



MANUAL + USER GUIDE

TRIFECTA

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Trifecta

Obligatory Legal Stuff

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Trifecta

Important Info

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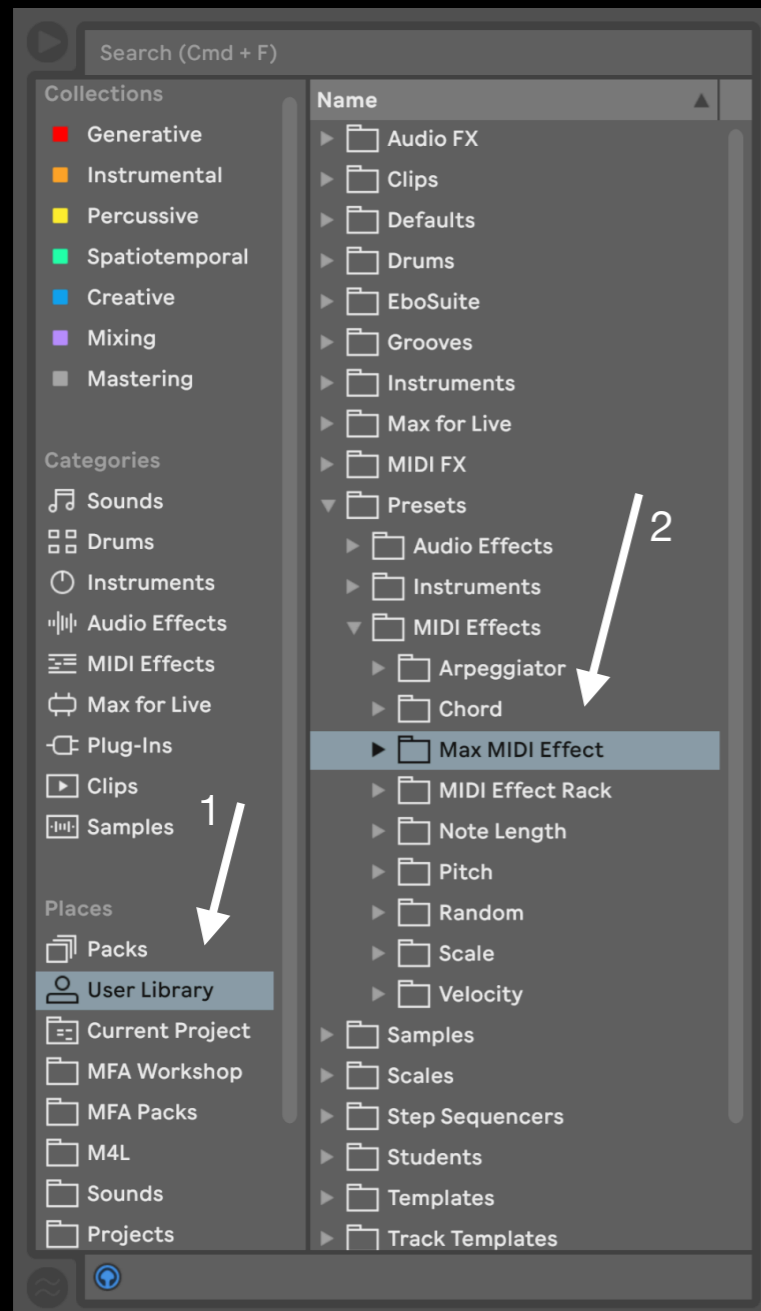
Trifecta is a MIDI effect, which means it cannot be used on audio tracks, and must be placed before instruments.

The device requires Live Suite with Max for Live installed; we strongly recommend Live 10.1.x or higher with Max 8.1.x or higher.

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Installation Instructions

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To install Trifecta, first double-click to decompress the ZIP archive it arrived in. Presumably you've already done this, because you're reading the manual, also included in said ZIP — good job!

From Finder (Mac) or Explorer (Windows), drag the MFA Trifecta .amxd file, to the User Library in the Places section of Live's Browser (Arrow 1 pictured left).

This will copy the required files to your User Library. We recommend adding it specifically to the Max MIDI Effect subfolder of the User Library MIDI Effects folder (Arrow 2 pictured left).

Once installed, we might humbly suggest adding it to an appropriate Browser Collection, if applicable.

