FIRMWARE UPGRADE GUIDE

This guide contains information on how to upgrade, troubleshoot or recover a Nanocom Evolution MK1 and MK2.

Before running an upgrade please be aware of the following:

a. If there is an SD card present in the Nanocom Evolution this must be removed before starting the upgrade process, as in this mode it behaves as an external memory device.

b. You should disconnect from the Internet during the upgrade process to avoid any automatic updates running.

c. During this upgrade process the system erases and re-programs the internal systems.

Interruption of the USB connection by any of the following can result in an unusable unit that may then need to be returned to the Blackbox Solutions offices for repairs.

Causes of interruption:

a. Moving or removing the USB lead

b. Connection of any other power supply to the Nanocom Evolution apart from the USB lead

c. Loss of power to the laptop/PC during the upgrade process

d. Running of any other programs that can interrupt the connection to the USB port

e. Sleep or hibernation mode on PC

The upgrade process takes approx 7-10 minutes depending on the speed of the Laptop/PC so please be patient.

1. Powering up

Power the Nanocom via the Mini - USB cable (see image below) for all upgrade and recovery purposes.

2. Software Upgrade Method

The Software Upgrade Method is used to update or recover the Nanocom.
The software method for the Nanocom Evolution MK2 is done in few easy steps

2.1. Put the Nanocom Evolution unit into Kernel Upgrade mode by connecting the unit (without a SD card inserted) to the PC with the USB lead, then from the menu of 4 icons appearing on the screen, select KERNEL. The screen will stay blank indicating that it's in Kernel Upgrade Mode. This will also be apparent once the "Device attached" text appears on the upgrade software interface (see the image in point 2.3).

There are no extra drivers needed to connect the Nanocom to the PC. The first time you connect the Nanocom, your PC will self-install anything it may need.

2.2. Run NanocomEvoKernelManager.exe from the files found in the archive, which you're required to extract locally before starting the procedure. The software will display "Device not attached" if the Nanocom is not plugged in.
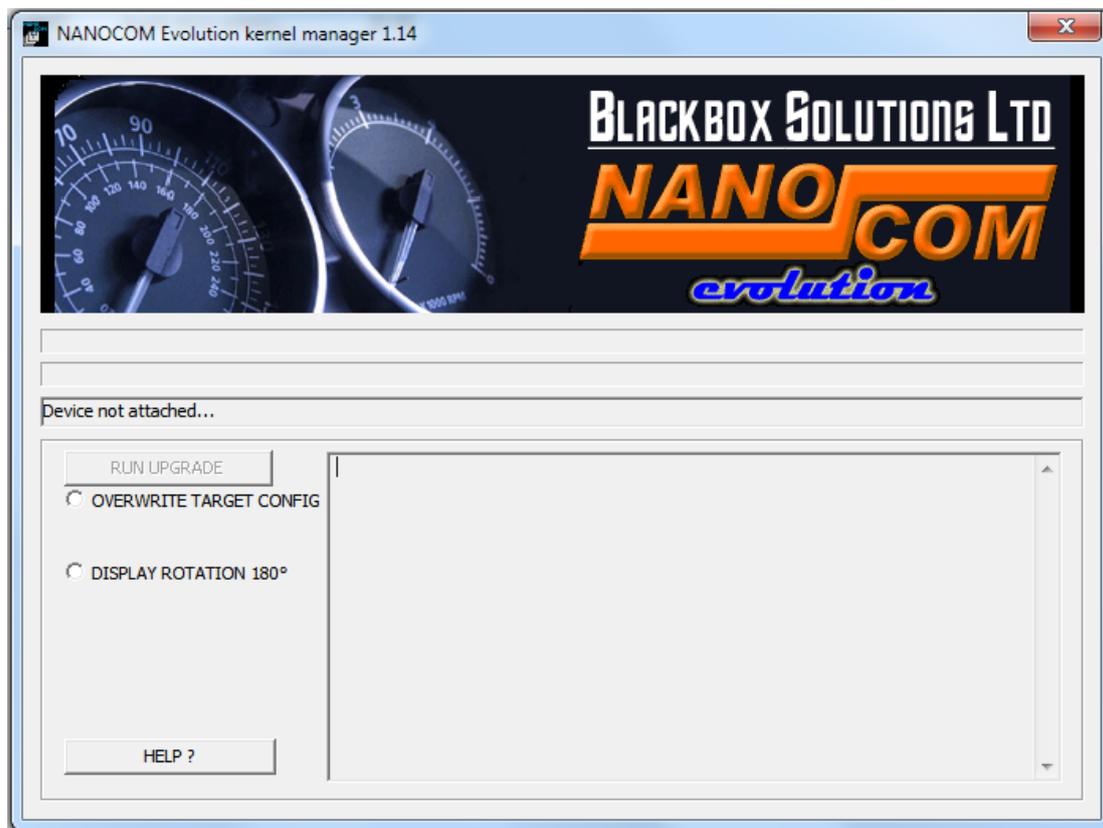
IMPORTANT NOTE: If you select "OVERWRITE TARGET CONFIG" then you will need to input your licence codes again.

