

QuNeo

USERS MANUAL

v2.0

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QuNeo

QuNeo

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Getting Started



WELCOME

QuNeo is a 3D multi-touch pad controller. QuNeo is a different species of pad controller for electronic musicians, DJs, VJs and DIY hackers. While it covers all of the functionality of other pad controllers, QuNeo adds the power of touch recognition in multiple dimensions.

Each of the 27 pads, sliders, and rotary sensors are pressure, velocity, and location sensitive. The 17 buttons also respond to pressure and velocity. The 16 square pads provide 128 levels of velocity response, X-Y location, and continuous pressure for each pad. Each rotary sensor measures direction, pressure and location.

In this manual you will find detailed information to help answer all of your questions about QuNeo hardware and software.

QUESTIONS? FEEDBACK? CONTACT US!

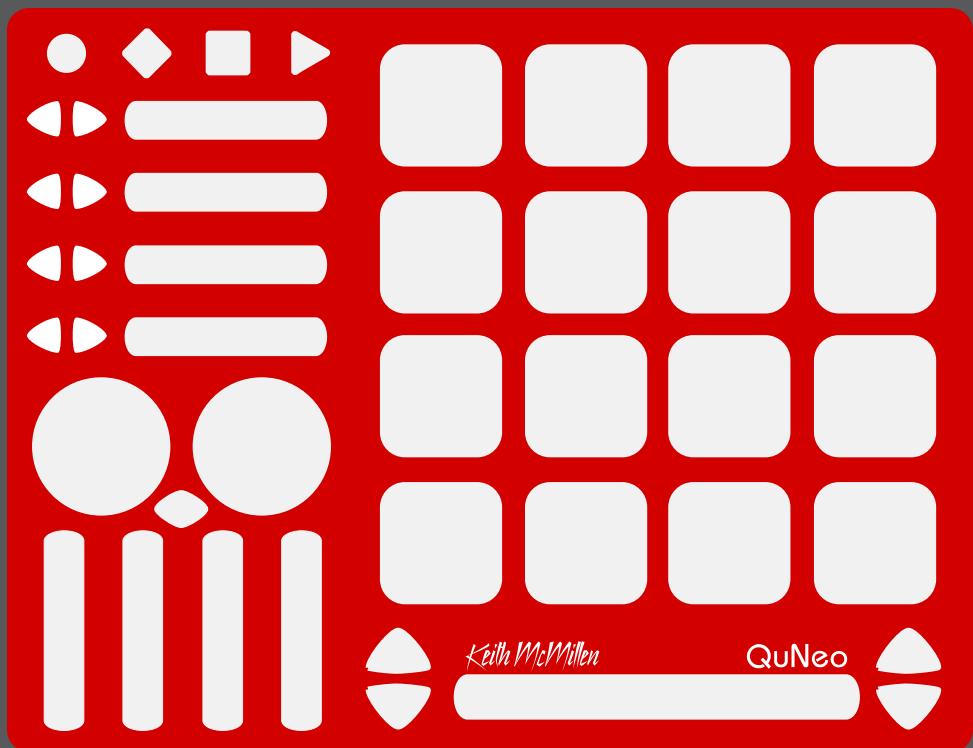
Any questions or feedback that may come up regarding QuNeo or its software can be directed to us here:

- **Technical Support:** <https://support.keithmcmillen.com>
- **General Questions:** contact@keithmcmillen.com

WHERE TO DOWNLOAD EVERYTHING

All QuNeo software can be downloaded on the KMI website: keithmcmillen.com/downloads

QuNeo Hardware



CHAPTER 1 - QuNeo HARDWARE

QuNeo is a class compliant USB device that does not require a driver or software to function. This chapter is a guide to connecting your QuNeo to hardware or software, and an overview of the QuNeo's buttons and control sources.

1.1 CONNECTING THE QU NEO

Connecting QuNeo to a computer:

To connect QuNeo to a computer, use the included USB cable to connect the QuNeo USB port to a computer USB port. QuNeo will receive power from the computer.

Connecting QuNeo to an iPad:

To connect QuNeo to an iPad, you will need the iPad Camera Connection Kit (sold by Apple). Attach the camera connector to the iPad and then use a USB cable to connect the QuNeo USB port to the camera connector. It is recommended that you supply power to the QuNeo and iPad by either plugging the Camera Connection Kit to a power supply, or by using a KMI USB Y-cable.

Connecting QuNeo to MIDI hardware with MIDI Expander:

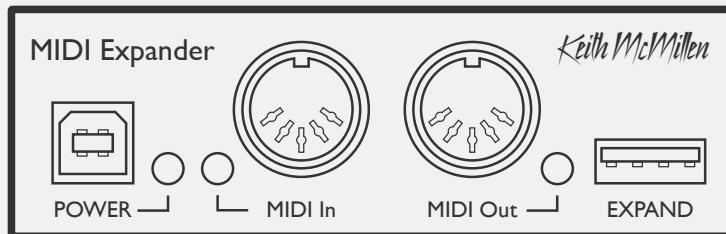
To connect QuNeo to a hardware MIDI device via our MIDI Expander (sold separately):

1. Use a USB A-to-Mini cable to connect the QuNeo to the USB "Expand" port on the MIDI Expander.
2. Connect the MIDI Out on the Expander to the MIDI In on a synth or other MIDI device.
3. Connect the power supply to the MIDI Expander USB "Power" port.

For more information about Using the QuNeo with the MIDI Expander, please refer to this next section:

1.2 KMI MIDI EXPANDER

The KMI MIDI Expander is an optional accessory which enables use of QuNeo with hardware MIDI devices. Plug MIDI devices into the MIDI Out port and QuNeo will send MIDI data through a regular 5 pin MIDI cable.



Connecting QuNeo to MIDI hardware with MIDI Expander:

To use QuNeo with the KMI MIDI Expander follow these steps:

1. Connect a QuNeo to the KMI MIDI Expander (see Connecting QuNeo for instructions).
2. Put QuNeo into MIDI Expander mode by simultaneously holding down the "Mode" button and the bottom right Down Arrow (as shown in the image below). The QuNeo LEDs will swipe left to right,

indicating that you have successfully put QuNeo into MIDI Expander mode.

3. Plug MIDI devices into the MIDI Expander. The QuNeo will now send MIDI messages through the MIDI Expander.

Note: It is necessary to put QuNeo into MIDI Expander mode every time it is connected to a MIDI Expander.

1.3 UNDERSTANDING THE QU NEO

There are many useful types of sensors that can be found on the QuNeo. Each QuNeo button can send out multiple sources at once for several different MIDI messages at the same time.

QuNeo Button Types

Pads - Pads work differently depending on whether they are in Drum Mode or Grid Mode. They can also be set up to have banks.

- *In Drum Mode*, Pad sources include Note, Pressure, X-Axis, and Y-Axis.
- *In Grid Mode*, Note and Pressure sources are available in the corner of each pad (if enabled within the given preset). X-axis, Y-axis and Location are not available in Grid Mode.

Horizontal and Vertical Sliders - Horizontal and Vertical Sliders use Note, Pressure, and Location sources. They can also be set up to have banks.

Long Slider - The Long Slider uses Note, Pressure, Location, and Width sources. The Long Slider can also be set up to have banks.

Rotaries - Rotaries use Note, Pressure, Location, and Direction. Location and Direction may not be enabled simultaneously. The Rotaries can also be set up to have banks. See the Banks chapter for more information.

Transport Buttons - There are 3 buttons intended for transport control: the diamond button for record, the square button for stop, and the triangle for play. Transport Buttons use Note and Pressure.

Left/Right and Up/Down Buttons - While bank switching is disabled, Left/Right and Up/Down Buttons use Note and Pressure sources. The Left/Right and Up/Down arrow buttons can be used either as bank switches, or as programmable MIDI buttons.

Rhombus Button - While bank switching is disabled, the Rhombus button uses Note and Pressure. The Rhombus button can be used either as a bank switch, or a programmable MIDI button.

SOURCE DEFINITIONS

Note - Tapping on the sensor causes 1 note to output along with a velocity value relative to how hard it is hit. Velocity sensitivity can be turned off if unwanted.

Pressure - Pressing on the sensor will cause the pressure CC# value to output from low to high (soft to hard).

X-Axis (Pads only) - Moving a finger from side to side across the surface of a pad will cause the X-Axis CC# value to output from low to high (left to right).

Y-Axis (Pads only) - Moving a finger up and down across the surface of a pad will cause the Y-Axis CC# value to output going from low to high (bottom to top).

Tip: It is possible to set the X and Y Axis to either latch where you left it or return to a value. When an X or Y Return value is set the X or Y Axis CC values will always go back to that number when the pad is released. The Factory Preset Guides provide details about which presets have x or y set to latch and which use a return value.

Location (Pads only) - Pressing down and moving a finger along a slider or rotary will cause the location CC# value to output going from low to high (left to right or bottom to top).

Tip: The Location source on the Rotaries use a variation of Pass Thru Mode. "Pass Thru Mode" is normally when MIDI will not be sent until you pass through the value the rotary was left at. Our Pass Thru Width parameter sets a range of pass through values. Example: If Pass Thru Width is set to 10 and the slider was left at 40, you would have to press somewhere between 30 and 50 to output location data. If it set to 127, you can hit anywhere on the slider or rotary. The Factory Preset Guides detail what the Pass Thru Width is for each preset.

Width (Long Slider Only) - Pressing with two fingers on the Long Slider sends a width CC# value that represents the distance between the two fingers. The wider the gap between fingers, the higher the value. When the second finger leaves the slider, the width will not change again until the second finger returns to the slider.

Direction - Moving a finger around a rotary will cause the direction CC# value to output. If finger movement is clockwise, the CC# will repetitively send out a 1. If finger movement is counterclockwise, the CC# will repetitively send out a 127. The faster a finger is moved, the faster the repeated value will output.

BANKS

Banks can be used for the Pad Notes, Sliders, and Rotaries. If banks are enabled for the Sliders or Rotaries, a different note, pressure CC#, or location CC# can be assigned for each bank so that each slider or rotary can control 4 different things. These banks can be selected using the Left/Right Buttons, the Up/Down Buttons, or the Rhombus Button.

Pads can be set to different notes per bank. This is accomplished by setting transposition intervals for the notes in each bank. The Pad banks will not affect the CCs of the other sources (X, Y, Pressure, etc.). The note banks can be selected using either the Up/Down Buttons or the Rhombus Button.



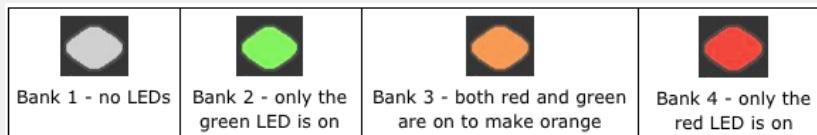
Left/Right arrow buttons control their neighboring Horizontal Slider banks. The images below show how the Left/Right Button LEDs indicate which bank the Horizontal Sliders are in:

When the Vertical Slider banks are used, the banks are controlled using the nearest Up/Down Button pair. The Long Slider banks are controlled using the Up/Down Button pair on the right side of the Long Slider. The images below show how the Up/Down Button LEDs indicate which bank is active:



In our presets, when the Rotary banks are used, the banks are controlled using the Rhombus Button. The images below show how the Rhombus Button LEDs indicate which bank is active:

Using the QuNeo Editor, the bank controls for the Pad notes, Vertical Sliders, the Long Slider, and the Rotaries can be chosen. Both Up/Down Button Pairs and the Rhombus Button can be assigned to one of



these sensors if editing presets in the Editor. See the QuNeo Editor chapter for more information about editing presets.

1.4 THE MODE BUTTON

The Mode button is a small circular button in the upper left corner of the QuNeo. Use the Mode button to select presets and enter CoMA mode (the Controller Mapping Assistant).

SELECTING PRESETS

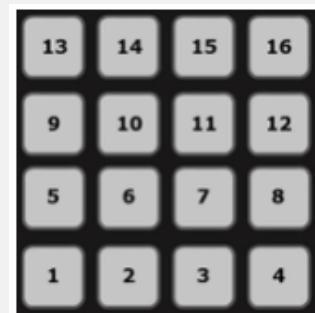
When QuNeo is plugged in it will automatically load the last preset used.

The QuNeo pads are numbered 1-16, starting with the bottom left-most pad.

Follow these steps to select a preset:

1. Tap the Mode button to enter Preset Selection mode. The Mode button will flash blue and the pad for the current preset will be illuminated red.
2. Press a pad to load the corresponding preset. The selected pad will briefly blink green and QuNeo will exit Preset mode.

Tapping the Mode button again without selecting a preset will exit Preset Selection mode.



ENTERING CoMA MODE

Putting your QuNeo in "CoMA Mode" is helpful when you want to map QuNeo control sources to software with auto MIDI mapping.

To enter CoMA Mode, hold down on the Mode Button for 1 second until all the LEDs flash.

