



## QuNeo Editor Manual

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# 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](http://www.keithmcmillen.com)

Forum: [forum.keithmcmillen.com](http://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

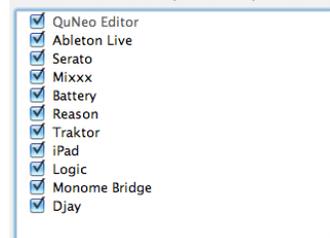
Download our free QuNeo Software Installer from: <http://www.keithmcmillen.com/QuNeo/downloads/>

The Software Installer contains template files that go with QuNeo presets for Ableton Live, Traktor, Battery, Reason, Mixxx, djay, and BeatMaker (iPad). All of these can be automatically copied onto a computer by running the QuNeo Automatic Installer. There is also a QuNeo Manual Installer, which will allow you to place the template files yourself. When using the manual installer, be sure to read the README files associated with each application template.

## Automatic Installer Instructions (Mac and Windows XP & 7)

- 1 Double-click on the .dmg file to open the disk image, and then double-click on the QuNeo Software Installer.
- 2 Type the admin password for your computer and click ok (Mac). Then click next.
- 3 Either choose a new directory where QuNeo will be installed or accept the default directory. Click next.
- 4 Name the installation folder or accept the default. Click Next.
- 5 On the "Select Components" page, select the software you want to use with QuNeo (as shown in the image to the right). Click next.
- 6 If you checked any boxes for using QuNeo with other music software you will be prompted to check the installation directories to make sure they are correct. If you are warned that your path is incorrect you must follow the instructions to go back and choose the correct path (otherwise there will be an installation error).
- 7 Finish up with the installer and a QuNeo folder will now appear in the Applications (Mac) or C: drive (Windows) directory on your computer. Any Software Templates you selected will also be installed in the correct locations.

Select the components you want to install; clear th  
install. Click Next when you are ready to continue.



## Manual Installer Instructions (Mac and Windows XP & 7)

To install the Manual Installer just unzip the file after downloading and move the whole folder anywhere. If using any of the software templates, look inside the "Software Templates" folder and the folder for the desired software to find a README file and/or a Quickstart guide. The README files contain instructions for manually placing the necessary template files. The Quickstart guides contain instructions for getting QuNeo up and running with the software.

Now that the software is installed, look inside the QuNeo folder to find a "Documentation" folder, a "Software Templates" folder, and a "QuNeo Editor" folder. Use the QuNeo Editor to make changes to QuNeo's presets. Template files for the software you selected will appear in the "Software Templates" folder. To use them just plug in QuNeo, select the corresponding preset, and try out the template. Use the Quickstart Guides in the respective Software Templates folders for more information about using these templates.

Once installed keep everything in the "QuNeo Editor" folder as is so the application can access everything it needs 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:

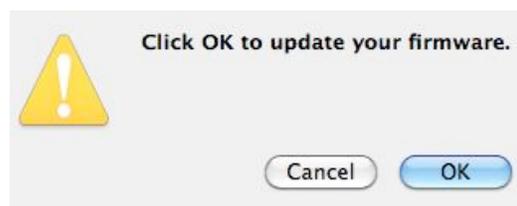
- Windows XP, or Windows 7
- Intel Core 2 processor or greater
- 1GB of RAM with 100 MB free hard disk space