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Device Overview

Good things come in threes. Designed to arrive at uniquely interwoven patterns, Trifecta is a three-strand polyrhythmic generative MIDI device. Create sprawling diatonic patterns, or toggle into Drums mode for easy drum rack programming.

Each strand features seven parameter lanes: gate, choice between two selected note pitches per strand, velocity, chance of playback, note length, offset delay, and assignable control change. All lanes come with their own parameter controls, including Euclidean options for gate and note to rapidly generate compelling patterns.

The parameter steps of each lane are fully randomizable to easily arrive at new ideas and patterns. Each lane's note choices can be set via MIDI input in real-time via the learn toggle, or transposed independently of the other strands. Exponentially expanding possibilities and use cases, each strand output can be sent to the current MIDI track - or routed to one of 64 X-Relay destinations to be intercepted anywhere in a set.

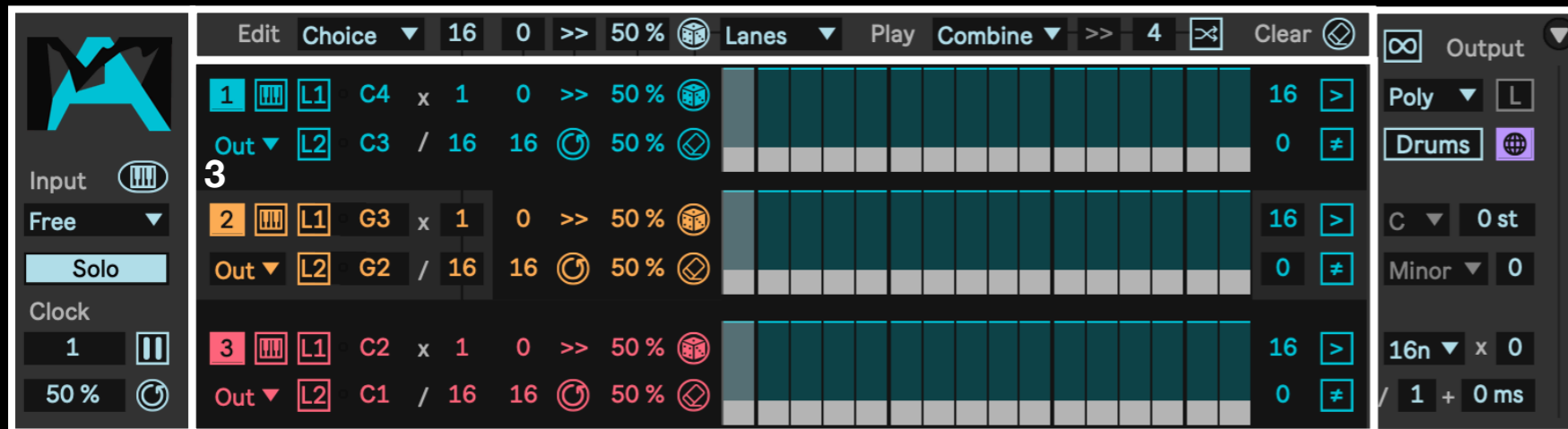
Each parameter lane can be rhythmically expressed across 64 divisions distributed between 1 or up to 64 bars, allowing you to explore all kinds of polyrhythmic odd number divisions. Along with per-lane cycle loop lengths, play direction per strand and a unique shuffle mode, the unfurling potential is boundless in scope. To help rein your outputs into more predictable outputs, a reset in bars is available on a per-strand or global basis.

Along with a complement of other global controls, the three strands can be woven together in four ways: Combine, merging all MIDI notes polyphonically to the device output; Converse, which follows a hierarchical structure allowing strand 3 to play only when strand 1 and 2 aren't playing, and strand 2 to play only when strand 1 isn't playing, with note off states determined by a combination of each strand's gate and chance lanes; Count, which cycles through each strand forward, backward, or elliptically, at a division of bars set by the global Interval parameter; and finally Chaos, which randomly plays a strand at a division of bars set by the same Interval parameter, in two modes: with or without a chance of silence.

Count and Chaos automatically adapt to the number of strands currently activated via their toggles. And of course it comes with the usual scale quantization, offset delay, optional gate and side input modes, and a helpful visualizer to display which strands are playing and when. Scale aware, theme adaptive, configured for Push and fully Info View annotated, Trifecta is a uniquely creative workhorse for everything from dynamic rhythms to expansive musical architectures.

