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› SNAKOL Digital AC Leakage Clamp Meter SK-2060 User Manual

**SNAKOL SK-2060**

# SNAKOL Digital AC Leakage Clamp Meter SK-2060 User Manual

Model: SK-2060 | Brand: SNAKOL

## 1. INTRODUCTION

This manual provides detailed instructions for the safe and effective operation of the SNAKOL Digital AC Leakage Clamp Meter, model SK-2060. This device is designed for precise measurement of AC leakage currents and small AC currents in electrical circuits.



Figure 1: The SNAKOL SK-2060 Digital AC Leakage Clamp Meter, shown with its protective carrying case.

## 2. SAFETY INFORMATION

**WARNING: To avoid electric shock or personal injury, please read and understand all safety information before using this meter.**

- Always inspect the meter for damage before use. Do not use if damaged.
- Do not apply more than the rated voltage, as marked on the meter, between the terminals or between any terminal and ground.
- Use caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Keep fingers behind the finger guards on the clamp jaws during measurement.
- Do not operate the meter around explosive gas, vapor, or dust.
- Ensure the battery cover is securely closed before operation.
- Replace batteries immediately when the low battery indicator appears.

## 3. PRODUCT FEATURES AND COMPONENTS

The SNAKOL SK-2060 is a compact and precise digital clamp meter. Key features include:

- High precision 0.01mA resolution for micro current measurement.
- Maximum current measurement up to 60A.
- 1999 counts display.
- Automatic and manual ranging capabilities.
- Data Hold function to freeze readings.
- Automatic power-off to conserve battery life.
- Compact and portable design (17.02 x 6.1 x 2.69 cm, 136g).
- 30mm (1.2 inch) jaw opening for various wire sizes.



Figure 2: The 30mm current jaws allow for non-contact measurement on various wire types.



Figure 3: Key operational features of the SK-2060, including automatic shutdown and data retention.

## 4. SETUP

### 4.1 Battery Installation

The meter requires two 1.5V AAA batteries for operation. Follow these steps to install or replace batteries:

1. Ensure the meter is powered off.
2. Locate the battery compartment on the back of the meter.
3. Use a screwdriver to open the battery compartment cover.
4. Insert two 1.5V AAA batteries, observing the correct polarity (+ and -) as indicated inside the compartment.
5. Replace the battery compartment cover and secure it with the screw.

# Two #7 batteries are easy to change



Figure 4: Proper installation of two 1.5V AAA batteries into the meter's battery compartment.

## 5. OPERATING INSTRUCTIONS

### 5.1 Power On/Off

Press the **POWER** button to turn the meter on. The meter will automatically enter auto-ranging mode. To turn off the meter, press and hold the **POWER** button, or it will automatically power off after a period of inactivity.

### 5.2 AC Leakage Current Measurement

The SK-2060 is specifically designed for measuring micro AC leakage currents. Follow these procedures:

#### A. Detecting Leakage Current on the Grounding Line:

Open the clamp trigger and clamp the meter around the grounding line only. The LCD will display the value of the leakage current on the grounding line.

#### B. Detecting Leakage Current of Unbalanced Work Power Line:

Open the clamp trigger. For a single-phase alternating current (AC) system, clamp the power line and the neutral line together (Figure 5, Diagram 1). For a three-phase three-wire system, clamp all three phase lines together (Figure 5, Diagram 2). For a three-phase four-wire system, clamp all three phase lines and the neutral line together (Figure 5, Diagram 3). If there is a ground wire, it cannot be clamped

together with the working power lines.

*Note: Many factories and companies use a three-phase five-wire system. In addition to the three phase wires, there is a working zero line and a protective zero line (grounding). For leakage current inspection, the grounding line must be clamped individually and not together with the four working power lines.*

## AC Leakage Current Measurement

A. Detect leakage current on the grounding line: open the trigger, clamp the clamp on the ground line, and then view the reading displayed on the LCD, that is, the value of the leakage current on the ground line (as shown in Figure 1)

B. Detect leakage current of unbalanced work power line: open the trigger, the clamp will clamp the power line, single-phase alternating current "two" (Figure 1); three-phase three-wire system "three" (Figure 2); three-phase four-wire system "four" (Figure 3), if there is a ground wire, can not be clamped together with the ground wire into the clamp.

