

RELEASE NOTES

NetR5™ GNSS Infrastructure Receiver

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Version 3.10
Revision A
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Release Notice

This is the March 2006 release (Revision A) of the *Release Notes*. It applies to version 3.10 of the NetR5 GNSS Infrastructure receiver firmware.

Limited Warranty Terms and Conditions

Product Limited Warranty

Subject to the terms and conditions set forth herein, Trimble Navigation Limited ("Trimble") warrants that for a period of (1) year from date of purchase this Trimble product (the "Product") will substantially conform to Trimble's publicly available specifications for the Product and that the hardware and any storage media components of the Product will be substantially free from defects in materials and workmanship.

Product Software

Product software, whether built into hardware circuitry as firmware, provided as a standalone computer software product, embedded in flash memory, or stored on magnetic or other media, is licensed and not sold. If accompanied by a separate end user license agreement, use of any such software will be subject to the terms of such end user license agreement (including any differing limited warranty terms, exclusions and limitations), which shall control over the terms and conditions set forth in this limited warranty).

Software Updates

During the limited warranty period you will be entitled to receive such Fix Updates and Minor Updates to the Product software that Trimble releases and makes commercially available and for which it does not charge separately, subject to the procedures for delivery to purchasers of Trimble products generally. If you have purchased the Product from an authorized Trimble distributor rather than from Trimble directly, Trimble may, at its option, forward the software Fix Update or Minor Update to the Trimble distributor for final distribution to you. Major Upgrades, new products, or substantially new software releases, as identified by Trimble are expressly excluded from this update process and limited warranty. Receipt of software updates shall not serve to extend the limited warranty period.

For purposes of this warranty the following definitions shall apply: (1) "Fix Update" means an error correction or other update created to fix a previous software version that does not substantially conform to its published specifications; (2) "Minor Update" occurs when enhancements are made to current features in a software

program; and (3) "Major Upgrade" occurs when significant new features are added to software, or when a new product containing new features replaces the further development of a current product line. Trimble reserves the right to determine, in its sole discretion, what constitutes a significant new feature and Major Upgrade.

Warranty Remedies

If the Trimble Product fails during the warranty period for reasons covered by this Limited Warranty and you notify Trimble of such failure during the warranty period, Trimble at its option will repair OR replace the nonconforming Product, OR refund the purchase price paid by you for the Product, upon your return of the Product to Trimble in accordance with Trimble's standard return material authorization procedures.

How to Obtain Warranty Service

To obtain warranty service for the Product, please contact your Trimble dealer. Alternatively, you may contact Trimble to request warranty service at +1-408-481-6940 (24 hours a day) or e-mail your request to trimble_support@trimble.com. Please be prepared to provide:

- your name, address, and telephone numbers
- proof of purchase
- this Trimble warranty card
- a description of the nonconforming Product including the model number
- an explanation of the problem.

The customer service representative may need additional information from you depending on the nature of the problem.

Warranty Exclusions and Disclaimer

This Product limited warranty shall only apply in the event and to the extent that (i) the Product is properly and correctly installed, configured, interfaced, maintained, stored, and operated in accordance with Trimble's applicable operator's manual and specifications, and; (ii) the Product is not modified or misused. This Product limited warranty shall not apply to, and Trimble shall not be responsible for defects or performance problems resulting from (i) the combination or utilization of the Product with hardware or software products, information, data, systems, interfaces or devices not made, supplied or specified by Trimble; (ii) the operation of the Product under any specification other than, or in addition to, Trimble's standard specifications for its products; (iii) the unauthorized, installation, modification, or use of the Product; (iv) damage caused by: accident, lightning or other electrical discharge, fresh or salt water immersion or spray; or exposure to environmental conditions for which the Product is not intended; or (v) normal wear and tear on consumable parts (e.g., batteries). Trimble does not warrant or guarantee the results obtained through the use of the Product. NOTICE REGARDING PRODUCTS EQUIPPED WITH TECHNOLOGY CAPABLE OF TRACKING SATELLITE SIGNALS FROM SATELLITE BASED AUGMENTATION SYSTEMS (SBAS) (WAAS/EGNOS, AND MSAS), OMNISTAR, GPS, MODERNIZED GPS, OR GLONASS SATELLITES, OR FROM IALA BEACON SOURCES: TRIMBLE IS NOT RESPONSIBLE FOR THE OPERATION OR FAILURE OF OPERATION OF ANY SATELLITE BASED POSITIONING SYSTEM OR THE AVAILABILITY OF ANY SATELLITE BASED POSITIONING SIGNALS.

