



# UNI-T XOM CAT II 600V Digital AC TRMS Clamp Multimeter Instruction Manual

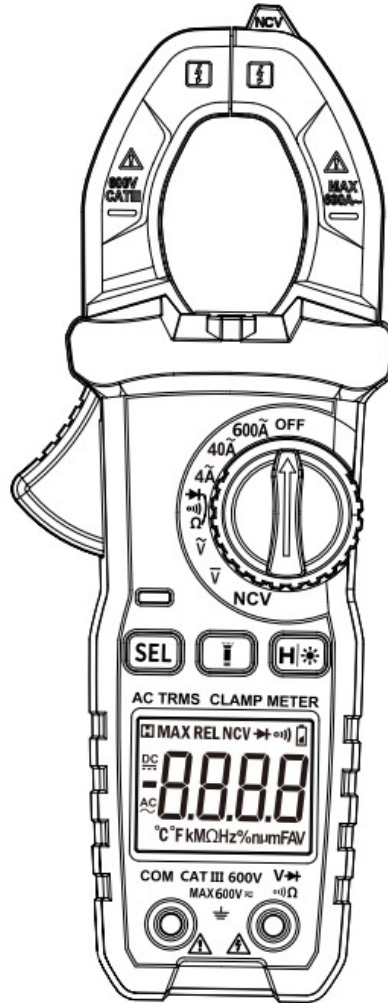
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## XOM CAT II 600V Digital AC TRMS Clamp Multimeter Instruction Manual



### DIGITAL CLAMP MULTIMETER



Before using the instrument, please read this manual carefully, and save it well for future using.

### Overall

This digital AC clamp meter is a stable and reliable instrument with micro smart IC and dual integral AD transformer as the core, coming with full range overload protection circuit. It can be used to test AC, AC voltage, resistor, diode, circuit continuity.

### Safety Standards

This instrument has been designed and manufactured with safety standards of IEC61010 , IEC61010-2-032, dual insulation CAT III 600V and pollution class 2.

#### Safety Symbols



Warning symbols, cautiously operate.



High voltage danger symbol.



Allow to be used nearby by conductors which are not dangerous with life.



Dual insulation (Class II safety equipment)



Ground.


## Notice

- Read the manual carefully , especially notice the contents with symbols. Please follow the instructions.
- If the test pen needs to be replaced, replace a new one with the same model number or same specifications
- Check the instrument and test pen before use. If exposure of test leads, broken cover, abnormal display are found, do not use it.
- In test, do not touch the terminal not in use.
- When test DC voltage higher than 60V or AC voltage higher than 30V, do not reach your fingers beyond safety barrier.
- When the measured range is unknown, put the test range at the maximum.
- Do not test voltage higher than maximum range.
- The test lead should be away from tested circuit before switch range selector.
- Before test diode in live circuit, cut off the power and discharge all capacitors.
- Do not expose the instrument in strong light, high temperature or damp environments.
- Do not touch naked circuit lines, connectors or measured circuits.

## Accessories

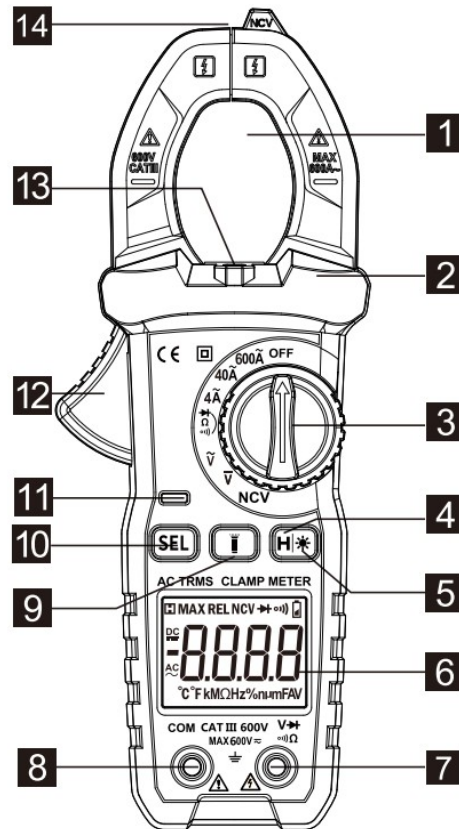
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## Description

