

## SERIES FOR:

- ☒ MT87
- ☒ DT3266



## OPERATOR'S MANUAL

### 1. Instrument Overview

This meter uses Large Scale Integration and unique function circuits. It can measure AC Voltage, DC Voltage, AC Current, DC Current, resistance, diode, frequency, temperature and fulfill audible continuity test. With the function of phase indication and identifying live-wire ( ), this clamp meter is an ideal instrument for electricians. Function and Ranges:

No	3266L MT87B	3266A	3266C	3266D	3266E	3266F MT87	3266G
RANGE	AC20A	AC20A	AC20A	DC200A	AC2A	AC20A	AC20A
	AC200A	AC200A	AC200A	AC200A	AC20A	AC200A	AC200A
	AC600A	AC600A	⚡	AC600V	AC200A	AC600A	⚡
	AC600V	⚡	↻	DC600V	AC600V	AC600V	↻
	⚡	↻	AC600V	DC20V	⚡	⚡	AC600V
	DC600V	AC600V	DC600V	↻	DC600V	DC600V	DC600V
	2KΩ	DC600V	DC20V	⚡	→ ←	→ ←	DC20V
	200KΩ	→ ←	→ ←	→ ←	•••	•••	→ ←
	2MΩ	•••	•••	•••	200KΩ	200KΩ	•••
		2KΩ	2KΩ	2KΩ	2MΩ	2MΩ	2KΩ
		2MΩ	℃	ADP			200KHz

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### 2. General Specifications

Max display: 1999, Auto polarity display  
 Measure method: double integral A/D switch implement  
 Sampling speed: 2 times per second  
 Over-load indication: "1" is displayed  
 Operating Environment: 0℃~40℃, at <80%RH  
 Storage Environment: -10℃~50℃, at <85%RH  
 Power: 2 size AAA batteries  
 Low battery indication: "BAT"  
 Static electricity: about 4mA  
 Clamp dimension: 25mm for open jaw; 35mm for inner diameter  
 Product Size: 167x55x22mm  
 Product net weight: 135g (including battery)  
 Accessories: users manual, test leads, 2 AAA batteries, phase link line (only 3266A, 3266C, 3266D, 3266G)

### 3. Technical specifications

The accuracy below is within one year after its test when leaving factory, and the temperature range is 23℃ ± 5℃, at <75% relative humidity.

#### 1)、DC&AC CURRENT

Range	Resolution	Accuracy
DC 200A	100mA	± (2.5%+10d)
AC 2A	1mA	
AC 20A	10mA	
AC 200A	100mA	
AC 600A	1A	

Note: test lead under measure should be put uprightly in the center of clamp sensor, or accuracy will be affected.

#### 2)、DC&AC VOLTAGE

Range	Resolution	Accuracy
DC 20V	10mV	± (0.8%+3d)
DC 600V	1V	± (1.0%+3d)
AC 600V	1V	± (1.2%+5d)

Input Impedance: ≥ 10MΩ

#### 3)、RESISTANCE

Range	Resolution	Accuracy
2KΩ	1Ω	± (1.0%+4d)
200KΩ	100Ω	
2MΩ	1KΩ	

Overload Protection: 250V DC/AC virtual value

#### 4)、DIODE & CONTINUITY TEST

Range	Open Circuit	Buzzer
→ ←	>2.8V	<(50 ± 20)Ω

#### 5)、PHASE INDICATION (50Hz)

Range	Phase indication	Accuracy
AC380V ± 10%	OK/Reversal/MISS	± 3%

#### 6)、LIVE WIRE TEST

Range	Live wire detect
180V~400V	LIGHT or LCD "⚡" indication

#### 7)、TEMPERATURE TEST

Range	Resolution	Accuracy
℃	1℃	± (3.0%+3d)

### 4. Measuring methods

#### 1)、Warnings and Precautions

- (1) Read the users manual carefully before using the meter.
- (2) Make sure all the circuits are disconnected before turning on the power.
- (3) Choose the right switch when checking measure function.

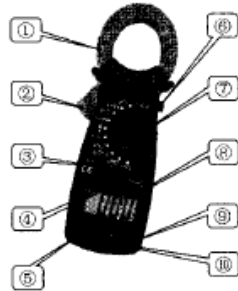
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(4) Make sure low battery indication ("E3") is not shown on LCD after the power is on.