1.5 CoMA MODE (CONTROLLER MAPPING ASSISTANT)

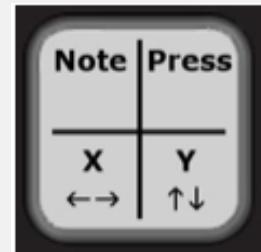
Many DAWs and performance software tools, like Ableton Live and Apple Logic, have MIDI Mapping modes assist in mapping MIDI Notes and CCs to software destinations. Since the QuNeo can have multiple data sources for one control, it is helpful to use the Controller Mapping Assistant (CoMA). CoMA mode allows for quick mapping of a pad's multiple data sources by sending them one at a time, so as not to overload and confuse the software MIDI map function.

MAPPING PADS IN CoMA MODE

Mapping pads is different depending on if the pad in Drum Mode or Grid Mode.

In Drum Mode, each corner outputs a different data source. Pressing the NW (North-West) corner outputs the Note, the NE corner outputs the Pressure CC#, the SW corner outputs the X-Axis CC#, and the SE corner outputs the Y-Axis CC#

In Grid Mode, each corner outputs a Note and Pressure CC#. Quickly tap the corner to output the Note message. Press and hold for 1 second to output the Pressure CC#.



MAPPING SLIDERS IN CoMA MODE

To output the Note, quickly tap the slider.

To output the Pressure CC#, press and hold the slider for 1 second.

To output the Location CC#, press and drag a finger along the slider.

To output the Width CC# for the Long Slider, press and hold the slider down with 2 fingers.

MAPPING ROTARIES IN CoMA MODE

To output the Note, press the rotary in the upper left sector (8:00-12:00).

To output the Pressure CC#, press the rotary in the upper right sector (12:00-4:00).

To output the Location or Direction CC#, press the rotary in the bottom sector (4:00-8:00).

MAPPING BUTTONS IN CoMA MODE

To output the Note, quickly tap the button.

To output the Pressure CC#, press and hold the button for 1 second.

If buttons are assigned to bank switching they will not output their own data in CoMA mode, but instead control the banks for the Sliders or Rotaries they are assigned to. Use the bank buttons to shift through banks, and then map the MIDI data for each of the Slider or Rotary banks.

1.6 LED BEHAVIOR

QuNeo's LEDs provide a great way to visualize interactions with the QuNeo. Local or Remote control is available. Local LED Control means the action on sensors will determine the LED behavior, while remote LED Control means note or CC data sent to the QuNeo will determine LED behavior. Local and Remote control can be used simultaneously.

LOCAL LED CONTROL

Without sending LED messages to the QuNeo from another application or device, the QuNeo's LEDs will automatically respond to touch. Local LED Control is the QuNeo's built-in LED behavior and will override any currently incoming Remote messages. Local LED control can be disabled in the editor.

REMOTE LED CONTROL

QuNeo can be sent MIDI messages to control LED behavior. When the QuNeo receives the proper MIDI data for a pad, slider, button or rotary, the LEDs will respond accordingly. If you press a sensor, Local

LED control will temporarily override the Remote LED Control for as long as the sensor is engaged.

The Sensors respond to incoming MIDI data in the following ways:

Pad LEDs

- *In Drum Mode*, pads will respond to MIDI notes sent on Channel 1* to engage the red and green LEDs. A note sent with velocity greater than 0 will turn the LED on, and the velocity of the note will determine the brightness. Refer to the MIDI Input diagram to look up which MIDI Notes correspond to which pads.
- *In Grid Mode*, each corner of every pad can light up individually. The LEDs behave in 2 different ways, depending on which MIDI Channel the note message is sent on.
 - Using MIDI Channel 2*, the corner of each pad receives a MIDI note for the green LED and another MIDI note for the red LED. The velocity of the note determines the brightness.
 - Using MIDI Channel 3*, the corner of each pad receives one MIDI message to engage the LEDs. The velocity of the note crossfades the LEDs from green to red.

*Note: These are the Default Channels for remotely controlling the LEDs, the channels can be changed in the Editor.

Horizontal and Vertical Slider LEDs - Each slider can receive a CC# value on Channel 1 for LED location. The slider will fill in from the left (for Horizontal) or bottom (for Vertical). This works great for VU metering! Refer to the MIDI Input diagram to look up which CC# corresponds to which slider.

Long Slider LEDs - LEDs will light up at a point determined by the value sent to CC# 5 on Channel 1.

Rotary LEDs - Each rotary can receive a CC# value on Channel 1 for LED location. The rotary LED will light up in a clockwise motion starting at the bottom. Refer to the MIDI Input diagram to look up which CC# corresponds to which rotary.

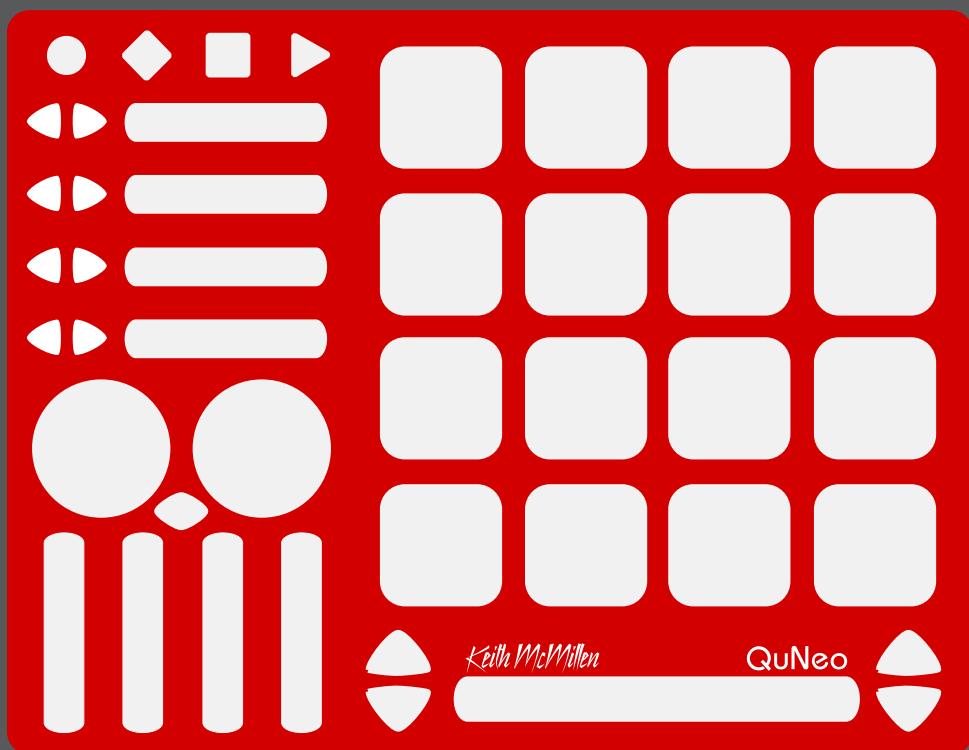
Transport Button LEDs - Each Transport button can receive a MIDI note on Channel 1 to control its LED. A note sent with velocity greater than 0 will turn the LED on, and the velocity of the note will determine the brightness. Refer to the MIDI Input diagram to look up which MIDI Note corresponds to which button.

Up/Down and Left/Right Button LEDs - When Bank Switching is off, each arrow button will respond to a MIDI note message. A note sent with velocity greater than 0 will turn the LED on, and the velocity of the note will determine the brightness. Refer to the MIDI Input diagram to look up which MIDI Note corresponds to which button.

Rhombus Button LEDs - When Bank Switching is off, the Rhombus button will respond to MIDI Note A1 to engage the green LED and MIDI Note G#1 to engage the red LED. A note sent with velocity greater than 0 will turn the LED on, and the velocity of the note will determine the brightness.

NOTE: When Bank Switching is enabled, the Up/Down, Left/Right, and Rhombus button LEDs will NOT respond to remote messages.

QuNeo Editor



CHAPTER 2 - QU NEO EDITOR SOFTWARE

The QuNeo Editor software allows you to create customized Presets and load them onto QuNeo. This chapter will guide you through everything you need to know to install and operate the QuNeo Editor software.

2.1 SYSTEM REQUIREMENTS

We recommend the following minimum system requirements for the QuNeo Editor:

MAC:

- An Intel Core 2 Duo 2.3GHz or greater
- Mac OS 10.5 or later
- 100 MB free hard disk space

WINDOWS:

- Windows XP, or Windows 7
- Intel Core 2 processor or greater
- 1GB of RAM with 100 MB free hard disk space

2.2 INSTALLING THE SOFTWARE

Download the QuNeo Editor Installer here: <http://www.keithmcmullen.com/QuNeo/downloads/>

NOTE: The download package includes both the Editor software and documentation.

Installer Instructions (Mac)

1. Double-click on the .dmg file to open the disk image.
2. Drag the QuNeo directory into the Applications Alias.
3. The QuNeo program folder will now appear in Applications.

Installer Instructions (Windows)

1. Extract the directory from the .zip file
2. Place the unzipped folder at a location of your choosing.
3. Do not move anything out of the directory. In order for the application to run it must be able to access everything in the directory.

2.3 UPDATING THE FIRMWARE

When the QuNeo 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 ok and wait until the blue Mode button light stops flashing and the "Update Complete" dialog appears before continuing. The blue light and progress bar on screen indicate that the firmware update is in progress.

An "Update Firmware" option is located in the file menu of the QuNeo Editor. Select this option and the

prompt to the right will appear. Click ok to update firmware.

2.4 MAIN WINDOW OVERVIEW

The QuNeo Editor opens with this window:

In the bottom left side of the window is an indicator to show that QuNeo is connected to the Editor. If the Editor has found the QuNeo, the device indicator will automatically change to "QuNeo 1" (after the application fully loads) to show that a connection between the Editor and QuNeo has been made.

Selecting a sensor on the QuNeo image will open an edit pane in the box to the right. In the edit pane, one can adjust the settings and MIDI data for the selected sensor.

Controls for saving and recalling presets are found in the bottom right side of the window.

2.5 PRESET MANAGEMENT

Select presets from the menu, name them in the text box, and save or revert them with the "Save Preset" and "Revert" buttons. Press the "Update Preset" button to send the current preset to the QuNeo or press the "Update All" button to send all of the presets to the QuNeo.

If edits are made to the selected preset, the Save Preset button will begin to blink red as a reminder to save. Click the save button to save the selected preset, and it will cease to blink red. Modified/unsaved presets will appear in the preset list with an asterisk until they are saved.

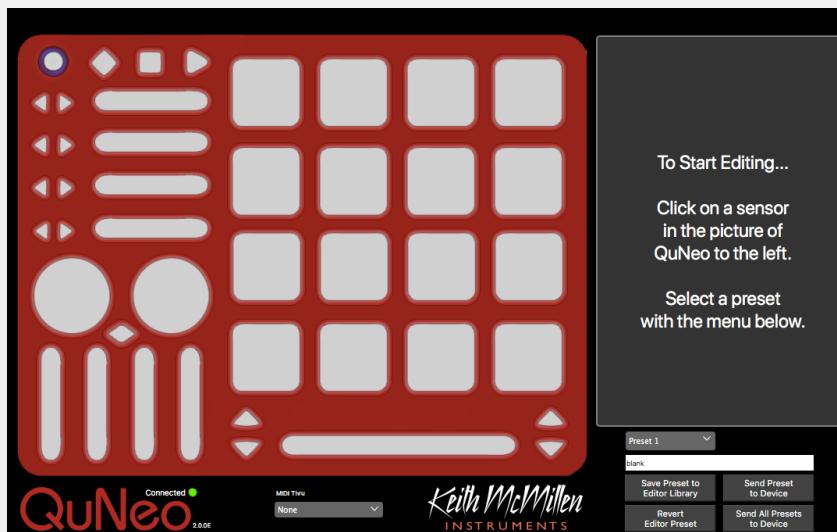
Click the Revert button to go back to the previously saved state of the current preset.

2.6 MENU BAR

The QuNeo Editor Menu Bar contains several useful features.

FILE MENU

The File menu is helpful for managing presets.



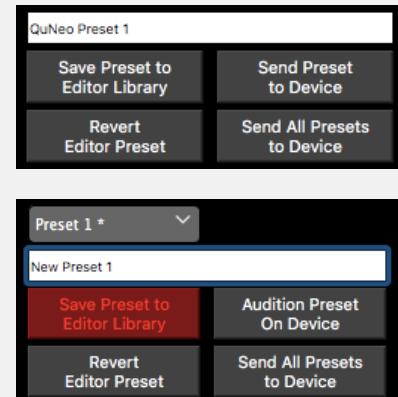
- “**Save Preset**” will save the current preset
- “**Save All Presets**” will save all presets
- “**Import Preset**” opens previously exported presets into the currently selected preset slot
- “**Export Preset**” will save a file containing the currently selected preset for safe keeping or sharing
- “**Export All Presets**” will save 16 files, 1 for each preset

Tip: Importing and Exporting makes preset sharing easy!

EDIT MENU

The Edit menu contains several copy/paste functions.

