

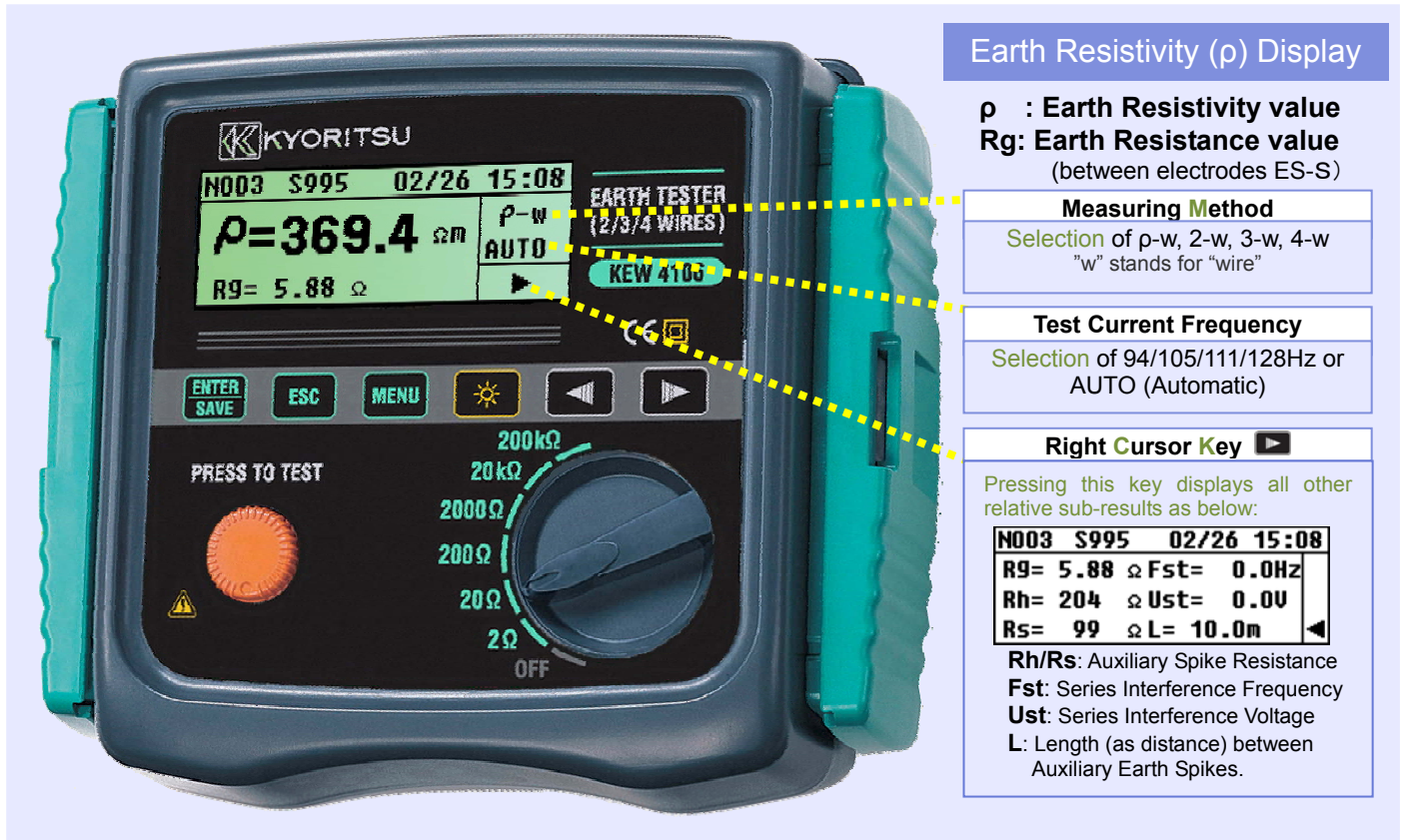
Earth Resistance & Resistivity Tester

-- 4, 3 and 2 wire connections --

-- WENNER method --

4 WIRE EARTH TESTER

KEW 4106



Ideal for large Earthing systems

KEW 4106 uses a considerable **test Current of 80mA** (max) yielding a high resolution of 1 mΩ on **2Ω range**.

The most suitable Test Current Frequency

The Automatic/Manual selection of the Test Current Frequency in four bands (94/105/111/128Hz) and the advanced Filtering method reduce noise interference during testing. In Automatic mode, KEW 4106 will select the most suitable Frequency.

“Zero-Adjust” the Residual Resistance (Rk)

This ensures more accurate low Earth Resistance measurements.

The soil Earth Resistivity (ρ) is automatically calculated

The KEW 4106 permits the variable setting of distances between Auxiliary Earth Spikes within a range of 1.0 to 30.0m at 0.1m intervals.

