



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 Between Versions 5.48 and 5.50
- ▶ New Features and Changes for ProPoint Receivers Between Firmware versions 6.08 and 6.10
- ▶ Documentation updates
- ▶ Legal Notices

Introduction

These Release Notes describe improvements made since version 5.48/6.08 firmware.

With this release Trimble is making available two versions of the firmware, 5.50 and 6.10. The 6.10 firmware includes the ProPoint™ RTK/Trimble RTX® engine. Only receivers that have the ProPoint upgrade option installed can load 6.10 firmware. Listed below are the Trimble GNSS OEM receivers that these release notes apply to and the firmware that can be loaded.

Receiver	Firmware version	
	5.50	6.10 ProPoint (upgrade required ¹)
BD940	✓	✓
BD940-INS	✓	✓
BX940	✓	✓
AX940 / AX940i ²	✗	✓
BD970	✓	✗
BD982	✓	✗
BX982	✓	✗
BD992	✓	✓

Version 5.50 and 6.10

Revision A

April 2021

Receiver	Firmware version	
	5.50	6.10 ProPoint (upgrade required ¹)
BD992-INS	✓	✓
BX992	✓	✓

¹ Upgrade steps if the receiver does not have the ProPoint option installed: (a) Ensure that firmware version 5.46 or later is loaded in receiver. (b) Install the purchased ProPoint option key password provided by the support team. (c) Install the ProPoint 6.XX firmware.

² All AX940 / AX940i receivers use the 6.XX firmware and do not require an upgrade for 6.10.

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 November 2020 or later. Alternatively, obtain the warranty date from the WinFlash software. Select **Verify receiver options** and ensure the **Firmware Option** is 1 November 2020.

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

Upgrade Procedure

There are two ways to load the new firmware:

- Use the WinFlash utility (BD9xx WinFlash V550V610.exe) downloaded from the Trimble website. For help on using WinFlash, go to <https://tinyurl.com/66925kjr>.
- Use the web interface of the receiver to load the firmware image file downloaded from the Trimble website.

New Features and Changes Between Versions 5.48 and 5.50

The following improvements have been made to the Trimble GNSS OEM receivers since version 5.48:

- Improvements to GPS L1C tracking
- Improvements to QZSS LEX raw data decoding
- Improvements to Galileo health reporting
- The temperature is now displayed in the web interface of the BD940 products
- Improvements to Galileo AltBOC tracking
- Support for alternative CAN baud rates
- Added new NMEA REX Message
- Corrected an issue where external frequency input was not reported correctly on the web interface
- The ProPoint option can now be loaded (shows as **MAXPro** on the web interface). This capability is also in versions 5.46 and 5.48 of the firmware.
- Improvements to QZSS SLAS positioning
- Corrected an image error on the BD992-INS configuration page
- Reduced jitter on the Ethernet clock
- Corrected an issue where certain BD990 receivers are crashing during temperature testing
- Reduced cycle slips on GLONASS satellites for the BD992 and BD992-INS receivers
- Updated GSOF messages 34 and 48 to output SBAS L5 SNR when available
- Corrected an issue with GSOF messages 49 and 50 where RMS values were reported as negative

- Corrected an issue when many SBAS satellites are in view
- Corrected an issue with sending commands over USB
- Added 3D plots to the Spectrum Analyzer display
- Removed support for RTCM 2.4 as the final release by the RTCM committee is not available
- Updates to RTX and OmniSTAR satellite beams
- Corrected an issue where SISAI data from Beidou III B2A is not reported correctly
- Corrected an issue with BD940-INS where PPS could not be switched off when in INS mode
- Added HTTPS support to BD990 and BD940 receivers
- The BD990 receiver now supports the 921600 baud rate

Special note on the Trimble RTX server maintenance affecting QZSS users

- In the coming months, Trimble will be deploying a maintenance update to the Trimble RTX servers to reconcile with a change to QZSS tracking in receiver firmware version 5.50/6.10. Users who upgrade their receiver firmware to version 5.50/6.10 will not be able to use QZSS with Trimble RTX until after this maintenance is complete. However, Trimble RTX corrections will continue to be provided for GPS, GLONASS, Galileo, and BeiDou satellites.
- After the maintenance period, Trimble RTX will again provide corrections for QZSS satellites. At that time, a minimum firmware version of 5.50/6.10 on your Trimble-branded receiver will be required to continue using QZSS with Trimble RTX.
- At the time of this release, a definitive timeline has not been established for the Trimble RTX server maintenance. Please contact your Trimble representative or Trimble Positioning Services Customer Care for updated information.

New Features and Changes for ProPoint Receivers Between Firmware versions 6.08 and 6.10

All features and special notes listed in the section [New Features and Changes Between Versions 5.48 and 5.50 on page 2](#) also apply to version 6.10 of the ProPoint firmware.

- Updated available dynamic models
- Heave is now calculated on the BX992 and BD992-INS receivers
- Updates to the default GNSS signal selection
- Corrected issues with sCMRx operation
- Updates to support GNSS/INS DGNSS positioning
- Added a marine dynamic model to the BX992 and BD992-INS receivers
- Corrected an issue with reporting of Galileo E5 AltBOC SNR values
- INS is now disabled when the receiver is set up as a base station
- Corrected AX940i configuration text errors for the rear wheel lever arm

Documentation updates

The latest documentation can be found online at 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 April 2021 release (Revision A) of the GNSS OEM Receivers' Release Notes. It applies to version 5.50 and 6.10 of the Trimble GNSS OEM receivers.