- “**Copy Current Preset**” will put the current preset onto the application’s clipboard.
- “**Paste to Current Preset**” will paste a copied preset into a different preset. It will be necessary to save the freshly pasted preset.
- “**Copy Sensor**” copies parameters from the currently selected sensor’s Edit pane to the clipboard. Selecting another sensor of the same type enables the “Paste Sensor” option.
- “**Clear Current Preset**” will blank out the current preset. All sources will be off and everything else will be set to their default values, allowing the user to start from scratch.
- “**Revert Current Preset to Factory**” reloads the original preset into the current preset slot. “**Revert All Presets to Factory**” reloads all of the original presets.
- “**Edit Next Sensor**” and “**Edit Prev Sensor**” allows the use of key commands to move to the next edit pane.



DRUM STYLES MENU

The Drum Styles menu contains options that auto-adjust the Pad sensitivities and advanced parameters to create different “feels” when playing the pads.

HARDWARE MENU

The Hardware menu contains a couple options that will affect the QuNeo hardware. The “**Update Firmware...**” option will open up a firmware update prompt. Click ok and the firmware will update. (See the “Updating the Firmware” chapter of this manual for more information).

The “**Swap Pad LEDs**” option swaps the red and green LED behavior on the QuNeo pads.

2.7 QuNeo MIDI THRU

This dropdown lets you route the incoming QuNexus MIDI messages to another MIDI device connected to your computer. This makes it easy to audition changes to the QuNexus settings without having to load a DAW

or other MIDI routing software.

For Windows users, this allows you to route QuNexus MIDI to a DAW or soft synth using a virtual MIDI port, bypassing the Windows limitation where multiple applications cannot share class compliant MIDI USB devices.

2.8 PROGRAMMING THE QU NEO



Selecting a sensor on the QuNeo image will open an edit panel in the box to the right. Each edit panel has three different tabs with options to customize your QuNeo surface: "BASIC", "ADVANCED" and "LEDS".

When editing a parameter in the edit pane, the parameter will be displayed on the QuNeo image. The corresponding parameters of the other sensors are also displayed on the QuNeo image.

To edit multiple sensors simultaneously, hold shift and select the sensors you wish to edit. You can only do this with sensors of the same type. For Example: If a Pad is selected you can shift-click another pad to edit them together (you cannot shift-click to edit a Pad with a Horizontal Slider or Rotary).

EDITING PADS

PADS - BASIC TAB

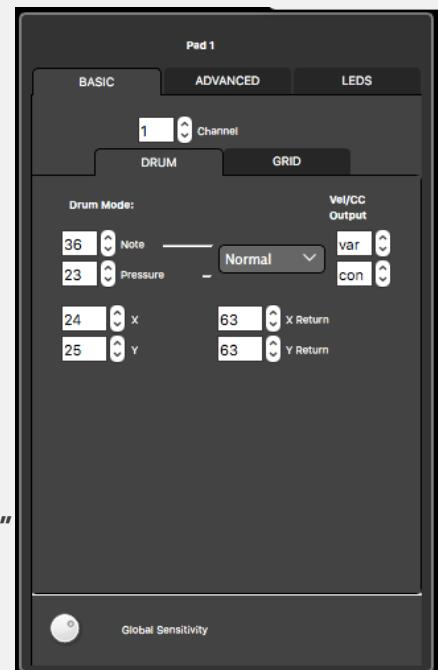
At the top of the Basic Tab is a number box for selecting a MIDI Channel for the pad.

There is a tab for Drum Mode and another for Grid Mode. Check the box in the Grid Mode tab to engage Grid Mode for the selected pad(s).

In Drum Mode, the editable Pad parameters include Note, Pressure CC#, X-Axis position CC#, Y-Axis position CC#, and X- and Y- Return values.

In Grid Mode, the editable pad sources include a Note and Pressure CC# for each corner, for up to 4 notes or pressure sources per pad.

Each sensor has a corresponding drop down menu to select "**Normal**" or "**Toggle**" behavior. "Normal" sensors will engage while pushed (momentary). Sensors set to "Toggle" will alternate on and off with each push.



To the right of the toggle menu are number boxes for **setting Velocity and Pressure values**. By default these boxes are set to "var" for "Variable Velocity" and "con" for "Continuous Pressure". In default mode the sensor will send out a Velocity value related to how hard the pad was struck, and a continuous CC# value corresponding to the pressure exerted on the sensor. Setting a numerical value in the number box will override the default behavior and output just that value.

The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type. For example, if you adjust the global sensitivity of one Pad you are adjusting the sensitivity of all Pads, however it will not affect the sensitivity of the sliders.

PADS - ADVANCED TAB

There are 4 banks available for the Notes of each Pad. The **Bank Transpose Offset** number boxes set a value to transpose each of the 4 banks.

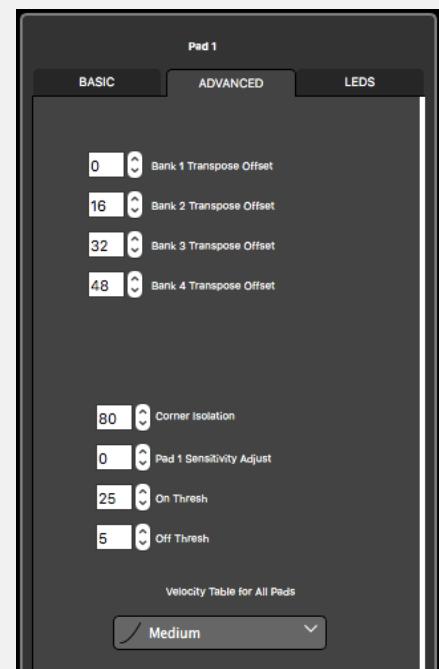
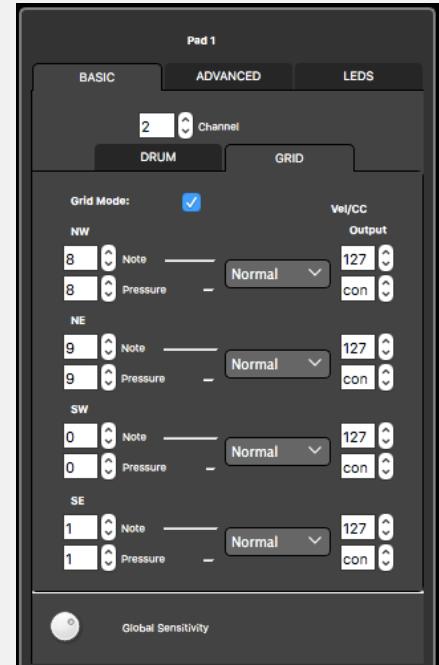
Note: Changing Pad Banks will not affect the CCs of the other Pad sources (X-axis, Y-axis, Pressure, etc.)

The **Corner Isolation** parameter adjusts how sensitive the other corners of a Pad are when one of the corners is in use. The Corner Isolation value is global for all Pads, and applies only when the Pad is in Grid Mode. This is useful in preventing accidental triggers. The higher the corner isolation value, the greater the isolation is between corners.

The **Pad Sensitivity Adjust** parameter overrides the Global Sensitivity Adjustment of the selected Pad for greater control of individual Pads. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges.

The **On Thresh** sets the pressure value at which a Note On message is sent. Example: If set to 10, the Pad pressure has to reach a value of 10 before a note on is sent. This is global for all Pads.

The **Off Thresh** sets the pressure value at which a Note Off message is sent. Example: If set to 5, the Pad pressure would have to be 5 or lower for a Note Off to register. This cannot be set higher than the On Threshold. This is global for all Pads.



The **Velocity Table** drop down menu lets you select a lookup table to shape the Velocity output of the Pads. There are 6 different velocity tables, and they are applied globally. They are:

- Dynamic - This table is good for getting varied velocity values with very little change in pressure.
- Full - This table outputs a value of 127 for any degree of pressure.
- Hard - This table expands the lower range and makes it more difficult to hit the higher velocity values.
- Medium - This table gives the most precision in the 0-100 velocity range. As long as the sensitivities aren't set low, hitting the Pads at Medium strength will give you access to the higher velocity values.
- Light - This table emphasizes the mid range. Light taps reliably give a range of 50-100 but it is still necessary to hit harder to get to 127.
- None - This table is linear and has no effect on the velocity output.

PADS - LEDs TAB

The Pad Edit Pane LED tab is where you set the MIDI Channel for each of the Pad's three Remote LED behaviors. For more information see Section 2.6.2 Remote LED Control.

Uncheck the box marked "**Local LED Control**" to disable Local LED behavior.



EDITING SLIDERS

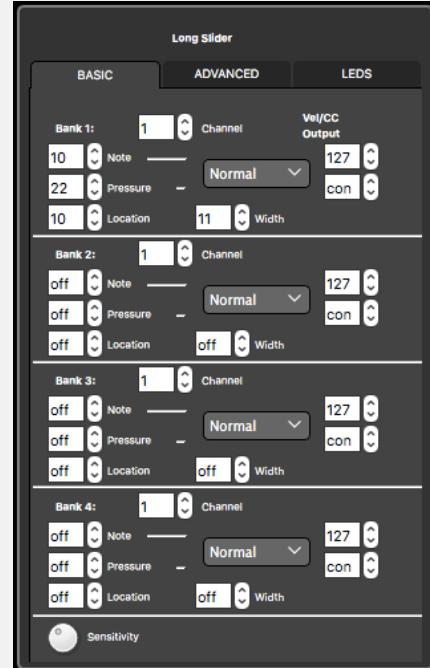
SLIDERS - BASIC TAB

At the top of the Basic Tab is a number box for selecting a MIDI Channel for the slider.

Each Slider has four Banks, and you can set values for the **Note**, **Pressure CC#** and **Location CC#** parameters of each Bank. To disable a source, set the number box below 0 to "off" (-1).

Each sensor has a corresponding drop down menu to select "**Normal**" or "**Toggle**" behavior. "Normal" sensors will engage while pushed (momentary). Sensors set to "Toggle" will alternate on and off with each push.

To the right of the toggle menu are number boxes for **setting Velocity and Pressure values**. By default these boxes are set to "var" for "Variable Velocity" and "con" for "Continuous Pressure". In default mode the sensor will send out a Velocity value related to how hard the sensor was struck, and a continuous CC# value corresponding to the pressure exerted on the sensor. Setting a



numerical value in the number box will override the default behavior and output just that value.

The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type. For example, if you adjust the global sensitivity of one Pad you are adjusting the sensitivity of all Pads, however it will not affect the sensitivity of the sliders.

The Long Slider Basic Edit tab also has a number box to set the CC# for **Width** (a value representing the distance between two fingers held down on the Long Slider.)

SLIDERS - ADVANCED TAB

The **On Thresh** sets the pressure value at which a Note On message is sent. Example: If set to 10, the Slider pressure has to reach a value of 10 before a note on is sent. This is global for all Sliders.

The **Off Thresh** sets the pressure value at which a Note Off message is sent. Example: If set to 5, the Slider pressure would have to be 5 or lower for a Note Off to register. This cannot be set higher than the On Threshold. This is global for all Sliders.



SLIDERS - LEDs TAB

The LEDs tab is where you set which MIDI Channel the Slider LEDs will listen to for Remote LED Control. This parameter is global per sensor type, so if editing the LED channel in a Horizontal Slider edit pane, all of the Horizontal Sliders will change to the same channel. For more information see Section 2.6.2 Remote LED Control. Uncheck the box marked **"Local LED Control"** to disable Local LED behavior.



EDITING ROTARIES

ROTARIES - BASIC TAB

Each Rotary sensor has four Banks, and you can set values for the Note, Pressure CC#, Location CC# or Direction CC#, and MIDI Channel parameters of each Bank. To disable a source, set the number box below 0 to "off" (-1).

The **Direction CC#** sends a repeated value as you rotate your finger on the sensor. Rotating your finger clockwise will repeatedly send out a value of 1. Rotating your finger counterclockwise will repeatedly send out a value of 127. The faster you rotate on the sensor the faster the repeated value will output.

Direction and Location cannot be used at the same time. Use the checkbox next to Direction to enable one or the other.

Each sensor has a corresponding drop down menu to select **"Normal"** or **"Toggle"** behavior. "Normal" sensors will engage while pushed (momentary). Sensors set to "Toggle" will alternate on and off with each push.

To the right of the toggle menu are number boxes for setting Velocity and Pressure values. By default these boxes are set to "var" for **"Variable Velocity"** and "con" for **"Continuous Pressure"**. In default mode, the sensor will send out a Velocity value related to how hard the sensor was struck, and a continuous CC# value corresponding to the pressure exerted on the sensor. Setting a numerical value in the number box will override the default behavior and output just that value.