Several sub-results and parameters can be shown on the display

These include the Resistance of the Auxiliary Earth Spikes, Frequency of Test Current, Voltage and Frequency of Interference (noise), Residual Resistance Rk, etc.

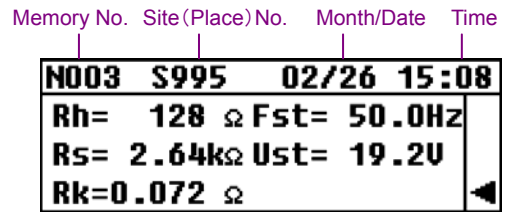
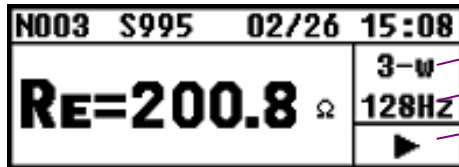
Memory, Recall and Download results

Up to 800 measurement results can be saved in memory and recalled on the display. The stored results can be transferred to a PC using the “Kew Report” software and a USB adaptor (Model 8212-USB) which are included.

Warning indication of noise and high resistance of auxiliary earth spikes

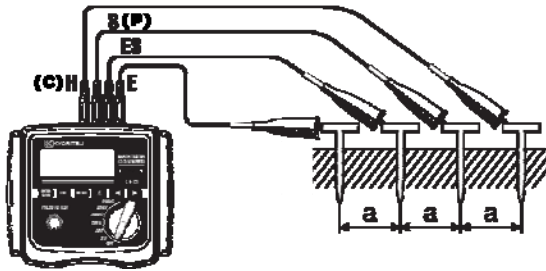
IP54 protection

Measurement display of Earth Resistance (RE)



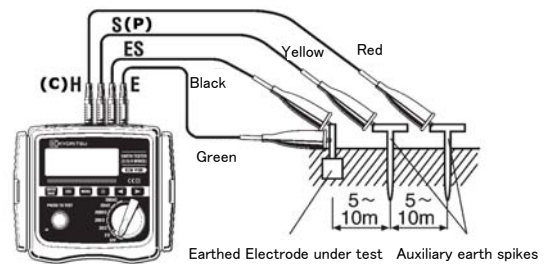
Connection Examples

Earth Resistivity (ρ) measurement



Useful for optimum earthing system design and location, to avoid extra cost of re-working electrode installation. Also for geological and archaeological investigations,

4-wire connection



Measurement is more accurate than 3-wire connection by excluding the resistance of E terminal wire.

Specification

Function		Range	Resolution	Display range	Accuracy
Earth (Ground) Resistance	Re (2/3/4 wires)	2Ω	0.001Ω	0~2.099Ω	±2%rdg. ±0.03Ω
		20Ω	0.01Ω	0~20.99Ω	
		200Ω	0.1Ω	0~209.9Ω	
		2000Ω	1Ω	0~2099Ω	
		20kΩ	10Ω	0~20.99kΩ	
Rg (at Resistivity ρ only)	200kΩ	100Ω	0~209.9kΩ	±2%rdg. ±5dgt	
Auxiliary earth spikes resistance Rh, Rs					(Re+Rh+Rs)*8%
Soil Resistivity	ρ	2Ω	0.1Ω·m/ 1Ω·m	0~395.6Ω·m	<p>ρ-Accuracy depends on measurement of Rg</p> <p>$\rho=2\pi*a*Rg$</p> <p>"a" is distance of auxiliary earth spikes: 1.0~30.0m(0.1m steps)</p>
		20Ω		0~3956Ω·m	
		200Ω		0~39.56kΩ·m	
		2000Ω		0~395.6kΩ·m	
		20kΩ		0~1999kΩ·m	
200kΩ	Auto-Ranging				
Series interference voltage	Voltage	50V	0.1V	0~50.9Vrms	<p>±2%rdg.±2dgt (50/60Hz)</p> <p>±3%rdg.±2dgt (40~500Hz)</p>
	Ust				
(a.c. voltage only)	Frequency	Auto-Ranging	0.1Hz 1Hz	40~499.9Hz	±1%rdg.±2dgt.
Fst					

General

Display	Backlight, Dot-matrix Display
Power source	Battery R6P x 8
(Number of measurement)	400 times or more (Measure 1Ω on 2Ω range every 30 seconds)
Dimensions	167(L)*185(W)*89(D) mm
Weight	Approx. 900g (including batteries)
Operating/Storage Temperature and Humidity	Operating:-10°C ~50°C, relative humidity 75% or less (no condensation)
	Storage:-20°C ~60°C, relative humidity 75% or less (no condensation)
Accessories	Precision Measurement Cords (Green/Black/Yellow:20m, Red:40m), Simplified Measurement Probe, Auxiliary Earth Spikes(4pcs), Cord Reel(4pcs) USB Adaptor, USB Cable, CD Software KEW Report, R6P*8, Carrying Bag, Shoulder Strap