

# Midiator

Midiator allows the Ornament-8 to sequence midi gear, bringing its unique sequencing style to the digital control domain.

Midiator has 8 identical independent gate in - midi out lanes to produce up to 8 midi events with assignable note, channel and velocity. Midiator is 8-voice polyphonic, which makes it suitable for tonal music as much as for atonal.

Midiator works great with digital drum machines, multi-timbral synths and samplers. you can create chaotic evolving sequences with the Ornament and then apply complex digital synthesis over them.

Midiator has analog clock out to help you keep your digital and analog devices in sync.

## Features

- assignable note, channel and velocity
- full-size midi in for note mapping and midi clock signals
- dedicated analog clock out with different divisions
- midi-thru function

## Basic principles

Midiator transforms analog gate signals to midi commands.

It has 8 independent gate inputs and can provide 8 independent notes on different midi channels, call them "control lanes".

For each lane you can assign midi note, channel and velocity. For full control over Midiator you will need a dedicated midi keyboard or sequencer with 5-pin midi connector (or a way to connect your gear to this port). Each lane also has an activity led and a manual gate/midi learn button.

Midi mappings and settings are stored in the Midiator's non-volatile memory and recalled every time you power the device up.

The buttons on each lane to learn midi mappings, but also act as manual triggers. you can check your mappings or even play on Midiator's buttons.

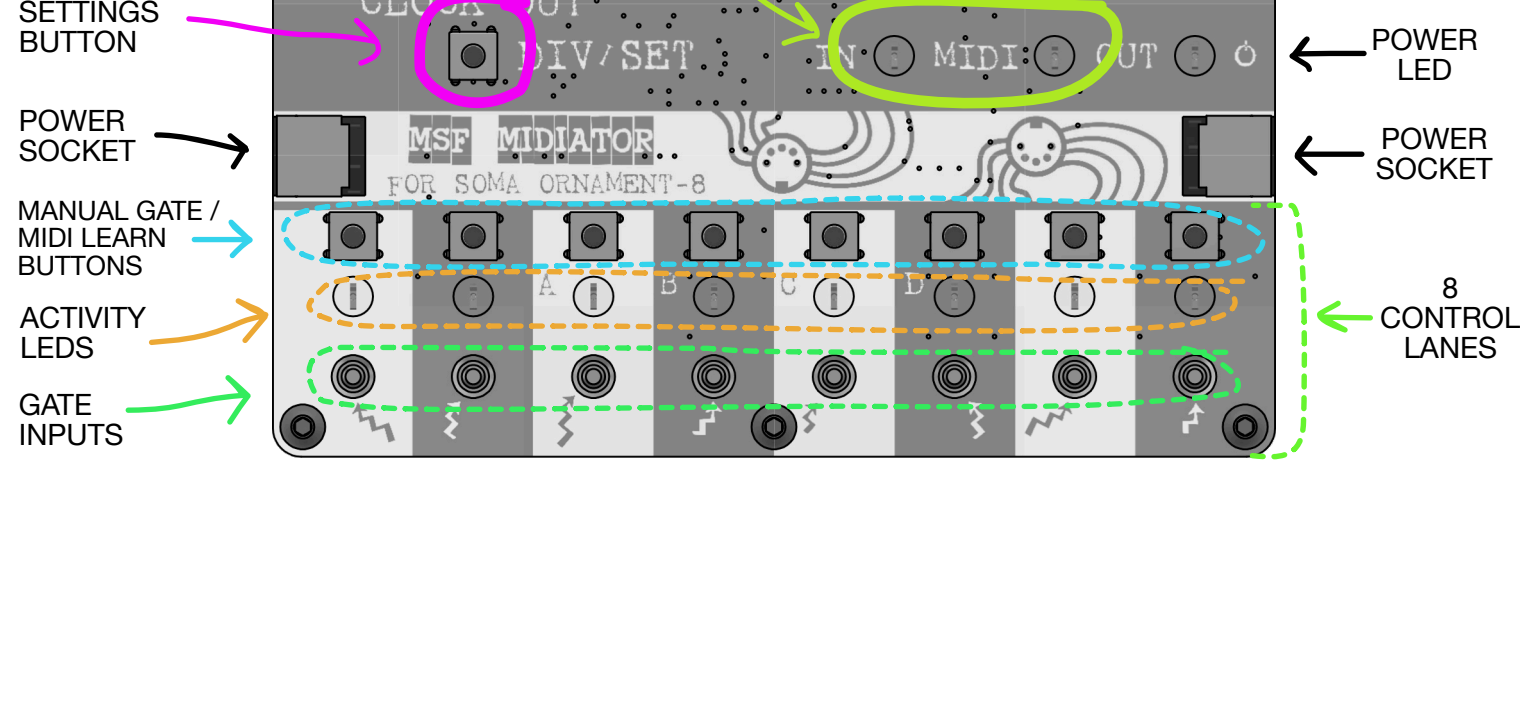
Midiator works best with Pulsar outs on the Ornament-8, but it can also work with CV outs. When working with CV outs, Midiator can have sloppier timings, which may come useful in some cases.

