



说明书材质要求：105g 有光铜版纸	说明书成品尺寸：71.5*105mm
第一：专色用6级防晒油墨+CMYK油墨要求： 1.PANTONE137C专色油墨(专色用6级防晒油墨)： 如果自己配色，油墨配比为：酒联中黄(防晒)2000g 酒联金红(防晒)225g 2.C色油墨：酒联天蓝墨 3.M色油墨：酒联金红墨 4.Y色油墨：pantone123C专色油墨 5.K色油墨：酒联黑墨	第二：特别注意： 1.印刷时看样请参考我司提供的实物样品颜色。不得偏色 2.137C的专色不得参考C=0,M=35,Y=90,K=0对应的四色 色谱颜色来看样印刷 Pantone 137C Black（两色印刷）
折叠方式：风琴折（20P以下 两风琴折）/ 骑马钉（20P以上 两骑马钉） 特殊情况：16P/20P：风琴折 + 对折	备注：

特别注意： 此页内容不印刷

风琴折 + 对折 页面顺序

16P 页面顺序

9	10	11	封面
12	13	14	封底

1	2	3	4
5	6	7	8

20P 页面顺序

11	12	13	14	封面
15	16	17	18	封底

1	2	3	4	5
6	7	8	9	10

更改记录	1. 新制作			
	0724.V01	2024.7.17	xi	
	版本号	日期	设计师	

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**PRODUCT
MANUAL**

DC/AC CLAMP METER



DCM66002



Original Instructions

GENERAL TOOL SAFETY WARNINGS

Safety statement

CAUTION!

This symbol indicates conditions and operations that will cause damage to the instrument or equipment.

WARNING!

This symbol indicates conditions and operations that are dangerous to the user.

Safety Instructions

The design and manufacture of clamp meters conform to IEC 61010-1, IEC 61010-2-032, IEC 61010-030 International Electrical Safety Standards, and Compliance with IEC 61010 CAT.III 600V measurement category and pollution grade 2.

Safe working regulations

WARNING!

In order to avoid possible electric shock or personal injury and other safety accidents.

please abide by the following specifications:

- Please read this manual carefully before using the instrument, and pay special attention to safety warning information.
- Strictly observe the operation of this manual and use this instrument. Otherwise, the protection function of the instrument may be damaged or weakened.
- Please be careful if the measurement exceeds 30V AC true RMS, 42V AC peak or 60V DC. There may be danger of electric shock at this kind of voltage.
- Voltage applied between terminals or between each terminal and grounding point shall not exceed the rated value.
- By measuring the known voltage to check whether the meter work is normal, if it is not normal or damaged, do not use it again.
- Before using the instrument, please check whether there are cracks in the instrument shell or plastic parts damaged. If so, please do not use again.
- Before using the instrument, please check whether the probe is cracked or damaged. If so,

please replace the same type and the same electrical specifications.

- Do not exceed the lowest rated Category of Measurement (CAT) rating in products, probes or accessories.
- Do not measure the current when the probe is inserted into the input jack.
- Don't work alone.
- Please comply with local and national safety code. Wear personal protection equipment (such as approved rubber gloves, masks and flame retardant clothes, etc.) to prevent being damaged by electric shock and electric arc due to exposed hazardous live conductor.
- When it shows low battery indicator, please replace the battery in time in case of any measurement error.
- Do not use the instrument around explosive gas, steam or in wet environment.
- When using the probe, please put your fingers behind the finger protector of the probe.
- When measuring, please connect the neutral wire or the ground wire firstly, then connect the live wire; When disconnecting, please disconnect the live

wire firstly, then disconnect the neutral wire and ground wire.

- Before opening the outer cabinet or battery cover, please remove the probe on the instrument. Do not use the instrument in the circumstances that the instrument is taken apart or battery cover is opened.
- It only meets the safety standards when the instrument is used together with the supplied probe. If the probe is damaged and needs to replace, the probe with same model number and same electrical specifications must be used for replacement.

THE SYMBOLS IN INSTRUCTION MANUAL

	High voltage warning
	AC (Alternating current)
	DC (Direct current)
	AC or DC
	Warning message
	Ground
	Fuse
	Double insulation or reinforced insulation protection
	Low battery
	Conforms to European Union directives
	This additional product label indicates that this electrical/electronic product must not be discarded in household waste.

INTENDED USE

A new generation of true RMS double impedance high performance digital clamp meter, which integrates multiple functions, makes your work easier, more efficient and safer.

High impedance voltage measurement

When measuring in the circuit, it has little effect on the performance of the circuit. This is the effect required for most voltage measurement applications, especially for sensitive electronic or control circuits.

