



QuNeo Editor Manual

QuNeo Version 1.2.4
December 2013

Keith McMillen, Daniel McAnulty, Conner Lacy, Jimmy Allison, Jasmin Blasco, Andrew Calvo, Chuck Carlson, Diane Douglas, Tom Ferguson, Jay Fields, Steven Fruhwirth, Paul Gaeta, Ingmar Gorman, Christian Heilman, Matthew Hettich, Sarah Howe, Will Marshall, Alex Molina, Rasheedah Noble, Ryan Page, Jon Short, Matia Simovich, Barry Threw, Nick Wang, Carson Whitley, and Steve Wright



Copyright 2007-2013 Keith McMillen Instruments a wholly owned subsidiary of Kesumo LLC. All rights reserved. Made in USA.

No part of this manual may be reproduced or transmitted in any form or for any purpose without the express written permission of the copyright holders.

The content of this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Keith McMillen Instruments. Every effort has been made to ensure that the information in this manual is accurate. No warranties, express or implied, are made with regard to the quality, suitability or accuracy of this document. Keith McMillen Instruments reserves the right to change the contents of this document and/or the associated products at any time without the provision of prior notice to specific persons or organizations. Keith McMillen Instruments shall not be held liable for damages of any kind arising from the use, or the inability to use this product or its documentation, even if the possibility of such damage is known.

Product and brand names contained in this document are used for identification purposes only. Keith McMillen Instruments, the Keith McMillen Instruments Logo, the QuNeo and QuNeo logo are trademarks of Kesumo LLC. Apple, Finder, GarageBand, Logic, Mac, MacBook, Macintosh, Mac OS and QuickTime are trademarks of Apple Inc, registered in the U.S. and other countries. Windows is a registered trademark of Microsoft Corporation in the United States and other countries. Intel is a registered trademark of Intel Corporation or its subsidiaries in the United States and other countries. SONiVOX is the brand name trademark of Sonic Network, Inc. VST and ASIO are trademarks and software of Steinberg Media Technologies GmbH. Reason, ReWire, Recycle and REX2 are trademarks of Propellerhead Software AB. All other product and company names are trademarks or registered trademarks of their respective holders. All other names and designations of companies, products, trademarks, or brands used in this document are the registered property of their respective holders.

Welcome	4
Questions or Feedback? Contact Us!.....	4
What's in the QuNeo Package.....	4
QuNeo Software	5
System Requirements	5
Updating the Firmware	5
Updating Presets	6
Main Window Overview.....	6
Saving	7
Menu Bar.....	7
Sensor Edit Panes.....	8
Pad Edit Pane - Basic	9
Pad Edit Pane - Advanced	10
Playing Styles	11
Pad Edit Pane - LEDs	11
Vertical and Horizontal Slider Edit Pane	12
Long Slider Edit Pane	12
Advanced Tab (Sliders)	13
Rotary Edit Pane	13
Transport Edit Pane	15
Left/Right Buttons Edit Pane.....	15
Up/Down Button Edit Pane	16
Rhombus Button Edit Pane	16
Normal and Toggle Modes	17
Sensitivity.....	17
LEDs Tab	18
Local LED Control.....	18
Safety Precautions.....	19

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.

QuNeo is the size of an iPad and can fit in iPad accessories such as mic clips, stands and more. QuNeo works with USB, MIDI or OSC and will communicate with your favorite music software environments right out of the box.

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

Questions or Feedback? Contact Us!

If at any time you have any questions, please contact us:

Web: www.keithmcmillen.com

Forum: forum.keithmcmillen.com

Support: <http://www.keithmcmillen.com/support>

What's in the QuNeo Package

When you open up the box you should find:

- (1) QuNeo
- (1) USB A-to-Micro cable (1 meter)
- (1) QuNeo QuickStart Document



QuNeo Software

Download our free QuNeo Editor Installer from: <http://www.keithmcmillen.com/QuNeo/downloads/>

The Editor Installer contains the QuNeo Editor, which allows you to edit and create your own QuNeo Presets. Our new QuNeo Demo Lab is also included and will open automatically after installation. The Demo Lab is a fun app that allows you to trigger samples with the Pads. It's a great introduction to using the QuNeo and will likely help generate ideas for ways you can use it.

After Installation, a QuNeo folder containing the QuNeo Editor and Demo Lab will appear in the Applications folder (Mac) or the C: drive directory (Windows) on your computer (unless you specify an alternate location during installation).

The QuNeo Software Templates Installer can also be download this from <http://www.keithmcmillen.com/QuNeo/downloads/>. This Installer includes template files that go with QuNeo presets for Ableton Live, Traktor, Battery, Logic, Reason, Mixxx, Serato, djay, BeatMaker 2 (iPad), and iMS-20 (iPad).

Once installed keep everything in the "QuNeo Editor" and "QuNeo DemoLab" folders as is so the applications can access everything they need to run.