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Registration

To receive information regarding updates and new products, please contact your local dealer or visit the Trimble website at www.trimble.com/register. Upon registration you may select the newsletter, upgrade or new product information you desire.

Notices

Class B Statement – Notice to Users. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.

Canada

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This apparatus complies with Canadian RSS-310 and RSS-210. Cet appareil est conforme à la norme CNR-310 et CNR-210 du Canada.

Europe

This product is intended to be used in all EU member countries.

This product has been tested and found to comply with the requirements for a Class B device pursuant to European Council Directive 89/336/EEC on EMC, thereby satisfying the requirements for CE Marking and sale within the European Economic Area (EEA). Contains Infineon radio module PBA 31307. These requirements are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential or commercial environment.



Australia and New Zealand

This product conforms with the regulatory requirements of the Australian Communications Authority (ACA) EMC framework, thus satisfying the requirements for C-Tick Marking and sale within Australia and New Zealand.



Taiwan – Battery Recycling Requirements

The product contains a removable Lithium-ion battery. Taiwanese regulations require that waste batteries are recycled.



廢電池請回收

Directive 1999/5/EC

Hereby, Trimble Navigation, declares that the <Product Name> GNSS Infrastructure receiver is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Notice to Our European Union Customers

For product recycling instructions and more information, please go to www.trimble.com/ev.shtml.

Recycling in Europe: To recycle Trimble WEEE (Waste Electrical and Electronic Equipment, products that run on electrical power.), Call +31 497 53 24 30, and ask for the "WEEE Associate". Or, mail a request for recycling instructions to:

Trimble Europe BV
c/o Menlo Worldwide Logistics
Meerheide 45
5521 DZ Eersel, NL



Declaration of Conformity

We, Trimble Navigation Limited,

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declare under sole responsibility that the products:
SPSx50 Modular GPS receiver, NetR5
comply with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Product information

These release notes detail the features in firmware 3.10 for the Trimble® NetR5™ GNSS Infrastructure receiver. For further information, please refer to the *Trimble NetR5 Receiver User Guide*, which is included on the *Trimble Survey and Infrastructure Receivers CD*. Alternatively, you can access the online help through the in-built web browser.

If your Trimble NetR5 receiver is supplied with other Trimble software, you will need to run the antenna and receiver configuration update program, which is on the *Trimble Survey and Infrastructure Receivers CD*. This program updates your software with the most current information for all supported receivers and antennas.

Before you upgrade the firmware, Trimble recommends that you download and back up any files that are on the receiver.

For more information about the *Trimble Survey and Infrastructure Receivers CD* distributed with this product, please refer to the *Trimble NetR5 Receiver User Guide* included on the CD.

For information about the CD distributed with other Trimble products, refer to the user guide or CD for that product.

Important features

The following features are new:

- Tracking of the L5 signal.
- Tracking of GLONASS L1/L2 signals.
- 72-channels available for signal tracking.
- Internal battery (capable of lasting up to 15 hours).
- New Zephyr Geodetic™ Model 2 antenna. A Dorne Margolin Choke ring can be used but it cannot track the L5 GPS or GLONASS signals.
- 64 MB of internal memory (59 MB usable for data logging).
- USB memory stick/USB hard drive support. For USB support, the external drive must be formatted using the FAT32 file system (NTFS is not supported). To format the drive, free utilities are available from the Internet, for example www.compuapps.com/download/swissknife/Swissknife.htm.

Trimble has tested and recommends the following drives:

- USB flash drives: SanDisk 256 MB, SanDisk Cruzer Mini – 1 GB, AVB 256 MB, Netac 128 MB
- USB hard drives: Maxtor 300 GB, Western Digital 250 GB, Adaptec USB drive enclosure. These should work with all hard disks.

If you want to use another drive, it should be tested for compatibility first.

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- The receiver is **not** compatible with Trimble Survey Controller™ or Survey Pro™ software
 - A front panel UI allows you to set up Ethernet configuration and base station parameters without the need for any additional hardware or software. For more information, refer to the *NetR5 Quick Start Guide*, which is included in the accessory kit.
 - E-mail client – The receiver can send e-mails (receiver requires access to an SMTP server) to report various information on status and errors
 - FTP push – Files can be automatically sent to an FTP server.
 - TRIMMARK™ 3 radio – To transmit RTCM 3.0 corrections and/or CMR messages for RTK measurements that include GLONASS corrections, make sure that the TRIMMARK radio is using firmware 1.26 or later. TRIMMARK firmware is available from the Trimble website (www.trimble.com/trimmark3_ts.asp).

