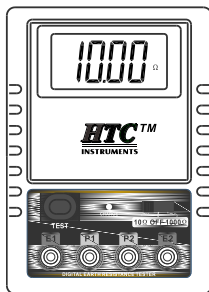


Instruction Manual

Digital Earth Resistance Meter



1.INTRODUCTION

NOTE

This instrument is designed, manufactured and tested in accordance with the standard issued by IEC 348, safety requirements for electronic measuring instruments, IEC-1010 (EN 61010) and other safety standards. This instrument manual contains warning and safety rules which have to be observed by the user to ensure safe operation of the instrument and to maintain it in safe condition. Therefore, please read through these operating instructions before using the instrument.

WARNING

READ "SAFETY NOTES" BEFORE USING THE METER.

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 this meter may be impaired.
- Rated environmental conditions:
 - (1). Indoor Use.
 - (2). Installation Category III.
 - (3). Pollution Degree 2.
 - (4). Altitude 2000 meters max.
 - (5). Relative humidity 80% max.
 - (6). Ambient temperature 0~40°C.

- Observe the following international electrical symbols:

☐ 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

- Capable of measuring earth voltage.
- 2mA measuring current permits earth resistance tests without tripping earth leakage current breakers in the circuit under test.
- Rechargeable battery or connect to external power source for power supply.
- Portable (small size and light weight).
Designed to meet IEC-1010-1 (EN61010-1) CAT III 200V.

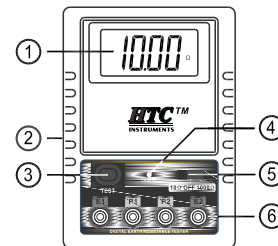
4.SPECIFICATIONS

- Measurement system: Earth resistance by constant Current inverter. 820Hz, 2mA approx.
- Earth resistance range and resolution:
0~10Ω (0.01Ω) / 0~1000Ω (1Ω).

- Accuracy: Earth resistance $\pm (2\%rdg+5dgt)$ or $\pm 0.1 \Omega$, which is greater.
- Safety standard: IEC 1010-1 (EN61010-1) CAT III 200V.
- Low battery indication: "🔋" symbol appears on the display.
- Over range indication: "1" (MSD).
- Display: LCD 3½ digit (2000 counts).
- Power source: 14500 rechargeable battery*4pcs.
Dimensions :163(L)*100(W)*50(D)mm.
- Weight: approx. 410g (battery included).
- Accessories: solder-free female plugs, 14500 rechargeable battery*4pcs, 15V adapter, instruction manual.

5. PANEL DESCRIPTIONS

- (1) LCD Display
- (2) External power input terminal
- (3) Test key operation switch



- (4) Charging indicator
- (5) OHM range switch
- (6) Jack For "LINE" lead connection

6.MEASURING METHODS

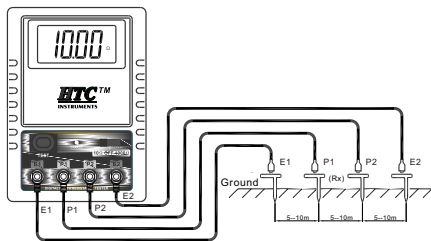
Please read the safety precautions before measurement.

Earth Resistance Measurement:

1. Connection with test leads:

Connect the different colored test leads to instrument terminals E1, P1 and P2, E2 and insert the auxiliary earth bars P1, C1 deep into earth.

2. Set the function switch to 10 or 1000 position and press the test switch to do earth resistance measurements.

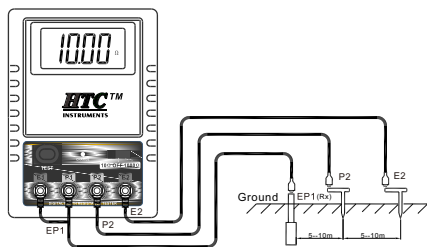
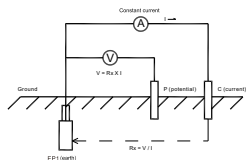


Grounding Resistance Measurement:

1. Connection with test leads:

Connect the different colored test leads to the instrument terminals EP1 (E1 and P1 in parallel) and the E2 and insert the auxiliary ground rod EP1 and P2 an E2 deep into the ground.

2. Set the function switch in 10 or 1000 and press the test switch to do grounding resistance measurement.

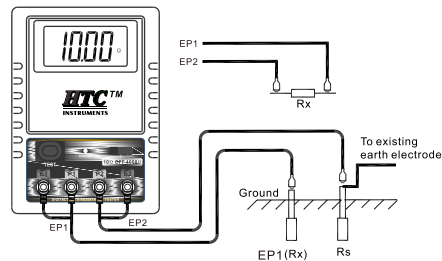


4 wires resistance measurements:

1. Connection with test leads:

Connect the different colored test leads to the instrument terminals EP1 (E1 and P1 in parallel) and the EP2 (E2 and P2 in parallel) and insert the auxiliary ground rod EP1 and EP2 deep into the earth.

2. Set the function switch in 10 or 1000 and press the test switch to do resistance measurement.



7. MAINTENANCE

● Battery Replacement

When the symbol "🔋" appears on the display, please change it promptly; when failed to recharge the battery, please replace the batteries as follows:

(1) Disconnect the test leads from the instrument and

turn off the power.

(2) Open the battery slot to remove the battery and replace it with new 14500 rechargeable batteries.

(3) Secure the battery slot after installed the batteries.

● Cleaning and storage:

WARNING

To avoid electrical shock or damage to the meter, 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 meter is not to be used for periods of longer than 60 days, remove the batteries and store it separately.