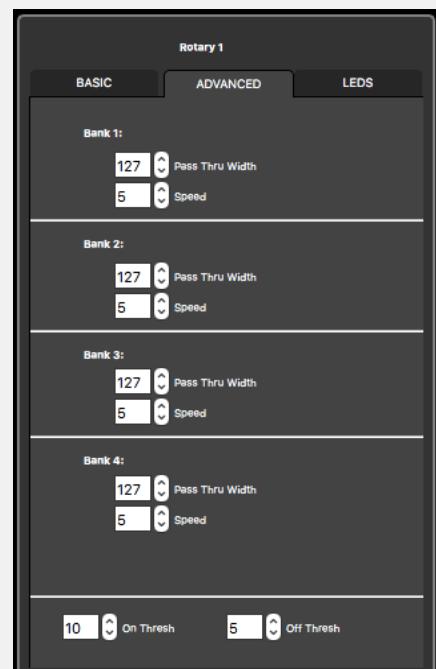
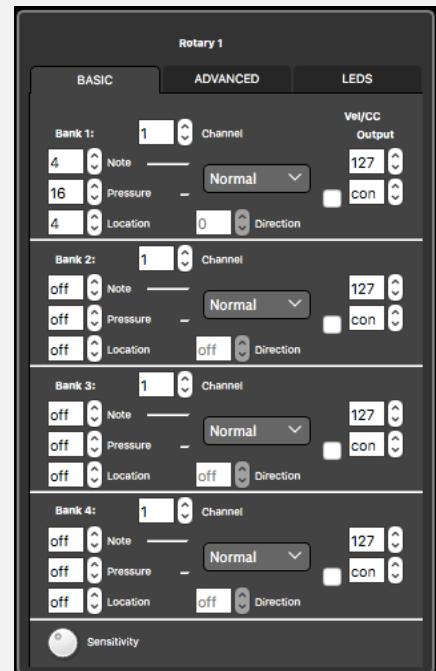
The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type. For example, if you adjust the global sensitivity of one Pad you are adjusting the sensitivity of all Pads, however it will not affect the sensitivity of the sliders.

ROTARIES - ADVANCED TAB

Each rotary has four banks, and the Pass Thru Width and Speed can be adjusted for each bank.

The **Pass Thru Width** parameter works in conjunction with the Location CC (editable in the Basic tab). Pass Thru Width increases the size of the area around the location where the sensor will pass through to reengage. Example: If Pass Thru Width is set to 10 and the rotary was left at 40, it would be necessary to press somewhere between 30 and 50 to pick back up and output location data. If set to 127, the whole range of the rotary will respond.

The **Speed** parameter works in conjunction with the Direction CC



(editable in the Basic tab). The Speed value sets the number of repeated values output per degree of the rotary. A higher speed will output more repeat values per rotation.

The **On Thresh** sets the pressure value at which a Note On message is sent. Example: If set to 10, the Rotary pressure has to reach a value of 10 before a Note On is sent. This is global for all Rotaries.

The **Off Thresh** sets the pressure value at which a Note Off message is sent. Example: If set to 5, the Slider pressure would have to be 5 or lower for a Note Off to register. This cannot be set higher than the On Threshold. This is global for all Rotaries.

ROTARIES - LEDs TAB

The LEDs tab is where you set which MIDI Channel the Rotary LEDs will listen to for Remote LED Control. This parameter is global for all Rotaries. For more information see Section 2.6.2 Remote LED Control.

Uncheck the box marked “**Local LED Control**” to disable Local LED behavior.



EDITING TRANSPORT BUTTONS

The Transport buttons are the 3 buttons at the top of the QuNeo next to the Mode button. The diamond button with the red LED is the record button, the square button with the yellow LED is the stop button, and the triangular button with the green LED is the play button.

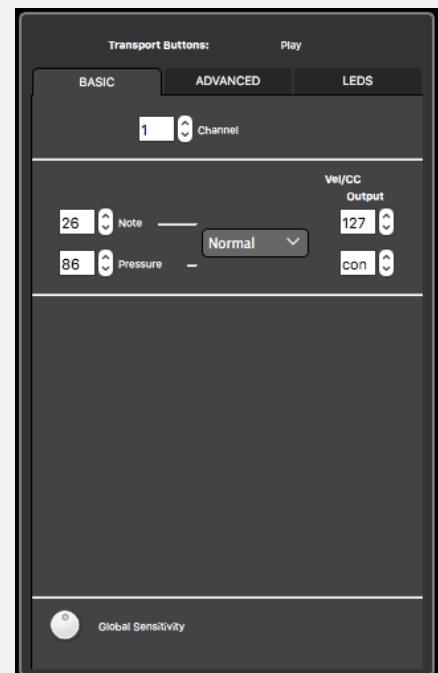
TRANSPORT BUTTONS - BASIC TAB

At the top of the Basic Tab is a number box for selecting a MIDI Channel for the transport buttons.

The editable sources include a Note and Pressure CC# for each transport button.

Each sensor has a corresponding drop down menu to select “**Normal**” or “**Toggle**” behavior. “Normal” sensors will engage while pushed (momentary). Sensors set to “Toggle” will alternate on and off with each push.

To the right of the toggle menu are number boxes for **setting Velocity and Pressure values**. By default these boxes are set to “var” for “Variable Velocity” and “con” for “Continuous Pressure”. In default mode the sensor will send out a Velocity value related to how hard the sensor was struck, and a continuous CC# value corresponding to the pressure exerted on the sensor. Setting a numerical value in the number box will override the default behavior and output just that value.



The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type.

TRANSPORT BUTTONS - LEDs TAB

The LEDs tab is where you set which MIDI Channel the transport button LEDs will listen to for Remote LED Control. This parameter is global for all transport buttons. For more information see Section 2.6.2 Remote LED Control.

Uncheck the box marked “**Local LED Control**” to disable Local LED behavior.



EDITING LEFT/RIGHT BUTTONS

The Left/Right buttons are positioned to the left of each Horizontal slider.

LEFT/RIGHT BUTTONS - BASIC TAB

If the “**Enable Bank Switching**” box is checked, these button pairs act as bank controls for each Horizontal Slider. The banks will be indicated by the LEDs of the 2 buttons.

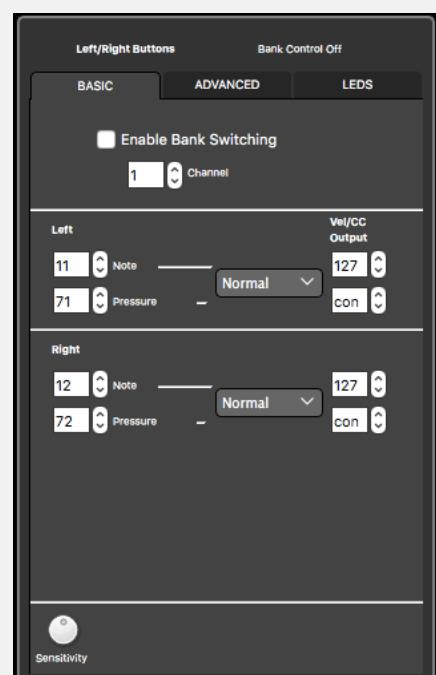
For information about how the LEDs indicate the banks, see the Banks chapter of this manual.

If Bank Switching is disabled, each button can output an assigned Note or Pressure CC#. To disable a source, set the number box below 0 to “off” (-1).

Set the MIDI Channel with the “**Channel**” number box.

Each sensor has a corresponding drop down menu to select “**Normal**” or “**Toggle**” behavior. “Normal” sensors will engage while pushed (momentary). Sensors set to “Toggle” will alternate on and off with each push.

To the right of the toggle menu are number boxes for **setting Velocity and Pressure values**. By default these boxes are set to “var” for “Variable Velocity” and “con” for “Continuous Pressure”. In default mode, the sensor will send out a Velocity value related to how hard the sensor was struck, and a continuous CC# value corresponding to the pressure exerted on the sensor. Setting a numerical value in the number box will override the default behavior and output just that value.

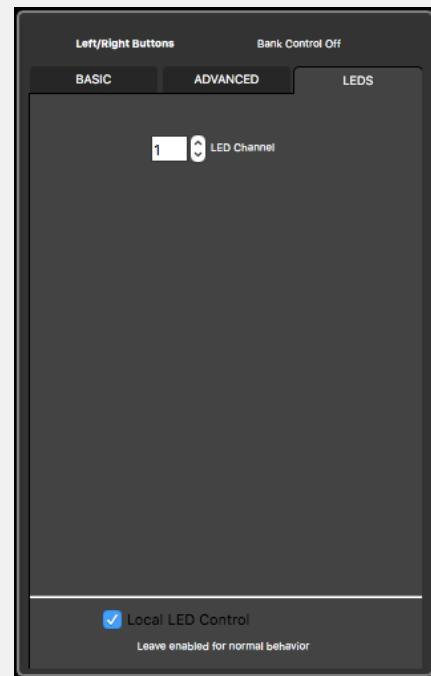


The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type. For example, if you adjust the global sensitivity of one Pad you are adjusting the sensitivity of all Pads, however it will not affect the sensitivity of the sliders.

LEFT/RIGHT BUTTONS - LEDs TAB

The LEDs tab is where you set which MIDI Channel the Up/Down button LEDs will listen to for Remote LED Control. This parameter is global for all Up/Down buttons. For more information see Section 2.6.2 Remote LED Control.

Uncheck the box marked “**Local LED Control**” to disable Local LED behavior.



EDITING UP/DOWN BUTTONS

The Up/Down buttons are positioned on either side of the Long Slider.

Up/Down Buttons - BASIC TAB

If the “**Enable Bank Switching**” box is checked, these button pairs act as bank controls for the Rotaries, Vertical Sliders, Long Slider, or Pad notes. The banks will be indicated by the LEDs of the 2 buttons.

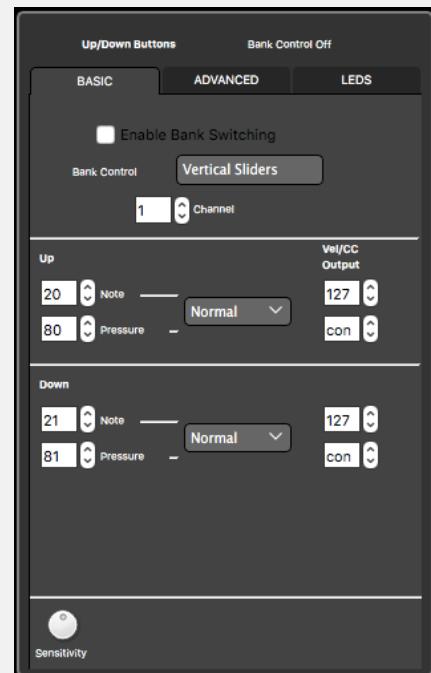
For information about how the LEDs indicate the banks, see the Banks chapter of this manual.

If Bank Switching is disabled, each button can output an assigned Note or Pressure CC#. To disable a source, set the number box below 0 to “off” (-1).

Set the MIDI Channel with the “**Channel**” number box.

Each sensor has a corresponding drop down menu to select “**Normal**” or “**Toggle**” behavior. “Normal” sensors will engage while pushed (momentary). Sensors set to “Toggle” will alternate on and off with each push.

To the right of the toggle menu are number boxes for **setting Velocity and Pressure values**. By default these boxes are set to “var” for “Variable Velocity” and “con” for



"Continuous Pressure". In default mode, the sensor will send out a Velocity value related to how hard the sensor was struck, and a continuous CC# value corresponding to the pressure exerted on the sensor. Setting a numerical value in the number box will override the default behavior and output just that value.

The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type. For example, if you adjust the global sensitivity of one Pad you are adjusting the sensitivity of all Pads, however it will not affect the sensitivity of the sliders.

Up/Down Buttons - LEDs Tab

The LEDs tab is where you set which MIDI Channel the Up/Down button LEDs will listen to for Remote LED Control. This parameter is global for all Up/Down buttons. For more information see Section 2.6.2 Remote LED Control.



Uncheck the box marked "**Local LED Control**" to disable Local LED behavior.

Editing Rhombus Button

The Rhombus button is positioned under the Rotaries and above the Vertical Sliders.

Rhombus Button - BASIC Tab

If the "**Enable Bank Switching**" box is checked, this button acts as a bank control for the Rotaries, Vertical Sliders, Long Slider or Pad notes. The banks will be indicated by the LEDs of the button.

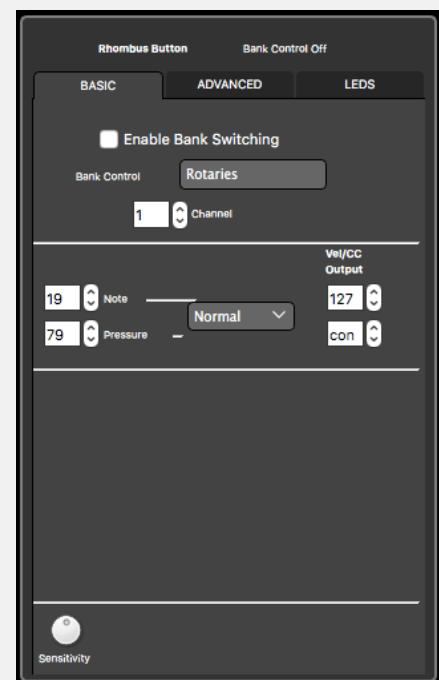
For information about how the LEDs indicate the banks, see the Banks chapter of this manual.

