

# MantaRouter Manual

MantaRouter2010-0919  
Damon Holzborn

**For troubleshooting help the fastest way to get an answers is in the Snyderphonics forums:**  
<http://snyderphonics.com/forums/>

To subscribe to the mailing list to receive updates about MantaRouter and other news send a message to [damon@zucasa.com](mailto:damon@zucasa.com) with "Subscribe News" in the Subject.

## Installation

If you don't own Max or Max for Live you can use this patch using the **free Max Runtime** version which can be downloaded here:

<http://cycling74.com/downloads/>

Note that there is no free Max for Live runtime but you can use the regular Max Runtime version to communicate with Live (or other DAW of your choice).

\*\*\*\*\* **IMPORTANT** \*\*\*\*\*

The patches require the Snyderphonics Manta object and Peter Elsea's Lobjects library.

The Manta object can be downloaded here:

<http://snyderphonics.com/downloads.htm>

The Lobjects library can be download here:

<http://artsites.ucsc.edu/EMS/music/research/lobjects.readme.html>

**Be sure to carefully follow the installation instructions!**

(Make sure to download the correct version - Mac users: if you have an Intel Mac, download the "Universal Binary" version, **not** the "OS X" version of Lobjects!!!)

\*\*\*\*\* **IMPORTANT** \*\*\*\*\*

To install Manta Router:

- Unzip MantaRouter2010-0729.zip.
- Place the entire folder (MantaRouter2010-0729) in the Max patches folder (Cycling '74 folder if you just installed the runtime version).

There are versions of the patch to use with Max (or the Max Runtime) and for Max for Live. The patches you will use will be located in the "Max for Live Patches" folder or the "Max Patches" folder, respectively. Mess with the items in other folders at your peril.

**MantaRouter.maxpat / MantaRouter.amxd** - This is the main patch.

**MaxMessageDisplay.maxpat / MaxMessageDisplay.amxd** - A demo patch that will display the Max messages (if you have any of the parameters set to send Max messages).

---

If you are using the Max for Live version, the patch is pretty thoroughly commented. Open the Info View in Live and mouseover a parameter in the patch for a description. Much of the info below can be found there.

See the **Interface Guide** below for a detailed description of each element of the interface.

# Upgrading

If you are installing a new version you may have made some presets you want saved. If you don't care about any old presets, just throw out the old MantaRouter folder and replace it with the new one. If you do want them saved, do the following:

- 1) Move the old MantaRouter folder someplace safe (e.g. the **desktop**).
- 2) Unzip the new version and put it where the old one was.
- 3) Delete the **settings** directory of the new version and replace it with the **settings** directory from the old version.

## A Few General Concepts

### Saving

Note for the Max for Live version: parameters are not saved with the set. Instead they are recalled from the menu and saved with the **Save** button in the upper left corner. To save subsequent edits just save it again with the same name or turn on **Autosave** to have edits automatically saved. The selected preset, however, is saved with the set.

### Manta Pads/Buttons/Sliders Setup

The **Pads Mode - Perform/Pad Mode - Setup** button is used to toggle between **Perform**, a mode where clicking the mouse on the "pads" displayed in the patch will emulate touching the Manta pads and **Setup**, a mode to setup the messages sent for the continuous pad data, buttons, and slider. For the pads that send note info, this just allows a peek at the note/pad #/name. For the rows or columns that are set to send continuous-only data (by selecting the toggle boxes on the left and bottom of the pad display), it allows their setup. These selected rows/columns are to be used for continuous control only and do not send MIDI note data.

### Note Data Messages

Note on/off messages are sent with velocity for the main 48 pads. You can choose from two types of messages from a pull-down menu on the left side of the patch:

- Note: MIDI - sends MIDI data
- Note: Max - sends a Max message - use receive object "mantaNote"

### Continuous Data Messages

There are 3 types of messages that may be sent:

- CC: MIDI continuous control - note that Live doesn't recognize these MIDI messages for its MIDI mapping, but it will work for non-Ableton plug-ins that have a MIDI learn mode
- Max: sends a Max message - use receive object "mantaContinuous"
- Live: sends Live API messages

And three behavior modes:

- Continuous - continuous values
  - Momentary - momentary on/off
  - Toggle - touch on/touch off
- (note that LEDs are not activated for continuous-only rows/columns)

In addition - If the **Max Poly Off** button is toggled to **Max Poly On**, you can use a Max receive object "mantaPoly" to receive the continuous data from each pad individually.

### Slider Messages

Same as the continuous data messages without the Momentary and Toggle modes.