## 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:

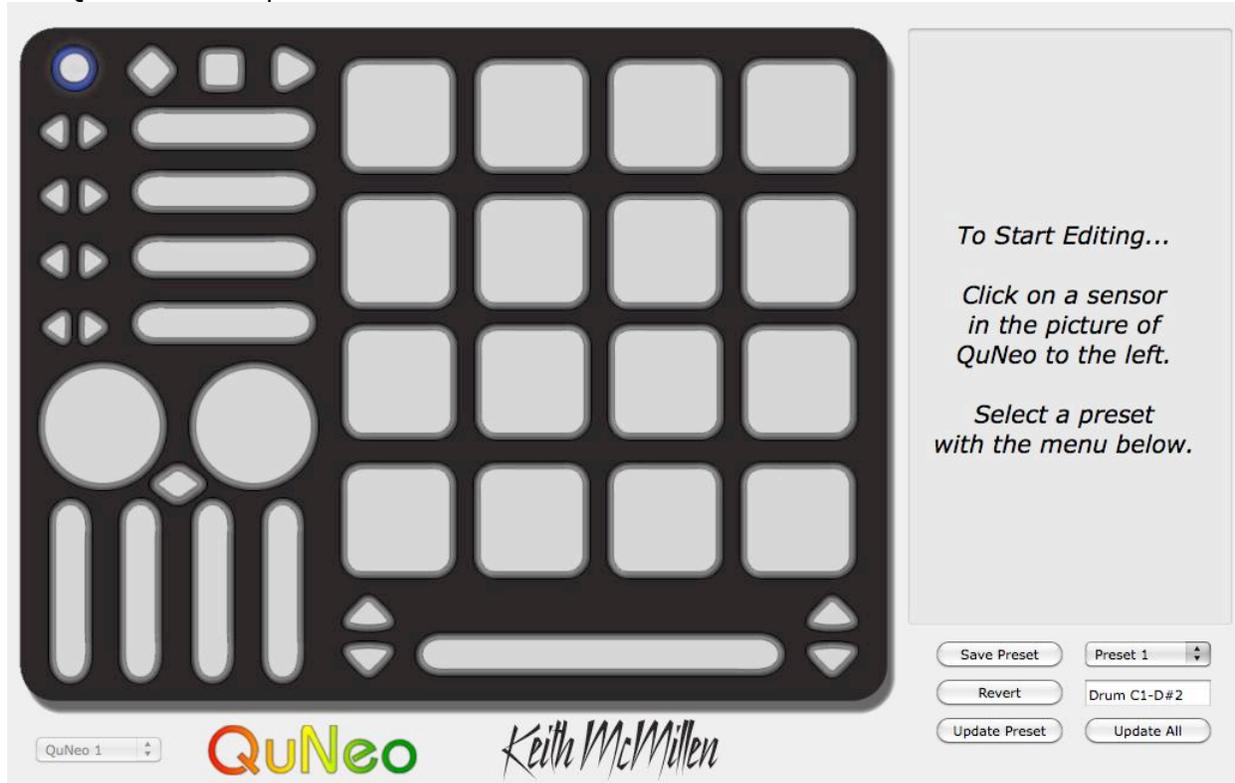
- 1 Open up the previous version of the QuNeo Editor, where you made the presets you wish to use.
- 2 Export each preset using the File menu.
- 3 Exit the previous version of the QuNeo Editor and open up QuNeo 1.2.2.
- 4 Go to a factory preset you wish to import your old preset to.
- 5 Go to the File 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

The QuNeo Editor opens with this window:



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.

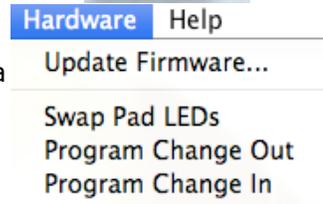
“**Clear Current Preset**” will blank out the current preset. All sources will be off and everything else will be set to their default values, allowing the user to start from scratch. After clearing the current preset, it is necessary to save it. “**Revert Current Preset to Factory**” reloads the original 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.