2.3. Once you have connected the Nanocom and the "Device attached" text appears as shown below, click on "RUN UPGRADE".
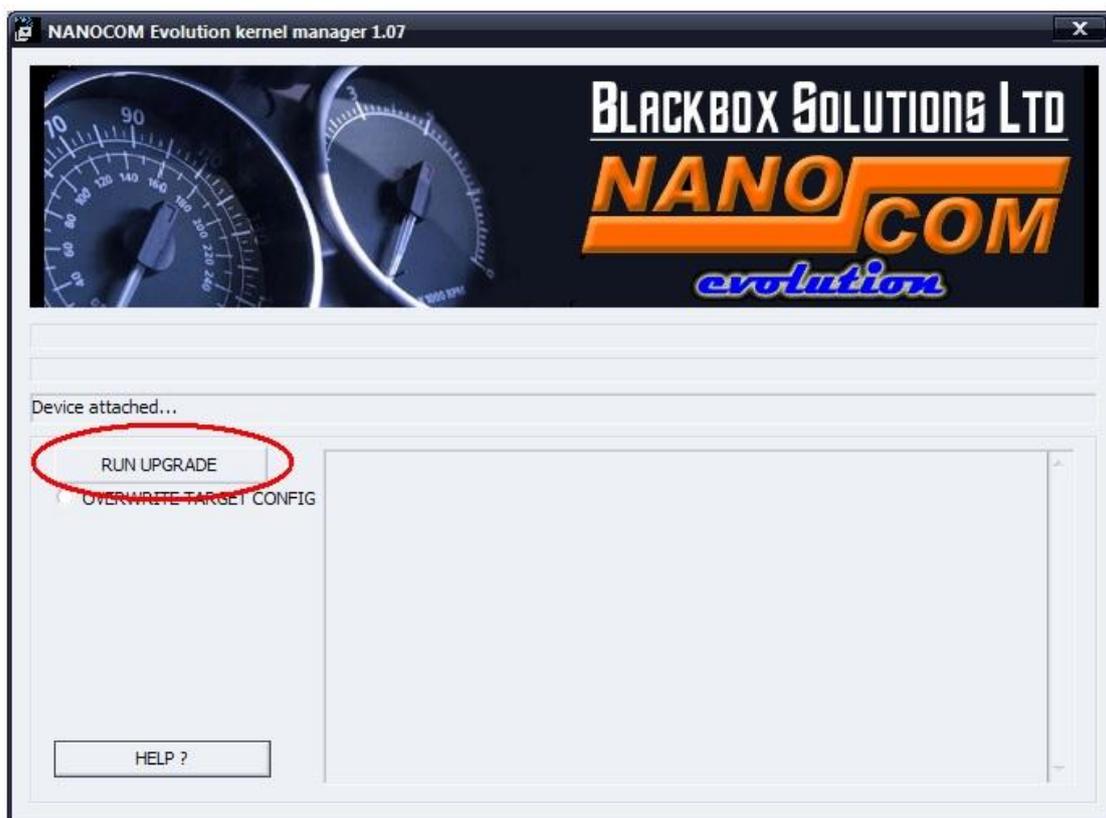
2.4. After you've read the Instructions Manual, click "I HAVE READ THE INSTRUCTIONS MANUAL".