System Requirements

We recommend the following minimum system requirements for the QuNeo Editor and the Software Examples:

MAC:

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

WINDOWS:

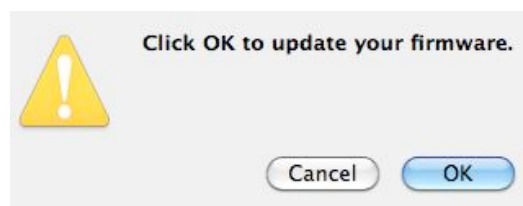
- Windows XP, or Windows 7
- Intel Core 2 processor or greater
- 1GB of RAM with 100 MB free hard disk space

Updating the Firmware

Make sure the editor and the firmware versions are compatible with each other.

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.

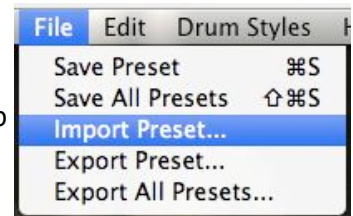


Keith McMillen Instruments cannot be held liable for damage resulting from installation and operation errors or improper use.

Updating Presets

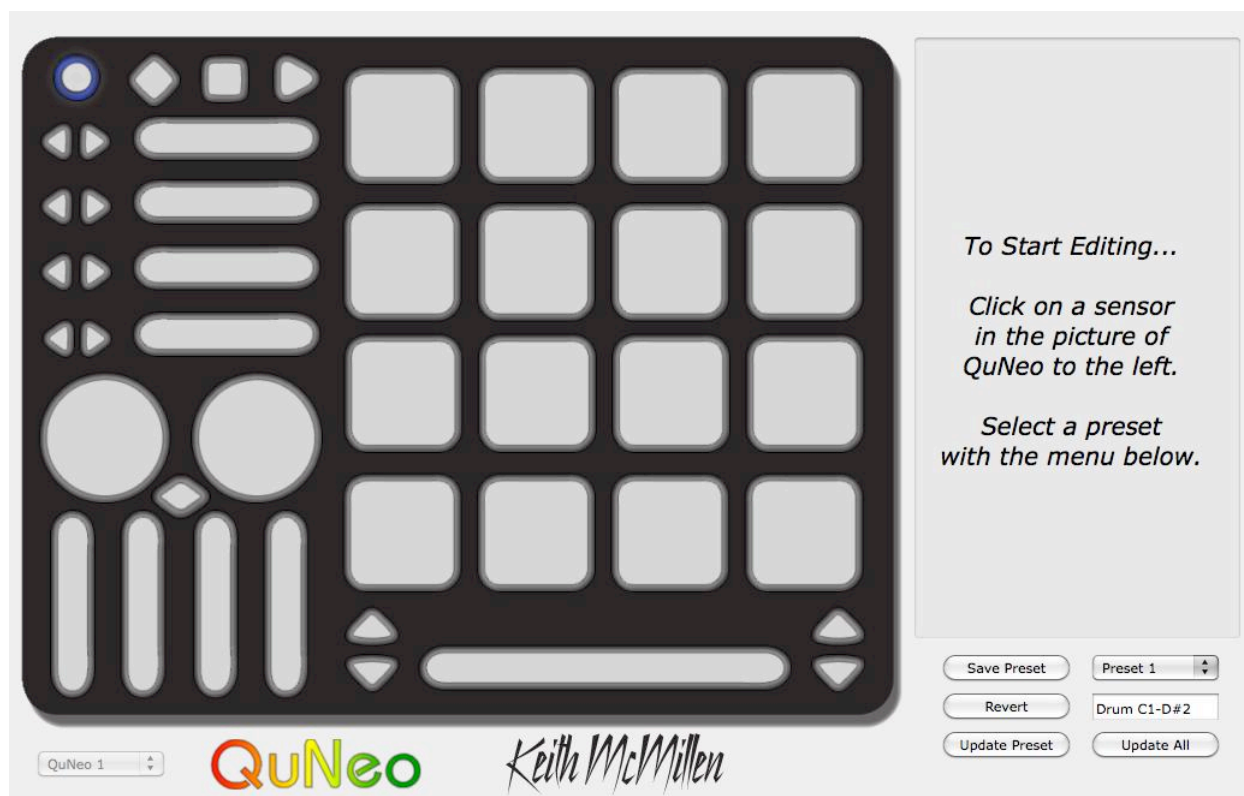
To update your presets to the current version follow these steps:

- 1 Open up the previous version of the QuNeo Editor, where you made the presets you wish to use.
- 2 Export each preset using the File menu.
- 3 Exit the previous version of the QuNeo Editor and open up QuNeo 1.2.4.
- 4 Go to a factory preset you wish to import your old preset to.
- 5 Go to the File menu and select "Import Preset"
- 6 Locate your .quneopreset file and import it.
- 7 Save the preset and update your QuNeo.
- 8 Repeat steps 4-7 for any other presets you wish to update.