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1



1 • At left are the **input** controls. Click the piano icon button to simultaneously toggle MIDI input transposition for all three strands simultaneously. You can click the logo to flush stuck notes.

Select between Free uninterrupted output, Gate to only allow Trifecta to output notes while notes are received via MIDI input, or Side to only output when notes are not received via MIDI input. Use Arp mode to enable transposition and reset with each new note on. Toggle from Solo to Blend mode to allow notes received at the input to be passed to the MIDI output, via the selected scale and key.

Clock settings include a basic pulse rate which can be expanded or contracted to instantly accelerate or decelerate all three strands together. A global delay amount allows instant control of all three strands' offset delay amounts for easy groove control, though doing so will override individual settings. Of course you can play or pause output, or reset all three strands at the start of the next bar.

2 • Along the top we have our global strand controls. Select the editing lane for all three strands simultaneously via the left dropdown. Specify the division, bar reset, direction, and randomization amount for all lanes at the same time; doing so will override their individual settings. Then we can randomize either all currently selected lanes at once, or randomize strand divisions, multipliers, and lane cycle lengths to instantly produce new rhythmic gestures.

The play chooser determines how the three strands intertwine. The default Combine sends all three strands to a single polyphonic output. Converse automatically toggles between strands with strand 3 only filling the gaps left by strand 1 and 2, and strand 2 only filling gaps left open by strand 1. Count cycles between the strands in a direction set by the slider at left - forward, reverse, or elliptical - at the bar division set to the right of that. Chaos randomizes between the strands at that same interval, with two available modes: no rests, or a chance of rests. Engage shuffle mode to randomize all lane playheads at the same interval just left. Finally, reset all lane step values to their defaults with the clear button.

3 • Each lane comes with an activation toggle that functions as a solo switch with the Shift key held, a discrete input transposition option, and a listen mode for each of the two note choices. Listen mode to quickly set a note option via MIDI key or drum pad — or leave it enabled to dynamically play and change a note option in real-time; alternatively, both note option sliders are available for automation and modulation.

Rhythmically, each lane gets a distribution multiplier and a division, a reset in bars (which, at the default of zero will not reset), and a per-lane cycle length limited by the total step divisions. Please note increasing step divisions will result in empty steps, potentially clearing the pattern; decreasing divisions will also shorten the loop cycle.

Each strand can play forward, backward, or elliptically, and manually reset to restart at the downbeat of the next bar. The current lane can be randomized by the amount set by the percentage slider next to its dice. You can also set all steps to the amount of the slider below that — useful for chance and choice lanes in particular. Click the clear button to reset all step values to default.

Each lane comes with its own parameters at right of the step editor. Gate and Choice get Euclidean patterning with fill and rotation sliders, along with direction and inversion toggles. Velocity, chance, and length get minimum and maximum range constraints. Control gets control change number and MIDI channel. Offset delay gets an amount slider to exaggerate or reduce the amount of offset applied, along with toggle to switch from swing, which only applies every second delay value, to slop so all notes are delayed by their step values - along with a copy button to send a lane's delay values to both other strand's delay lanes.

4 • These are the **Global Output** controls. Default Poly mode allows multiple notes to be output simultaneously, but if you wish only one at a time, experiment with the three mono options here, with optional legato mode. Activate Drums mode to swiftly set output to a chromatic scale with common drum rack note option assignments. Apply sustain with the hold toggle.

The choosers below allow selection of the scale and key to which all outgoing notes will conform, but with scale awareness toggle. If you wish Trifecta to store the selected scale and key and/or ignore Live 12 or an instance of Global Hub, toggle the Global button to pin settings locally. The global transposition semitone and octave sliders are available for automation and MIDI control.

Finally, MIDI output from the device can be delayed by a base rate with multiplier, divider, and additional milliseconds; with multiplier and milliseconds both at zero, there will be no output delay. Reveal the visualizer with the upper right toggle.

The screenshot displays the MFA Trifecta software interface. At the top, it shows 'MFA Trifecta' and 'MPE' controls. The main area is divided into three strands, each with its own lane editor and gate pattern. Strand 1 (blue) is set to C4, x 1, 0, >> 50%, 200% volume, and 1% gate. Strand 2 (orange) is set to G3, x 4, 2, >> 50%, 200% volume, and 1% gate. Strand 3 (red) is set to F1, x 1, 0, >> 50%, 200% volume, and 1% gate. The interface also shows various controls like 'Input', 'Solo', 'Clock', 'Output', and 'Drums'. A piano roll at the bottom right shows the output of the strands, with notes for C4, G2, and C3.

