



GPS

ERT-50



Offering a comprehensive solution to your ground stake and soil resistivity testing needs

Adopting the latest digital technology, precise 4-pole, 3-pole and simple 2-pole method, selection method and double clamp method to measure grounding resistance. For earth resistance measurement, a large calibre clamp design can be used to measure a grounding system which adopts a large-scale down conductor; flexibly and precisely measure the value of grounding resistance in every complicated situation like single point grounding and grounding mesh. There is no need to disconnect any parallel connection pole when measuring parallel-grounding and this massively improves the convenience when measuring. The clear, easy-to-read display provides excellent contrast and viewing angles making the instrument ideally suited to outdoor use.

Key Features

- 2, 3, and 4-point testing, double clamp method
- Attached rod technique
- Stake-less measurements
- Measurement of Earth Resistance, Soil Resistivity, Earth Voltage and Leakage Current of grounding line
- FFT and AFC technology
- Automatic interference test
- Data memory: 2000 sets
- Data upload with RS232
- Robust carry case
- Large LCD with backlight

Application

- Electric power
- Telecommunications
- Meteorology
- Oil Field
- Construction
- Lightning protection
- Industrial electrical equipment

Technical Specifications

Model	ERT-50
Measuring Mode	Precise 4-pole measurement, 3-pole measurement, simple 2-pole measurement, selection method, double clamp method measure grounding resistance
Measuring Method	2/3/4 pole method: change-pole method, measurement current 20mA Max Selection method: change-pole method, measurement current 20mA Max Double clamp method: disconnect mutual inductance method, measurement current 1mA Max Soil Resistivity: 4-pole measurement (Wenner method) Earth Voltage: average rectification (between P(S)-ES) AC current: mutual inductance method
Earth Resistance	Range: 0.00Ω - 30.00kΩ (see supplemental technical sheet for full data)
Soil Resistivity	Range: 0.00Ω m- 9000kΩ m (see supplemental technical sheet for full data)
Earth Voltage	Range: 0V - 100V AC, Resolution: 0.1V, Accuracy: ±2%rdg ±3dgt
AC Current	0.0mA-600.0A, Resolution: 0.0mA, Accuracy: ±2%rdg±3dgt
Test Frequency	128Hz/111Hz/105Hz/94Hz (AFC)
Measuring Rate	Earth voltage/Current to Ground: about 2 times/second, Earth Resistance and Soil Resistivity: about 5 times/second
Measuring Times	Over 5000 times (for short-circuit test, interval time should be at least 30 seconds)
Data Storage/Hold/Access	2000 sets, "MEM", "FULL", "HOLD", "READ" icon display indicator
Overflow Display	Exceeding measuring range overflow function: "OL" icon display
Auxiliary Earthing Test	Can measure auxiliary earth resistance, 0.00kΩ - 30kΩ (100R+rC<50kΩ, 100R+rP<50kΩ)
Overload Protection	Measuring earth resistance: between each interfaces of C(H)-E, P(S)-ES, AC 280V/3 seconds
Standard Test wire	4 wires: red 20m, black 20m, yellow 10m and green 10m
Simple Test Wire	2 wires: red 1.6m and black 1.6m
Auxiliary Earthing Rod	4 rods: diameter 10mm x 150mm

Standard Accessories

Auxiliary Earthing rod - 4pcs
Standard testing wire - 4pcs
Simple testing wire - 2pcs
RS232 cable
Software
Carrying Case

Power

DC 9V (Zi-Mn dry battery R14S 1.5V 6pcs)
Continuous standby for 300 hours

Insulation Resistance

Over 20MΩ (500V between circuit and enclosure)

Withstanding Voltage

AC3700V/rms (between circuit and enclosure)

EMC

IEC61326

Safety & Protection

IEC61010-1 (CAT III 300V, CAT IV 150V, Pollution 2)
IEC61010-031
IEC61557-1 (Earth Resistance)
IEC61557-5 (Soil Resistivity)
JJG 366-2004

General Specifications

Part Numbers / Optional Accessories		
Code	Item	Part Number
GPS-ERT-50	Double Clamp Grounding Resistance Tester	800350

Dimensions

215 x 190 x 95mm / 8.5 x 7.5 x 3.5" (w x d x h) approx.

Mass

8.0kg/17.5lbs approx.

Operating

-10°C to 40°C
Below 80% relative humidity

Services

1-year warranty (subject to product registration with GPS Ltd)

Visit www.gpslimited.com/register-product
Service and calibration available.

Please contact for more information

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