Tip: When updating older presets to the new version, new parameters will be set to default values. Be sure to check out the new features and make sure they are set up how you would want them.

Main Window Overview



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.

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.

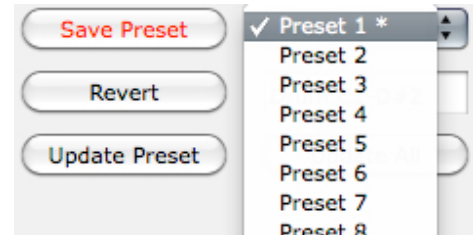
Controls for saving and recalling presets are found in the bottom right side of the window.

Saving

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.

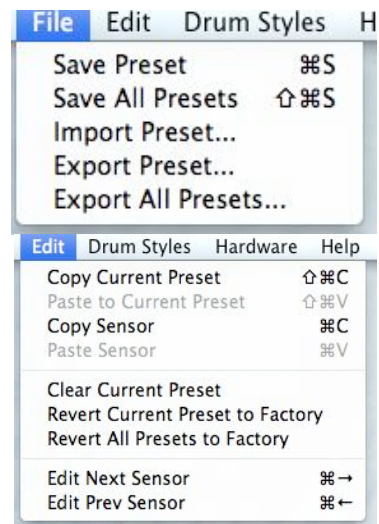


Click the **Revert** button to go back to the previously saved state of the current preset.

In the menu, the presets are listed by number to correspond with the pad numbering when selecting presets from the QuNeo (see the Selecting Presets chapter of the Full Manual for more information).

Menu Bar

More functions can be accessed from the **File** menu. **"Save Preset"** exists here as well as **"Save All Presets"**. **"Import Presets"** opens previously exported presets into the currently selected preset slot. **"Export Presets"** 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. Importing and Exporting makes preset sharing easy. The **Edit** menu contains copy and paste functions. **"Copy Current Preset"** will put the current preset onto the application's clipboard. To paste a copied preset into a different preset, use the **"Paste to Current Preset"** option. It will then be necessary to save the pasted preset.



"Copy Sensor" places parameters from the current sensor's edit pane on the clipboard. Selecting another sensor of the same type enables the **"Paste Sensor"** option.

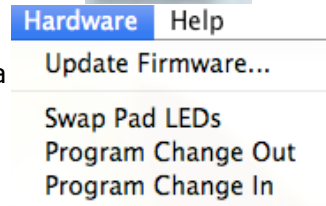
"Clear Current Preset" will blank out the current preset. All sources will be off and everything else will be set to their default values, allowing the user to start from scratch. After clearing the current preset, it is necessary to save it. **"Revert Current Preset to Factory"** reloads the original preset into the current preset slot. **"Revert All Presets to Factory"** reloads all of the original presets. After reverting to the factory presets, save to keep the factory versions.

"Edit Next Sensor" and **"Edit Prev Sensor"** allows the use of key commands to move to the next edit pane.

