

5A MICROOHM METER



INSTRUCTION MANUAL

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1. INTRODUCTION

NOTE

This meter has been designed and tested According to CE Safety Requirements for Electronic Measuring Apparatus, IEC / EN 61010-1 and other safety standards. Follow all warnings to ensure safe operation.

WARNING

READ "SAFETY NOTES" (NEXT PAGE) BEFORE USING THE METER.

CAT IV - Is for measurements performed at the source of the low-voltage installation.

CAT III - Is for measurements performed in the building Installation.

CAT II - Is for measurements performed on circuits directly connected to the low-voltage installation.

2. SAFETY NOTES

- Read the following safety information carefully
Before attempting to operate or service the meter.
- Use the meter only as specified in this manual.
Otherwise, the protection provided by the meter
may be impaired.
- Rated environmental conditions :
 - (1) Indoor Use.
 - (2) Installation Category III.
 - (2) Pollution Degree 2.
 - (3) Altitude up to 2000 meters.
 - (4) Relative humidity 80% max.
 - (5) Ambient temperature 0~40°C.
- Observe the International Electrical Symbols listed
below :



Meter is protected throughout by double
insulation or reinforced insulation.



Warning ! Risk of electric shock.



Caution ! Refer to this manual before using
the meter.

3. FEATURES

- Maximum testing current of 5A.
- Ranges:

| | |
|------------------------------------|-------|
| 2000 $\mu\Omega$ / 20.00m Ω | 5A |
| 20.00m Ω / 200.0m Ω | 1A |
| 2.000 Ω / 20.00 Ω | 100mA |
| 200.0 Ω | 10mA |
- Maximum resolution of 1 $\mu\Omega$ at 5A.
- Four terminal measurement.
- 4 Lines \times 20 Characters LCD.
- Memory function(200 measurement results).
- Auto power off.
- Low battery indication.
- Power source: 1.5V "C" alkaline battery \times 8
- Safety Standard :
EN 61010-1 CAT III 300V
EN 61326-1

4. SPECIFICATIONS

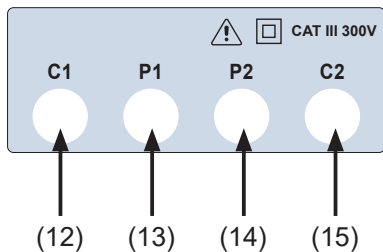
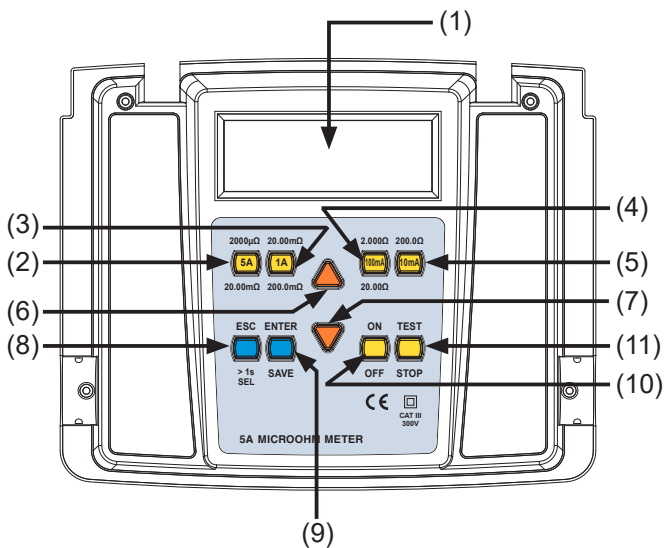
4-wire method measurement

| | |
|-------------------------------|--|
| Measuring ranges / resolution | 2000 $\mu\Omega$ / 1 $\mu\Omega$ 20.00m Ω / 0.01m Ω 200.0m Ω / 0.1m Ω 2.000 Ω / 1m Ω 20.00 Ω / 0.01 Ω 200.0 Ω / 0.1 Ω |
| Accuracy | $\pm(1\%+4 \text{ dgt})$ |
| Testing current | 5A: 2000 $\mu\Omega$ / 20.00m Ω 1A: 20.00m Ω / 200.0m Ω 100mA: 2.000 Ω / 20.00 Ω 10mA: 200.0 Ω |

5. GENERAL

- **Operating temperature:** 0~40°C.
- **Operating humidity:** 80% RH.
- **Dimensions:**
322(L) × 260(W) × 135(D)mm
- **Weight:**
Approx. 3328 g (battery included)
- **Power source:**
1.5V "C" alkaline battery × 8
- **Accessories:**
Instruction manual
Test leads
Shoulder belt
Alkaline batteries
- **Safety Standard:**
EN 61010-1 CAT III 300V
EN 61326-1

6. INSTRUMENT LAYOUT

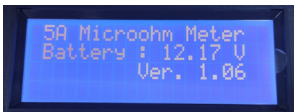


- (1) 4 Lines × 20 characters LCD
- (2) 5A Button
- (3) 1A Button
- (4) 100mA Button
- (5) 10mA Button
- (6) ▲ Button
- (7) ▼ Button
- (8) ESC / SEL Button
- (9) ENTER / SAVE Button
- (10) ON / OFF Button
- (11) TEST / STOP Button
- (12) C1 Terminal
- (13) P1 Terminal
- (14) P2 Terminal
- (15) C2 Terminal

7. MEASUREMENT

1. Power On :

Press "ON/OFF" button to turn the power on or off. Hold the "ON/OFF" button that can display the voltage of battery.



