

SHUTTLE MATE

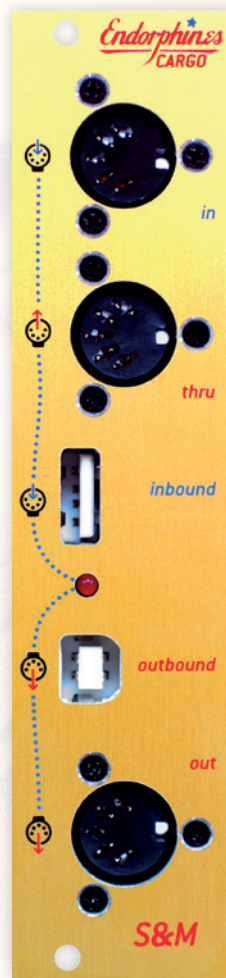


operated by

Endorphines
CARGO

Launch Instructions v. 1.0

Shuttle Mate aka S&M by Endorphin.es Cargo



YOUR BEST MATE IS SHUTTLE MATE:

- 6 HP/TE width, 33 mm (1 1/3") in depth (super slim & therefore shuttle friendly)
- Merge MIDI and USB-MIDI into one MIDI and USB MIDI flow
- Perfect mate for Shuttle Control to be able to connect two MIDI devices into Shuttle's 'to host' input (for example, drum machine or sequencer and midi controller).
- no bus-power required—device runs fully on power delivered from USB socket
- works also as a portable USB host for USB-MIDI only equipped controllers

Endorphin.es Shuttle Mate is a tiny powerful utility module – a perfect combo for Shuttle Control for flexible MIDI signals routing.

Since the Shuttle Control is only able to handle one device at its 'to host' jack, there always was the question how to connect a few devices that simultaneously deliver clock and MIDI data (e.g. drum machine, USB or USB-MIDI keyboard/controller) to that port.

So we developed the S&M—the Shuttle Mate to give Wigglers a few more options.

MIDI IN is a physical DIN MIDI input for a controller.

MIDI THRU immediately returns everything that is send into the MIDI IN jack above. Think of a MIDI THRU like a multiple but for a MIDI signal. You may use that THRU output to make a daisy chain of slave MIDI devices that will receive—for instance—the MIDI clock (a drum machine maybe or sequencer or a synthesizer with arpeggiator that needs to be synchronized to the MIDI clock etc.).

USB-MIDI INBOUND is an USB-MIDI input for a device—e.g. any USB class-compliant midi device like a keyboard or fader board. Same as with the Shuttle Control, that USB port supports Elektron TM-1® USB-MIDI (Turbo-mode isn't available).

USB-MIDI OUTBOUND is the output for the merged MIDI flow from MIDI IN and USB-MIDI INBOUND sources. That output is usually plugged into Shuttle Controls 'to host' USB port, however it may also be plugged into a PC/MAC/iPad (via Camera Connection Kit) directly without any drivers required.