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

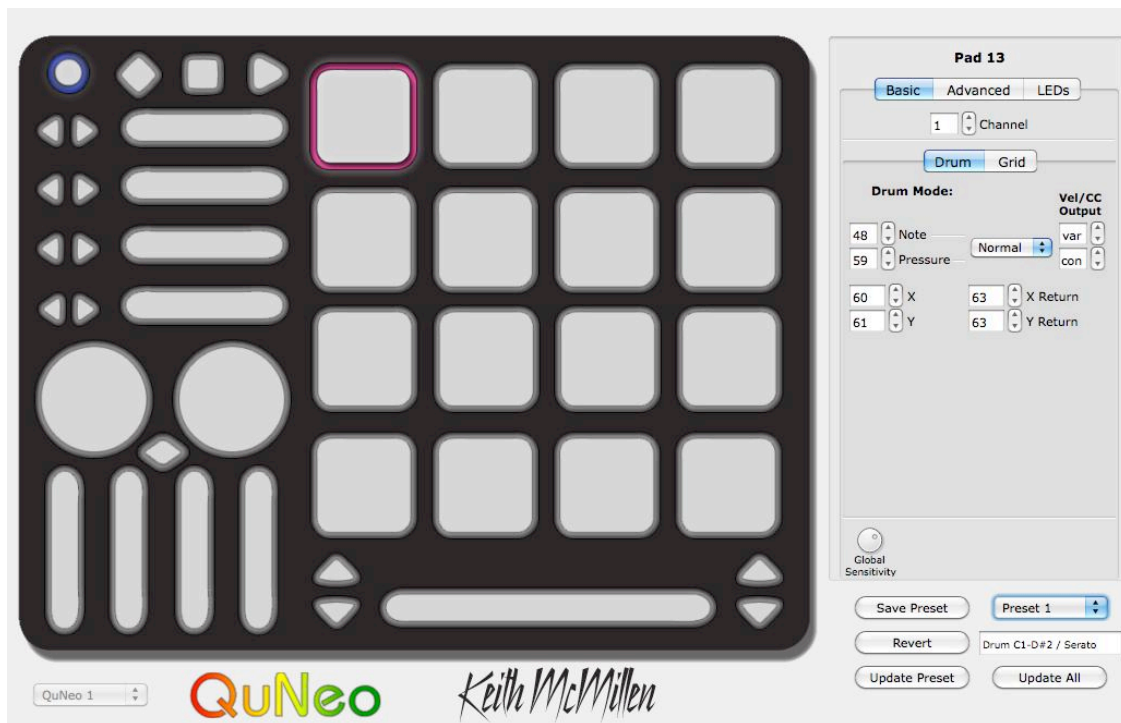


The **Hardware** menu contains a couple options that will affect the QuNeo hardware. The “**Update Firmware...**” option will open up a firmware update prompt. Click ok and the firmware will update. (see the “Updating the Firmware” chapter of the Full Manual for more information).



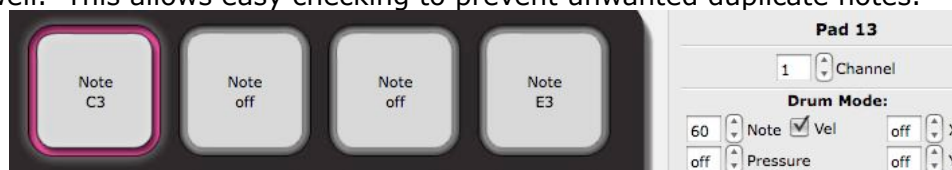
The “**Swap Pad LEDs**” option will switch the red and green LEDs on the QuNeo. Use “**Program Change Out**” and “**Program Change In**” to enable and disable program changing. Enabling Program Change In causes Presets to change when sending a Program Change to QuNeo. Enabling Program Change Out causes QuNeo to send Program Changes when a new Preset is selected.

Sensor Edit Panes



The image above shows Pad 13 selected on the QuNeo image and the Pad 13 edit pane open on the right side of the window. Pad 13 is highlighted pink to show that it is selected.

When editing a parameter in the edit pane, the parameter is displayed on the QuNeo image; as are the similar parameters for all sensors. **Example:** In the image below, the Note parameter for Pad 13 is set to MIDI note 60 (C3). All of the other pads will display their notes as well. This allows easy checking to prevent unwanted duplicate notes.



Adjusting the Pressure parameter changes the QuNeo image to display what CC# is assigned to pressure on all of the pads.



All parameters are displayed in this way for all sensor types.

To select multiple sensors to edit simultaneously, hold shift while clicking on another sensor. 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).

Read on for more detail about the editable parameters in each of the various edit panes.

Pad Edit Pane - Basic

Each Pad can function in either **Drum Mode** or **Grid Mode**. In Drum Mode, it is not possible to edit the parameters for Grid Mode and vice-versa. Enter Grid Mode by clicking the Grid tab and checking the "Grid Mode" check box.

In **Drum Mode**, the pad parameters include a note, pressure CC#, X-Axis position CC#, Y-Axis position CC#, and X and Y Return values. In **Grid Mode**, the pad sources include note and pressure for each corner, allowing up to 4 notes or pressure points per pad.



To disable a source, set the number box below 0 to "off" (-1). X or Y can be set below off to "bend" (-2) in order to use pitch bend instead of a CC#.

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

X and Y Return values are the CC value that X and Y will return to when the Pad is released. If the number box is set below 0 the values will "latch" (-1), staying where they are left when the pad is released.

Global Sensitivity is at the very bottom of the edit pane. For more information on this please reference the [Sensitivity](#) chapter.

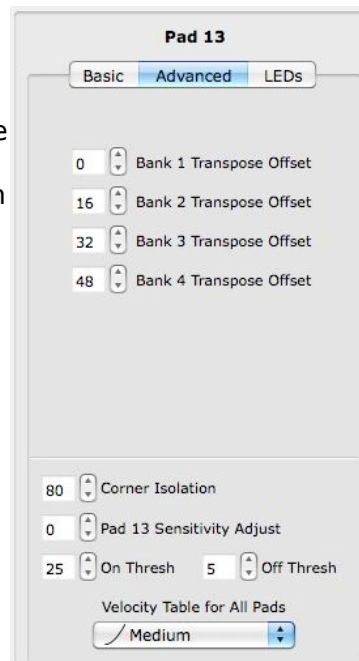
Pad Edit Pane - Advanced

There are 4 banks available for the notes of the Pads. The note banks of the Pads can be selected by using either the Rhombus button, or one of the Up/Down button pairs. This is programmable in the edit panes for those buttons. See the [Rhombus Button Edit Pane](#) or the [Up/Down Buttons Edit Pane](#) chapters for more information.

