

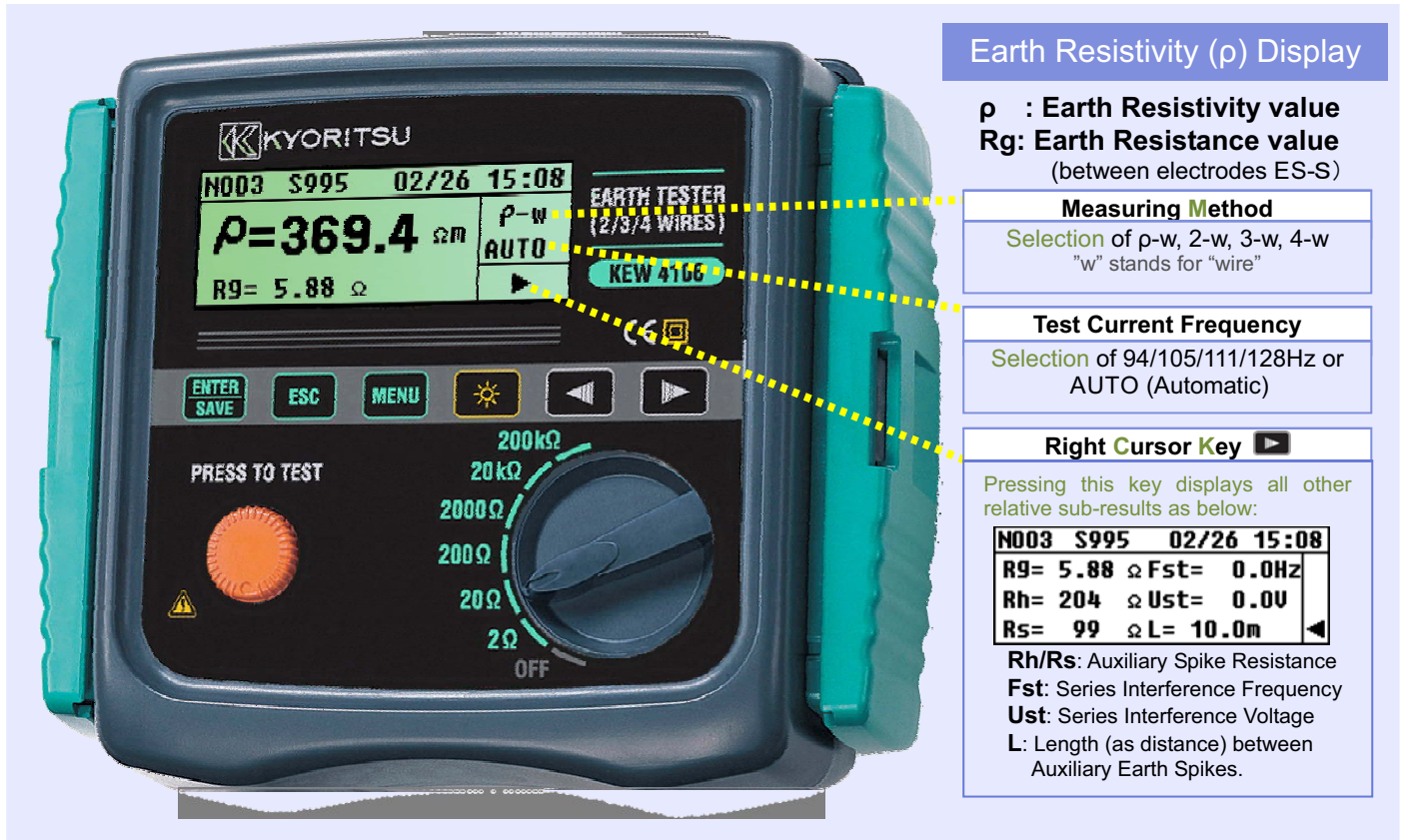
Earth Resistance & Resistivity Tester

– 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 m Ω on **2 Ω 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.

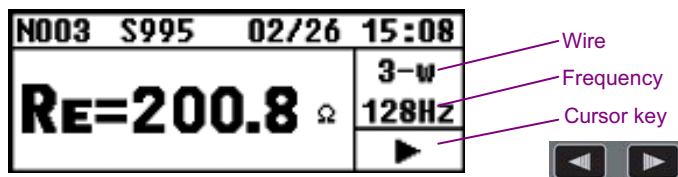
Memory, Recall and Download results

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.

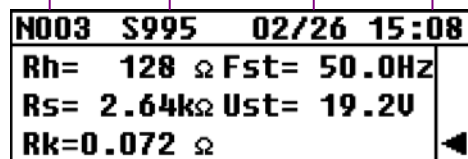
Warning indication of noise and high resistance of auxiliary earth spikes

IP54 protection

Measurement display of Earth Resistance (RE)

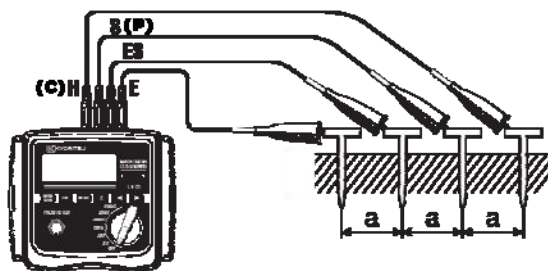


Memory No. Site(Place)No. Month/Date Time



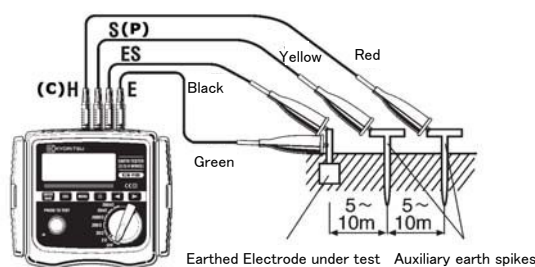
Connection Examples

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, etc

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 Auto-Ranging	0~395.6Ω·m	ρ -Accuracy depends on measurement of Rg $\rho=2\pi*a*Rg$ "a" is distance of auxiliary earth spikes: 1.0~30.0m(0.1m steps)	
	20Ω		0~3956Ω·m		
	200Ω		0~39.56kΩ·m		
	2000Ω		0~395.6kΩ·m		
	20kΩ		0~1999kΩ·m		
Series interference voltage (a.c. voltage only)	Voltage Ust	50V	0.1V	0~50.9Vrms	±2%rdg.±2dgt(50/60Hz) ±3%rdg.±2dgt(40~500Hz)
	Frequency Fst	Auto-Ranging	0.1Hz 1Hz	40~499.9Hz	±1%rdg.±2dgt.

General

Display	Backlight, Dot-matrix Display
Power source (Number of measurement)	Battery R6P x 8 400 times or more (Measure 1 Ω 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

