

Release Notes



TRIMBLE
March 2026

TRIMBLE GNSS FIRMWARE

Trimble GNSS firmware version 6.50

This firmware version includes fixes and enhancements to the Trimble® ProPoint® GNSS receiver firmware.

Supported Trimble GNSS receiver models

The following table identifies the Trimble GNSS receivers supported by this revision. To upgrade your receiver's firmware, a current and valid receiver warranty is required. Your warranty must cover the time period beyond the first day of the month of the "Warranty Date".

Receiver Model	Firmware Version	Warranty Date
Trimble R980	6.50	May 2025
Trimble R12i		
Trimble R12		
Trimble R10-2		
Trimble R780-2		
Trimble R780		
Trimble SPS986		
Trimble R580		
Trimble R750-2 / R750-2 MON		
Trimble R750 / R750 MON		
Trimble MPS566-2		
Trimble MPS566		
Fugro 9410-AUT-2		
Fugro 9410-AUT		
Trimble BX992-SPS		
Trimble BX992-MS		

Note: This firmware release only supports Trimble ProPoint receivers. Legacy receivers are not included in this GNSS firmware release.

Software compatibility

Trimble Access field software

For best results, users should upgrade to Trimble Access™ field software version 2025.23 (2017.24 for legacy controllers) or later when using Trimble GNSS firmware version 6.50.

Trimble FieldLink field software

For best results, users should upgrade to Trimble FieldLink field software version 2025.4.0 or later when using Trimble GNSS firmware version 6.50.

Trimble Siteworks software

The current released version of Trimble Siteworks Software version 1.80 is compatible with Trimble GNSS firmware version 6.40 only. Trimble GNSS firmware version 6.50 has not yet been fully validated for use with Siteworks v1.80. Trimble, therefore, cannot guarantee the performance of GNSS receivers using firmware version 6.50 with the currently released versions of Trimble Siteworks Software. Please refer to the most recent Siteworks release notes for the currently supported GNSS firmware versions before upgrading.

Trimble TerraFlex field software

For best results, users should upgrade to Trimble TerraFlex® field software version 2026.10 or later when using Trimble GNSS firmware version 6.50.

Trimble Mobile Manager

For best results, users should upgrade to Trimble Mobile Manager version 2025.24 or later when using Trimble GNSS firmware version 6.50.

Trimble 4D Control software

For best results, users should upgrade to Trimble 4D Control (T4D) software v6.6.6 when using Trimble GNSS firmware version 6.50.

GNSS signal tracking and processing enhancements

Galileo HAS and QZSS CLAS

The receiver WebUI now indicates if QZSS CLAS and Galileo HAS are installed on the receiver.

	NavIC	Installed	L3-C/A
Correction Services	xFill	Installed	
	CenterPoint RTX Fast	2026-02-28	Subscribed
	OmniSTAR HP/XP/G2/G4/G2+/G4+	2022-7-1	Expired
	OmniSTAR VBS	2012-7-13	Expired
	Beacon	Installed	
	QZSS CLAS	Installed	
	Galileo HAS	Installed	
Maximum Measurement Rate	20 Hz	Installed	
Communication	Bluetooth	Installed	

Galileo

In anticipation of the upcoming Galileo system pilot encryption, E6 tracking now defaults to "Data-only" as Pilot will not be available.

GLONASS

Fixed a defect where GLONASS L1 C/A pseudorange showed several meters of code drift during high ionospheric activity in Southern Europe.

Corrected a logic error in CMR+ where GLONASS SVs were dropped when GPS SV count exceeded 12.

QZSS

Added full support for the new L1C/B signal (QZS-6), including corrected phase alignment and appropriate RINEX/T04 logging.

SBAS

Updated the WebUI labeling and coverage area for PRN 139 to reflect its allocation to MSAS (QZS-7).

Anti-jamming

Addressed the loss of Galileo secondary signal in instances where the primary signal is jammed.

Improved positioning with a complete loss of the L1 signal by leveraging a combination of L2 and L5 signals and an updated ionospheric model.