While performing on Midiator, you can mute any control lane, which can come handy in live gig situations - just hold the "div/set" button and click the desired control lane's button while pressed. you can repeat this action to unmute the lane.

Active (unmuted) lane leds are on while "div/set" is being held, muted lane's leds are off.

You can select whether or not the commands coming to Midiator's midi in port will be transmitted to the midi out port. To learn more, check the "settings page" paragraph.

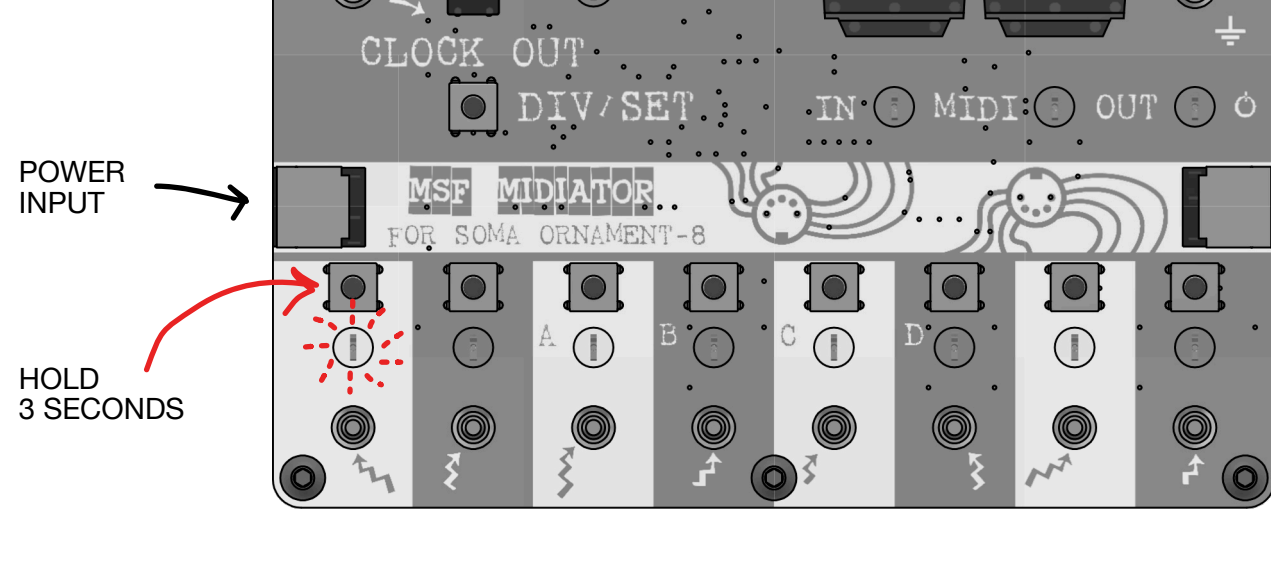
You can use power-thru socket as a power source for any other compliant Soma gear.