The Pad notes for each bank can be adjusted here in the Advanced tab of the Pad edit pane. Here you would set transpose intervals for the notes in each bank (as shown in the image to the right). Take note that Bank 1 Transpose Offset is set to 0 so that bank 1 will not offset the notes programmed in the basic tab. Changing Pad banks will not affect the CCs of the other Pad sources (X, Y, Pressure, etc.).

Located in the bottom of the Advanced tab is the **Corner Isolation** parameter. This parameter adjusts how sensitive the other corners of a Pad are while one of the corners is in use. This helps prevent accidental triggers. This is global for all Pads and applies only when they are in grid mode.

Example: If corner isolation is set to 100, while pressing 1 corner, the other 3 corners must reach 100% of the pressure the first corner is at before registering a note on. The higher the corner isolation value, the greater the isolation is between corners.



Pad [#] Sensitivity Adjust - The higher the sensitivity, the easier it will be to get pressure and velocity to 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. This sensitivity setting is per Pad, which makes it easy to set each pad to a specific sensitivity. Use **Global Sensitivity** to tweak the sensitivity of all Pads simultaneously.

On Thresh - The pressure value at which a note on will register. **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.

Off Thresh - The pressure value at which a note off will register. **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.

Velocity Tables - When using the editor, there are five velocity tables. These tables shape the velocity output of the QuNeo.

- 1 **None** - This table is linear and has no effect on the velocity output.
- 2 **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.
- 3 **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.
- 4 **Hard** - This table expands the lower range and makes it more difficult to hit the higher velocity values.

Dynamic - This table is good for getting varied velocity values with very little change in pressure.

Playing Styles

The Pad's global sensitivity and advanced parameters allow users to fine tune the playing style of their QuNeo. Default values have been carefully chosen but we have also put together a few suggestions to accommodate other playing styles:

- For the user who wants to hit very hard to reach a velocity of 127 - try setting the velocity table to "Hard" and the global sensitivity dial down to 11 o'clock.
- For the user who wants high or low values, with very little middle range - try using the "Hard" or "Medium" velocity table with the global sensitivity dial at 12 o'clock.
- For the user who wants to tap very lightly and still get lots of dynamic range - try turning the on threshold up to 20 and the off threshold to 15. Set the global sensitivity dial to just past 12 o'clock and select the "Dynamic" or "Light" velocity table.

Pad Edit Pane - LEDs

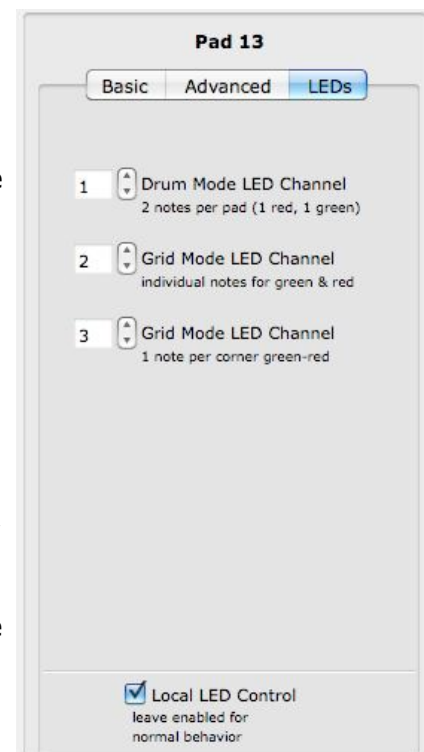
The LED tab of the Pad edit pane allows you to choose individual LED channels for Drum mode and both of Grid mode's LED behaviors.

Drum Mode LED behavior - Pads can receive a note for the green LEDs and a note for the red LEDs. The velocity of the note will determine the brightness.

Grid Mode LED behavior (individual notes) - The LEDs in each corner of the pad can light up individually. Pads can receive 4 notes (one for each corner) for the green LEDs and 4 other notes for the red LEDs. The velocity of the note will determine the brightness.

Grid Mode LED behavior (1 note per corner) - It is also possible to use 1 note per corner. In this case the velocity of the note will fade the LEDs from green to red.

The input Channels for these LED behaviors are adjustable (as shown in the image to the right). For a map of the hard coded notes and CC#s that control the LEDs, see the MIDI Input chapter of the Full Manual.



There is a Local LED Control check box at the very bottom of the edit pane. For more information on this please reference the [Local LED Control](#) chapter.

Vertical and Horizontal Slider Edit Pane

The Vertical and Horizontal Slider Edit Panes have essentially the same editable parameters.

