1. Safety Warnings

WARNING:
- Read through and understand the instructions contained in this manual before using the instrument.
- Keep the manual at hand to enable quick reference whenever necessary.
- The instrument is to be used only by its intended users.
- Understand and follow all the safety instructions contained in the manual.
- It is essential that the above instructions are adhered to. Failure to follow the above instructions may impair the protection provided by the instrument and test leads, and may cause injury to test person and damage and/or damage to equipment under test.

The symbol indicates what is shown in the manual. The user must refer to the related parts in the manual for safe operation of the instrument. It is essential to read the instructions where the symbol appears.

DANGER:
- You are not recommended to use the instrument to perform the measurement. The test lead shows some digits at the ACV and the DCV ranges even while the test leads are open. In addition, the LCD shows some digits instead of 0 when short-circuiting the test leads. However, these phenomena do not affect measurement results.
- A resistance measurement takes time to settle the reading if there are high resistance or capacitance components.

2. Specification

Temperature: 23 ± 5°C, Humidity: 45 - 75%

3. ACA Measurement

The instrument is designed for CAT IV 300V / CAT III 500V with the supplied test leads.
- CAT II Primary electrical circuits of equipment connected to an AC electrical outlet by a power cord.
- CAT III Primary electrical circuits of equipment connected to the distribution panel.
- CAT IV from the object under test with the instrument connected to the distribution panel.
- CAT IV / CAT III 500V Consult the user’s manual or instructions for more information.

4. AC/DCV Measurement

- Never change instruments under the circumstances exceed the designated measurement category and the voltage range of the instrument and test leads. Do not attempt to make measurement in the presence of flammable gasses. Otherwise, the instrument may cause sparking, which can lead to an explosion.
- Never attempt to use the instrument if its surface or your hand is wet.
- Do not exceed the maximum allowable input of any measuring range.
- Never open the battery cover during a measurement.
- To avoid electrical shock by touching the instrument under test or its surroundings, be sure to wear insulated protective gear.
- Never measure current while the test leads are inserted into the input terminals.
- Test leads cause the voltage measurements shall be rated as appropriate for Measurement Category III or IV according to IEC 61010-031 and shall have a voltage rating of 500V or higher.
- Barriers on the instrument body and the test leads provide protection to keep your fingers and hands from touching an object under test or its surroundings.
- Keep your fingers and hands behind the barrier during measurement.

5. Resistance/Continuity Measurement

- Never attempt to make measurement if any abnormal conditions, such as broken case and exposed metal parts are found on the instrument or test leads.
- Verify proper operation on a known source before take use or action as the indication of the instrument.
- Firmly attach the test leads to the test points. This instrument isn’t water proofed. Keep away from water.
- Do not pull out test leads to prevent the risk of damage.
- Power off the instrument after use. Remove batteries if the instrument is not to be stored or will not be in use for a long period.
- Do not expose the instrument to the direct sunlight, high temperature and humidity or dew. Use a cloth dipped in water or neutral detergent for cleaning the instrument. Do not use abrasives or solvents.

6. Other Functions

- NCV Function: Red for NCV lights up at All functions except for OFF when an electric field exceeding AC70V is detected by the sensor. The LCD shows “NCV” mark when the test lead is in contact with the target under test. It indicates a presence of voltage in an electrical circuit or equipment withstanding Beyond the Rated Voltage.
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- Low battery indication: The LCD shows “-” mark when the batteries fall below the normal operating voltage. Replace the batteries when a Low Battery indication appears.

7. Battery Replacement

- Do not mix old and new batteries.
- Use batteries in correct polarity as indicated in the Battery compartment.
- Replace the batteries observing correct polarity. Use new batteries if 1.5V batteries. (40-1kHz)
- Install the Battery Compartment Cover and tighten the screws.

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