If Bank Switching is disabled, the button can output an assigned **Note or Pressure CC#**. To disable a source, set the number box below 0 to "off" (-1).

Set the MIDI Channel with the "**Channel**" number box.

Each sensor has a corresponding drop down menu to select "**Normal**" or "**Toggle**" behavior. "Normal" sensors will engage while pushed (momentary). Sensors set to "Toggle" will alternate on and off with each push.

To the right of the toggle menu are number boxes for **setting Velocity and Pressure values**. By default these boxes are set to "var" for "Variable Velocity" and "con" for "Continuous Pressure". In default mode, the sensor will send out a Velocity value related to how hard the sensor was struck, and a



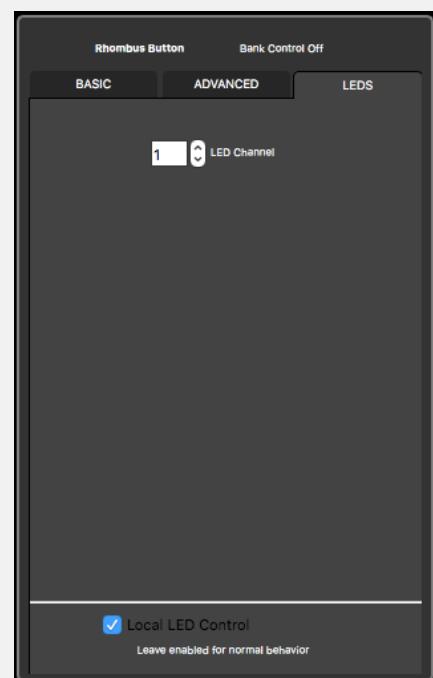
continuous CC# value corresponding to the pressure exerted on the sensor. Setting a numerical value in the number box will override the default behavior and output just that value.

The **Global Sensitivity** dial adjusts the sensitivity of the sensors. The higher the sensitivity, the easier it is to get pressure and velocity in the higher value ranges. The lower the sensitivity, the more difficult (or impossible) it will be to get the pressure and velocity to the higher value ranges. The Sensitivity dial is global for all controls of that sensor type. For example, if you adjust the global sensitivity of one Pad you are adjusting the sensitivity of all Pads, however it will not affect the sensitivity of the sliders.

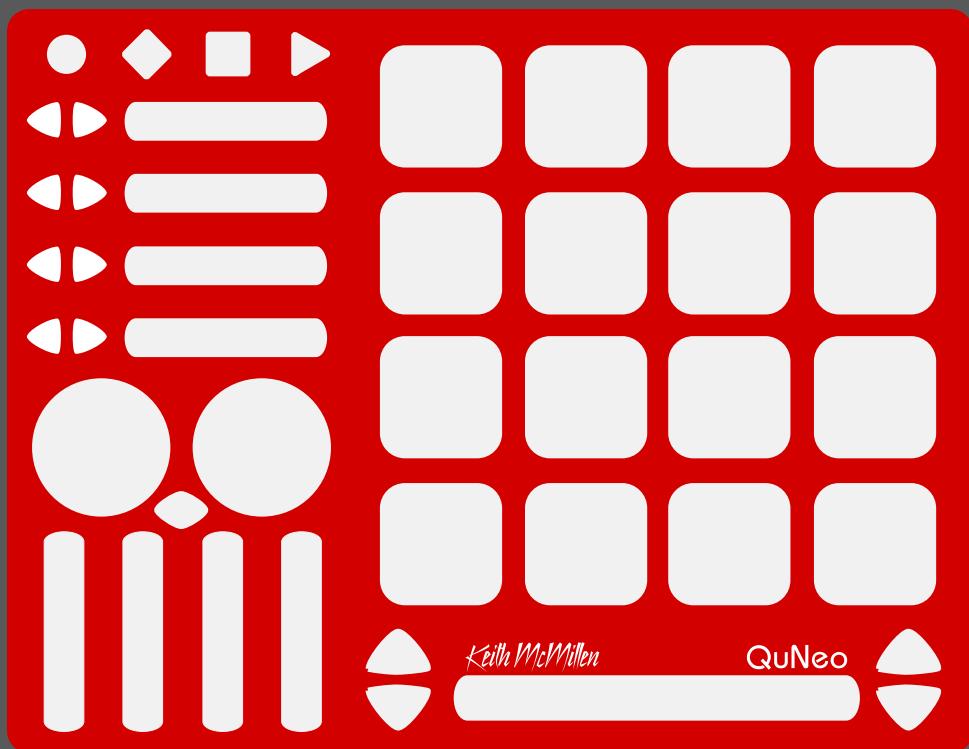
RHOMBUS BUTTON - LEDs TAB

The LEDs tab is where you set which MIDI Channel the rhombus button LEDs will listen to for Remote LED Control. For more information see Section 2.6.2 Remote LED Control.

Uncheck the box marked "**Local LED Control**" to disable Local LED behavior.



Appendices



APPENDIX A: QU NEO 2.0 FACTORY PRESETS:

Notes about the Preset Guide images:

If a data source is not accounted for in the preset guide image, this means it is disabled. For Example: If one of the Pads only shows note names and not pressure CC#s, assume that the pressure data is turned off and will not output as MIDI data, even in CoMA mode.

Assume that all notes and pressure sources use Normal mode (as opposed to Toggle mode) unless otherwise indicated in the preset descriptions below.

MIDI Output

Preset 1: (Drum C1-D#2 / Serato)

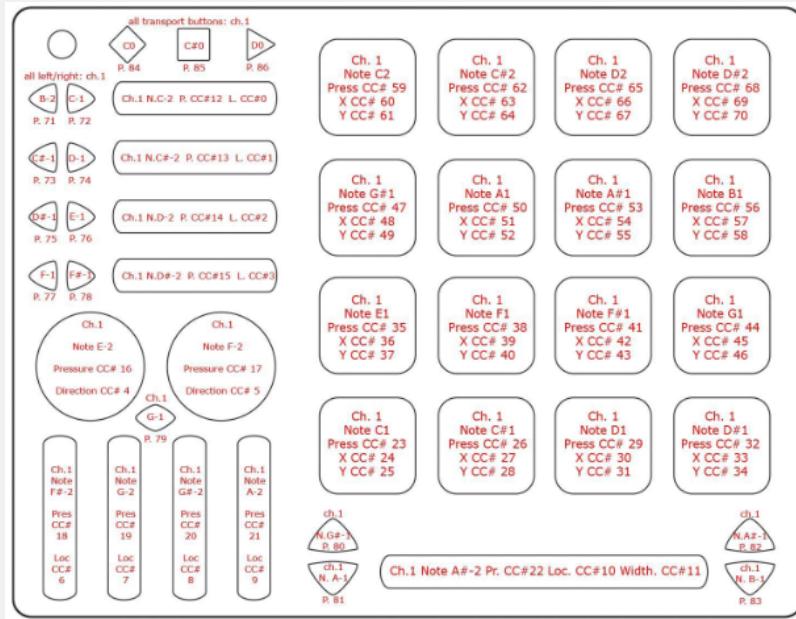
Preset 2: (Drum E2-G3)

Preset 3: (Drum G#3-B4)

Preset 4: (Drum C5-D#6)

Presets 1-4 are the same except the pad notes increment up as the preset # increases. So the pad notes on preset 1 are shown below from C1-D#2, preset 2 are from E2-G3, preset 3 are from G#3-B4, and preset 4 are from C5-D#6.

These presets are in Drum Mode and don't use banks. Rotaries are set to use Direction instead of Location. Pass Thru Widths for the rotaries are set to 127. The Pad X/Y Return values are set to 63. Velocity is variable and pressure is continuous on the Pads; velocity is fixed at 127 for notes on other sensors.



Our Serato Template uses Presets 1-3 and is included in the QuNeo Software Installer.

Scratch Live (Serato) Mappings for Preset 1, 2, & 3:

Global:

1. **LOAD Deck 1** - loads the selected track from the main track library or crate to Deck 1
2. **LOAD Deck 2** - loads the selected track from the main track library or crate to Deck 2
3. **Track Library Browse** - Browse Up and Down a crate or the main Track Library.

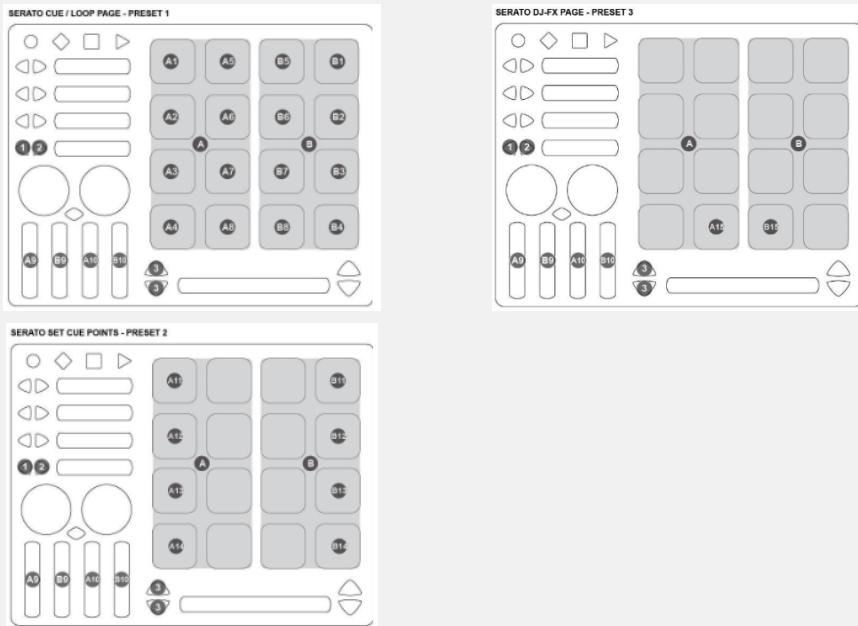
APPENDICES

QuNeo

- A. Left Deck** - Represents Deck 1
- B. Right Deck** - Represents Deck 2

QuNeo Preset 1:

- A1/B1** - Trigger Cue Point 1
- A2/B2** - Trigger Cue Point 2
- A3/B3** - Trigger Cue Point 3
- A4/B4** - Trigger Cue Point 4
- A5/B5** - Play
- A6/B6** - Loop In
- A7/B7** - Loop Out
- A8/B8** - Loop On/Off
- A9/B9** - DJ/FX Select
- A10/B10** - DJ/FX Amount



QuNeo Preset 2:

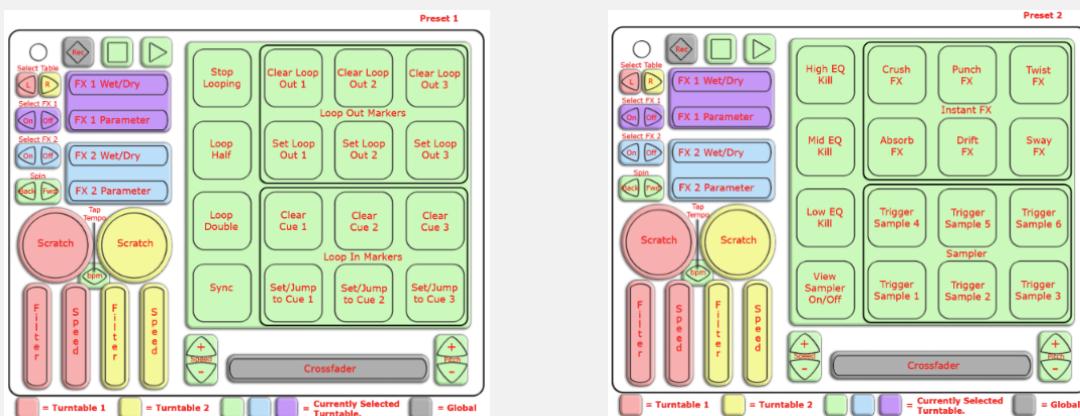
- A11/B11** - Set Cue Point 1
- A12/B12** - Set Cue Point 2
- A13/B13** - Set Cue Point 3
- A14/B14** - Set Cue Point 4

QuNeo Preset 3:

- A15/B15** - DJ/FX On/Off

For more information read Serato's Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

Algoriddm's djay MIDI Mappings for Preset 1 & 2:

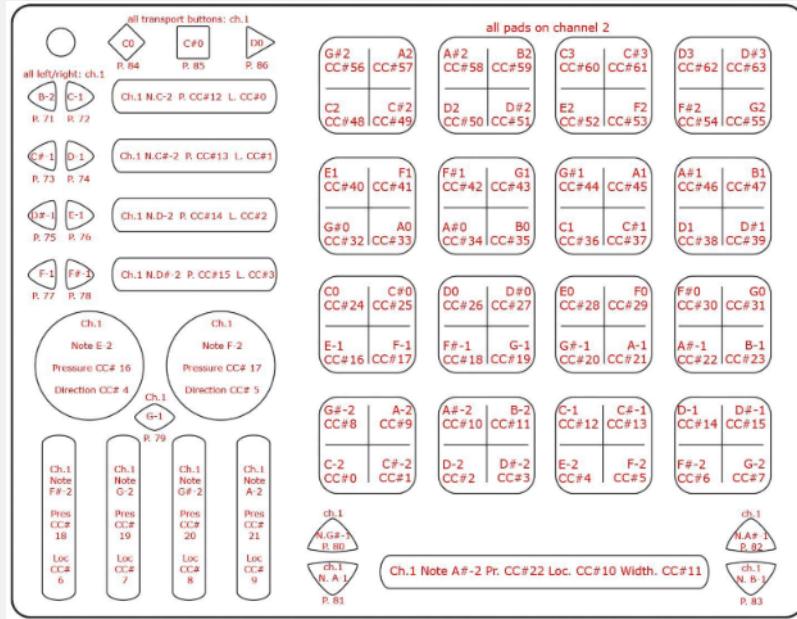


For more information read djay's Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

Preset 5, 6, 7, & 8 (Grid Mode):

Presets 5-8 are the same except the Pad channels increment as the preset # increases.

