



MEXTECH

INSTRUCTION MANUAL

MODEL NO. M 266

**DIGITAL
CLAMP METER**

The meter is completely portable, LCD, 3-1/2 digit clamp meter with insulation test function (with option 500V insulation tester unit). Designed for use by electricians, technicians, serviceman and hobbyists who required an instrument that is accurate, reliable, and always ready for use. It is powered by a standard 9V transistor radio type battery, providing 150-200 operating hours, depending upon the type of battery and usage. It has rugged structure design, good feeling held in operator's hand and convenient use.

1. Operating Features

AC Current	0.1A to 1000A
Insulation Teat	100K Ω to 2000M Ω (With option 500V insulation tester unit)
AC Voltage	1V to 750V
DC Voltage	1V to 1000V
Resistance	100m Ω to 20k Ω
Continuity Test	50 $\pm$ 25 Ω with audio tone

The meter display is a liquid crystal assembly providing a read-ably display in all light conditions. The decimal point is automatically positioned, and the polarity sign (minus) is lighted for negative DC measurement (plus is under stood if no sign appears) so that the display is direct reading in units selected at the rotary switch. Overrange measurements are indicates by blanking all but the MSD, decimal point, and polarity sign(if negative). In addition the display includes a low battery is indication. If low battery is indicated, operator should replace the used battery with a new one.

2. Specifications

The following specifications assume a 1-year calibration cycle and an operating temperature of 18°C to 28°C (64° F to 82° F) at relative humidity up to 80% unless otherwise noted.

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

Range	Resolution	Accuracy (50Hz-60Hz)
200A	100mA	$\pm$ (2% of reading +5 digits)
1000A	1A	$\pm$ (2% of reading +5 digits) for 600A and below $\pm$ (3% of reading +5 digits) for others current.
Overload Protection:		1200A within 60 seconds.
Jaw Opening		2"(5cm)

2.2 Insultion Test (With option 500V insulation tester unit)

Range	Resolution	Accuracy
20M Ω	10K Ω	$\pm$ (2% of reading +2 digits)
2000M Ω	1M Ω	$\pm$ (4% of reading +2 digits) for 500M Ω and below $\pm$ (5% of reading +2 digits) for others

2.3 AC Voltage(Average sensing,calibrated to rms of sine wave)

Range	Resolution	Accuracy (50Hz-500Hz)
750V	1V	$\pm$ (1% of reading +4 digits)
Input impedance:		9M Ω
Overload protection:		750V AC/DC on ail ranges.

2.4 DC Voltage

Range	Resolution	Accuracy
1000V	1V	$\pm (0.8\% \text{ of reading} + 1 \text{ digit})$
Overload protection:		1000V DC/peak AC on all ranges.
Input impedance:		9M Ω

2.5 Resistance

Range	Resolution	Accuracy
200 Ω	0.1 Ω	$\pm (1\% \text{ of reading} + 3 \text{ digits})$
20K Ω	10 Ω	$\pm (1\% \text{ of reading} + 1 \text{ digit})$
Overload protection:		500V DC/rms AC on all ranges.

2.6 Continuity Test

Range	200 Ω
Buzzer sound	50 $\pm$ 25 Ω
Overload Protection:	500V DC/rms AC

2.7 Environment

Temperature	
Normal Operation	18°C–28°C (64° F–82° F)
Usable condition	0°C–50°C (32° F–122° F)
Storage	–20°C–+60°C (–30° F–140° F) battery removed and < 80% R.H.
Relative Humidity	max.80%

Frequency Measurement

Range	Accuracy	Resolution
2KHz	$\pm (1.5\% \text{ Reading} + 3 \text{ Digits})$	1Hz

