MantaMate User Manual

Snyderphonics

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Contents

Preface

Thank you for purchasing the *MantaMate*! The *MantaMate* is a Eurorack module intended for interfacing a variety of control devices with the world of Eurorack. As you may have guessed, the primary device we had in mind was the *Snyderphonics Manta*, but the module is in no way limited to just the *Manta*.

The *MantaMate* combined with a traditional control device acts as a CV converter.

The *MantaMate* combined with the *Manata* acts as a control device as well as a fully-featured pitch and rhythm sequencer. These features include:

- Two sequencers running in parallel, each of up to 32 steps
- Each sequencer can be a pitch or trigger sequencer
- Variable note length
- Variable CV control: four CV values per note, per sequencer allowing up to eight controllable CV outputs
- Pitch and CV glide
- Composition mode to chain together sequences into longer tracks
- Up to 89 (????) saved compositions, each of up to 32x2 sequences
- On-the-fly control for both in-studio and performance use

If you have any questions, feel free to reach out to Jeff Snyder <jeff@snyderphonics.com>

Section 1

Manta Input Device

This section covers using a *Manta* HOST device with particular focus on sequencer/composition mode.

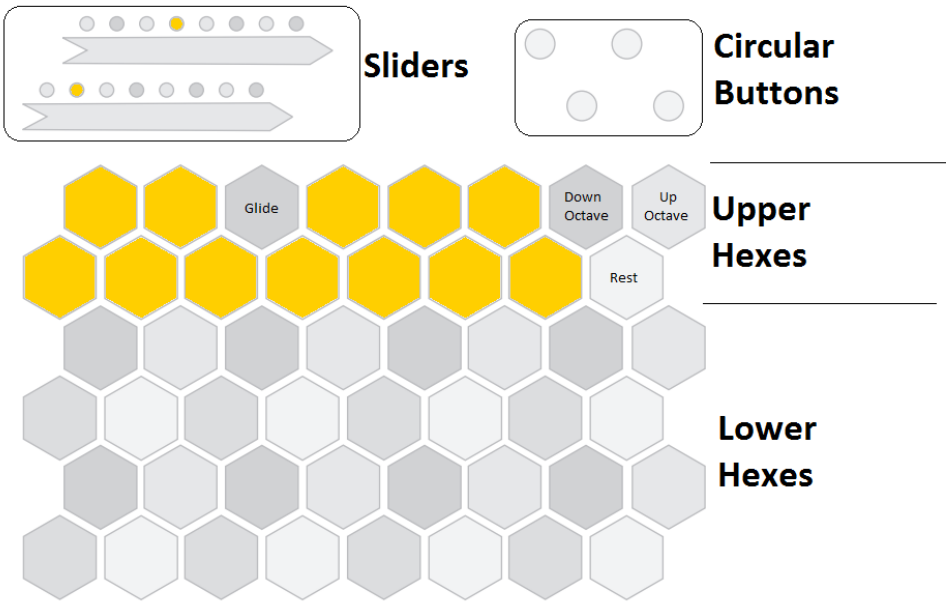
1.1 Quickstart

Somehow condense everything to like 1-page of instruction to get up and going.

1.2 Manta Presets

With a *Manta* HOST device, the *MantaMate's* 00-06 presets represent different ways the *Manta* can be used as an instrument. The remaining 10-99 presets are user-saved. The active preset is shown on the *MantaMate's* display.

- `00` Blank composition sequencer (default)
- `01` Monophonic controller
- `02` Duophonic controller
- `03` Triophonic controller
- `04` Tetraphonic controller
- `05` CV controller
- `06` Gate controller
- `07` Trigger controller
- `08-09` Unused
- `10-99` User-saved compositions.



1.3 Composition Preset

The 0 preset is the primary empty preset that can be used as a sequencer, keyboard, or direct trigger/gate/CV controller.

When in a blank composition, the *Manta* will default to a single sequencer that can have up to 32 steps activated. This mode will be referred to as Single-Sequence Pitched sequencer mode.

1.3.1 Getting Started/Basic Use

To get up and running with the *Manta*, you will start in Play Mode. In play mode, you can press the lower hexes in order to add them to the sequence. All hexes added to the active sequence will be lit up amber. Initially after pressing a hex, you can press the upper hexes and sliders to change that hexes values.

