# Release Notes and Installation Guide

AsteRx4-Fg Firmware Package v4.12.0

# 1 Installation Guidelines

In order to upgrade the firmware to version 4.12.0, only the following file is to be installed on the receiver:

| SUF file | Located in | Contains |
| --- | --- | --- |
| AsteRx4-Fg-4.12.0.suf | firmware/ | See section 6 |

There is no need to install the file AsteRx4-Fg-4.12.0-failsafe.suf, unless Septentrio Support advises otherwise.

# 2 New Features and Improvements

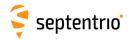## 2.1 New features in version 4.12.0

None

## 2.2 Improvements in version 4.12.0

1. The default configuration of the receiver is changed to include all four constellations. This is to increase reliability and availability for the default product configuration.
2. Logging data for Support will result in a larger file size due to the increased number of satellites and other improvements for enhanced debugging.
3. Higher update rates are now available for the Positioning Engine.  The maximum achievable update rate for combined RTK/PPP/heading is up to 20 Hz.
4. The Fugro correction stream now selects the highest L-band beam unless this is a spot beam.
5. It is now possible to configure the PPS pulses to be generated every 4 seconds.
6. Decoding of Galileo I/NAV ephemerides in difficult environment has been improved.
7. Handling of antenna phase center offset has been improved.
8. B3I support has been added to the Marinestar service.
9. The receiver now has full support of the QZSS J04.

## 2.3 New features in version 4.10.3

None

## 2.4 Improvements in version 4.10.3

1. Fixing an issue causing a crash on the firmware only occurring when beam configuration is updated.
2. The dynamic response of the position solution has been improved.
3. The handling of VRS correction data has been refined to improve position accuracy.
4. Decoding of BeiDou ephemerides in difficult environment has been improved.

# 3 Known Issues and Limitations

1. When accessing the webUI over HTTPS, occasional CPU overloads can be detected.
2. If the message "USB device not recognised" is shown on the PC after an upgrade of the receiver firmware, it is recommended to restart the receiver. Afterwards, the USB connection will be functional again.
3. Only the receiver's LVTTL serial ports can be configured at 460800 bps. The RS232 serial ports do not support the high baud rate.
4. It is not possible to upgrade the receiver using mobile Safari on iOS devices.
5. If more than one user simultaneously changes settings via the web interface, the resulting configuration of the receiver may not be consistent.
6. The web server on the receiver has been tested with Chrome, Firefox and Microsoft Edge. If you experience any problems with your browser, please use a different client application.
7. IPS connections may stay visible in the web interface after the client has been disconnected.
8. The NTRIP server connection is sometimes not reliable when connected to a caster running "Professional Ntrip Broadcaster" (up to v2.0.22).
9. 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.
10. The generation rate of GBS and GRS NMEA sentence is limited to 1 Hz.
11. The firmware is only compatible with GRB-0026 hardware revision 9 and higher. The revision of the hardware can be checked using the command "lif,identification" in the field <mainboard>.
12. Downgrading the receiver firmware is not recommended, it will require a resubscription to the Marinestar service.
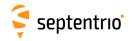
# 4  Support

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 AsteRx4-Fg 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:         AsteRx4-Fg<br>Version:         4.12.0<br>Receiver Platform:    SSRC7<br>Release Date:    19  April  2022 | version | AsteRx4-Fg-4.12.0-failsafe.suf | AsteRx4-Fg-4.12.0.suf |
|---|---|---|---|
| Failsafe | 12.0.2-g0545d66 | Y | |
| Operating System | 12.0.2-g0545d66 | | Y |
| GNSS Firmware | 6.12.4-gda229cacc5 | | Y |
| Antenna Information | 2.13.0-62076b17 | | Y |