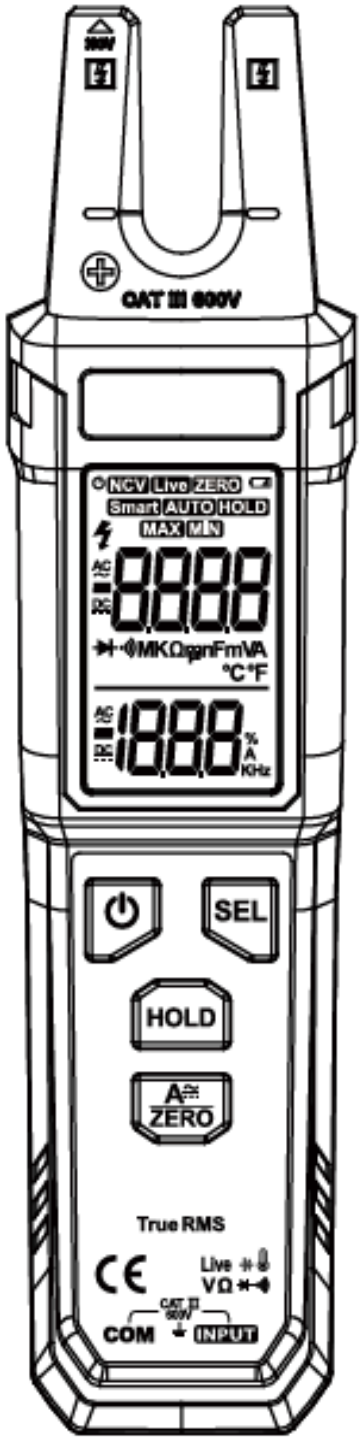
USER'S MANUAL

Digital Clamp Meter



⚠ Please read this manual carefully before using this product,and keep it properly for future use!

1. Overview

This instrument is an AC/DC digital fork clamp meter featuring stable performance and high safety and reliability, specially designed for convenient and efficient electrical measurement scenarios. Equipped with an open fork-shaped clamp head, it allows for easy current reading by directly clamping onto the circuit without cumbersome operations.

The instrument is integrated with a Smart Auto-Recognition Function, which can automatically identify AC Voltage (ACV), DC Voltage (DCV), continuity and short-circuit check, and resistance. It covers basic testing scenarios without manual range switching, effectively reducing operational complexity.

In addition, the instrument supports manual function switching for Non-Contact AC Voltage Detection (NCV), Live Wire Identification (Live), diode testing, capacitance measurement, temperature measurement, AC current measurement, DC current measurement, and other functions, fully meeting diversified measurement requirements.

2. Safety Information

⚠	Incorrect operation during measurement may lead to hazards or instrument damage. Please read this user manual carefully before use and strictly follow the operating instructions.

2.1 Safety Guidelines

- Upon receiving the meter, first inspect its appearance for transportation damage and ensure that the casing is free of breakage, cracks, or other abnormalities.

- Check the test leads before use to confirm that the insulation layer is free of aging and cracking, and that the metal parts are not exposed.
- When operating near bare conductors or busbars, guard against electric shock and arc discharge risks, wear protective equipment in a standardized manner, and maintain a safe distance.

2.2 Operating Specifications

- Before use, verify that the instrument casing and test lead insulation layers are intact. Select the correct range to avoid instrument damage caused by misoperation.
- Over-range measurement is prohibited. Do not change the range while measuring; doing so may damage the instrument. Exercise caution to guard against electric shock when measuring voltages exceeding DC 60V or AC 30V (RMS).
- Measurement is strictly prohibited if the voltage between the INPUT terminal and COM terminal exceeds AC/DC 600V, to prevent instrument damage.
- Before switching measurement functions, the test leads must be disconnected from the measured circuit. Live switching during measurement is strictly prohibited.
- Avoid exposure to direct sunlight, high-temperature, and high-humidity environments during storage and use; otherwise, it may lead to reduced insulation performance of the instrument, moisture damage to the circuit, and impaired functionality.

2.3 Symbols

	Safety Warning Symbol
	AC Alternating Current Voltage
	DC Direct Current Voltage
	High Voltage Warning Symbol
	Double Insulation Protection Mark (Class II)
CAT III	Overvoltage (Installation) Category III in compliance with IEC 61010 Standard
	Compliance with European Union (EU) Standards
	Grounding

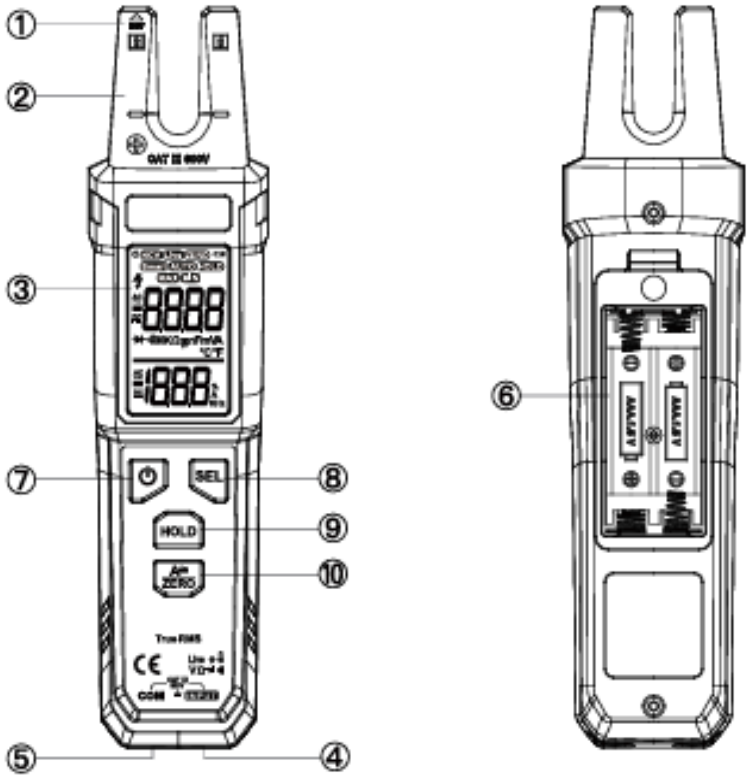
2.4 Maintenance

- Non-professional maintenance personnel are strictly prohibited from opening the back cover for adjustment or repair.

