

## QuNexus TroubleShooting

QuNexus Version 1.1.1

July, 2013

If you are having trouble of any kind make sure you double check the following before moving on to the chapters below that address specific problems:

1. With your QuNexus plugged in check Audio MIDI Setup's MIDI view (**Mac** only) and make sure QuNexus' icon is active (not grayed out). Or open up the QuNexus Editor (**Mac or Windows**) and make sure it says "Connected" just above the QuNexus logo. If not, try these:
  1. Unplug your QuNexus and plug it back in.
  2. Unplug your QuNexus, restart your computer, and plug your QuNexus back in.
  3. Try a different USB cable.
2. Make sure you are using the correct firmware. When the QuNexus Editor opens, it checks to make sure the firmware on the device is compatible with the application. If the firmware is not compatible, an update prompt will appear. Click update.

If you experience any problems or have questions regarding the QuNexus install process after viewing all of the troubleshooting suggestions, submit a support request (<http://www.keithmcmillen.com/support>) outlining the problems you're experiencing. The more detailed you are in describing your problem (information about your computer, the software you're running, the circumstances around the issue), the more easily we will be able to help you. To make things much faster it is helpful if you include the following when submitting a support question:

1. Your operating system
2. Your computer's specs (processor speed, amount of RAM, etc)
3. Firmware version on your QuNexus
4. Version number of the QuNexus Editor you are using
5. A detailed description of your problem
6. Steps taken to produce this problem
7. Steps you have taken to try and solve your problem

Also, please think about whether or not your question is actually a QuNexus question or a question about the software you're using your QuNexus with.

## Connectivity Trouble

If you are having trouble establishing a stable connection between your QuNexus and your computer, iPad, MIDI, or CV Device then this chapter should help. Make sure you read the Connecting QuNexus chapter from the Full Manual first to be certain that you are connected correctly.

### Touchy USB Connection

If your QuNexus is powering on and off with just the slightest touch of the USB cable, or the QuNexus itself, then you likely have a less than stellar cable. It may seem that it's the USB port on the QuNexus causing this, but it really is much more likely to be the cable's fault. We have yet to see a QuNexus with a faulty USB port (though not to say that this is impossible).

Solution:

Replace your USB cable!

If you received a faulty cable with your QuNexus, please submit a support ticket to KMI tech support (<http://www.keithmcmillen.com/support/>) and we can get you a replacement. Or if you'd rather not wait and would like to just go out and get one yourself, most retail stores carry micro-USB cables these days - they're often located in the cell phone area.

A bad USB cable can be the cause of a number of issues with the QuNexus. Check out the "Try a New Micro-USB Cable" section for some more info.

## CV Trouble

If you are having trouble working with QuNexus' CV outputs and inputs this chapter should help. Make sure to read the CV Manual as well for even more information.

### Steps to Convert MIDI to CV

There are many ways to use the QuNexus to convert MIDI to CV. A few different scenarios are listed. If you are having trouble, try following the set up instructions for the scenario that best fits your intended use.

#### CV OUTPUT:

##### **Scenario 1: QuNexus plugged into a power supply (No Computer, No MIDI Expander)**

Use Case: This is the simplest set up and works great if you just want the QuNexus Keyboard to play a CV Device.

1. Plug QuNexus into a power supply using a USB A to micro cable.

2. Plug the power supply into the wall or a power strip/extension cable.
3. Use a y cable that goes from STEREO 1/8in to dual MONO plugs or jacks. Usually the dual outputs are colored red and white (or black).
  - a. Use the red one for CV1 and the white (or black) one for Gate.
  - b. If plugged into the CV2 - 3 port use the red one for CV3 and the white (or black) one for CV2.
4. Plug the Stereo end of the y cable into the Gate - CV 1 port or the CV 2 - 3 port.
5. Plug the 2 MONO ends into the CV destinations on your CV device.
  - a. If plugged into the Gate - CV 1 port, the QuNexus presets send note ons and offs out the gate and pitch out CV1.
  - b. If plugged into the CV 2 - 3 port, the QuNexus presets B, C, and D send Pressure out CV 2 and Pitch Bend out CV 3. Preset A is very basic and doesn't use Pressure for anything or Tilt for Pitch Bend so these will not output if using QuNexus' Factory Preset A.
6. Play the QuNexus, it should work. (Make sure your CV device is connected to speakers/headphones).

