ABEM

WalkTEM & GroundTEM
PRODUCT RANGE

Groundwater, Minerals & Environmental Survey

HIGH QUALITY INSTRUMENTS FOR RAPID RESISTIVITY MEASUREMENTS

What is TEM?

TEM (Transient Electromagnetic) is a geo-physical technique used to obtain vertical resistivity soundings. The method responds most strongly to conductive bodies making it an ideal choice for targeting groundwater, saline intrusion, clay deposits and large ore bodies.

The ABEM GroundTEM

The GroundTEM range is an affordable yet powerful entry-level system. The GroundTEM i5 and i10 are user-friendly, app-controlled instruments that complement the existing WalkTEM range perfectly. They make TEM surveys more affordable, less complex, and quicker to deploy, with a one-box lightweight solution.

The ABEM WalkTEM 2

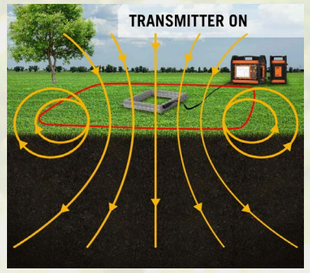
The WalkTEM 2 is a user-friendly, rapid survey solution that can provide precise resistivity models directly in the field for reconnaissance, mapping, and monitoring projects.

An WalkTEM 2 consists of a separated receiver unit (Rx) and a transmitter unit (Tx), connected by a synchronization cable.

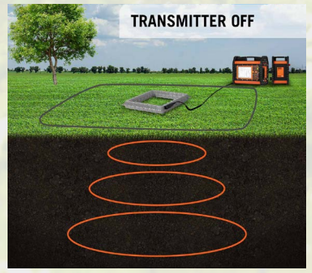
The WalkTEM 2 represents the ultimate scalable system that should fit any customer's survey requirements and be adaptable to their future needs, across a broad range of applications.

The TEM Method

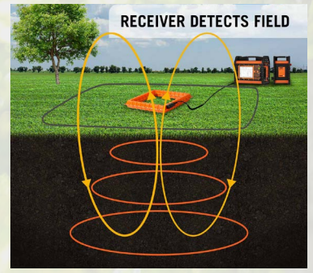
TEM is a non-destructive, rapid tool for the search, mapping and monitoring of groundwater, environmental change and mineral deposits. With static systems, depths of hundreds of meters can be investigated in minutes and the work can be finished whilst other survey methods would still be setting up. With a towed system, landscape-scale resistivity surveys become a more cost-effective proposal.



Current flowing in the Tx loop will create a magnetic filed (yellow)



The collapsing magnetic field creates electrical currents in the ground



Ground currents create a secondary magnetic field recorded by the Rx loop

GroundTEM i5

The GroundTEM is an extremely capable, yet affordable, entry-level TEM system. **The GroundTEM i5** provides a 5 A maximum output through either a 20 × 20 m or 40 × 40 m transmitter loop. A flexible 3 × 3 m, 4-turn receiver coil completes the system. Remote upgrades can be made to go from GroundTEM i5 to GroundTEM i10.

GroundTEM i10

The GroundTEM i10 has the same transmitter loop and receiver coil options as the GroundTEM i5 but unlocks more power. With a 10 A maximum Tx current, it allows for deeper measurement, without any increase in size or weight. This unit is a great compromise between power and portability.

WalkTEM 2 Rx STD & Tx-8

The WalkTEM 2 comes in two receiver configurations: the WalkTEM 2 Rx Standard and the WalkTEM 2 Rx Advanced. **The WalkTEM 2 Rx Standard** is only compatible with the **WalkTEM 2 Tx-8** transmitter, smaller receiver coil (**RC-5**), and the 20 m (**TL-400**) and 40 m (**TL-1k6**) transmitter loops.

Remote upgrades can be made to go from WalkTEM 2 Rx STD to WalkTEM Rx ADV and from WalkTEM 2 Tx-8 to WalkTEM 2 Tx-20.

With the exception of the WalkTEM Tx-60, all ABEM TEM instruments are dual-moment. They run low and high current pulses through the transmitter loop in a single measurement cycle to provide the ideal set-up for both shallow and deeper responses; all measurements are combined into a single dataset automatically for processing.

