

# Release Notes

## 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 5.54 and 5.56](#)

[New features and changes for ProPoint receivers between firmware versions 6.14 and 6.16](#)

[Documentation updates](#)

## Introduction

These release notes describe improvements made since version 5.54/6.14.

With this release, Trimble is making available two versions of the firmware, 5.56 and 6.16. The 6.16 firmware includes the ProPoint® RTK/Trimble RTX® engine. Only receivers that have the ProPoint option installed can load 6.xx 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	
	5.56	6.16 ProPoint (upgrade may be required <sup>1</sup> )
BD9250 / BD9250s	×	✓
BD940	✓	✓
BD940-INS	✓	✓
BX940	✓	✓
AX940 / AX940i <sup>2</sup>	×	✓
BD970	✓	×
BD982	✓	×
BX982	✓	×
BD992	✓	✓
BD992-INS	✓	✓
BX992	✓	✓

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

<sup>2</sup> All AX940 / AX940i and BD9250 / BD9250s receivers use the 6.XX firmware and do not require an upgrade to install 6.16.

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://oemgnss.trimble.com/support/>.

## Upgrade procedure

There are two ways to load the new firmware:

- Use the WinFlash utility (BD9xx WinFlash V556V616.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 5.54 and 5.56

The following improvements have been made to the GNSS OEM receivers since version 5.54:

- Corrected an issue with receiving corrections on CAN port at 500 Kbps
- Added QZSS PRN 196 to the default list; deprecated QZSS PRN 193
- Updated BeiDou B2B code in BINEX
- Added GPS L1C to BINEX
- Enabled NMEA GNS constellation outputs when not tracking GPS
- Improvements to RTCM 3.0 messages when tracking GPS L1C
- Reduced pseudorange noise on GPS L1 C/A & L2C, GLONASS L1 C/A & L2 C/A, Galileo E1
- General tracking improvements especially under tree canopy
- Improved protection from spoofing attacks
- Improved IRNSS L5/S1 tracking
- Improvements to BeiDou B2B tracking on dual antenna systems
- Improvements to handling of BeiDou satellites under jamming conditions
- Dual antenna systems allow a zero entry for GAMS lever arm sigma to disable internal estimation
- New RTX beam changes made on September 30th 2022 now in default search list
- Corrected issue with SBAS raw data bits in RT27 output

## New features and changes for ProPoint receivers between firmware versions 6.14 and 6.16

All features and special notes listed in the section [New features and changes between versions 5.54 and 5.56](#) on [page 2](#) also apply to version 6.16 of the ProPoint firmware. In addition, the following improvements have been made to the Trimble GNSS OEM ProPoint receivers since version 6.14:

- Improvements to the AX940i internal IMU to APC lever arm measurements
- Support for B1C and B2A in sCMRx outputs
- Improved latency in GNSS/INS mode
- RTCM3 MSM support for NavIC (IRNSS) L5
- Updates to reported positioning mode when running QZSS-SLAS

## Documentation updates

The latest documentation can be found online at <https://oemgnss.trimble.com/support/>.