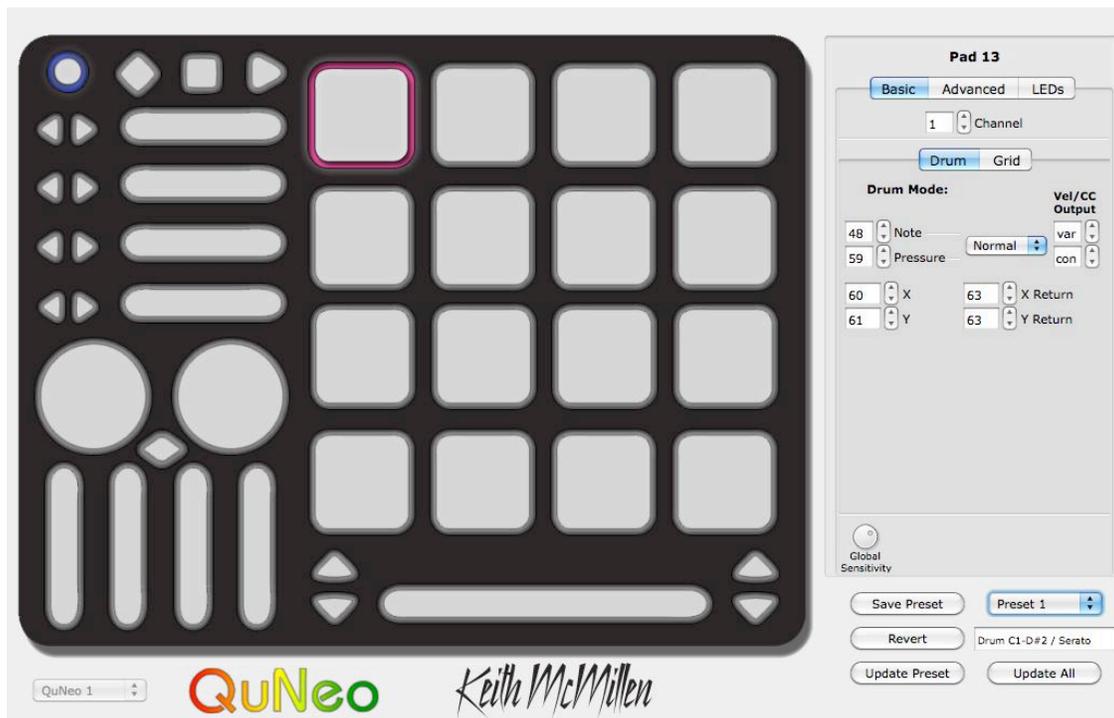


The **Hardware** menu contains a couple options that will affect the QuNeo hardware. The **“Update Firmware...”** option will open up a firmware update prompt. Click ok and the firmware will update. (see the “Updating the Firmware” chapter of the Full Manual for more information).



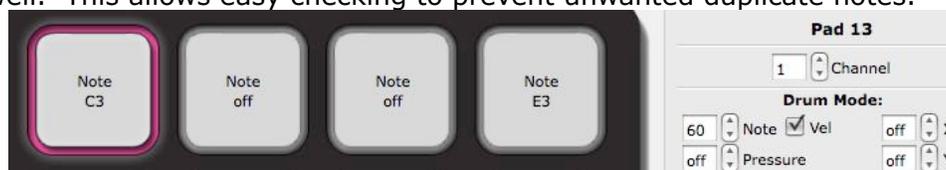
The **“Swap Pad LEDs”** option will switch the red and green LEDs on the QuNeo. Use **“Program Change Out”** and **“Program Change In”** to enable and disable program changing. Enabling Program Change In causes Presets to change when sending a Program Change to QuNeo. Enabling Program Change Out causes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

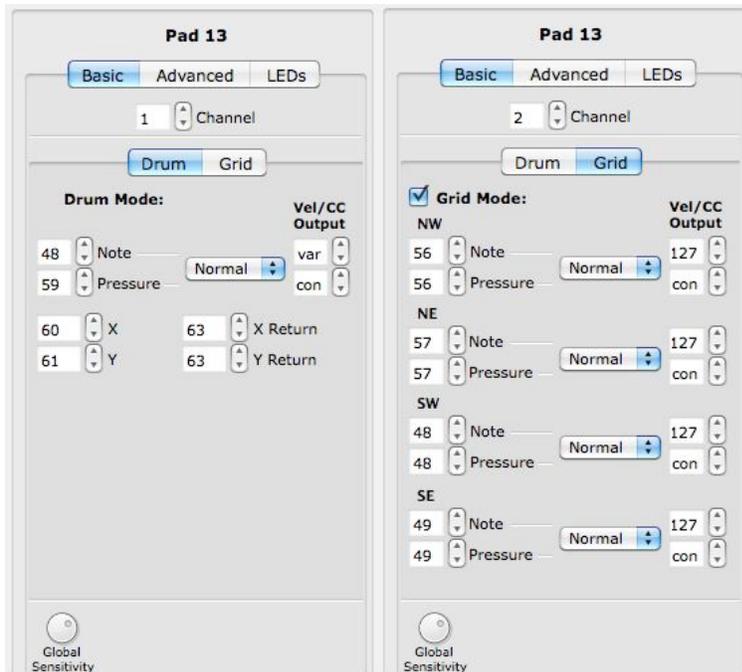
To select multiple sensors to edit simultaneously, hold shift while clicking on another sensor. You can only do this with sensors of the same type. For Example: If a Pad is selected you can shift-click another pad to edit them together (you cannot shift-click to edit a Pad with a Horizontal Slider or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