- To avoid electric shock risks caused by incorrect readings, replace the battery immediately when the low battery symbol "  " appears on the meter display.

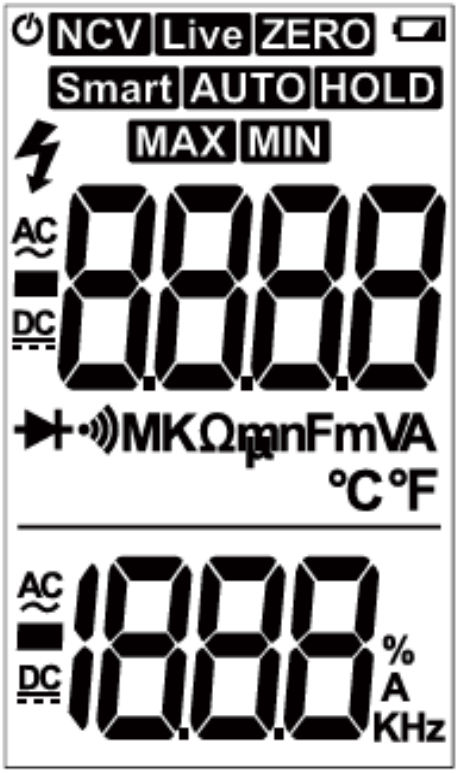
- If the meter is not to be used for an extended period, the battery must be removed to prevent electrolyte leakage from corroding internal components of the meter.

3. Structure and Function Overview



S/N	Description
①	NCV Induction Probe
②	Fork-shaped Current Clamp
③	Display
④	INPUT Terminal: Connect the red probe
⑤	COM Terminal: Connect to the black test lead
⑥	Battery Compartment
⑦	Power Button: Press and hold to power on; press briefly to power off
⑧	Function Switch Key: Toggle between NCV → Live → Diode → Capacitance → Temperature modes
⑨	Data Hold Key: Press briefly to hold or release the reading; long press to convert ° C/ ° F
⑩	Current Switch Key: Press briefly to switch between AC and DC current; press and hold to clear the offset value (ZERO) in DC current mode

4.Display Overview



Symbol	Description	Symbol	Description
AUTO	Auto Range	A	Current
NCV	Non-Contact AC Voltage Detection	nF	Nanofarad
Live	Live Wire Identification	uF	Microfarad
HOLD	Data Hold	mF	Millifarad
Smart	Intelligent Recognition	Ω	Ohm
ZERO	Zero Clearing	KΩ	Kiloohm
•))	Continuity Test	MΩ	Megaohm
▶|	Diode	°C	Celsius
AC	AC Voltage	°F	Fahrenheit
DC	DC Voltage	▭	Low Battery Indicator
V	Volt	⏻	Auto Power-off
Hz	Frequency	-	Negative Polarity

5.Technical Specifications

Altitude	2000m
Auto Range	Yes
Full-scale Overload Protection Voltage	600V
Maximum Input Voltage Between COM & INPUT Terminals	AC/DC 600V
Display	LCD
Polarity Indication	- Polarity
Maximum Display Value	3999
Over-range Display	OL
Sampling Rate	Approximately 3 Times/Second
Auto Power-off Time	Approx. 15 Minutes
Power Supply	2×1.5V AAA Batteries
Operating Environment	0~50°C/0~70%RH
Storage Environment	-20~60°C/≤80%RH
Dimensions	180 x 44 x 29mm
Jaw Opening Size	10mm
Weight	Approx. 100g (Without Batteries)

6. Function Description

6.1 Low Battery Indicator

When the symbol "  " appears on the screen, it indicates low battery power. To avoid affecting the accuracy of measurement data, replace the batteries promptly.

6.2 Alarm Prompt

When AC/DC voltage reaches 600 V, red backlight turns on and buzzer beeps. Avoid exceeding the rated range to prevent damage.

6.3 Auto Power-off

The instrument shuts down automatically if idle for 15 minutes.

6.4 Disabling Auto Power-off Function

With the instrument off, press and hold SEL key, then press Power key. Release after 5 beeps. The auto power-off "  " symbol disappears; function restores after manual shutdown.

6.5 Returning to Smart Auto-Recognition Mode

Press the SEL key briefly to cycle through modes: NCV → Live → Diode → Capacitance → Temperature → Smart Mode.

Press and hold the SEL key to return to Smart Mode directly.

Press the "  " key briefly to cycle through modes: ACA → DCA → Smart Mode.

