

Info Bulletin (Rev. C) Nera WorldPro1000 software release 1.14 .01

Nera SatCom has released a new control software to the Nera WorldPro1000 product.
The new revision is 1.14.01

NB: It is also important to upgrade the Bluetooth software. (See procedure in this bulletin)
The software is located on the Nera SatCom AS download site <http://download.nera.no>



1. Software release information:

It is recommended to upgrade to the 1.14 control software.
More than 80 problems reported, have been solved in this release.
Some of them are:

- Improved On box MMI, information given by LED's have been improved. The new manual, available on <http://download.nera.no> is upgraded and should be used together with this new software.
- Network stability improvements, some Inmarsat channels gave to low throughput due to interference on terminal. (main fix in the 1.14.01 release)
- Interaction with BGAN LaunchPad improved
- Possible to enable Bluetooth via BGAN LaunchPad, Use menu "BGAN Services>Telephony settings". Bluetooth is by default turned off. Use LaunchPad 2.4.0 or later to enable BT.
- Sleep mode functionality implemented. Terminal will enter sleep-mode when there is no on-air or PC activity. When in sleep-mode, only the battery indicator LED is ON (blinking slowly). Sleep-mode is automatically used by terminal if running on batteries only.
- Bluetooth improvements on voice and data (Remember to run the FORCE_BT_FLASH), however Bluetooth fails when terminal is in sleep mode on this release. To avoid this problem, have DC connected at all times when using Bluetooth.
- Bluetooth Line of Sight (LOS), is expected to be 10 meters on this release.
- An E-type Interface unit, will automatically power on when DC is connected. Battery will also start charging.
- D-type unit does not support this, and need to be powered on to start charging.
- Mac is supported for BGAN LaunchPad, PC dialling.
- When power on the terminal try to get GPS fix for 20 minutes. If no GPS fix is obtained in this time slot, the terminal needs to be powered OFF and ON again to start looking for a GPS fix again. It also might be necessary for the user to find another location. First time setup requires a 3D GPS fix, (new terminal or new software loaded). 3D fix is also necessary if the terminal has been moved more than 300 km from where it last was used. Otherwise only a 2D fix is necessary and this is faster and easier to obtain.
- Stored GPS will be saved, also when terminal is switched off. This stored GPS will, if terminal is not moved more than 300 km be used to log onto the Inmarsat system. A stored GPS is indicated with a yellow blinking signal LED. This will reduce the setup time.

2. There are two new control software releases:

- one for the Interface unit (IDU type D) filename: "N03_A_D_D_01_14_01.APP"
- one for the Interface unit (IDU type E) filename: "N03_A_E_D_01_14_01.APP"

Naming Legend:

Ncc_<cv>_<IDU>_<ODU>_<version>xxx.APP

- N - Nera
- cc - [00...99] class - ex. 03 (class 3 PUT, Nera WorldPro1000)
- cv - [A..Z, 0..9] customer version - ex. currently A (all/generic release)
- IDU - [A..Z] where, D=D type, E=type
- ODU - [A..Z] where, D=D type
- version - ex. 01_14_01

Note:

Any antenna unit can be used to any Nera WorldPro1000 Interface unit. (Antenna=ODU)

3. Two different Interface units:

It is two types of Nera WorldPro1000 Interface units (article number 104530):

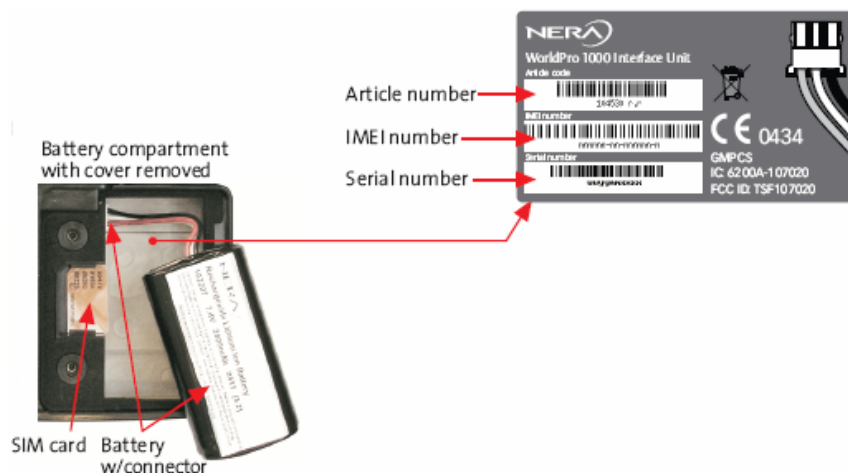
- The E-type interface unit (96MByte RAM version) produced since November 2005
- The D-type interface unit (64MByte RAM version) produced in August 2005 and before (Serial number in the range from 0305060000 to 0305089999)

How to find out the Interface unit model, can be done two different ways:

- use BGAN LaunchPad. See next page
- or look at the label on the Interface unit (located inside the battery compartment)

serialnumber example: 0305080001

- 03=production ID
- 05=production year
- 08=production month
- 0001=serialnumber



4. How to read out you current software using BGAN LaunchPad:

In BGAN LaunchPad you can read out the current software revision by selecting >File/ BGAN properties. The Nera WorldPro sw 1.14 should be used with BGAN LaunchPad version 2.3.1 or later versions.