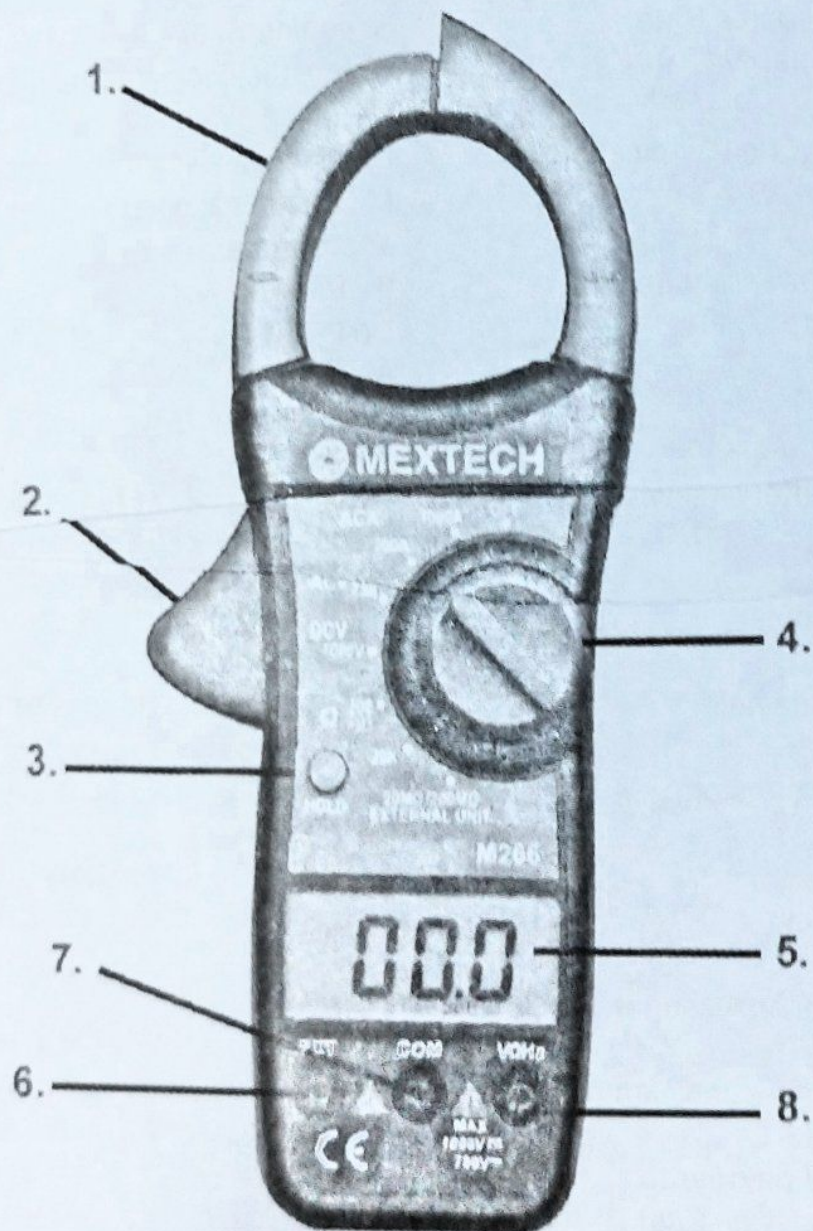
2.8 Function Characteristics

Measurement method	Dual slope integration technical.
Reading Rate	3 reading/Sec.
Polarity:	Automatic, indicated minus. assumed plus.
Overload indication:	Blanking of all digits.except MSD.decimat point and sign. appropriate.
Power requirements	9V Battery'
Battery life:	Up to 200 hours typical with Alkaline. Up to 150 hours typical with Zinc carbon.
Battery indication	Display indicates LD BAT when approximately 20% of battery life remains.
Display	LCD. 3–1/2 digit (1999 count) 0.5" high
Data hold	All Function and Ranges with this feature.
Dimension	23.5cm $\times$ 9.3cm $\times$ 3.5cm (LXWXH) Approx.290g with battery
Weight	

2.9 Accessories

Instruction manual
Test Leads
9V Zinc carbon battery
Carrying Case

3. Operation And Recalibration



1. Transformer jaws

Pick up the AC current flowing through the conductor

2. Trgger:

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, (Push 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. 1/2digit (1999). Decimal point. minus polarity. overrange and LO BAT indicators.

6. EXT Input Connector:

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

7. COM Input Connector:

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

8. V. Ω input Connector:

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

3.1 AC Current Measurement

1. Make sure that "Data Hold" switch is not pressed
2. Set Function / Range Switch to the ACA 1000 A 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

3.2 Insulation Resistance Tester:

1. Set Function / Range Switch to the insulation tester 2000M Ω range. This condition the display value is unstable that is normal.
2. The insulation tester unit V. Ω . COM EXT three banana Plugs insert to clamp meter V. Ω . COM EXT three input connector.
3. Set the insulation tester unit range switch to the 2000M Ω 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 19M Ω , change clamp meter and insulation tester unit to 20M Ω 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 increases battery life and prevent electrical shock hazard.