



# ET-3888 True RMS Clamp Meter

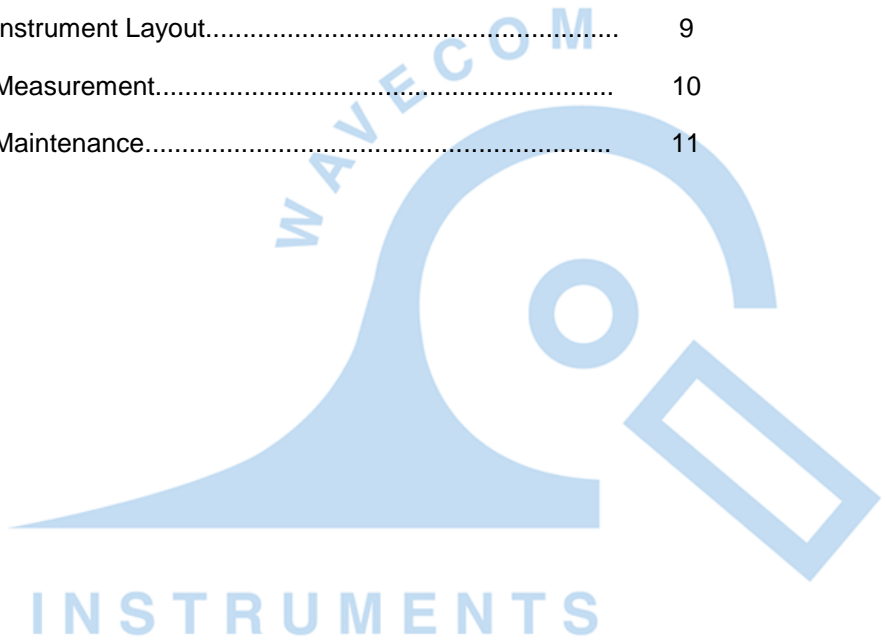
## User Manual



**Revision 2015-01**

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## 1. Introduction

This meter has been designed and tested according to CE Safety requirements for Electronic Measuring Apparatus, EN61010-1, EN61010-2-32 and other safety standards. Following all warnings to ensure safe operation.

### **WARNING**


READ "SAFETY NOTES" (PAGE 4) BEFORE USING THIS METER





## 2. Safety Notes


Read the following safety information carefully before attempting to operate or service the meter.


1. Use the meter only as specified in the manual, otherwise the protection provided by the meter may be impaired.
2. Always keep finger grip away from the meter barrier.
3. Use extreme caution when clamping around uninstalled conductors or bus bars.
4. Never clamp around any conductor carrying a voltage above 600v R.M.S.
5. Rated environmental conditions:
  1. Indoor use.
  2. Installation Category III
  3. Pollution degree I
  4. Altitude up to 2000 Meter.
  5. Relative Humidity 80% Max.
  6. Ambient Temperature 0~40°C
6. Observe the international Electrical Symbols listed below:

 Meter is protected throughout by double insulation or reinforced insulation.

 Warning! risk of electric shock.

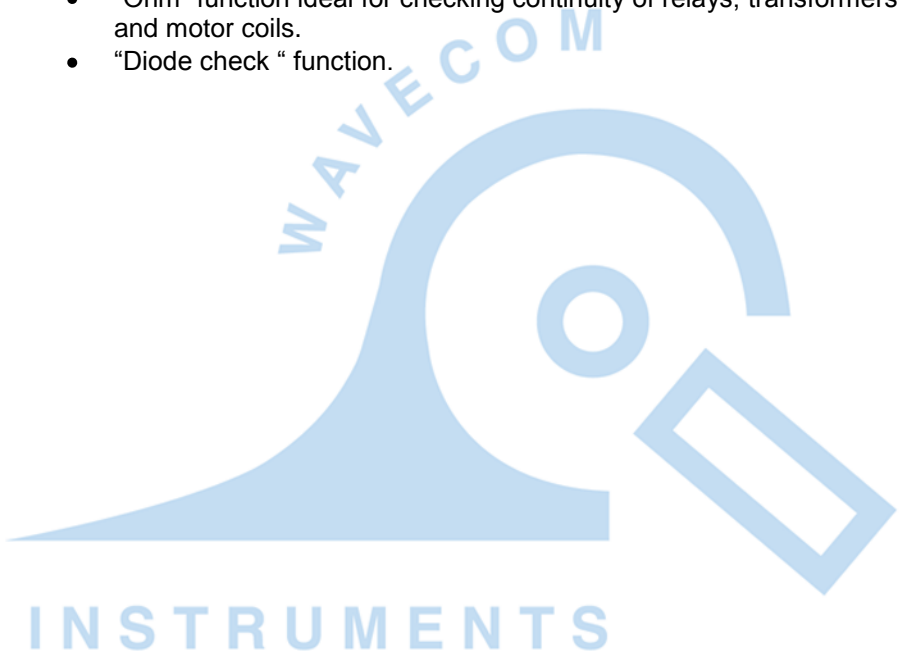
 Caution! refer to this manual before using the meter.

 Alternating current.

 Earth (ground) terminal.

### 3. Features

- This instrument provides a True RMS value.
- Full auto-range for all functions.
- “Data Hold” function freezes the reading.
- “Max Hold” function holds the absolutely maximum of readings.
- Low battery indication.
- Safety design throughout with no exposed metal parts.
- Shielded banana plugs and recessed input terminals.
- “Ohm” function ideal for checking continuity of relays, transformers and motor coils.
- “Diode check “ function.



