

# RELEASE NOTES

## TRIMBLE SURVEY GNSS FIRMWARE

### Trimble Survey GNSS Firmware Version 4.70 (January 2013)

#### Requirements

This firmware version includes improvements to the Survey Receiver firmware. It is considered a minor revision. This requires a valid firmware support agreement of:

- August 2012 or later for the R10
- March 2012 or later for the all other models

#### Supported GNSS Receivers

The following table identifies the Survey GNSS receivers supported by this revision.

Receiver	Support
Trimble R10	●
Trimble R8 Model 3	●
Trimble R8 Model 2	-
Trimble R8 Model 1	-
Trimble R6 Model 3	●
Trimble R6 Model 2	-
Trimble R6 Model 1	-
Trimble R4 Model 2	●
Trimble R4 Model 1	-
Trimble 5800 Model 2	-
Trimble 5800 Model 1	-
Trimble R7 Model 2	●
Trimble R7 Model 1	-
Trimble R5	●
Trimble 5700 Model 2	-
Trimble 5700 Model 1	-

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Trimble GeoXR	-
Trimble R3	-

## Release Notes

The release notes describe the added features and improvements made to Trimble Survey GNSS receiver firmware.

### Improvements by Receiver Model

Trimble R10, R8 (Model 3), R7 (Model 2<sup>1</sup>) GNSS receiver firmware version v4.70

- New and enhanced WebUI pages and menus
- Improved clone file loading for WebUI (Application Files)
- Enhance support for IBSS system error reporting
- Improved FTP Push processing and support

Trimble R10 receiver firmware version v4.70

- Added new xFill satellite beams for expanded support world-wide (see xFill Coverage map at [www.trimble.com](http://www.trimble.com))

Trimble R7 (Model 2<sup>1</sup>) receiver firmware version v4.70

- Added new OmniSTAR satellite beams to default list

### Improvements to all supported Receiver Models

Trimble R10, R8 (Model 3), R7 (Model 2<sup>1</sup>), R6 (Model 3), R5, R4 (Model 2) GNSS receiver firmware version v4.70

- New Antenna library version 7.49
- Now using EGM95 as default Geoid Model, replaces the DMA 10 x 10 model
- Improved CMR messaging format
- Enhanced RTCM3 interoperability with Leica and Network mode
- Extended RTCM 2.3 to include GLONASS type 31 records
- Improved NMEA-GBS, VRS GGA and GSOE messaging
- Extended support for Galileo, BeiDou (COMPASS) and other GNSS constellation information (Almanac)
- **US Customers Only** - Added support for United States FCC Narrowbanding
  - United States GNSS Radio users must use 12.5 kHz channel spacing or use 25 kHz at 19200 bps only
  - Radio Country Code (Destination) now includes:
    - 1 – Rest of World (ROW)
    - **3 – Canada/USpre2013**
    - 9 – Europe

- **11 – US-2013**

- All new US GNSS radios are configured to 12.5 kHz channel spacing
- Radio Country Code 11 (US-2013) allows the following Protocols and Baud Rates:
  - TT450s 4800 bps
  - TM II 4800 bps
  - TM3 9600 bps
  - TT450s 8000 bps

<sup>1</sup>R7 (Model 2) was previously known as the R7 GNSS

**Before** you update the receiver, download and backup any data files that are on the receiver.

## Download information

The latest version of Trimble Survey GNSS Firmware can be downloaded from the Trimble website within the support page of each supported receiver.

1. Go to [www.trimble.com](http://www.trimble.com)
2. Click on the *Support & Training* link in the blue banner at the top of the page.
3. Click on *Support A-Z List* on the drop-down menu.
4. Find your receiver on the list of supported products.

*Hint: Click on the associated first character of your receiver type. All survey receivers fall under “T” for “Trimble XX Receiver”.*

5. Click on the link for your receiver type.
6. Click on the *Downloads* link.
7. The latest firmware version should be located at the top of the page.
8. Click on the link to the latest version, in this case *version 4.63*.
9. Your browser will begin downloading the latest Winflash utility installer that contains your firmware.
10. At this point you can save the Winflash installer to a local folder or click on *Run (Open)* to begin installing the utility.

*Note: You may need to accept some security warnings based on your computer configuration.*

## Installing Winflash utility

At this point you will continue from the last step above or if you have saved the downloaded Winflash utility, you must navigate to the folder that contains the file and click on *WFC-Rx-5x-v470.exe*.

1. The Winflash installer will start. Click on the *Next* button.
2. Read the License Agreement and click on *Yes* to accept the terms.
3. At this point the Winflash installer will try to detect any previous versions of Winflash on your system
  - a. If the Winflash installer detected a previous version of Winflash on your computer, it will display the current Winflash folder in use. Click on *Next*.

- b. If the Winflash installer does not detect a previous version of Winflash on your computer, it will ask you to accept the default folder for Winflash. If you do not want to use the default location then:
        - i. Click on the *Browse...* button and navigate to the desired folder location you would like to use.
        - ii. Click *Ok* to accept the new location.
        - iii. Click on *Next* to continue.
        - iv. Select the Program Folder location for the program icon, and then click on *Next*.
4. Winflash installer will now install all required files to run the Winflash utility.
5. The Winflash installer will now ask if you want to register Winflash. You have three options:
  - a. **Register via the Internet (web access required)**
  - b. **Register by Fax or Mail.** Selecting this option will open a document. Complete the document and fax or mail to Trimble.
  - c. **Register Later.**
6. The Winflash installation is now complete.

## Loading new Firmware

Use the Winflash utility to install the latest firmware on your Trimble GNSS receiver.

1. Click on the *Winflash* icon added to the Start menu on your computer.
2. Click on the *Device type* (receiver group) for your receiver type.
3. Click on the *PC serial port* drop down menu to select the serial port your receiver is connected to.
4. Click on the *Next* button.
5. From the *Operations* list box, click on the *Load GPS software* operation.
6. Click on the *Next* button.
7. Click on the *Available Software* for you receiver and the firmware you just downloaded. If you have installed firmware before, the firmware versions are still available in the listing.
8. Click on the *Next* button.
9. The next screen shows the current settings and actions to be taken by the Winflash utility.
10. Click on the *Finish* button.
11. Winflash will now load the latest firmware onto your receiver. This procedure can take several minutes. If the firmware loads correctly, then click on the *Exit* button.

## Previous Firmware and Release Notes

Previous versions of Firmware are available in the same location on the Trimble web site. Under the *Downloads* folder, you will find an archived folder.

Previous versions of the Release Notes are available in the same location on the Trimble web site. Under the *Documentation* folder, you will find an archived folder.

