CENTER® 262

# Instruction Manual


CE

## MILLIAMP CLAMP METER

# Instruction Manual

MILLIAMP CLAMP METER

262-01 SEP. 2014

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## 1. ⚠ SAFETY INFORMATION

Do not operate the tester if the body of meter or the test lead look broken.
Check the main function dial and make sure it is at the correct position before each measurement.
Do not perform resistance and continuity test on a live power system.
Do not apply voltage between the test terminals and test terminal to ground that exceed the maximum limit record in this manual.
Keep the fingers after the protection ring when measuring through the test lead.
Chang the battery when the ▭+ symbol appears to avoid incorrect data.

**Environmental Conditions**

Operation Temperature: 0°C to 40°C(32°F to 104°F); < 80 % RH
Storage Temperature: -10°C to 60°C(14°F to 140°F); < 80 % RH

**Explanation Symbols**

⚠ Attention refer to operation Instructions.

Dangerous voltage may be present at terminals.

This instrument has double insulation.

**Approvals: CE EN61010 300V CAT IV**

## 2. GENERAL SPECIFICATION

**Digital Display:**
4 digital liquid crystal(LCD), Maximum reading 5000.

**Polarity:**
When a negative signal is applied, the ▬ signal appears.

**Low Battery Indication:**
When the battery is under the proper operation range, ▭+ will appear on the LCD display.

**Sample Rate:**
2 times/sec for digital data.

**Power Source:**
1.5V size AAA battery X 2
Typical battery Life: (without buzzer, backlight)
Type: 30 hours at DCA function;
60 hours at ACA and ACV function;
100 hours at DCV and Ohm function.

**Auto Power Off:**
If there is no key or dial operation for 30 minutes, the meter will power itself off to save battery consumption. This function can be disabled by press and hold the " **HOLD** " button then power the unit on

**Over Load:**
When the signal larger than the maximum will be show OL.

**Maximum jaw opening:**
∅ 23 mm

**Dimensions:**
206 x 76 x 33.5 mm

**Weight:**
262g (with battery)

**Accessories:**
Carrying case, Batteries, Test Lead & Instruction Manual.

## 3. ELECTRICAL SPECIFICATION

The accuracy specification is defined as ± ( percent of reading + digit ) At 23±5°C, ≦80 %RH.

### 3-1 Direct Voltage

| Range | Resolution | Accuracy |
|---|---|---|
| 50V / 300V | 0.01V / 0.1V | 1.0% + 2dgts |

Input impedance: 1 MΩ

### 3-2 Alternating Voltage (True RMS)

| Range | Resolution | Accuracy(40~1KHz) |
|---|---|---|
| 50V / 300V | 0.01V / 0.1V | 1.2% ± 5dgts |

Input impedance: 1 MΩ

### 3-3 Direct Current

| Range | Resolution | Accuracy |
|---|---|---|
| 300.0mA | 0.1mA | 1.0% + 10dgts |
| 3.000A | 0.001A | |
| 10.00A | 0.01A | 3.0% + 10dgts |

Influence of terrestrial magnetism: Less than ±1.0mA
Influence of CT opening and closing: Less than ±1.0mA

### 3-4 Alternating Current (True RMS)

| Range | Resolution | Accuracy(50~60Hz) |
|---|---|---|
| 300.0mA | 0.1mA | 1.0% + 5dgts |
| 3.000A | 0.001A | |
| 20.00A | 0.01A | |

### 3-5 Resistance (Ω)

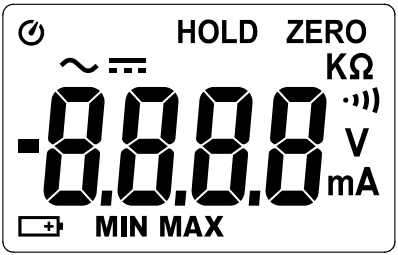
| Range | Resolution | Accuracy |
|---|---|---|
| 500 Ω | 0.1Ω | 1.0% + 2dgts |
| 5KΩ | 1Ω | |
| 50KΩ | 10Ω | |
| 500KΩ | 100Ω | |

