

RELEASE NOTES

Trimble® Precision GNSS OEM Receivers

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Release Notice

This is the February 2010 release (revision A) of the *Trimble Precision GNSS OEM Receivers Release Notes*. It applies to version 4.14 firmware.

Notice to our European Union Customers

For product recycling instructions and more information, please go to www.trimble.com/ev.shtml.

Recycling in Europe: To recycle Trimble WEEE (Waste Electrical and Electronic Equipment, products that run on electrical power), Call +31 497 53 24 30, and ask for the "WEEE Associate". Or, mail a request for recycling instructions to:

Trimble Europe BV
c/o Menlo Worldwide Logistics
Meerheide 45
5521 DZ Eersel, NL



Introduction

These release notes describe the improvements made to the following Trimble® Precision GNSS OEM receivers:

- BD960
- BD970

With this release, both receivers can use version 4.14 firmware.

New features and changes

General

- Additional protection of the BD970 receiver during power cycling.
- Ongoing improvements in RTK engine performance.

Data outputs

- A new NMEA GBS message now provides RAIM information.
- To meet Wheelmark standards for NMEA data output, you can now configure NMEA outputs using the web interface. When the *Report extended information in NMEA GGA and RMC strings* check box is selected, the NMEA outputs will contain high precision position data (current). When the check box is cleared, the NMEA strings will meet the standard, which defines no more than 82 characters for a sentence. This results in fewer decimal places and less precise position data output.
- Multiple BINEX enhancements.

Tracking

- Refinements in tracking L5 and GLONASS signals.
- Improved tracking of WAAS and EGNOS satellites.
- OmniSTAR G2 Service Support on the BD960 receiver.

Internet/Web interface

- The following web browsers are now supported:
 - Internet Explorer® 7.0
 - Mozilla Firefox 3.0
 - Opera by Opera software

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- Safari by Apple
 - Google Chrome
 - You can now include the WGS-84 height (instead of zero) in the coordinates tag of the Google Earth real-time network feed (/xml/dynamic/googleEarthData.kml).
 - Implement UPnP and ZeroConf service discovery to enable a computer on the same subnet to discover the receiver without knowing the IP address. Many printers use this same technology. Receivers are “discoverable” using the Apple Bonjour add-in for Safari and Internet Explorer (Bonjour for Windows must be installed).
 - A client will now reconnect to a remote host only known by name if the IP associated with this name changes. After a certain timeout, it will re-resolve the server IP through a standard Domain Name System host address query. The *I/O Configuration* page will then be updated.
 - The HTTP Proxy setup has moved from the *Firmware Update* page to the *Network Configuration* page.
 - The following NTP Server functionality is new:
 - A new option in the web interface; select *Network Configuration / NTP*.
 - NTP Client – Used at start-up when GPS time information is available from a GPS source.

If there is no GPS time, the time client is passed to the NTP server. As soon as GPS time is established, the NTP client turns off and the NTP Server’s time is derived from the GPS time.
 - NTP Server – Implements the NTP server protocol. Derives time from the built-in GPS.

Accuracy depends on the variability of the network. Running on a local network typically shows worst case timing errors of less than 500µs when compared to a Trimble Acutime™ 2000 timing product.

Reference clock offset – Enter the cable delay, if you know it. The NTP time adjusts accordingly. For most applications, this has a negligible impact.

Application files

- The *Application Files* page has a new option called *Upload & Install Clone File*.
- The Clone file now retains TCP/IP output settings.
- You can now upload Site Coordinate files (DC, CAL files) directly to the receiver.
- Configuration and clone files now support 14-character naming.

Upgrading the firmware

A single version of the WinFlash utility is available to upgrade both your BD960 and BD970 receivers to firmware version 4.14:

1. Download the appropriate file from www.pacificcrest.com/support.php?page=updates.
2. Install the WinFlash utility.
3. Start the WinFlash utility and then select the *Load GPS software* option.

