

# Digitilt DataMate II



Simple to operate, the compact Digitilt DataMate runs 16 hours on one charge, stores up to 320 surveys, and transfers data to a PC for processing.

## The Digitilt DataMate II

The DataMate records data from inclinometer probes, tiltmeters, and spiral sensors. It stores up to 320 complete inclinometer surveys and can power a Digitilt inclinometer probe for 16 hours.

The DataMate II is compatible with the original DataMate but features updated electronics for faster operation, increased memory capacity, and a USB port for data transfers.

The DataMate is designed for hard use in difficult environments. It has a bright, backlit display that is visible under all lighting conditions. The box is splashproof and sealed against humidity. In addition, all connectors are located on the top of the box, away from contact with mud, water, or snow.

## Recording Surveys

The Digitilt DataMate stores a list of inclinometer installations in memory, so to begin a survey, the operator selects an installation from the list.

The DataMate then displays the starting depth for that installation, and the operator positions the probe at that depth.

The display shows the depth, the A-axis reading, and the B-axis reading. When both readings are stable, the DataMate displays a “ready” signal. The operator then records the reading, using the hand switch or the key-

pad. The DataMate beeps confirmation and then displays the next depth. The operator raises the probe to this depth, waits for the ready signal, and then records the readings, repeating these steps until the probe reaches the top of the casing. The DataMate then prompts the operator to rotate the probe 180 degrees and begin the second pass through the casing.

The operator can correct a mistake at any time by simply scrolling through the data to any depth, repositioning the probe, and continuing the survey from that point.

## Validating Surveys

The DataMate provides checksum statistics to help the operator validate the survey. By comparing the mean and standard deviation of checksums for the current survey with those of previous surveys, the operator can be confident that the data are good.

The DataMate provides routines to help the operator identify questionable readings, which can then be corrected by repositioning the probe. The DataMate displays “live” and recorded readings side by side for comparison, and the operator can overwrite the recorded reading with the live reading, if appropriate.



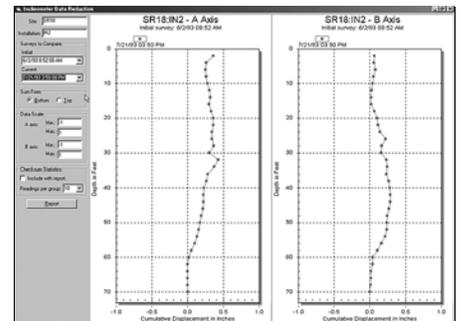
Convenient hand switch reduces fatigue and lets you keep the DataMate clear of the work area.

## Retrieving Surveys

Returning to the office, the operator connects the DataMate to a PC, and then runs the DataMate Manager program. The manager program retrieves the recorded surveys and stores them in a database for easy access.

## Processing Surveys

Slope Indicator inclinometer software eliminates repetitive work, ensures that calculations are performed accurately, and dramatically reduces the time required to process data.



DMM for Windows software lets you retrieve surveys and produce reports containing readings and graphics.

The DataMate Manager program is included with the DataMate. It can print reports containing inclinometer readings, checksum statistics, and simple graphs. It also provides routines for settlement correction, spiral data set expansion, and bias shift analysis.

DigiPro for Windows is an optional graphing program that provides additional types of graphs, including some diagnostic plots, and a number of sophisticated correction routines. A trial version is available for download from the Slope Indicator web site.

## DIGITILT DATAMATE II READOUT

**Digitilt DataMate II . . . . .50310900**

The Digitilt DataMate is a portable readout for Digitilt sensors. It provides depth prompts and stores readings in memory for transfer to a PC. Includes hand switch, battery charger, USB interface cable for PC, and CD with DMM for Windows and manual. Specify type of plug required for the charger. DigiPro software is not included.

**Sensor Compatibility:** English and metric versions of vertical and horizontal Digitilt inclinometer probes, tiltmeters, and spiral sensors.

**Displayed Units:** Metric indicator displays readings as 25000 x the sine of the angle of tilt. English indicator displays readings as 20000 x the sine of the angle of tilt.

**Survey Types:** 2-pass survey for inclinometer probes; 4-pass survey for spiral sensors.

**Memory Capacity:** Stores 160 installations and nominally 320 surveys of 100 depths each (a total of 32000 depths allocated to any number of surveys up to a maximum of 320).

**Maximum Survey Depth:** 500m or 2000 feet.

**Reading Intervals:** Fixed intervals. Minimum interval is 0.5 m with metric probe or 1 foot with English-unit probes.

### Menu-Selected Functions

**Record:** Prompts operator with starting depth. Displays A and B axis readings. Displays ready signal when readings are stable. Displays next depth after readings are recorded.