To further edit hexes that are already added, you can hit the top-right circular button and it will turn red to indicate you are in Edit Mode. You can now select hexes to edit their pitch and CV values, as well as the note length. If you would like to edit more than one hex value at once, you can multi-select in Edit Mode by holding a selected hex down and picking more hexes. Once you have selected a hex (or hexes, indicated by red LED), the list below covers all the values that can be changed for that hex (or hexes) and how to do so:

- 1V/O Pitch Class: Pick the note on the keybed presented on the upper

hexes.

- 1V/O Octave: Press the top-right most hexes to transpose down or up and octave.
- CV1 Value: Press the top slider to change CV1 output value.
- CV2 Value: Press the bottom slider to change CV2 output value.
- CV3 Value: First, access the secondary CV values by pressing the top-left circular button until it is amber. Then, press the top slider to change CV3 output value.
- CV4 Value: First, access the secondary CV values by pressing the top-left circular button until it is amber. Then, press the bottom slider to change CV3 output value.
- Octave Value: First, access the access the misc. slider values by pressing the top-left circular button until it is red. Then, press the top slider to change to change the octave value.
- Note Length Value: First, access the access the misc. slider values by pressing the top-left circular button until it is red. Then, press the bottom slider to change to change the note length value.
- Pitch Glide Time: Press and hold the upper hex that lies between D# and F# to access the glide times. Press the upper slider to change the pitch glide time. Note this is the time to glide TO this note.
- CV Glide Time: Press and hold the upper hex that lies between D# and F# to access the glide times. Press the lower slider to change the CV glide time. Note this is the time to glide TO this hex CV value.

All the above values can be changed for each of the 32 hexes in the sequence. It should be noted that you actually have two sequencers running at once! Pressing the bottom-left circular button will turn it red and present you with the Menu Page. From here you can select Sequencer Mode and Order (covered below), but most importantly you can access the second sequencer by pressing the top-right most hex.

The second sequencer (S2) acts similarly to the first (S1) but they run in parallel.

Okay, so I've changed all these values, but now how do I get these values out of my *MantaMate*?! First, we need to clock the *MantaMate* from the ClkIn input (or use the internal clock, see: 1.4.3). Then you can get the pitch/CV/gate from the respective outputs (where each cell represents a *MantaMate* output):

S1: 1V/O	S1: Gate	S1: CV1
S1: CV2	S1: CV3	S1: CV4
S2: 1V/O	S2: Gate	S2: CV1
S2: CV2	S2: CV3	S2: CV4

The gate out for each sequencer is the clock modified by the note length values of each hex, useful for triggering an ADSR or the like.

1.3.2 Left Option Menu

Fill in everything the left option menu does.

Check out section 4 for possible copy-pasteable content from before the menu switch

1.3.3 Right Option Menu

Fill in everything the right option menu does

1.3.4 Sequencer Outputs

While using a *Manta* host device, the *MantaMate's* outputs are divided into to two separate sequencers. The first two rows of outputs are for the first sequencer, while the third and fourth rows are for sequencer two.

The two sequencers can be changed to pitched, trigger, or even playable keyboard controller independently of each other.

Pitched Mode Outputs

Below outlines the *MantaMate's* output of a sequencer when in pitched mode. Note, this output will correspond to row 1 and 2 if the first sequencer is in pitched mode, and 3 and 4 if the second sequencer is in pitched mode.

1V/O	Gate	CV1
CV2	CV3	CV4

Trigger Mode Outputs

Below outlines the *MantaMate's* output of a sequencer when in trigger mode. Note, this output will correspond to row 1 and 2 if the first sequencer is in trigger mode, and 3 and 4 if the second sequencer is in trigger mode.

CV1	Trigger 1	Trigger 2
CV2	Trigger 3	Trigger 4

1.3.5 Saving a Sequencer Pattern

Explain saving a sequencer pattern.

WARNING: This only saves the sequence for your current session. If you would like to save a preset, see 1.3.6

1.3.6 Saving a Preset

Explain saving a preset.

1.4 Preferences

In order to edit the preferences, hit the lower-right button labeled P. In order to access a subpreference, go to the corresponding preference menu and then hit the save button in the lower-right labeled S.

While in any of the three preference menus, the lower-right LED will be lit.

1.4.1 Tuning and MIDI Learn

In order to enter this preference menu, hit the lower-right P once.

1.4.2 Glide

In order to enter this preference menu, hit the lower-right P twice.

1.4.3 Internal Clock

In order to enter this preference menu, hit the lower-right P three times.