### 3-6 Continuity

| Range | Buzzer Function |
|---|---|
| | Ohm < 100Ω |

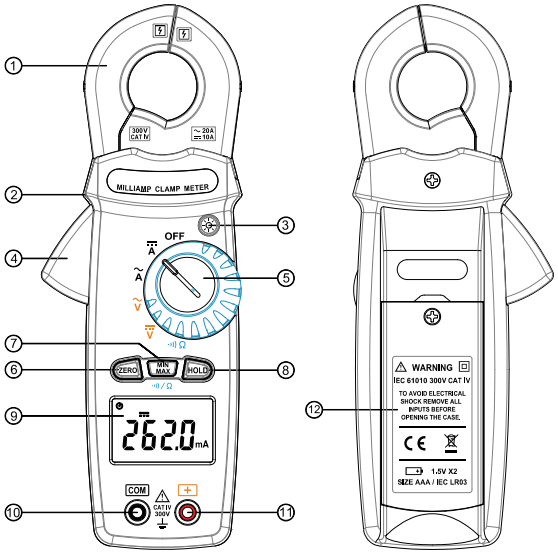
## 4. DESCRIPTION OF THE INSTRUMENT

### 4-1 Description Of The Display




| | |
|---|---|
| | Auto power off indication |
| | Polarity indication |
| | Low battery indication |
| | Alternative source indication |
| | Direct source indication |
| A | Current measurement indication |
| V | Voltage measurement indication |
| ZERO | ZERO indication |
| HOLD | Data hold indication |
| MAX | Maximum indication |
| MIN | Minimum indication |
| | Continuity test indication |
| K | Measurement unit |
| Ω | Resistance measurement indication |
| m | Measurement unit |

## 4-2 Description Of Front And Rear




① Current Sensing Clamp
② Safety protection ring
③ Backlight button
④ Clamp opening handle
⑤ Function select dial
⑥ ZERO button
⑦ Max/Min button
⑧ Data hold button
⑨ LCD display
⑩ COM input terminal
⑪ Positive input terminal
⑫ Battery cabinet

## 5. BUTTON INSTRUCTION

### 5-1 HOLD Function

It is possible to freeze the value displayed by pressing on the "**HOLD**" button.

Press the "**HOLD**" button again to exit the Hold mode.

### 5-2 MAX/MIN Function

When the "MAX/MIN" button is pressed, the meter enter MAX/MIN mode.

Press the button, to read MAX, MIN sequence. Press the button for 1 sec. or more to exit the MAX/MIN mode.

When you turn the rotary switch on the Continuity Test.

Press the "**MAX/MIN**" button to select Resistance measurement, press the "**MAX/MIN**" button again to select continuity test with buzzer.

### 5-3 ZERO Function

Press "**ZERO**" button to enter the Zero mode, **ZERO** Annunciate will appear and Zero the display. The reading is stored as reference value for subsequent measurement.

Press the " **ZERO** " button again, to exit the zero mode.

### 5-4 BACKLIGHT Function

When the "☼" button is pressed, the backlight will be turned on.

To disable the function, the button is pressed again. The backlight will be automatically turned off about 30 seconds after it turned on.

## 6. MEASURING INSTRUCTION

### 6-1 ACA Measurement：

With the clamp disconnected from any conductor, switch the function selector to $\tilde{A}$ range.

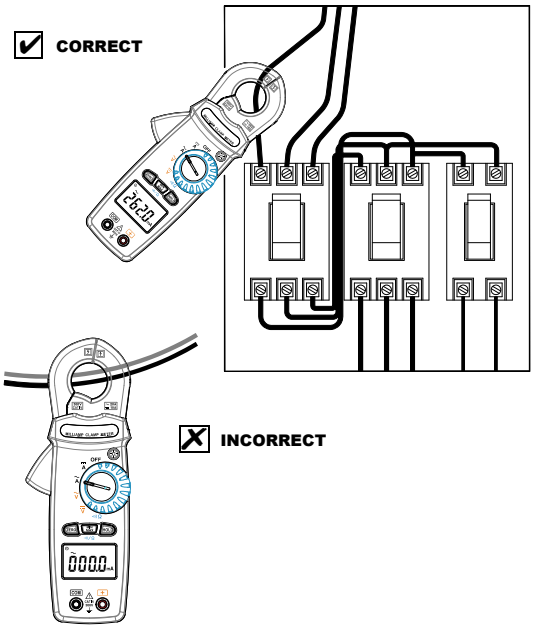
Open the clamp by pressing the jaw-opening handle and insert the Cable to be measured into the jaw.

Close the clamp and get the reading from the LCD panel.

**Note:**

Before this measurement, disconnect any test lead with the meter for safety.

In some cases where reading is difficult, press the HOLD button and read the result later.



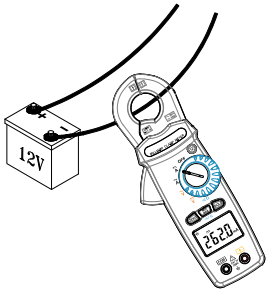
**6.2 DCA measurement:**

With the clamp disconnected from any conductor, switch the function selector to $\overline{\underline{\mathrm{A}}}$ range.

