

INSULATION TESTER UNIT

MODEL 261/6261

USERS MANUAL

261 Insulation Tester Unit is the adaptor for 266 series clamp meters. Using a DC-DC converter, it converts 6V DC to 500V DC. It is a variable range insulation tester ($100\text{K}\Omega\sim 2000\text{M}\Omega$), powered by four AA size batteries, and can provide 30 working hours which depend on the type of the battery and how often it is used. It has the advantages of reasonable design, easy-to-use.

SPECIFICATIONS

Accuracy is specified for a period of one year after calibration and at 18°C~28°C(64°F~82°F) with relative humidity up to 80%.

RANGE	EFFECTIVE MEASUREMENT RANGE	ACCURACY
20 MΩ	100KΩ~19.99MΩ	±(2%rdg+2dgts)
2000 MΩ	10MΩ~1999MΩ	±(5%rdg+2dgts)

Rated Voltage: 500V DC
Voltage between V/Ω and COM: <3V DC
Voltage between Ext and COM: <3V DC
Power: 4 AA size batteries

Battery Life (typical):	30 hours (used continuously)
Battery Low Indication:	Yellow LED flashed
Operating Temperature:	0°C~50°C, 0~80%RH
Storage Temperature:	-20°C~60°C 0~80%RH (with batteries removed)
Dimensions:	"3.5 "(9cm)×2.8" (7cm)×2" (5cm)
Weight:	200g (including batteries)
Accessories:	Test Leads 1 pair Users Manual 1 copy

OPERATING INSTRUCTIONS

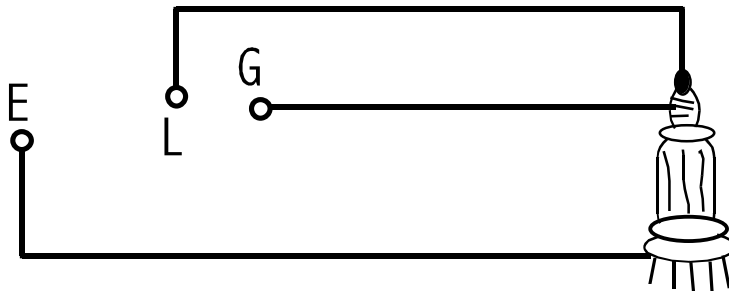
Checking Internal Batteries

1. Slide the switch to the "ON" position.
2. Press the button for insulation test.
3. If the internal batteries are normal, the LED "500V ON" will light.
4. If the internal batteries need to be replaced or there are no batteries in the meter, the LED "500V ON" will not light. Since either of these two cases is possible, remove the rear cover and install four AA size batteries.
5. If both LED "500V ON" and "LOBAT" light, it indicates that the batteries are being exhausted and need to be replaced.
6. Remove the screws on the back cover before open the battery.

compartment cover, and then replace the batteries.

7. Slide the switch to the "OFF" position after battery check is completed.

Insulating Resistance Measurement



L -- Center conductor

E -- Insulating layer

G -- Shield

1. Connect the terminals "V/ Ω ", "COM" and "EXT" on the Insulation Tester Unit to the corresponding input jacks in the clamp meter.
2. Set the rotary switch on the clamp meter to range "2000M Ω "
3. Connect the test lead with an alligator clip to jack "E", and the other one with

a probe to jack "L".

4. Connect the test leads to the circuit to be measured.
5. Set the power switch to "ON".
6. Press the button on the Insulation Tester Unit, the LED "500V ON" will light, and the resistance value will be displayed on the LCD.
7. If the circuit is open or the insulating resistance of the circuit is over $2000\text{M}\Omega$, mark "1" will be displayed on the LCD.
8. If you measure resistance less than $10\text{M}\Omega$ in range $2000\text{M}\Omega$, the measure error will be very high; in this case, set the range switches on both the clamp meter and the insulation tester unit to range $20\text{M}\Omega$, and redo the measurement once more.
9. Set the power switch to "OFF" after completing the measurement.

CAUTIONS

1. If one of the two terminals of the circuit to be measured is connected to the ground, it is safer to connect the terminal to the red test lead.
2. The right terminal of the insulation tester unit is a shielded terminal, and is used to eliminate the error generated by the leakage of the surface. For example, when measuring the insulating resistance of a cable, a bare wire can be wrapped around the insulating layer and connected to the shielded terminal of the insulation tester unit, and then the error generated by the leakage can be eliminated.
3. The LED "LOBAT" will light when measuring resistance less than $500\text{K}\Omega$ because of large power consumption. If the LED "LOBAT" lights when

the resistance being measured is of high value, it indicates that the batteries need to be replaced.

4. If the LED "500V ON" lights, then the voltage between terminals E and L may be 500V. Use with caution in this case.

RECALIBRATION (Qualified personnel only)

1. 500V DC

- 1) Slide the switch to "20M Ω ", position, and connect terminal E and L to the multimeter (the range switch must be set to range "1000V DC").
- 2) Adjust R02 till the reading on the LCD of the multimeter is 520V.

2. **2000M Ω**

Connect the terminal E and L to a resistor of $1000\text{M}\Omega \pm 1\%$, adjust R14 till reading on the LCD is 1000.

3. **20M Ω**

Connect the terminal E and L to a resistor of $10\text{M}\Omega \pm 0.1\%$, adjust R21 till reading on the LCD is 10.00.