In this example, all three strands of Trifecta will alternate hierarchically in Converse mode, with 16% timing applied globally. Output will be polyphonic in the scale aware key of C Minor, but transposed down one octave and delayed by one 1/8th note due to the 16n x 2 output delay setting. Choice lane editing mode is selected.

Strand 1 will alternate between C3 and C4 in a Euclidean pattern with 9 steps of 13 filled, but only 7 looping. It will play forward and randomize to 20% when the dice are clicked.

The second strand will alternate between G2 and G3 in a Euclidean pattern with 13 of 21 step divisions filled, rotated by 2 steps and inverted. This 21 step division pattern will be distributed across 4 bars, reset every two bars, and play in reverse. With note option one listening mode activated, the top note choice can be changed in real-time via MIDI input.

Strand 3 alternates between F1 and C1 throughout the first 5 looping steps of a 28 step division with a Euclidean pattern filling 12 of the 28 available step divisions and ordered in reverse. In stead of being sent to the track output, Strand 3 is routed to X-Relay conduit 3.

Below each note choice lane, we can see a different gate pattern below, as the gate lane remains visible for reference when other lanes are active. The visualizer is open, displaying a color-coded view of which notes are playing and when.

Hopefully this example gives you some ideas of what Trifecta can do. And remember, there are six other parameter lanes available for each strand, all with their own cycle length.

I just changed the divisions for a strand but the it only plays the first few steps – why?

When changing the division amount, you are also constraining the maximum possible cycle loop as you can't loop longer than the division cycle itself. By the same token, increasing the division amount leaves a shorter loop cycle in place — so be sure to adjust the cycle length separately to taste after adjusting the divisions.

After changing the divisions, why are all the new steps are empty?

Trifecta is powerful, but not telepathic — it doesn't know what values you will want on newly created steps so you have to enter them by hand, by randomizing, or by using the set all values percentage slider for that late. But also, be careful: shortening the divisions will erase longer steps so if you increase the step division after shortening it, previously entered steps will be empty again.

In Converse mode, transitions don't always occur when notes are gated or chanced out, why might that be?

Converse mode transitions only occur when notes have ended, so check the note lengths and make sure they conform to your expectations and consider shortening them where needed.

Output keeps transposing when I play MIDI notes - how can I stop this?

Disarm record input for the MIDI track containing Trifecta, and be sure strand transposition toggles are inactive — easily done for all three together using the global transposition toggle in the input section.

Note output seems transposed lower or higher than it should be — how do I reset it?

If Trifecta was receiving MIDI notes to transpose in Receive mode and then stopped receiving, it may be “stuck” on the last received note; to fix this, toggle the Receive mode button to Internal — and back to Receive, should you wish — to reset the internal note setting. Alternatively, you could feed it the note C3 in Receive mode.

I don't want Trifecta to conform to Live 12 or Global Hub's scale and key — is this possible?

Any device that can be impacted by Global Hub has a Global toggle; click this to pin the scale and key to Local Trifecta settings. Toggling from Local back to Global mode will automatically force the device to inherit Live 12 or Global Hub settings.

Trifecta scale and key are not saved with my Live set or presets — what's wrong?

For device scale and key to be stored locally with a Live 11 or earlier set without an instance of Global Hub, or with a preset, the scale and key Global mode must be toggled to pin the scale and key to Local Trifecta settings first. Toggling from Local back to Global mode will automatically force the device to inherit Global Hub settings.

MIDI notes are getting stuck for some reason — what should I do?

The Manifest Audio logo in the upper left of the Trifecta GUI doubles as a MIDI flush button — in the rare case of emergency, just click there to flush any stuck notes.

Trifecta looks small — how do I make it bigger?

In the Look/Feel tab of Live's Preferences pane, simply increase the Zoom Display percentage slider to 125% or 150%.

I'm getting glitches and drop-outs in Live — how can I avoid this?

In the Audio tab of Live's Preferences pane, increase the Buffer Size to at least 256 samples; we recommend 512.

Thank you for supporting us by purchasing this device — we hope it inspires your creativity!

For more information, video tutorials, and other devices, please visit us online at: **manifest.audio**

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