### **Scenario 2: QuNexus powered through the MIDI Expander (No Computer)**

Use Case: This is a good way to play your CV device with a different hardware MIDI device using QuNexus as a converter (the QuNexus can play the CV device as well).

1. Plug QuNexus into a MIDI Expander.
2. Plug the MIDI Expander into a wall.
3. Plug the MIDI Device's MIDI Output into the MIDI Expander's MIDI Input.
4. Use a y cable that goes from STEREO 1/8in to dual MONO plugs or jacks. Usually the dual outputs are colored red and white (or black).
  - a. Use the red one for CV1 and the white (or black) one for Gate.
  - b. If plugged into the CV2 - 3 port use the red one for CV3 and the white (or black) one for CV2.
5. Plug the Stereo end of the y cable into the Gate - CV 1 port or the CV 2 - 3 port.
6. Plug the 2 MONO ends into the CV destinations on your CV device.
  - a. If plugged into the Gate - CV 1 port, the QuNexus presets send note ons and offs out the gate and pitch out CV1.
  - b. If plugged into the CV 2 - 3 port, the QuNexus presets B, C, and D send Pressure out CV 2 and Pitch Bend out CV 3. Preset A is very basic and doesn't use Pressure for anything or Tilt for Pitch Bend so these will not output if using QuNexus' Factory Preset A.
7. Make sure your MIDI Device is outputting its MIDI on **Channel 2**. If you're using the QuNexus Factory Presets this is the Channel CV Layer is listening to. Note ons and offs will go out the Gate, note pitches will go out CV1, CC1 (Mod) will go out CV2, and pitch bends will go out CV3.
8. Play the QuNexus, it should work. (Make sure your CV device is connected to speakers/headphones).

### **Scenario 3: QuNexus plugged into the Computer (No MIDI Expander)**

Use Case: In this scenario you can use the QuNexus Keyboard and/or MIDI Software on the computer to play a CV device. Ableton Live will be used as the software example in this scenario but you can check for all the same things using different software.

1. Plug QuNexus into a computer.
2. Open the Audio/MIDI software you wish to convert MIDI to CV with (like Ableton Live).
3. Check Ableton's MIDI Preferences to make sure QuNexus Port 1 and Port 3 are enabled for MIDI Input and Output.
4. Create a MIDI Track and set its "MIDI From" menu to QuNexus Port 1 (set channel to all channels or make sure you're using the same channel that the QuNexus preset is outputting it's MIDI Data on).
5. Set the "MIDI To" menu to QuNexus Port 3 (the CV port). Set the Channel to "Ch. 2" if you are using a Factory Presets. All Factory Presets use Channel 2 for CV output and input. If you are using a custom Preset check what channel you used in CV layer and make sure it is the same as the MIDI To channel in the MIDI Track in Ableton.
6. Use a y cable that goes from STEREO 1/8in to dual MONO plugs or jacks. Usually the dual outputs are colored red and white (or black).
  - a. Use the red one for CV1 and the white (or black) one for Gate.
  - b. If plugged into the CV2 - 3 port use the red one for CV3 and the white (or black) one for CV2.
7. Plug the Stereo end of the y cable into the Gate - CV 1 port or the CV 2 - 3 port.
8. Plug the 2 MONO ends into the CV destinations on your CV device.
  - a. If plugged into the Gate - CV 1 port, the QuNexus presets send note ons and offs out the gate and pitch out CV1.
  - b. If plugged into the CV 2 - 3 port, the QuNexus presets B, C, and D send Pressure out CV 2 and Pitch Bend out CV 3. Preset A is very basic and doesn't use Pressure for anything or Tilt for Pitch Bend so these will not output if using QuNexus' Factory Preset A.
9. Play the QuNexus, it should work. (Make sure your CV device is connected to speakers/headphones).

### **Scenario 4: QuNexus plugged into the Computer (With MIDI Expander)**

Use Case: This is a good way to play CV with QuNexus, a different hardware MIDI device, and/or MIDI software on the Computer. This is the most complicated set up but it allows you to do everything the other three scenarios can do above. Ableton Live will be used as the software example in this scenario but you can check for all the same things using different software.