Horizontal Slider 1

Basic Advanced LEDs

Bank 1: 1 Channel Vel/CC Output
0 Note 127
12 Pressure Normal con
0 Location

Bank 2: 1 Channel
off Note 127
off Pressure Normal con
off Location

Bank 3: 1 Channel
off Note 127
off Pressure Normal con
off Location

Bank 4: 1 Channel
off Note 127
off Pressure Normal con
off Location

Sensitivity

There are 4 banks available per slider. The Horizontal Sliders each have their own Left/Right Buttons to control which bank is selected. See the [Left/Right Buttons Edit Pane](#) chapter for more information.

The banks of the Vertical Sliders can be selected by using either the Rhombus button, or one of the Up/Down button pairs. This is programmable in the edit panes for those buttons. See the [Rhombus Button Edit Pane](#) or the [Up/Down Buttons Edit Pane](#) chapters for more information.

The Slider Edit Pane parameters include a Note, Pressure CC#, and Location CC# for each bank. To disable a source, set the number box below 0 to "off" (-1).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

For information about the Advanced and LEDs tab, reference the [Advanced Tab \(Sliders\)](#) chapter and the [LEDs Tab](#) chapter.

Long Slider Edit Pane

Long Slider

Basic Advanced LEDs

Bank 1: 1 Channel Vel/CC Output
10 Note 127
22 Pressure Normal con
10 Location 11 Width

Bank 2: 1 Channel
off Note 127
off Pressure Normal con
off Location off Width

Bank 3: 1 Channel
off Note 127
off Pressure Normal con
off Location off Width

Bank 4: 1 Channel
off Note 127
off Pressure Normal con
off Location off Width

Sensitivity

There are 4 Long Slider banks available. They can be selected by using either the Rhombus button, or one of the Up/Down button pairs. This is programmable in the edit panes for those buttons. See the [Rhombus Button Edit Pane](#) or the [Up/Down Buttons Edit Pane](#) chapters for more information.

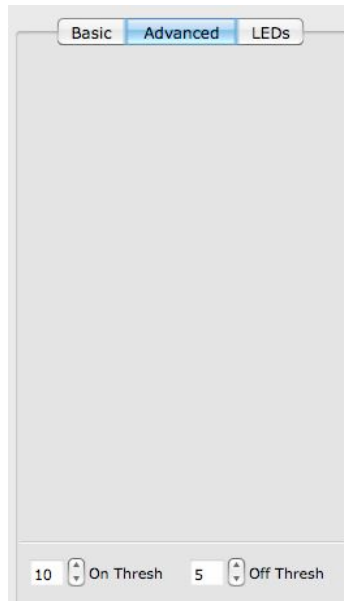
The Long Slider Edit Pane parameters include a Note, Pressure CC#, Location CC#, and Width CC# for each bank. To disable a source, set the number box below 0 to "off" (-1).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

For information about the Advanced and LEDs tab, reference the [Advanced Tab \(Sliders\)](#) chapter and the [LEDs Tab](#) chapter.

Advanced Tab (Sliders)



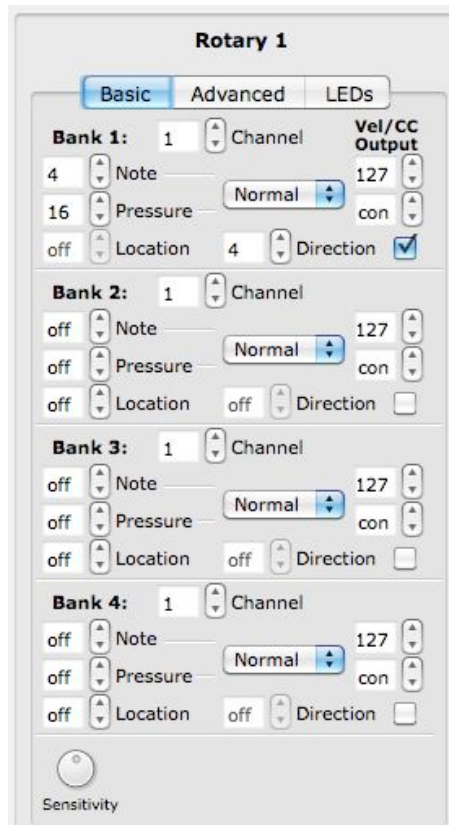
The Horizontal, Vertical, and Long Sliders all have the same Advanced tab. There isn't much in here just yet except for On and Off threshold adjustment parameters.

On Thresh - The pressure value at which a note on will register. **Example:** If set to 10, the Slider pressure has to reach a value of 10 before a note on is sent.

Off Thresh - The pressure value at which a note off will register. **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.

These two parameters are global for their respective slider types.

Rotary Edit Pane



There are 4 Rotary banks available. They can be selected by either the Rhombus button, or one of the Up/Down button pairs. This is programmable in the edit panes for those buttons. See the [Rhombus Button Edit Pane](#) or the [Up/Down Buttons Edit Pane](#) chapters for more information.