7. Operation Instructions

7.1 Smart Mode

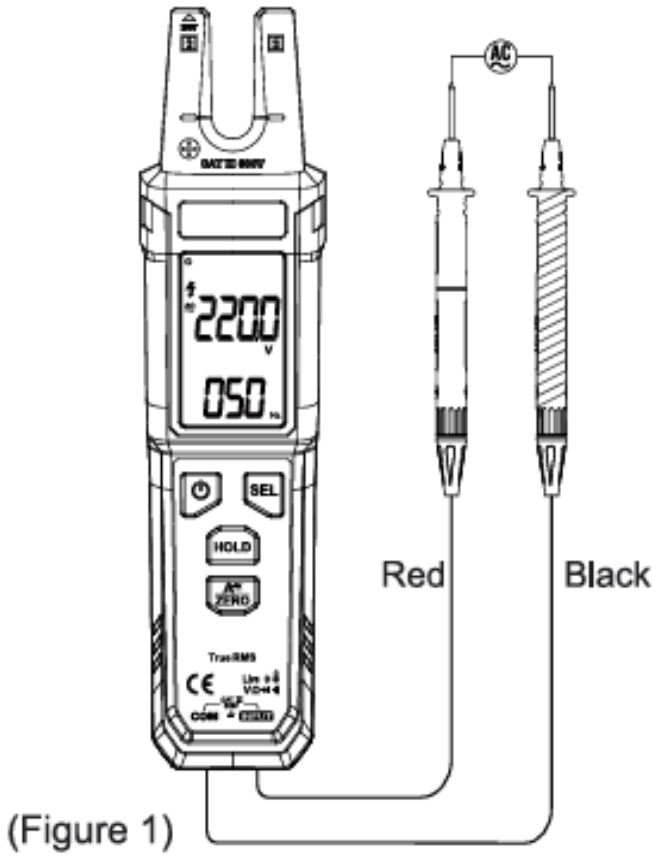
(1) Upon power-on, the instrument enters Smart Mode, with "AUTO" displayed on the screen, which automatically detects AC voltage, DC voltage, resistance, and continuity.

(2) Insert the black test lead into the COM terminal and the red test lead into the INPUT terminal.

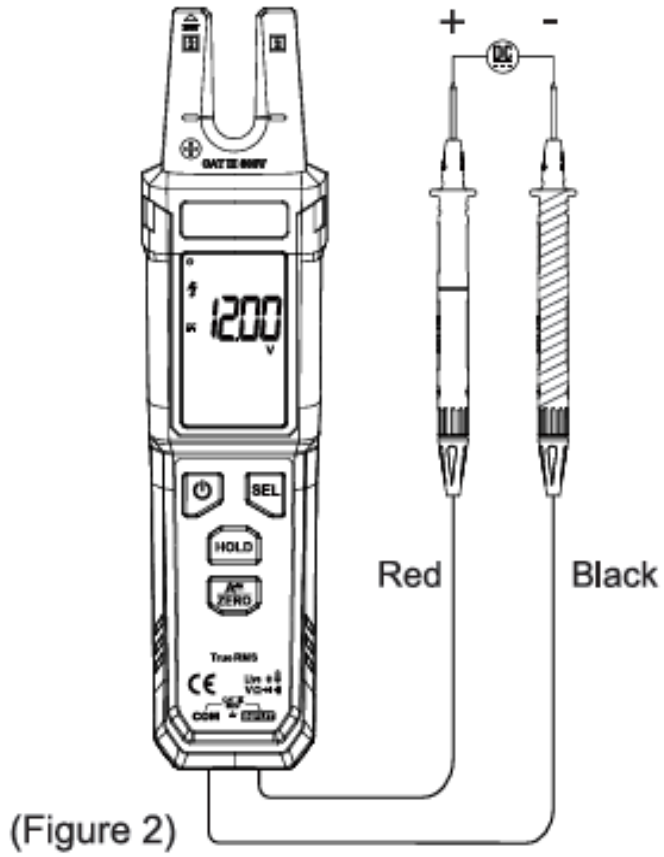
(3) Connect the red and black test leads to the circuit under test for measurement.

(4) AC Voltage Mode: When Smart Mode detects AC voltage, the " AC " symbol appears, along with the measured voltage and frequency.(Figure 1)

(5) DC Voltage Mode: When Smart mode identifies DCV, the instrument displays the " DC " symbol and the measured voltage value.(Figure 2)



(Figure 1)



(Figure 2)

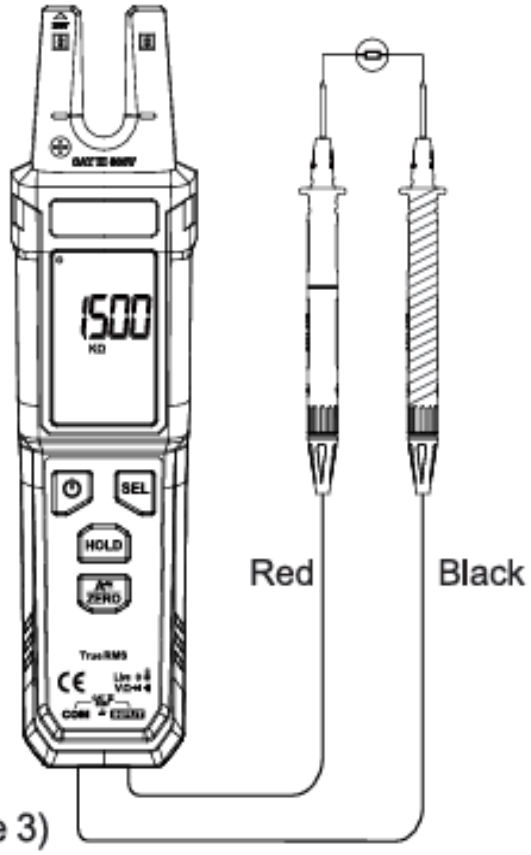
(6) Resistance Mode: When Smart Mode identifies the "Ω" mode, the instrument displays the "Ω" symbol and the measured resistance value. (Figure 3)

① Measuring resistance in a circuit may yield results inconsistent with the actual resistance value, because in-circuit resistance measurement may form series or parallel connections with other components in the circuit, leading to measurement errors.