1. Plug QuNexus into the Computer like normal and then plug a MIDI Expander into QuNexus.
2. Plug the MIDI output from your MIDI Device into the MIDI Expander's MIDI In port.
3. Open the Audio/MIDI software you wish to convert MIDI to CV with (like Ableton Live).
4. Check Ableton's MIDI Preferences to make sure QuNexus Port 1, Port 2, and Port 3 are enabled for MIDI Input and Output.
5. Create a MIDI Track and set its "MIDI From" menu to "All Ins" (set channel to all channels).

6. Set the "MIDI To" menu to QuNexus Port 3 (the CV port). Set the Channel to "Ch. 2" if you are using a Factory Presets. All Factory Presets use Channel 2 for CV output and input. If you are using a custom Preset check what channel you used in CV layer and make sure it is the same as the MIDI To channel in the MIDI Track in Ableton.
7. Use a y cable that goes from STEREO 1/8in to dual MONO plugs or jacks. Usually the dual outputs are colored red and white (or black).
  - a. Use the red one for CV1 and the white (or black) one for Gate.
  - b. If plugged into the CV2 - 3 port use the red one for CV3 and the white (or black) one for CV2.
8. Plug the Stereo end of the y cable into the Gate - CV 1 port or the CV 2 - 3 port.
9. Plug the 2 MONO ends into the CV destinations on your CV device.
  - a. If plugged into the Gate - CV 1 port, the QuNexus presets send note ons and offs out the gate and pitch out CV1.
  - b. If plugged into the CV 2 - 3 port, the QuNexus presets B, C, and D send Pressure out CV 2 and Pitch Bend out CV 3. Preset A is very basic and doesn't use Pressure for anything or Tilt for Pitch Bend so these will not output if using QuNexus' Factory Preset A.
10. Make sure your MIDI Device is outputting its MIDI on **Channel 2**. If you're using the QuNexus Factory Presets this is the Channel CV Layer is listening to. Note ons and offs will go out the Gate, note pitches will go out CV1, CC1 (Mod) will go out CV2, and pitch bends will go out CV3.
11. Play the QuNexus, it should work. (Make sure your CV device is connected to speakers/headphones).

## CV INPUT:

### Scenario 1: QuNexus plugged into Computer (No MIDI Expander)

Use Case: In this scenario you can use an Expression Pedal (or any other uni-polar 0-5 Volt CV source) to control MIDI Software on the computer. Ableton Live will be used as the software example in this scenario but you can check for all the same things using different software.

1. Plug QuNexus into the Computer.
2. Open the Audio/MIDI software you wish to convert CV to MIDI with (like Ableton Live).
3. Check Ableton's MIDI Preferences to make sure QuNexus Port 1 and Port 3 are enabled for MIDI Input and Output. In Ableton, make sure to enable the remote column for Input from Port 1 and Port 3.
4. Plug a CV device into the Pedal / CV 1-2 In:
  - a. If using an Expression Pedal you can plug in with a stereo 1/8in connection.
  - b. For separate use of both CV 1 and 2 use a TRRS splitter like the one that comes in the QuNexus CV Cable Kit (See the QuNexus CV Manual for more information).
5. Go into MIDI Mapping Mode in Ableton Live and select the parameter you wish to control using CV.
6. Go into CoMA Mode using the QuNexus and follow the CoMA Mode instructions for mapping the Expression pedal (see the CoMA Mode chapter of the Live Edit Mode Manual or the Full Manual for more information).
  - a. The Expression pedal will Map as CC# 112 on Channel 2 of QuNexus Port 3.

- b. CV 2 will Map as CC# 113 on Channel 2 of QuNexus Port 3.
- 7. Exit MIDI Mapping Mode in Ableton Live.
- 8. Exit CoMA Mode on QuNexus.
- 9. Play the Expression Pedal (or other CV source), it should adjust the parameter.

### **Scenario 2: QuNexus powered through the MIDI Expander (No Computer)**

Use Case: This is a good way to control a MIDI Device with an Expression Pedal (or any other uni-polar 0-5 Volt CV source).

- 1. Plug QuNexus into the MIDI Expander and plug the MIDI Expander into power.
- 2. Plug the MIDI Output from the MIDI Expander into the MIDI Input on your MIDI Device.
- 3. Plug a CV device into the Pedal / CV 1-2 In:
  - a. If using an Expression Pedal you can plug in with a stereo 1/8in connection.
  - b. For separate use of both CV 1 and 2 use a TRRS splitter like the one that comes in the QuNexus CV Cable Kit (See the QuNexus CV Manual for more information).
- 4. QuNexus' CV will enter the MIDI device as CC numbers on Channel 2.
  - a. The Expression pedal will use CC# 112
  - b. CV 2 will use CC# 113
- 5. Make sure the MIDI Device is set up to receive the correct CC# on Channel 2.
- 6. Play the Expression Pedal (or other CV source), it should talk to the MIDI Device.

