

## Trimble® Precision GNSS OEM Receivers, 4.81

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

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### Introduction

These Release Notes describe improvements made since version 4.80 to the following Trimble GNSS OEM receivers:

- BD910
- BD920
- BD960
- BD970
- BD982
- BX960
- BX982

With this release, all the above receivers can use version 4.81 firmware. To use firmware version 4.81, you must have a valid firmware warranty. You can check the Firmware Warranty Date using the web interface. Make sure the date shown is 2 April 2013 or later. Alternatively, obtain the warranty date from the WinFlash software. Select Verify receiver options and ensure the Firmware Option is 2 April 2013 or later. For further support information, go to [www.trimble.com/support.shtml](http://www.trimble.com/support.shtml).

### Upgrade Procedure

There are two ways to load the new firmware:

- Use the WinFlash utility (BD9xx WinFlash v234\_v481.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 OEM GNSS receivers:

## General

- The BD982 and BX982 now support BeiDou, tracking B1 & B2 on the position antenna and B1 on the vector antenna.
- Minor translation updates.
- Updated OmniSTAR™ libraries.

## Tracking

- Improved handling of GLONASS leap seconds.
- Improved BeiDou modeling within the China region.
- Improved ionospheric modeling after a reboot.
- Improved SBAS handling when switching between satellites.
- Resolves issue where Galileo satellites may not be marked as healthy.

## Data formats

- RT27 updated to log/stream unhealthy Galileo satellites.

## Networking and security

- DNS settings are now also displayed on the *Ethernet Configuration* page for visibility.
- Web UI *DNS Configuration* page now allows DNS Proxy to be manually disabled.
- Various network security enhancement updates.

## Web interface

- Improved Web UI rendering. Previously some graphs did not display on certain browsers.
- Resolves Web Services Iono Map issue where an error would be displayed if the receiver was set with a negative elevation cutoff parameter.
- Removed the horizontal & vertical precision entry from the *General* page since this does not apply to OEM receivers.

## Documentation updates

The following updates have been made to the online help ([www.trimble.com/OEM\\_ReceiverHelp/V4.81/en/default.html](http://www.trimble.com/OEM_ReceiverHelp/V4.81/en/default.html)).

- Updates to Ethernet reference designs and updated links to point to the correct reference designs.
- Added a schematic defining BD920-W3G pin locations.
- Added BD920-W3G integration guidelines.
- Added a table indicating the voltage that the BD960 drives various antennas with.
- Corrected the integration notes for the BD982 USB OTG ID pin.
- Corrected the BX982 pinout to clarify CTS/RTS support.
- Added the 56h flag to enable Doppler output.
- Corrected 57h subtype 7 flags which are values (not bit values).
- Updated the 64h Output Message record with the latest flags for RTCM and RT27 setup.
- Updated the 64h Device Control record for Event Marker setup.

## 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 September 2013 release (Revision A) of the *Release Notes*. It applies to version 4.81 of the OEM GNSS receivers software.