Note – The PDL450 and the HPB450 radios do not need firmware upgrades to be compatible.

- To use three serial ports at once, you need an adaptor, which is not currently available. For more information, please contact your Trimble distributor.

Software compatibility

The NetR5 receivers are compatible with the following software:

- Trimble Geomatics Office™, 1.6 or later
- GPSBase, 2.5 or later
- Trimble Total Control™, 2.7 or later

Updating the system files

Before you can use your Trimble NetR5 receiver with Trimble office software, such as Trimble Geomatics Office, Trimble Total Control, or Terramodel®, you must install or update the following files:

- The NetR5 receiver and GPSNet receiver device driver for data transfer
- Configuration files

These files provide the latest list of antennas and receivers that are recognized by Trimble software. They also ensure that antenna and receiver information flows correctly from the receiver to the office software.

To install or update these files:

1. Run the *Trimble Survey and Infrastructure Receivers CD*.
2. From the main menu, select *Install Components for TGO / TTC / Terramodel*.
3. Follow the instructions in the installation wizard.

Note – You must also install the latest version of the software or firmware for any other Trimble product that you will use with the NetR5 receiver.

Updating the utilities

The *Trimble Survey and Infrastructure Receivers CD* contains the following utilities. Make sure that you install the latest versions of these utilities.

WinFlash utility

The WinFlash utility communicates with Trimble products, and enables them to perform functions that include:

- installing and updating receiver firmware
- upgrading receiver options
- retrieving receiver configuration
- configuring the Bluetooth ID string to help identify the receiver when it is connected using Bluetooth® wireless technology
- Configuring the Ethernet settings

Installing the WinFlash utility

The WinFlash utility provided with this release supports only the Trimble NetR5 receiver. To download the WinFlash utility for other receivers, such as the Trimble R7 and R8 GNSS, go to the Support section of the Trimble website (www.trimble.com/support.shtml).

If you have already run the *Install essential software* option from the *Trimble Survey and Infrastructure Receivers CD*, the WinFlash utility is installed on the computer.

Note – You can install the WinFlash utility on as many computers as required. The version of the WinFlash utility on the *Trimble Survey and Infrastructure Receivers CD* is fully compatible with other copies of the software that you may have for other Trimble products. Installing the WinFlash utility from this CD will not disrupt operation with other Trimble devices.

To install the WinFlash utility on another office computer, or to install/reinstall it without installing other software:

1. Run the *Trimble Survey and Infrastructure Receivers CD*.
2. From the main menu, select *Install individual software packages*.
3. From the menu that appears, select *WinFlash vX.XX for Trimble Series Receivers*.
4. Follow the instructions in the installation wizard.

The Trimble Data Transfer utility

Use the Trimble Data Transfer utility to transfer data between a variety of data controllers and an office computer.

Installing the Data Transfer utility

If you have already run the *Install essential software* option from the *Trimble Survey and Infrastructure Receivers CD*, the Data Transfer utility is installed on the computer.

Note – You can install the Data Transfer utility on any number of computers.

To install the Data Transfer utility on another office computer, or to reinstall it without installing other software:

1. Run the CD.
2. From the main menu, select *Install individual software packages*.
3. From the menu that appears, select *Data Transfer vX.XX*.
4. Follow the instructions supplied by the installation wizard.

Using the Data Transfer utility to connect to the receiver

Connect the Data Transfer utility to a GPS receiver (Trimble R/5000 Series) default device, or create a new GPS receiver (Trimble R/5000 Series) device definition. You cannot use a device definition for another type of receiver. For more information about creating a new device, refer to the *Data Transfer Help*.

Trimble recommends that you register your Trimble NetR5 GNSS Infrastructure receiver to protect your investment and to ensure that the system is always up to date. When you register the receiver, you will be notified by e-mail when there are updates to the receiver firmware, or when new functionality becomes available.

To register the receiver:

1. Run the *Trimble Survey and Infrastructure Receivers CD*.
2. From the main menu, select *Register your receiver*.
3. Do one of the following:
 - To register online, select *Register using the Internet*. The online registration form opens in your default web browser. Fill in the required fields, and then click **Submit** to submit the completed form.
 - To register by facsimile or mail, select *Register using fax or mail*. The registration form opens in the Microsoft® WordPad editor. Fill in the required fields, print the form and then fax or mail it to the address shown at the bottom of the form.

