



## Engineering Firmware Release Notes

## Survey

Date: March 27<sup>th</sup>, 2012  
Product: ProFlex 800 and ProFlex 800 CORS  
Subject: ProFlex 800 V1.1 Firmware Release

### Introduction:

This document is the firmware release note of the [ProFlex 800 V1.1](#).  
**This version does not require a new registration code.**

### Upgrade procedure

The procedure to upgrade the receiver is the following:

- 1- Copy the file [p\\_800\\_upgrade\\_V1.1.S759x24.tar.bz2](#) to an USB memory key.
- 2- Make sure that there are at least 10Mb of free memory after having copied these files
- 3- Switch off the ProFlex 800
- 4- Plug the ProFlex 800 into an external power and make sure that there is also an internal battery
- 5- Connect the USB memory key to the ProFlex 800
- 6- Turn on the ProFlex 800 while keeping pressed the button 'Scroll' (during about 5 seconds)
- 7- Wait for the complete upgrade, which should take about 30 minutes.

### Firmware list and versions

General version number: [V1.1 - S759Kx24](#)

SYS:	<a href="#">S125c</a>
GNSS:	<a href="#">Kx24</a>
RFS:	<a href="#">759</a>
BOOT LOADER:	<a href="#">1.1.5.9</a>
KERNEL:	<a href="#">2.6.19</a>
PMU:	<a href="#">2.31</a>
GSM:	<a href="#">R7.46</a>
Web Service:	<a href="#">047</a>
NTRIP Caster:	<a href="#">1.0.10</a>
PF_PMU:	<a href="#">17940202</a>

The radio firmware compatible with the ProFlex 800 V1.1 are:

- Internal Pacific Crest ADL Foundation: 3.04 (2280)
- External Pacific Crest ADL Vantage: 3.04 (2280)
- External Pacific Crest ADL Vantage Pro: 3.04 (2280)
  
- External Pacific Crest HPB: 2.58 or 2.42
- Internal U-Link: 1.02
- External U-Link: 1.03 (HW: AD), 1.04 (HW: AE) or 1.09 (With Connector)

The software compatible with ProFlex 800 V1 are:

- FAST Survey: 2.9.1
- GNSS Solutions: 3.71
- RINEX Converter: 4.1.1
- Conf Radio: 2.1.0
- Spectra Precision Survey Pro: not yet compatible with ProFlex800
- Spectra Precision Survey Office: 2.6

### New features (compared to ProFlex 800 V1.0)

1. **ADL Vantage Pro.** The ProFlex 800 supports the external Pacific Crest ADL Vantage Pro UHF transmitter

The **WebServer** contains the following changes:

2. **Base Setup/Full Setup.** The new ADL Vantage Pro UHF transmitter is supported.
3. **Advanced Setup/RTC Bridge.** The new ADL Vantage Pro UHF transmitter is supported.

### Resolved Problems (compared to ProFlex 800 V1.0)

1. **Internal 8Gb Memory.** The content of internal 8Gb memory is not formatted anymore during a firmware upgrade.

### Known issues

1. When you connect the ProFlex800 to a PC with the USB cable and you delete any files of the internal memory with the Windows Explorer of the PC, the list of files returned by the *\$PASHQ,FIL/FLS* commands may be not correct (the same applies to files displayed by FAST Survey). It is necessary to perform a power cycle in order to retrieve a correct list of files.
2. When the command *\$PASHS,RST* is issued, the message *GNSS Board not detected* may appear.. However after few seconds, the receiver will work properly.
3. When the base is a Trimble receiver or board configured in CMR or CMR+ and the rover is a ProFlex 800, the age of corrections is not stable and high. This due to the Trimble GLONASS messages which are not processed by the ProFlex 800. In this case, it is recommended to use RTCM3 format.
4. It is not recommended to keep huge number of files at the root or in a folder inside internal 128MB memory. With more than 150 files in a folder, the receiver may have issues with recording of new

files. When you need to record huge number of files, it is preferable to use an external USB memory or USB hard disk, or to move the files automatically in sub-folders if you use the sessions.

5. The Web Server file manager may have difficulties to display the list of files located inside extended internal memory (8Gb) or external memory if huge number of files are located there (more than 1000 files).
6. When the tilt sensor is used and the embedded RINEX converter is used, the RINEX meteo file generated by the receiver contain records corresponding to the tilt sensor temperature.

## Recommendations

1. User working with 3<sup>rd</sup> party NTRIP networks should be recommended not to connect VRS mount points, if others mount points like MAC or FKP are available. This will guarantee more stable performance.
2. User working with 3<sup>rd</sup> party bases/networks generating GLONASS reference data is recommended to identify with the network provider the name (brand) of reference receivers. If this brand is known a priori, it can be specified on rover by command \$PASHS,RCP,REF,brand,1 (supported brand=TRIMBLE, NOVATEL, SEPTENTRIO, TOPCON). In this case, GPS+GLONASS rover RTK performance can be much better than in a case, when reference receiver name is not known.
3. The new GSM Modem power consumption is higher in 3G mode than in 2G mode. When 2G is available, it is recommended to set the modem to 2G mode in order to increase the battery life of the receiver.
4. The reference time used for starting or stopping the sessions is the GPS time, and not the UTC time while the WebServer operates with UTC time only. The difference between scales is 15 seconds currently.
5. It is possible to use a hard disk connected to the USB port in order to record a large amount of data. If the hard disk has not its own power supply, it must be USB certified, else there is a risk that the hard disk will not work properly due to power supply issue.
6. Before using a hard drive with a ProFlex800, the hard drive must be formatted in FAT32 and at least one folder must be created manually.
7. WebServer may have abnormal behavior just after firmware update as your web browser might still use old pages saved in cache memory. It is recommended to exit the web server after any upgrade and to clear its cache memory.