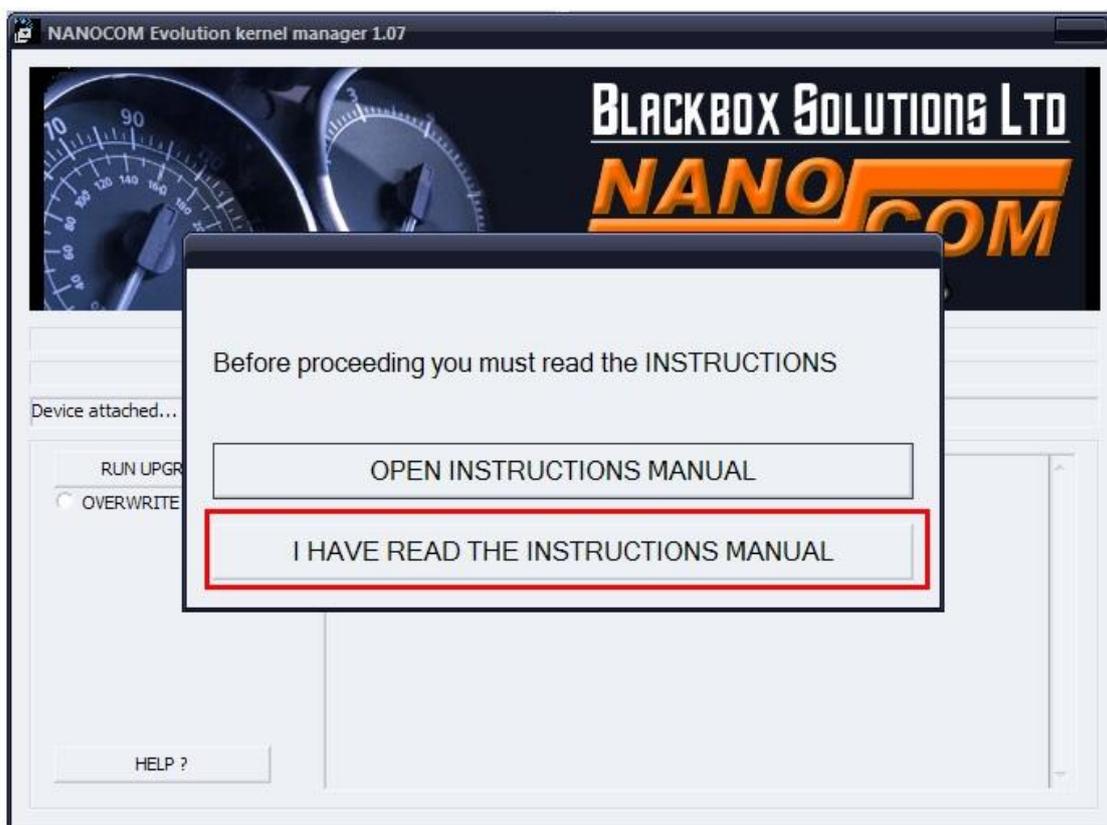
2.5. Do not close the window until the programming process is done. Any interruption, including the sleep/standby state of the Windows System will result in an unusable device.

