

RM85 Resistance Meter System

System

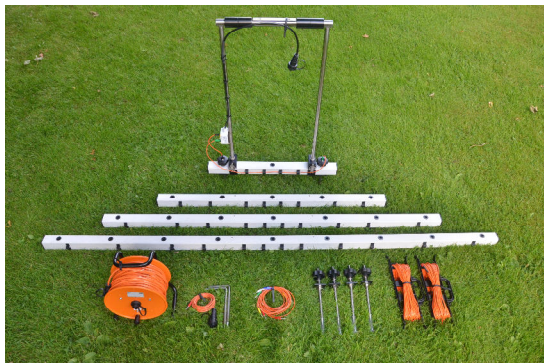
- Measurements made using probe arrays (PA20, PA5, PA3, PA1) or with cart with spiked wheels (MSP40)
- Basic and Advanced models
- Integral multiplexer card option (8 user programs, 16 steps each)
- GPS data logging option
- Flash memory for up to 164000 readings, including GPS
- Square or rectangular grid sizes : 10 to 100m
- USB and RS232 communications, plus expansion port
- External compartment for main battery
- LCD backlight and contrast adjustment
- NiMH battery, 4hr fast charge with LED status
- Lightweight - 1.35 Kg, including batteries and multiplexer



Application

- Faster Twin operation - up to 8 multiplexed Twin readings per second in rural situations
- Faster MSP40 cart operation - move at up to 0.3s/m whilst logging alpha and beta readings at 4 samples/m or 0.6s/m whilst logging alpha, beta and gamma plus GPS position
- Improved noise rejection filters, Speed Boost and Insertion Delay allow faster surveys in noisy urban situations
- Simplifies the MSP40 system by replacing the RM15 (-D), DL256 and MPX40 and multiplexing is much faster

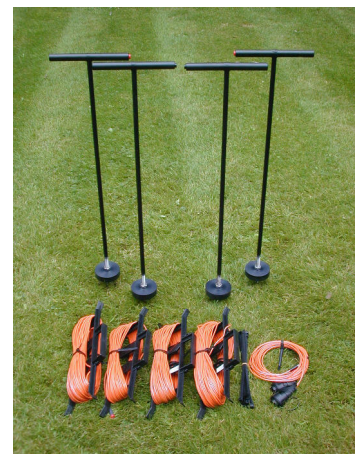
PA20 Probe Array



- Modular frame system for RM85, RM15 and RM4 resistance meters
- 0.5m and 1m lightweight glass fibre beams as standard. Additional 1.5m and 2.0m beams available
- Stainless Steel construction
- Quick release system for rapid interchange of probe array beams
- Offers many probe configurations :
 - Twin (spacings from 0.25m to 2.0m, 0.25m steps)
 - Wenner, Double-Dipole (spacing 0.5m)
 - Gradient, Pole-Pole, Mini Schlumberger
- Capability is extended with the RM85 multiplexer option :
 - Parallel Twin for faster ground coverage or more detailed area coverage
 - Multiple Twin arrays for depth investigations, pseudo-sections etc
 - Simultaneous configurations eg Twin and Wenner alpha, beta, gamma

PA3 Probe Array

- General purpose probe system for use with RM85, RM15 and RM4 resistance meters
- Array sizes up to 100m with the 50m cables provided
- Configure wide Wenner, Double-Dipole or Schlumberger arrays
- Can be used for either mapping or depth soundings
- Stainless steel probes
- Adjustable soil stops to control probe insertion depth



MSP25 Mobile Sensor Platform **New**

- 0.75m wheel base Square array resistance measurements with spiked wheels
- Simultaneous magnetic measurements with optional FM256 gradiometer
- GPS logging with RM85 resistance meter
- Rapid (RM85) : move at up to 0.3s/m whilst logging alpha and beta readings at 4 samples/m or 0.6s/m whilst logging alpha, beta and gamma plus GPS position
- Detailed : sample interval can be 1, 2, 4 or 8 samples /m
- Multiplexing provides for alpha, beta and gamma measurements
- Integral encoder wheel controls logging and can be calibrated for different terrains giving accurate and repeatable sample positioning
- Sample trigger option for time based logging
- Square array avoids the trailing cable of a Twin array
- Replaces MSP40



FM256 Fluxgate Gradiometer System *Limited availability; upgrades to FM256 to continue*



Single Gradiometer System

- Data logger 256000 readings
- Timer sample trigger, variable rate : 1m mark beep 0.4s - 4.0s
- Square or rectangular grid sizes : 10 to 100m
- Independent sample and traverse intervals : 1 to 16 samples/m
- Digital averaging under sample trigger control
- Ranges : +/-20000nT, +/-2000nT, +/-200.0nT
- Logged Resolution : 5nT, 0.5nT, 0.05nT per range
- LCD backlight and contrast adjustment
- NiMH battery, 4hr fast charge (LED status)
- Lightweight - 2.3 Kg, including batteries

Dual Gradiometer System

- Two instruments linked for double speed / increased density surveys
- Interleaving gives 0.5m or 0.25m traverse intervals
- Simple data merge facility in Geoplot
- Open frame design gives rapid operator turn-around (not system) for zig-zag surveys, avoiding introduction of heading errors
- Master start/stop controls on frame

Geoplot 3 Data Processing Software *Now runs on 64 bit platforms using VMWare Player 5*

Processing

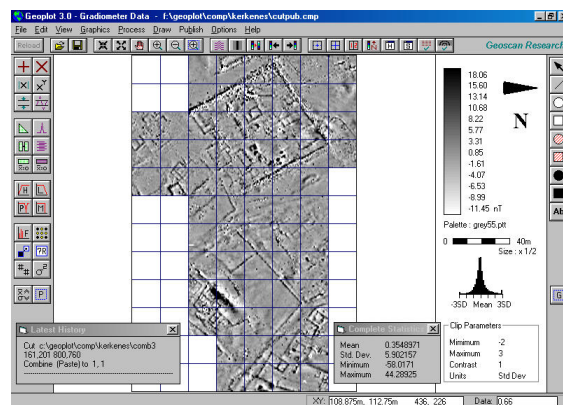
- High and Low Pass Filters
- Periodic Defect Filter
- Zero Mean Filters
- Destagger Filter
- Wallis Filter
- Interpolation
- Edge Matching
- Despiking & Median Filter
- Statistical & Spectral Analysis
- Numeric Operations
- Powerful Cut & Combine
- Non-linear process functions

Graphics

- Shade plots (grey scale or colour)
- Trace plots (stacked or 3D style)
- Dot-density and Pattern plots
- Relief plots (artificial sun)
- Animation

Environment

- Graphics, data, history & details views
- Full process and edit history archive
- Import data from other software
- Export data to other software
- Data download from Instruments
- Generate stacked Pseudo-sections



From January 2014 Geoplot 3 includes a free upgrade to Geoplot 4.0 when available

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