The Rotary Edit Pane parameters in the Basic tab include a Note, Pressure CC#, Location CC#, and Direction CC#, for each bank. To disable a source, set the number box below 0 to "off" (-1).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

The **Direction** CC# will repeatedly send out a 1 if finger movement is clockwise. If finger movement is counterclockwise, the CC# will repeatedly send out a 127. We refer to this repeated CC# as a tick. The faster a finger is moved, the faster the ticks will output.

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

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

The Advanced tab of the Rotary edit pane contains a few more useful features.



The Pass Thru Width parameter works in conjunction with the Location parameter (editable in the Basic tab). A variation of what is often called Pass Thru Mode is used when the location parameter is enabled. Normally, in pass through mode, MIDI will not be sent until one passes through the value that the rotary was left at. **Pass Thru Width** sets a range of pass through values. **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 parameter (editable in the Basic tab). The Direction CC# will repeatedly send out a 1 if finger movement is clockwise. If finger movement is counterclockwise, the CC# will repeatedly send out a 127. We refer to this repeated CC# as a tick. The faster a finger is moved, the faster the ticks will output. **Speed** controls the number of direction ticks per degree of the rotary.

The on and off thresholds can also be adjusted in the Advanced tab. These are global for both Rotaries.

On Thresh - The pressure value at which a note on will register. **Example:** If set to 10, the Rotary pressure has to reach a value of 10 before a note on is sent.

Off Thresh - The pressure value at which a note off will register. **Example:** If set to 5, the Rotary pressure would have to be 5 or lower for a note off to register. This cannot be set higher than the on threshold.

For information about the LEDs tab for the Rotaries, reference the [LEDs Tab](#) chapter.

Transport Edit Pane

The Transport Edit Pane is titled "Transport Buttons" with a subtitle "Record". It features three tabs: "Basic" (selected), "Advanced", and "LEDs". Below the tabs, there is a "Channel" dropdown set to "1". The main area is divided into two sections: "Note" and "Pressure". The "Note" section has a value of "24" and a "Normal" mode selector. The "Pressure" section has a value of "84" and a "Normal" mode selector. To the right of these sections is a "Vel/CC Output" section with a value of "127" and a "con" dropdown. At the bottom, there is a "Sensitivity" slider.

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.

Assign the Channel, Note, and Pressure CC# for each Transport button in the Basic tab. To disable a source, set the number box below 0 to "off" (-1).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

The Transport buttons do not have Advanced tabs. For information about the LEDs tab, reference the [LEDs Tab](#) chapter.

Left/Right Buttons Edit Pane

The Left/Right Buttons Edit Pane is titled "Left/Right Buttons" with a subtitle "Bank Control Off". It features three tabs: "Basic" (selected), "Advanced", and "LEDs". Below the tabs, there is a checkbox for "Enable Bank Switching" which is unchecked, and a "Channel" dropdown set to "1". The main area is divided into two sections: "Left" and "Right". Each section has "Note" and "Pressure" settings. The "Left" section has values "11" for Note and "71" for Pressure, both in "Normal" mode. The "Right" section has values "12" for Note and "72" for Pressure, both in "Normal" mode. To the right of these sections is a "Vel/CC Output" section with a value of "127" and a "con" dropdown. At the bottom, there is a "Sensitivity" slider.

The Left/Right buttons are positioned to the left of each Horizontal slider. If the "**Enable Bank Switching**" box is checked, these button pairs act as bank controls for each Horizontal Slider. See the [Vertical and Horizontal Slider Edit Pane](#) chapter for more info. 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 the Full 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).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

The Left/Right buttons do not have Advanced tabs. For information about the LEDs tab, reference the [LEDs Tab](#) chapter.

Up/Down Button Edit Pane

Up/Down Buttons
Bank Control Off

Basic Advanced LEDs

☐ Enable Bank Switching

Bank Control Vertical Sliders

1 Channel

Up

20 Note Normal 127 Vel/CC Output

80 Pressure con

Down

21 Note Normal 127 Vel/CC Output

81 Pressure con

Sensitivity

The Up/Down buttons are positioned on either side of the Long Slider. 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. See the [Vertical and Horizontal Slider Edit Pane](#), [Long Slider Edit Pane](#), [Rotary Edit Pane](#), or [Pad Edit Pane - Advanced](#) chapters for more info. 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 the Full 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).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

The Up/Down buttons do not have Advanced tabs. For information about the LEDs tab, reference the [LEDs Tab](#) chapter.

Rhombus Button Edit Pane

Rhombus Button
Bank Control Off

Basic Advanced LEDs

☐ Enable Bank Switching

Bank Control Rotaries

1 Channel

19 Note Normal 127 Vel/CC Output

79 Pressure con

Sensitivity

The Rhombus button is positioned under the Rotaries and above the Vertical Sliders. 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. See the [Vertical and Horizontal Slider Edit Pane](#), [Long Slider Edit Pane](#), [Rotary Edit Pane](#), or [Pad Edit Pane - Advanced](#) chapters for more info. 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 the Full 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).

