

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

Terraplus is pleased to announce that the KT-10R Plus v2 Magnetic Susceptibility with rectangular coil is now available, in addition to the KT-10 Plus v2 with circular coil. The KT-10 Plus v2 and KT-10R Plus v2 have an extended measurement range permitting users to measure iron ore samples and drill cores up to 10 SI units. They are also equipped with a pre-installed calibration curve giving the user the ability to obtain the concentration estimate of iron ore directly from the instrument's display. Both configurations can be upgraded to a KT-10 S/C or KT-10 Plus S/C Magnetic Susceptibility/Conductivity Meter.

Major Benefits

- **New Rectangular Coil Available**

The KT-10 Plus v2 Magnetic Susceptibility Meter is now available in two different coil configurations: the KT-10R Plus v2 with Rectangular Coil or the standard KT-10 Plus 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.

- **Measurement Range Increased to 10 SI Units**

The KT-10 Plus/KT-10R Plus v2 have an increased measurement range of up to 10 SI units, allowing users to measure and analyze samples with high magnetite content.

- **Direct Iron Ore Concentration Measurement Estimates**

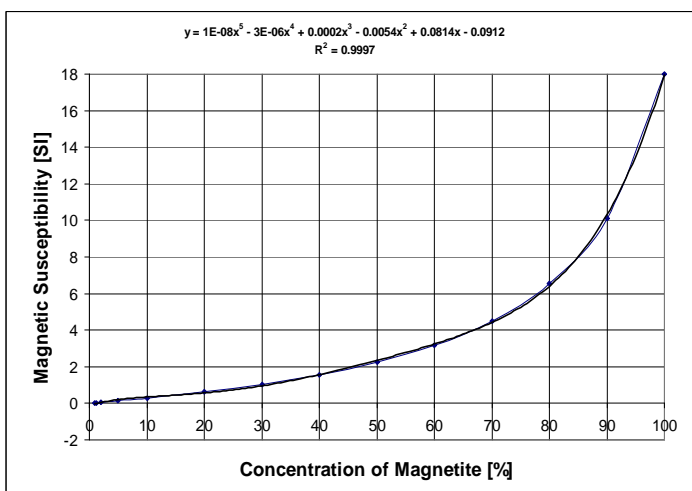
Direct iron ore concentration measurement estimates can be obtained from the KT-10 Plus/KT-10R Plus v2's display by using the pre-installed calibration curve.

- **Pre-Installed Calibration Curve**

One calibration curve is standard in the KT-10 Plus/KT-10R Plus v2's firmware. This calibration curve is based on magnetite with different concentrations.

- **Programmable Calibration Curve Capability**

Users can also program additional calibration curves which are specific to the samples and cores being measured. By taking a number of magnetic susceptibility measurements from a range of samples with known concentration values, users can program their own calibration curves using the GeoView Software. The new calibration curves can then be transferred to any KT-10 Plus/KT-10R Plus v2.



New v2 Features:

- **Depth Correlation**

The KT-10 Plus/KT-10R Plus 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.

- **Split and Full Core Corrections**

The KT-10 Plus /KT-10R Plus v2 includes a real time diameter correction for both split and full cores. The user can select from a range of drill rod diameters (AQ, BQ, NQ, HQ and PQ) or non-standard ones from 2.4 to 12 cm.

- **Measure in SI or CGS Units**

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

- **Upgrades and Support Available via the Internet**

The KT-10 Plus/KT-10R Plus v2 can be both upgraded and supported remotely through the internet. Users are also able to download the latest firmware upgrades to receive new features as they become available. The KT-10 Plus/KT-10R Plus v2 can be upgraded to a KT-10 Plus S/C to allow users to read both magnetic susceptibility and conductivity measurements simultaneously. For additional information and options, please refer to page five.



Benefits:

- **High Sensitivity**

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

- **Fast and Accurate Scanning**

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

- **Quality Control (QC) Parameters**

The KT-10 Plus/KT-10R Plus 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.

- **Calibration**

The KT-10 Plus/KT-10R Plus 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.

- **Uneven Surface Measurements**

The KT-10 Plus 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 Plus v2 is not supplied with a pin as one of its main use is for measuring core samples.



Additional Benefits:

- **Large Memory**

The KT-10 Plus/KT-10R Plus 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.

- **Variable Audio Capability**

The KT-10 Plus/KT-10R Plus 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.

- **Flexible PC Interface**

The KT-10 Plus/KT-10R Plus 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 meter's settings, transfer the data to a spreadsheet and view or export GPS paths into a Google Earth compatible format.

- **Bluetooth and USB Connectivity**

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

USB communication is also available for transferring measurements and voice comments from the meter to a PC, as well as firmware upgrades and parameter settings.



- **Large LCD Display**

The KT-10 Plus/KT-10R Plus 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 meter's different functions.