### **Scenario 3: QuNexus plugged into Computer (With MIDI Expander)**

Use Case: This is a good way to control a MIDI hardware device or MIDI software on a computer with an Expression Pedal (or any other uni-polar 0-5 Volt CV source). Ableton Live will be used as the software example in this scenario but you can check for all the same things using different software.

- 1. Plug QuNexus into the Computer.
- 2. Plug QuNexus into the MIDI Expander.
- 3. Plug the MIDI Output from the MIDI Expander into the MIDI Input on your MIDI Device.
- 4. Open the Audio/MIDI software you wish to convert CV to MIDI with (like Ableton Live).
- 5. Check Ableton's MIDI Preferences to make sure QuNexus Port 1 and Port 3 are enabled for MIDI Input and Output. In Ableton, make sure to enable the remote column for Input from Port 1 and Port 3.
- 6. Plug a CV device into the Pedal / CV 1-2 In:
  - a. If using an Expression Pedal you can plug in with a stereo 1/8in connection.
  - b. For separate use of both CV 1 and 2 use a TRRS splitter like the one that comes in the QuNexus CV Cable Kit (See the QuNexus CV Manual for more information).
- 7. Go into MIDI Mapping Mode in Ableton Live and select the parameter you wish to control using CV.
- 8. Go into CoMA Mode using the QuNexus and follow the CoMA Mode instructions for mapping the Expression pedal (see the CoMA Mode chapter of the Live Edit Mode Manual or the Full Manual for more information).
  - a. The Expression pedal will Map as CC# 112 on Channel 2 of QuNexus Port 3.
  - b. CV 2 will Map as CC# 113 on Channel 2 of QuNexus Port 3.
- 9. Exit MIDI Mapping Mode in Ableton Live.

10. Exit CoMA Mode on QuNexus.
11. Make sure the MIDI Device is set up to receive the correct CC# on Channel 2.
12. Play the Expression Pedal (or other CV source), it should talk to the MIDI Device and adjust the parameter in the software.

## **Audible High Pitched Noise in Computer Audio When Using CV**

Some may experience a high pitched frequency when using QuNexus with a laptop while connected to CV synths.

Causes:

It is possible that noise from the QuNexus LEDs can bleed into the power supply of the laptop, which might cause audible interference when mixing audio from the laptop with external synths. This can vary by computer and synth.

Solution:

Currently, there are three approaches to resolve this problem:

1. Power the QuNexus through the Expander Port instead of through the computer and use an external audio interface. If possible, power the audio interface from a wall wart.
2. Also try changing the LED Refresh mode options in the Hardware menu of the QuNexus Editor. Try Control Only first and see if that helps. Setting the LED Refresh Mode to Control Only means that the keyboard lights won't light up; only the side buttons will light up. LED feedback will behave normally in the Preset Select and Live Edit Modes. If the hum persists, try the "All Off" setting. The "All Off" setting disables any LED feedback on QuNexus.
3. Make sure to have a hot/loud signal coming out of the laptop so you don't have to put a lot of gain on it, and then if you need to you can reduce the signal later. The best use-case would be to run your audio into a mixer so you have more control over it. Using an external audio interface that has its own power will also help.

## **QuNexus LEDs Light Up Erratically When Receiving CV Input**

You've set up your QuNexus to receive CV from a synth through the CV Input port. You're all ready to go so you try it out and suddenly the LEDs of the QuNexus begin to flash strangely and you're not sure why.