Dynamic modeling

Addressed a limitation where units would stop generating positions when velocity exceeded 350 m/s while using the Kalman filter.

Base follow enhancements

Optimized “base follow” logic to correctly handle E6/L6 signals and adjusted the WebUI reference position warning threshold to 25 meters.

Anti-spoofing

Enhanced spoofing detection with faster cold start:

- The receiver's cold start is accelerated by leveraging ephemeris data (if available) within the Trimble RTX® stream.
- Additionally, the system supports robust spoofing detection powered by the ProPoint engine.

IonoGuard

Improved Trimble RTX performance with Trimble IonoGuard™ during periods of elevated ionospheric activity.

Addressed issues with some CMRx messages not being decoded with IonoGuard enabled.

IonoGuard performance

Refined IonoGuard status indicators in the WebUI to ensure they clear correctly when base corrections stop.

RTK

Improved RTK performance under harsh environments by leveraging SNR information of the base to help with the rover's performance.

Security and connectivity

Enhanced network security

To mitigate potential security risks, broadcast ping echoes and IP redirects have been disabled by default.

Authentication logic

Improved the clarity of password lockout settings by renaming the category to "Internet Only" to better differentiate between private LAN and public network access.

Security Configuration ?

Security:

Anonymous User: File Download

Login IP Address Range (non-admin):

Temporary Failed Password Lockout:

Delete?	User Name	Receiver Conf	Any IP	load	File Delete	E
	admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

NTRIP updates

Corrected a miscalculation in the NTRIP Caster "Content-Length" header that was uniformly reporting two bytes longer than the actual body.

Web interface & data management

Data logging enhancements

Added real-time UTC display to the Data Logging page to assist with manual session management.

Addressed issues with FTP Push to only display the "Pair" button when SFTP is selected and fixed default port assignments (21 for FTP, 22 for SFTP).

Fixed a defect preventing the naming of RINEX 4.01/2.11 files according to IGS standards

Corrected L1C signal ID mapping in BINEX Observation Code records

Diagnostic tools

Expanded GSOF support for second antenna error estimates via GSOF 74.

Web UI

Improved the process of enabling/disabling HTTPS and HTTP in the Network Configuration.

Mandated a password check when transitioning system security from "Disabled" to "Enabled" to prevent accidental lockouts.

Spectrum analyzer precision

Improved frequency vector calculations for inverted spectra

Platform & hardware support

Constrained antenna separation for dual antenna models

Added user-configurable constraint in the Vector configuration of the WebUI to improve the internal vector (Heading) solution on a dual-antenna system when under canopy or other obstructions.

Configure Distance Between 2 Antennas:

Enable:

Distance: [m]

Sigma: [m]

Use Average Vector Values:

Dual-antenna position output

Added proprietary NMEA GGA2 position and quality outputs for the secondary (vector) antenna on dual-antenna systems to support machine control and marine applications.

NMEA

AVR: <input type="button" value="Off"/>	GRS: <input type="button" value="Off"/>	RMC: <input type="button" value="Off"/>	PTNL,IGD: <input type="button" value="Off"/>
BPQ: <input type="button" value="Off"/>	GSA: <input type="button" value="Off"/>	ROT: <input type="button" value="Off"/>	PTNL,NMA: <input type="button" value="Off"/>
DP: <input type="button" value="Off"/>	GST: <input type="button" value="Off"/>	VGK: <input type="button" value="Off"/>	DG: <input type="button" value="Off"/>
DTM: <input type="button" value="Off"/>	GSV: <input type="button" value="Off"/>	VHD: <input type="button" value="Off"/>	MSS: <input type="button" value="Off"/>
GBS: <input type="button" value="Off"/>	HDT: <input type="button" value="Off"/>	VTG: <input type="button" value="Off"/>	PTNL,GGA2: <input type="button" value="Off"/>
GGA: <input type="button" value="Off"/>	LLQ: <input type="button" value="Off"/>	ZDA: <input type="button" value="Off"/>	PTNL,GST2: <input type="button" value="Off"/>
GGK: <input type="button" value="Off"/>	PJK: <input type="button" value="Off"/>	EVT: <input type="button" value="Off"/>	
GLL: <input type="button" value="Off"/>	PJT: <input type="button" value="Off"/>	PTMSX: <input type="button" value="Off"/>	
GNS: <input type="button" value="Off"/>	REX: <input type="button" value="Off"/>	PTNL,GGT: <input type="button" value="Off"/>	

