

model OT15

user manual

(firmware version 1.1.0)

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Introduction

Timetosser is a new kind of live performance tool. It enables you to playfully loop and reorder any kind of musical input in real time. Use it as a standalone device or connect it to your computer to control the Timetosser audio plugin in your favorite DAW software.

Timetosser focuses on re-arranging audio in a performative way. Timetosser uses a continuous audio buffer. With the top row of keys, you select where you listen within that buffer. This allows you to not only loop, but also bring back sounds from the past in a different order. By playing patterns on the top row of keys, you are able to reconstruct the incoming audio in any rhythmical pattern.

The novelty of Timetosser lies in the way it is used: one could simply enable a single effect, but we would like to encourage you to actively play the instrument and make infinite variations to your tracks and loops. Timetosser was born out of a need for a standalone device that endorses live improvisation. We hope it may inspire you in new ways and bring you many extended periods of fun and creativity.

1 - Setting up

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From left to right, the connections are:

- **USB power / host connection.**

Depending on how you connect Timetosser, it operates in one of two modes. When you connect the unit directly to a standard USB power supply it operates in Standalone mode.

When the unit is connected to a computer directly (or via a USB-hub), Timetosser operates in USB-mode. In this mode, it functions as a control surface for the [VST plugin](#). The MIDI-jacks function as a USB-to-MIDI interface. Any input audio is routed directly to the outputs unaffected.

Note: In this mode, the keys light up in a bluish-white and have a fluid-like animation. Also, the presence of input audio colors the keys with a greenish color.

- **MIDI-output.**

Connect the supplied 3.5mm jack to DIN-5 (type B) adapter. Timetosser sends MIDI-clock and Note-On / Off messages on channel 1 in standalone mode. In plugin mode, the port acts as a USB-to-MIDI output.

- **MIDI / Sync input:**

MIDI-mode: Connect the supplied 3.5mm jack to DIN-5 (type B) adapter. Timetosser can sync to MIDI-clock and responds to MIDI-note messages on channel 1 in standalone mode. See "[MIDI mapping](#)" for details. In plugin mode, the port acts as a MIDI-to-USB input.

Gate-sync mode: Connect a standard **mono(!)** 3.5mm jack to a device that has an analog clock or gate output.

*Note: Make sure you connect the MIDI or sync input **before** powering on Timetosser. Plugging anything in while it is turned on will make it confused. This is a known issue and will be resolved in a future firmware version.*

- **Audio outputs.** Plug in two ¼" audio jacks to connect Timetossler to any device with a stereo audio input, like a mixer, amplifier, or even effect pedals.
- **Audio inputs.** Plug in two ¼" audio jacks to hook up Timetossler to any line-level audio source.

After making your connections, turn on Timetossler with the power button.

2 - Playing Timetossier

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*** This quick-start guide assumes there is nothing plugged into the MIDI- / Sync-input. ***

In essence, Timetossier is a tempo-quantized delay unit. Think of it as a classical audio delay with the dry/wet knob set all the way to wet. Timetossier's delay time is determined by what step-length is selected and what you play on the upper row of keys:

$$\text{delay time} = \text{step length} \times \text{step number}$$

Playing the step keys sets different delay times and jumps to different parts of the buffered audio. This allows you to repeat the same note (by going from left to right on the step keys), or to completely reconstruct the beat by playing more complex patterns. Some examples of this can be found on our [YouTube channel](#).

Start off by playing some music. If not already on, press the leftmost step-key:

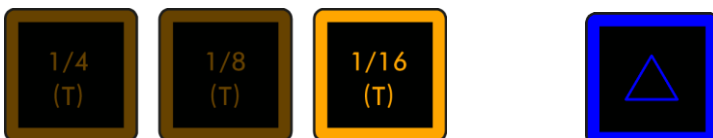


The delay-time is now set to 0 and you'll hear the music unaffected. Now tap the tap tempo key along to the beat.



After three taps, Timetossier will start picking up the tempo and try to lock it to the music. The behaviour of the tap-tempo key depends on your sync-connections. See "[Tap-tempo key](#)" for a detailed explanation.

The step-length can be selected with these keys:



With shift, you can select triplets. Selecting a step-length will also select a sequence-bank. This is explained further in "[Step-length keys](#)".

As stated, the Top row of keys work like a multiplier of the selected step length, ranging from 0 through 7 steps. Holding down the [shift key](#) gives you steps 8 through 15.