2.6. When the "Upgrade completed successfully " message appears press OK.
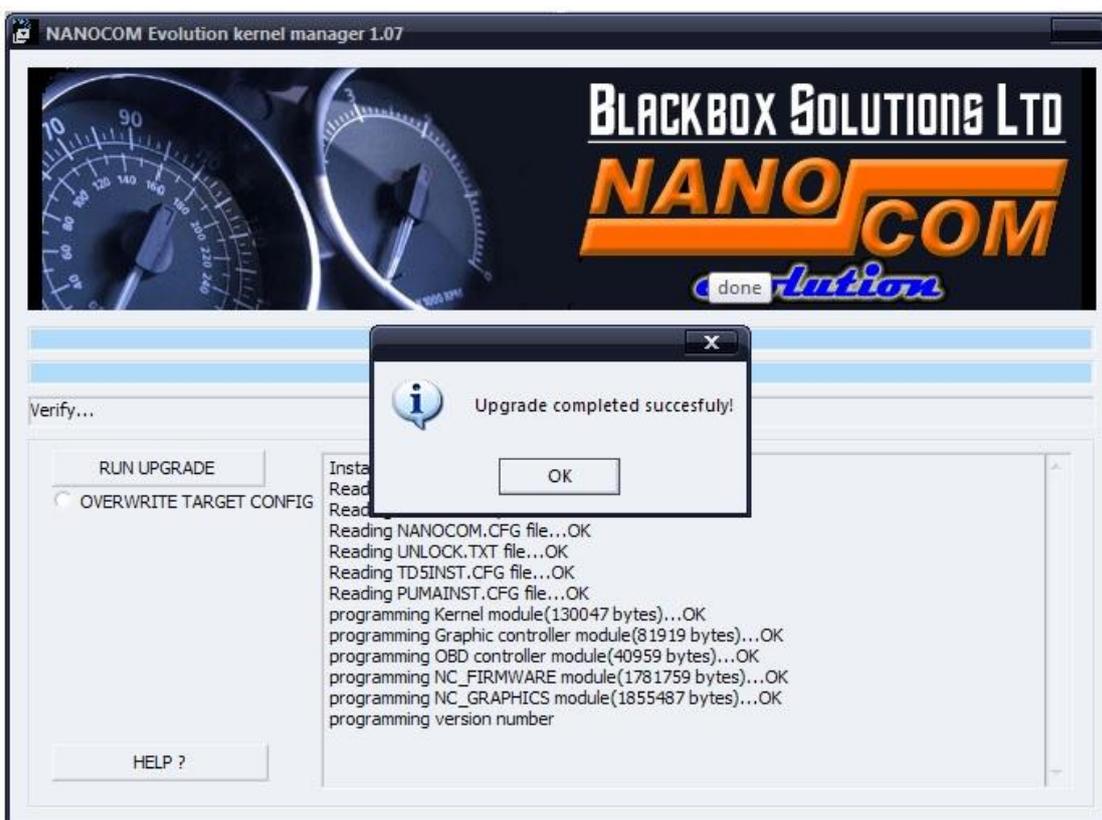
2.7. The next screen will allow you to create a restore file for the current upgrade.
If you select "NO" then the unit can be disconnected, if you select "YES". a restore file will be created:
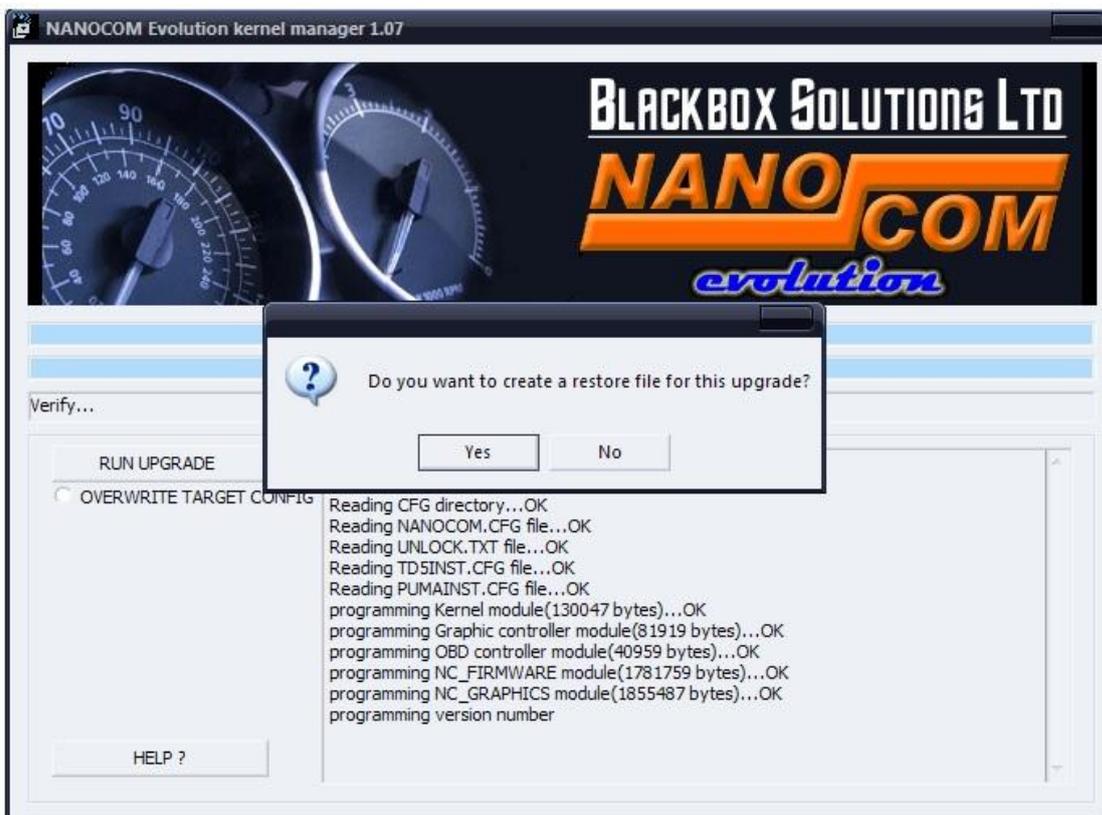