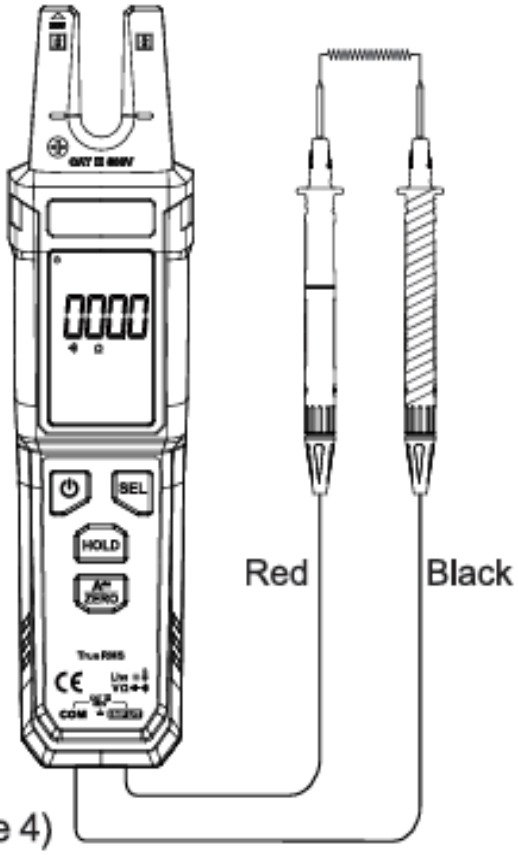
② If the circuit under test is open-circuited or has an excessively high resistance value, Smart Mode cannot identify it, and the screen will display "AUTO " to indicate that the measured value is out of the range.

(7)Continuity Test: When Smart mode identifies the continuity test mode, the instrument displays the " •)) " symbol and the resistance value of the circuit under test. (Figure 4)

① If the resistance value of the line under test is less than 50Ω, the instrument will sound an alarm, indicating that the line is connected. If the resistance value is greater than 50Ω, the instrument will not sound an alarm.



(Figure 3)



(Figure 4)

7.2 NCV Non-Contact AC Voltage Detection

(1) Press the SEL key briefly to switch to the "NCV" mode, with the "NCV" symbol displayed on the screen.

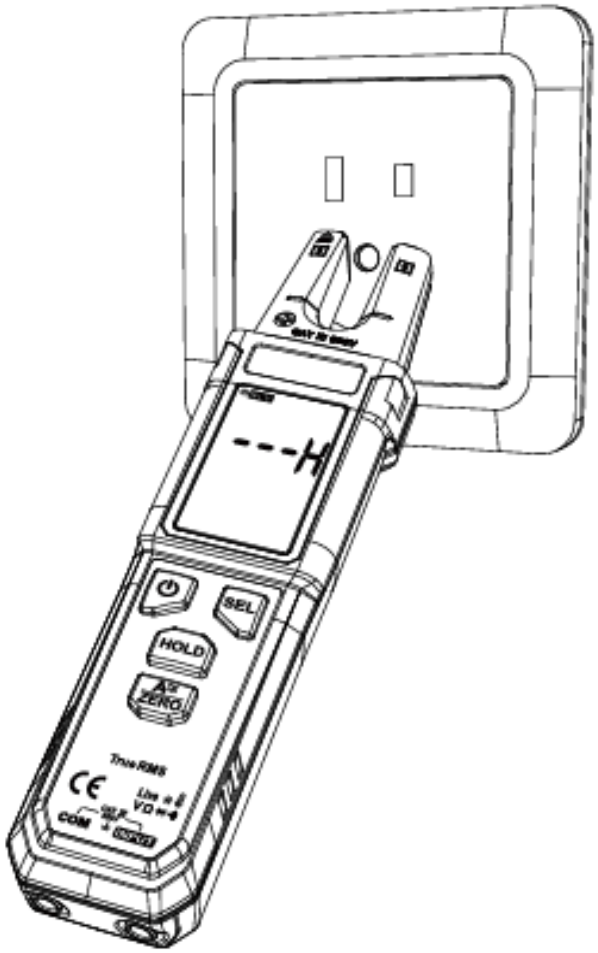
(2) Approach the tested conductor with the NCV-marked end of the clamp head; the instrument will detect voltage signals automatically: when low voltage is detected, the screen displays "–-L"; when high voltage is detected, the screen displays "–-H", the red backlight turns on simultaneously, and the buzzer emits warning beeps of varying frequencies to warn of a possible live conductor.

CAUTION!

① Voltage may still be present even if there is no indication. Do not rely on non-contact voltage detection to determine whether a conductor is live, to prevent electric shock hazards.

② Detection results may be ineffective due to the influence of socket structure design, insulation layer thickness and insulation material type.

③ Electromagnetic interference generated by camera flashes, running motors, etc., may cause false triggering of the non-contact voltage detection function.