When the "0"-step is active, there is no delay in the audio signal (step-length x 0 = 0). Therefore, it's recommended to return to the "0"-step after playing something. We marked this key with a circle to emphasize its importance.

Holding down any key not only jumps to that part of the buffer, but also starts the default sequence. This just repeats the current note. Other sequences can be triggered too, see "[Sequence Select](#)" for this.

3 - Keys explained

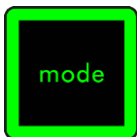
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Step keys



Mostly used for playing patterns: see "[Playing Timetoss](#)".

Mode key



Standalone mode:

- When not pressed, the mode key flashes to indicate the input audio level. It will turn red to indicate the input level is too high.
- Hold shift and press mode to toggle the input audio level meter.
- Holding down shift + mode + tap-tempo to enter [clock select mode](#).
- Holding down the mode key alone displays the [play mode menu](#).

Plugin mode:

Works like in standalone, but also lets you select which plugin instance to control.

The step keys will light up in green for every available plugin instance.

For instance, instance number 2 is selected out of 3 available instances:



Up to 8 instances can be controlled by up to 8 hardware units.

Tap-tempo key

In standalone mode, Timetosser can synchronize from three different tempo sources. Depending on the active **sync-source**, tap-tempo behaves differently:

- **Beat finder:**



This is the default sync-source when no external source is connected and/or received.

Tap three or more times in time with the music to make the beat finder start looking for beats at that tempo.

Tapping more than three times will make it more accurate. Tapping only two times (in time with the music) will reset the beat finder's internal position.

The tap-tempo key will light up orange while it is finding beats and will turn greenish when it has locked onto the music's tempo.

- **MIDI-sync:**



After receiving a MIDI-start message, the sync-source will switch over to MIDI. The tap-tempo key will now light up blue and flash in time with the received tempo. When receiving a MIDI-stop message, the sync-source will switch back to the beat finder.

By tapping three times or more, you can set a multiplier of the received tempo. For example: tapping twice as fast will double Timetosser's tempo.

- **Gate / clock sync:**

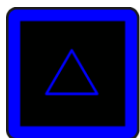


The sync source will switch over to Gate / clock when receiving an analog signal. Just as with MIDI-sync, you can use the tap-tempo key to tap a multiplier.

The sync source will automatically switch back to the beat finder after not receiving a signal for over two seconds.

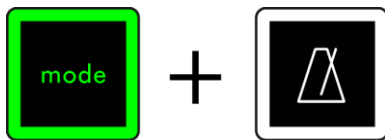
In plugin mode, there is only one sync source: the DAW's tempo and position. You can still use the tap-tempo to enter a tempo multiplier / divisor.

MIDI-out resync



Pressing shift + tap-tempo toggles the sending of MIDI clock, allowing you to sync-up any devices connected to the MIDI-out port. This is not available in plugin mode.

Clock Select Mode



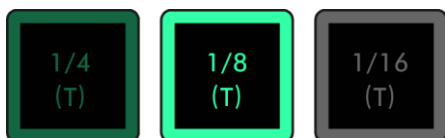
While holding down mode + tap-tempo, you can use the step-length keys to choose from different tempo-modes:

Synced & quantized (1/4 note key).



Your actions (step, reverse, record-stop & mute) are quantized to the selected step-size. The tap-tempo key flashes in a pulsating way, the color indicates the active sync-source.

Synced & unquantized (1/8 note key).



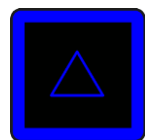
Your actions are not quantized: the tap-tempo key flashes in a “breathing” way. The color indicates the active sync-source.

Unsynced & unquantized (1/16 note key).



Your actions are not quantized. This mode ignores the sync-source and instead takes your tap-tempo. The tap-tempo key flashes in a “breathing” way. The color is white.

Shift key



Holding down shift while pressing a step-key will give you steps 8 through 15, instead of 0 through 7. Accessing the extra steps can be useful when playing longer patterns.

Holding down shift also toggles the step length page: If a “regular” step-length is active, holding shift will display the triplet page (purple). If a triplet step-length is selected, holding down shift will display the “regular” (yellow) page.

Holding down shift and pressing the mode key will toggle the input audio level meter.

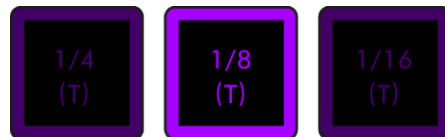
Step-length keys

Depending on the active step-length, the step-length keys are colored either yellow or purple:



When the keys are yellow, you are on the “regular” page. Here you can select between 1/4, 1/8 and 1/16 note step-lengths.