IMU & AINS performance

Improved IMU sampling synchronization and resolved AINS heading stability issues when static in challenging GNSS environments.

LTE reliability

Implemented a power-cycle workaround for the R980, R750-2, and MPS566-2 LTE modems using Verizon SIMs to improve reconnection and reliability.

Product specific bug fixes & enhancements

Power management

Added the ability for the R750-2 to charge internal batteries while powered off when an external source is connected.

Spectrum analyzer precision

Corrected "Spectrogram Toolkit" display issues on R750 and MPS566.

Trimble RTX NMA and Galileo OSNMA for the Trimble R750 and MPSS566 platforms

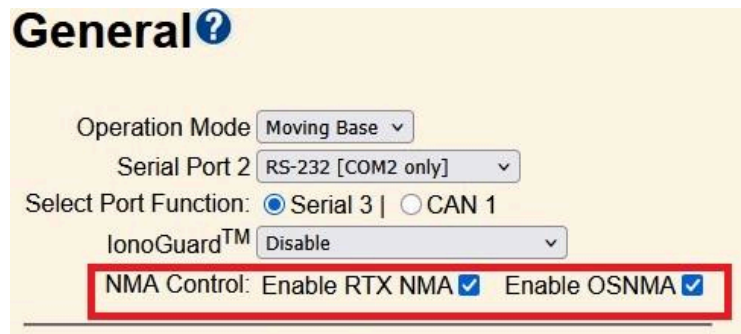
The receiver WEB UI now allows users to enable Trimble RTX NMA (Navigation Message Authentication) and Galileo OSNMA. Used together, these technologies mitigate spoofing attacks across the GPS, BeiDou, and Galileo satellite constellations.

Trimble ProPoint RTX-NMA provides broadcast ephemeris authentication via the Trimble RTX correction stream in real-time with support for GPS and BeiDou-3 satellites. A Trimble RTX® subscription is not required. ProPoint RTX-NMA complements Galileo OSNMA.

To enable ProPoint RTX-NMA, select RTX/xFill in the MSS / Configuration page.

Galileo tracking must be enabled to mitigate Galileo spoofing threats.

The NMA status of individual satellites can be viewed in the Satellite Tracking table.



The screenshot shows the 'Satellites - Tracking Information' page. On the left is a navigation menu with 'Tracking (Table)' highlighted. The main content area shows a table of satellite tracking data with checkboxes for 'Position Antenna' and 'Vector Antenna'. The table has columns for SV, Type, Elev., Azim., E1-C/No Pos Ant, E1, NMA, E5-C/No Pos Ant, E5, E6-C/No Pos Ant, E6, IODE, and URA. The NMA column contains lock icons for Galileo satellites 7, 8, 13, 26, 29, and 33.

ALL	GPS	GLONASS	Galileo	BeiDou	QZSS	NavIC	SBAS	MSS				
SV	Type	Elev. [°]	Azim. [°]	E1-C/No Pos Ant [dBHz]	E1	NMA	E5-C/No Pos Ant [dBHz]	E5	E6-C/No Pos Ant [dBHz]	E6	IODE	URA [m]
7	Galileo	66.02	90.77	47.1	CBOC		50.2/50.6/53.9	A/B/Alt	46.4	E6	42	3.12
8	Galileo	21.80	136.77	41.2	CBOC		41.8/42.4/46.9	A/B/Alt	37.5	E6	42	3.12
13	Galileo	26.25	60.77	41.6	CBOC		43.9/43.4/48.1	A/B/Alt	40.1	E6	42	3.12
26	Galileo	78.73	89.50	46.6	CBOC		51.2/50.7/54.1	A/B/Alt	46.3	E6	42	3.12
29	Galileo	42.69	348.59	46.1	CBOC		46.3/47.4/51.0	A/B/Alt	43.7	E6	42	3.60
33	Galileo	44.50	229.71	45.6	CBOC		47.0/46.6/50.4	A/B/Alt	44.3	E6	42	3.60

