



# Trimble GNSS OEM

## RECEIVERS

This document contains late-breaking product information, updates, and troubleshooting tips not covered in the Trimble® GNSS OEM receivers' documentation.

- ▶ Introduction
- ▶ Upgrade Procedure
- ▶ New Features and Changes
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## Introduction

These Release Notes describe improvements made since version 5.11 to the following Trimble GNSS OEM receivers:

- BD930
- BD935-INS
- BD970
- BD982
- BX982

With this release, all the above receivers can use version 5.21 firmware. To use firmware version 5.21, you must have a valid firmware warranty. You can check the Firmware Warranty Date using the web interface. Make sure the date shown is 1 May 2015 or later. Alternatively, obtain the warranty date from the WinFlash software. Select **Verify receiver options** and ensure the **Firmware Option** is 1 May 2015 or later.

For further support information, go to [www.trimble.com/OEM\\_ReceiverHelp](http://www.trimble.com/OEM_ReceiverHelp).

## Upgrade Procedure

There are two ways to load the new firmware:

- Use the WinFlash utility (BD9xx WinFlash v521.zip) downloaded from the Trimble website.
- Use the web interface of the receiver to load the firmware image file downloaded from the Trimble website.

Version 5.21

Revision A

March 2017

# New Features and Changes

The following improvements have been made to the Trimble GNSS OEM receivers.

## General

- Updated antenna libraries.
- Resolves an issue whereby a device running the Windows® 10 operating system and connected to a receiver via a USB 3.0 connection may not recognize the receiver.
- Minor translation updates.
- Various BD935-INS GNSS/INS RTK improvements
- Zephyr™ 3 antenna types supported.

## Data formats

- Resolves delayed NMEA output issue when the receiver is set to Synchronous mode.
- Improved geoid handling in NMEA data.

## Tracking

- Updated list of RTX satellites and frequencies.
- Updated OmniSTAR® libraries. Support for G2+ and G4.
- Improved handling of GLONASS time/roll overs.
- Improved handling of QZSS almanacs.
- Improved Beidou ephemeris decoding.
- Improved tracking, data handling, and reduced cycle slips caused by configuration changes.
- Improved leap second handling in certain cases where GPS tracking is not available.
- Improved SBAS performance.
- Resolves QZSS tracking issue whereby the receiver may not recognize when an unhealthy satellite becomes healthy.

## Web interface

- Improved web page rendering in the Internet Explorer® internet browser.
- Minor web UI updates for language usage.
- Updates to improve web page rendering in various browsers.
- 'TGIP' references on the web UI have been renamed to 'RTXIP'.
- DynDNS client now displays the message **ClientName, Username, or password might be wrong** when invalid credentials are supplied. Previously this would display **Invalid response from DNS Server**.
- **OmniSTAR** menu title renamed to **MSS Corrections**.
- Resolves issue with position plots which could become corrupt over HTTPS connections.

## Data Formats

Real-time data output via TCP ports now supports the Disable Nagle Algorithm option. By default, this option is disabled. When enabled, this option reduces the transmission time of packets, though will result in higher overhead and a greater number of overall packets being sent over the network. This feature is only recommended when users observe a network delay in the transmission of real time data.

## Documentation updates

The latest documentation can be found online at [www.trimble.com/OEM\\_ReceiverHelp](http://www.trimble.com/OEM_ReceiverHelp).

## Legal Notices

Trimble Navigation Limited  
Engineering and Construction  
5475 Kellenburger Road  
Dayton, Ohio 45424-1099  
USA

800-538-7800 (toll free in USA)  
+1-937-245-5600 Phone  
+1-937-233-9004 Fax  
[www.trimble.com](http://www.trimble.com)

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### Release Notice

This is the March 2017 release (Revision A) of the GNSS OEM Receivers' Release Notes. It applies to version 5.21 of the Trimble GNSS OEM receivers.