2.8. If you'll press "Yes" then a "Save As" window will pop and will require a name for the new file. The name of the file should not be more than 8 characters long.
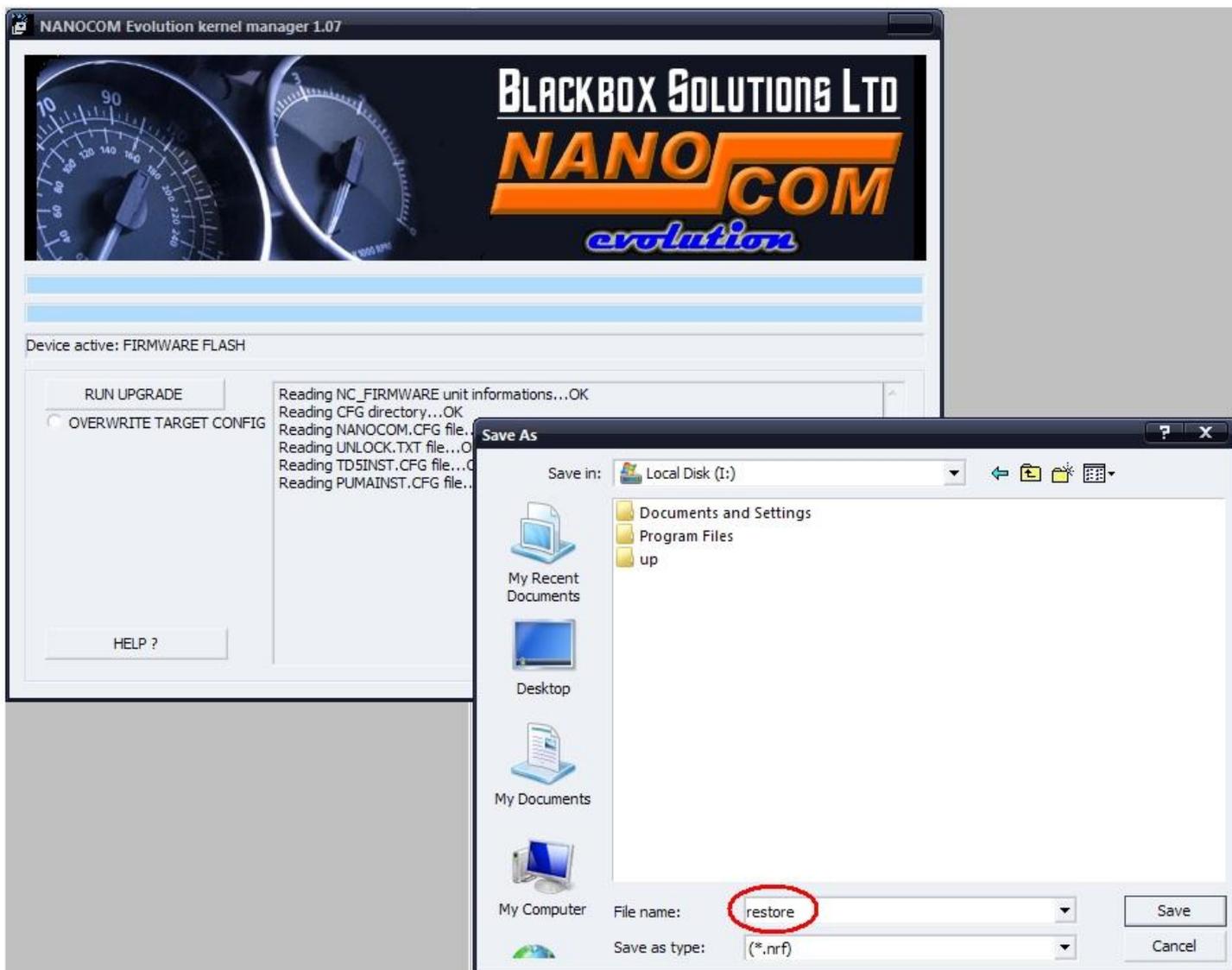
2.9. Should you receive an "Error During Programming" message, then please run the process again from the start.