- **Small and Easy to Use**

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

- **Rugged and Reliable**

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

GeoView PC Interface Software:

- Data Management**

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

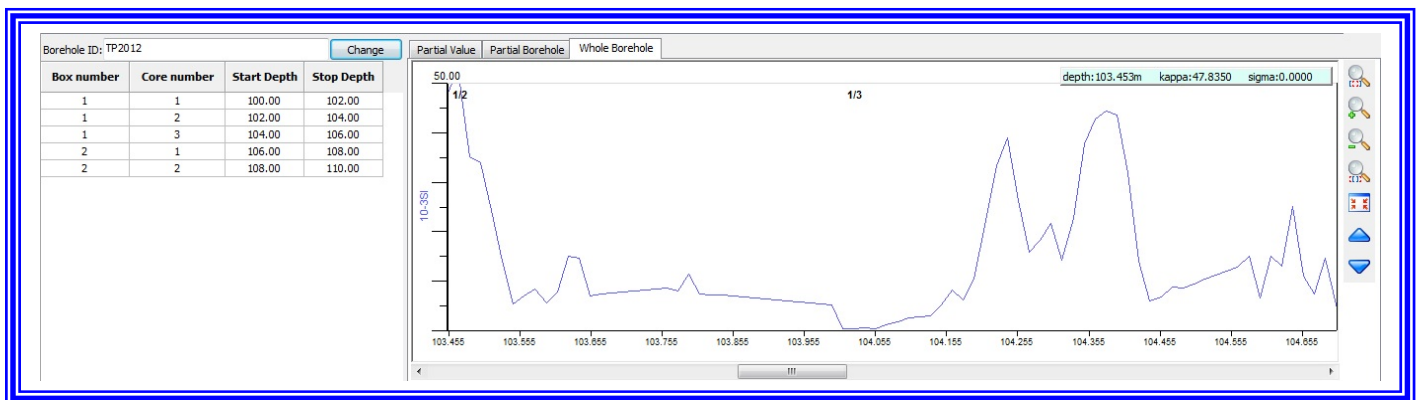
As presented below, averaged readings are grouped together with records (containing date, time, value, voice notes and optional GPS positions) in one convenient location. Users can also add new column headers to enter additional information specific to the data collection.

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.

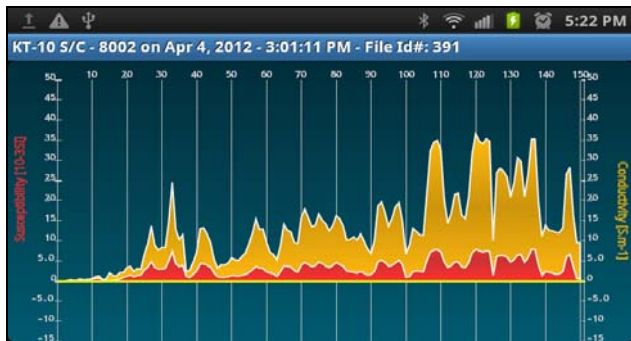
As shown below, the scanned data is displayed in a graphical mode. The use of markers can assist operators to orient the readings to a physical location.



KT-10 Plus/KT-10R Plus v2 Options:

- **Upgrade KT-10 Plus S/C**

The KT-10 Plus/KT-10R Plus v2 are upgradable to a KT-10 Plus S/C, allowing users to read both magnetic susceptibility and conductivity measurements simultaneously. This upgrade can be performed via the internet using the GeoView software (instrument must be connected to a PC either with USB or Bluetooth). Customers who complete either upgrade will receive a copy of the GeoVision Android App. Please contact Terraplus to obtain pricing for both upgrades.



- **GeoVision Android App**

The GeoVision Android App is available as an option for the KT-10 Plus/KT-10R Plus 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 Plus/KT-10R Plus 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 Pads**

Two magnetic susceptibility standards are now available as options for the KT-10 Plus/KT-10R Plus v2. The standards are manufactured from a suitable Mn-Zn Ferrite compacted with mudstone. Their purpose is to confirm that the KT-10 Plus/KT-10R Plus v2 are operating properly or, to recalibrate the instrument in both low and high magnetic susceptibility environments.

Nominal susceptibility will vary between standards.

	<u>Low</u>	<u>High</u>
Typically	34 x 10 ⁻³ SI	2500 x 10 ⁻³ SI
Diameter	145 mm	145 mm
Height	70mm	70mm
Density	2.2g/cm ³	2.2g/cm ³
Weight:	2.65kg	2.65kg
Colour:	Orange	Purple



Specifications

Sensitivity:	1x10 ⁻⁶ SI Units
Measurement range:	0.001x10 ⁻³ to 9999.999 x10 ⁻³ SI Units Auto-Ranging (10 SI Units)
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:	<p>4 GB: 4,000 Total Records Stored *</p> <p>* 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.</p> <p>Discrete and scanner records can be combined.</p>
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 : 65 mm
	Rectangular Coil: 65 mm (length), 32 mm (width)
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 #15-08-13.

KT-10 Plus v2 Standard Configuration

The KT-10 Plus v2 Circular Coil standard supplied with:

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



KT-10R Plus v2 Standard Configuration

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

- KT-10R Plus 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*