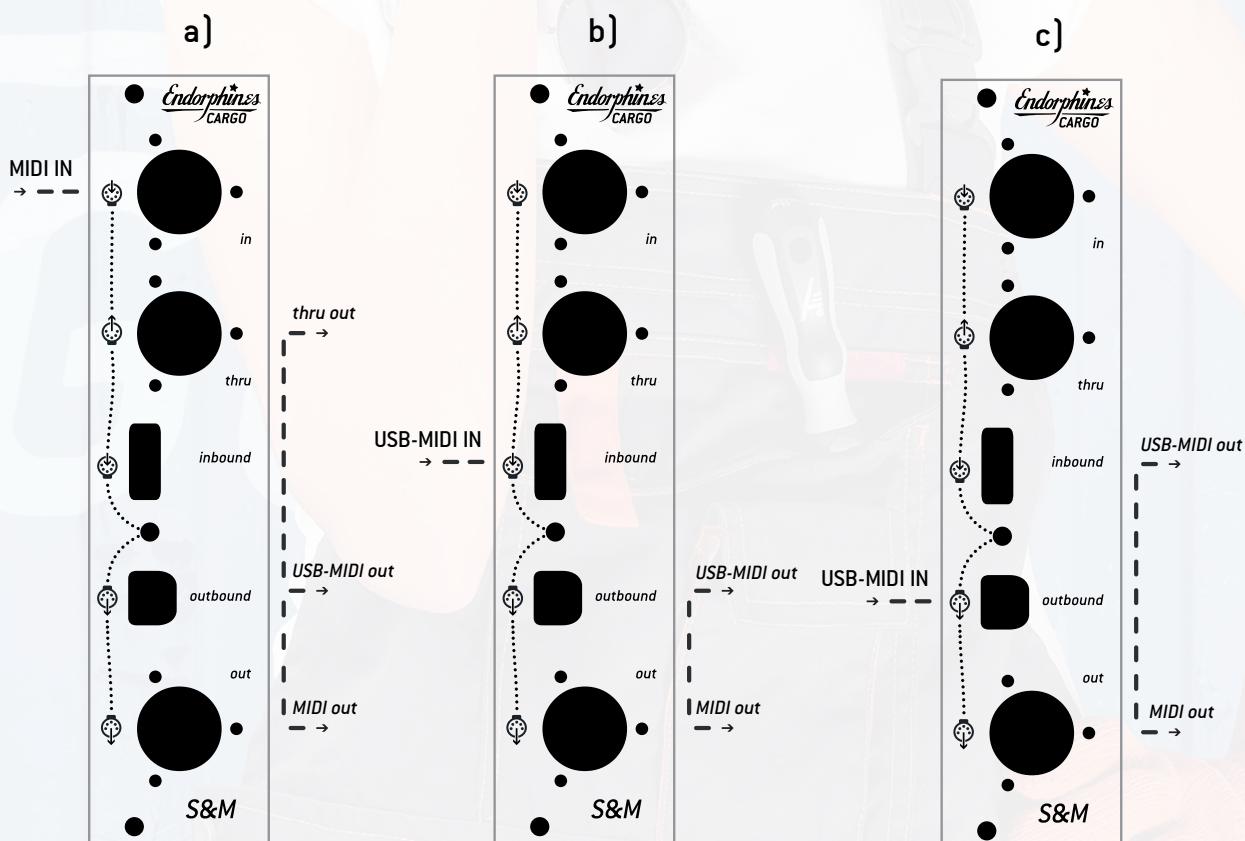
MIDI OUT is a physical DIN MIDI output of the same merged signal as described above for the USB-MIDI OUTBOUND.

Don't forget, you can always 'convert' every USB-MIDI into ordinary DIN MIDI I/O with a simple USB-MIDI adapter from Ebay.

USB-MIDI INBOUND and USB-MIDI OUTBOUND are bi-directional USB-MIDI I/O—e.g. every MIDI data that goes into one USB-MIDI (but not the physical DIN MIDI jacks) will be output from another USB-MIDI socket.

However keep in mind, that USB-MIDI INBOUND socket requires power for the devices that are powered from the USB port. So far, the power for that socket is delivered ONLY from USB-MIDI OUTBOUND socket, that is usually plugged into Shuttle Control or PC/MAC that delivers +5v via the USB connection.

