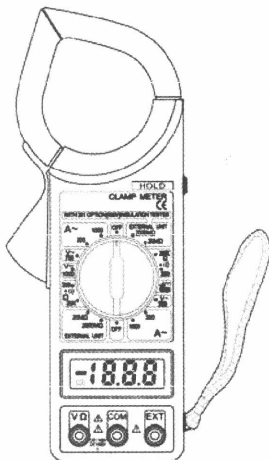


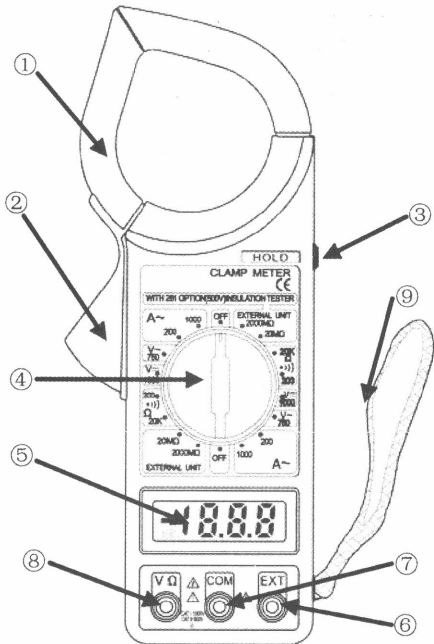
# OPERATOR'S INSTRUCTION MANUAL

## DIGITAL CLAMP METER



**WARNING**

**READ AND UNDERSTAND THIS MANUAL  
BEFORE USING THE INSTRUMENT.**



**① Transformer Jaws**

Pick up the AC Current flowing through the conductor

**② Trigger**

Press the level to open the transformer jaws when the finger press on the level is released the jaws will close again.

**③ Data Hold Switch**

A push switch (pushes on, push off, do not pull to select function). All function and ranges with this feature.

**④ Rotary Switch**

A rotary switch is used to select measurement Function and Range switch.

**⑤ Display**

3 ½ digits (1999 counts), decimal point, minus polarity, Over range and " $\frac{n}{n}$ " indicators.

**⑥ EXT Input Connect**

Used for accept insulation tester unit EXT banana plugs, when measurement insulation resistance.

**⑦ COM Input Connect**

Low input for all voltage, resistance, and continuity measurement will accept banana plugs. When measurement insulation resistance, used for accept insulation tester unit COM banana plugs.

**⑧ VΩ Input Connect**

High input for all voltage, resistance, and continuity measurement will accept banana plugs. When measurement insulation resistance, used for accept insulation tester unit VΩ banana plugs.

**⑨ Drop-Proof Wrist Strap**

Prevents the instrument from slipping off the hand while in use.

### **General Specifications**

Max display: LCD 3 ½ digits, 1999 counts, 0.5" high  
Polarity: Automatic, indicated minus, assumed plus.  
Measure method: double integral A/D switch implement  
Sampling speed: 2 times per second  
Over-load indication: "1" is displayed  
Operating Environment: 0°C~40°C, at <80%RH  
Storage Environment: -10°C~50°C, at <85%RH  
Power: 9V NEDA 1604 or 6F22  
Low battery indication: "⎓"  
Static electricity: about 4mA  
Product Size: 230×68×37mm  
Product net weight: 240g (including battery)

### **Technical Specifications**


Accuracies are guaranteed for 1 year, 23°C±5°C, less than 80%RH

#### **DC VOLTAGE**

RANGE	RESOLUTION	ACCURACY
1000V	1V	±(1.0% of rdg + 5D)

OVERLOAD PROTECTION: 1000V DC or 750V rms for all ranges.

#### **AUDIBLE CONTINUITY**

RANGE	DESCRIPTION
	Built-in buzzer sounds if resistance is less than 30±20Ω

OVERLOAD PROTECTION: 15 second maximum 250V rms.

## AC VOLTAGE

RANGE	RESOLUTION	ACCURACY
750V	1V	$\pm(1.2\% \text{ of rdg} + 5D)$

RESPONSE: Average responding, calibrated in rms of a sine wave.