When the active step-length is in the “regular” page, holding down shift will display the triplet page:



When the step-length light up purple, you are on the triplet page. Here you can select between 1/4T, 1/8T and 1/16T note step-lengths.

When the active step-length is in the triplet page, holding down shift will display the “regular” page again.

Sequence Select

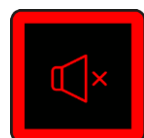
While holding down a step length key, you can play a sequence by holding down one of the step keys. Each individual note-length has 8 pre-programmed sequences to choose from. Note that the default sequence (under the “0”-step) always just repeats the current step, just like in Live and Loop modes.

Reverse key



Hold to reverse the audio. Hold shift + reverse to start a “**record-stop**” action. These actions are quantized when “[synced and quantized](#)” mode is active (tap-tempo key lights up in a pulsating way).

Mute key



Pressing only the mute key toggles mute on or off.

Holding a step key and pressing mute works as a momentary mute: audio is un-muted as soon as you let go of the mute key.

Holding mute and pressing a step key works as a momentary un-mute: audio is re-muted as soon as you let go of the step key.

These actions are quantized when “[synced and quantized](#)” mode is active (tap-tempo key lights up in a pulsating way).

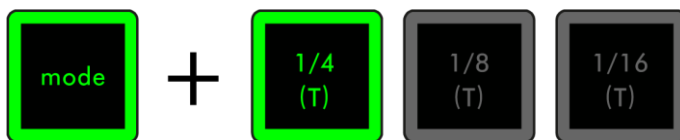
4 - Play Modes

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Starting from firmware version 1.1.0, Timetossler has two extra play modes. In addition to the already present live-input mode, a looper and a slicer are added.

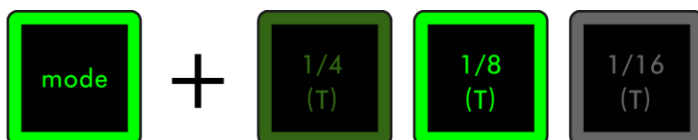
The different play modes can be accessed by holding down the [mode key](#) and pressing one of the note keys. The new Loop and Slice modes operate on the same recording buffer. Whenever the 1/8 and 1/16 note keys are lit up green, there is a loop stored in the buffer, otherwise they are dimmed white.

Live Input Mode



This is the default mode when Timetossler starts. See [playing Timetossler](#) for how this mode works in detail.

Loop Recording Mode



When there is no loop stored in the buffer, Loop Recording Mode is entered by pressing either mode + 1/8 or mode + 1/16. The note key that is pressed determines what play mode is entered when loop recording finishes, indicated by pulsating in a green color.

When releasing the mode key after choosing a play mode, the step keys, reverse key and mute keys start flashing. Recording starts as soon as you press one of them, taking quantisation into account if in the [clock select mode](#).

Note that the loop recording can be canceled by pressing the mode key again.

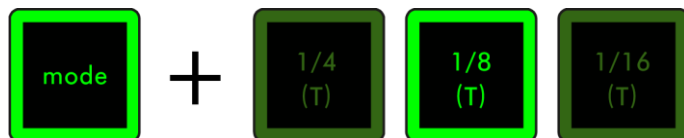
As soon as you press one of the flashing step keys, the mode key starts flashing red to indicate the loop is recording. Anything you play now will be recorded into the loop. The recording will run for up to 16 beats, or shorten the loop manually by pressing the flashing mode key. The loop will then continue to record until the next beat, ensuring the loop length is always a whole number of beats.

Erase Loop



Hold down the Live Input Mode key combination (at any time) for over half a second to erase the recorded loop. If Loop Mode or Slice Mode is activated, Timetosser will automatically switch back to the live input in Live Input Mode.

Loop Mode

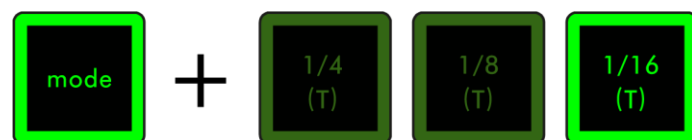


Loop Mode behaves much like Live Input Mode, but uses the recorded loop as source instead. There is a rudimentary time-stretching algorithm so that the tempo of the loop follows that of the live input, midi clock or gate clock.