## 4. Specifications

### Ranges (Auto)

- AC Voltage : 400.0/600 V
- AC Current : 400.0/1000 A
- DC Voltage : 400.0/600 V
- DC Current : 400.0/1000 A
- Resistance : 400.0/2000  $\Omega$
- Diode : 400.0/2000 mV at 1mA

### ACV / ACA

Range	Resolution	Accuracy
400 V	0.1 V	$\pm(1.0\%rdg+3dgt)$
600 V	1 V	
400A	0.1 A	$\pm(1.5\%rdg+3dgt)$
1000 A	1 A	

\*Frequency Response 40Hz-500Hz

### DCV / DCA

Range	Resolution	Accuracy
400V	0.1V	$\pm(0.75\%rdg+3dgt)$
600V	1V	
400A	0.1A	$\pm(1.5\%rdg+3dgt)$
1000A	1A	

### Resistance

Range	Resolution	Accuracy
400 $\Omega$	0.1 $\Omega$	$\pm(1.0\%rdg+3dgt)$
2000 $\Omega$	1 $\Omega$	

\*Audible alarm sounds below 38.0 $\Omega$

## Diode

Range	Resolution	Accuracy
400 mV	0.1 mV	$\pm(1.0\%rdg+3dgt)$
2000 mV	1 mV	

\*At 1mA current

## Overload protection

ACV	750V RMS
DCV	1000v
Diode & Ohm	600V rms

## Conductor Size

Approx. 40mm Max


## Operating Principle

Dual slope integration

## Over Range Indication

“O.L.” indicated

## Low Battery Indication

“” sign appears on the display

## Response Time

Approx. 1 second

## Sample Rate

Approx. 2 times per second

**Temperature & Humidity**

0°C ~ 40°C at 80% max. relative humidity

**Storage Temperature & Humidity**

-10°C ~ 50°C at 80% max. relative humidity

**Dimensions**

255(L) x 80(W) x 35(D) mm

**Weight**

Approx. 420g (battery included)

**Power Source**

9V (6F22) x 1

**Accessories**

Test Leads

Carrying Case

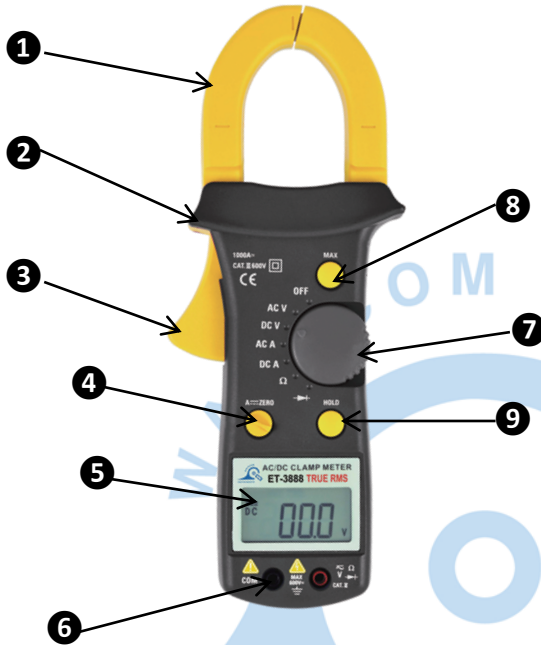
Instruction Manual

9V (6F22) x 1





## 5 Instrument Layout



<p><b>1 Transformer Jaws</b> Pick up the conductor within the jaws center.</p>	<p><b>6 Input Terminal</b></p>
<p><b>2 Barrier</b> Provide a protective distance from conductor</p>	<p><b>7 Rotary Switch</b></p>
<p><b>3 Jaw Trigger</b> Press to open the jaws</p>	<p><b>8 Max Button</b> Hold the absolute maximum reading with "MAX" indicated</p>
<p><b>4 DCA zero adjust setting</b></p>	<p><b>9 Data Hold Button</b> Freeze the reading for all ranges with "HOLD" indicated</p>
<p><b>5 LCD Display</b> 3 3/4 Digit LCD with the maximum reading of 3999</p>	

## 6 Measurement

**Before proceeding with measurement, read the safety notes.**

### 1. Voltage measurement

- Insert the BLACK test lead to COM and the RED one to the other terminal.
- Switch to AC V range for AC voltage or DC V range for DC voltage.
- Use the test lead tip to the circuit and read the reading of display directly.
- If the reading exceeds 600V, possible indicated value is incorrect and dangerous.(refer to the safety notes)

### 2. Current measurement

- Switch to AC A range for AC current or DC A for DC current.
- If the initial reading of DC A is not zero, use the DC A zero adjust to set to 000.0 Amps.
- Make sure that the test lead is not connected to the Terminal.
- Press the jaw trigger to open the transformer jaws and clamp onto one conductor only.
- Read the display reading

### 3. Ohm & Diode measurement

For Ohm test:

- Switch to OHM range and make sure there is no power in the circuit being measured.
- Insert the BLACK lead to the COM and the RED one to another.
- Connect the test leads to the circuit under test and read the display directly.

For Diode test:

- Connect the test leads to the Diode under test.
- Read the forward voltage of Diode directly from display. If connect reversely, the display shows O.L

## 7. Maintenance

### **Battery Replacement:**

When low battery warning appears, change a new battery as follows:

Disconnect the test leads from the instrument and turn off power. Unscrew the battery cover and replace a new battery.

### **Cleaning and Storage:**

**WARNING**

**To avoid electrical shock or damage to the meter, avoid water contamination on this instrument.**

Periodically wipe the case with a damp cloth and detergent. Do not use abrasives or solvents.

If the meter is not to be used for a long period over 60 days, please remove the battery for storage.

INSTRUMENTS