7.3 Live Wire Identification

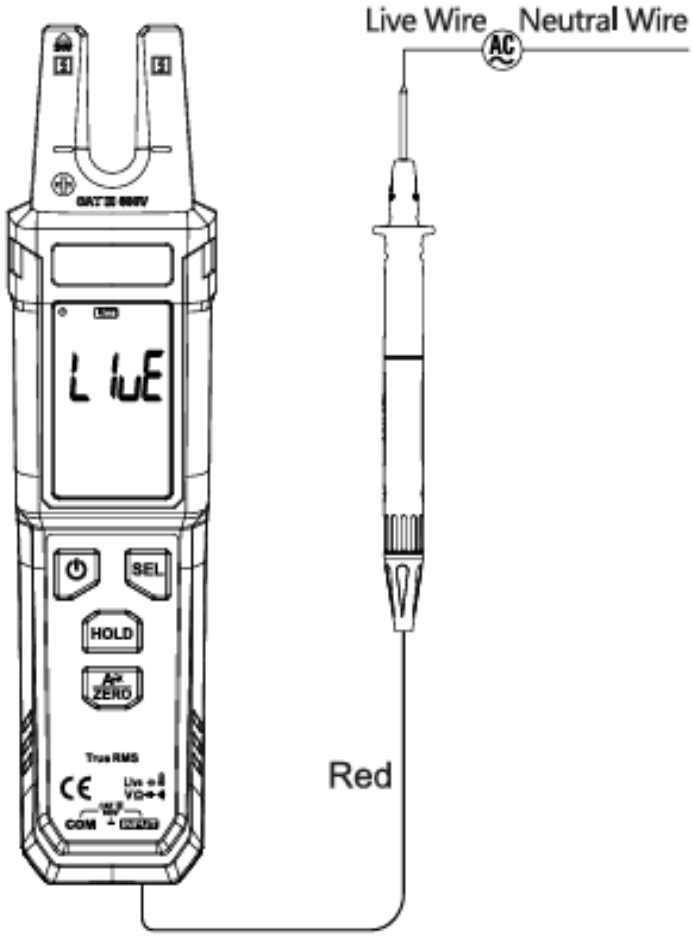
(1) Press the SEL key briefly to switch to the "Live" mode, with the "Live" symbol displayed on the screen.

(2) Insert a single red test lead into the "INPUT" terminal of the instrument, use the test lead probe to contact the conductor under test. The meter will detect the conductor automatically. If the screen displays the "Live " symbol, the red backlight turns on and the buzzer emits a beep, indicating a live wire; otherwise, the conductor is neutral or ground.

CAUTION!

① Before use, test the meter on a known live conductor to ensure it is working properly. This avoids misjudgment due to instrument failure.

② When testing the live wire of a socket, if other electrical equipment is connected to the socket, it may interfere with the measurement results. It is recommended to unplug all electrical equipment from the socket before performing the test.



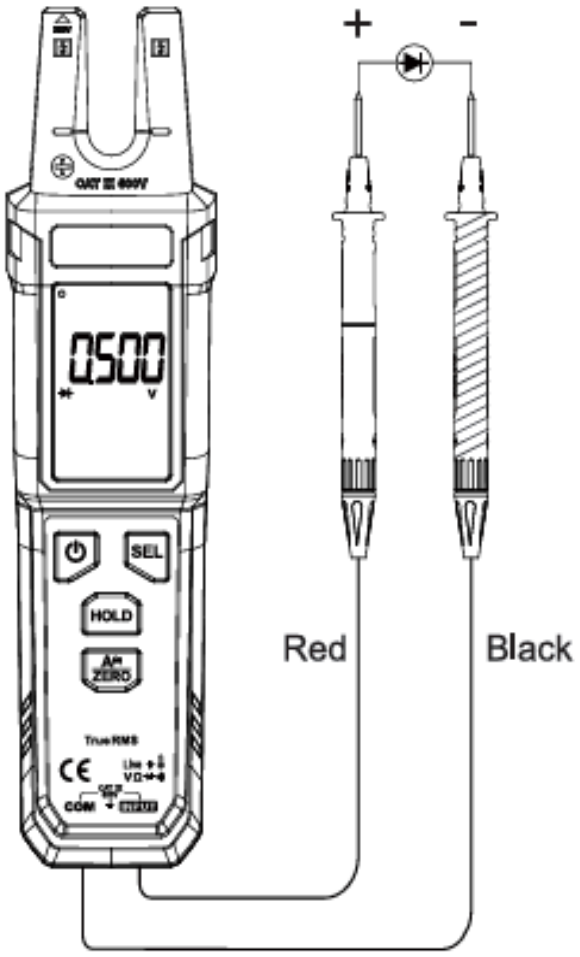
7.4 Diode Test

(1) Press the SEL key briefly to switch to the" ⏩ " mode, with the" ⏩ " symbol displayed on the screen.

(2) Insert the black test lead into the "COM" terminal and the red test lead into the "INPUT" terminal. Connect the red test lead to the anode of the diode and the black test lead to the cathode of the diode; the screen will display the forward voltage drop value, and there will be no conduction in the reverse direction.

CAUTION!

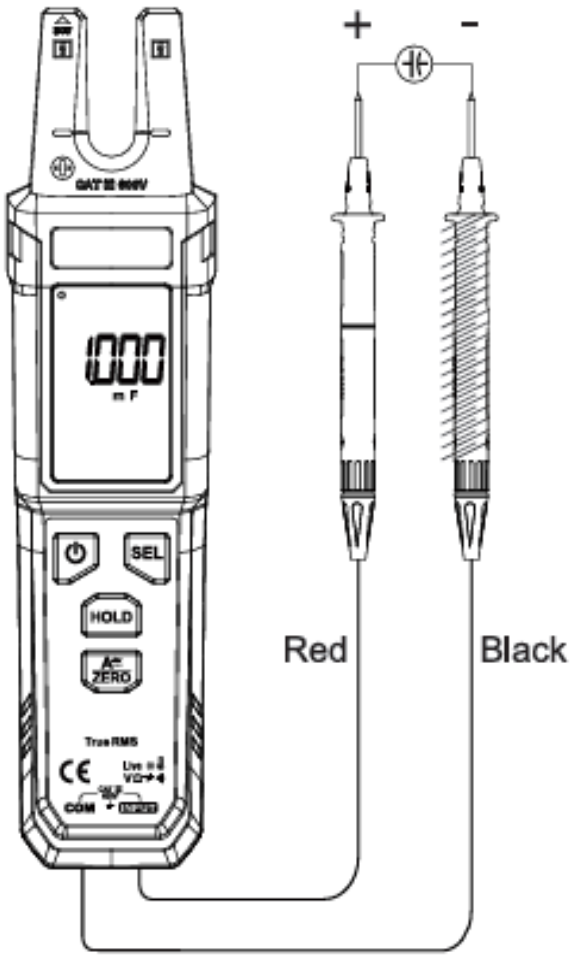
① Disconnect the diode under test from the external circuit before measurement to avoid external circuit interference affecting measurement accuracy.