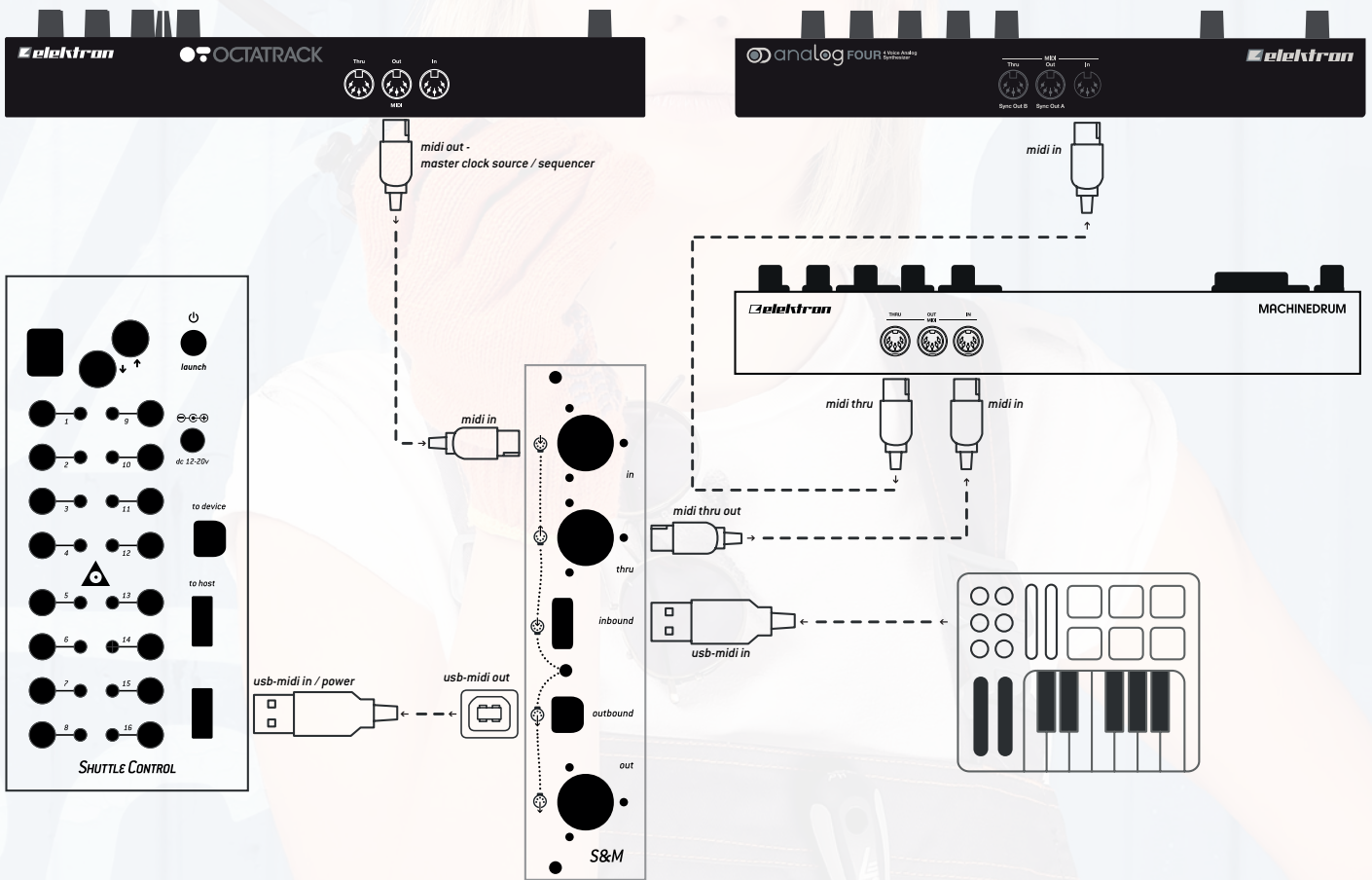
Below you find all signal routing possibilities for the Shuttle Mate to be used in the signal chain with modular gear and other studio gear.



Examples:

1. Merging MIDI signals: In that setup a few Elektron devices are chained to share one clock between each other. One of the Elektrons delivers a master MIDI clock along with the MIDI sequences (e.g. Octatrack that has an onboard sequencer) and another Elektrons (or may be other drum machines etc.) are synchronized to the master. It is conveniently to use MIDI THRU output from the Shuttle Mate to make a chain of synchronized MIDI devices. At the same time a USB-MIDI keyboard is connected to the USB-MIDI INBOUND so, aside the programmed rhythms and drums, you can also play sequences or generate MIDI CC with MIDI control device.

All the flows are merged and output to the USB-MIDI OUTBOUND and physical MIDI OUT. In that case USB-MIDI (type B USB jack) is connected to the Shuttle Control, which then receives all the MIDI data. Depending on the settings of a certain pre-set, bi-directional routing from 'host to device' in the Shuttle may be enabled, so all the MIDI data is afterwards recorded in the DAW on your PC/MAC/iPad that is connected to the 'device' socket of the Shuttle Control.



