

RM85 Resistance Meter Data Sheet

The RM85 Resistance Meter is ideally suited for rapid near surface area measurements. The instrument measures and records resistance values which provide the operator the flexibility to deploy any conceivable quadrature array, then convert the data to resistivity during processing. The instrument also includes pre-programmed arrays for pole-pole, Double-Dipole, Wenner Schlumberger and Gradient.



RM85 console. Image courtesy of Geoscan Research.

The multiplexer allows the system to be programmed with up to 16 measurement configurations permitting both sequential depth measurements and parallel measurements to be recorded automatically.

Common accompanying accessories include the PA20 frame with a choice of 0.5m, 1m or 1.5m beam permitting various remote probe electrode separations, or parallel measurements for recording multiple traverses in one pass. The PA20 frame is supplied with a 50m remote probe cable, remote probes and jumper cables for connecting the remote electrodes to the RM85.

The RM85 Advanced offers a wider current range (from 0.1mA to 10mA) and a maximum output of 100V, to allow operation in areas with poor water retention in the topsoil or for shallow sounding measurements. A half current setting (Compliance Boost) allows the user to optimise signal to noise ratio against probe contact resistance.

Survey production can be enhanced even further through deploying the meter on the MSP25 four wheeled cart square array.

The enhanced system specifications and wide suite of accessories means the RM85 lends itself to a wide variety of near surface geophysical applications such as archaeological prospection, agricultural studies, environmental and engineering applications.

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	20cm x 12cm x 9cm	1.35kg (console only)

Technical Specifications

Output voltage:	50 or 100V.
Constant current ranges (p-p):	10mA, 5mA, 1mA, 0.5mA ,0.1mA & 0.05mA.
Resistance ranges:	2, 20, 200, 2000, & 20,000?.
Logged resolution:	0.0005, 0.005, 0.05, 0.5 & 5?.
Operating frequencies:	17.5, 20, 22.5, 35, 40, 72.5, 80, 85, 90, 122.5, 137, 140, 142.5 Hz, User Defined.
Probe mode Auto-Log Delay times:	20, 200, 300, 450, 600, 800, 1000, 1200 ms (faster with Speed Boost).
High Pass Filter:	Off, 0.05, 0.16, 1.6, 8, 13 & 15 Hz.
Memory capacity:	491,200 readings, without GPS.
Grid dimensions:	10, 20, 30, 40, 50, 60, 100m (length and width independent).
Sample Interval:	0.0625, 0.125, 0.25, 0.5, 1m.
Communications:	USB (2.0) and RS232 at up to 115200 baud (RS232 only for GPS).
Power:	NiMH battery pack, 4 hours charging time.

Gallery



PA20 Frame with 0.5m, 1m and 1.5m beam, plus remote electrodes and remote cable.