Press "**ZERO**" button to enter the zero reading.

Open the clamp by pressing the jaw-opening handle and insert the cable to be

measured into the jaw. Close the clamp and get the reading from the LCD panel.




**Note:**

Before this measurement, disconnect any test lead from the meter for safety.

In some cases where reading is difficult, press the "**HOLD**" button and read the result later.

**6-3 ACV Measurement：**

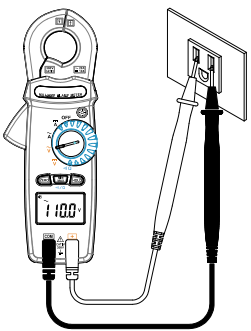
> ⚠ **WARNING!**
>
> Maximum Input Voltage is 300V AC/DC. Do not attempt to Take any voltage measurement that may exceed this maximum to avoid Electrical shock hazard and/or damage to this instrument.

Switch the main function selector to $\widetilde{\mathrm{V}}$ range.

Connect red test lead to "+" terminal and black one to the "COM" terminal.

Measure the voltage by touch the test lead tips to the test circuit where the value of voltage is needed.

Read the result from the LCD panel.



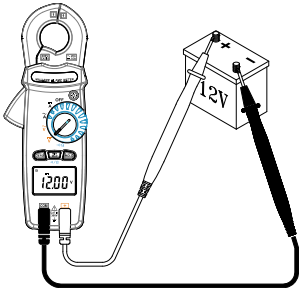
**6-4 DCV Measurement：**

Switch the main function selector to $\overline{\overline{\mathbf{V}}}$ range.

Connect red test lead to "+" terminal and black one to the "COM" terminal.

Measure the voltage by touch the test lead tips to the test circuit where the value of voltage is needed.

Read the result from the LCD panel.



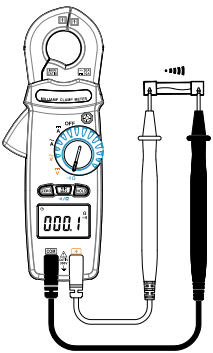

**6-5 Continuity Test With Buzzer：**

Switch the main function to $\bullet))\Omega$ range.

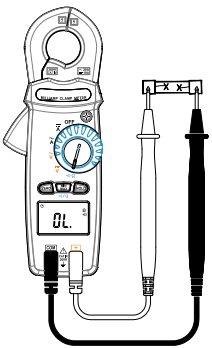
Connect red test lead to "+" terminal and black one to the "COM" terminal.

Connect tip of the test leads to the points where the conduction condition needed.

If the resistance is under 100Ω, the beeper will sound continuously.



**Short circuit**



**Open circuit**

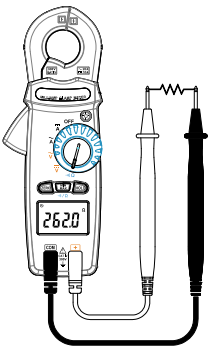
### 6-6 Resistance Measurement

Switch the main function to •ıı)) Ω range.

Connect red test lead to "+" terminal and black one to the "COM" terminal.

Connect tip of the test leads to the points where the value of the resistance is needed.

Read the result from the LCD panel.




**Note：**

When take resistance value from a circuit system, make sure the power is cut off and all capacitors need to be discharged.

## 7. BATTERY CHANGING

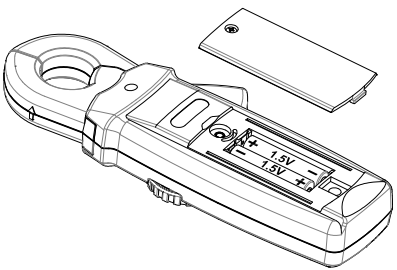
When the battery voltage drop below proper operation range the symbol will appear on the LCD display and the battery needs to be changed.

Before changing the battery, switch the main dial to "OFF "and disconnect test leads.

Open the back cover by a screwdriver.

Replace the old batteries with two new 1.5V(AAA Size) battery.

Close the back cover and fasten the screw.



## 8. MAINTENANCE

**⚠ WARNING!**

Before open the meter, disconnect both test lead and never uses the meter before the cover is closed.

**CAUTION!**

To avoid contamination or static damage, do not touch the circuit board without proper static protection.

### 8-1 REMARK:

- If the meter is not going to be used for a long time, take out the battery and do not store the meter in high temperature or high humidity environment.
- When take current measurement, keep the cable at the center of the clamp will get more accurate test result.
- Repairs or servicing not covered in this manual should be performed only by qualified personal.

### 8-2 CLEANING:

Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on these instruments.

MEMO:

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MEMO:

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