1. Features
- Designed to meet international safety standards.
- Double molded main body provides comfortable single hand grip.
- Data Hold Function
- LCD Backlight function to facilitate working at dimly lit situations.
- REL function to indicate measurement variation.
- (Current, voltage, Resistance measurement)
- MIN/MAX function enables easy reading of min & max value of measurement.
- With Continuity & Diode Check Function
- (VOC, Non Contact Voltage) Function for wiring checking.
- 600V Input protection.
- Auto power off to extend battery life.
- With Bar Graph, 9003 counts

2. Safety Warnings
This manual has been been designed, manufactured and tested according to IEC 61010. Safety requirements for Electronic Measuring apparatus, and delivered in the box. The user is responsible for the proper use of the equipment. This instruction manual contains warnings and safety notes which must be observed by the user to ensure safe operation of the instrument and retain it in safe condition.
Therefore, read through these operating instructions before using the instrument.

WARNING
Read and understand the instructions contained in this manual before using the instrument.
Keep the manual at hand to enable quick reference whenever necessary.
The product is power supplied by its internal batteries, and in the event of a failure, the instrument may no longer indicate failure. The user must refer to the service notes contained in this instrument and take into account the instrument's intended use.

WARNING
This symbol indicated on the instrument means that the user should not attempt to remove, replace or disassemble the parts in the manual for safe operation of the instrument. It is essential to read the instructions where the symbol appears in the manual.

WARNING
This symbol is reserved for conditions and actions that are likely to cause personal injury or hazard to the user.

CAUTION
This symbol is reserved for conditions and actions that can cause personal injury or damage.

3. Specification
3.1. Measuring range & accuracy (accuracy guaranteed at 23°C ±5°C humidity 45~85%RH)

<table>
<thead>
<tr>
<th>Range</th>
<th>Measuring Range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>600A</td>
<td>0-600.0A</td>
<td>±1.5%rdg + 5dgt (500A) ±2.5%rdg + 5dgt (40-400A)</td>
</tr>
<tr>
<td>1000A</td>
<td>0-1000A</td>
<td>±1.5%rdg + 5dgt</td>
</tr>
<tr>
<td>DC Current</td>
<td>Voltage Function</td>
<td>Accuracy</td>
</tr>
<tr>
<td>600000A</td>
<td>600-60000V</td>
<td>±1.5%rdg + 5dgt (1000V) ±2%rdg + 5dgt (40-400A)</td>
</tr>
<tr>
<td>DC Voltage</td>
<td>Voltage Function</td>
<td>Accuracy</td>
</tr>
<tr>
<td>600000A</td>
<td>600-60000V</td>
<td>±1.5%rdg + 5dgt</td>
</tr>
</tbody>
</table>

4. Preparation for measurement
4.1. Checking Battery Voltage
Set the Function Switch to any position other than OFF. When the display is clear without "BATT" mark, showing battery voltage is enough. When the display is blank or "BATT" mark is indicated, replace the batteries according to Section 7, Battery Replacement.

5. Measurement
5.1. AC Current Measurement
- Never make a measurement on a circuit in which voltage over AC600V exists to avoid getting electric shock.
- Transformer jaw tips are designed not to short the circuit under test. If equipment under test has exposed conductive parts, extra precaution should be taken to minimize the possibility of personal injury.
- Do not make measurement with the Battery Cover open.
- Disconnect the test leads from the instrument for current measurement.
- Keep your fingers and hands behind the protective finger guard during measurement.

5.2. DC Current Measurement
- Never make a measurement on a circuit in which voltage over DC600V exists to avoid getting electric shock.
- Do not make measurement with the Battery Cover open.
- Keep your fingers and hands behind the protective finger guard during measurement.
- You may damage the external circuit when using the test lead if the outer jacket is damaged and the inner metal or color jacket is exposed.

