In AC / DC mV range, press the select key can switch to mV and AC mV

4-3. HZ/DUTY KEY

Press this key to seclect the frequency or duty cycle measurement

4-4. RANGE CONVERSION KEY（RANGE）

AC / DC voltage, AC current, resistance and other functions can be selected through the button by manual or automatic range. Automatic range press this key on the LCD screen after AUTO disappear, switch to manual range at this time, press the button not more than 3 seconds to change the range;

If press the key more than 3 seconds , then it goes to the automatic range.

5. Operating Instruction:

5-1.AC/DC VOLTAGE

a. Set the function switch to DCV V⎓ or ACV V～ position.

b. Inset the red test probe into the VΩ jack，black one to the COM jack.

c. Connect the test leads to the circuit which you want to test, and read out the value display on the LCD.

Read the result and when you test DCV, you can see the polarity of the red test probe at the same time.

5-2.RESISTANCE

a. Set the switch to Ω range， and press "SELECT" to choose Ω mode.

b. Set the red test probe to VΩ jack，and black one to the COM jack。

c. Connect the test leads to the circuit which is ready to be test or the two sides of the resistance.

Notice

When test the resistance over 2MΩ， this meter needs few seconds to keep stable. This is very normal when test a high resistance.

When it is not connected or it is under a open circuit, "OL" will display.

When you are testing the resistance on line, do please make sure that the power of the circuit is off and the capacitance have been already release completely.

5-3.ACA（A～）

Set the switch to A~ range, and put the wire vertical in the centre of the clamp, at this moment the value show on the LCD is the ACA value.

5-4.DIODE AND CONTINUITY TEST (BUZZER)

a. Input the red test probe into VΩ jack， and black one into COM jack.

b. Set the switch to Ω range， and press "SELECT" to choose diode or buzzer mode。

c. During the buzzer test, if the resistance of the circuit which you want to test is less than 50Ω ,the buzzer rings.

d. Under the diode test mode, connect the test leads to the positive and negative poles of the diode.LCD will display the value of the positive onset voltage.

5-5.TEMPERATURE

a. Set the switch to ℃/℉ position.

b. Connect the K type thermocouple to VΩ jack and COM jack, pay attention to the polarity when testing.

c. Put measuring jack on the surface or inner of the measured object. It shows temperature value.

Notes:

1) After insert temperature probe into device jack, temperatures will display automatically

2) When temperature probe do not connect with device jack, it shows temperature environment.

5-6. HZ/Duty Measuring.

a. Insert the red test probe into the VΩ jack and black test probe into the COM jack.

b. Set the function switch in the HZ position, select the measuring function, connect the test probe onto the both ends of the being tested circuits.

5-7. Capacitance Measuring

a. Insert the red test probe into the VΩ jack and black test probe into the COM jack.

b. Set the function switch in the position, press "select" button to choose capacitance measuring function. (Note: Polarity of red test probe shows "+")

c. Connect test probe onto both ends of the capacitance to be tested and confirm if the polarity is correct. (Note: Before measuring, capacitance should be completely discharged. When measuring large bulk capacitance, it needs about 10 seconds to read stable data.)

6. Battery Replacement:

LCD display , you need to replace AAA 1.5V battery promptly.

7. Notes: Do not input 250V DC or RMS AC under the background of / Temperature ℃/℉ / Frequency to prevent it from destroying.