## 2)、Panel Description

- ①. Transformer jaw
- ②. Jaw trigger
- ③. Phase/Live-Wire LED
- ④. DCA zero tuner (3266D)
- ⑤. Live wire detect terminal
- ⑥. Data hold switch
- ⑦. Function switch
- ⑧. LCD
- ⑨. VΩ terminal
- ⑩. COM terminal



## 3)、AC/DC CURRENT MEASUREMENT

- (1) Set Function range switch at AC or DC Current.
- (2) Put test leads in the center of the clamp, the value LCD displays is AC or DC Current value.
- (3) Make sure LCD shows "0" before measuring DC Current.

## 4)、DC/AC VOLTAGE MEASUREMENT

- (1) Set function switch at relevant AC/DC range
- (2) Connect the black test lead to the "COM" terminal, and the red to "VΩ"
- (3) Connect the test leads to power supply or object that is being measured
- (4) Read the value LCD shows. The polarity red test lead shows is positive.
- (5) If "-" is showed on LCD, the polarity red test lead shows is

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negative.

Note: AC Voltage doesn't have polarity.

## 5)、RESISTANCE MEASUREMENT

- (1) Set the function range switch to the Ω range
- (2) Connect the black and red test leads across the resistance under measurement, and read the display value.
- (3) If the resistance value exceeds the maximum value of the range selected, or the circuit is open, an over range indication "1" will be displayed. Then function range switch should be set to a higher range.

## 6)、LIVE WIRE TEST

- (1) Set function switch to "ζ" position.
- (2) Connect the red test lead to "ζc" terminal, and black test lead "COM".
- (3) Clasp black test lead link line, put red test lead to measured faucet. Don't brush up against the tip of test lead for your safety.
- (4) If the wire under test is live, the LIGHT on meter will light. And LCD shows faradism voltage.
- (5) If you are in dry region, please enlase black test lead to increase induction intensity.

## 7)、DIODE & CONTINUITY TEST

- (1) Set function range switch at the  $\rightarrow \rightarrow \rightarrow$  position, LCD shows "1"
- (2) When red test lead is connected to positive terminal, and black test lead to negative terminal, LCD shows approximation of positive voltage
- (3) When the resistance of measured component or loop is less

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than 30Ω, what LCD shows is resistance value. And the buzzer sounds.

## 8)、TEMPERATURE MEASUREMENT

- (1) Set the function range switch at "C" position, the temperature shown on LCD is current temperature.
- (2) Connect red and black test leads to "VΩ" and "COM" separately.
- (3) The value of the temperature is shown on the display.

## 9)、ADP Function

Set the function switch at ADP position, connect sensor or DC Voltage signal. The voltage range is 0-199.9mV, and LCD shows 0-1999.

## 10)、Data Hold

Push "HOLD" button when measuring, data will be held, and "H" signal appears. Data won't be refreshed until this button is pushed again. Then "H" will disappear, and quit the state of data hold.

## 11)、Phase detect

Set the function range switch to "↗" position. Connect red, black test and yellow leads to VΩa, COMb and ζc terminal. Two conditions will come out:

- (1). Connect as Picture 1 shows, indicator light lights, the connection is in order, that is phase "c, b, a" from left to right.
- (2). Connect as Picture 2 shows, indicator light lights, the range is "c, a, b" from left to right. If indicator light doesn't light, it indicates lack of phase.

Phase missed: If the value is less than 220V, Phase a is missed; If more than 260V, but less than 350V, Phase b is missed; When

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LCD value is about 380V, disconnect Phase a, if "ζ" symbol doesn't appear, Phase c is missed.

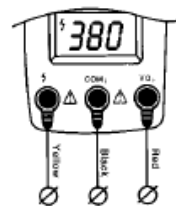


Figure 1

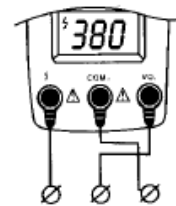


Figure 2

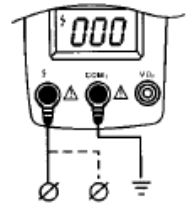


Figure 3

## 5.Maintenance

### BATTERY REPLACEMENT

If the signal "E3" appears on the display, it indicates battery should be replaced. Remove screws and open the back case, replace exhausted batteries with new ones (size AAA batteries).

### Meter inspection

- A. When measured value exceeds the range, please check whether it is caused by low battery
- B. If there is no reflection when measuring voltage or resistance, check whether test leads are connected,

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