CAUTION
- Set the Function Switch to an appropriate position before starting measurement.
- Firmly insert the test leads.
- Do not expose the instrument to the direct sun, high temperature and humidity.
- Do not do more than 200mm or less. Appropriate operational temperature is within 0°C~40°C.
- This instrument must not be water proofed. Keep dry.
- Be sure to power off the instrument after use. When the instrument will not be in use for a long period of time, store it in the storage part of the batteries.
- Use both dipped in water or neutral detergent for cleaning the instrument. Do not use abrasives or solvents.

Measurement Category
To ensure safe operation of measuring instruments, IEC61010 establishes safety standards for various electrical environments, categorized as O to CAT IV, and measurement classes. Higher-numbered categories correspond to equipment with greater magnetic moment, a more severe measurement designed for CAT IV measurements can ensure greater magnetic moment than the one classified as CAT I.

- CAT I: Circuits which are not directly connected to the mains power supply.
- CAT II: Electrical circuits of equipment connected to an AC electrical net by a power cord.
- CAT III: Primary electrical circuits of the power supply connected directly to the distribution panel, and feeders from the distribution panel to outlets.
- CAT IV: Circuits from the service drop to the service entrance, and to the power meter and other protection device (distribution panel).

DANGER
CAUTION
DANGER
CAUTION
DANGER
CAUTION
DANGER
6-5. ZERO Function

- Never make measurement on a circuit in which voltage over 600V exists to avoid getting electrical shock.
- Do not make measurement with the Battery Cover removed.
- Keep your fingers behind the protective jigguard on the instrument during measurement.

(1) Set the Function Switch to “ACV” position.
(2) Connect the red test lead to V/O terminal and the black test lead to COM terminal.
(3) Disconnect the test leads to the circuit under test.
(4) Take the reading on the display.

6-6. Over-flow indication

- Keep your fingers behind the protective jigguard on the instrument during measurement.

(1) Set the Function Switch to “ACV” position.
(2) Connect the red test lead to V/O terminal and the black test lead to COM terminal.
(3) Disconnect the test leads from the circuit under test.
(4) Take the reading on the display.

5.4. DC Voltage Measurement

- Never use the instrument on an energized circuit.
- Do not make measurement with the Battery Cover removed.
- Keep your fingers behind the protective jigguard on the instrument during measurement.

(1) Set the Function Switch to “DCV” position.
(2) Connect the red test lead to V/O terminal and the black test lead to COM terminal.
(3) Disconnect the test leads from the circuit under test.
(4) Take the reading on the display.

5.5. Resistance/Cont/ Diode Measurement

- Zero Adjustment Function at Current Range “A” mark is to be indicated at the upper right on the display while ZERO function is being operated.
- Set the Function Switch to “AC/DC Current Range” position.

(1) Set the Function Switch to “AC/DC Current Range” position.
(2) 600A & 1000A Function enables min or max value measurement.
(3) Press the MIN/MAX key to select MAX or MIN. The max or min value within measuring range is being held until this function is disabled. “MIN” or “MAX” is indicated on the display while this function is being activated.
(4) To disable this function, press the MIN/MAX key at least 2 sec or change functions.

5.4. AC Voltage Measurement

- Press the MIN/MAX key without applying voltage enables the Auto-ranging function and shows the Range to 6V. Connect the test leads to the circuit under test and press the MIN/MAX key after an appropriate range is selected by Auto-ranging function.

(1) Set the Function Switch to “ACV” position.
(2) Disconnect the test leads to the circuit under test.
(3) Take the reading on the display.

6.2. HOLD Key

- Data Hold Function

This is a function to freeze the measured value on the display. Press the “HOLD” key to freeze the reading.

The reading will be held regardless of subsequent variation in input. ‘H’ is indicated on the upper left corner of the display while the instrument is in the Data Hold mode. To exit Data Hold mode, press the “HOLD” key again.

6.3. NCV Function

Red LED on the upper panel on the Panel lights up at all functions except for OFF when electric field exceeding 100V is detected by the sensor installed in the Jaw.

It indicates a presence of voltage in an electrical circuit or equipment without touching them.

NCV Sensor can detect electrical field only from the direction indicated in the right figure.

Put the fixed element (left side) closer to the conductor under test. Detection against in-wall outlet is impossible.