These presets are in Grid Mode and don't use banks. Rotaries are set to use Direction instead of Location. Pass Thru Widths for the rotaries are set to 127. Velocity response is fixed at 127 for all notes. All Pressure sources send out continuous CC values.

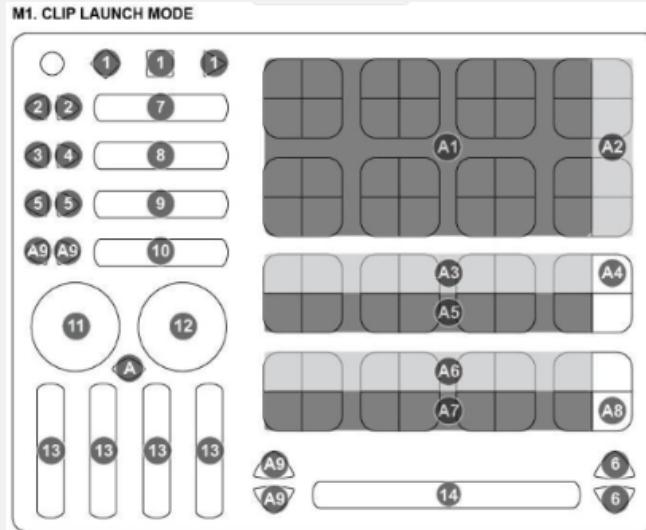


Presets 9 (Ableton Live Clip Launching):

The QuNeo Ableton Live Remote Control Surface contains a variety of Modes. Modes remap the 8x8 Grid and non Global Buttons into various functions for Ableton Live. Modes include Clip Launch, Step Sequencer, and Note Mode. When the Ableton Live Remote Control Surface is loaded it initializes Mode 1 (M1 - Clip Launch Mode). The image and corresponding text below summarizes Clip Launch Mode.

GLOBAL CONTROLS:

1. Transport Controls
2. Tempo
3. Metronome
4. MIDI Overdub
5. Track Navigation
6. Scene Navigation
7. Selected Track Send A
8. Selected Track Send B
9. Selected Track Pan
10. Selected Track Volume
11. Selected Clip Loop
12. Selected Clip Loop End
13. Volume Faders
14. Crossfader



M1. CLIP LAUNCH MODE Controls:

Clip Launch Mode represents an overview of the current Ableton Live Session. Clip Launch Mode enables the QuNeo to launch clips within Ableton's clip slots and control volume parameters assigned to the first 4 volume Sliders within Ableton's highlighted red box. Other controls include: overdub - on/off, metronome - on/off, tempo - up/down, and transport functionality including: play, stop, and record.

A1. CLIP LAUNCH - These Pads launch clips within Ableton's clip slots.

A2. SCENE LAUNCH - Rows in the Session View are called scenes. All clips in a scene can be launched simultaneously by clicking the corresponding SCENE LAUNCH button in the column. These buttons trigger a row of clips within the session. A row is known as a "SCENE". When triggered, all of the clips in the selected scene will play.

A3. CLIP STOP - Push to stop the currently playing or recording clip corresponding to the correct track.

A4. STOP ALL CLIPS - Push to stop all playing and recording clips in the session.

A5. TRACK ACTIVATOR - Activate this button to hear the track, or deactivate it to mute the track.

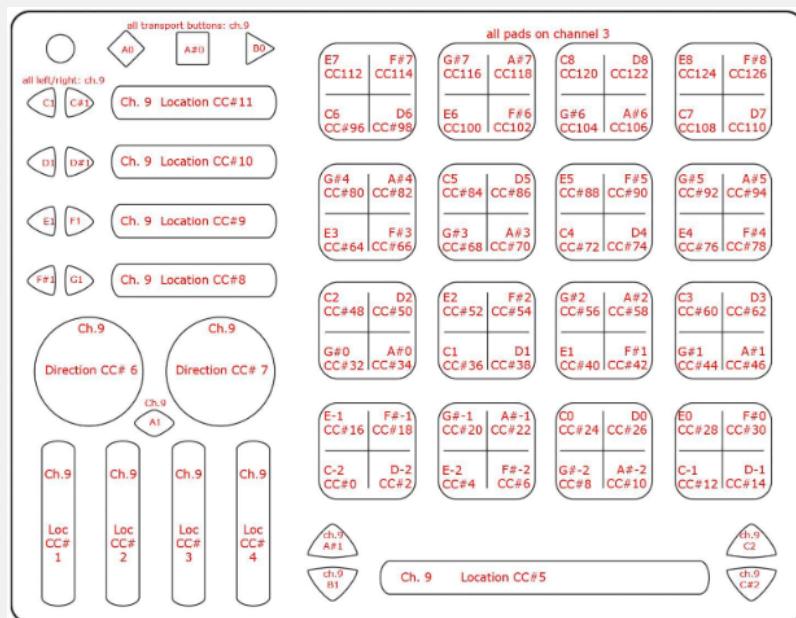
A6. SOLO / CUE - Activate this button to solo the track, or deactivate it to unsolo the track.

A7. RECORD ARM - Active this button to Arm the track, or deactivate it to unarm the track.

A8. SELECTED CLIP LAUNCH - Push to launch the currently selected clip.

A9. BANK SELECT - These allow the user to move the highlighted 7 x 4 red box around the session LEFT/RIGHT/UP/DOWN.

This image shows what MIDI data will output for each sensor in the "Ableton Live Clip Launching" preset. In this preset the Pads use Grid Mode. This preset doesn't use banks. Rotaries are set to use Direction instead of Location. Velocity response is fixed at 127 for all notes. All Pressure sources send out continuous CC values.

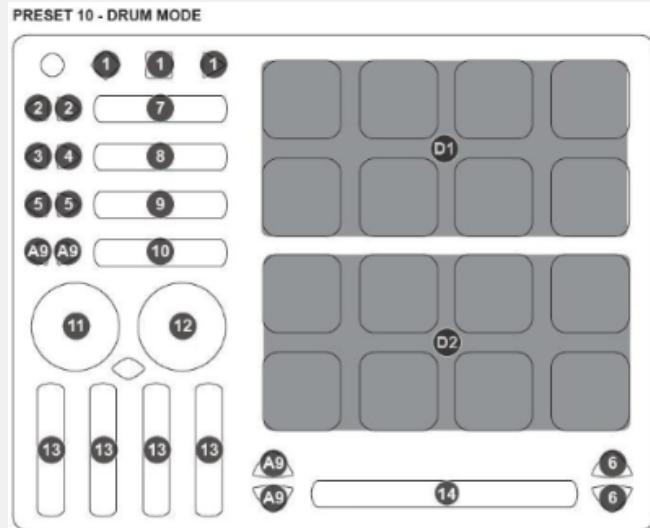


For more information about using the Ableton Live Template, read its Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

Presets 10 (Ableton Live Drum Rack):

GLOBAL CONTROLS:

1. Transport Controls
2. Tempo
3. Metronome
4. MIDI Overdub
5. Track Navigation
6. Scene Navigation
7. Selected Track Send A
8. Selected Track Send B
9. Selected Track Pan
10. Selected Track Volume
11. Selected Clip Loop
12. Selected Clip Loop End
13. Volume Faders
14. Crossfader

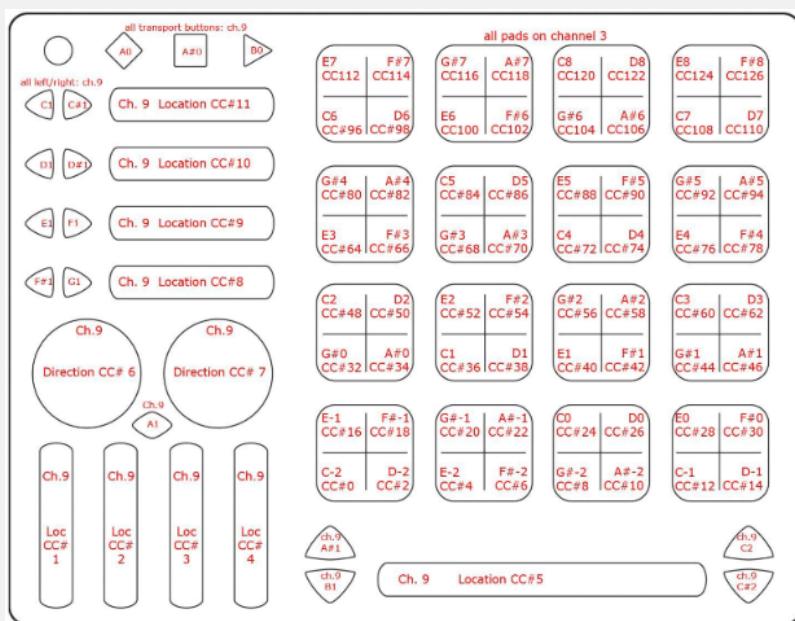


Preset 10

D1. Drum Rack - These Pads are assigned to Drum Rack's C1-G8 Cell slots.

D2. Impulse - These Pads are assigned to Impulses 8 Sample cells.

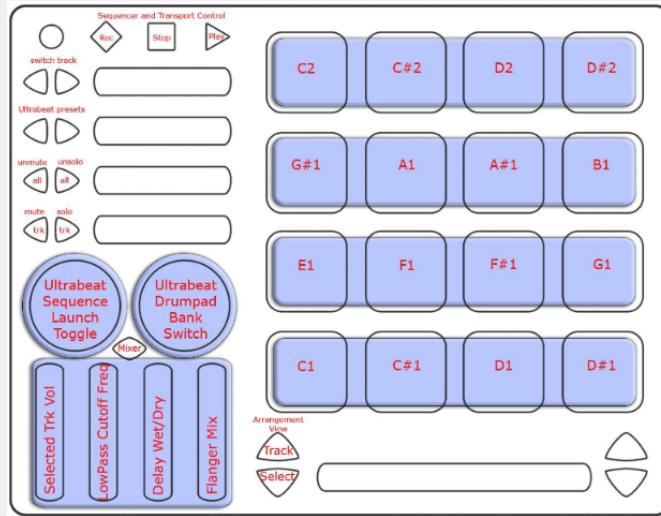
This image shows what MIDI data will output for each sensor in the "Ableton Live Drum Rack" preset. In this preset the Pads use Drum Mode. This preset doesn't use banks. Rotaries are set to use Direction instead of Location. The X/Y Return values are set to 63 on the Pads. Velocity response is variable for the Pads and fixed at 127 for the Buttons. All Pressure sources send out continuous CC values.



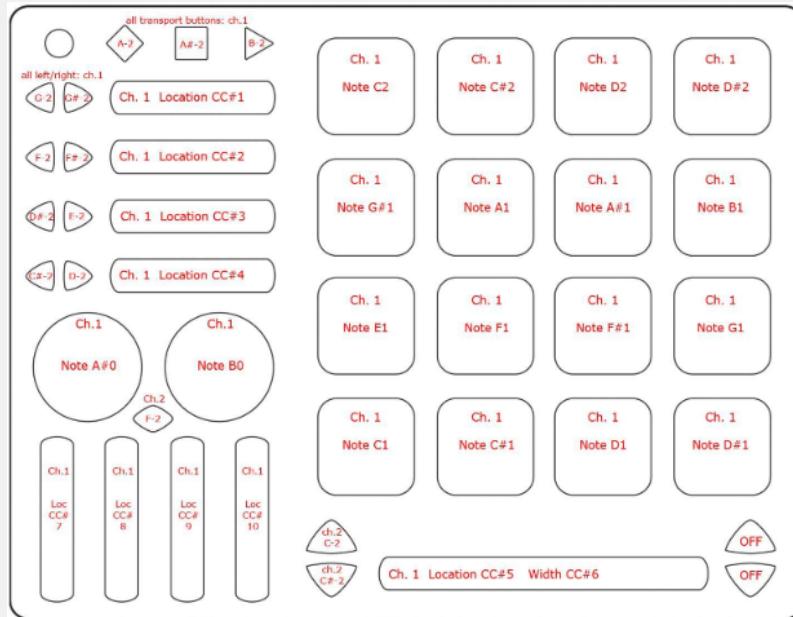
For more information about using the Ableton Live Template, read its Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

Preset 11 (Logic):

This turns QuNeo into a drum synth controller using the Ultrabeat software instrument that comes with Apple's Logic Pro. Below is an image showing how this preset is mapped to the Logic Template:



This image shows what MIDI data will output for each sensor in the "Logic" preset. The Pads are in Drum Mode. This preset doesn't use banks. Velocity response is fixed at 127 for the buttons but is variable on the Pads. All Pressure sources send out continuous CC values.