Causes:

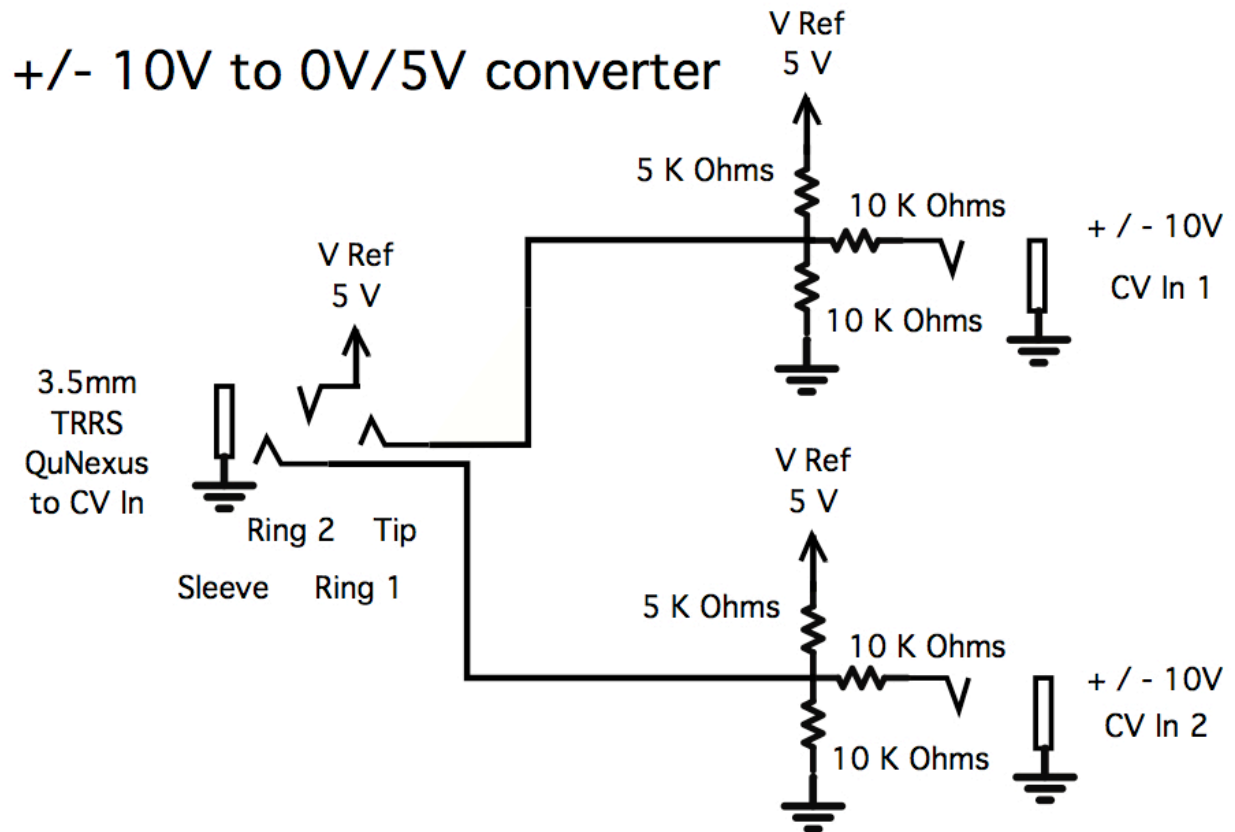
QuNexus' CV Input is uni-polar and is meant for a signal up to 5 Volts. If you send it a bi-polar signal or a signal above 5 Volts, the signal will be clipped and can cause malfunctions in extreme cases. One way these malfunctions can manifest would appear to be erratic LED behavior. Don't worry, nothing is damaging your QuNexus. What is happening is the QuNexus is going in and out of Preset Select Mode and Live Edit Mode. The details of why QuNexus

malfunctions this particular way aren't important -- just know that your QuNexus is not being harmed, it just isn't meant to receive bi-polar CV or signals above 5 Volts.

Solution:

Make sure the CV signal you are sending QuNexus is uni-polar and within a 0-5 Volt range.

You can convert a bi-polar 10V signal to a uni-polar 5V signal. Though we do not provide a converter, you can make one using the schematic shown below:





## Firmware Trouble

If you are having trouble with your QuNexus Firmware, are experiencing odd behavior after an update, or just want to know more about firmware, then this is the chapter for you.

### QuNexus Doesn't Do Anything After a Firmware Update

Sometimes after updating the firmware on your QuNexus it will appear to not be doing anything, even if it was working without issue just before updating. Not everything will light up properly and not everything will be outputting correct MIDI.

Causes:

This is typically caused by updating the firmware on your QuNexus and then not updating the presets. A firmware update also restores the factory presets to their original states. If you've created your own custom presets using the QuNexus Editor you will need to resend them to your QuNexus.

Solution:

Update your presets!