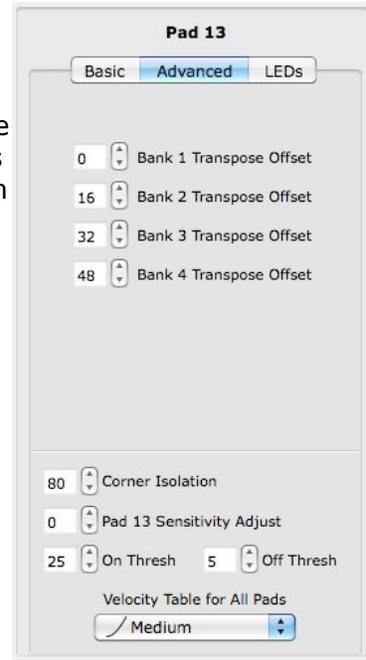
**X and Y Return** values are the CC value that X and Y will return to when the Pad is released. If the number box is set below 0 the values will "latch" (-1), staying where they are left when the pad is released.

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

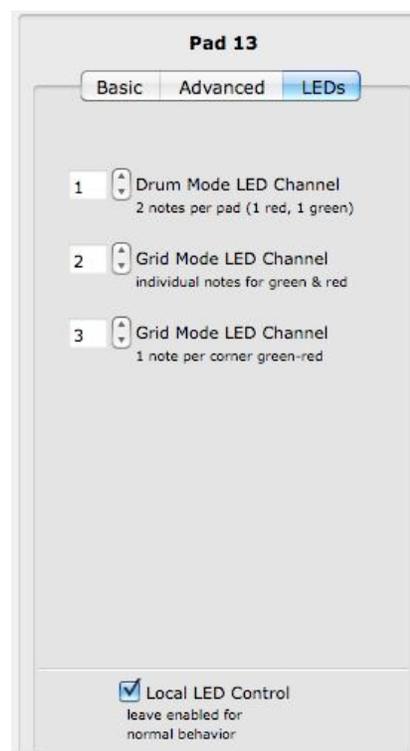
The LED tab of the Pad edit pane allows you to choose individual LED channels for Drum mode and both of Grid mode's LED behaviors.

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.

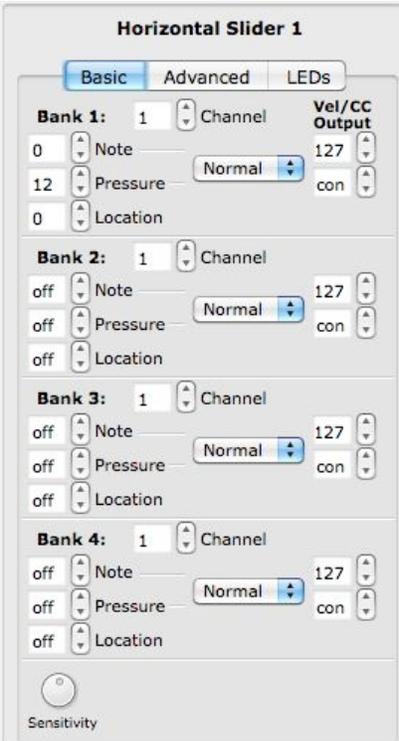
The input Channels for these LED behaviors are adjustable (as shown in the image to the right). For a map of the hard coded notes and CC#s that control the LEDs, see the MIDI Input chapter of the Full Manual.



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.



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.

