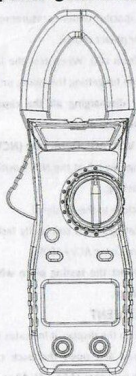


MINI DIGITAL CLAMP-ON MULTIMETER

Operating instruction



Input Impedance: more than 10M Ω ; Frequency Range: 40 to 400Hz.

6-2. DC VOLTAGE

Range	Resolution	Accuracy
20V	10mV	$\pm(1.0\% + 5d)$
600V	1V	

Input Impedance: more than 10M Ω

6-3. RESISTANCE

Range	Resolution	Accuracy
200k Ω	100 Ω	$\pm(1.0\% + 3d)$
20M Ω	10k Ω	$\pm(1.2\% + 5d)$

6-4. AC CURRENT

Range	Resolution	Accuracy
2A (only 6233)	0.001A	$\pm(2.5\% + 3d)$
20A (only 78A)	0.01A	$\pm(2.5\% + 3d)$
200A	0.1A	$\pm(2.5\% + 3d)$
500A	1A	$\pm(3.5\% + 5d)$

Measuring voltage drop: 200mV; Frequency Range: 40 to 400Hz.

6-5. CAPACITANCE

Range	Resolution	Accuracy
200uF	100nF	$\pm(3\% + 10d)$

6-6. Non-Contact AC VOLTAGE Detection(NCV)(only 6233)

One Special Front LED Lighting for indication of over AC100V source without directly contact.

7. CONTROL BUTTON DESCRIPTION

OPERATION MANUAL

1. SAFETY INFORMATION

This Mini-sized digital clamp multimeter has been designed according to IEC61010 oncoming electronic measuring instruments with an over voltage category (CAT II 600V) and Pollution degree 2.

⚠ WARNING

To avoid possible electric shock or personal injury, follow these guidelines:

- Do not use the meter if it is damaged. Before you use the meter, inspect the case. Pay particular attention to the insulation surrounding the connectors.
- Inspect the test leads for damaged insulation or exposed metal. Check the test leads for continuity. Replace damaged test leads before you use the meter.
- Do not use the meter if it operates abnormally. Protection may be impaired. When in doubt, have the meter serviced.
- Do not operate the meter around explosive gas, vapor, or dust.
- Do not apply more than the rated voltage, as marked on the meter, between terminals or between any terminal and earth ground.
- Before use, verify the meter's operation by measuring a known voltage.
- When measuring current, turn off circuit power before connecting the meter in the circuit.
- When servicing the meter, use only specified replacement parts. Use with caution when working above 30V ac rms, 42V peak, or 60 dc. Such voltages pose a shock hazard.
- When using the probes, keep your fingers behind the finger guards on the probes.
- Connect the common test lead before you connect the live test lead. When you disconnect test leads, disconnect the live test lead first.
- Remove the test leads from the meter before you open the battery door.
- Do not operate the meter with the battery door or portions of the cover removed or loosened.
- To avoid false readings, which could lead to possible electric shock

or personal injury, replace the batteries as soon as the low battery indicator ("E3") appears.

- CAT II - Measurement Category II is for measurements performed on circuits directly connected to low voltage installation. (Examples are measurements on household appliances, portable tools and similar equipments.) Do not use the meter for measurements within Measurement Categories II or IV.

2. INTRODUCTION

This manual provides all safety information, operation instruction, specifications and maintenance for the meter, which is compact, handheld, and battery operated.

This instrument performs AC/DC voltage, DC/AC Current, Resistance, Audible Continuity, Diode, Temperature measurements and Non-Contact ACV Detect (NCV) as well as Capacitance, Hz etc. It is an auto ranging DMM with AC/DC current clamp meter function.

3. CAUTION ⚠

To avoid damage to the meter, don't apply input which exceeds the limit shown below:

Function	Input Limits
DCV/ACV	600V DC or 600V rms AC
Ω \leftrightarrow ∇ ∇	250V DC or rms AC

4. GENERAL CHARACTERISTICS

Display	3 1/2 Digit, updates 2/sec.
Polarity Indication	"-" displayed automatically
Over-range Indication	"OL" displayed
Low Battery Indication	"E3" displayed
Operation Temperature	0°C to 40°C, less than 75%RH
Storage Temperature	-10°C to 50°C, less than 80%RH
Battery Type	(AAA size) 1.5Vx2PCS
Dimension(HxWxD)	183x65x32mm with Jaw Open ϕ 24mm

NOTE:

- For resistance above 2 M Ω or 4M Ω , the meter may take a few seconds to stabilize reading. This is normal for high resistance measuring.

- When the input is not connected, i.e. at open circuit, the figure "OL" will be displayed under over-range condition.

- When check in circuit resistance, be sure the circuit under test, has all power removed and all capacitors are fully discharged.

8-3. AC CURRENT MEASUREMENT

- Set Function/Range Switch to the AC range(s).
- 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.
- Display reading is showing the conductor AC current.

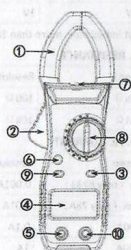
8-4. AUDIBLE CONTINUITY/DIODE TEST

- Connect the BLACK test lead to the COM jack and the RED to the V/ Ω jack.
- Set the function switch at ∇ position and push the button "SELECT" to select continuity or diode test mode. Then the symbol " ∇ " or " ∇ " is shown on LCD.
- In continuity test, if the circuit resistance under test is lower than 50 Ω , built-in buzzer will sound.
- If diode test mode is selected, connect the RED and BLACK test leads to anode and cathodes of the diode under test separately. The

Weight	Approx 133g
Accessories	Operator's Manual, Battery, Test LeadsK-Type

5. PANEL DESCRIPTION

- Transformer jaw
- Clamp trigger
- LED floodlight and value hold buttons
- LCD Display
- COM Input Terminal
- NCV LED Indication
- floodlight
- Function rotated switch
- Function Select button
- V, Ω , ∇ Input Terminal



6. SPECIFICATIONS

Accuracy is guaranteed for 1 year 23°C \pm 5°C less than 75%RH

6-1. AC VOLTAGE

Range	Resolution	Accuracy
20V	10mV	$\pm(1.5\% + 5d)$
600V	1V	

forward voltage drop of diode will be displayed.

8-5. CAPACITANCE MEASUREMENT

- Connect the BLACK test lead to the COM jack and the RED test lead to the V/ Ω jack. (Note: The polarity of the RED test lead is "+")
- Put the range selector at "200uF" position, and connect the test leads across the Capacitor under measurement. Disconnect the capacitor with the outer power source.
- Take the reading from LCD. When test the large capacitor, it's normal to take more time for getting the values on LCD.

NOTE: Make sure of discharging all the capacitor's electricity completely before measurements.

8-6. Non-Contact AC VOLTAGE Detection (NCV)(only 6233)

- Set the function range switch at the NCV position. Then the NCV indicating LED light is flashing.
- Take the clamp jaw close to the AC signal.
- Then the NCV indicating LED is constantly flash and the Beeper sounding at the same time. once ACV > 100V.

NOTE: Don't try to contact the testing place with this tester. No display on LCD at this range.

9. BATTERY REPLACEMENT

If the sign "E3" appears on the display, it indicates battery should be replaced. Remove screws and open the back case, replace the exhausted batteries with new ones (AAA 1.5V *2pc or equivalent).