

# Operating System Upgrade for BEHRINGER B-Controller series BCx2000

**General** - this document covers the upgrade procedure for the following models :

<b>BEHRINGER B-Control Fader</b>	<b>BCF2000</b>
<b>BEHRINGER B-Control Rotary</b>	<b>BCR2000</b>

The appropriate sys-ex files can be found at :

[<http://www.behringer.com/BCF2000/index.cfm?lang=ENG>](http://www.behringer.com/BCF2000/index.cfm?lang=ENG)  
[<http://www.behringer.com/BCR2000/index.cfm?lang=ENG>](http://www.behringer.com/BCR2000/index.cfm?lang=ENG)

## 1. Upgrade procedure :

- 1.1 If you are using Win XP or Win2000 - first install the BEHRINGER BCx2000 driver.
- 1.2 Download the relevant sys-ex file from our website.
- 1.3 Save and extract the sys-ex file to a "known" destination.
- 1.4 Connect B-Controller to computer (via MIDI or USB).
- 1.5 Select the correct port for the data transfer.
- 1.6 Select the most suitable operating mode in the BCx2000.
  - U-1 for update via USB
  - S-4 for update via MIDI (recommended – see 2.2 below)
- 1.7 Open MIDI utility or sequencer software and check that the correct MIDI ports are selected in the software.
- 1.8 Confirm communication between computer and B-Controller via the selected port.
- 1.9 Start the data transfer - "send sys-ex file".

### **ENSURE THAT THE CONNECTION IS NOT INTERRUPTED DURING THE UPGRADE.**

If you do experience a data interruption during upgrade, leave the BCx2000 switched on.  
It is normally OK just to re-send the complete sys-ex file from the start.  
The upgrade is completed when the file is fully transferred, on restart you will see the new firmware version number appear for approx. 2 seconds in the display.

## 2. System Requirements :

### 2.1 System requirements for upgrade via USB connection

#### **hardware :**

standard USB Port (1.1 or 2.0)

#### **software :**

PC either Win XP or Win 2000

Macintosh - OS-X

- If you are using Win XP then we recommend installing our driver – with the following advantages :
  - More reliable data transfer
  - multi-client capable
  - allows separate identification of each individual hardware device which is connected.
- If you are using Win2000 it is essential to first install the correct BCx2000 driver.  
[<http://www.behringer.com/BCF2000/index.cfm?lang=ENG>](http://www.behringer.com/BCF2000/index.cfm?lang=ENG)
- If you are using a Macintosh - the USB functionality is supported only by OS-X. A proprietary driver is not required under Mac OS-X.

These are the only operating systems which support USB functionality - however if you use a different operating system, the transfer may still be accomplished using a standard MIDI interface.

## 2.2 System requirements for upgrade via a standard MIDI connection

### hardware :

MIDI interface (external or PCI) or a soundcard which supports standard MIDI.

### software :

There are no specific software requirements to upgrade via a standard MIDI interface.

## 2.3 general software requirement

For both USB and for MIDI upgrades, you will need to use a software which is capable of sending sys-ex files. If your sequencer software doesn't allow this, we recommend using a MIDI utility software eg. MIDI OX or Send-SX.

To avoid potential MIDI problems we suggest that you set a minimum delay between buffers of at least 100msec.

## 3. Troubleshooting :

*The software shows a trouble-free transmission, but the B-Controller shows no reaction.*

*The unit is fully functional but the original firmware was not overwritten.*

- If you are using MIDI, check that the cables are connected to the correct ports (out from the computer - in to the BCx2000).
- Verify communication in both directions between B-Controller and computer.
- Check that the most suitable operating mode is selected in the B-Controller (see 1.6 above).
- Make sure that you are sending the correct file (the BCF2000 will not react to the BCR2000 file and vice versa).

*During the upgrade the BCx2000 display shows an error message but the data transfer appears to continue. The BCx2000 appears to have "frozen."*

- If you experience these symptoms, the data transfer was probably interrupted or incomplete.
- Leave the BCx2000 switched on and re-send the entire sys-ex file. Normally the original OS was not erased.
- If this does not work, then you should try to re-start the BCx2000 in bootloader mode (see below).

*Shortly after starting the upgrade, the MIDI software has stopped sending and is now showing an error message.*

- The software MIDI output may have become blocked. Close and re-open the MIDI i/o in the software and check the delay settings.
- We recommend using a minimum delay between buffers of at least 100msec.
- Leave the BCx2000 switched on and resend the entire sys-ex file.
- if this does not work, then re-start the BCx2000 in bootloader mode (see below).

*At the end of the data transfer, the Windows 2000 USB manager advises that a USB device has been removed without being deactivated first.*

- This is normal, harmless, and peculiar to Windows 2000. Close the USB device manager.

*The MIDI software does not find the BCx2000, although the Behringer driver is installed correctly within the Windows OS. The display shows [noOS] and the LEDs in the "Store" and "Learn" buttons are lit. The BCx2000 appears to have "frozen".*

- A previous upgrade attempt via USB was interrupted and therefore unsuccessful.
- The hardware USB port is now temporarily disabled.
- In this case you will need to restart the B-Controller in bootloader mode (see below).
- You will also need to use the MIDI port to repeat the upgrade.
- After a successful upgrade via MIDI, the USB functionality will be restored.

**Bootloader mode :**

In the event of a corrupted data transfer you should leave the BCx2000 switched on, and simply re-send the complete sys-ex file again.

**As a last resort** you may need to restart the B-Controller in bootloader mode, but please note – the subsequent upgrade **will only function via the MIDI port**.

- press and hold the buttons labelled "store" and "learn".
- keep these two buttons held down during power on.
- On re-start the display reads "load".

The device is now ready to accept a new OS via the MIDI input.