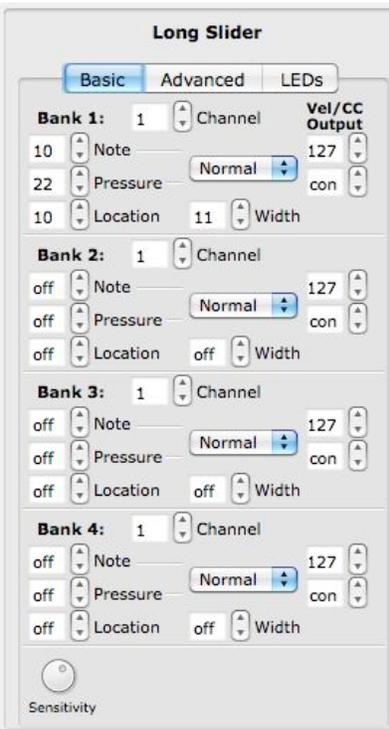
The Slider Edit Pane parameters include a Note, Pressure CC#, and Location CC# for each bank. To disable a source, set the number box below 0 to "off" (-1).

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



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.

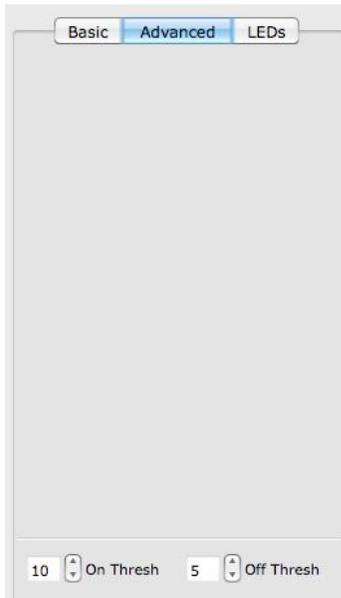
The Long Slider Edit Pane parameters include a Note, Pressure CC#, Location CC#, and Width CC# for each bank. To disable a source, set the number box below 0 to "off" (-1).

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)



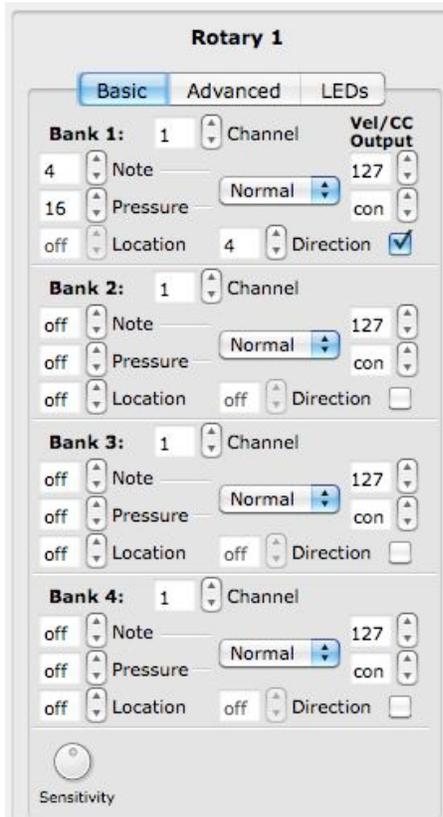
The Horizontal, Vertical, and Long Sliders all have the same Advanced tab. There isn't much in here just yet except for On and Off threshold adjustment parameters.

**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.

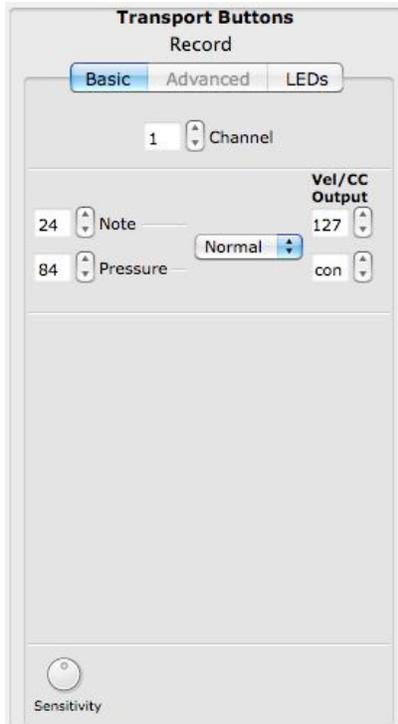
The on and off thresholds can also be adjusted in the Advanced tab. These are global for both Rotaries.