NOTE: If you need to restore the Nanocom, then the restore file must be copied onto the SD card into a folder called "NCRF". The SD card must be plugged into the unit and from the "Nanocom" menu, the user must select "Setup", and then "Restoring file". In the menu select "Restore System", then confirm when prompted.

In the case of corrupt systems files, restore file will be requested automatically on boot-up. You cannot restore a file created earlier or later than your current version of firmware.

3. 180° Screen rotation

From upgrade V.1.06onwards you will be able to use your Nanocom Evolution with the display rotated 180° to accommodate for the variations in location and orientation of the OBDII port, and customer preference. When you open Kernel Manager you need to tick the "display rotation 180°" option and then run the upgrade.
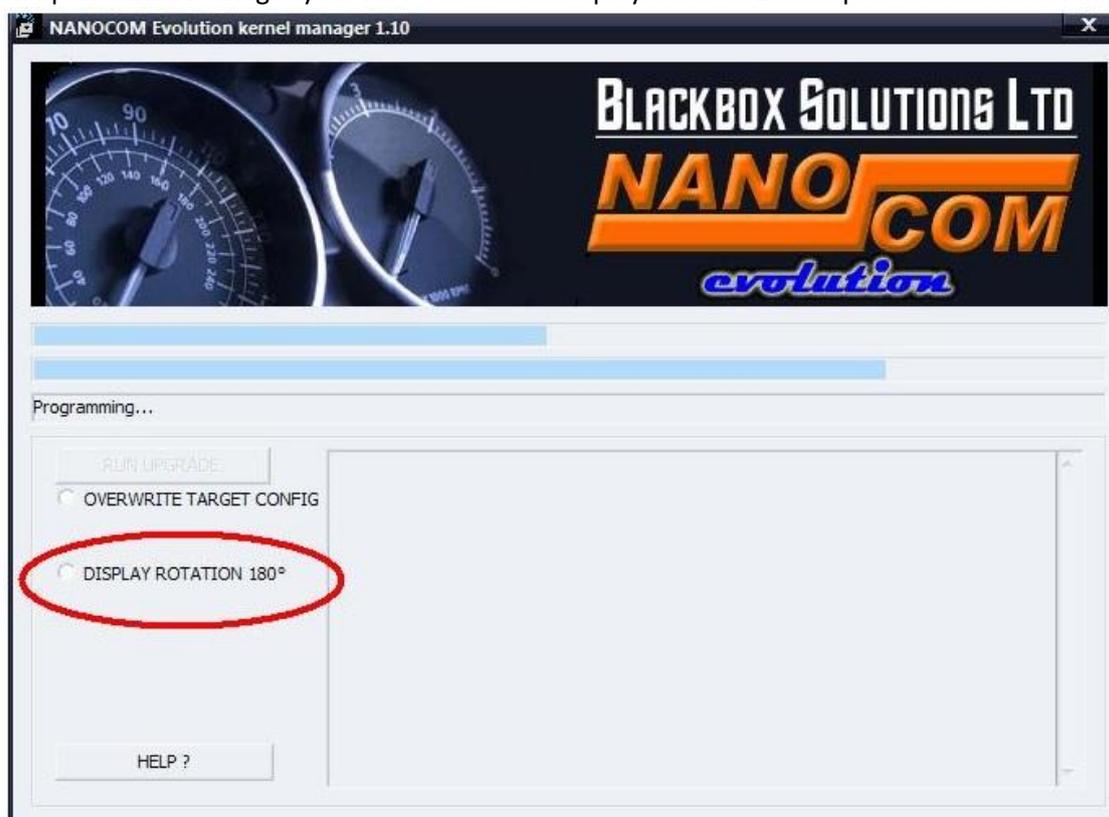
4. Solutions to failed upgrade

