



Firmware Release Notes

Survey

Date: September 3rd, 2012
Product: ProMark 500
Subject: ProMark 500 V6.1 Firmware Release

Introduction:

This document is the firmware release note of the ProMark 500 V6.1.

Upgrade procedure

The procedure to upgrade the receiver is the following:

- 1- Copy the file [p_500_upgrade_V6.1.S759G124.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 ProMark 500
- 4- Plug the ProMark 500 into an external power and make sure that there is also an internal battery
- 5- Connect the USB memory key to the ProMark 500
- 6- Turn on the ProMark 500 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: [V6.1 - S759G124](#)

SYS: [S125c](#)

GNSS: [G124](#)

RFS: [759](#)

BOOT LOADER: [1.1.5.9](#)

KERNEL: [2.6.19](#)

PMU: [2.31](#)

GSM: [R7.46](#)

The radio firmware compatible with the ProMark 500 V6.1 are:

- Internal Pacific Crest PDL RXO: [2.58](#)
- External Pacific Crest HPB: [2.58](#) or [2.42](#)
- External Pacific Crest ADL Vantage: [3.04](#) (2280, 2288 or 2300)
- External Pacific Crest ADL Vantage Pro: [3.04](#) (2280, 2288 or 2300)
- Internal U-Link: [1.02](#)
- External U-Link: [1.03](#) (HW: AD) or [1.04](#) (HW: AE) or [1.09](#) (with connector)

The software compatible with ProMark 500 V6.1 are:

- FAST Survey: [3.0.1](#)
- GNSS Solutions: [3.71](#)
- RINEX Converter: [4.1.1](#)
- Conf Radio: [2.3.2](#)
- Spectra Precision Survey Pro: [5.1](#)
- Spectra Precision Survey Office: [2.7](#)

New features (compared to ProMark 500 V6.0)

- **No new feature**

Resolved Problems (compared to ProMark 500 V6.0)

1. **RMS:** the RMS reported by the product was too pessimistic. The reported RMS is now more adequate.
2. **Local Coordinate System:** the receiver stopped outputting the position when the receiver was in the mode RTK+Heading and local coordinate system computation (\$PASHS,LCS,ON) was activated. This problem is resolved.
3. **Leap Second:** Fix leap second value in ATM,RNX; ATM,ATR,&UEM; ATM,NAV,&GFT.

Known issues

1. When you connect the ProMark 500 to a PC with the USB Cable and you delete some files of the internal memory with the Windows Explorer of the PC, the list of files returned by the *\$PASHQ,FIL/FLS* commands are not correct anymore (so also 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 sometimes. Then after few seconds, the receiver works properly.
3. When the base is a Trimble receiver or board configured in CMR or CMR+ and the rover is a ProMark 500, the age of corrections is not stable and high. This is due to the Trimble GLONASS messages which

Recommendations

1. User working with 3rd 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 the 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.