To do this, simply send each preset to the desired QuNexus preset slot (A, B, C, or D) in the QuNexus Editor while your QuNexus is connected (make sure it says "Connected" just above the QuNexus logo). Once the update is done your QuNexus should be back to normal.

### Firmware Update Freezes or Doesn't Work

It is possible that when trying to update the firmware on your QuNexus the update process freezes and does not complete. This problem is pretty much exclusive to Windows machines, most often Windows 8.

Typical behavior is that the firmware update will begin, the shift button will light up blue on the QuNexus, but nothing else ever happens - it just kind of hangs there. It will seem like the only thing that can be done is to cancel the firmware update and try again.

Causes:

Why this problem happens is more of a mystery than the other potential problems. Windows 8 users experience this the most, so there is likely something that the editor does that it doesn't like very much. You may also want to check and make sure that you don't [have a bad USB cable](#) - it may just be that the bad cable is disconnecting your QuNexus during the firmware update. You also might want to try plugging in your QuNexus after opening the editor, not before.

Solution:

If firmware updates are freezing on your machine it may help to try this:

- Open the QuNexus Editor and connect the QuNexus
- Begin the firmware update - either by the automatic prompt that pops up, or by going to the Hardware menu and selecting "Update Firmware"
- When the update begins and the progress bar appears, **disconnect the QuNexus** for a second or two and then **reconnect** it
- You should get a message that your firmware is out of date and needs an update - do so
- This time the update should go through without issue
- Once done, remember to update your presets

Don't worry about unplugging your QuNexus while the firmware update is in progress - you're not going to hurt it and it will not be damaged.

## General Firmware Information and Suggestions

This section contains potentially helpful information and suggestions regarding QuNexus, its firmware, and things to look for when troubleshooting.

### Unplug Other USB Devices

While having other USB devices plugged in at the same time as your QuNexus should not be an issue, there may be some rare cases where other devices may interfere with your ability to properly update the firmware on your board.

If you're having troubles updating your firmware or connecting to the editor, you may want to try unplugging any other USB devices leaving just the QuNexus plugged in, then open up the QuNexus Editor and see if that helps. Once the firmware has updated you can plug everything back in.

If you have multiple devices plugged in, you might want to experiment and see if there is one particular device that is causing the problem. Then you'll know exactly which one to unplug if you need to update your firmware again.

## Try a New Micro-USB Cable

Many problems with updating firmware, and just general operation, can be caused by the often overlooked bad USB cable. It is always a good idea to have at least one backup cable (not just with QuNexus, but with anything) for troubleshooting purposes and other “emergencies”.

Things to look for that can potentially be solved by a new cable:

- QuNexus turning on/off at the slightest touch
- QuNexus getting stuck in bootloader mode (blue shift button stuck on and not responding to anything)
- Firmware update not completing properly, or freezing
- QuNexus not connecting to QuNexus Editor

## “Hotplugging” on Windows

On Windows machines it is possible to experience some connectivity issues between QuNexus and the QuNexus Editor. This is true for Macs as well, but this issue is much more prevalent on computers running Windows operating systems.

If your QuNexus is plugged in but the QuNexus Editor is still showing “not connected” above the QuNexus logo (meaning it can’t find the QuNexus) after you open it, you should try reversing the steps. First, open the editor, then plug in the QuNexus once the editor is open. In some cases you just need to find the proper order of operations to get things working right.

If this doesn’t resolve the issue you may want to [try a new USB cable](#), make sure you don’t have any other Audio/MIDI applications open at the same time as the QuNexus Editor (Windows won’t allow multiple applications to be connected to a class-compliant MIDI device simultaneously), or try [unplugging other USB devices](#).

## Don’t Send MIDI to QuNexus During an Update

When performing a firmware update, it is *highly* recommended that you do not send MIDI messages to the QuNexus from another application (e.g. sending remote LED messages from Ableton Live to the QuNexus). If you do this, the update will likely fail.

Firmware on the QuNexus is transmitted via System Exclusive messages (SysEx), which are essentially just special MIDI messages. If you send other MIDI messages while the SysEx message is being transmitted things can get confused and go awry. You won’t hurt your QuNexus if you do this, but you will have to stop sending MIDI to it and then restart the firmware update for it to complete successfully. It’s also potentially possible to get stuck in bootloader mode when doing this.