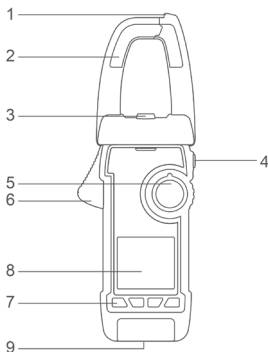
Low impedance voltage measurement

It can safely troubleshoot sensitive electronic or control circuits and circuits that may contain false voltages, and can more reliably determine whether there is a voltage on the circuit.

Measurable AC/DC voltage, AC/DC current, frequency, duty cycle, resistance, capacitance, temperature, diode, continuity, NCV, LIVE, etc.

SPECIFICATIONS

Instrument panel



Components

- | | |
|------------------|-------------------------|
| 1. NCV probe | 6. Trigger |
| 2. Clamp | 7. Function key |
| 3. Flashlight | 8. Display screen |
| 4. Data hold key | 9. Measuring input jack |
| 5. Knob switch | |

FUNCTIONAL OPERATIONS

-  : Function selection
-  : MAX/MIN
-  : Backlight
-  : Flashlight/DCA zero
-  : Data hold

Other function

- The function of DC current to zero: In DC current measurement function, press  and hold for more than 2 seconds
- Max/Min measurement: press  key view Maximum and Minimum, press  key and keep more than 2 seconds to exit the maximum and minimum measurements.
- Backlight: press  key to turn on or off the backlight.
- Flashlight: press  key (<1 sec) to turn on or off flashlight.
- Data hold: press  key to turn on or off data hold function.
- Auto power off:
No operation in 15 minutes. The meter will turn off power automatically to save battery energy.

After automatic power off, press any key to restore the working state.

If you press the **FUNC** key and keep, then turn on the meter power, the automatic shutdown function will be cancelled. Reboot can restore automatic shutdown function.

Measurement operation

AC/DC current measurement

- 1) Turn the knob to **$\tilde{A}$** , and select Proper range (60A or 600A), switching AC or DC current measurement function by pressing **FUNC** key.
- 2) In DC current function, when no signal is measured, if the display is not zero, it can be cleared by pressing the **ZERO** key for more than 2 seconds.
- 3) Then press the trigger to open the clamp, clamp the conductor to be tested, then slowly release the trigger until the clamp are completely closed, and determine whether the conductor to be tested is clamped in the center of the pliers, if the conductor is not in the center of the pliers, additional errors will occur.
- 4) Read the measurement results from the display

screen.

- 5) When measuring AC current, press **FUNC** key to view frequency or **LPF** function measurement.

WARNING!

- When measuring high voltage, pay special attention to safety, so as not to be subjected to electric shock or personal injury.
- In order to ensure the measurement accuracy, the measured conductor must be placed in the center of the clamp, otherwise additional errors will occur.

AC/DC voltage measurement

- 1) Turn the knob  to , switching AC or DC current measurement function by pressing "**FUNC**" Key
- 2) Insert the red probe in "INPUT" jack, insert the black probe in "COM" jack.
- 3) Contact the probe to the measured circuit (connect to the measured power supply or circuit in parallel), measure the voltage.
- 4) Read the measurement result on the screen.
- 5) When the measurement result is greater than 80V, the orange backlight will on.

- 6) When measuring AC voltage, press "**FUNC**" key to view frequency or **LPF** function measurement.
- 7) When low impedance measurements are required, the knob is turned to **LowZ** position. Switching AC or DC voltage measurement function by Pressing "**FUNC**" key.

WARNING!

- **The voltage above 600V can't be measured; otherwise, the instrument may be damaged.**
- **Pay special attention to safety when measuring high voltage to avoid electric shock or personal injury.**

CAUTION!

High impedance voltage measurement: 10M Ω

Low impedance voltage measurement: 300k Ω

Frequency/duty measurement

- 1) Turn the knob to Hz%, switching frequency or duty measurement function by pressing "**FUNC**" key.
- 2) Insert the red probe in "INPUT" jack, insert the black probe in "COM" jack.
- 3) Contact the probe to the measured circuit

(connect to the measured power supply or circuit in parallel).

- 4) Read the measurement result on the screen.

WARNING!

- The voltage above 600V can't be measured; otherwise, the instrument may be damaged.
- Pay special attention to safety when measuring high voltage to avoid electric shock or personal injury.

CAUTION!

To avoid the measurement errors, please do not input a frequency or duty cycle signal greater than 10V rms.

Resistance measurement

- 1) Turn the knob to  , switching resistance measurement function by pressing  key.
- 2) Insert the red probe in "INPUT" jack, insert the black probe in "COM" jack.
- 3) Contact the probe to the measured circuit or resistance.
- 4) Read the measurement result on the screen.