**Manual Read:** Allows use of DataMate when memory is full or depth display is not required.

**Validate:** Calculates checksum statistics.

**Correct:** Allows user to correct mistakes.

**Compare:** Calculates a single value for cumulative deviation or cumulative displacement.

**Comm:** For communication with PC.

**Print:** Outputs ASCII data to a terminal program running on a non-DOS/Windows computer.

**Operating Time:** 16 hours @ 20°C (68°F) of continuous power to probe. Backup battery preserves data for six months.

**Temperature Rating:** -20 to 50°C (-4 to 122°F).

**Display:** 20 x 2 backlit LCD rated for extended temperatures.

**Battery:** 6 volt, 6 Ah, gelled electrolyte, lead-acid battery. Recharges to 80% capacity in 16 hours using the included charger.

**Case:** Splashproof, non-submersible, aluminum case with plastic shell. Connectors are waterproof when capped or in use.

**Dimensions:** 127 x 178 x 178 mm (5 x 7 x 7").

**Weight:** 3 kg (6.5 lb).

## DMM FOR WINDOWS

**DMM for Windows . . . . .50310970**

The DataMate Manager program (DMM) transfers readings from Digitilt DataMate to a PC. DMM offers routines for checking surveys and maintaining the inclinometer database. DMM is supplied on a Resource CD with the purchase of the Digitilt DataMate. It can also be downloaded free from [www.slopeindicator.com](http://www.slopeindicator.com). Note that DMM is not intended to replace DigiPro software. DigiPro software, available separately, is used to create presentation graphics and offers diagnostic and correction tools.

**System Requirements:** Windows computer with USB port.

**Data Retrieval:** DMM communicates with DataMate through a USB connection.

**Data Storage:** Surveys retrieved from DataMate are stored in an MDB database. DMM supports drag-and-drop operations between databases and provides easy functions for editing, renaming, moving, and archiving installations and surveys. Surveys retrieved from the DataMate can also be saved as ASCII files.

**Data Manipulation:** DMM provides a settlement correction routine and a spiral set expansion routine. Both routines generate new surveys.

**Import Capabilities:** DMM imports legacy data from Slope Indicator's previous formats and from GTILT®. The program also allows manual entry of data.

**Report Capabilities:** DMM prints inclinometer readings with checksums, compares two surveys (typically current vs initial) to generate A and B-axis graphs of cumulative displacement. The program generates graphs of cumulative deviation. Graphs are displayed on screen and can be printed in a report. Reports can also include checksum statistics, bias-shift analysis tables, and tabular data in digi units (differences and changes).

## DIGIPRO SOFTWARE

**DigiPro Trial . . . . . Free Download**

**DigiPro, 1-User License . . . . .50310001**

**DigiPro, 3-User License . . . . .50310000**

**DigiPro, 12-User License . . . . .50310002**

DigiPro software processes and plots inclinometer data recorded by the Digitilt DataMate readout. It creates high-resolution graphs and supports advanced routines for identifying and correcting systematic error. DigiPro is not included with the Digitilt DataMate. See separate datasheet for details.



## DIGITILT 09 INDICATOR

**Digitilt 09, Metric . . . . .50300910**

**Digitilt 09, English . . . . .50300900**

The Digitilt 09 Indicator is a portable readout for Digitilt sensors. It displays readings, but does not record them. The user must keep track of depths and readings on a field data sheet. A battery charge is included. Please specify 100, 115, 220, or 240 volt and 50 or 60Hz.

**Compatibility:** Digitilt inclinometer probes, Digitilt tiltmeters, and spiral sensors.

**Displayed Units:** Metric indicator displays readings as 2.5 x the sine of the angle of tilt. English indicator displays readings as 2 x the sine of the angle of tilt.

Readings can be entered into the DMM for Windows database and graphed with DigiPro for Windows. If you chose to do this, write down readings without the displayed decimal point and enter the readings as integers.

**Resolution:** Metric indicator provides resolution of 1 in 25,000. English indicator provides resolution of 1 in 20,000.

**Display:** Large, backlit 4.5 digit LCD with heater for cold weather operation.

**Battery:** Rechargeable 6 volt, 6 Ah gelled electrolyte, lead-acid battery. Battery life is 12 hours with fully charged battery. LCD heater reduces operating time up to 50% when temperature is below 5°C (40°F).

**Temperature Rating:** -20 to 50°C (-4 to 122°F).

**Dimensions:** 127 x 178 x 178 mm (5 x 7 x 7").

**Weight:** 3.4 kg (7.5 lb).