

## KT-10 C and KT-10R C Conductivity Meters

Terraplus is pleased to announce that the KT-10R Conductivity Meter with rectangular coil is available, in addition to the KT-10 C with circular coil. The KT-10 C/KT-10R C are handheld instruments that measure the conductivity of rock samples and drill cores. They include benefits such as the ability for users to input depth correlation information, a correction for split and full cores, as well as a large internal memory. They can also be upgraded to either a KT-10 S/C or KT-10 Plus S/C Magnetic Susceptibility/Conductivity Meter.



### Major Benefits

- **New Rectangular Coil Available**

The KT-10 C is now available in two different coil configurations: the KT-10R C with Rectangular Coil or the standard KT-10 C 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.

- **Wide Conductivity Range**

The KT-10 C/KT-10R C can measure conductivities from 1 to 100,000 S/m, while maintaining a sensitivity of 1 S/m.

- **Optional Extended Conductivity Range**

An extended measurement range is available as an option that increases the KT-10 C/KT-10R C's measurement range from 1 to 200,000 S/m.

- **Absolute Conductivity Meter**

The KT-10 C/KT-10R C have been calibrated by using a multi-point algorithm to ensure accurate measurements between inductive and galvanic methods.

- **Depth Correlation**

The KT-10 C/KT-10R C's large internal memory allow 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 C/KT-10R C 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 S/m or  $\Omega$ .m Units**

Users can obtain conductivity measurements in either S/m or  $\Omega$ .m.

## Additional Benefits:

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

The KT-10 C/KT-10R C 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. Both instruments can be upgraded into a KT-10 Cx or KT-10R Cx for an increase measurement range for conductivity, or to a KT-10 S/C or KT-10 Plus S/C to allow the user to read both magnetic susceptibility and conductivity measurements simultaneously.

- **Fast and Accurate Scanning**

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

- **Large Memory**

Both configurations feature a 4 GB internal 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.

- **Quality Control (QC) Parameters**

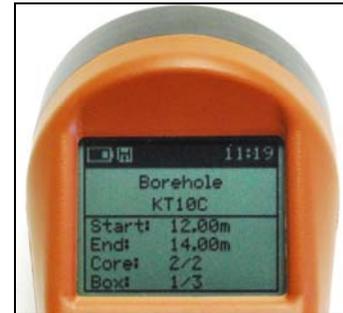
The KT-10 C/KT-10R C provides users with the ability to assess data quality. Along with the measurement results, a user can obtain data averages and standard deviation values in measure mode, or data averages and maximum values in scanner mode.

- **Flexible PC Interface**

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



*Reading in Ω.m, Average & Standard Deviation*



*Depth Correlation Information*

- **Bluetooth and USB Connectivity**

The KT-10 C/KT-10R C 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. As an option, one can also pair the KT-10 C/KT-10R C 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**

A high contrast LCD is utilized for the display of the conductivity readings. It also serves as the interface for operating the instrument.

- **Variable Audio Capability**

The KT-10 C/KT-10R C's speaker allows the user to monitor the variations in the measurements with a variable audio sound while in Scan mode.

- **Rugged and Reliable**

The KT-10 C/KT-10R C meet IP65 standards and are therefore protected against dust, rain or conditions with high humidity. Its compact size and ergonomic design make it easy to carry and operate.

## GeoView PC Interface Software:

- Data Organization**

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

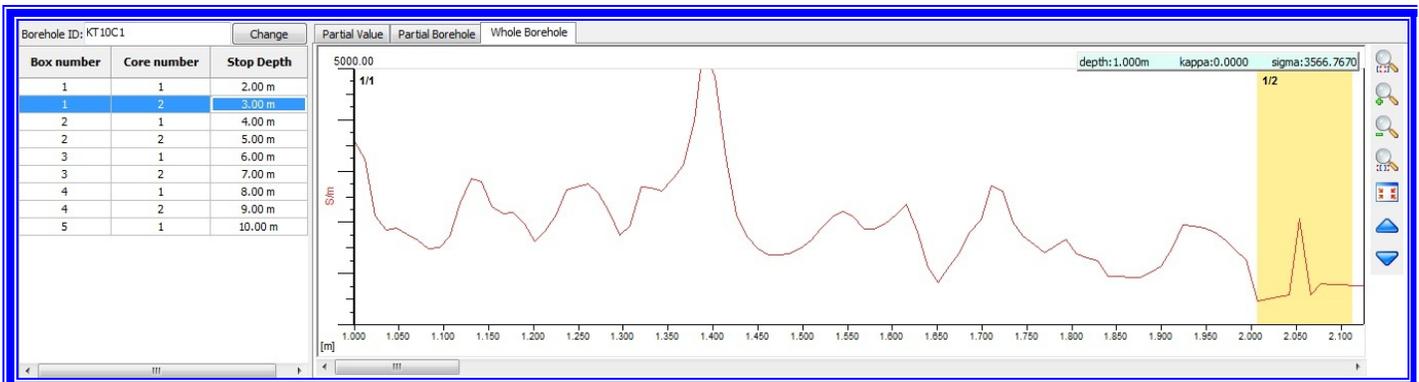
As presented below, averaged readings are grouped together with records (containing date, time, value, voice notes and optional GPS positions) in one convenient location. Users can also add new column headers to enter additional information specific to the data collection.

