KT-10 v2 Magnetic Susceptibility Meters

KT-10 v2 and KT-10R v2 Magnetic Susceptibility Meters

The KT-10 v2 is a portable, hand-held, high-resolution Magnetic Susceptibility Meter, available with circular coil (Model KT10 v2) or rectangular coil, optimized for core analysis (Model MT-10R v2). Both models allow users to input depth correlation information, receive measurement results in either SI or CGS Units and feature large internal memories. Additional benefits such as high sensitivity, Bluetooth communication and a data management/visualization software for the PC are standard in both configurations. They can also be upgraded to either a KT-10 Plus, KT-10 S/C or KT-10 Plus S/C Magnetic Susceptibility/Conductivity Meter.

KT-10 and KT-10R v2 Benefits

- **High Sensitivity**

The KT-10/KT-10R v2 have a maximum sensitivity of 1 x 10^{-6} SI units on smooth surfaces.

- **Fast and Accurate Scanning**

The KT-10/KT-10R v2 scan **20** readings per second and store 4 averaged readings during the same period.

- **Quality Control (QC) Parameters**

The KT-10/KT-10R v2 provides users with the ability to assess data quality. Along with the measurement results, a user can obtain data averages and standard deviation values in measure mode, or data averages and maximum values in scanner mode.

- **New Rectangular Coil Available**

The KT-10 v2 Magnetic Susceptibility Meter is now available in two different coil configurations: the KT-10R v2 with Rectangular Coil or the standard KT-10 v2 with Circular Coil. The rectangular coil is beneficial for measuring core samples with small diameters as they do not need to be removed from the core box for measurement. The circular and rectangular coils are not interchangeable.

- **Depth Correlation**

The KT-10/KT-10R v2's large memory allows the user to input information to correlate every core measurement to its depth. The user can enter information such as borehole I.D., box number, the number of rows in a box, start and end depths, as well as depth intervals. In the Scanner mode, depth intervals can be recorded with the push of a button. All readings between depth intervals are interpolated into the data for reference.

- **Large Memory**

The KT-10/KT-10R v2 feature a 4 GB memory that can store up to 4,000 total records. Users can take up to 4,000 scanner measurements with up to 480 data points per record, or 4,000 discrete measurements with 120 seconds of voice notes per reading. Discrete and scanner records can be combined to total 4,000.

- **Upgrade to a KT-10 S/C or KT-10 Plus S/C**

The KT-10/KT-10R v2 can be upgraded into a KT-10 S/C or KT-10 Plus S/C to allow the user to read both magnetic susceptibility and conductivity measurements simultaneously. This upgrade is performed through the internet using the GeoView software CD. Additionally, users who upgrade their KT-10/KT-10R v2 will receive a copy of the GeoVision Android App. Please see the options section of the fourth page for additional details.

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2075 Corte del Nogal, Suite T, Carlsbad CA 92011 USA Tel. 800-272-4327 760-431-2655 Fax. 760-431-0904 jtoth@ascscientific.com

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Additional Benefits

- **Measure in SI or CGS Units**

The KT-10/KT-10R v2 allow users to obtain magnetic susceptibility measurements in either SI or CGS units.

- **Variable Audio Capability**

The KT-10/KT-10R v2 speaker allows the user to monitor the variations in the magnetic susceptibility measurements with a variable audio sound while in Scan mode. The voice recorder also allows for the recording and replaying of voice messages through the instrument's speaker.

- **Calibration**

The KT-10/KT-10R v2 are factory calibrated; however, the end user can re-calibrate the meters by using the optional Magnetic Susceptibility Calibration pad. A sample with known magnetic susceptibility values can also be used.

- **Flexible PC Interface**

The KT-10/KT-10R v2 include **GeoView,** a multi-platform software which allows the user to download and visualize the data. **GeoView** can also play back the voice notes stored along side the readings, change the KT-10/KT-10R's settings, transfer the data to a spreadsheet and view or export GPS paths into a Google Earth compatible format.

