FAQ: HOW TO FLASH / REPAIR / UNLOCK NOKIA MOBILE PHONES

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Last update is located at: http://gsmsearch.com/faq/nokiaflasher.html
Spanish version located at: http://ucables.com/ufaq

History:

version 2.00: 26th January, 2001

Created new FAQ about How to flash / unlock /repair new nokia sw.

version 2.01: 31th January, 2001

1. Updated Troubleshootings area
2. Some corrected errors.

version 2.02: 4th February, 2001

1. New uCables Flasher Shell, it run under MSDOS is more fast and easy to use, it easily upgradeable to support new sw version.
2. New partial flash files for Nokia 3310 sw version 4.18 and 8210 sw version 5.26

version 2.03: 10th February, 2001

1. New uCables Flasher Shell version 1.2
2. Support for 6 different flash types, and 2 boot loaders
3. Full and partial flashing modes
4. New partial flash files for Nokia 7110 sw version 5.01 and 6210 sw version 4.27 and 3.74

Introduction

Finally our camarade Dejan has designed a new low cost device which can flash nokia mobile phones, now you don't need to spend 20.000 US $ in a TDF-4 box. The nokia flasher use is not dificult to use but you must be attent at every step you do. Once time you make fisrts time it will be a children game, you can flash any nokia phone in just 7 seconds.

There is two ways to flash with Dejan Nokia Flasher, Full or partially.

1. **Partial Flash**: is used to unlock and always should be used the same sw version file as you have in your mobile phone. This files have 64 Kb. This process take just 7 seconds.

2. **Full flash**: is used to unlock, repair broken phones or change phone language. Flash memory is fully changed with this procedure, EEPROM should be programmed too, but sometimes is suficient just only programming flash memory, if mobile phone not have coverage later you have flashed you must program EEPROM too, flash and eeprom files must have same sw version and language. To write or program EEPROM memory is necesary an SMD EEPROM programmer with SOIC clips (available at ucables.com from February, 2001). Flashing process can take between 1 and 3 minutes. Size of flashing files are between 500 and 1400Kb. The difference to make a full flash or make a partial flash is to used different flash files and range of addresses.If you don't need to change language, we recommend you use a partial flashing. If you really need full flashing, the best way to do it is to get another unlocked mobile phone of the same version and read flash in the appropiate address range and read eeprom. Later you must write flash and EEPROM to the phone that you want to make full flashing.

When you make a flash you must take in mind 4 parameters, mobile phone model, phone software version (sw), flash memory type (INTEL, ATMEL, INTEL 28F160) and start address where to start to flash. First thing you must do is select the type of memory, you can choose INTEL, but if you try and it not works you can try the with ATMEL or INTEL 28F160.

To make this process easier we will explain how to flash using a Nokia flasher shell 1.5, it's a program that interface with the original MSDOS program Nokia Flasher 1.0b and it allow to select, flash type and sw version. Nokia flasher shell will show us appropiate start addresses that we must enter at nokia flasher.

Requirements:

1. NK-FLASH cable, available at http://ucables.com
2. SMD EEPROM programmercon with SOIC clips (required for full flashing only)
3. Nokia Flasher Shell + Nokia Flash 1.0b by Dejan
4. Partial flash files (included)

Steps to programming a partial flash file using a **NK-FLASH** cable

1. Nokia Flasher Shell and Nokia Flasher installation

a) Download new ucables_flasher_shell_12.zip
b) Unzip in the root directory c:\

The file ucables_flasher_shell_12.zip contains new ucables.com flasher shell, Nokia flasher 1.0b by Dejan, partiall flash files (.fls), and all .tia and required configuration files. If you need full flash files to repair or change languages you can find here.
Anyway you can always read full flash from an unlocked phone and dump it at the phone that you want to repair. Be sure that have same software versions, if you don't use the same software version checksums are differents and it will not work, **take care you can damage your mobile phone!**, at the moment we are procedure to flash with different mobile phone versions, if you don't matter to crash any phone, you can try to do this and later use Wintesla with appropiate libraries to fix coverage.

2. Check sw version of nokia mobile phone

You can read sw version pressing *#0000# (phone must be turned on and with a simcard inside), or you can read it using Nokia tool with the cable NK-567

3. Execute uCables Nokia Flasher Shell under MSDOS
We have make a new fast and easy to use flasher shell for Nokia flasher, it's easily upgradeable to support new sw nokia versions. If you have got new .fls flash files you only must copy to the c:\nk_files\partial directory and write .txt with start address. By example when we have added new file 3310-418.fls we have created 3310-418.txt writing the start flash address 280000.

a) If you a have windows run a msdos box, From Windows Press Start menu, select Run, write cmd and press enter.
b) Go to flasher directory and run **flash.com** program with appropiate parameters.