WARNING!

When measuring resistance on the line, disconnect the power supply and discharge all

the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric shocks.

⚠ CAUTION! To avoid damaging the instrument or equipment, do not input a voltage greater than 10V.

NOTE: When measuring resistance on a circuit, the reading may be affected by other circuits.

Continuity test

- 1) Turn the knob  to, switching continuity test function by pressing **FUNC** key.
- 2) Insert the red probe in “INPUT” jack, insert the black probe in “COM” jack.
- 3) Contact the probe to the measured circuit or resistance.
- 4) If the resistance or circuit of the measured resistance is less than 30Ω , the buzzer sounds and the red LED will light up; the screen displays the resistance.

⚠ WARNING!

When measuring capacitance on the line, disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck

by electric shocks.

CAUTION!

To avoid damaging the instrument or equipment, do not input a voltage greater than 10V.

NOTE: When measuring resistance on a circuit, the reading may be affected by other circuits.

Diode test

- 1) Turn the knob to,  switching diode test function by pressing  key.
- 2) Insert the red probe in "INPUT" jack, insert the black probe in "COM" jack.
- 3) Touch the diode anode with the red probe, the black probe contacts the diode cathode.
- 4) Read the measurement result on the screen.
- 5) If the pen polarity is opposite to the diode polarity, the meter displays "OL", which can be used to distinguish the anode and cathode of the diode.

WARNING!

When measuring diode on the line, disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric

shocks.

CAUTION!

To avoid damaging the instrument or equipment, do not input a voltage greater than 10V.

Capacitance measurement

- 1) Turn the knob to , switching capacitance function by pressing  key.
- 2) Insert the red probe in "INPUT" jack, insert the black probe in "COM" jack.
- 3) Contact the probe to the measured circuit or capacitance.
- 4) Read the measurement result on the screen.

WARNING!

When measuring capacitance on the line, disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric shocks.

CAUTION!

To avoid damaging the instrument or equipment, do not input a voltage greater than 10V.

NOTE: When measuring capacitance greater than 100uF, it will take a long time to measure correctly.

Temperature measurement

- 1) Turn the knob to $^{\circ}\text{C}/^{\circ}\text{F}$.
- 2) Insert the K-type thermocouple into the instrument, the positive pole (red) of the thermocouple into the "INPUT" jack, and the negative pole (black) into the "COM" input.
- 3) Contact the thermocouple probe with the measured object and read the results from the display screen.
- 4) Press the  key to select the temperature unit.

WARNING!

When measuring temperature with thermocouple, the probe of thermocouple can't touch the charged object, otherwise it may damage the instrument and may suffer electric shock or personal injury.

NOTE: It takes a long time for the cold end of thermocouple to be restored in the instrument to achieve thermal balance with the environment.

Non-contact AC Voltage Detection (NCV)

- 1) Turn the knob to "NCV/LIVE" gear.

- 2) Then NCV probe gradually approaches the detected point.
- 3) When the signal of weak electromagnetic field is sensed, the character "--- L" is displayed, and a slow beeping sound, the red indicator blinks slowly.
- 4) When the signal of strong electromagnetic field is sensed, the character "--- H" is displayed, a fast beeping and the red indicator blinks quickly.

Live Detection (LIVE)

- 1) Turn the knob to 'NCV/LIVE' gear, press  key until the "LIVE" Symbol is displayed.
- 2) Insert red probe to "INPUT" jack.
- 3) Connect the red probe to the conductor to be tested for measurement.
- 4) When a weak AC signal is detected, the "---L" character is displayed, the buzzer emits a slow beep sound, and the red indicator blinks slowly.
- 5) When a strong AC signal is detected, the "---H" character is displayed, the buzzer gives a quick beep sound, and the red LED indicator light is on. In general, the fire line detected at this time.

General Technical Specifications

- Environment condition of using:
CAT.III 600V
Pollution level: 2
Altitude < 2000m
Working environment temperature and humidity:
0~40°C (<80% RH, <10°C non condensing).
Storage environment temperature and humidity:
-10~60°C (<70% RH, remove the battery).
- Temperature coefficient:
0.1× accuracy/°C (<18°C or >28°C).
- MAX. Voltage between terminals and earth ground: 600V.
- Sampling rate: about 3 times/second.
- Display: 6000 counts.
- Over range indication: it displays "OL".
- Low battery indication: when the battery voltage is lower than the normal working voltage, " will be displayed.
- Input polarity indication: automatically display "—".
- Power: 3 x 1.5V AAA batteries.

Precision index

The accuracy applies within one year after the calibration.