The system will be auto off when it has no operation after 3 minutes.

2. Before testing, you must make sure that the resistance under test does not have any voltage. When the voltage exceeds 5 volts or the probe is connected to a power supply of more than 5 volts, a warning message will be displayed.



3. Select test current & scale range :

There are 4 buttons "10mA", "100mA", "1A" and "5A" which can choose the operation current and the scale range.

"10mA" button for 200.0 Ω only.

"100mA" button can choose 20.00 Ω & 2.000 Ω .

"1A" button can choose 200.0 m Ω & 20.00 m Ω .

"5A" button can choose 20.00 m Ω & 2000 $\mu\Omega$.

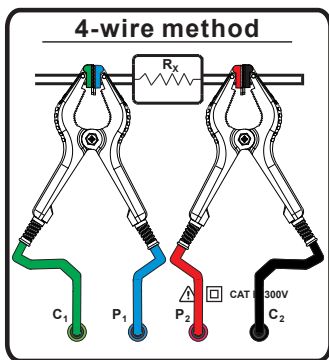
The screen will display date, time, test current and maximum resistance.



4. The measurement function

Press "TEST/STOP" button to measure the resistance value.

It needs a few seconds to complete the measurement, so press "TEST/STOP" button again that can interrupt the measurement.



When the measurement is finished, the screen will display the resistance value and testing current.



5. Record saving function

When the measurement is finished, press "SAVE/ENTER" button to save the result of measurement.

At the same time, the last line will display the number of record.

The memory can record up to 200 records.



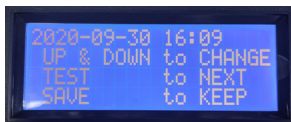
6. Minor function

Press "ESC/SEL" button and hold over 1 second to enter the minor function.



Use the "UP" and "DOWN" button to move the function selection cursor, and press "SAVE/ENTER" to enter the minor function, and press "ESC/SEL" button to return back to the main page.

- Date/Time ADJ

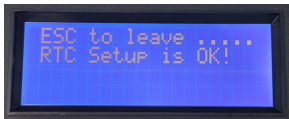


Press "ESC/SEL" button to leave the Date/Time ADJ.

Press "UP" or "DOWN" button to set the correct number.

Press "TEST/STOP" button to switch to the next unit of date or time, and go on the required adjustment.

After all adjustments are completed, press "SAVE/ENTER" button to confirm and save the date and time.



Press "ESC/SEL" button to return back to the minor function menu.

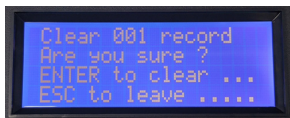
- RECORD DISPLAY



Press "UP" or "DOWN" button to reach the record that you want to look up.

Press "ESC/SEL" button to return back to the minor function menu.

- RECORD CLEAR



Press "SAVE/ENTER" button to clear all records in the memory.

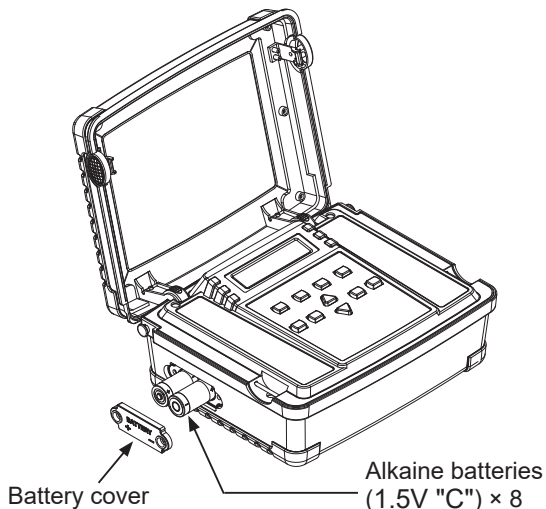
Press "ESC/SEL" button to return back to the minor function menu.

8. MAINTENANCE

Battery replacement :

When low battery warning information "LoBAT" appears, change new batteries as follows :

- (1) Disconnect the test leads from the instrument and turn off the power.
- (2) Unscrew the battery cover and replace with new batteries (1.5V "C" alkaline battery × 8).
- (3) Re-install the battery cover.



Cleaning and Storage :



WARNING

To avoid electrical shock or damage to the instrument, do not get water inside the case.

Periodically wipe the case with a damp cloth and detergent. Do not use abrasives or solvents.

If the instrument is not used for over 60 days, remove the batteries for storage.

Due to our policy of constant improvement and development, we reserve the right to change specifications without notice.