The loop can be retriggered by pressing the mode + 1/8 keys again. Or switch to another mode by using a different note key. These actions are quantised if enabled in the [clock select mode](#).

Whenever a MIDI-stop message is received, or when the DAW transport is stopped when using the plugin, the audio will be muted. Playback is resumed when a MIDI-start or continue message is received, or DAW playback is started when using the plugin.

Slice Mode



As the name suggests, Slice Mode slices up the recorded loop and places them across the 8 step keys. The length of the slices can be changed by setting a different [step-length](#). Pressing one of the step keys will playback a slice until it finishes.

Hold down the shift key to access up to 8 more slices.

In Slice Mode, the live input audio will play (unless muted). This allows you to play the slices on top of it. The live input can be muted with the mute key and will not be unmuted when slices are triggered.

Holding down a slice key will trigger the default sequence, which here has the effect of playing the slices one after the other, recreating the stored loop.

5 - VST3 Plugin

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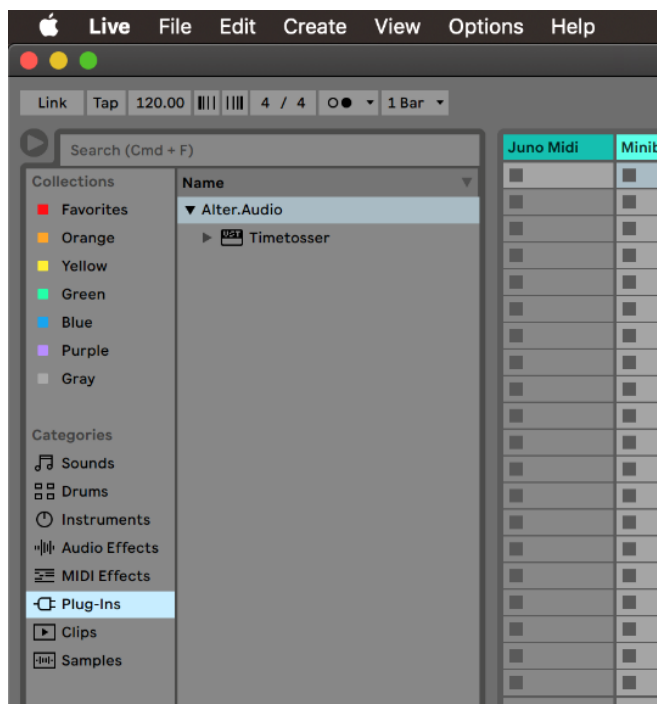
The VST plugin offers the same functionality as the standalone-mode, but now inside your DAW software. You can place up to eight instances on your audio tracks and use the hardware unit to play them. Selecting an instance is done with the [mode key](#).

The plugin instances receive and send MIDI, so anything you play on the control surface can be recorded in your DAW and played back again.

The VST Plugin is part of the “Timetossier Software Installer” package. An installer for both Mac (10.11 minimum) and Windows (7 and up, 64-bit only) can be found on our [website](#).

