

DistoX2 Update Manual

For DistoX based on Leica Disto X310 with new Laser module

2016/08/25

Introduction

The DistoX2 board allows updating the firmware to a newer version over the Bluetooth connection. To perform an update, follow the points in this manual.

Setup

You need the Updater (DistoUpdateV25.exe) and PocketTopo on the device used for the update. First configure and test the connection to the DistoX using PocketTopo.

Check the versions of the hardware and firmware on your Disto:

- If needed, press CLR to switch off the Laser.
- Press the FUNC key twice to show the versions.

The actual firmware version is 2.5. It runs on the hardware versions 0.9, 1.0, and 1.1.

V2.5 works with all current types of the Disto X310:

- Laser module: old (square board) or new (with barcode).
- LCD display: old ('E' or 'H' versions) or new ('A' version).

An update from version V2.1 or above does not change the measurement store and the user preferences. An update from V2.2 or above preserves the calibration.

Make sure your device is fully charged or connect a charger during the update!

Shut down PocketTopo before you start the Updater to avoid conflicts on the Bluetooth connection!

Bootloader Mode

For the actual update, the Disto needs to be started in Bootloader mode:
Press and hold the PLUS and MINUS keys while switching on with the DIST key.
The display illumination will switch on but the screen remains empty.
The Disto cannot be used for anything else but an update in this mode.
It can be switched off at any time using the CLR key.

Update

To start the update, run the DistoUpdate program and use the "Update" function.
The progress of the update is written to the screen.

After a successful update, switch the Disto off with the CLR key and on again with the DIST key. Check the new firmware version as shown above.

If the update fails, restart the Updater and try again.

If you get the error message "Resource Read Error!" you have to install a .NET Compact Framework update (see below).

Dump

The "Dump" function in the DistoUpdate program stores a copy of the whole DistoX memory to a file "DistoXDump.bin". It can be used for data recovery and problem analysis.

Potential Problem with .NET Compact Framework 2.0

Some versions of the Compact Framework 2.0 installed on Windows Mobile 2003 and early versions of Windows Mobile 5.0 exhibit an error which prevents the Updater from working correctly. Use the following update to correct it:

<http://www.microsoft.com/en-us/download/details.aspx?id=17981>

Version History

Version 2.0

Used for prototype boards only.

Version 2.1

First production version.

Version 2.2

Small improvements:

- Use lower M sensor sensitivity to avoid numeric overflow under all conditions.
- Avoid result degradation due to too short measurements.
- Correction of unit in display of gravity sensor absolute value.

Version 2.3

- Laser and measurement trigger over Bluetooth.
- Accelerometer non-linearity correction.
- Endpiece offset configuration.
- Display illumination level configuration.

Version 2.4

- Added horizontal/vertical/azimuth display (SMART key).
- Option for measuring reversed (backsight) data (MEM & -).
- Option for recognition of triple measurements (SMART & -).

Corrections:

- Prevent spurious switch on.
- Avoid unjustified "2nd" error message during power up.

Version 2.4n

- Support for new Laser module

Version 2.4na

- Support for new LCD display

Version 2.5

- Support for hardware version 1.1 (new Bluetooth module).
- Support for new Laser module with automatic version detection.
- Support for new LCD display with automatic version detection.
- Warning on power up if the device is not calibrated.