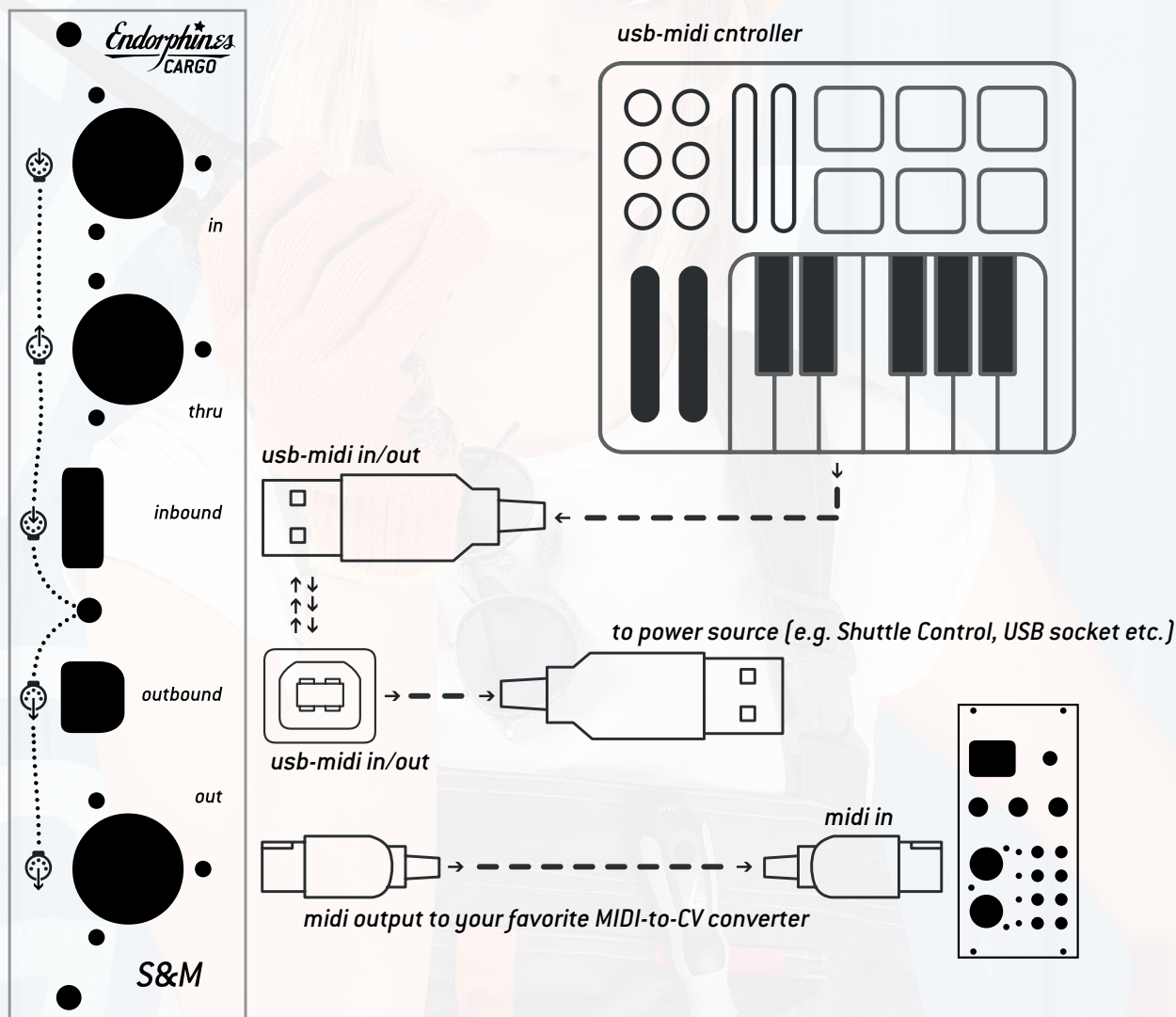
2. **In this setup we use Shuttle Mate as a converter from USB-MIDI into a physical MIDI jack**, which isn't a trivial task especially when you want to avoid using a PC/MAC/iPad during your performance.

Many modern MIDI keyboards are so slim so they aren't equipped with DIN MIDI jacks anymore—e.g. Keith McMillen® Quneo/Qunexus, Korg® Nano and Micro series, Akai® LPK/MPK series etc.

Some of that keyboards however still may come with a few CV outputs (e.g. Qunexus), which is enough for a simple monophonic action, but not for a polyphonic performance or even multichannel setups. That may require an advanced MIDI-to-CV converter, which most commonly accept DIN MIDI plugs as input.

So here's how it works: The input from the USB MIDI keyboard is connected to the USB MIDI INBOUND port and the MIDI out is connected to your favorite MIDI-to-CV converter.

