



## WHEN YOU WANT TO BE SURE TO GET HIGH QUALITY DATA

*Terrameter LS is a world leading resistivity instrument that offers high quality data. The instrument can be used for several applications and is developed to be useful for universities, contractors/consultants, governments and aid organisations. As the Terrameter LS concept is modular it offers individually tailored solutions to meet each clients specific needs.*

### **ROBUST, EASY-TO-USE DESIGN**

Terrameter LS has a robust design optimized for tough field conditions. The instrument is designed for easy usage, it is a compact (12 kg) stand-alone instrument.

### **HIGH POWER TRUE CURRENT TRANSMITTER**

A powerful transmitter creates data with higher quality and decreases the possibility to get poor quality data in field.

### **HIGH QUALITY RECEIVER**

A sensitive receiver enables high resolution data recording, including the new possibility to make full waveform recording. All channels in the receiver are galvanically separated to reduce noise disturbance.

### **WINDOWS UTILITY SOFTWARE**

To analyse field data, use the utility software for data transfer, protocol uploading, software updating, data conversion and to view full waveform data.

## Receiver

<b>No. of Channels</b>	4,8 or 12 input (+ 2 for Tx monitoring)
<b>Isolation</b>	All channels are galvanically separated
<b>Input Voltage Range</b>	+ / - 600 V
<b>Input Impedance</b>	200 MOhm
<b>Precision</b>	0.1 %
<b>Accuracy</b>	0.2 %
<b>Resolution</b>	Theoretical 3 nV at 1 sec integration
<b>Linearity</b>	0.005 %
<b>Range</b>	+ / - 2.5 V, 200 MOhm + / - 15 V, 30 MOhm + / - 600 V, 20 MOhm
<b>Flat Frequency Response</b>	Better than 1 % up to 300 Hz

## Measuring

<b>Resistivity</b>	YES
<b>SP</b>	YES
<b>IP</b>	YES
<b>Full wave form</b>	Sampled and average to requested data. Possible to activate recording to file for post analysis
<b>Dynamic Averaging</b>	24 bit A/D conversion
<b>Data Sampling Rate</b>	30 kHz
<b>Cycle time</b>	from 0.4 sec to 28,7 sec
<b>Pulse time</b>	User selectable, resistivity from 0.1 sec to 8,2 sec.
<b>IP Windows</b>	User selectable Arbitrary windows flexibility configured to powerline frequencies

## Transmitter

<b>Output power</b>	250 W
<b>Current transmission</b>	True Current Transmitter
<b>Output Current Accuracy</b>	Better than 0.4 %
<b>Maximum Output Current</b>	2500 mA
<b>Maximum Output Voltage</b>	+ / - 600 V 1200 V peak to peak
<b>Instant Polarity Changer</b>	YES
<b>Accuracy</b>	0.4 %
<b>Precision</b>	0.1 %
<b>Self Diagnostics</b>	Temperature, Power dissipation, Monitoring
<b>Safety</b>	Emergency Interrupter easily accessible

*With reservations for changes; our products undergo continuous development*

## Tx Monitor

<b>Voltage</b>	+/- 600 V
<b>Current</b>	+/- 2500 mA
<b>Current Accuracy</b>	Full waveform monitored
<b>Current Precision</b>	0.2 % 0,1 %

## General

<b>Casing</b>	Rugged Aluminum case meets IEC IP 66
<b>Computer</b>	Embedded ARM 9, 200 MHz
<b>GPS</b>	20 channels SirF star III chip
<b>Display</b>	8,4" Active TFT LCD, full colour, daylight visible
<b>I / O ports</b>	2 x KPT 32 p for imaging (1 x KPT 32 p for VES) AUX, USB A, USB B, RJ45 for LAN
<b>Service point</b>	Accessible through Internet, Multifunction connector
<b>Memory Capacity</b>	8 GB, More than 1 500 000 readings
<b>Power</b>	8 Ah Internal NiMH 12 V power pack and External 12 VDC battery (recommended option for all Imaging and VES)
<b>Dimensions (W x L x H)</b>	39 x 21 x 32 cm
<b>Weight</b>	12 kg
<b>Ambient Temperature Range</b>	- 20°C to + 70 °C operating <sup>1,2</sup> - 30°C to + 80 °C storage <sup>3</sup>

Note 1: Measuring speed may be reduced in high ambient temperature combined with high output power

Note 2: The performance of the LCD is not guaranteed below 0°C

Note 3: Non condensing

## Multi-Electrode Survey Systems for 2D & 3D for Resistivity, IP & SP Imaging & Monitoring

<b>Switching matrix</b>	Internal 10 X 64, divided into four blocks for effective use of all receiver channels available
<b>Roll-a-Long</b>	YES full coverage, both 2D & 3D
<b>Array types Default</b>	Multiple Gradient, Dipole-Dipole, Pole-Dipole, Wenner etc. (for VES, get info)
<b>Take-outs internal</b>	64 inline + 3 remote electrodes
<b>Electrode Test</b>	YES, Focus One estimating contact resistance on all electrodes currently in use

20110927

## Field Equipment

Consult your local ABEM distributor for full details of the various configurations available for you. Turnkey packages for both 2D and 3D measurements are offered, including cables, electrodes and software. Also a VES configuration is available.