1. J aw Assembly: sampling AC.
2. Safety Barrier: prevent touching live conductors in test.
3. Rotatory Range Selector: select measuring functions and ranges.
4. Data Hold: press “H” button, the last reading keeps on display “H” symbol shows. Press “H” button again to resume normal test mode.
5. Backlight: press and hold 2 seconds to turn on backlight, press and hold 2 seconds again to turn off.
6. LCD: Maximum display 4000, reading height 12mm.
7. Input Terminal: red test lead positive input terminal in testing voltage, diode, transistor and continuity.
8. COM terminal: black test lead negative input terminal except AC measurement.
9. Flashlight: Press this button to turn on flashlight. Press again to turn off.
10. S EL: in  test mode, select between diode, resistor and continuity.
11. Warning Light: in continuity test, red light turns on with NCV warning.
12. L ever for Jaw Opening Closing: press to open and release to close the jaw.
13. C lamp Body Light

14. NCV Sensor Probe: when strong AC signal is detected, red light turns on and buzzer sounds.

## Panel description



## Instructions

### AC and DV Voltage Measurement



Insert the red test lead into the “ $\Omega$ ” jack and black test lead into the “COM” jack.

#### A. DV Voltage Measurement

Turn the rotatory range selector to , connect the test lead to voltage to be measured. Read measurement value and polarity of red test lead from display.

#### B. AV Voltage Measurement

Turn the rotatory range selector to , connect the test lead to voltage to be measured. Read measurement value from display.

#### Caution:

\* If the measured voltage range is not known in advance, turn the rotatory range selector to maximum. Then decrease gradually to get satisfactory resolution.

\* Beware of electric safety in measuring high voltage.

### AC current measurement

1. Turn the rotatory range selector to AC current ;
2. Clamp the jaw around the conductor to be measured.  
Do not more than one conductors at the same time.
3. Read measurement value from display.

#### Notice

\* If the measured current range is not known in advance, turn the rotatory range selector to maximum. Then decrease gradually to get satisfactory resolution.

### Resistor Measurement

1. Insert the red test lead into the “ $\Omega$ ” jack and black test lead into the “COM” jack.
2. Turn the rotatory range selector to “ $\Omega$ ”, press “SEL” button to switch to , place the test probe tips into contact with the sample to be measured.
3. Read measurement value from display.

#### Notice:

- If the measured sample has higher resistance beyond maximum range, “OL” will be display. Please change to use a meter with higher measurement range.
- When measuring a resistance, make sure power is off and all capacitors are fully discharged.
- When measuring resistance over 1M OHM, it might take a few seconds to stabilize the reading.

#### Diode and Continuity Test

Insert the red test lead into the “ $\Omega$ ” jack and black test lead into the “COM” jack. Polarity of red test lead is “+”.

1. Turn the rotatory range selector to “ $\Omega$ ”, press “SEL” button to switch to . Bring the red test lead in contact with positive electrode and black test lead in contact with negative electrode. Read forward voltage drop value from the display.
2. Turn the rotatory range selector to “ $\Omega$ ”, press “SEL” button to switch to . Place the test leads in contact with two points of measured circuit. If the resistance is less than 50 OHM, the beeper emits continuous sound.

#### Auto Off

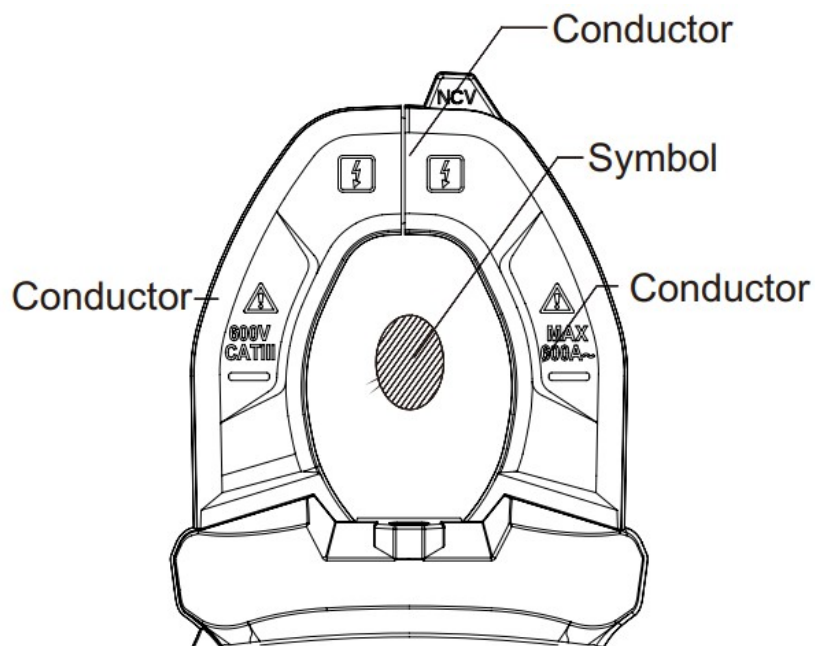
The unit powers off automatically when stay idle over 25 minutes to save power.

