



# 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 5.34 to the following Trimble GNSS OEM receivers:

- BD930
- BD935-INS
- BX935-INS
- BD940
- BD940-INS
- BX940
- BD970
- BD982
- BX982
- BD992
- BD992-INS
- BX992

To use the new firmware, 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 2017 or later. Alternatively, obtain the warranty date from the WinFlash software. Select **Verify receiver options** and ensure the **Firmware Option** is 1 May 2017 or later.

For further support information, go to [https://www.trimble.com/support/support\\_az.aspx#B](https://www.trimble.com/support/support_az.aspx#B). Select your BD/BX receiver and click **Support**.

Version 5.35, 5.36, and 5.37

Revision A

September 2018

# Upgrade Procedure

There are two ways to load the new firmware:

- Use the WinFlash utility (BD9xx WinFlash v53X.zip) downloaded from the Trimble website.
- Use the web interface of the receiver to load the firmware image file downloaded from the Trimble website.

## New Features and Changes

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

### New features and changes between 5.34 and 5.35

- Added support for the Zephyr™ 3 rugged antenna.
- Improved handling of differential corrections that may be out of chronological order.
- Increased speed to set time from NTP server on startup.
- Added NMEA 2000 PGN 127250 and 127251 for Heading and Rate of Turn.
- Improvements to NMEA 0183 HDT and ROT when INS is active.
- Support for alternative supplier of flash memory on the BD982 receiver.
- Corrected an issue with the BD982 and BX982 receiver communicating with WinFlash on port 1 (the issue occurred in 5.30, 5.31 and 5.32 and was resolved in 5.33).

### New features and changes between 5.35 and 5.36

- Improved handling of BeiDou B2 Geo satellites. Firmware version 5.32 introduced an issue that resulted in increased cycle slips on B2.
- Improved serial port performance at 460,800 bps.
- Continued performance improvements in GNSS spoofed environments.
- Corrected an issue with BD992, BD992-INS and BX992 receivers when Heading is disabled.

**NOTE** – Version 5.36 has an issue on BD990, BD992, BD992-INS and BX992 receivers. Once loaded the receiver **must not** be downgraded to a lower version. Doing so will make the receiver inoperable.

### New features and changes between 5.36 and 5.37

- Support for Google Maps removed due to Google API policy change.
- Improved rejection of spoofed GNSS signals.
- Improvements to QZSS operation when satellites switch from unhealthy to healthy.
- Added IP filtering to improve security.
- Reference to the Secondary GNSS Lever Arm is now saved to a clone file on dual-antenna INS systems.
- Corrected a problem in version 5.36 where downgrading a BD990, BD992, BD992-INS, or BX992 receiver caused the receiver to be inoperable.
- Added support for QZSS PRN 199 on BD982 and BD970 receivers.
- Implemented new improved precision definition of BINEX Galileo ephemeris.
- Added Beidou III support.
- Improved Time to First Fix performance.
- RTK propagation limit can now be programmed with a command (previously only in web interface).

## Documentation updates

The latest documentation can be found online at [https://www.trimble.com/support/support\\_az.aspx#B](https://www.trimble.com/support/support_az.aspx#B). Select your BD/BX receiver and click **Support**.

## Legal Notices

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### Release Notice

This is the September 2018 release (Revision A) of the GNSS OEM Receivers' Release Notes. It applies to version 5.35, 5.36, and 5.37 of the Trimble GNSS OEM receivers.