Description	Type	Supported Receiver Models
Addressed issues with position monitoring not working	Bug Fix	Trimble R750-2
Addressed issue with increasing precisions during control point measurements	Bug Fix	Trimble R980 Trimble R12i Trimble R12 Trimble R780 Trimble R780-2
Prevent flat position output with survey pole plumbed during GNSS+INS static mode	Bug Fix	Trimble R980 Trimble R12i Trimble R12 Trimble R780 Trimble R780-2

Note: Before updating, download and back up any data files on the receiver.

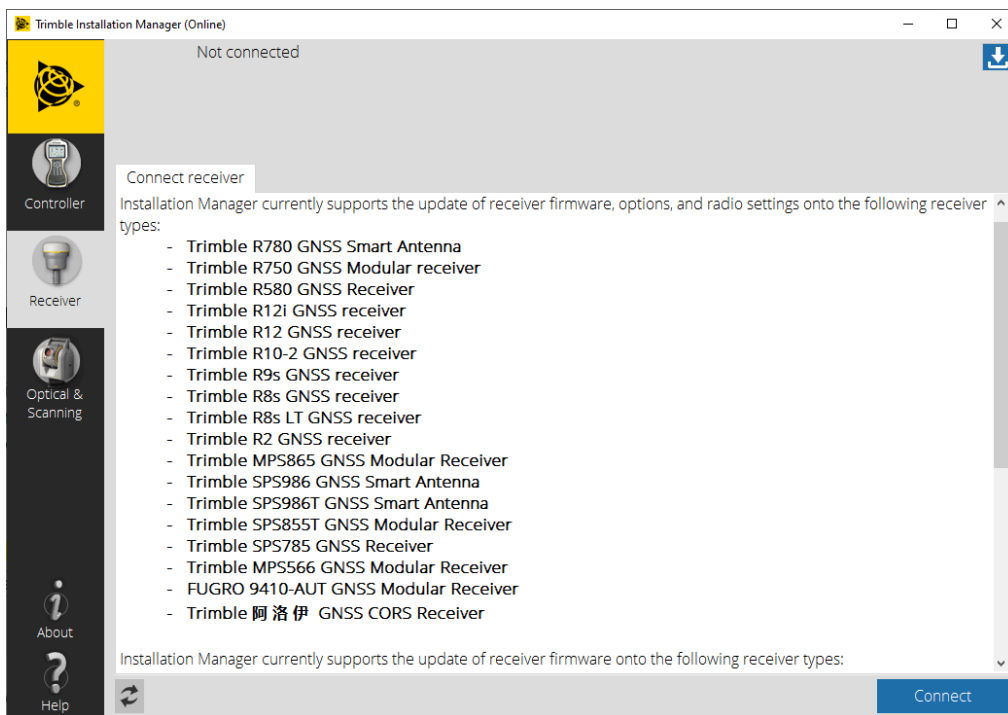
Trimble Installation Manager

Trimble Installation Manager is a free download and can be found here: install.trimble.com

The primary Trimble Installation Manager functions for GNSS receivers are:

- Warranty Activation
- Option Loading
- Radio Configuration
- Firmware Installation

After installing, launch Trimble Installation Manager, connect the receiver with the appropriate data cable to your computer and click on Connect.



Trimble Installation Manager will display receiver-specific information. Select the firmware version you want to install from the selection menu in the top right corner. Click on **Install** to start the installation process.

For more information

For more information, contact your local Trimble Distribution Partner.