**Accuracy:** (a%+cts)

**Warranty:** 1 year

**Ambient Temperature:** , Ambient humidity: Less than 75%

Temperature co-efficient: **0.1%accracy/1°C**



**Notice:**

In measuring AC current, place the measured conductor at the center of the jaw, otherwise there might be an offset of 1.5%

**Accuracy Specification****DC Current**

Range	Resolution	Accuracy
400 mV	0.1 mV	$\pm (0.5\%+3\text{cts})$
4V	0.001V	$\pm (0.8\%+2\text{cts})$
40V	0.01V	
600V	0.1V	$\pm (1.0\%+2\text{cts})$

Input Resistance: 10M

Max. Input Voltage: 600V DC or 600V rms AC

**AC Voltage**

Range	Resolution	Accuracy
4V	0.001V	$\pm (1.0\%+10\text{cts})$
40V	0.01V	
600V	0.1V	$\pm (1.2\%+10\text{cts})$

Input Resistance: 10M

Frequency Range: 40Hz~400Hz

Max. Input Voltage: 600V DC or 600V rms AC

**AC Current**

Range	Resolution	Accuracy
4A	0.001A	$\pm (2.5\%+10\text{cts})$
40A	0.01A	
600A	0.1A	

Frequency Range: 50Hz~60Hz


Max. Input current: 120% of full scale, less than 60 seconds.

**Resistance**

Range	Resolution	Accuracy
4000	0.10	$\pm (1.2\%+2\text{cts})$
4k0	0.001 kO	
40k0	0.01k 0	
400k0	0.1k0	
4M0	0.001 MO	
40M0	0.01 MO	$\pm (2.0\%+5\text{cts})$


Overload: 600V DC or 600V rms AC

#### Diode

Range	Resolution	Accuracy
	1mv	Forward voltage drop aloe (open circuit voltage about 2.3 V)

Overload: 600V DC or 600V rms AC

#### Continuity

Range	Resolution	Accuracy
	0.1	Beeper sounds when resistance is less than 50 OHM (open circuit voltage about 2.1V)

Overload: 600V DC or 600V rms AC

### Technical Specifications

#### Technical Specifications

General: Max. Voltage between input and ground is

CATII 600V DC and 600V AC

Display: LCD, max reading 4000


Principle: Dual Integral A/D transformer, auto range


Measuring frequency: 3 times/second

Unit Display: Display function and unit symbols

Electrode: negative input shows “—”

Overload Display: “OL”

Data Hold Display: 

Low Power Display: 

Power supply: DC1.5V x2 Size AAA

Dimension: 185mm x 71mm x35mm

Max. Jaw Opening Size: 26mm

Temperature Environment for Use: 5C-35C

Temperature for Storing: -10C-50C

## Maintenance and Battery Replacement

### Maintenance

1. Before open back cover, take away the test leads from measured circuit.
2. Use wet cloth and a little detergent to clean the instruments. Do not use chemical or grinding solvent.
3. Stop using if any abnormal conditions occur.
4. Calibration or maintenance can only be performed by professionals.

### Battery Replacement



#### Warning

To avoid electric strikes, take away test leads from measured circuit before open battery cover. Only replace batteries with same type and electric specifications.




When low power icon appears, batteries need to be replaced immediately.

1. Take away test leads from measured circuit. Turn rotatory range selector to OFF. Take away let leads from input jacks.
2. Use a screwdriver to unscrew the batter cover.
3. Take out used batteries and replace with new 1.5V Size AAA batterie.
4. Put on the cover and fasten screw tightly.



### Documents / Resources

 <p>Instruction Manual</p> <p>DIGITAL CLAMP MULTIMETER</p>	<p><a href="#">UNI-T XOM CAT II 600V Digital AC TRMS Clamp Multimeter</a> [pdf] Instruction Manual XOM CAT II, 600V Digital AC TRMS Clamp Multimeter, XOM CAT II 600V Digital AC TRMS Cla mp Multimeter, Digital AC TRMS Clamp Multimeter, AC TRMS Clamp Multimeter, Clamp Multim eter</p>
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