Id	Time	Sigma/Conc.	Average cond. +/- std	Information	Voice note	Latitude	Longitude	Altitude
77	4:34:01 PM	1738.8600 [S/...				43°51'23.02"N	79°23'28.85"W	227m
78	4:34:07 PM	2629.0130 [S/...				43°51'23.02"N	79°23'28.85"W	227m
79	4:34:14 PM	2693.1990 [S/...	2303.1160 +/- 447.1320			43°51'23.02"N	79°23'28.85"W	227m
80	4:34:24 PM	75088.9280 [S/...				43°51'23.02"N	79°23'28.84"W	227m
81	4:34:31 PM	75285.9520 [S/...	75187.9360 +/- 143.27...			43°51'23.02"N	79°23'28.81"W	227m
82	4:34:47 PM	632.4640 [S/m]				43°51'23.02"N	79°23'28.73"W	228m
83	4:34:53 PM	748.2280 [S/m]				43°51'23.02"N	79°23'28.72"W	228m
84	4:35:01 PM	1041.9020 [S/...	807.5190 +/- 211.0610			43°51'23.02"N	79°23'28.72"W	229m
85	4:36:04 PM			Borehole - KT10C				

- 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.



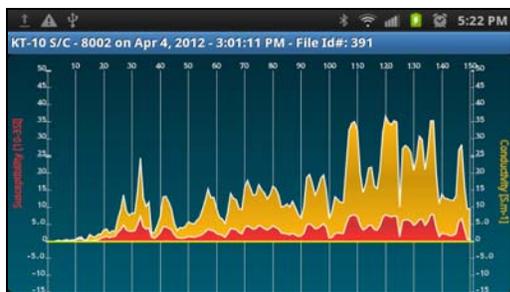
## KT-10 C Options:

- **Upgrade to a KT-10 Cx/KT-10R Cx**

The KT-10 C/KT-10R C are upgradeable to a KT-10 Cx / KT-10R Cx to increase their measurement range to 1 – 200,000 S/m. This upgrade can be performed via the internet using the GeoView software with a PC.

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

The KT-10 C/KT-10R C 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. This upgrade can be performed via the internet using the GeoView software (instrument must be connected to a PC either with USB or Bluetooth).



Pad Range:	Low	Medium	High
Colour:	Green	Yellow	Red
Typical Reading (S/m):	9	700	85,000
Diameter (mm):	152	152	152
Height (mm):	50	50	50

- **GeoVision Android App**

The GeoVision Android App is available as an option with the KT-10 C. GeoVision allows users to display real time scanner profiles on an Android operated smart phone or tablet. It can also be used to display real time animated graphical outputs while scanning and as a memory data browser to present field measurements/records. Additional text notes can be added to the current or previously stored data with an Android smart phone or tablet. Android phone or tablet is not included with the GeoVision App.

- **Conductivity Reference Pads**

Three reference pads with different conductivity ranges (low, medium and high) are available for measurement verification. Although there are three different ranges, each pad has a number of common parameters:

- High homogeneity of conductive elements
- Only diamagnetic materials are used eliminating magnetic susceptibility influence
- Use of a sealing compound to block transfer of humidity
- Optimal pad dimensions to reduce size effect
- Smooth surface to optimize contact and ensure high accuracy of readings

The low range pads are made of semi solid gels, while the middle and high range pads are of a proprietary mixture of ceramics. Each pad has been tested independently using different methods for measuring conductivity (AC and DC bridges plus impedance bridges).

## SPECIFICATIONS

<b>Sensitivity:</b>	1 S/m
<b>Measurement Range:</b>	<b>Standard Range:</b> 1 to 100,000 S/m
	<b>Optional Extended Range:</b> 1 to 200,000 S/m
<b>Operating Frequency:</b>	10 kHz
<b>Measurement Frequency:</b>	20 readings per second (in Scan mode, 5 readings averaged together and 4 readings /second stored).
<b>Display:</b>	High contrast LCD graphic display with 104 x 88 pixels.
<b>Memory:</b>	<b>4 GB: 4,000 Total Records Stored *</b>
	* 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.
<b>Control:</b>	One button with up / down functionality.
<b>Data Input/Output:</b>	USB and Bluetooth (GPS/phone pairing).
<b>Power Supply:</b>	2 'AA' Alkaline Batteries or 2 optional AA Rechargeable Batteries.
<b>Battery Life:</b>	Up to 4,000 measurements without voice recorder (with alkaline batteries).
<b>Operating Temperature:</b>	-20 °C to 60 °C
<b>Dimensions:</b>	200mm x 57mm X 30mm
<b>Coil Dimensions: **</b>	<b>Circular Coil :</b> Diameter 65 mm
	<b>Rectangular Coil:</b> Length 65 mm - Width 32 mm
<b>Weight:</b>	0.33 kg with 2 'AA' alkaline batteries installed
<b>GeoView Software</b>	Supports all Windows 32 or 64 bit operating systems

*Specifications subject to change without notice # 20 - 08 - 13*



### Standard Configuration

The KT-10 C/KT-10RC is supplied with:

- KT-10 C (or KT-10R C) 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**