FREQUENCY RANGE: 45Hz ~ 450Hz

OVERLOAD PROTECTION: 1000V DC or 750V rms for all ranges.

## AC Current (Average sensing, calibrated to rms of sine wave)

Rangnge	Resolution	Accuracy (50Hz ~ 60Hz)
200A	100mA	$\pm(2.5\% + 13)$
1000A	1A	$\pm(2.5\% + 8)$ for 800A and below
		the reading is only for reference for more than 800A

Overload Protection: 1200A within 60 seconds.

Jaw Opening: 2.09" (53mm)

## Insulation Test (With option 500V insulation tester unit)

Ragnge	Resolution	Accuracy
20M $\Omega$	10K $\Omega$	$\pm(2\% + 2)$
2000M $\Omega$	1M $\Omega$	$\pm(4\% + 2)$ for 500M $\Omega$ and below
		$\pm(5\% + 2)$ for others

## RESISTANCE

RANGE	RESOLUTION	ACCURACY
200 $\Omega$	0.1 $\Omega$	$\pm(1.0\%$ of rdg +10D)
20K $\Omega$	10 $\Omega$	$\pm(1.0\%$ of rdg +4D)

MAXIMUM OPEN CIRCUIT VOLTAGE: 3V.

OVERLOAD PROTECTION: 15 seconds maximum  
250Vrms.

## OPERATING INSTRUCTIONS

### AC CURRENT MEASURE

1. Make sure that "Data Hold" Switch is no pressed.
2. Set Range Switch to the ACA 1000A range. If the display indicates one or more leading zeros. Shift to the 200A range to improve the resolution of the measurement.
3. Press the trigger to open the transformer jaws and clamp one conductor only it is impossible to make measurements when two or three conductors are clamped at the same time.
4. Display reading is flow the conductor AC current.

### INSULATION RESISTANCE TESTER

1. Set Range Switch to the insulation tester 2000M $\Omega$  range. This condition the display value is unstable that is normal.
2. The insulation tester unit V $\Omega$ -COM-EXT three banana plugs insert to clamp meter V $\Omega$ -COM-EXT three input connector.
3. Set the insulation tester unit range switch to the 2000M $\Omega$  position.
4. Use the insulation tester unit of the test leads

- connect its L-E input connect to being tested installation's (test installation's must be power off)
5. Set the insulation tester power switch to the ON position.
  6. Depress the PUSH 500V push-push switch, the 500V on red LED lamp will light. Clamp meter display reading is the insulation resistance value if the reading is below  $19\text{M}\Omega$ , change clamp meter and insulation tester unit to  $20\text{M}\Omega$  range, can be increase the accuracy.
  7. If the insulation tester unit is not use the power switch must shift to power OFF position, and the test leads must leave the E-L input connect, that can be increase battery life and prevent electrical shock hazard.

### **DC & AC VOLTAGE MEASUREMENT**

1. Connect red test lead to " $\text{V}\Omega$ " jack, Black lead to "COM" jack.
2. Set RANGE switch to desired VOLTAGE position, if the voltage to be measured is not known beforehand, set switch to the highest range and reduce it until satisfactory reading is obtained.
3. Connect test leads to device or circuit being measured.
4. Turn on power of the device or circuit being measured voltage value will appear on Digital Display along with the voltage polarity.

### **RESISTANCE MEASUREMENT**


1. Red lead to " $\text{V}\Omega$ ". Black lead to "COM".

2. RANGE switch to desired  $\Omega$  position.
3. If the resistance being measured is connected to a circuit, turn off power and discharge all capacitors before measurement.
4. Connect test leads to circuit being measured.
5. Read resistance value on Digital Display.

### **AUDIBLE CONTINUITY TEST**

1. Red lead to "V $\Omega$ ", Black lead to "COM".
2. RANGE switch to ")))" position.
3. Connect test leads to two points of circuit to be tested. If the resistance is lower than  $30\Omega \pm 20\Omega$ , the buzzer will sound.

### **BATTERY REPLACEMENT**

If " " appears in display, it indicates that the battery should be replaced.

### **ACCESSORIES**

- Operator's instruction manual
- Set of test leads
- Gift box
- 9-volt battery, NEDA 1604 6F22 type.