Note: Now many factories or companies use three-phase five-wire system, in addition to the three phase wires, there is a working zero line and a protective zero line (grounding), in the inspection of leakage current, the grounding line to be detected individually, can not be clamped together with the four working power lines at the same time in the clamp clamp.

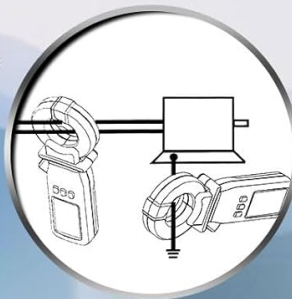


图 1

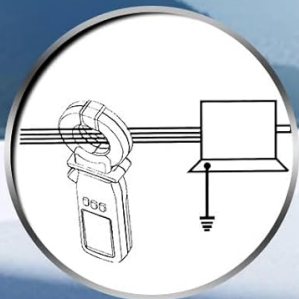


图 3

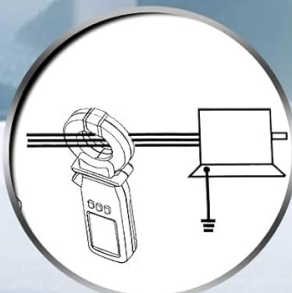


图 2



Figure 5: Measurement methods for AC leakage current on different power line configurations.



**Measuring range:  
0.05mA~60A**

Figure 6: The SK-2060 in use, measuring current in an electrical panel.

### 5.3 Data Hold Function

Press the **HOLD** button to freeze the current reading on the display. Press it again to release the hold and resume live measurements.

### 5.4 Range Selection (Auto/Manual)

The meter defaults to auto-ranging. To switch to manual ranging, press the **RANGE** button. Each press will cycle through available ranges. To return to auto-ranging, press and hold the **RANGE** button.

### 5.5 Automatic Power Off

To conserve battery life, the meter will automatically power off after approximately 15 minutes of inactivity. To disable this feature temporarily, press and hold the **HOLD** button while turning the meter on. The auto power-off function will be re-enabled the next time the meter is powered on normally.

## 6. MAINTENANCE

### 6.1 Cleaning

Wipe the meter with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the meter is completely dry before storage or use.

## 6.2 Battery Replacement

Refer to Section 4.1 for battery installation and replacement instructions. Always use two new 1.5V AAA batteries. Remove batteries if the meter is not used for an extended period to prevent leakage.

## 6.3 Storage

Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures. Use the provided carrying case for protection.

## 7. TROUBLESHOOTING

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- **No Display / Faint Display:** Check battery installation and replace batteries if necessary. Ensure the meter is powered on.
- **Inaccurate Readings:** Ensure the wire is properly centered within the clamp jaws. Verify the correct measurement mode and range are selected. Check for external electromagnetic interference.
- **Meter Does Not Turn On:** Ensure batteries are correctly installed and have sufficient charge.

## 8. SPECIFICATIONS

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The following table details the technical specifications of the SNAKOL SK-2060 Digital AC Leakage Clamp Meter:



Figure 7: Detailed technical specifications for the SK-2060.

### SNAKOL SK-2060 Technical Specifications

Parameter	Value
Measurement Type	AC Leakage Current, AC Current
Current Range	0.05mA to 60A
Resolution	0.01mA (for 20mA range)
Accuracy (50/60Hz)	$\pm(1.5\%+5)$ for 20mA, 200mA, 2A ranges; $\pm(1.5\%+10)$ for 20A, 60A ranges
Maximum Display	1999 Counts
Jaw Opening Size	30mm (1.2 inches)
Ranging	Auto / Manual
Data Retention	Yes (Data Hold)

Parameter	Value
Automatic Shutdown	Yes (after approx. 15 minutes of inactivity)
Power Source	2 x 1.5V AAA Batteries
Product Dimensions (L x W x H)	17.02 x 6.1 x 2.69 cm (6.7 x 2.4 x 1 inches)
Item Weight	136 g (0.3 lb)
Certifications	CE, FCC, RoHS

## 9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official SNAKOL website. Keep your purchase receipt as proof of purchase.