7.5 Capacitance Measurement

(1) Press the SEL key briefly to switch to the capacitance mode, with the "nF" symbol displayed on the screen.
(2) Insert the black test lead into the COM terminal and the red test lead into the INPUT terminal. Connect the red test lead to the positive terminal and the black test lead to the negative terminal of the capacitor. For non-polarized capacitors, polarity does not need to be distinguished; direct measurement is allowed, with the measured capacitance value displayed on the screen.

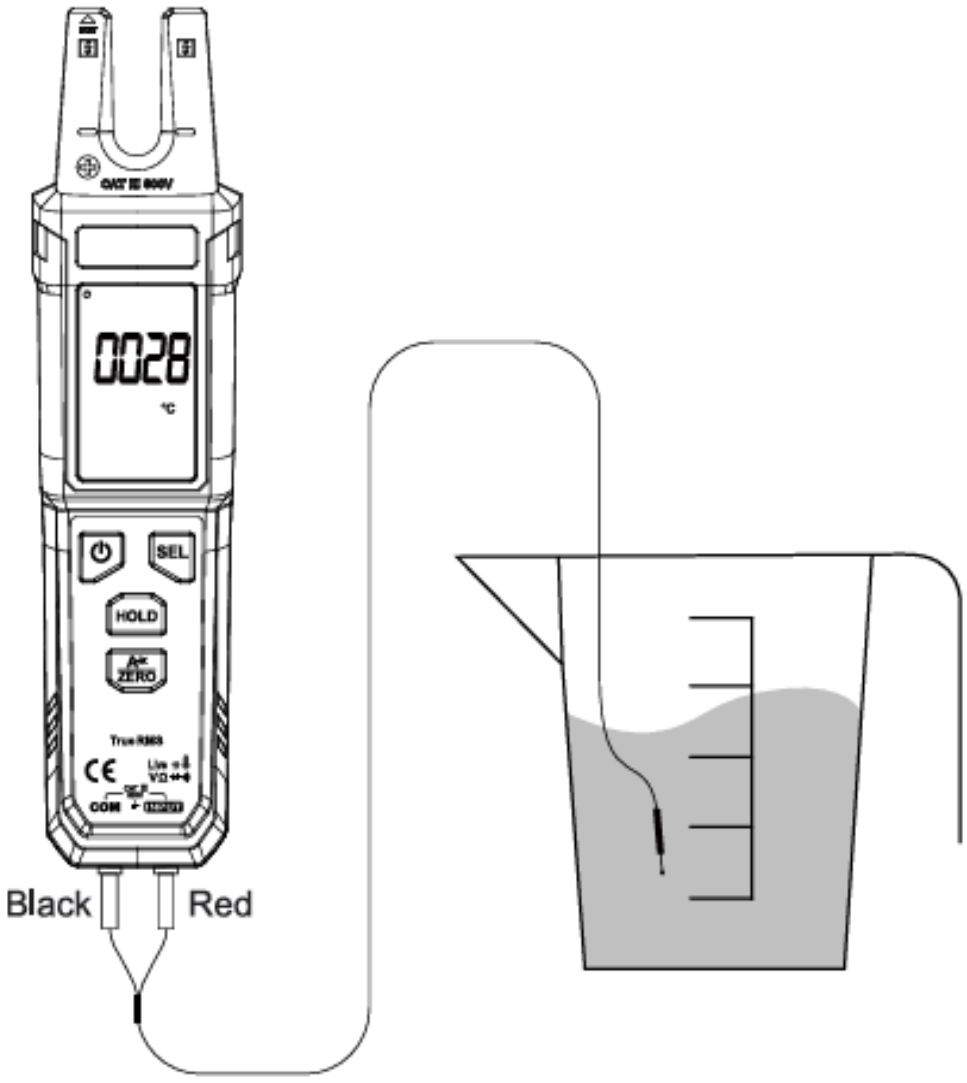
CAUTION!
① Discharge the capacitor before measurement. For low-capacitance capacitors, directly short-circuit the pins; for high-capacitance capacitors, direct short-circuit is strictly prohibited. A resistor of 1 kΩ~10 kΩ must be connected in parallel for slow discharge to prevent hazards. The instrument charges the capacitor during measurement, and the reading requires time to stabilize.
② Capacitance must not be measured while in the circuit. The capacitor may form series or parallel loops with other components, causing severe interference to the measurement. Remove the capacitor from the circuit before individual measurement.



7.6 Temperature Measurement

(1) Press the SEL key briefly to switch to the temperature mode, with the "°C/°F" symbol displayed on the screen. The instrument will automatically measure the ambient temperature.

