


Geo2005 GPS Firmware New Features and Upgrade Procedure

August 31, 2007

This document describes the new features included in the GeoExplorer 2005 GPS Firmware since version 1.81. New features are reported relative to the previous version. GPS Firmware can be checked on the Geo by going to

Start  /Settings/System/System Information. If GPS Firmware is blank, connect to the GPS receiver using your field software and then check again. If you are at version 46.00, this is an older version than 1.81 and it needs to be upgraded. Please make sure that your Geo is like the one pictured here. If your Geo has only two buttons at the bottom it is a Geo2003 unit. This document does not apply to Geo2003 units. GPS Firmware upgrade instructions are at the end of this document.



Version 1.82 (August 2007)

- Improved H-Star™ postprocessing performance when using the Zephyr™ external antenna. Changes were made to the storage of L2 measurements to improve H-Star postprocessing performance with a GeoXH handheld when using an external Zephyr L1/L2 antenna.
- Resolved the issue causing position jumps with SBAS (WAAS) corrections near latitudes of 45 degrees North.

The version 1.82 GPS firmware addresses an issue with the handling of SBAS (WAAS) corrections, which occasionally caused large position jumps near latitudes of 45 degrees North. This issue may have been noticed to a much lesser extent when using SBAS corrections at other 15 degree latitude intervals. This change resolves the problem for all locations and with any SBAS correction source..

Version 1.81 (February 2007)

- Updated SBAS (WAAS and EGNOS) ephemeris information and tracking to improve initial fix and reacquisition times.
- The new WAAS satellites (PRNs 135 and 138) are included in the GPS receiver's default tracking list. This allows the satellites to be tracked when using the "Auto" tracking mode in Trimble field software.
- Other minor changes to improve system performance and the handling of situations which could cause the GPS receiver to reset.

UPGRADE PROCEDURE

This section describes how to upgrade the firmware on your Geo2005 series receiver.

1. Download the GPS firmware upgrade file to an office computer.
2. Run the upgrade file to install the new GPS firmware.
3. Test your connection

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Step 1: Downloading the GPS firmware upgrade file

Obtain the GPS Firmware upgrade file. The file is the same for a GeoXH, GeoXT, or GeoXM. Go to this link: http://trl.trimble.com/dscgj/ds.py/Get/File-383731/GeoExplorer_2005_series_v1.82_GPS_Firmware.exe


Save the target file to your desktop or a folder that you can find later.

Step 2: Running the upgrade file

1. Ensure that your GeoExplorer 2005 series handheld is in the support module, connected to a power source and connected to your computer using ActiveSync technology or the Windows Mobile Device Center.
2. Browse to the location where you saved the upgrade file and then double-click to run the executable file to start the upgrade process. Be sure to press the “Upgrade” button on the dialog box on your PC to continue the process. The upgrade files are automatically transferred to your GeoExplorer 2005 series handheld and the upgrade will begin.

If the upgrade fails to start, ensure that you have an ActiveSync connection. Also, connect to your GPS receiver and then disconnect. Then repeat Step 2.

Step 3: Test your connection

1. Connect to GPS in your field software. It may take 20-30 seconds to initially connect after the upgrade.
2. Go to Start  /Settings/System/System Information. If GPS Firmware is blank, connect to the GPS receiver using your field software and then check again. GPS Firmware should be listed at version 1.82.

Unlike with OS upgrades, it is not necessary to upgrade one step at a time. All Geo2005 units at any previous GPS firmware version can upgrade to version 1.82 with in one procedure.