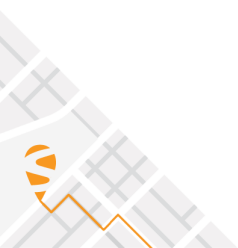# Release Notes and Installation Guide

mosaic-H Firmware Package v4.12.1

1   Installation Guidelines

In order to upgrade the firmware to version 4.12.1, only the following file is to be installed on the receiver:

SUF file	Located in	Contains
mosaic-H-4.12.1.suf	firmware/	See section 6

There is no need to install the file mosaic-H-4.12.1-failsafe.suf, unless Septentrio Support advises otherwise.

2   New Features and Improvements

2.1   New features in version 4.12.1

1. Galileo OSNMA support has been added.
2. IP over USB is now available.
3. RTK base and moving base support are now supported.
4. GPLED2 configured as "RTK status" by default

2.2   Improvements in version 4.12.1

1. It is now possible to configure the PPS pulses to be generated every 4 seconds.
2. The NMEA talker ID for BeiDou has been changed from BD to GB in accordance with the NMEA version 4.11 standard.
3. Login with Ed25519 SSH keys is now supported.
4. An issue related to an invalid UTC time field at startup of the receiver in the NMEA interface has been resolved.
5. Decoding of Galileo ephemerides at cold startup has been improved.
6. TLS 1.3 is now supported.
7. Decoding of Galileo I/NAV ephemerides in difficult environment has been improved.
8. The spoofing detector has been improved and identifies more types of spoofers.
9. The handling of VRS correction data has been refined to improve position accuracy.
10. Handling of antenna phase center offset has been improved.
11. Decoding of BeiDou ephemerides in difficult environment has been improved.
12. Antenna in-rush current limitation has been increased.
13. The B3I signal is now supported.
14. A new command setIpKeepAlive has been added to allow the customer to enable and configure TCP/IP keepalive functionality on the IP and IPS ports.
15. The receiver now has full support of the QZSS J04.

2.3 New features in version 4.9.1

None

2.4 Improvements in version 4.9.1

1. When using "setUMSDOnConnect,on" and the USB cable is disconnected, the internal disk is now automatically re-mounted and logging resumes.
2. Flow control has been made available on COM1.
3. Additional Ethernet PHYs are now supported by the software.

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. 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.
4. IPS connections may stay visible in the web interface after the client has been disconnected.
5. The NTRIP server connection is sometimes not reliable when connected to a caster running "Professional Ntrip Broadcaster" (up to v2.0.22).
6. 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.
7. Moving base output is limited to 20 Hz.
8. When accessing the webUI over HTTPS, occasional CPU overloads can be detected.
9. The receiver is not able to remount the disk automatically when unplugging the USB cable, unless the disk is first ejected (Windows) or unmounted (Linux) from the host PC before disconnecting the USB cable.

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 mosaic-H 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: mosaic-H Version: 4.12.1 Receiver Platform: GRB0051 Release Date: 19 April 2022	version	mosaic-H-4.12.1-failsafe.suf	mosaic-H-4.12.1.suf
Failsafe	12.0.3-gd202d26	Y	
Operating System	12.0.3-gd202d26		Y
GNSS Firmware	6.12.5-gcfb7243a03		Y
Antenna Information	2.13.0-62076b17		Y