

RELEASE NOTES

Trimble® Infrastructure GNSS Series Receivers

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Version 4.42
Revision A
June 2011



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Release notice

This is the June 2011 release (Revision A) of the *Infrastructure GNSS Series Receivers Release Notes*. It applies to version 4.42 of the firmware.

Product warranty information

For applicable product warranty information, please refer to the Warranty Card included with this Trimble product, or consult your Trimble dealer.

Introduction

These release notes describe the improvements made to the following Trimble® Infrastructure series receivers. With this release, the following receivers can use firmware version 4.42:

- NetR3
- NetR5™
- NetR8™
- NetR9™

To use firmware version 4.42, you must have a valid firmware warranty. To load this firmware, the receiver must have a firmware dated April 2011. If necessary, contact your Trimble reseller to purchase a warranty.

Before you upgrade the firmware, Trimble recommends that you download and back up any files that are on the receiver.

New features or changes

Tracking

- The NetR9 receiver can now track the Galileo, Compass, and QZSS constellations in addition to all previous constellations. Refer to the NetR9 datasheet for additional information.

NetR9 Ti-1 models are configured to track these signals by default. If you own a NetR9 Ti-1 model, contact Trimble_Support@Trimble.com for instructions on how to enable these features.

NetR9 Ti-2/Ti-3 models require an update code. Contact your local Trimble Distributor for more information.

- The NetR9 receiver can now track GLONASS-K CDMA signals. Refer to the NetR9 datasheet for additional information.

NetR9 Ti-1/Ti-2 models are configured to track this option by default.

NetR9 Ti-3 models require an update code to track GLONASS, unless this was installed previously. Contact your local Trimble Distributor for more information.

Power

- Entering a Power On/Off range of less than 1.25 V now results in a Warning message. This configuration is not recommended and may inhibit operation if it is set.

Data formats

- BINEX now outputs ephemeris data on the top of every GPS hour and upon every new connection to the BINEX stream.
- BINEX ephemeris records now output week numbers to match the time of clock parameters. Time of week values can now be negative. For VRS³Net software users who receive and process BINEX data, the change to the BINEX week number handling will require a software update.
Before you perform this upgrade, contact Trimble.
- NMEA outputs now have an option box to conform to IEC61162-1:2010.

Networking

- A secondary (backup) DNS field is now supported.

Data logging

The following file-naming conventions have been added:

- The existing option "SystemYYYYDDHHmm" has been renamed to "System____YYYYMMDDHHmm". This option will allow the user to use up to the first ten characters of the System Name. If the System Name is less than ten characters, the remaining characters will be padded with underscores.
- A new naming convention of "SystYYYYMMDDHHmm". This option uses the first four characters of the System Name.

Web interface and front panel

- General translation updates to the front panel display and the Web UI.
- Updated receiver antenna files.
- A new **Position Averaging** feature allows the user to average the current receiver position to set the reference position. This may be performed manually by accepting the current running average, or be set to run for a time range from 20 to 600 seconds and then applying the average ("auto-average").

When performing an "auto-average", if the receiver position solution type changes, the auto-average starts from the beginning of the defined time period.

If the auto-average feature is running, the **Here**, **Average**, and **Reset Average** buttons are grayed out until the auto-average is complete. The auto-average may be cancelled at any time.

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- A new **Position Monitoring** feature now allows the NetR9 to monitor the antenna location and send an email alert if any motion in the antenna is detected.

Using this feature, you can now enter a set of defined movement parameters based upon solution type (Autonomous, SBAS, DGPS, OmniSTAR, RTK), along with a monitoring reference position to monitor against. The reference monitor position may be unique from the reference station position set, or can be forced to hold the reference station position.

When movement exceeds the defined threshold values, the receiver sends the operator an email alert (and continues to do so on the top of every hour), and displays an alert in the banner of the Web UI to check the station position.

Once the issue is resolved, an email is sent to the operator stating that the condition is now clear, along with displaying a banner message in the Web UI that an event occurred and the Administrator must clear the event. When the *Position Monitoring* webpage is viewed by the Administrator, there is a button to clear the event from the history.

In addition to the above status messages, the *Position Monitoring* webpage also graphically displays these events in a color-coded offset table:

- A green line shows the current solution type being monitored.
- A red line indicates a solution type that has exceeded the defined threshold.
- A yellow line indicates a solution type that exceeded the defined threshold, but is now within tolerance.

***Note** – The Position Monitoring feature is intended to act as an antenna monitoring feature and is not intended for the monitoring of structural/deformation applications. If you enable the Position Monitoring feature, it is strongly recommended that the receiver is set to kinematic mode if you are using a RTK solution type. This cannot be done simultaneously with outputting RTK corrections. Also, if the Position Monitor feature is enabled, it is recommended not to leave a web browser page open on the receiver Web UI for extended periods of time.*

The *Position Monitoring* feature is enabled free of charge on all NetR9 series receivers running this firmware version. For existing NetR9 operators who are upgrading to this firmware, enable this feature by applying the option code (**esx6lwYW**) to your NetR9 receiver by using WinFlash, or on the Web UI by selecting *Receiver Status / Receiver Options*.

Updating the firmware

Use one of the following methods. In both cases, make sure that the receiver firmware warranty date is April 2011 or later.

- WinFlash utility: Use the latest version that is available with the version 4.42 Web package.
- Receiver Web User Interface: Make sure that the receiver is already running firmware version 4.xx or later. Download and install the v4.42 *.TIMG file.