



Support Bulletin

Advanced Positioning

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TRIMBLE INTEGRATOR CONFIDENTIAL

ENCRYPTION AND BEAM CHANGE FOR TRIMBLE RTX CORRECTION SERVICES - FIRMWARE UPDATE REQUIRED ON ALL TRIMBLE RTX DEVICES IN NORTH AMERICA, EUROPE, MIDDLE EAST AND AFRICA

Data integrity and authenticity are critical to ensure that our correction services are reliable and trustworthy. We take data security extremely seriously and leverage the most advanced technology available to protect our correction data streams. To this end, Trimble Advanced Positioning® will be updating Trimble RTX™ real-time correction streams to AES Encryption, providing further peace of mind for our users. Additionally, Trimble will be changing satellite beams that will accommodate RTX technology enhancements and network coverage expansion for years to come. The net result is even better service reliability and greater access to Trimble's ever-expanding CenterPoint® RTX Fast network. These changes will provide the end-user with increased reliability and access to faster convergence times in more areas.

All Trimble RTX compatible devices must be updated to versions of firmware supporting the encrypted streams, as well as configured for the new satellite beams, in order to continue to use Trimble RTX correction services.

The newly encrypted correction streams will be deployed on new satellite beams, and the old satellite beams will be left on for several months to allow a smooth transition before they are disabled (see table below). This bulletin is being distributed prior to the turn on dates of the new satellite beams to give resellers and customers plenty of time to upgrade firmware. Firmware should be upgraded as soon as possible (ASAP) so that just a quick configuration change for the new beam frequencies is necessary when they become available; we will send out a Support Bulletin with the frequencies for the new beams 2-4 weeks before they are turned on. It is very important that all users update their equipment firmware ASAP, and then configure the devices to use the new beam during the period of overlap.

www.trimble.com/Positioning-Services

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When and where is this happening?

Refer to the following table for the schedule of beam changes. Note that the existing 3 beams in North America will be replaced by a single beam covering the same areas.

	New Beam (AES Encrypted) <i>*compatible firmware required*</i>				Old Beam		
Region	Beam Name	Frequency (MHz)	Baud Rate	Turn on Date ¹	Beam Name	Frequency (MHz)	Turn off Date ²
Europe, Middle East, and Africa	RTXEA	1545.49	2400	December 1, 2018	RTXAE	1539.8125	June 1, 2019
North America (Canada & USA)	RTXNA	TBD	2400	February 14, 2019	RTXWN RTXCN RTXEN	1557.8615 1557.8150 1557.8590	July 1, 2019

¹ Target Turn On Date - Dates will be confirmed and communicated 1 month prior to this date

² Beams will be turned off at 0:00 UTC

What devices are affected by this change?

All Trimble RTX compatible devices are affected by this change, devices are listed below.

- Trimble BD982 / BX982
- Trimble BD940 / BD940-INS / BX940
- Trimble BD990
- Trimble BD992 / BD992-INS / BX992
- Trimble MB-Two
- Trimble ABX-Two

How can I work through this change?

To minimize any disruption from this change, it will be necessary to:

1. Update the customer's device firmware to the minimum version listed in the table below
2. Configure the customer's device to use the new beam

Firmware can be updated at any time before switching to the new beam. All firmware will continue to work with the old beams, allowing resellers to upgrade customer firmware at the first available opportunity, even before the new beams are available.

The beam configuration should be completed during the overlap period:

- For users in Europe, Middle East, and Africa, configure the use of the RTXEA beam ASAP after December 1, 2018 and before June 1, 2019.
- For users in North America, configure the use of the RTXNA beam ASAP after February 14, 2019 and before July 1, 2019.

Resellers have several options to assist their customers:

1. Instruct the customer to perform the firmware update, and then have the customer configure the beam *after* the beam turn on date.
2. Over a single visit to the customer, perform the firmware update and configure the beam *after* the beam turn on date.
3. Over a single visit to the customer, perform the firmware update *prior* to the beam turn on date, and then have the customer configure the beam *after* the beam turn on date.
4. Over two visits to the customer, perform the firmware update *prior* to the beam turn on date, and then configure the beam *after* the beam turn on date.

When will the frequencies for the new beams be available?

The frequencies will be available 2-4 weeks before the beam turn on date:

- For users in Europe, Middle East, and Africa, the frequency for RTXEA will be available by November 1, 2018
- For users in North America, the frequency for RTXNA will be available by February 1, 2018

The most up-to-date information can be found at <https://www.trimble.com/sat>.

What firmware version do I need?

Required firmware versions for all devices are listed below:

Device	Minimum Firmware Version
BD982 / BX982	5.21
BD940 / BD940-INS / BX940	5.30
BD990	5.30
BD992 / BD992-INS / BX992	5.30
MB-Two	3.40
ABX-Two	3.40

How do I download and install the firmware?

Trimble BD9XX / BX9XX Series

Firmware for the BD9XX series can be downloaded from Trimble.com.

1. Download the latest available firmware from <https://www.trimble.com/Precision-GNSS/InTech-Receiveers.aspx>
 - a. Click on your receiver model

- b. Click on the **Support** tab
 - c. Click on either the firmware image file to download, e.g. **BD982 Firmware Download-V537.timg**, or the WinFlash utility, e.g. **BD9XX_WinFlash_537.exe**
2. Use the WinFlash utility to install the firmware directly from the executable, or the web interface of the receiver to install the firmware image file

Contact Trimble Intech Support for any issues regarding the warranty period of the BD9XX units

Trimble MB-Two / ABX-Two

Firmware for the MB-Two can be downloaded from Trimble.com.

1. Download the latest available firmware from <https://www.trimble.com/Precision-GNSS/MB-Two-Board.aspx>
 - a. Click on the **Support** tab
 - b. Click on firmware file to download, e.g. **mb2_upgrade_v3.62.tar**
2. There are three ways to install the new firmware:
 - a. Use the Ashcom application
 - b. Use the web interface of the receiver
 - c. Use the MB-Two loader (PC only)
3. For more information, refer to the Firmware Upgrade section in the MB-Two User Manual

Contact Trimble Intech Support for any issues regarding the warranty period of the MB-Two units

How do I configure my device to use the new Trimble RTX satellite beam?

In general, from the Trimble RTX settings location, you will need to change the Trimble RTX satellite to Custom, and manually enter the frequency and baud rate for the new satellite beam.

For device/receiver-specific instructions, please review the Receiver Instructions tab at <http://trimble.com/sat>.

What if I use Trimble RTX corrections delivered via Internet (IP)?

Trimble RTX corrections delivered via Internet Protocol (IP) will be unaffected by this change at this time. Customers that are using Trimble RTX corrections via IP are not required to do anything to continue to use Trimble RTX.

For more information

The latest information regarding Trimble RTX correction services satellite beam changes can be found at <https://www.trimble.com/sat>

For more information contact Correction Services Customer Care. The most up to date contact information is available at www.trimble.com/Positioning-Services/contact-us