Should programming fail due to reasons listed at the beginning of this manual, the unit can in most cases still be operable enough to tun the upgrade again.

Some failures will result in a partially drawn menu where some or all icons are missing. At this stage you can still TAP the empty space to the left, where the "Kernel" icon should be and your unit will go blank indicating it's in kernel upgrade mode. This can be confirmed in the update software by the "Device attached" text. The image to the right is modified to resemble like a failure during the programming of the graphics chip.

The other 2 failures are when the "OBD Controller" fails to program. In this case you disconnect the USB cable, then reconnect it and run the upgrade procedure from the start. If the "Firmware" programming fails then you most likely have to do a **hardware upgrade method** in order to have your unit working again.
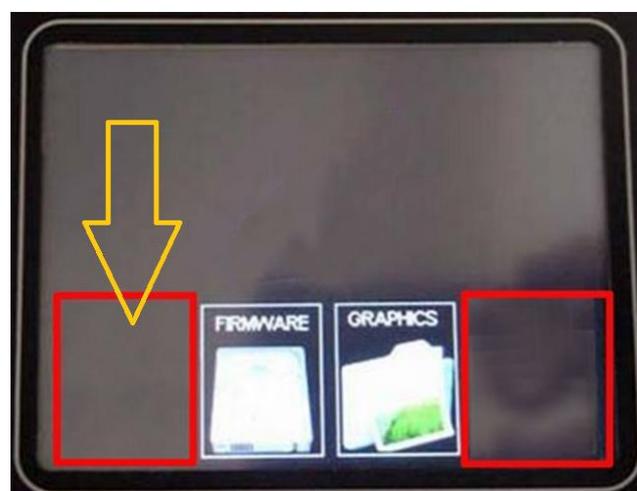
5. Hardware Upgrade Method

If your Nanocom Evolution BBS software upgrade failed during programming and you get a blank screen with beeping sound when you boot up the unit, then you have another option to recover the unit by removing a jumper from the inside of the unit, which will force the unit into kernel mode and allow the BBS upgrade software to run again.

5.1. You will need to open the side of the unit with the SD-card slot and USB port are and locate the jumper found on the first to pins next to the USB port, remove the jumper by pulling outwards and be careful not to drop it between the case and the circuit board, as you may be required to open both sides to recover the jumper. The best option is to use long nose pliers. Please note that removal of the screen cover or other dismantling of the unit **other than** the removal of the required end plate **WILL invalidate any warranty** on the unit. The removal of the required end plate, in order to remove the jumper, will not invalidate the warranty. To remove the screws that attach the side plate to the main body shell of the Nanocom, a Torx no.8 (T8) screwdriver.

5.2. After the jumper is removed connect it to the PC with the USB cable and run the Software upgrade method, described in the section 2 of this guide.

