KT-10 Magnetic Susceptibility Meter

The KT-10 Magnetic Susceptibility Meter includes a number of major benefits such as being one order of magnitude more sensitive than its predecessor, Bluetooth communication to store readings integrated with GPS coordinates and data transfer, fast and accurate scanning and data management and visualization software for the PC. The KT-10 can also be upgraded to a KT-10 Plus Magnetic Susceptibility Meter**.**





Major Benefits

- **Higher Sensitivity**

The KT-10 is one order of magnitude more sensitive than its predecessor when used on smooth surfaces. This maximum sensitivity is now 1 x 10^{-6} SI units.

- **Better Sample Measurements**

The KT-10 can be used with a pin for rough surface measurements or without a pin when you can establish direct contact with the sample. When pressing the pin against field samples or outcrops, and when the susceptibility meter is kept parallel to the surface, it provides a reading with increased accuracy. It also automatically corrects and displays the true magnetic susceptibility.

- **Improved Data Averaging**

The KT-10 has a user configurable data averaging capability. You can store a number of consecutive readings from a sample, their average and their standard deviation for quality control.

- **Large Memory**

The KT-10 stores up to **3,000** readings in its internal non-volatile memory. Average readings and standard deviation are also stored. The operator can record up to one minute of comments associated to each specific reading through the KT-10 digital voice recorder.

- **Fast and Accurate Scanning**

The KT-10 scans **20** readings per second and stores 4 averaged readings during the same period. The operator can also add markers to the data set to identify the location of those measurements.

- **Flexible PC Interface**

The KT-10 includes **GeoView,** a multi-platform software which allows the operator to download and visualize the KT-10 data with the click of a few buttons. **GeoView** can also play back the voice notes stored along side the readings, change the KT-10's settings and transfer the data to a spreadsheet. It also allows the operator to view or export GPS paths into a Google Earth compatible format.

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Other Benefits

- **Variable Audio Capability**

When used in the **Scan Mode**, the KT-10 speaker allows the operator to monitor the variations in the magnetic susceptibility measurements with a variable audio sound, which is relative to the intensity of the reading. The voice recorder also allows for the recording and replaying of voice messages through the instrument's speaker.

- **Large LCD Display**

A high contrast LCD is utilized for the display of the magnetic susceptibility readings. It also serves as the interface for operating the instrument. Together with two buttons and graphical menus, operators can interactively navigate the instrument's different functions. Icons allow the operator to monitor the battery status, Bluetooth connectivity, GPS support and more.

- **USB Data Transfer**

The KT-10 uses USB communication standards as its default mode of communication. This allows for the fast transfer of measurements and digital voice streams from the unit to a PC. The USB can also be used for firmware upgrades and parameter settings.

- **Bluetooth Connectivity**

Bluetooth is already standard with the KT-10. So when an operator uses a Bluetooth enabled GPS, it allows them to store the GPS coordinates in the KT-10 memory along with the readings. Bluetooth can also be used to download readings **wirelessly** from the unit along with the voice streams.

- **Smaller and Easy to Use**

The KT-10's smaller size and ergonomic design make it easier to use and carry. Its interactive menu also facilitates its operation.

- **Power Supplies**

The KT-10 standard configuration is available with two Alkaline AA size cell batteries, which allows the operator to take up to 4,000 readings when the optional voice recorder is not being used.

- **Rugged and Reliable**

The KT-10 meets IP65 standards, and is therefore protected against dust and provides additional protection in rainy or high humidity conditions.

- **Storage/Transportation**

The KT-10 is delivered in a small pouch with a foam insert. The pouch can be mounted on a belt and comfortably carried on the waist. A set of spare batteries and **PIN** can be also placed in the pouch for storage.

- **Programmable Calibration**

You can now recalibrate your KT-10 either by using the optional Magnetic Susceptibility Calibration Pad or, with a known sample which susceptibility is closer to the samples or cores you want to measure.