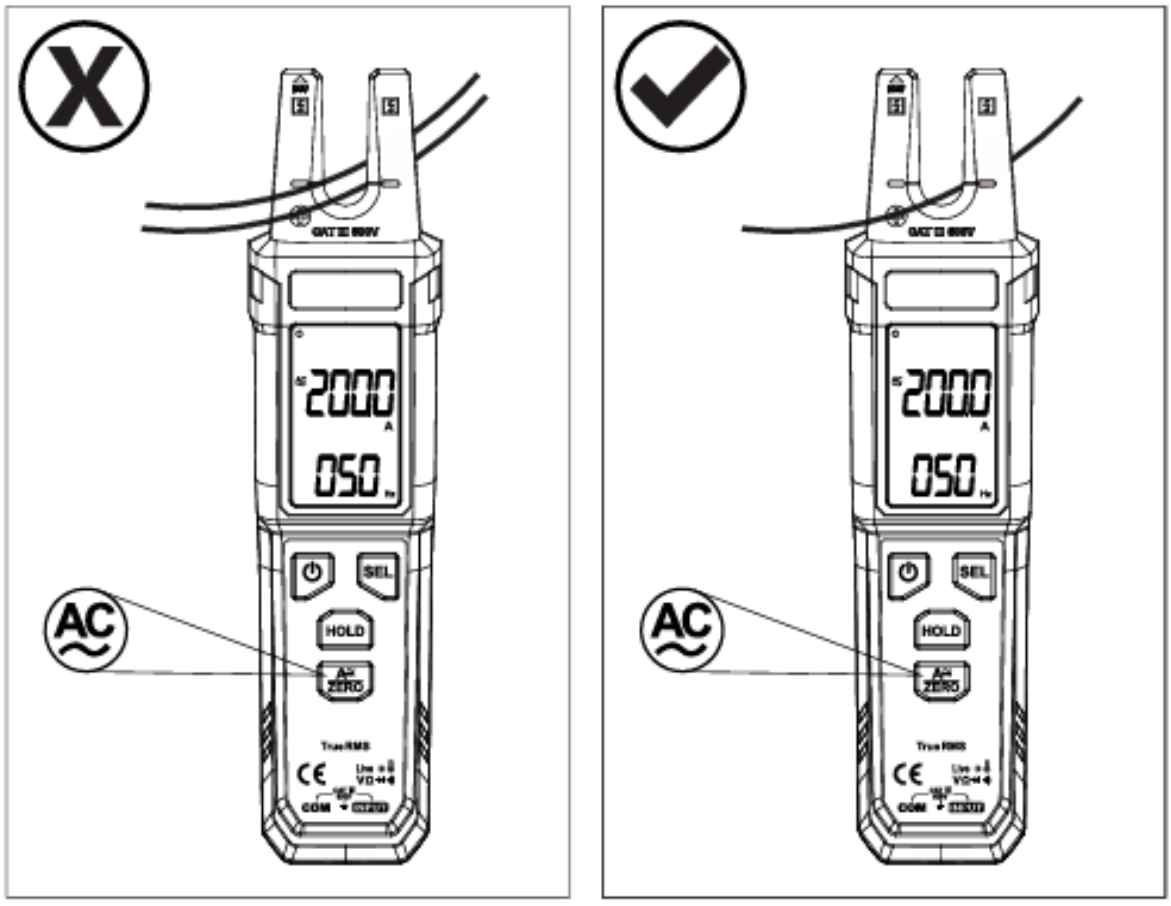
(2) To measure the temperature of an object or liquid, use the supplied K-type thermocouple probe. Insert the red probe into the INPUT terminal and the black probe into the COM terminal, then attach the thermocouple probe to the object surface or immerse it in the liquid.



7.7 AC Current

(1) Short press the ( ) key to the AC current range, and the screen will display the " ACA " mark.

(2) Align the U-shaped jaw of the instrument to a single conductor under test (neutral wire or live wire) and clamp into the bottom of the U-shaped clamp head. At this time, the meter screen displays the current value and frequency of the line under test.



CAUTION!

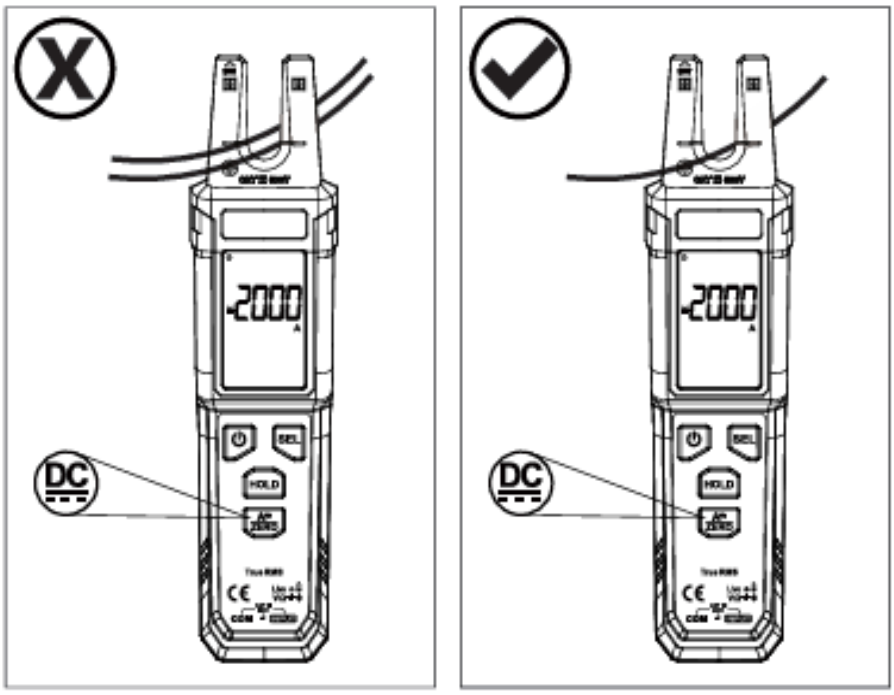
①To measure the current, only a single wire is required. Placing two or more wires at the same time cannot measure correctly, and the load must be in working condition at the same time.

②When measuring, the wire must be close to the bottom of the clamp head to prevent measurement errors.

7.8 DC Current

(1) Short press the ( ) key to reach the DC current range, and the screen will display the " DCA " mark.