- **Bluetooth Connectivity**

The KT-10/KT-10R v2 come standard with Bluetooth connectivity. This gives users the ability to download the meter's data wirelessly and connect to Bluetooth enabled GPS units to store GPS coordinates along with the readings. As an option, one can also pair the KT-10/KT-10R v2 with an Android operated smart phone or tablet to obtain a real time scanner profile with the GeoVision App.

- **USB Data Transfer**

USB communication standards are used as the default mode of communication for the KT-10/KT-10R v2. This allows for the fast transfer of measurements and digital voice streams from the meters to a PC. The USB is also used for firmware upgrades and parameter settings.

- **Small and Easy to Use**

The KT-10/KT-10R v2's small size and ergonomic design make them easy to use and carry. Interactive menus facilitate their operation.

Reading, Average & Standard Deviation

Depth Correlation Information

- **Large LCD Display**

The KT-10/KT-10R v2 are equipped with a high contrast LCD display which serves as the interface for operating the instrument. The LCD also displays the magnetic susceptibility measurements, icons and graphical menus which are used to interactively navigate the KT-10/KT-10R v2's different functions.

- **Rugged and Reliable**

The KT-10/KT-10R v2 meet IP65 standards and are therefore protected against dust, rain or conditions with high humidity.

- **Uneven Surface Measurements**

The KT-10 v2 can be used with a pin for uneven surface measurements, or without a pin when applied on a flat surface. It also automatically corrects and displays the true magnetic susceptibility. The KT-10R v2 is not supplied with a pin as one of its main uses is for measuring core samples.

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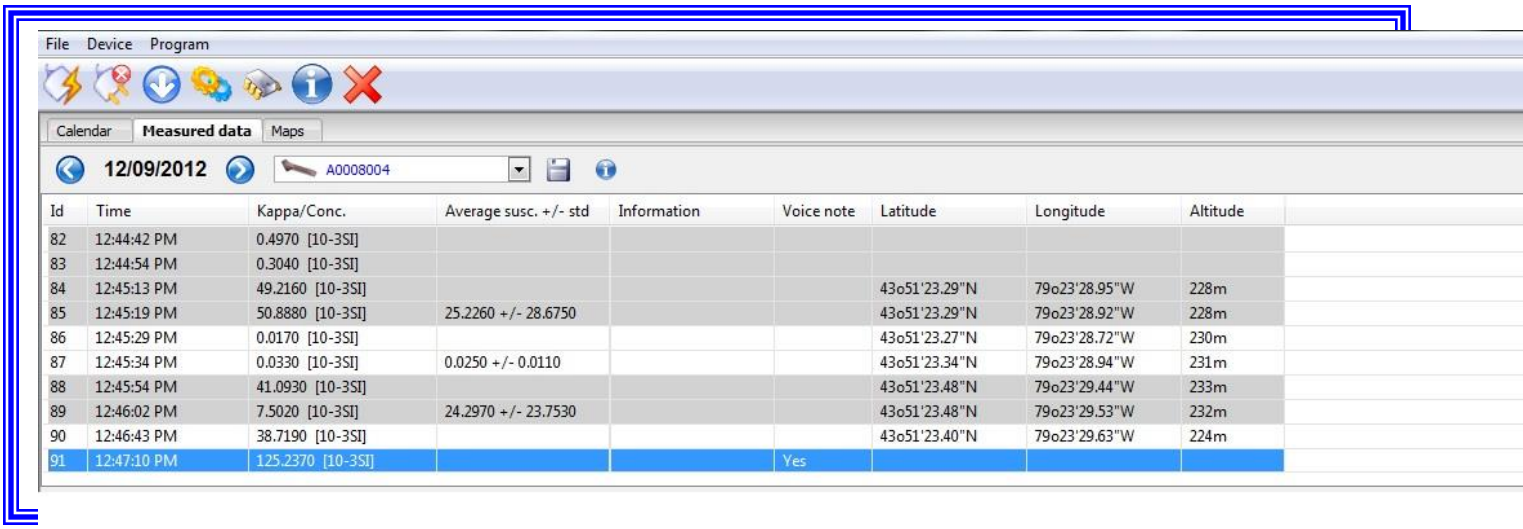
GeoView PC Interface Software:

- **Data Management**

GeoView is a multi-platform software that allows users to organize their KT-10/KT-10R v2 data by date and serial number. It also facilitates the transfer of data from the KT-10/KT-10R v2 to a personal database for further correlation and interpretation. GeoView is compatible with all Windows 32 or 64 bit 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.