Notes and Pressure CC#s can be set to Normal or Toggle mode and utilize Velocity/CC output number boxes for added functionality. See the [Normal and Toggle Modes](#) chapter for more information.

Sensitivity can be adjusted at the very bottom of the edit pane (see the [Sensitivity](#) chapter).

The Rhombus button does not have an Advanced tab. For information about the LEDs tab, reference the [LEDs Tab](#) chapter.

Normal and Toggle Modes

All sensors now utilize a drop down menu that selects Normal or Toggle mode for the note and pressure sources.

To the right of the menu are "Vel/CC Output" number boxes where you can specify the velocity and CC value output for the note and pressure CC#.

A screenshot of a control interface for a sensor. It features two rows of controls. The first row is for 'Note' and the second for 'Pressure'. Each row has a numeric input box on the left (showing 51 and 68 respectively), a label in the middle, and a dropdown menu on the right. The 'Note' dropdown is set to 'Normal'. To the right of these is a section titled 'Vel/CC Output' containing two more numeric input boxes, one showing 'var' and the other '127'. Each numeric box has up and down arrow buttons.

Here are some examples for how these can be used:

- To get notes with velocity and CCs with continuous pressure behavior, set the drop down menu to "Normal" and set the "Vel/CC output" boxes to "var" (variable) and "con" (continuous). "Var" and "con" appear in the number box in place of 0.
- Normal mode can also be used to get notes and pressure to output like momentary switches. The "Vel/CC output" boxes can be set to a value which will output when you press down and go back to 0 when you let go.
- In Toggle mode the "Vel/CC output" boxes set a value for the note or CC# to toggle on to (always toggles off to 0).
- Set the "Vel/CC output" boxes to "var" (variable) or "con" (continuous) while in Toggle mode to make the "on" toggle output variable velocity (for notes) or the initial pressure value (for pressure CC#s). "Var" and "con" appear in the number box in place of 0.

Sensitivity

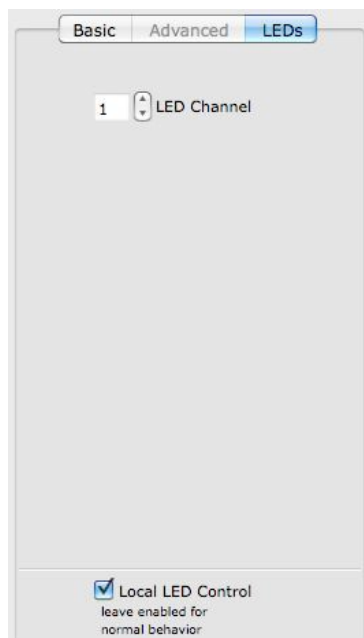
To edit the sensitivity of the various sensors, use the **sensitivity** dial at the bottom of each of the edit panes. Sensitivity controls how easy it is to get higher value ranges when controlling pressure and velocity. The higher the sensitivity, the easier it will be to reach the upper range of values. The lower the sensitivity, the more difficult or impossible it will be to get higher value ranges.

The sensitivity dial in the Pad Edit Pane is called **Global Sensitivity**. This differentiates it from the **Pad [#] Sensitivity Adjust** parameter, visible from the Advanced tab.

The Sensitivity dials are global for all controls of that sensor type.

Example: Adjusting the sensitivity in one of the Pad Edit Panes will adjust the sensitivity for all pads. The Sensitivity dials for the Horizontal Sliders are linked, the Vertical Sliders, the Left/Right Buttons, etc...

LEDs Tab



The Slider, Rotary, and Button edit panes all use essentially the same LEDs tab.

You can adjust each sensor type's **LED channel**. All of the Factory Presets default to 1 as the LED channel for Pads in drum mode and all other sensor types.

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.

The LEDs tabs also contain a checkbox at the bottom called Local LED Control.

Local LED Control

The QuNeo's LEDs will automatically respond to touch without having to receive LED messages from another device. Unchecking the Local LED Control check box can disable this built-in LED behavior.

Hint: If Local LED Control is disabled and the QuNeo is not receiving MIDI notes for controlling LEDs, the QuNeo will not light up at all.

In the Left/Right, Up/Down, and Rhombus Button edit panes, if Bank Switching is enabled, Local LED Control cannot be disabled.

The Local LED Control check box is global for all controls of that type.

Example: Changing the Local LED Control in one of the Pad Edit Panes will change it for all Pad edit panes. The Local LED Control check boxes for the Horizontal Sliders are linked, the Vertical Sliders, the Left/Right Buttons, etc.

If you experience any problems or have questions regarding the QuNeo install process 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.

Safety Precautions



This product may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

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 15 cm) 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 at 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 as playing the keyboard on QuNeo, 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.