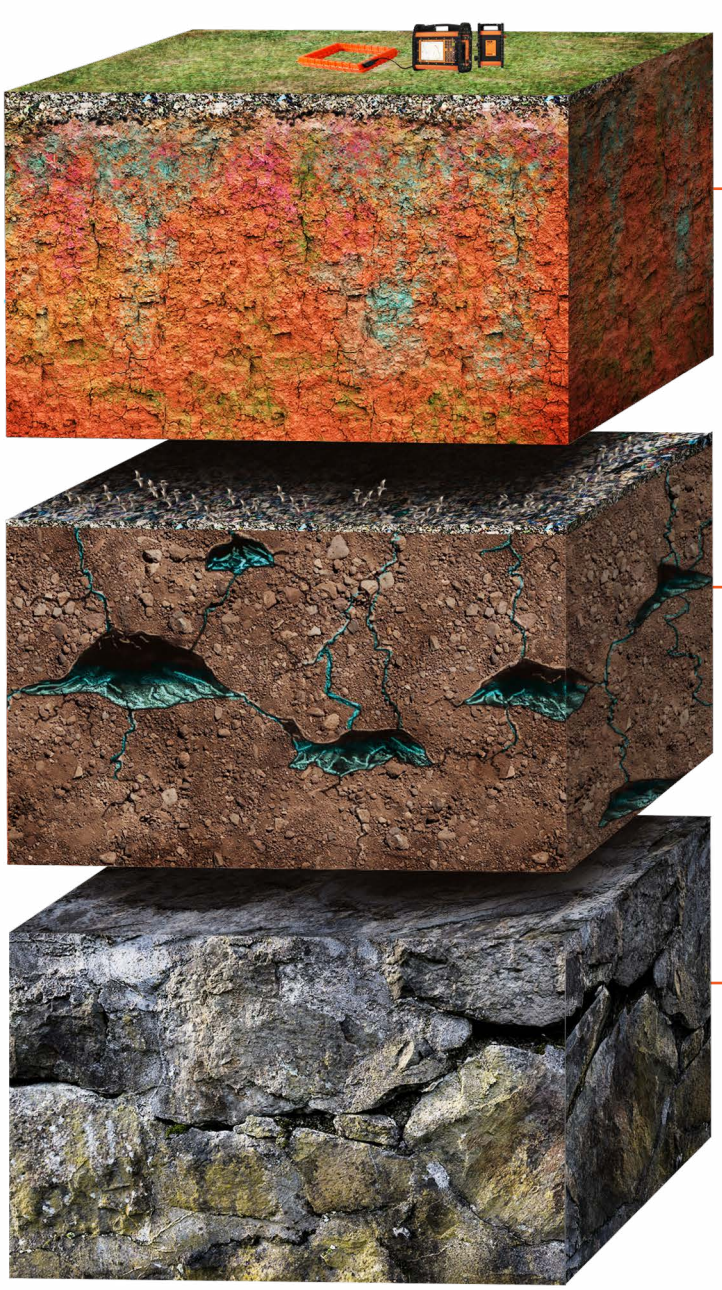
WalkTEM 2 Rx ADV & Tx-20

The WalkTEM 2 Rx Advanced benefits from:

- Tx waveform analysis (only an option on the Rx Standard)
- 2 input channels (only 1 channel on the Rx Standard)
- Onboard inversion
- Compatibility with all WalkTEM Tx loops and Rx coils

WalkTEM 2 Rx ADV & Tx-60

The WalkTEM 2 Advanced is compatible with the **WalkTEM Tx-60.** The WalkTEM Tx-60 is a high-power, actively cooled transmitter for deep surveys. The Tx-60 has a maximum output of 60 A or 5 kW.



Search, map, monitor

Environmental

TEM provides a rapid means of surveying for a wide range of environmental applications from identifying potentially hazardous clay units within a geological sequence, to mapping and monitoring dynamic features such as permafrost thickness or potential pollutants.

Groundwater

A high sensitivity to conductive materials makes TEM extremely useful in groundwater studies, for example differentiating between fresh, brackish and saline deposits, monitoring drawdown and recharge of an aquifer, or simply estimating its extents by building up profiles or grids of soundings.

Minerals

TEM responds well to conductive mineral bodies. With multi-component measurements and the ability to determine chargeability from IP effects in TEM data (using Aarhus SPIA TEM), the WalkTEM 2 is a powerful tool in the search for new mineral deposits.

ABEM GroundTEM Ralli - mobile TEM for rapid groundwater & environmental mapping

The ABEM GroundTEM Ralli is the latest product to be added to the ABEM GroundTEM instrument platform. It represents the ultimate solution for rapid, high-resolution subsurface mapping.

Designed for efficiency, this cutting-edge system, based on technology from our expert partners at TEMcompany, delivers precise groundwater and geological data down to 200 m.

GUIDELINEGEO

GUIDELINE GEO has been in the geophysics business since 1923 and is the global leader in near-surface geotechnology. Our advanced technology ensures practical solutions to everyday, societal, and global problems. We deliver total solutions in the technological fields of ground penetrating radar, seismic, geoelectrical and electromagnetic measurement. The Guideline Geo AB share (GGEO) is listed on Nasdaq First North Growth Market. We are a Swedish company with international offices and regional partners serving clients in over 100 countries.

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