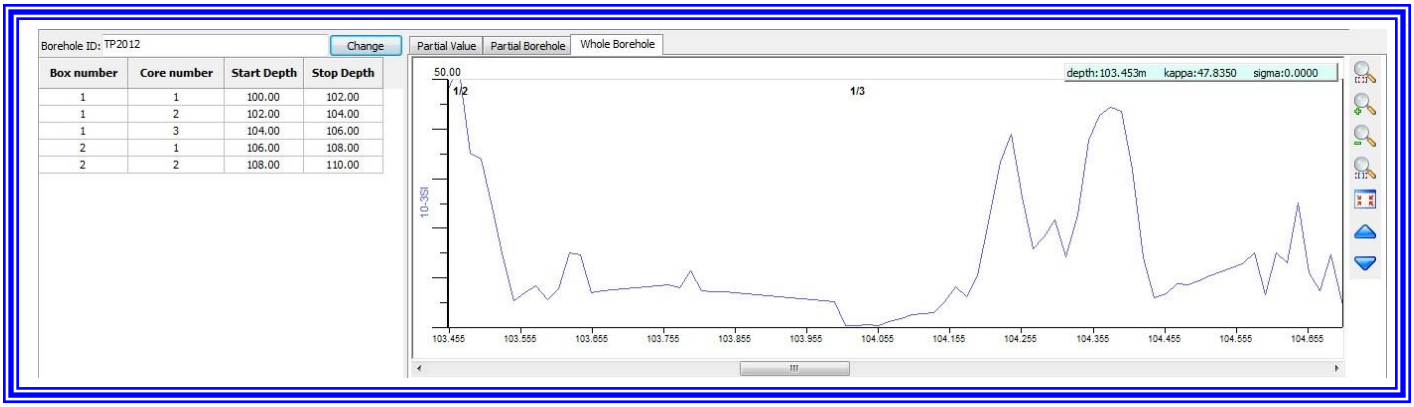


Id	Time	Kappa/Conc.	Average susc. +/- std	Information	Voice note	Latitude	Longitude	Altitude
82	12:44:42 PM	0.4970 [10-3SI]						
83	12:44:54 PM	0.3040 [10-3SI]						
84	12:45:13 PM	49.2160 [10-3SI]				43o51'23.29"N	79o23'28.95"W	228m
85	12:45:19 PM	50.8880 [10-3SI]	25.2260 +/- 28.6750			43o51'23.29"N	79o23'28.92"W	228m
86	12:45:29 PM	0.0170 [10-3SI]				43o51'23.27"N	79o23'28.72"W	230m
87	12:45:34 PM	0.0330 [10-3SI]	0.0250 +/- 0.0110			43o51'23.34"N	79o23'28.94"W	231m
88	12:45:54 PM	41.0930 [10-3SI]				43o51'23.48"N	79o23'29.44"W	233m
89	12:46:02 PM	7.5020 [10-3SI]	24.2970 +/- 23.7530			43o51'23.48"N	79o23'29.53"W	232m
90	12:46:43 PM	38.7190 [10-3SI]				43o51'23.40"N	79o23'29.63"W	224m
91	12:47:10 PM	125.2370 [10-3SI]			Yes			

- **Data Visualization**

A numerical display allows users to quickly review the field data, while a 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.