5.3. When the upgrade has completed, replace the jumper on the first 2 pins and plug in the USB cable to check if the unit boots up. Please don't overtighten the screws when attaching the side plate back to the Nanocom. This might result in damage to the screw slots or screws themselves.
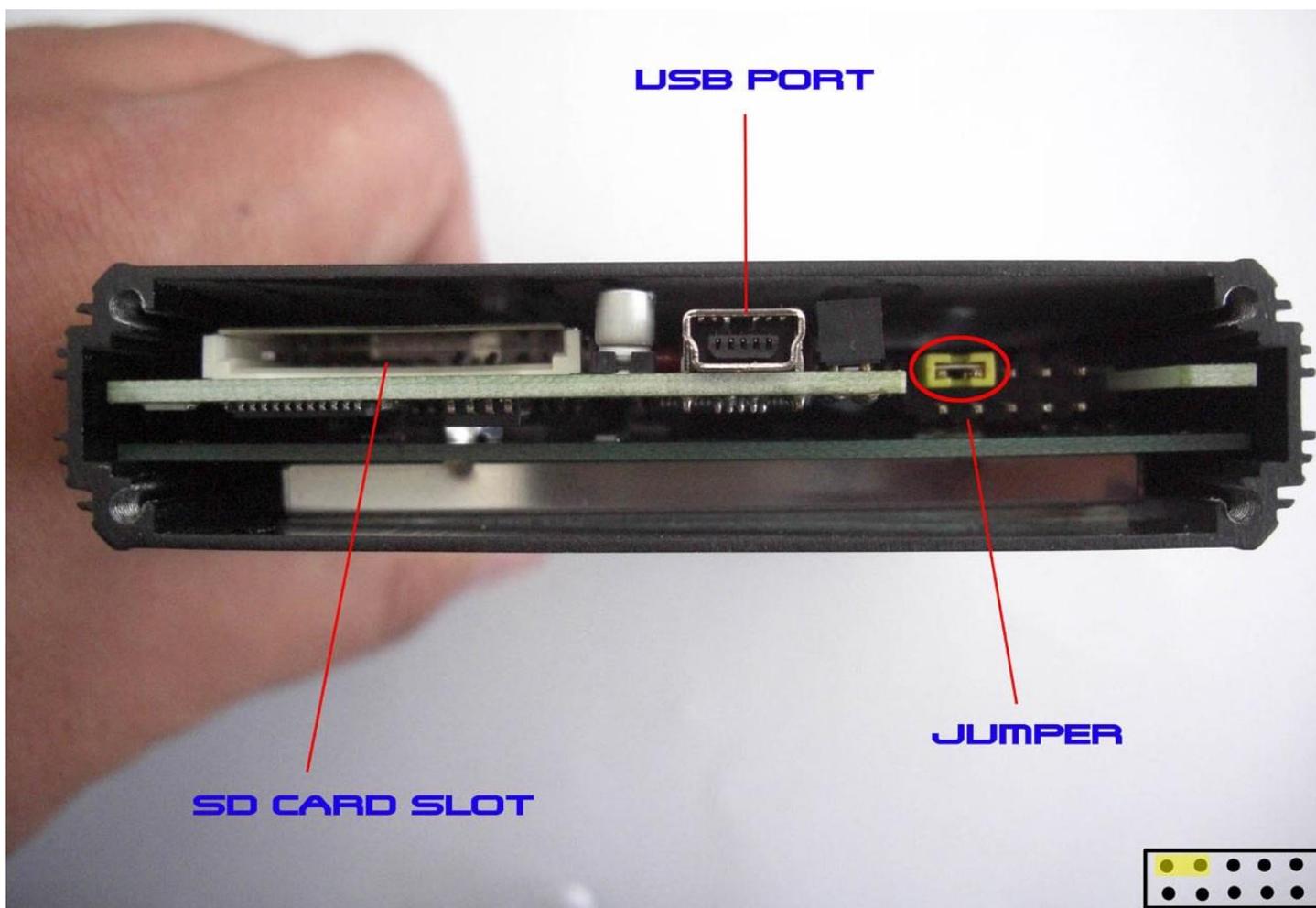
NOTE: If the jumper is not on the correct pins the unit will not work mend may damage the unit. We cannot be held responsible for any damage caused by not consulting the image and understanding the correct location of the jumper. If you are unsure of this process please do not attempt to use it.