Note, when using a Shuttle Control you may connect all those USB-MIDI keyboards to the Shuttle Control directly.



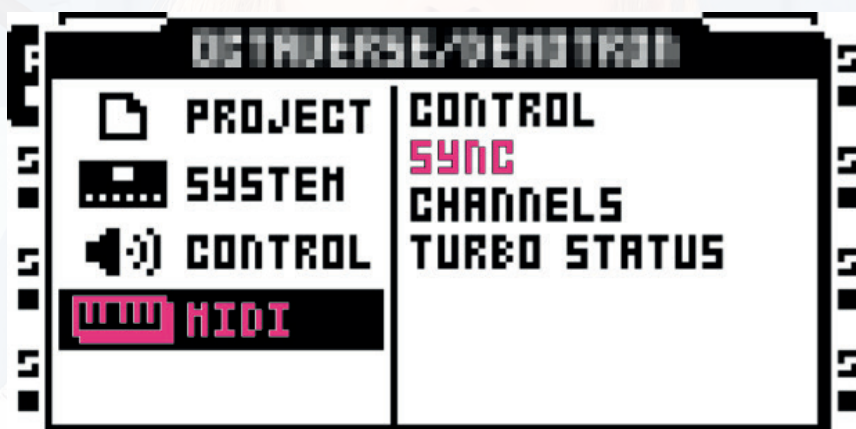
Usually the Shuttle Mate is powered from USB (via the USB-MIDI OUTBOUND socket) so no extra power supply is required.

There is one jumper on the backside of the module that defines either the main CPU of the Shuttle Mate will be powered via the USB port, or via the eurorack powered bus-board. In case you change the jumper setting to the far right position (bus-board), you have to plug the Shuttle Mate to the euro-bus with the 16-pin ribbon cable supplied with the module.

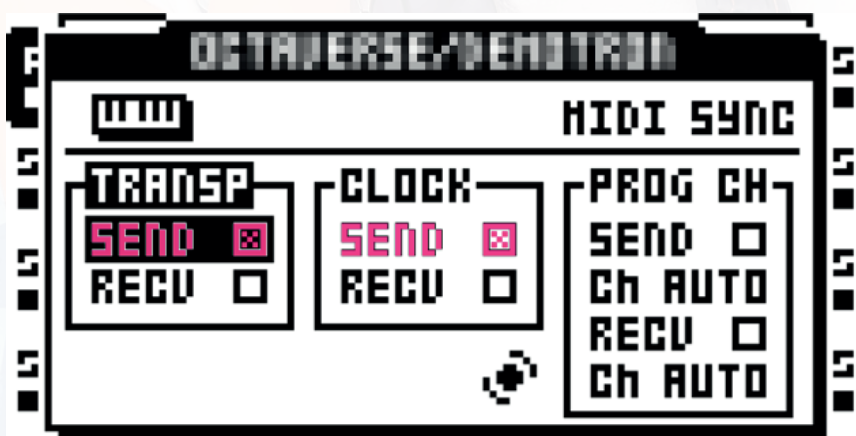
Mind the polarity—the red side pin always corresponds to -12V. That connection has reverse polarity protection and uses only the +12V rail. However as was said before, if you connect a USB MIDI keyboard that is USB-powered into USB MIDI INBOUND socket, **you need to provide power via the USB MIDI OUTBOUND socket**—either by connecting it to the Shuttle Control, a PC/MAC or a USB phone charger.

How to enable MIDI clock output from Elektron's Octatrack MIDI output:

1. Navigate to the project setup by **pressing FUNCTION + MIXER (Project)**.
2. With the arrow buttons then navigate **DOWN (V) to the MIDI section**, choose it by **pressing ENTER (Yes)** and then again **DOWN (V)** choosing **SYNC** from the right section (**confirming ENTER (Yes)**) again:



3. Select the checkbox **SEND [X]** in the **TRANSP** section **pressing ENTER (Yes)** and then navigate **RIGHT (>)** with the arrow button **to the CLOCK section** and **press ENTER (Yes)** to choose the **SEND [X]** checkbox.



4. **Press EXIT / No** a few times to exit from the project settings. Now the MIDI clock and Start/Stop messages will be output at the MIDI out of Octatrack.