Lassen SQ Firmware Upgrade

*Product*Bulletin

New Firmware Version for Lassen SQ Receiver

Trimble announces the release of a new version of firmware for Lassen SQ, version 1.02. This is a field and factory upgrade subsequent to the initial release 1.00. The new version 1.02 replaces the version 1.00. Version 1.02 will be shipped on all new Lassen SQ modules starting in July 19, 2002.

No New Part Number for the Lassen SQ Module

The part number for the Lassen SQ module will not be affected and remains 46240-00.

Upgrading to the new firmware

The new firmware ROM file v1.02 is available now on the Trimble support site, along with firmware upgrade program and instructions. The address of the website is as follows:
    http://www.trimble.com/lassensq_ts.asp?Nav=Collection-7852

Firmware upgrade program and instructions
The following files are saved on the above Website and are necessary for a successful firmware upgrading process in the field:

1. SQ_Upgrade Instructions.doc
    Lassen SQ Firmware Upgrade Instructions

2. SQ_load.exe
    Firmware upgrade program

3. SQ.rom
    New firmware ROM file v1.02

The first two files, SQ_Upgrade Instructions, and SQ_load are firmware independent and will also be included on the Starter Kit CD.

New Starter Kit Software Tools

In conjunction with the 1.02 firmware release, the Starter Kit CD programs, SQ_Monitor, and TSIPCHAT.EXE have been updated. The new part number for the Starter Kit CD is 47226-06. This replaces the CD Part Number 47226-05. The new CDs with the part number 47226-06 will be shipped on all new Lassen SQ Starter Kits starting in September 2002.

No New Part Number for the Lassen SQ Starter Kit
The part number for the Lassen SQ Starter Kit will not be affected and remains as 47225-00.

Updated Starter Kit Software tools on the Web

The revised Starter Kit SW tools; SQ_Monitor and TSIPCHAT are located on the Trimble support site with the above-mentioned address. They work with the starter kits, containing the SQ modules with the firmware version 1.02.

The other starter kit SW tools, TSIP interface sample C source routines and TSIPPRNT.EXE have not been changed and are available on the original and new Starter Kit CDs.

Differences between the two firmware versions
The rev 1.02 is the second release of the SQ firmware. The reasons for this release are as follows:

1. **New Feature → Increase of decimal place for position output data in NMEA**
   There are now 4 decimal places for the position output fields in NMEA. In 1.00 release, there were 3 decimal places.

2. **New Feature →** 2400 baud rate implementation for data and user interface I/O.

3. **Split search bug fix**
   Due to a bug in the split search algorithm, a warm start would not work if the receiver was moved a large distance (e.g. across the continent) over a long period of time (e.g. > 8 hours) with main power off and enabled battery backup. This bug is fixed in version 1.02.

4. **PV filter parameter adjustment**
   PV filter parameters have been fine-tuned to yield better performance in Urban Canyon environments.

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