LEAKAGE CURRENT METER

MODEL **YF-8060**
YF-8160

CE

OPERATING MANUAL

Thank you for your patronage. Please thoroughly read this manual before use in order to operate correctly, decrease damage, and obtain the best performance of this meter.

1.Features

- The Maximum opening size of the jaw is up to 36mm.
- The inner dimension of the jaw for clamping test leads is: Ø35mm
- The meter is double insulated and designed for your Safety requirements.
- With safety sockets design.
- With indication of measurement units and functions.
- With Peak Hold function.
- In continuity test, reading below 100Ω approx. will be in company with a buzz.
- With LPF (Low Pass Filter) function.(8160)

2.Specifications

● General Specifications

1.Display: 3 3/4 digit LCD with maximum reading 3999, units, decimal point, and symbols.
2.Overload indication: Display the highest "OL" at left side.
3. Low battery indication: Replace battery as LCD displays"".
4. Battery life: About 200 hours.
5.Sampling time: 2.5 times/sec.
6. Peak Hold: To hold the maximum reading of the measured value.
7. Power supply: 1 PC of battery 006P 9V.
8.Test leads: YU FONG, MODEL YF-1010,

MAX 1200V⎓

9. Installation categories Ⅲ
   Pollution degree2
   Double and Reinforce Insulation ⧈.
10. Operation height-2000M under the elevation above sea level.
11. Operation temperature and humidity:
    -10~50℃, below 80% RH.
12. Storage Temperature and Humidity:
    -20 ℃～60℃, below 70% RH.
13. Dimension: 221(L) x 62(W) x 35(H) mm
14. Weight: about 342g(including a battery).
15. Accessory: Test leads 1 set, instruction manual, carrying case, and battery 1 PC.

● Electrical Specifications

Accuracy: ± (..... % rdg + ... dgt)

AC current

Range	Resolution	Accuracy (50HZ～60HZ)	Overload
40mA	0.01 mA	±(1.5%+2)	1A
400mA	0.1 mA		10A
4A	1 mA		100A
100A	0.1A	±(1.5%+5) (4~80A)	500A
	0.1A	±(10%+5) (80.1~100.0A)	500A

* 40mA range is so sensitive that the reading is easily changed or not zero .

AC Voltage

Range	Resolution	Accuracy 50Hz ～ 500Hz	Input Impedance	Overload Protection
500V (8060)	1V	±(1.5%+5)	10M	DC 500V AC 500Vrms
600V (8160)				DC 600V AC 600Vrms

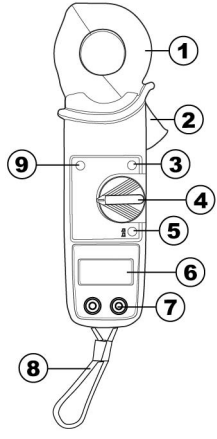
Resistance

Range	Resolution	Accuracy	MAX. Open Voltage	Overload Protection
400Ω	0.1Ω	±(1.2%+3)	3.3V approx.	AC/DC 500 V rms

*Also with buzz function for continuity, buzzer will sound if the measured resistance is below 100Ω.

3.Names of Parts

1. Inductive clamp jaw
2. Jaw trigger
3. Peak hold switch button(8060)
   LPF Function Switch.(8160)
4. Rotary range selector.
5. Power switch
6. LCD
7. V/Ω test socket
8. Wrist strap
9. COM test socket
10. Peak hold switch button.(8160)



4.Operation

4-1. Notes

1. Check if the battery is installed correctly.
2. Check if the LCD and the range indicator show the same as the function desired.
3. As changing range, please remove the tested conductor or electrical circuit in advance from the clamp jaw in order to avoid any accident.
4. Always keep your hand through the wrist strap to avoid drop of the meter due to carelessness. Also any serious vibration or impacts should be avoided so as not to damage the meter.
5. Do not test or connect to any circuit rated over AC 100A or AC 500V(8060), AC600V(8160).
6. As measuring resistance, please do not add any voltage. Though there is a protection circuit, excessive voltage will still cause malfunction.
7. As measuring current, please remove the test lead of voltage & resistance in advance.
8. As measuring current, any strong current near or close to the clamp jaw will affect the accuracy.
9. This meter is not available for DC voltage and current measurements or non sine wave AC signal, otherwise there will be a great error.
10. As measuring current, always put the tested conductor in the center of the clamp jaw so as to obtain more accurate reading.
11. During measuring, if the value of reading or indication of sign remains unchanged, check if the function of the peak hold is in effective.