Command line options:
FLASH <nokia model> <flash type> [sw version] [flashing mode] [boot type]

Parameters:
Nokia models
3210, 3310, 5110, 6110, 6150, 6210, 7110, 8210 and 8850

Flash type:

  1 = INTELW 8   **2** = AMD 8   **3** = INTEL 16

  4 = INTELW 16   **5** = ATMEL 16   **6** = ST 32

sw version (optional): XXX
by ex. if your nokia 3210 sw version is 5.31, with an INTELW 8, to make
a partial flash you must write: flash 3210 1 531

Flashing mode (optional):
1 = Partial flash (write down initial start flash address)
2 = Full flash (write down initial start and final flash address)

Boot type (optional):
1 = Boot type 1
2 = Boot type 2

c) Select sw version that have your nokia phone (it's the sw number that you get in the step 1 with Nokia tool). **It's very important that you use the same sw version, or you can damage your mobile phone**. Below you can check an example using a Nokia 3310 sw version 4.18 with INTEL flash type

```
C:\> cd flasher

C:\flasher> flash 3310 1 418

MSDOS Shell for Dejan Nokia Flasher v 1.2 by Shulo and Man0n

uCables International. http://ucables.com
Find instructions at: http://gsmsearch.com/faq/nokiaflasher.html

Nokia 3310
Flash type: intelw_8
sw version: 418
Partial flash mode
start flash address: 280000
write it when Nokia Flasher ask for initial flash address.
http://ucables.com
boot type: 1

Flasher has been configured with appropiate files to partial flash write down
start address and final address (only full flash) that you must specify
to Dejan Flasher.


Strike any key when ready...
```
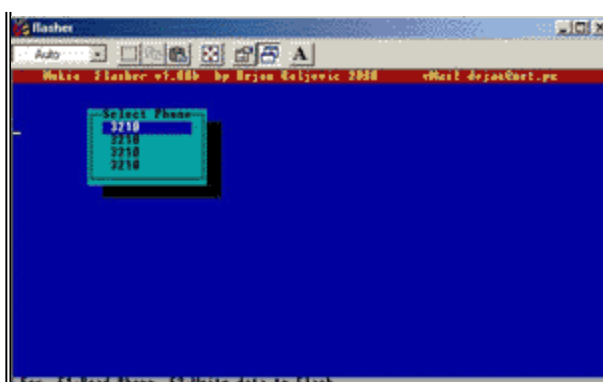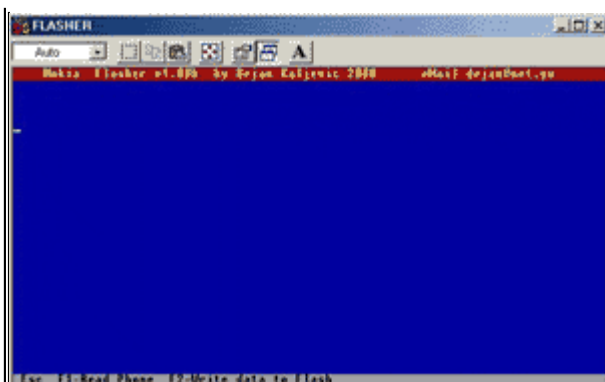
Write down the start flash address, because you will need when Nokia flasher request it.

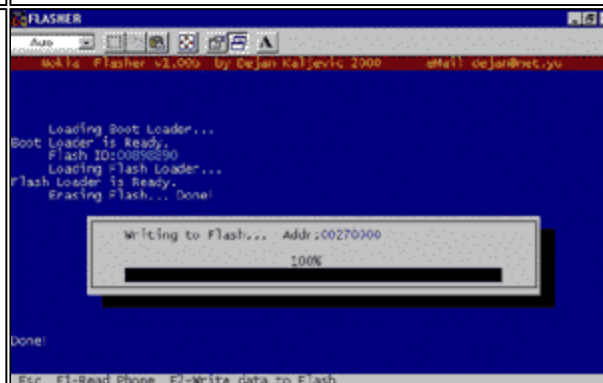Nokia flasher shell will launch Nokia Flasher 1.2 under MSDOS with the parameters that we have selected.