Reference condition: the environment temperature 18°C to 28°C, the relative humidity is no more than 80%. accuracy: $\pm$ (% reading + word)

DC Voltage

Range	Resolution	Accuracy
600mV	0.1mV	$\pm(0.5\%\text{reading}+5\text{word})$
6V	0.001V	
60V	0.01V	
600V	0.1V	

Input impedance: 10M Ω (LowZ: 300 k Ω)

Overload protection: 600V

Maximum input voltage: 600V

AC Voltage

Range	Resolution	Accuracy
6V	0.001V	$\pm (0.8\% \text{ reading} + 5)$
60V	0.01V	
600V	0.1V	

Input impedance: 10M Ω (LowZ: 300 k Ω)

Overload protection: 600V

Maximum input voltage: 600V

Frequency response: 10Hz ~ 1kHz; TRMS

DC Current

Range	Resolution	Accuracy
60A	0.01A	± (2.5% reading +5)
600A	0.1A	

Maximum current: 600A

AC Current

Range	Resolution	Accuracy
60A	0.01A	40~400Hz: ± (2.5% reading +5) Other: ± (3.0% reading +10)
600A	0.1A	

Maximum current: 600A

Frequency Response: 10Hz ~ 1kHz; TRMS

Resistance

Range	Resolution	Accuracy
600Ω	0.1Ω	±(1.0% reading +5)
6kΩ	0.001kΩ	
60kΩ	0.01kΩ	
600kΩ	0.1kΩ	
6MΩ	0.001MΩ	
60MΩ	0.01MΩ	

Overload protection: 250V

Continuity

	$<30\Omega$, the buzzer sounds and the red indicator on	Test Voltage Approx. 1V Overload protection: 250V
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Diode

	It displays the approximate forward voltage value of the diode.	Forward DC current is about 2.5mA Reverse DC voltage is about 3V Overload protection: 250V
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Capacitance

Range	Resolution	Accuracy
10nF	0.001nF	$\pm (4.0\% \text{ reading} + 5)$
100nF	0.01nF	
1000nF	0.1nF	
10 μ F	0.001 μ F	
100 μ F	0.01 μ F	
1000 μ F	0.1 μ F	
10mF	0.001mF	
100mF	0.01mF	

Overload protection: 250V

Frequency/Duty

Range	Resolution	Accuracy
10Hz	0.001Hz	± (1.0% reading +3)
100Hz	0.01Hz	
1000Hz	0.1Hz	
10kHz	0.001kHz	
100kHz	0.01kHz	
1000kHz	0.1kHz	
10MHz	0.001MHz	± (3.0% reading +3)
1~99%	0.1%	

Hz/duty

- 1) Range: 0 ~ 10MHz
- 2) Voltage sensitivity: 0.2~10V AC
- 3) Overload protection: 250V

V:

- 1) Range: 0 ~ 100 kHz
- 2) Voltage sensitivity: 0.5~600V ACV);

A:

- 1) Range: 0 ~ 100 kHz
- 2) Current sensitivity: $\geq 1/4$ Full range

Temperature

Range	Resolution	Accuracy	
°C	1°C	-40~0°C	± 3°C
		0~400°C	± 1.0% or ± 2°C
		400~1000°C	± 2.0%
°F	1 °F	-40~ 32°F	± 6°F
		32~752°F	± 1.0% or ± 4°F
		752~1832°F	± 2.0%

NOTE: The above accuracy does not include the error of thermocouple probe.

MAINTENANCE&CLEAN

To avoid electric shock, remove the test probe before opening the battery cover or back cover.

General maintenance

- Maintenance and service of this instrument must be carried out by professional qualified maintenance personnel or maintenance department.

- Use wet cloth or mild detergent regularly to clean the shell. Do not use abrasives or solvents. Wipe the contacts in the socket with a clean cotton swab soaked in alcohol.

Battery Installation or Replacement

The meter uses three AAA 1.5V batteries. Please install or replace the batteries according to the following steps.

- 1) Turn off the power of the meter and remove the probe.
- 2) Use screwdriver to unscrew the screw that fixes the battery cover and remove the battery cover.
- 3) Remove the old battery and install the new battery according to the polarity of the battery marked in the battery box.
- 4) After installing the new battery, cover the battery cover and lock the screw.

WARNING!

- To avoid the possibility of electric shock or personal injury caused by incorrect reading, replace the battery immediately when the "" sign is displayed on the display screen.
- Please use the same type of batteries, do not

use substandard batteries.

- **In order to ensure safe operation and maintenance of the instrument, please take out the battery when not in use for a long time, in order to prevent damage to the product caused by battery leakage.**



MADE IN CHINA 0724.V01

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