
DATA STORAGE AND TRANSFER

Being able to store data in instruments achieves an enormous increase in efficiency with surveying work. Therefore secure data storage and reliable downloading is an important issue. Losing data after a day's work is extremely frustrating and expensive. Leica Geosystems storage media and data transfer products are of the highest quality in order to achieve continuous reliability.

MEMORY CARDS

Compact Flash cards are used as standard with System 1200 instruments. They are available in two memory capacities; 32MB and 256MB. The Compact Flash cards can also be used in the TPS1100, DNA and GPS500 by using the CF-Adapter. The TPS1100 and DNA only support the 32MB capacity card.

The memory cards supplied by Leica Geosystems are of Industrial Grade. These cards are optimised to meet the requirements of Leica instruments, ensuring the highest reliability, robustness and compatibility.

One of the primary causes of data loss is when a card is subject to shock, for instance when dropped. The ruggedised Industrial Cards are rated to withstand up to a 3 metre drop to the ground. In addition, these cards will operate reliably even in extreme temperature and humidity conditions. An operating temperature of -40°C to +85°C is supported.

Flash memory is susceptible to wear as a result of the repeated write and erase cycles that are inherent in data storage applications. This is a major concern where write operations occur frequently, as with measurement data. The cards supplied by Leica Geosystems include an intelligent controller which spreads the writes over the capacity of the card. This extends the operating lifetime by 20 times to that of standard cards.

CARD READERS

Leica Geosystems only guarantees the secure transfer of data with specified memory cards and the OmniDrive card reader. Only this card reader is specified as compatible with the firmware of the Leica memory cards. This provides extremely high data transfer reliability.

Exceptional data security is achieved by special means against electrostatic discharge and with power-fail detection. Continuous monitoring during data transfer provides for additional data security.

When removing the card from the internal PC drive or other brand of card reader, without first shutting off the drive, there is a risk that all the files will become corrupt. This risk is eliminated with the OmniDrive since the drive may remain active while the card is removed.

Drivers and software compatible with Microsoft Windows are supplied with the OmniDrive. Included is the PC Card Manager software that provides card diagnostic tools.

The MCR5 model with USB connection is suitable for the Compact Flash cards. The MCR4 drive, with parallel port connection, accommodates SRAM, ATA-Flash and Compact Flash cards with adapter.

COMMUNICATION CABLES

Data can also be transferred to and from an external device through the instrument's communication port. Leica Geosystems offers several cable versions connecting to the external device at either the COM or USB port. Connecting to the USB port is the GEV189 for all TPS instruments and digital levels and the GEV195 for the GPS1200/500.

BLUETOOTH KIT

For data transfer without cables, a Bluetooth module can be used. The Leica modules can be integrated into the TPS1200 or GPS1200 by the local service centres.

A Bluetooth Kit is also available which connects by cable to all Leica instruments. This Kit consists of a Bluetooth module with integrated rechargeable battery, charger with international plug adapter, external antenna, tripod hook and rain cover. The connection to the instrument is made with the standard serial downloading cable. The module is pre-programmed to be compatible with all Leica instruments. With this set-up, data can be transferred to or from any external device which has Bluetooth technology within a range of 100m.

This Bluetooth Kit can be ordered from Leica Geosystems using Article No. 8216666.