Box number	Core number	Start Depth	Stop Depth
1	1	100.00	102.00
1	2	102.00	104.00
1	3	104.00	106.00
2	1	106.00	108.00
2	2	108.00	110.00

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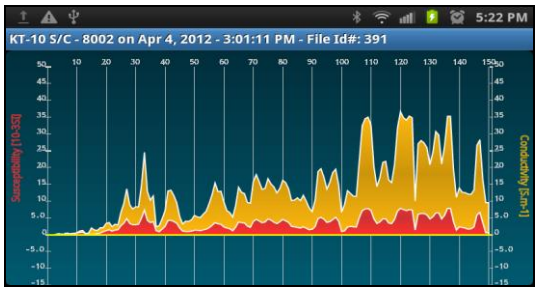
KT-10 /KT-10R v2 Options:

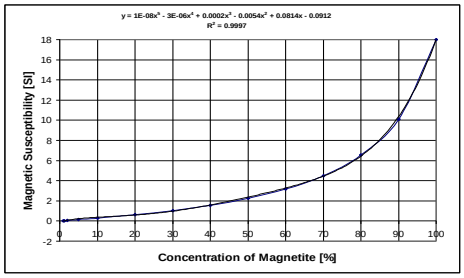
- **Upgrade to a KT-10 Plus /KT-10R Plus v2**

The KT-10/KT-10R v2 are upgradable to a KT-10 Plus/KT-10R Plus v2 for measuring iron ore samples and cores 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/KT-10R Plus v2. This upgrade can be performed via the internet using the GeoView software (instrument must be connected to a PC either with USB or Bluetooth). Please contact ASC Scientific to obtain the price for this upgrade.

- **Upgrade to a KT-10 S/C or KT-10 Plus S/C**

The KT-10/KT-10R v2 can be upgraded to the KT-10 S/C or KT-10 Plus S/C, allowing users to read both magnetic susceptibility and conductivity measurements simultaneously. The KT-10 Plus S/C provides users with the added benefit of being able to obtain iron ore concentration estimates from samples or drill cores. Customers who complete either upgrade will receive a copy of the GeoVision Android App. Please contact ASC Scientific to obtain pricing for both upgrades.





- **GeoVision Android App**

The GeoVision Android App is available as an option for the KT-10/KT-10R v2. GeoVision allows the operator to display real time scanner profiles on an Android operated smart phone or tablet. Real time animated graphical outputs are displayed on the smart phone or tablet's screen while scanning. GeoVision can also be used as a KT-10/KT-10R v2 memory data browser to display field measurements/records, allowing the user to pan and zoom on the scanner graph. Additional text notes can be added to the current or previously stored data with an Android smart phone or tablet. The Android operating system (OS) must be version 2.3.3 or higher. Android phone or tablet is not included with the GeoVision App.

- **Magnetic Susceptibility Calibration Pad**

A magnetic susceptibility calibration pad is available as an option for the KT-10/KT-10R v2. The calibration pad is manufactured from a suitable Mn-Zn Ferrite compacted with mudstone. Its purpose is to confirm that the KT-10/KT-10R v2 is operating properly or to recalibrate the meter.

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

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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:	**4 GB: 4,000 Total Records Stored *** * 4,000 scanner measurements with up to 480 data points per record (total of 1,920,000 individual data points). or * 4,000 discrete measurements with 120 seconds of voice notes per reading. Discrete and scanner records can be combined.
Control:	1 button with up / down function
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 Dimensions: **	**Circular Coil** : Diameter 65 mm
	Rectangular Coil: Length 65 mm - Width 32 mm
Weight:	0.33 kg with 2 'AA' alkaline batteries installed
GeoView Software	Supports all Windows 32 or 64 bit operating systems

Specifications subject to change without notice # 26-02-13

KT-10 v2 Standard Configuration

The KT-10 v2 Circular Coil standard system is supplied with:

- KT-10 v2 Console with pin and wrist strap
- Two Alkaline AA Batteries
- Spare Pin
- USB Cable
- GeoView Software CD
- Operations Manual and Quick Start Guide
- Small Pouch with Foam Insert
- White Cardboard Box

KT-10R v2 Standard Configuration

The KT-10R v2 Rectangular Coil standard system is supplied with:

- KT-10R v2 Console with wrist strap
- Two Alkaline AA Batteries
- USB Cable
- GeoView Software CD
- Operations Manual and Quick Start Guide
- Small Pouch with Foam Insert
- White Cardboard Box

***Coils are not interchangeable*

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