

# ABEM

## Terrameter LS 2

RESISTIVITY AND IP IMAGING

Performance through scalability



# Performance through scalability

Flexible, easy to use and boasting a number of innovative features the ABEM Terrameter LS 2 is the ideal partner for geotechnical, groundwater, mineral or environmental surveys and research work.

**Resistivity/IP surveying** is a versatile geophysical method suitable for a broad range of applications and environments such as groundwater prospecting, mineral exploration, geological mapping and geotechnical investigations. System design can vary depending on the application.

The ABEM Terrameter LS 2 is available in many different configurations to perfectly match your requirements. The instrument benefits from an innovative hardware licensing system, making it scalable and easy to upgrade. Every instrument comes preinstalled with all hardware modules and software features, but depending on product package not all need be activated. Product packages range from basic to advanced. Upgrades are made by downloading a license code from the internet or via USB.

## Features

- Up to 12 measurement channels
- Unique design of measurement channels and high power current transmitter
- IP measurements with 100 % duty cycle
- 1D, 2D, 3D and 4D measurements
- IEC IP 66 classification
- Wi-Fi and mobile connectivity
- Scalable through hardware licensing system
- 16 GB removable and expandable data storage
- Built-in charger for internal battery



The instrument is a standalone solution featuring built-in measurement channels, high power current transmitter, electrode selector, computer and graphical user interface. Surveying techniques range from 1D to 4D measurements. The robust and rugged aluminum casing meets IEC IP66 classification and allows for use in the harshest of conditions.

The measurement channels have an improved filter design for enhanced IP performance. Using the 100% duty cycle, data collection will be almost twice as fast and have twice the signal to noise ratio compared to the conventional IP method (50 % duty cycle) using the same settings.

By utilizing processing packages such as Aarhus Workbench from Aarhus GeoSoftware, it is possible to extract spectral information from time-domain IP data.



# Innovative functionality

The ABEM Terrameter LS 2 offers up to 12 measurement channels for greater efficiency and productivity in the field. The built-in electrode selector allows for connection of up to 81 electrodes, providing high resolution and impressive depth capabilities. With the use of external electrode selectors over 16 000 electrodes can be connected. Guideline Geo offers a wide range of land, marine and borehole cables.

The built-in field computer in the ABEM Terrameter LS 2 offers robust computing power, an easy to use graphical user interface and connectivity such as USB, Ethernet, Wi-Fi and mobile communication. The internal GPS supports GLONASS, which improves positioning accuracy. Data is stored on a removable 16 GB microSD memory card, with a capacity of millions of data readings.



**Remote connectivity** can allow the ABEM support team to assist with software upgrades, give support or troubleshoot if necessary. This unique feature ensures that the system is always up to date, operating correctly, with the risk of downtime kept to an absolute minimum.

## Advantages

- Measure IP faster and with better quality
- Basic or advanced measurements without limitations
- Rugged and robust – measure anywhere at any time
- Remote connectivity allows assistance onsite
- Scalable and easy to upgrade
- Optimized for productivity, minimizing field time
- Outstanding quality of data even in the harshest conditions
- GPS with GLONASS for improved accuracy



# Legacy

The **ABEM Terrameter LS 2** continues the ABEM tradition of adding advanced and useful features to resistivity meters. The Terrameter LS 2 offers increased measuring speed and data quality by adding an IP feature using 100 % duty cycle in the advanced configurations.

The graphical user-interface makes it easy to use and the entire user experience is streamlined for productivity. During measurement, the system gives continuous information of data quality, showing results directly on screen. Multichannel arrays, such as the Multiple Gradient, ensure measurement tasks can be completed quickly. The commitment to data quality and productivity does not stop with the instrument.

ABEM software can be used for maintaining instruments, simplifying downloading and processing of data before inversion. After the inversion, visualization tools can be used to make the inversed data more presentable and ready for use in a report. With the unique hardware licensing system the ABEM Terrameter LS 2 is scalable and future-proof, ensuring a return of investment no matter what system you start on – basic or advanced.

## Typical applications

- Geological mapping
- Geotechnical pre-investigation
- Groundwater prospecting
- Mineral exploration
- Mapping and monitoring of contamination
- Geothermal prospecting
- Sub-bottom mapping of marine environments
- Monitoring of permafrost
- Archaeology
- Dam and embankment inspection and monitoring



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