4-2. ACA measurement

* General current measurement

1. Select a proper range.
2. Open the clamp and put the tested conductor in the center of the clamp jaw.
3. In the dark or where the reading is difficult, use the Peak Hold switch button to hold the obtainedvalue. Unless a bigger value is re-obtained, the previously obtained value would maintain permanently.
4. To release the reading, just press the Peak Hold switch button again.

4-3. ACV measurement

1. Select the range of AC 500V(8060), AC 600V(8160).
2. Connect the test leads of Voltage/Resistance plug into the sockets, plug the red plug into V/Ω socket, and black plug into COM socket.
3. Connect the two long ends of test leads to the desired circuit, then reading will be displayed.
4. Peak Hold function is effective here.

4-4. Resistance measurement

1. Select the range of 400Ω/ .
2. Connect the test leads of Voltage/Resistance plug into the sockets, plug the red plug into V/Ω socket, and black plug into COM socket.
3. Connect the two long ends of test leads to the desired circuit, then reading will be displayed.
4. As measuring resistance, any voltage existing in circuit is not allowed. If a capacitor is installed, it must be discharged before test.
5. Peak Hold function is effective here. Please refer to Subitem 4-2. for instruction.

6.With a buzz for continuity purpose. Any resistance value below 100Ω will be sounded.

4-5. Using the 50/60 Hz and Wide Frequency Function(8160)

50/60 Hz Function:

This clamp meter has very good frequency response due to the electric property of the transformer jaws used. Therefore, the measurement result contains not only the fundamental frequency of 50/60Hz but also the high frequencies and harmonics superimposed on the fundamental frequency.

To eliminate the effect of high frequency noise, a low pass filter is designed to filter out high frequency signal. To enable the filter, set the switch at the 50/60 position. The filter's cut-off frequency is set at 100Hz with an attenuation characteristic of approx. 24dB/Octave.

Wide Frequency Function:

If the circuit under test is originated from a high frequency generating device such as inverter, switching regulators, etc., then the switch should be set at wide position to measure the signal which contains the frequency from 40Hz～1KHz.To make sure the presence of high frequency signal, set the switch at 50/60 Hz and wide position to see the difference. If the reading is very different. it is certain that high frequency signals or harmonics are present.

5.Maintenance

5-1. Replace battery as LCD displays "".

1. Turn off the power switch.
2. Remove the test leads or the objects to be tested.
3. Remove the screws on the bottom cover, and detach the battery cover from the bottom cover.
4. Take out the battery from the battery fastener carefully.
5. Set the new battery with battery fastener, then put it back in the battery case.
6. Put the bottom cover back to its position and fasten with screws.

5-2. Storage

1. This meter is a precision instrument.
   Whether in use or in store, please do not exceed the specification requirements to avoid any possible damage or danger during use.
2. Do not place this meter in a location that is in high temperature or humidity or in exposure to direct sunray.
3. Be sure to turn the meter off after use. For long time storage, take out the battery to avoid leakage of battery liquid which will damage the interior parts.

5-3. Maintenance and Cleaning:

Only use a dry cloth to clean the plastic case.

6.Description of Symbols

1.  : Represent AC.
2.  : Earth(ground) **TERMINAL.**
3.  : Equipment protected throughout by **DOUBLE INSULATION** or **REINFORCED INSULATION.**
4.  :Caution, risk of electric shock.
5.  :Caution(refer to accompanying documents).