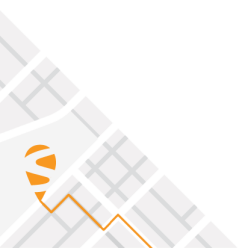




Release Notes and Installation Guide

AsteRx SBi3 Pro Firmware Package v1.3.3



1 Installation Guidelines

In order to upgrade the firmware to version 1.3.3, only the following file is to be installed on the receiver:

SUF file	Located in	Contains
AsteRx SBi3 Pro-1.3.3.suf	firmware/	See section 6

There is no need to install the file AsteRx SBi3 Pro-1.3.3-failsafe.suf, unless Septentrio Support advises otherwise.

2 New Features and Improvements

2.1 New features in version 1.3.3

None

2.2 Improvements in version 1.3.3

1. A bug was fixed for setups where the GNSS antennas are installed along the vehicle Y axis.
2. The accuracy of the INS solution was improved for environments dominated by low quality GNSS measurements.

2.3 New features in version 1.3.2

1. The availability of an INS solution has been increased during the initial sensor alignment period. The receiver now outputs an INS solution as soon as a GNSS solution becomes available.
2. The velocity input aiding through the VSM NMEA messages was extended to support Z-axis direction.
3. The command setNTPServer was enabled.

2.4 Improvements in version 1.3.2

1. The robustness of the INS solution against heavy shocks was increased.
2. Decoding of BeiDou ephemerides in difficult environment has been improved.

3. The definition of the VSM input NMEA message's time stamp has changed from GNSS to UTC. The user has to ensure that time-stamping of incoming VSM NMEA messages is done in the proper time frame.
4. Extra mode indicators for INS support have been added to HRP NMEA message.
5. Several improvements were made in NMEA output when configured for INS positioning.
6. The performances of the INS engine has been improved when working in multipath prone environment.
7. A problem was fixed that caused inaccurate INS solutions when the command setIMUOrientation was either omitted or used with the SensorDefault argument.
8. The receiver's temperature reported in SBF message ReceiverStatus has been corrected.
9. Improvements were made in the IMU saturation flag in ExtSensorMeas SBF block.
10. Support for longer MAIN-AUX antenna baselines has improved.

3 Known Issues and Limitations

1. When configuring the receiver to broadcast or multicast data (e.g. SBF, NMEA) over UDP, on the "Ethernet over USB" network interface, the data is transmitted twice. Unicast UDP and other network interfaces are not affected by this.
2. It is not possible to upgrade the receiver using mobile Safari on iOS devices.
3. If more than one user simultaneously changes settings via the web interface, the resulting configuration of the receiver may not be consistent.
4. IPS connections may stay visible in the web interface after the client has been disconnected.
5. Firewall on computers can delay accepting connection by up to 4 minutes. Before using IPR functionality ensure that the desired IP port is enabled on your computer.
6. Incorrect setting of the IMU orientation by 90 degrees or more can result in NaN values in the reported INS position

4 Support

For further information or support, please consult the Septentrio support website (<http://www.septentrio.com/support>).

5 Legal Notice

Septentrio does not authorize the use of its products as critical components in devices or systems intended for safety-of-life applications or in devices or systems, of which the failure may endanger life or cause injuries, unless written approval is given.

All the firmware and documentation delivered with the AsteRx SBi3 Pro Firmware Package is licensed, as explained in the About page which is accessible via the web interface of the receiver.

6 System Components and Versions

Product: AsteRx SBi3 Pro Version: 1.3.3 Receiver Platform: GRB0053 Release Date: 20 April 2022	version	AsteRx SBi3 Pro-1.3.3-failsafe.suf	AsteRx SBi3 Pro-1.3.3.suf
Failsafe	8.0.5-gd60d02e	Y	
Operating System	8.0.5-gd60d02e		Y
GNSS Firmware	6.9.10-gd3605d4013		Y
Antenna Information	2.13.0-62076b17		Y