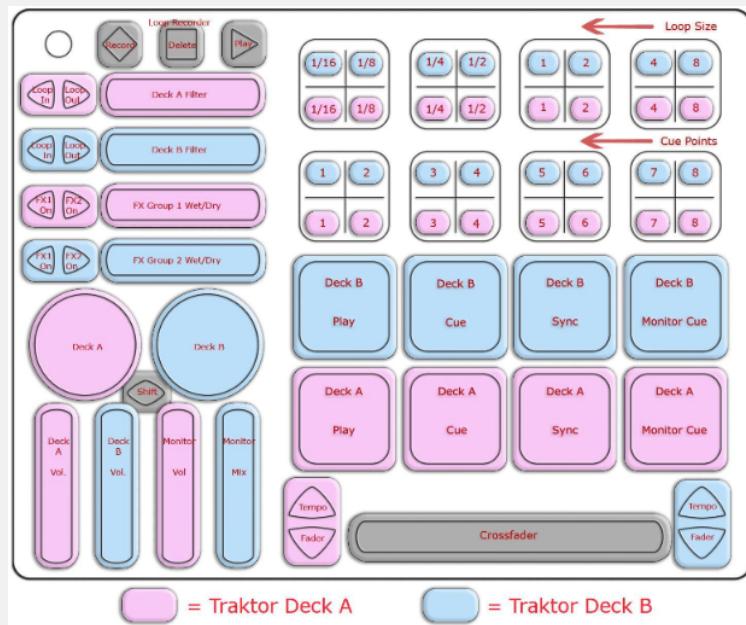


For more information about using the Logic Template read its Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

Preset 12 (Traktor - DJ / Mixxx):

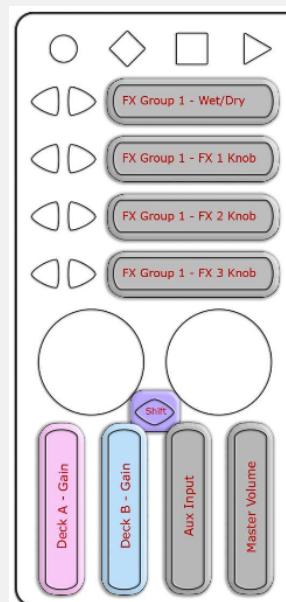
The Traktor DJ Preset turns QuNeo into a full-fledged DJ controller for Native Instruments' Traktor. This preset is designed with a more traditional approach to digital DJing in mind, with play, sync, cue, monitor, fx, filter, loop points, cue points, crossfading, deck control, and various volume controls accessible from QuNeo. In addition, this preset takes advantage of the modifier functions, creating a Shift button on QuNeo that allows for sample playback, extended mixing, and more in depth FX control.

The image below shows what each sensor controls in our Traktor DJ Template (included in the QuNeo Software Installer):



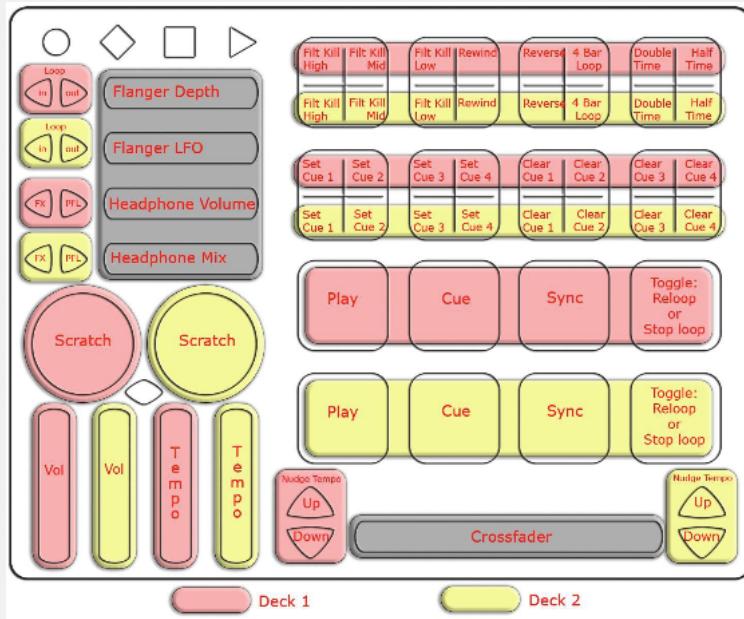
The image to the right shows how the Traktor template works when the Rhombus button (shift) is held down.

Only the Horizontal and Vertical Sliders' behavior changes in shift mode. All other sensors work the same way as they do outside of shift mode.

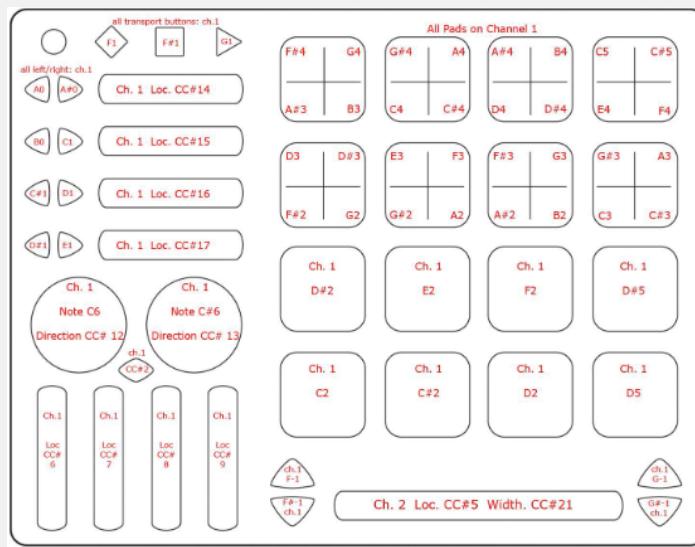


This preset turns QuNeo into a full-fledged DJ controller using Mixxx as well. It includes controls for 2 players: play, sync, cue, tempo controls, crossfading, scratching, and various volume controls accessible from QuNeo.

The image below shows what each sensor controls in our Mixxx Template (included in the QuNeo Software Installer):



This image shows what MIDI data will output for each sensor in the "Traktor - DJ / Mixxx" preset. The top 2 rows of Pads are in Grid Mode and the bottom 2 rows of Pads are in Drum Mode. This preset doesn't use banks. Rotaries are set to use Direction instead of Location. Velocity response is fixed at 127 for all notes. All Pressure sources send out continuous CC values.

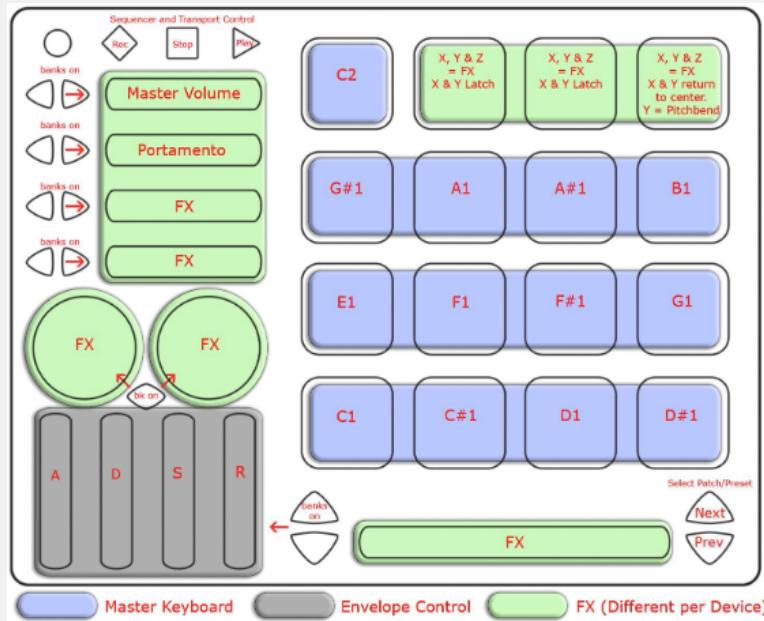


For more information about using the Traktor or the Mixxx Template read their Quickstart documents in the QuNeo directory: "Documentation/Template Quickstarts".

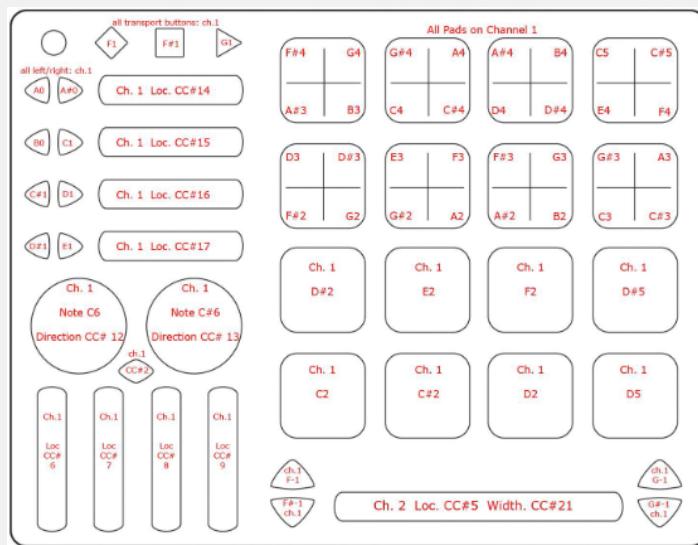
Preset 13 (Reason):

The Reason Preset turns QuNeo into a full fledged master keyboard controller for Propellerhead's Reason. The pads give one octave of notes while sliders control an ADSR envelope and various effects parameters.

The image below shows what each sensor controls in our Reason Template (included in the QuNeo Software Installer):



This image shows what MIDI data will output for each sensor in the "Reason" preset. In this preset the Pads use Drum Mode. Banks are enabled for the Horizontal Sliders, the Vertical Sliders, and the Rotaries. Rotaries are set to use Location instead of Direction. Pass Thru Widths for the rotaries are set to 127. X/Y sources on the Pads are set to latch on all Pads except Pad 16, which is set to return to 63. Velocity response is variable for the Pads and fixed at 127 for the Buttons. All Pressure sources send out continuous CC values.

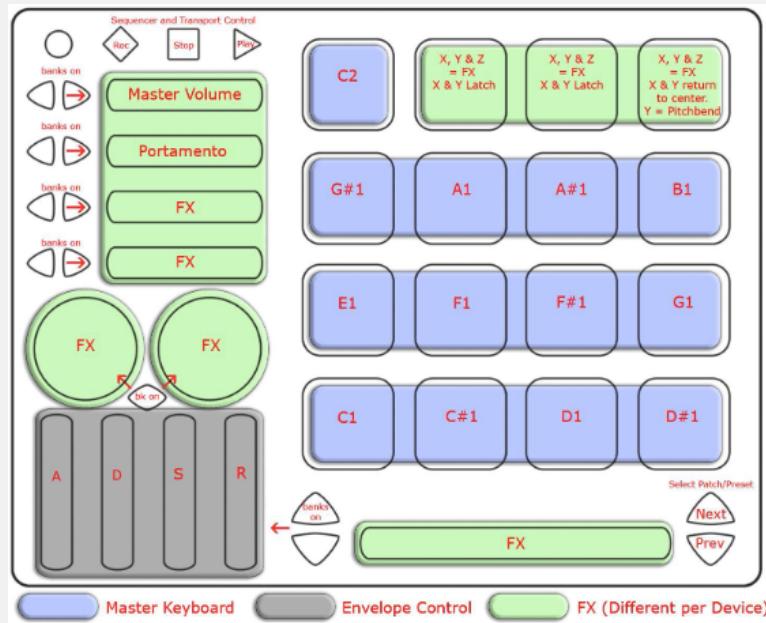


For more information about using the Reason Template read the Reason Template Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

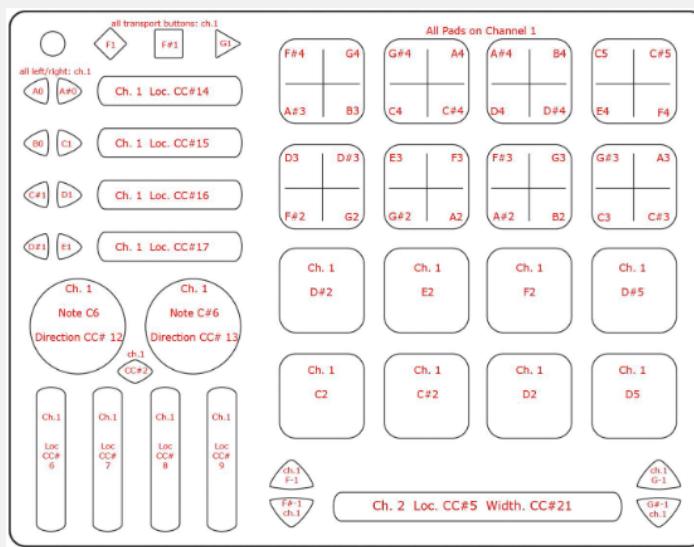
Preset 14 (Battery):

This preset is for use with our Native Instrument's Battery 3 template file. This template will turn the QuNeo into a sampler with loops on the left 8 pads and both rotaries and quick drum hit samples on the right 8 pads. The sliders provide additional control and effects.