The screenshot shows the BGAN LaunchPad 2.3.1 interface with the 'BGAN Properties' dialog box open. The dialog box contains the following information:

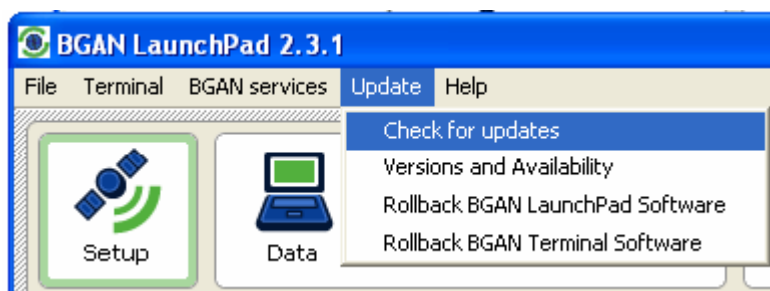
- Manufacturer name: NERA SatCom AS, Norway
- Software version:
 - PUT SW modules:
 - IDU CSW Version: N03_A_E_D_01_14_00
 - ODU DSP Version: C1: 1.3.39 D1: 1.4.22
 - IDU FPGA Version: C1: 1.2.8 D1: 1.3.2
 - BT Version: 0512161859
 - Boot Version: 1.5.2 E
- Hardware version: Inmarsat BGAN User Terminal, IDU type E, ODU type D
- IMEI number: 35373500003487
- IMSI number: 901112112100203
- LaunchPad version: 2.3.1
- MSISDN numbers:

Callouts from the right side of the image point to specific fields:

- Application SW 1.14 Possible to upgrade Located in Interface unit (points to IDU CSW Version)
- Boot SW Can not be upgraded E indicates E-type (points to Boot Version)
- Hardware version: InterfaceUnit=IDU AntennaUnit=ODU (points to Hardware version)
- IMEI=Hardware identity IMSI=SIM identity (points to IMEI and IMSI numbers)
- BGAN LaunchPad software version (points to LaunchPad version)

5. How to upgrade BGAN LaunchPad:

The LaunchPad can be upgraded, but it is recommended to be connected to terrestrial network when “Check for upgrade” is performed. An upgrade patch for BGAN LaunchPad can be as large as 20MByte.



6. WorldPro1000 control software update procedure using PC (Windows Xp/2000):

Upgrading is easy, and takes only 4 minutes. To do the upgrade you need a PC and the USB cable. The way you get access to the Interface unit is similar to a digital camera, but here you get access to the software.

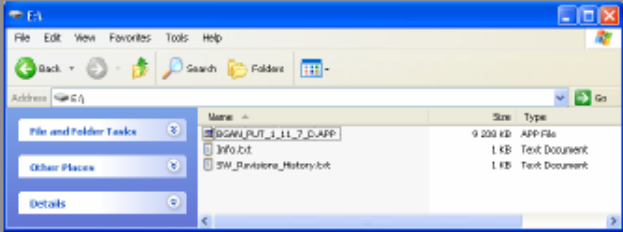
When the WorldPro drive occurs on your PC, you can see these files:

- Info.txt information about current boot and application software in your terminal
- Xxxxxxx.APP the current application, this file you delete
- SW_Revisions_History.txt Information about all previous application software


To upgrade a Nera WorldPro1000 you should follow these 5 steps. (See below:)

Software upgrade:

Removable disk (e.g. E:)
Terminal information via USB



- 1. Start:** (Terminal has to be switched off)
 - Connect USB cable from terminal to PC
 - Press and hold the activate button for approx. 10 seconds, or until the LED's turns yellow.
 - Wait until E: drive pops up on your PC
- 2. Remove:**
 - Remove old software from E:drive
 - E.g.: PUT_1_11_7_D.APP
- 3. Copy:**
 - Copy new terminal software into the E:drive
 - E.g.: N03_A_E_D_01_14_00.APP
- 4. Push and hold activate button until LED's starts flashing yellow. Release button and wait until all LED's turns green.**
If LED's turns red, restart from step 1
- 5. Reboot terminal**



