



Firmware Release Notes

Survey

DATE: JUNE 17, 2014
PRODUCT: SPECTRA PRECISION SP80 GNSS RECEIVER
SUBJECT: NEW SP80 FIRMWARE RELEASE
NUMBER: **V1.3**

Introduction

This document is the firmware release note of the SP80 v1.3.

The 1.3 version includes some GNSS related improvements and fixes thus it is recommended to upgrade any SP80 GNSS receiver delivered with an earlier firmware version. This upgrade does not require any upgrade code.

Upgrade procedure

The procedure to upgrade the receiver is as follows:

1. Copy the **sp80_upgrade_v1.3.tar** file to an SD card (it is recommended to use an empty and formatted SD card)
2. Switch off the SP80 receiver
3. Make sure that there is also at least one internal battery inserted (or plug the SP80 into an external power, if available)
4. Insert SD card into the SP80 unit
5. Turn on the SP80 while keeping the **Scroll** button pressed (for about 5 seconds)
6. Wait for the complete upgrade (it takes about 10 minutes)

Firmware list and versions

General version number: **v1.3 – 10/06/2014**

- OS: **2.6.37 #711 PREEMPT 16/05/2014**
- PVT: **LP60V37**
- DSP: **LC60V37**
- SL: **0.54**
- BT: **7.2.31**
- PMU: **3.W**
- GSM: **02.003**
- XDL: **V01.06(2) or V01.08(2) or V01.12(2)**

The software compatible with SP80 **v1.3** version are:

- FAST Survey: **4.0.7** or later
- Survey Pro: **5.4.1** or later
- Survey Office: **2.96** or **3.11**(64-bits only):
- USB Serial Emulation: **1.1**

New features (compared to SP80 v1.2)

No new feature

Resolved problems/Improvements (compared to SP80 v1.2)

1. The SP80 receiver was not able to detect some SIM cards.
2. When the number of visible WiFi networks was important, the SP80 receiver could crash when making the WiFi network correction.
3. When the internal UHF radio contained 32 channels, the SP80 rebooted each time the radio configuration was queried.
4. Rarely, when the SP80 receiver was configured as an UHF base station (using internal UHF radio transmitter), the radio could not transmit any data.
5. When trying to enable the anti-theft mode while the SP80 receiver was not computing position, the receiver raised the alarm "Bad Parameter". This alarm is now replaced with a more explicit "ANTI-THEFT not allowed no pos" alarm.
6. When deleting all files with the SP80 keyboard, it could happen that the message 'Clean in progress' did not disappear.
7. Rarely, the battery level could not be displayed on the screen and the alarm low battery was raised while the battery level was correct or there was no battery.

Known issues

- The 3 button reset deletes all the G-Files recorded in the internal memory.

Recommendations

1. The official firmware version contains 2 digits (ex: 1.2). If the receiver contains a version with 3 digits (ex: 1.2.5), it means that it is a beta version and it can be used only 90 days after the release date. After these 90 days, the receiver will not answer to any command, and will require to be upgraded to an official version.
2. The SP80 receiver supports the standard SD cards and the SDHC cards. It does not support the SDXC cards.
3. Currently there is peak of ionosphere activity which can affect/degrade receiver performance. Often, the 3rd party reference data provider reinforces the performance degradation by generating less correction data compared to quiet ionosphere conditions. This is recommended to contact the network data provider in case of RTK problems.

4. In case of receiver performance problems it is recommended to record atl.log file (specific function accessible directly on the SP80 receiver with the Scroll and Log buttons) and share it with our technical support.
5. The SP80 GNSS receiver can track and use the observables from all 6 GNSS systems (GPS, GLONASS, BeiDou, Galileo, QZSS and SBAS) for RTK rover operation only if base station provides respective reference data. With the RTCM 3.1 (and earlier version) protocol these reference data are available for L1/L2 GPS/GLONASS only. In order to take benefit from other signals you should use an SP80 base generating either ATOM or RTCM 3.2 (MSM) differential data.
6. When working in NTRIP mode, it is recommended to select VRS mount point over MAC and FKP, always try select GPS+GLONASS mount points.