The image below shows what each sensor controls in our Battery Template (included in the QuNeo Software Installer):



This image shows what MIDI data will output for each sensor in the "Battery" preset. In this preset the Pads use Drum Mode in the left 2 columns and grid mode in the right 2 columns. Banks are not enabled. Rotaries are set to use Location instead of Direction. Pass Thru Widths for the rotaries are set to 127. X/Y sources on the Pads are set to latch. Velocity response is variable for notes on Pads and Rotaries. Velocity is fixed at 127 for notes on the Buttons. All Pressure sources send out continuous CC values.

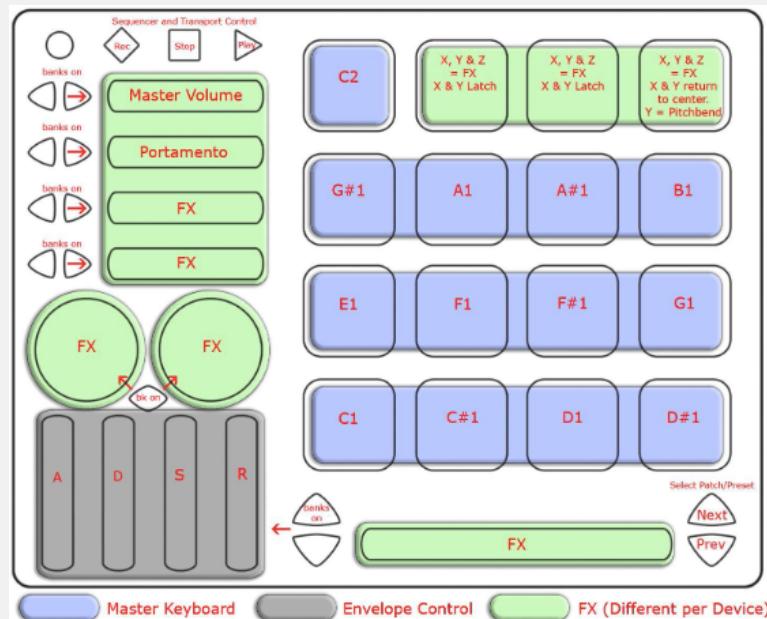


For more information about using the Battery Template read the Battery Template Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

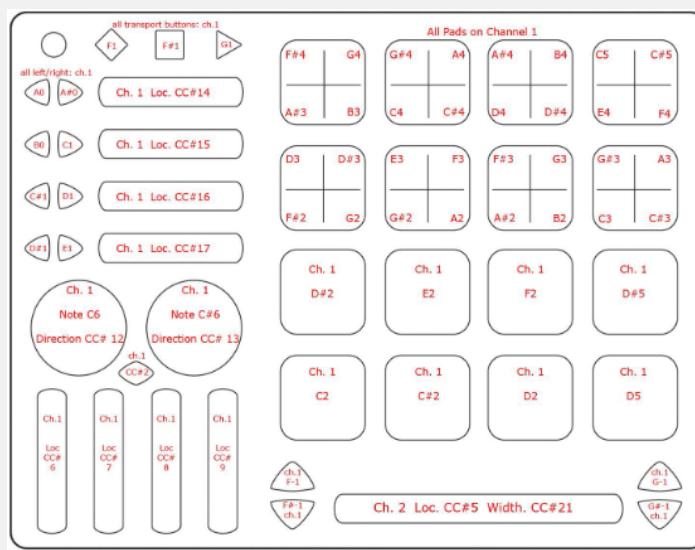
Presets 15 (Korg iMS-20 - iPad):

This preset is for use with Korg's iMS-20 synthesizer for iPad. This allows the QuNeo to play minor pentatonic notes from the iMS-20 and adjust voltage controlled oscillators and effects. Each pad will send out the same pressure CC# to control a low pass filter cutoff frequency. The X axis of each pad will control Pitch Bend. The Y axis of each pad will control the second voltage control oscillator. The Horizontal Sliders and the Long Slider control effects. Use the Rotaries to control the mod wheel and the tuning. The Vertical Sliders control the VCO waveforms and pulse width.

The image below shows what each sensor controls in the Korg iMS-20 synthesizer:



This image shows what MIDI data will output for each sensor in the "Korg iMS-20 - iPad" preset. In this preset the Pads use Drum Mode. Banks are not enabled. Rotaries are set to use Direction instead of Location. X/Y sources on the Pads are set to return to 63. Velocity response is variable for notes on Pads. All Pressure sources send out continuous CC values.

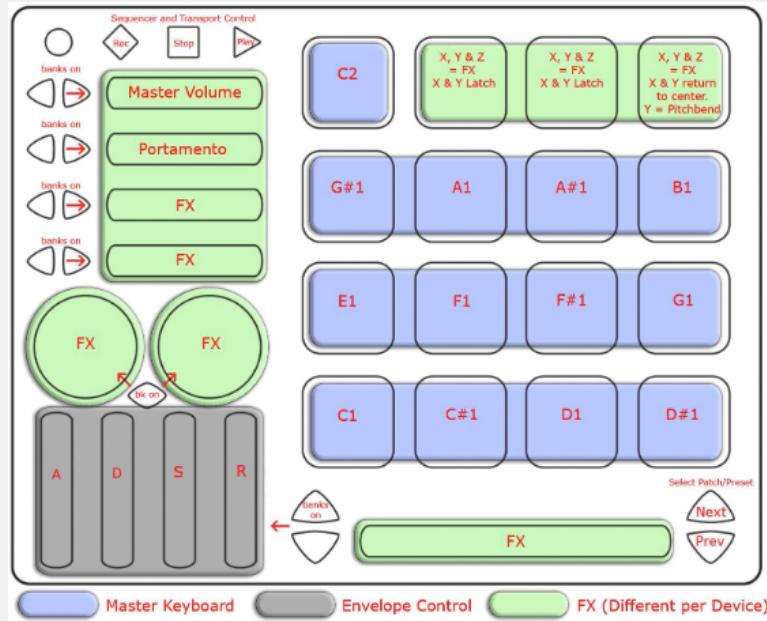


For more information about using the iMS-20 Template read the iMS-20 Template Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

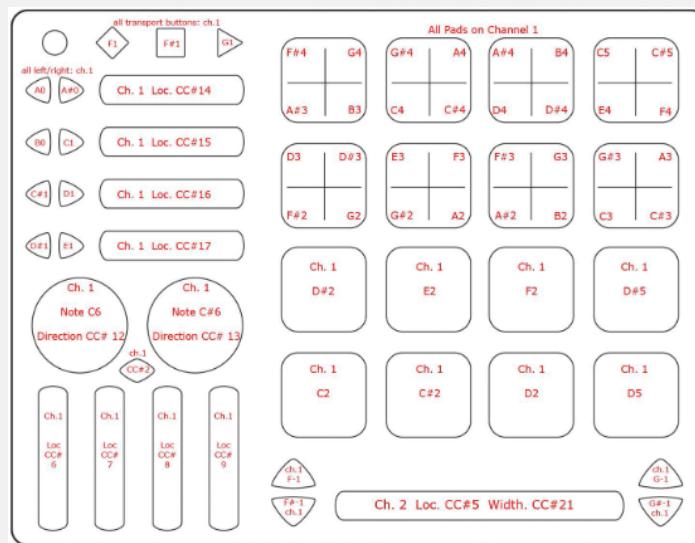
Preset 16 (BeatMaker - iPad):

Below is an image showing how the QuNeo is mapped to BeatMaker's controls in factory preset #16. Each pad is in Drum Mode and outputs a MIDI note to trigger one of BeatMaker's drum pads. The vertical sliders each output a location CC to control the volume for tracks 1-4 in BeatMaker. The horizontal sliders are set up to control the first four sliders on the currently selected track's effects. Using the bank buttons next to the horizontal sliders you can access control for all three of a track's effects (bank four has nothing set as there are a maximum of three effects per track). The left rotary is mapped to filter cutoff frequency and the right rotary is mapped to filter resonance. The long slider controls a track's filter key.

This image shows what MIDI data will output for each sensor in the "BeatMaker iPad" preset. In this preset the Pads



use Drum Mode. Banks are enabled only for the Horizontal Sliders. Rotaries are set to use Location instead of Direction. Pass Thru Widths for the rotaries are set to 127. Velocity response is variable for all notes. All Pressure sources send out continuous CC values.



For more information about using the BeatMaker Template read the BeatMaker Template Quickstart document in the QuNeo directory: "Documentation/Template Quickstarts".

Troubleshooting



TROUBLESHOOTING

TRY A NEW USB CABLE

One of the first (yet most often overlooked) things to try is a different USB cable, preferably one that is known to work well. When a cable goes bad it can lead to all sorts of odd behavior (flaky connections, dropped messages), or no behavior at all (won't even power on).

TRY PLUGGING INTO A DIFFERENT USB PORT

It's possible that trying a different USB port on the computer may lead to a proper connection. While extremely rare, we have come across USB ports that just don't seem to like some USB devices.

DO NOT USE AN UNPOWERED USB HUB

Unpowered USB hubs may not be able to provide enough power to the QuNeo, leading to connectivity issues. Unpowered hubs typically divide the power coming from the computer's USB port and split it up between all of the hub's ports – providing less power than if the QuNeo were to be directly connected to the computer's USB port. If a USB hub is absolutely necessary, it is recommended to always use a powered hub.

TRY WITH OR WITHOUT A USB HUB

If experiencing connectivity issues while using a USB hub, try without the hub and plug directly into the computer's USB port. The reverse holds true as well – if experiencing connectivity issues while not using a USB hub, try with a hub (if one is available to you).

TRY RESETTING THE DEVICE TO DEFAULTS

Using the Editor you can reset the device, and all the sensors to default settings . This can sometimes help resolve hardware quirks, or unexpected behavior.

BE AWARE OF ISSUES NATIVE TO THE OPERATING SYSTEM BEING USED

While it is indeed possible the QuNeo may be the source of issues, sometimes the cause is actually due to the operating system itself. Always be aware of these issues, like the Mac OS CoreMIDI issue or the Windows class-compliant device limitation.

CONNECT TO A DIFFERENT COMPUTER

If the QuNeo is not making a connection to the computer at all (and all other troubleshooting issues have been exhausted), it is recommended to try connecting it to a different computer. If it works on the new computer, try the original one again. In some circumstances we have seen this solve connection issues.

AN IMPORTANT NOTE ABOUT USB CABLES

We always recommend using the USB cable(s) that shipped with your QuNeo. Sadly, not all USB cables are created equal.

If you are having troubles powering your QuNeo or connecting to a computer, please make sure you are using the USB cables that came with your QuNeo.

We fully understand that it seems like using different USB cables shouldn't matter, but it really can have a drastic effect on operation, not just with QuNeo, but with all USB devices. Very often the only thing needed is to swap out the USB cable for another one.

CONTACTING KMI TECH SUPPORT

If you experience any problems or have questions regarding the QuNeo install process after viewing all of the troubleshooting suggestions, submit a support request at support.keithmcmullen.com 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 QuNeo
4. Version number of the QuNeo 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

Safety Precautions

SAFETY PRECAUTIONS

MEDICAL DEVICES

QuNeo may emit electromagnetic fields. These electromagnetic fields may interfere with pacemakers or other medical devices. If you wear a pacemaker, maintain at least 6 inches (approximately 15cm) of separation between your pacemaker and QuNeo. If you suspect QuNeo is interfering with your pacemaker or any other medical device, stop using QuNeo and consult your physician for information specific to your medical device.

MEDICAL CONDITIONS

If you have any medical condition that you believe could be affected by QuNeo (for example, seizures, blackouts, eyestrain, or headaches), consult with your physician prior to using QuNeo.

EXPLOSIVE ATMOSPHERES

Do not use QuNeo in any area with a potentially explosive atmosphere, such as a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and instructions.

REPETITIVE MOTION

When you perform repetitive activities (such playing the QuNeo for an extended period of time), you may experience occasional discomfort in your hands, arms, wrists, shoulders, neck, or other parts of your body. If you experience discomfort, stop using QuNeo and consult a physician.

HIGH-CONSEQUENCE ACTIVITIES

QuNeo is not intended for use where the failure of the device could lead to death, personal injury, or severe environmental damage.

CHOKING HAZARD

Some QuNeo accessories may present a choking hazard to small children. Keep these accessories away from small children.