**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 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.

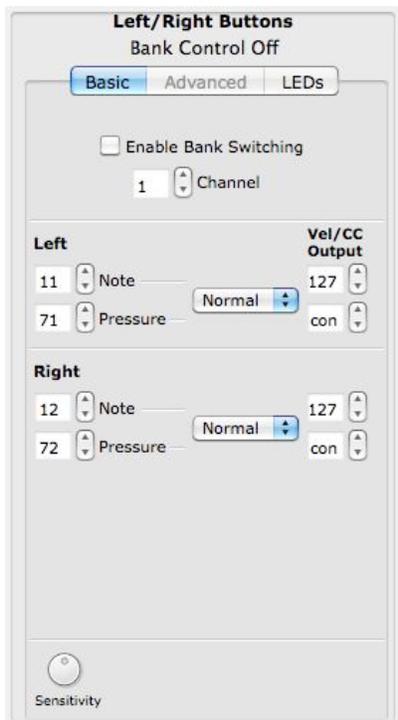
Assign the Channel, Note, and Pressure CC# for each Transport button in the Basic tab. To disable a source, set the number box below 0 to "off" (-1).

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 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.

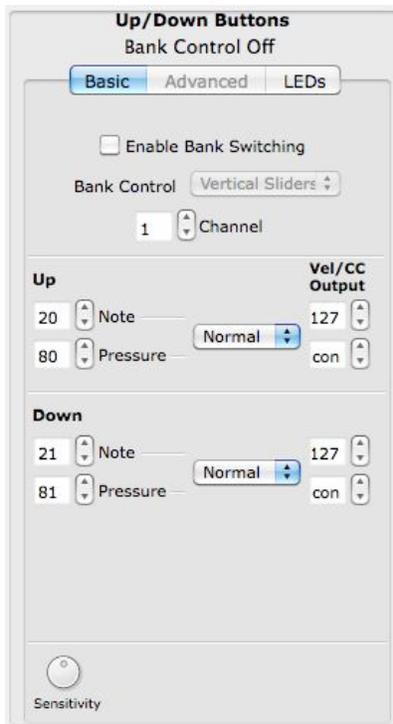
If Bank Switching is disabled, each button can output an assigned Note or Pressure CC#. To disable a source, set the number box below 0 to "off" (-1).

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



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.

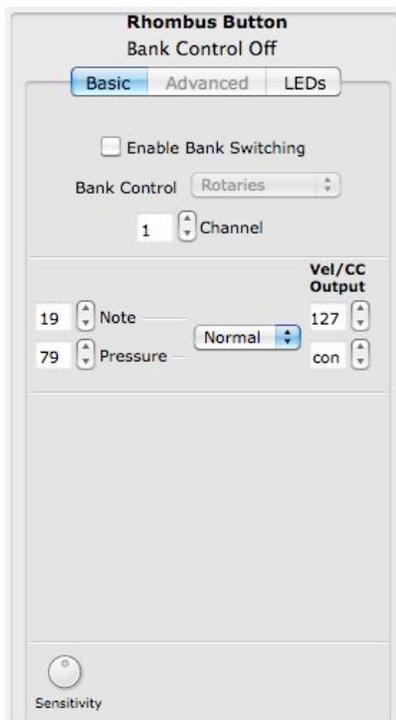
If Bank Switching is disabled, each button can output an assigned Note or Pressure CC#. To disable a source, set the number box below 0 to “off” (-1).

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



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#.



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

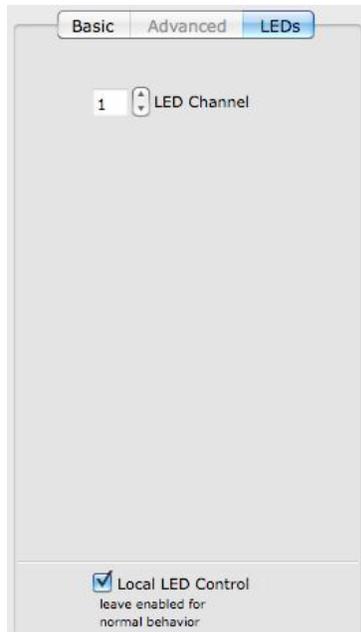
To edit the sensitivity of the various sensors, use the **sensitivity** dial at the bottom of each of the edit panes. Sensitivity controls how easy it is to get higher value ranges when controlling pressure and velocity. The higher the sensitivity, the easier it will be to reach the upper range of values.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