1.5 Monophonic Contoller Preset

Switching the *MantaMate* to preset 01 sets it to the global Monophonic Controller Mode.

The monophonic controller has an output for 1V/O, gate, as well as a CV that corresponds to the surface area coverage of the current hex.

V1: 1V/O	V1: Gate	V1: CV
Unused	Unused	Unused
Unused	Unused	Unused
Unused	Unused	Unused

1.6 Duophonic Contoller Preset

Switching the *MantaMate* to preset 02 sets it to the global Duophonic Controller Mode.

The duophonic controller has two sets of outputs for 1V/O, gate, as well as a CV that corresponds to the surface area coverage of the current hex.

V1: 1V/O	V1: Gate	V1: CV
V2: 1V/O	V2: Gate	V2: CV
Unused	Unused	Unused
Unused	Unused	Unused

1.7 Triophonic Contoller Preset

Switching the *MantaMate* to preset 03 sets it to the global Triophonic Controller Mode.

The triophonic controller has three sets of outputs for 1V/O, gate, as well as a CV that corresponds to the surface area coverage of the current hex.

V1: 1V/O	V1: Gate	V1: CV
V2: 1V/O	V2: Gate	V2: CV
V3: 1V/O	V3: Gate	V3: CV
Unused	Unused	Unused

1.8 Tetraphonic Controller Preset

Switching the *MantaMate* to preset 04 sets it to the global Tetraphonic Controller Mode.

The tetraphonic controller has four sets of outputs for 1V/O, gate, as well as a CV that corresponds to the surface area coverage of the current hex.

V1: 1V/O	V1: Gate	V1: CV
V2: 1V/O	V2: Gate	V2: CV
V3: 1V/O	V3: Gate	V3: CV
V4: 1V/O	V4: Gate	V4: CV

1.9 CV Contoller Preset

Switching the *MantaMate* to preset 05 sets it to the global CV Controller Mode.

The CV controller has twelve CV outputs corresponding to 12 hex surface area coverage.

CV	CV	CV
CV	CV	CV
CV	CV	CV
CV	CV	CV

1.10 Gate Contoller Preset

Switching the *MantaMate* to preset 06 sets it to the global Gate Controller Mode.

The gate controller has twelve gate outputs corresponding to 12 hexes.

Gate	Gate	Gate
Gate	Gate	Gate
Gate	Gate	Gate
Gate	Gate	Gate

1.11 Trigger Contoller Preset

Switching the *MantaMate* to preset 07 sets it to the global Trigger Controller Mode.

The trigger controller has twelve trigger outputs corresponding to 12 hexes.

Trigger	Trigger	Trigger
Trigger	Trigger	Trigger
Trigger	Trigger	Trigger
Trigger	Trigger	Trigger

Section 2

Other Input Devices

This section covers using other HOST devices with the *MantaMate*. We hope that any input device you can think of works with the *MantaMate*, but we cannot make any guarantees. Below outlines some of the devices we tested and ensured worked as one would expect!

2.1 Computer/DAW

This works right? I think Jeff mentioned it worked? It'd be killer if it did.

2.2 USB-MIDI Keyboard Controller

This definitely works but I don't know to what extent (are we guessing knobs MIDI channels and then converting that to CV???? If we are, we are awesome)

2.3 USB Game Controller

Gotta test this again too

2.4 Guitar Hero Controller

This would be silly but fun

2.5 DDR Dance Pad

Maybe only vaguely usable but who else can say they have DDR working on Eurorack!?

Section 3

No Input Device

This section outlines *MantaMate* presets when using no HOST device.

NO DEVICE ATTACHED (all presets include a clock out trigger on output A1)

3.1 Presets

Each of the *MantaMate* presets has a clock output on the A1 output. The remainder of the outputs vary as follows:

0 11 Random voltages on each clock
1 11 Random Gates on each clock
2 11 Random Triggers on each clock
3 Consecutive integer dividers – random voltages
4 Consecutive integer dividers – gates
5 Consecutive integer dividers – triggers
6 Consecutive integer dividers – toggles
7 Power of 2 dividers – random voltages
8 Power of 2 dividers – gates
9 Power of 2 dividers – triggers
10 Power of 2 dividers – toggles
Presets 11-18 use randomly generated patterns that repeat
11 All patterns same length – random voltages
12 All patterns same length – gates
13 All patterns same length – triggers
14 All patterns same length – toggles
15 Each pattern has its own random length – random voltages
16 Each pattern has its own random length – gates
17 Each pattern has its own random length – triggers
18 Each pattern has its own random length – toggles
19-99 User storable presets (save the randomly generated patterns)

The No Device functionality is activated by pressing the up or down button while no device is plugged into the MantaMate. It will then continue until power is turned off or a device is plugged in.