To quit from Removable disk drive if you're not going to update:

- #1 Press and hold the power button until terminal powers down
- #2 Power On again

Note:

- Connect terminal to DC power before upgrading.
- USB cable needs to be connected, and terminal switched OFF, before pressing the Activate button for 10 seconds.
- It is important to remove the old software file from the Removable disk drive, before copy/paste the new software into the drive.
- On some terminals it is necessary to hold the activate button for 30 seconds before the LED's turns yellow. On these terminals only two LED's turns yellow, but this is normal.
- It takes approx 30 seconds for the Removable disk drive to be present on the PC.
- Upgrade can be done with or without the antenna connected.
- If wrong software is loaded to the Interface unit, it is only to redo the 5 steps with the correct software. A terminal with wrong software will fail when searching for satellite. On box LED's will respond abnormally.
- If terminal looks up (not possible to switch off), turn terminal off by removing DC input and battery. Insert battery and DC again. This can be due to wrong software, and this time remember to hold the Activate button down for approx. 30 seconds until only two LED's turns yellow (Battery and Message LED). Wait for Removable disk drive and continue upgrading.
- Mac can be used for upgrading a Nera WorldPro E type, see below.
- Stored GPS is cleared after software upgrade. Therefore it can take some longer time to obtain GPS fix first time after upgrading.

7. WorldPro1000 control software update procedure using MacOSX:

- #1 Connect a powered-down terminal to the Mac
- #2 Press and hold the power button until all LED turn yellow. The terminal will now appear as a disk in the Finder (give it a few seconds)
- #3 Delete the old firmware from this disk
- ==>> #4 !!! IMPORTANT: Empty the trash after step 3 !!! <<==
- #5 Copy the new firmware onto this disk
- #6 Press and hold the power button until the LED start blinking yellow
- #7 Wait until all LED turn green
- #8 Press and hold the power button until the terminal powers down
- #9 Finder will complain that you removed the disk without telling it about it, don't worry about that

Ejecting the disk will not do anything, so the bootloader goes back into disk mode (safety-net).

To quit from disk-mode if you're not going to update:

- #1 Press and hold the power button until terminal powers down
- #2 Finder will complain that you removed the disk without telling it about it, don't worry about that

8. Upgrading of the Bluetooth software (FORCE BT Flash), using Hyper Terminal

After upgrading to 1.14 firmware software, it is important to upgrade the Bluetooth software in the Interface unit. This should be done after upgrading the terminal, and this has been verified.

- #1 BGAN LaunchPad should be closed on your computer
- #2 USB cable has to be connected
- #3 Power On the terminal without the antenna connected, or exit pointing mode.
- #4 Find out which com ports used by terminal, see Controll Panel>Phone and modem (e.g. Com 6) (see fig. 1)
- #5 Start Hyper terminal, and connect (e.g.using COM6) (See fig.2)
- #6 In Hyper terminal enter these commands.(fig. 3)
 - >Ate1 <enter>
 - >At+wnerapin <enter>
 - >FORCE_BT_FLASH <enter>
 - The Bluetooth LED will blink yellow
 - Wait approx. 1 minute.
 - After "Download Complete" write:
 - >Quit <enter>
 - After restart, power-cycle the terminal
- #7 Bluetooth software is upgraded, and you do not need to do this later on this terminal.

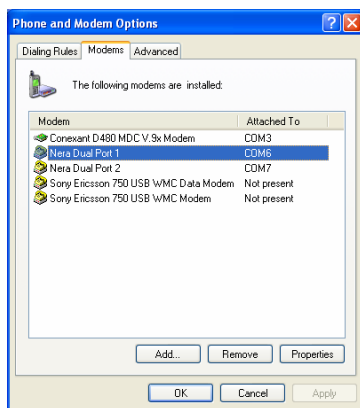


fig. 1



fig. 2

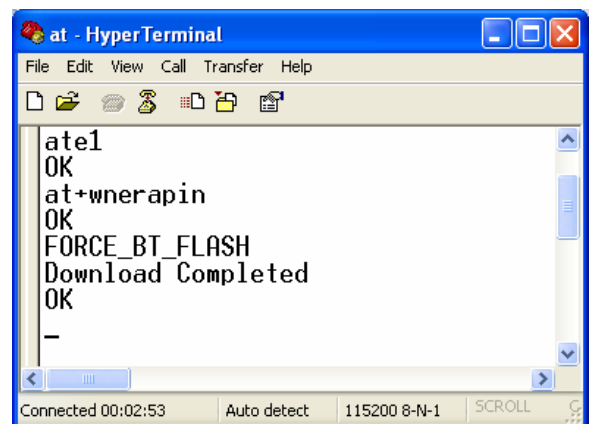


fig.3

9. For Support please contact:

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