**Note:** this problem is much more likely to occur on Mac OS than it is on Windows, as currently Windows does not allow more than one application to be connected to a class-compliant MIDI device (which the QuNexus is) simultaneously. Mac OS does not have this limitation, so you can be sending MIDI to the QuNexus from a number of sources while the editor is open and updating the firmware.

### **If Things are Working Fine, DON'T Update Right Before your Show**

When there's a new update available it can be very tempting to get it and update as soon as you possibly can. While there's nothing wrong with this urge, if you happen to have a show coming up anytime soon (or today), it is generally advisable to hold off on updating until after your show has passed - or at least keep your old versions so you can go back if need be.

While we test everything to the best of our ability, there's no telling what bugs may be introduced to your setup - the preset you're using may have changed in a subtle way that you don't notice, there could be a nasty bug that just didn't get noticed, the new firmware may not like one of your other devices, or it may respond to MIDI in a slightly different, perhaps undesirable way. Even fixing a bug with an update can cause problems if you've already grown accustomed to the "buggy" behavior and developed the muscle memory around it.

Always give yourself time to test things out before changing your performance setup. Always. You will be much less stressed if you know what to expect from your gear and software. This is an extremely useful suggestion for pretty much anything performance related, not just QuNexus.

### **Manually Updating Firmware**

Typically the QuNexus Editor will do just fine updating firmware on your board, but in some cases it may be necessary to manually update your firmware. To update your firmware...

MAC:

1. If you have not already, download and install SysEx Librarian from <http://snoize.com/SysExLibrarian/>
2. Download or locate the firmware file you would like to install, along with the "Enter Bootloader" sysex command file (zip files for your current version and past versions can be downloaded here: [http://files.keithmcmillen.com/downloads/qunexus/sysex\\_files/](http://files.keithmcmillen.com/downloads/qunexus/sysex_files/))
3. Plug in your QuNexus and open SysEx Librarian
4. Click "Add..." in the lower-left corner of the screen. When the browser window opens, navigate to the firmware file (generally named to the effect of "QuNexus\_Firmware\_1.0.0.syx") and hit "Open"
5. Repeat the previous step but navigate to the Enter Bootloader sysex file, typically named "QuNexus\_enter\_bootloader.syx"
6. Select QUNEXUS Port 1 (or Port 1) from the drop down menu labeled "Destination"

7. Now select the QuNexus\_enter\_bootloader.syx file in the main window of the SysEx Librarian application. Once selected it should become highlighted blue.
8. Click the “Play” button in the top-left corner. A progress bar will very quickly appear and disappear, and the blue shift button on your QuNexus should light up solid. Your QuNexus is now in bootloader mode and ready to receive firmware.
9. The destination menu will have reset when your QuNexus went into bootloader mode, so reselect QuNexus Port 1 from the drop down menu.
10. Select the firmware file you want to send to your QuNexus in the main windows to SysEx Librarian.
11. Click the “Play” button to start sending the firmware. A progress bar will appear indicating how far along the update process is and the shift button on your QuNexus will begin flashing as the update progresses.
12. Once done, the LEDs on your QuNexus should swipe across the board as though it is powering on. Your firmware has been updated!

#### WINDOWS:

1. If you have not already, download and install SysEx Box from <http://miostools.midimox.org> (it's at the top of the page)
2. Download or locate the firmware file you would like to install, along with the “Enter Bootloader” sysex command file (zip files for your current version can be downloaded here: [http://files.keithmcmillen.com/downloads/qunexus/sysex\\_files/](http://files.keithmcmillen.com/downloads/qunexus/sysex_files/))
3. Plug in your QuNexus and open SysEx Box
4. Select QUNEXUS Port 1 (or Port 1) in the MIDI In and MIDI Out ports
5. Click “Open Sysex File”. When the browser window opens, navigate to the enter bootloader file (typically named “enter\_bootloader.syx”) and click “Open”
6. Click the “Send Sysex” button - the blue shift button on your QuNexus should light up solid. Your QuNexus is now in bootloader mode and ready to receive firmware
7. Make sure the MIDI In and MIDI Out ports still say QuNexus
8. Click “Open Sysex File” again. This time select the firmware file you want to send to your QuNexus, then click “Open”
9. Click the “Send Sysex” button - the blue shift button on your QuNexus should start flashing. The firmware update will take a moment.
10. Once the update is complete the LEDs on your QuNexus should swipe across the board as though it is powering on. Your firmware has been updated!