The repeating random patterns are generated on power-up. Each of the 11 available outputs has its own pattern that is 32 steps long.

You can generate new ones by holding down the Preferences button and then pressing the up or down buttons.

Pressing up results in a compeletely new random pattern. Pressing down subtly changes the current patterns.

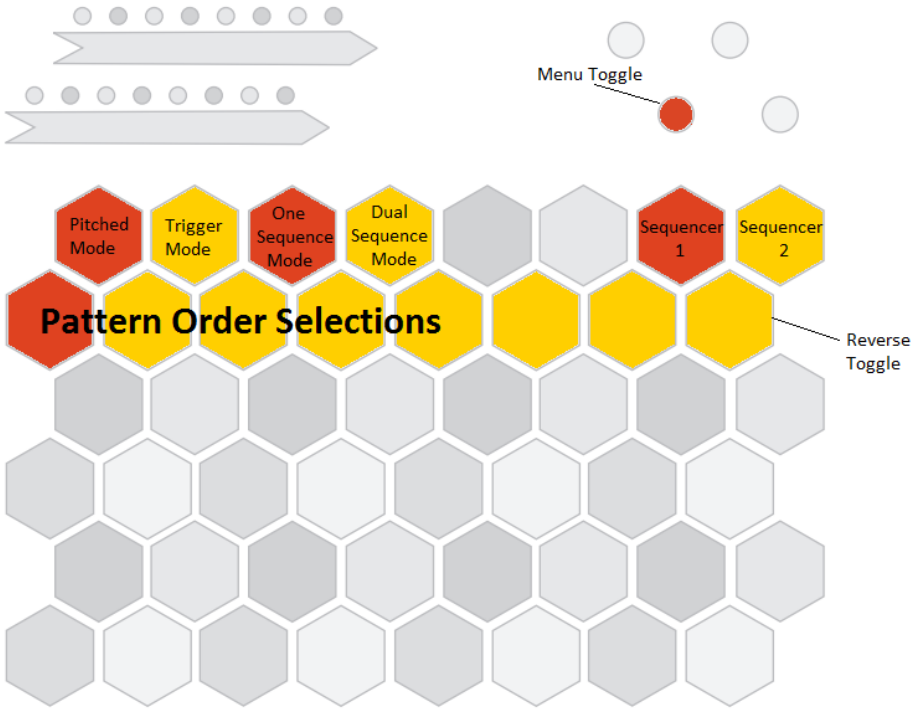
There is a Pattern Length parameter that is set by going into the first preference menu (tuning) and pressing S to get to the sub-menu. You can then alter the length parameter. In the case of the "all patterns same length" presets, this Pattern Length enforces the reset of all patterns, so that they all cycle at the same time. In the case of "each pattern has its own random length" presets, the Pattern Length is treated as a "maximum pattern length" and will reset any patterns that are not already repeating in a shorter time period. The value defaults to 16, and valid values are 1-32.

Section 4

REMOVE THIS LATER

OLD STUFF FROM PREVIOUS ITERATIONS OF MM. DONT FORGET TO REMOVE

In order to change the sequencer mode and order, first access the Menu Page by hitting the bottom-left circular button on the *Manta*.



There are four (TODO: Five?) sequencer modes the Manta can be in that are accessed by the the top-left four Hexes in the Menu Page:

From left to right:

- Pitched (default)
- Dual-Sequence Pitched
- Trigger
- Dual-Sequence Trigger
- Mixed (TODO?)

Although the naming seems to imply otherwise, both Pitched Mode and Dual-Sequence Pitched Mode have two running sequences. The difference lies in that the Dual-Sequence Pitched Mode presents the user both sequences on the same page, while the two sequences in Pitched Mode must be flipped between using the two rightmost hexes in the Menu Page.

The above is also true of Trigger Mode and Dual-Sequence Trigger Mode.

The Menu Page also allows you to switch the sequence order mode, these can be changed by the second row of hexes:

From left to right:

- Left to right, bottom to top
- Left to right, top to bottom
- Diagonally up
- Diagonally down
- Caterpillar
- Order in which hexes are added
- Random
- Reverse the currently selected order mode. Or turn random mode to a random walk pattern.