## Midi learn

Midiator has a midi learn function. You can assign any note, it's midi channel and velocity on any gate:

- connect an external midi controller to Midiator's midi in
- hold the midi learn button on the desired lane for 3 seconds. lane's led will start blinking.
- send the midi note from your controller. Midiator will remember the note, its channel and velocity.
- to cancel midi learning mode, push the midi learn button on any other control lane.
- you can disable velocity learning, check the "setting page" paragraph to learn more.



## Clock out and clock divider

Upper left part of the Midiator is occupied by the clock out module. This module can help you to synchronize digital gear with midi clock out with analog machines such as Eurorack, Soma, Buchla and others. The pin connector is designed to work best on Soma gear (low level is active), and the 3.5mm jack has more conventional "high level is active" logic. You can use both outs simultaneously.

This module will work only when a midi clock source is connected to Midiator's midi in port.

Clock out generates analog clock signal from midi clock which is usually actual bpm. You can select between a list of divisions: 1/1, 1/2, 1/4, 1/8, 1/3, 1/6, 1/9, 1/5, 1/10, 1/7, 1/14.

To select a division, use the div/set button. Single tap selects the next division, double tap — the previous one.

Clock out can react to incoming midi realtime messages — start/stop. In this case, clock out will output the signal only if the start command came and until stop command will come. This is useful for synchronizing the analog part of the setup with the digital.

This mode can be disabled in the settings mode — when it's disabled, clock out will output the signal when midi clock messages come disregarding start/stop midi messages.

## Patching

### Patching with Soma Ornament-8

Midiator is designed to work with Soma Ornament-8.

Connect Midiator to power (via power adapter or power patch-cable), connect grounds between the Ornament-8 and Midiator, connect Ornament's Pulsar outputs to gate inputs on Midiator and you are good to go!

From this point, you're able to send notes from the Ornament to Midiator and play on Ornament's buttons. Create a sequence on the Ornament to keep the music going.

Practice muting tracks — click on the control lane's button while holding the 'div/set'. Repeat this action to unmute the lane.

### Patching with Soma Pulsar-23

Midiator can work as a midi out unit for Pulsar-23 as well. It works with env and trig outs on voices, clock outs, lfo, shaos and manual CV pads — basically, with every CV output.

Don't forget to connect the grounds of your devices!

### Patching with Eurorack

You can also use Midiator as a gate-midi adapter for your Eurorack equipment, as long as you have a way to connect pin points with Eurorack jacks (you can use MSF Kommutator or adapters on Soma Pulsar-23, Soma Pulsar utilities and Soma Ornament-8).

## Settings mode

Midiator has a dedicated mode to access some settings.

To enter this mode power up the device while keeping div/set pressed. Release the button after powering the Midiator up. In settings mode clock out led will be lit.

Button	Setting
A	midi-thru — transmits all data from the midi input to the midi output, may introduce some latency to the data. Disabled by default.
B	Realtime messages thru — transmits midi clock, and start/stop messages from midi input to midi output. Disabled by default.
C	Follow start/stop — Midiator monitors midi start/stop commands and generates a bpm out signal only on the start command. If you disable this setting, the device will continue to generate a bpm signal if there is a midi clock signal on the midi in, start/stop commands will be ignored
D	Learn velocity — Midiator learns velocity when midi learn occurs. When disabled, the velocity value of 100 is used.

To exit the settings mode, short press div/set. The settings will be stored and Midiator will return to the main operations mode.

## Technical notes

- Midiator's gates have an activation threshold at approx. 4V.
- We do not recommend splitting the signal using Pulsar outs into the Ornament. Optimal results are achieved when Midiator is the sole device connected to the Pulsar outs on the Ornament.
- Required power adapter - 12V 500mA, barrel jack with center-positive connection.
- You can daisy-chain several compatible MSF or Soma devices via power-thru socket.

## We have tested the set-up with the following gear:

- Soma Ornament-8
- Soma Pulsar-23
- Soma lyra-8 + adapter
- Soma enner
- MSF Midiator

Basically, you can connect any gear that uses DC 12V power, and has center positive barrel jack connection.

In case of two or more devices connected with power-thru socket, there's no need for making a patch between grounds.

Do not overload the power adapter with too many gear connected to one chain — we recommend no more than 3 devices at a time.