Standard Configuration

The KT-10 standard System is supplied with:

- KT-10 Console with pin, and wrist strap
- Two Alkaline AA Batteries
- Spare Pin
- USB Cable
- CD with GeoView Data Transfer Software
- Operations Manual and a Quick Start Guide
- Small Pouch with Foam Insert
- White Cardboard Box

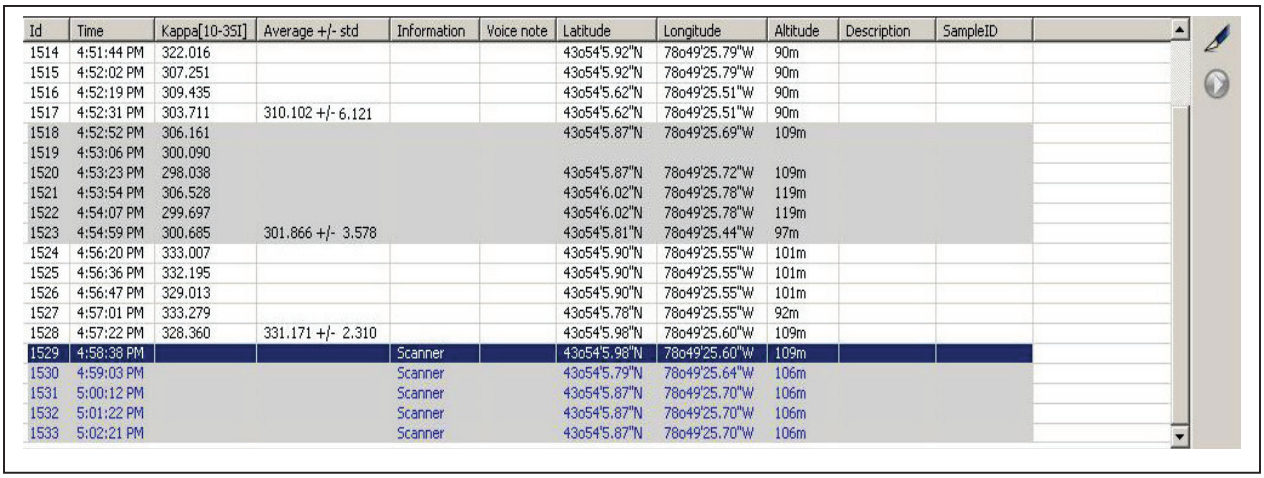
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GeoView PC Interface Software:

- **Data Management**

GeoView is a multi-platform software that allows users to organize their KT-10 data by date and serial number. It also facilitates the transfer of data from the KT-10 to a personal database for further correlation and interpretation. GeoView is compatible with both Windows and Linux operating systems.

As presented below, averaged readings are grouped together with records (containing date, time, value, voice notes and optional GPS positions) in one convenient location. Users can also add new column headers to enter additional information specific to the data collection.