4. Nokia Flasher 1.0b. Select nokia phone model and start address

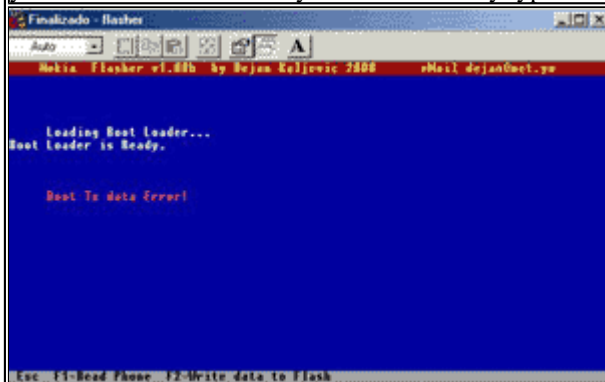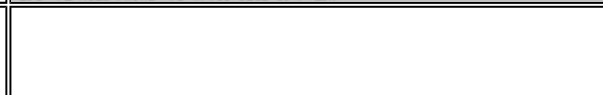| Press F2	Press Enter to select nokia model

Press *Enter* to select flash file and enter start address that you have write previously (be sure that you write the right start address or you can crash your phone)	Press *Enter* and turn on your mobile phone inmediately (Some nokia models not require to turn on like 3210).
If you get a screen error the problem, probably you have an incorrect computer configuration (not use notebooks), or you have choose incorrectly the flash memory type.	
	If you finally you have successfully write your flash your mobile phone will be free!!! **;)**

Start addresses to use with partial flashing. Partial flash files .fls are included at the installation directory of nokia flasher.

NOKIA	Version	Address	NOKIA	Version	Address
3210	5.31	260000	7110	4.88	3A0000
	5.36	260000		4.94	3B0000
	6.00	255000		5.00	3A0000
3310	3.24	270000	8210	5.11	280000
	4.02	270000		5.16	280000
	4.06	280000		5.20	280000
	4.18	280000		5.21	280000

5110	5.28	250000		5.25	280000
	5.29	250000		5.26	280000
	5.30	250000	8850	5.11	280000
5130	5.71	250000		5.16	280000
6150	5.22	270000		5.20	280000
	5.23	270000		5.21	280000
6210	3.01	380000		5.25	280000
	3.04	380000		5.26	280000
	4.08	380000			

Start addresses and files to use with FULL flashing.

Model - sw.	Address range	File
3210 4.02	00200000-00400000	3210-402B.ZIP
3210 4.41	00200000-00400000	3210-441B.ZIP
3210 4.43	00200000-00400000	3210-443B.ZIP
3210 5.10	00200000-00400000	3210-510B.ZIP
3210 5.26	00200000-00400000	3210-526B.ZIP
3210 5.31	00200000-00400000	3210-531B.ZIP
3210 5.36	00200000-00400000	3210-536B.ZIP
3210 6.00	00200000-00400000	3210-600B.ZIP
3310 3.24	00200000-00400000	3310-324B.ZIP
3310 4.02	00200000-00400000	3310-402B.ZIP
3310 4.06	00200000-00400000	3310-406B.ZIP
5110 4.51	00200000-00300000	5110-451B.ZIP
5110 4.59	00200000-00300000	5110-459B.ZIP
5110 5.04	00200000-00300000	5110-504B.ZIP
5110 5.07	00200000-00300000	5110-507B.ZIP
5110 5.11	00200000-00300000	5110-511B.ZIP
5110 5.22	00200000-00300000	5110-522B.ZIP
5110 5.24	00200000-00300000	5110-524B.ZIP
5110 5.27	00200000-00300000	5110-527B.ZIP
5110 5.28	00200000-00300000	5110-528B.ZIP
5110 5.29	00200000-00300000	5110-529B.ZIP
5110 5.30	00200000-00300000	5110-530B.ZIP
5130 5.00	00200000-00300000	5130-500B.ZIP
5130 5.71	00200000-00300000	5130-571B.ZIP
6110 5.47	00200000-00400000	6110-547B.ZIP
6150 4.12	00200000-00400000	6150-412B.ZIP
6150 5.02	00200000-0040000	6150-502B.ZHP
6150 5.17	00200000-00400000	6150-517B.ZIP
6150 5.20	00200000-00400000	6150-520B.ZIP
6150 5.22	00200000-00400000	6150-522B.ZIP
6150 5.23	00200000-00400000	6150-523B.ZIP
6210 3.01	00200000-005A0000	6210-301B.ZIP

Note: full flashes have different languages, and EEPROM dump is not included.

Troubleshootings

1**. I Have selected the right flash type and start address but Nokia flash give me error: BOOT TX data error**

a) Try different flash types from 1 to 6**. You must try TO READ pressing F1 from Dejan flasher to check connection is working.**

b) Don't use Nokia Flasher in a notebook, Paralel port not works not works like in computer desk.

c) Configure BIOS Paralel port with different modes EPP or SPP, etc. SPP should works.

d) Try in another computer may be configuration is not good

2. I need to partial flash new noki