

MIDI docs

# Novation Launchpad Button LED Matrix (BLM)

Since firmware version 87, the SEQ V4 supports the use of two [Novation Launchpads](#) as a [BLM control surface](#). Two Launchpads form a 16x8+X BLM, and up to four can be connected to make a full 16x16+X control surface.

The Launchpad BLM is implemented as a feature of the JUCE-based BLM emulator software. The launchpads don't connect to the SEQ directly. Instead, they connect to a computer running the JUCE BLM emulator - the emulator software acts as a translator, converting the BLM Protocol sysex messages into midi signals to light the LEDs on the Launchpad, and translating button presses on the Launchpad into a format the SEQ can understand.

This has been tested with the Novation Launchpad Mini. Presumably, the Launchpad S should work as well, since they're essentially the same controller. The original launchpad hasn't been tested. If you have one, try it and post a comment in the forums to let us know if it works.

Support for button grid controllers other than the launchpad may be possible in the future.



## SETUP

### On The SEQ V4

1. If your SEQ is not running firmware version 87 or greater, download the latest [SEQ V4 firmware](#). Choose the right version for your MIDIbox Core.
2. Unzip the firmware, and upload the project.hex file version to your SEQ using [MIOS Studio](#).
3. Power on your SEQ and go to the **MIDI > Misc.** menu page. Set "BLM Scalar Port" to one of the USB Ports. I use USB4.

### On Your Computer

1. Download the JUCE based "Virtual BLM 16×16+X" BLM emulator software for your operating system from [this page](#).
2. If you are using 64bit linux, you may have to install some 32bit compatibility libraries. On Ubuntu 14.04 I had to "apt-get install libfreetype6-dev:i386 libasound2-dev:i386 libasound2-plugins:i386 libgl1-mesa-glx:i386 libgl1-mesa-dev:i386" to get the software to run.
3. Connect your SEQ V4 to a USB port on your computer.
4. Connect two or four launchpads to USB ports on your computer.
5. Open the Virtual BLM emulator software.
6. If you're using two Launchpads, select "16×8+X" in the layout dropdown menu. If you're using 4, select "16×16+X".
7. In the MIDI IN and MIDI OUT dropdown menus, select the USB port you chose as the "BLM Scalar Port" on your SEQ V4.
8. The OSC settings can be left blank.
9. Press the "Ext. Controller" button.
10. Select "Novation Launchpad" in the "Controller" dropdown.
11. Select your two or four launchpads in the MIDI IN and OUT dropdowns.
12. The "Rotation Settings" dropdown allows you to rotate the launchpads by 90 degree increments. Using two launchpads, set the first to "270 Degree" and the second to "0 Degree" in order to set the launchpads up as shown in the picture above.

...and you're done!

## Resources

[Link to forum thread where this feature was introduced](#)

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