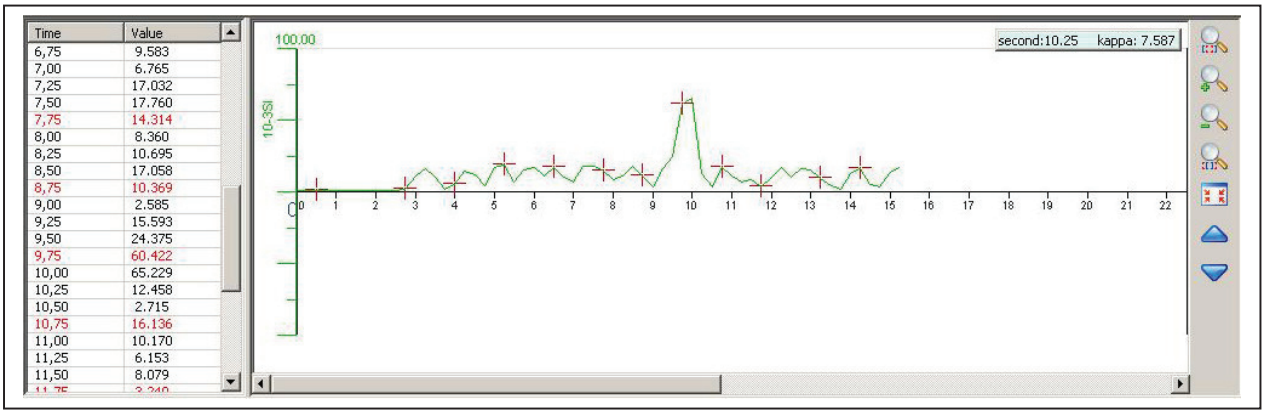


Id	Time	Kappa[10-3SI]	Average +/- std	Information	Voice note	Latitude	Longitude	Altitude	Description	SampleID
1514	4:51:44 PM	322.016				43o54'5.92"N	78o49'25.79"W	90m		
1515	4:52:02 PM	307.251				43o54'5.92"N	78o49'25.79"W	90m		
1516	4:52:19 PM	309.435				43o54'5.62"N	78o49'25.51"W	90m		
1517	4:52:31 PM	303.711	310.102 +/- 6.121			43o54'5.62"N	78o49'25.51"W	90m		
1518	4:52:52 PM	306.161				43o54'5.87"N	78o49'25.69"W	109m		
1519	4:53:06 PM	300.090								
1520	4:53:23 PM	298.038				43o54'5.87"N	78o49'25.72"W	109m		
1521	4:53:54 PM	306.528				43o54'6.02"N	78o49'25.78"W	119m		
1522	4:54:07 PM	299.697				43o54'6.02"N	78o49'25.78"W	119m		
1523	4:54:59 PM	300.685	301.866 +/- 3.578			43o54'5.81"N	78o49'25.44"W	97m		
1524	4:56:20 PM	333.007				43o54'5.90"N	78o49'25.55"W	101m		
1525	4:56:36 PM	332.195				43o54'5.90"N	78o49'25.55"W	101m		
1526	4:56:47 PM	329.013				43o54'5.90"N	78o49'25.55"W	101m		
1527	4:57:01 PM	333.279				43o54'5.78"N	78o49'25.55"W	92m		
1528	4:57:22 PM	328.360	331.171 +/- 2.310			43o54'5.98"N	78o49'25.60"W	109m		
1529	4:58:38 PM			Scanner		43o54'5.98"N	78o49'25.60"W	109m		
1530	4:59:03 PM			Scanner		43o54'5.79"N	78o49'25.64"W	106m		
1531	5:00:12 PM			Scanner		43o54'5.87"N	78o49'25.70"W	106m		
1532	5:01:22 PM			Scanner		43o54'5.87"N	78o49'25.70"W	106m		
1533	5:02:21 PM			Scanner		43o54'5.87"N	78o49'25.70"W	106m		

- **Data Visualization**

Numerical display allows for quick review of field data while graphical display aids in the interpretation of scanner data.

As shown below, the scanned data is displayed in a graphical mode. The use of markers can assist operators to orient the readings to a physical location.



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KT-10 Options:

KT-10 Plus Iron Ore Concentration Measurement Estimates

The KT-10 is upgradable to a KT-10 Plus for measuring iron ore samples and core up to 10 SI units. With this extended range and pre-installed calibration curve, it is possible to obtain the concentration estimate of iron ore directly from the KT-10 Plus. If the samples and cores you are working with have a different composition or structure than those used to set up the calibration curve included in your KT-10 Plus, you can program yourself up to 2 calibration curves which are specific to the samples and cores you are measuring.

Magnetic Susceptibility Calibration Pad

A magnetic susceptibility calibration pad is now available as an option for the KT-10 and KT-10 Plus. The calibration pad is manufactured from a suitable Mn-Zn Ferrite compacted with mudstone. Its purpose is to confirm that the KT-10 and KT-10 Plus are operating properly or to recalibrate the unit.

Nominal susceptibility will vary between calibration pads.

Typically	34 x 10^{-3} SI
Diameter	145 mm
Height	70mm
Density	2.2g/cm^3
Weight:	2.65kg



Specifications:

Sensitivity:	1x10^{-6} SI Units
Measurement range:	0.001x10^{-3} to 1999.99 x10^{-3} SI Units Auto-Ranging
Operating frequency:	10 kHz
Measurement frequency:	20 times per second (in Scan mode, 5 readings averaged together and 4 readings /second stored
Display:	High Contrast LCD Graphic Display with 104 x 88 pixels
Memory:	Up to 3000 measurements or 2000 measurements with one minute of comments per reading
Control:	1 button with up / down function & pin for rough surfaces
Data Input/Output:	USB, Bluetooth with GPS link via Bluetooth
Power Supply:	2 AA Alkaline Batteries or 2 optional AA Rechargeable Batteries
Battery life:	Up to 4000 readings without voice recorder
Operating temperature:	-20 °C to 60 °C
Dimensions:	200mm x 57mm X 30mm
Coil Diameter:	65 mm with a 45 degree angle
Weight:	0.30 kg

Specifications subject to change without notice # 23-04-12

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