(2) Align the U-shaped jaw of the instrument with the single conductor under test, and clamp into the bottom of the U-shaped clamp head. At this time, the meter screen displays the current value of the line under test.



CAUTION!

① To measure the current, only a single wire is required. Placing two or more wires at the same time cannot measure correctly, and the load must be in working condition at the same time.

② To ensure the accuracy of the measurement data, short press the ZERO key in the DC current mode to clear the base caused by electromagnetic interference in the use environment. After ZERO is cleared, keep the direction in which it was cleared for measurement.

③ If the measurement data is negative when measuring current, please adjust the measurement direction of the clamp head so that the load current flows through the clamp head in a positive direction.

④ When measuring, the wire must be close to the bottom of the clamp head to prevent measurement errors.

8. Technical Specifications

8.1 Smart - DCV (DC Voltage)

Range	Resolution	Accuracy
4V	0.001V	±(0.8% of reading + 5 digits)
40V	0.01V	
400V	0.1V	±(1.0% of reading + 8 digits)
600V	1V	

Input impedance: 10 MΩ / Maximum input voltage: DC 600 V

8.2 Smart - ACV (AC Voltage)

Range	Resolution	Accuracy
4V	0.001V	±(1.0% of reading + 5 digits)
40V	0.01V	
400V	0.1V	±(1.2% of reading + 8 digits)
600V	1V	

Input impedance: 10 MΩ / Maximum input voltage: AC 600 V
Frequency response: 40 Hz - 1 kHz

8.3 Smart - Ω (Resistance)

Range	Resolution	Accuracy
400Ω	0.1Ω	±(1.2% of reading + 5 digits)
4KΩ	0.001KΩ	
40KΩ	0.01KΩ	
400KΩ	0.1KΩ	
4MΩ	0.001MΩ	±(2.0% of reading + 8 digits)
40MΩ	0.01MΩ	

Overload protection:600 V

8.4 Smart - •)) (Continuity Test)

Range	Description
400Ω	Buzzer alarms when measured resistance < 50Ω

Overload protection: 600 V

8.5 Diode Test

Function	Range	Test Conditions
Diode Test ⯈|	0V~1.8V	Open circuit current: approx. 0.6 mA; Open circuit voltage: approx. 1.8 V

Overload protection: 600 V

8.6 Capacitance Measurement

Range	Resolution	Accuracy
4nF	0.001nF	±(4.0% of reading +5 digits)
40nF	0.01nF	
400nF	0.1nF	
4uF	0.001uF	
40uF	0.01uF	
400uF	0.1uF	
4mF	0.001mF	±(5.0% of reading +10 digits)

Overload protection: 600 V

8.7 Temperature Measurement

Range	Resolution	Accuracy
-50~1000°C	1°C	±(2.0% of reading +2 digits)
-58~1832°F	2°F	±(2.0% of reading + 4 digits)

Overload protection: 600 V

8.8 AC Current

Range	Resolution	Accuracy
200A	0.1A	±(2.5% of reading + 8 digits)

Maximum input current: AC 200 A / Frequency range: 40 Hz~400 Hz

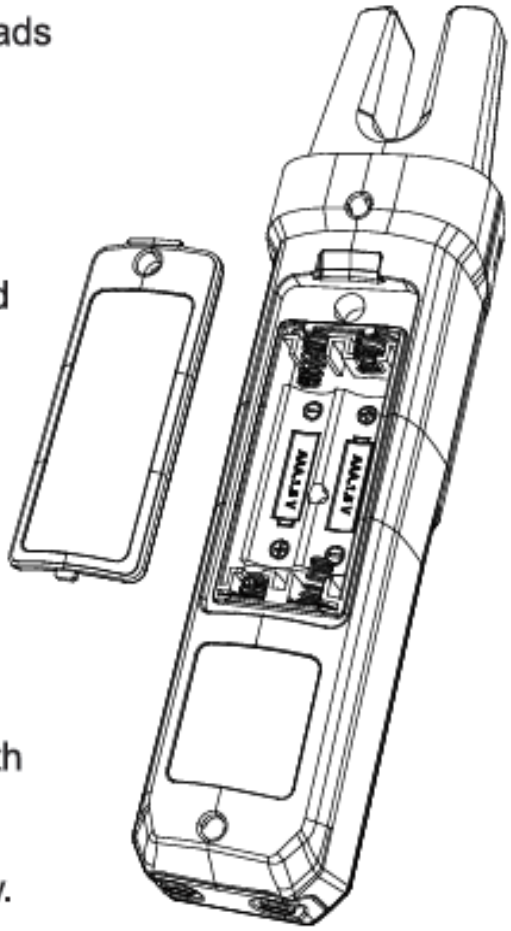
8.9 DC Current

Range	Resolution	Accuracy
200A	0.1A	±(2.5% of reading + 8 digits)

Maximum input current: DC 200 A

9. Battery Replacement

1. Turn off the instrument and keep the test leads away from live conductors.
2. Use a screwdriver to remove the battery compartment cover screws.
3. Remove the battery compartment cover and take out the old batteries.
4. Install two new 1.5V AAA batteries in accordance with the polarity markings inside the battery compartment.
5. Replace the battery compartment cover and tighten the fixing screws.
6. Dispose of used batteries in accordance with local environmental protection regulations; do not dispose of them improperly.



10. Accessories

1. Digital Fork Clamp Meter	×1
2. User Manual	×1
3. Test Leads	×1
4. 1.5V AAA Batteries	×2
5. Thermocouple	×1
6. Meter Storage Case	×1

USER'S MANUAL

Made in China

CE RoHS

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⚠ Please read this manual carefully before using this product,and keep it properly for future use!