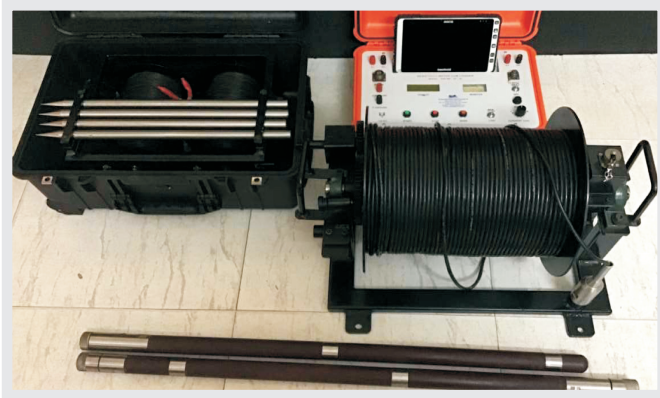


SEMI AUTOMATIC WELL LOGGING CUM RESISTIVITY METER MODEL SSR-MP-AT-SAL



The IGIS signal stacking based Signal Enhancement Resistivity Meter Model SSR-MP-AT-SAL is a state of art microprocessor based data acquisition system. The instrument design incorporates several innovative features and advanced techniques of digital circuitry to make it a reliable geophysical tool providing high quality data useful for mineral and groundwater exploration and any other geophysical applications.

The SSR-MP-AT-SAL sends the entire current into the ground without wasting power for constant current generation thus increasing the signal strength to probe deeper layers.

The advanced design of SSR-MP-AT-SAL Resistivity Meter achieves excellent depth penetration with relatively low power inputs. It utilizes the signal stacking up to 16 successive readings to achieve good signal enhancement. In the presence of random (non-coherent) earth noises, the signal to noise ratio of the SSR-MP-AT-SAL measurement will be enhanced by $\sqrt{N}$ where N is the number of stacks. Hence SSR-MP-AT-SAL Resistivity Meter can be used for depths of upto 600m under favorable geological field.

Bore hole logging : Powered by internal rechargeable batteries, instrument provides spot measurements of Short Normal, Long Normal, Point Resistance and SP and finds extensive application in groundwater exploration, engineering studies and other lithological investigations.

Instructions for field personnel for operation and maintenance of instrument are minimal and the logging party does not have to depend on specialized technicians for routine operation.

Applications

- Groundwater Exploration
- Sand and Gravel Deposit Identification
- Bed Rock Investigations
- Mineral Investigations
- Delineation of Geological Structures
- Geophysical Field Training

Input Power Source	: 24V rechargeable batteries
Power Output	: 100watts (Current upto 2 Amp) 400V(800V peak to peak) Automatic voltage selection.
Frequency	: 0.3 Hz (Approx.)
Noise Rejection	: 95 db
Potential Measuring range	: Microprocessor based unit with measurement resolution of 10 micro volts.
Range selection	: Automatic
Resistance Range	: 10^{-5} to 10^4 ohms.
Self potential cancellation	: Automatic
Dynamic Range	: 15 bits
Data Averaging	: Upto 16 cycles
Input Impedance	: 1 Mega Ohm
Accuracy	: $\pm 1\%$
Interaction with the System	: (8" industrial grade tough screen display) for displaying Survey code, Date, Time, Electrode spacings Resistance, Apparent Resistivity and strip resistivity.
Measurement Display	: Stack No./Stacks selected, next line current and running average of average of resistance.
Data transfer	: The unit is housed with a 8 " touch screen industrial grade windows based PC.
Depth Penetration	: Upto 600 m under favorable geological conditions.
Protection	: Protected against circuit overloads.
Error Signals for	: Poor current and Potential electrode grounding and Discontinuity.

SPECIFICATIONS for Logger

Recording parameters	: Self Potential, Short normal and Long normal
S.P. Range	: 0 to ± 1999 mV.
Resistivity Range	: 0 to 2×10^4 ohm-m
Frequency	: 0.3Hz
S.P. Range	: 0 to 1999 mV
Resistance Range	: 0.01 to 10k
Resistivity Range	: 0.05 to 200k
Cable Length	: 400 m.
Depth Measurement	: Incremental shaft encoder and Mechanical counter
Power Supply Battery	: Rechargeable battery
Winch Mechanism	: Manually operated.
Out put	: On 8" industrial grade tough screen display Survey code, date, time, apparent resistivity of SL & LN, SP in mV, online graph for every manual interval of depth.

Specifications are likely to change with R&D.

IGIS also makes custom-build resistivity meters to individual specifications.

IGIS Instruments carry one-year guarantee against manufacturing defects

Manufactured by:



Integrated Geo Instruments & Services (P) Limited

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