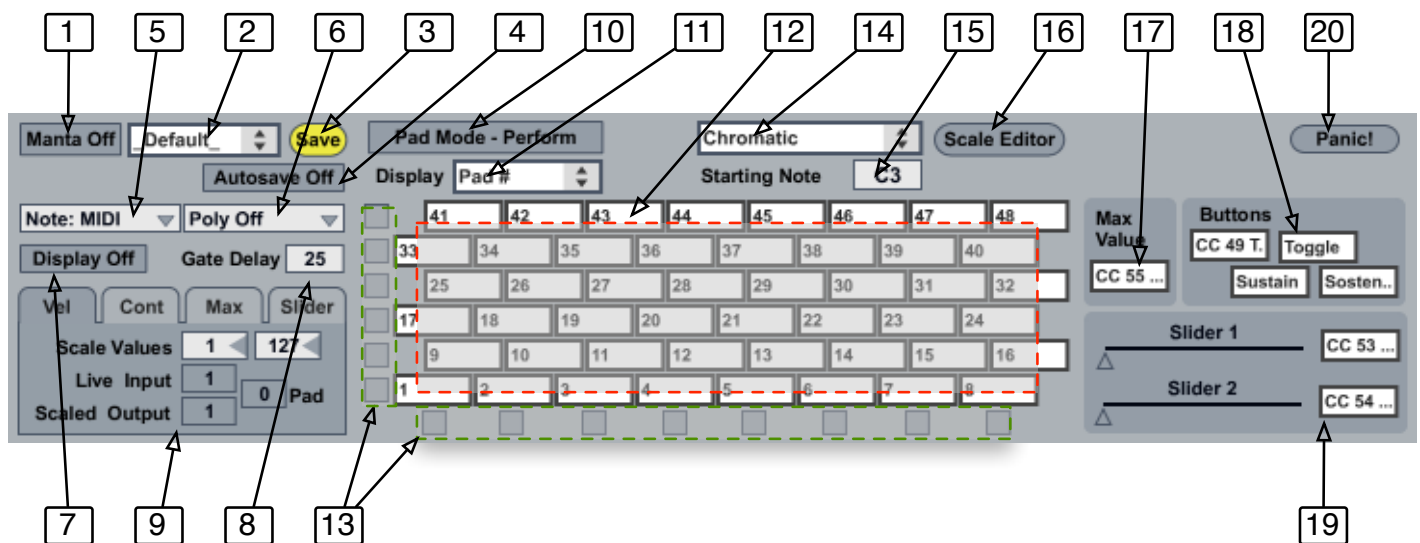
## Button Messages

In the Manta Router, the 4 buttons on top-right of the Manta are only used in Toggle mode (i.e. the buttons don't send continuous values nor can you choose momentary mode). In addition to the types of messages that all the other pads have, they have 3 other modes:

- Sustain: sustain pedal for note pads
- Sostenuto: sostenuto pedal (sustains currently sounding notes) for note pads
- Toggle: makes note pads touch on/touch off

**Only one of these may be engaged at a time.** For example, if you press a button that's set to Sustain mode while another button with Sostenuto is engaged, the Sostenuto button will be automatically turned off.

## Interface Guide



1) **Manta Off / On** - Toggles the connection to the Manta on and off.

2) **Preset Menu** - Menu of presets for the Manta pad setups.

3) **Save** - Saves current setup as a preset. Blinks to indicate that something has changed since last save.

4) **Autosave Off / On** - Toggles autosave mode. When on, any change to the settings will be automatically saved to disk. Saves are not undoable.

5) **Note Menu** - Selects the type of message that is sent for note messages. For Max messages use receive object "mantaNote." Sends value pair: Note Number, Velocity (0-127).

6) **Max/CC Poly Menu** - Chooses the type of individual-continuous data messages, or turns it off. **CC** sends continuous controller values (CC#: pad number, Value: 0-127). **Max** uses the Max send object. Use receive object "mantaPoly" (sends list: note number, value: 0.0-1.0).

7) **Display Off / On** - Toggles display of incoming Manta values. Turn it off when possible to avoid unnecessary CPU usage.

**8) Gate Delay** - Sets the delay time (in milliseconds) for activation of continuous values. This keeps the continuous values from going to 0 each time the finger is removed. Higher values will filter out more unwanted drops but introduce more latency to the reporting of continuous values. Note that this does not affect the note on/velocity values.

## **9) Display Tabs**

Note the different manner of processing for the velocity values (scaling) and continuous/sliders (clipping).

### **Vel Tab**

Sets and displays note pad velocity values.

**Scale Values** - Sets low/high values for scaling of velocity values. The raw incoming values of 1 to 127 will be scaled between the values set here.

### **Cont Tab, Max Tab, Slider Tabs**

Sets and displays the individual continuous, max-continuous and slider values.

**Clip Values** - Selects lowest continuous value that will pass. Values between the low and high will be scaled between 0.0 and 1.0 and values outside of the range will be 0.0 or 1.0.

**10) Pad Mode - Perform / Setup** - Switches between Play mode (where the onscreen pads mimic Manta touches) and Setup mode (where pad functions are set and values can be displayed).

**11) Display Menu** - Selects displayed information for note pads (Pad # | Note Name | Note #).

## **12) Pad Display**

In "Pad Mode - Setup": sets (for continuous-only pads) and displays (for note pads) current setup values.

In "Pad Mode - Perform" : emulates the function of the corresponding Manta element.

**13) Continuous Control Toggles** - Toggles a row/column to be used for continuous control. Selected rows will not send note data.

**14) Scale Menu** - Selects a scale.

**15) Starting Note** - Selects MIDI note number for starting pitch.

**16) Scale Editor** - Opens scale editor to edit or add new scales.

**17) Max Value** - Works like Pad Display for the max-continuous values that are sent from the note pads.

**18) Buttons** - Same as Pad Display for the max-continuous values that are sent from the note pads.

**19) Slider 1 & 2** - Same as Pad Display for the sliders.

**20) Panic** - Sends "all notes off" message (in the case of a stuck note).