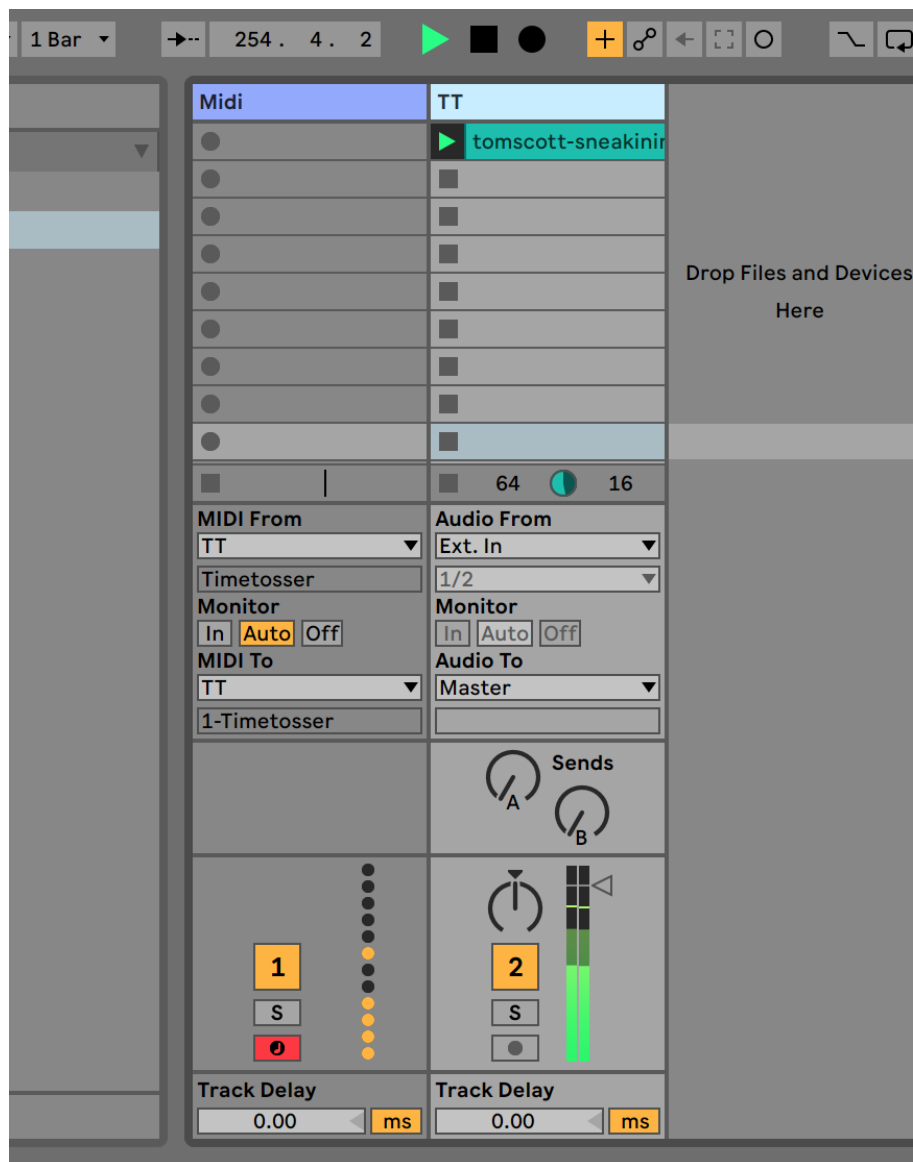
Installation

Make sure your Timetossier is connected to your computer and is powered up. Close your DAW, download & run the package and follow the onscreen instructions to install. After the installation completes and you reopen your DAW, it should pick it right up. Depending on your DAW, you simply drag & drop the plugin onto an audio track. Below are a few screenshots of Ableton Live 10 showing the plugin in the browser and an audio track containing a loop and the Timetossier plugin.



Please note that the plugin needs the hardware unit to be connected to your computer for it to function. If the plugin cannot detect a connected unit, it will be disabled and display a message in the UI.

In the screenshot below, you can see an extra Midi track. This track is set up to accept MIDI input from the track containing the Timetossier plugin ("TT"), and to send its MIDI notes back to the "TT" track:



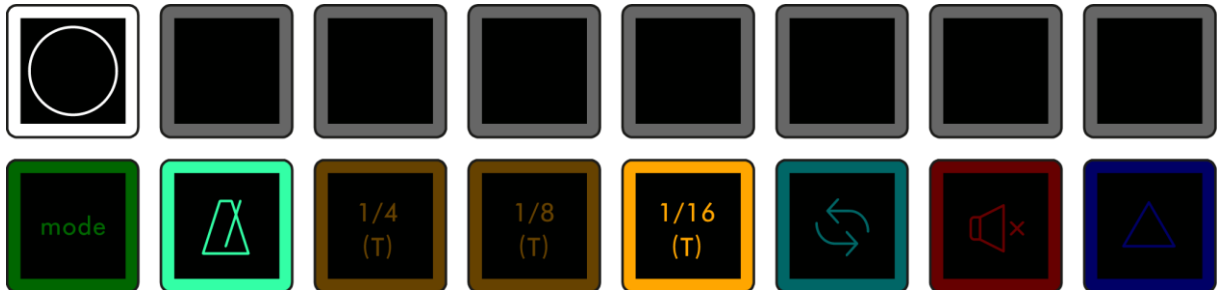
In this example, we again used Ableton Live 10. Please consult your specific DAW's manual on MIDI routing between tracks.

For best playability, it is advisable to minimize your DAW's audio output latency. This is achieved by setting the smallest buffer size your audio device supports without causing dropouts, clicks or glitches. Please consult your DAW user manual on how to adjust these settings.

6 - MIDI Mapping

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In standalone mode, Timetossler receives MIDI note-on/off messages and transmits keypresses as note-on/off messages on channel 1:



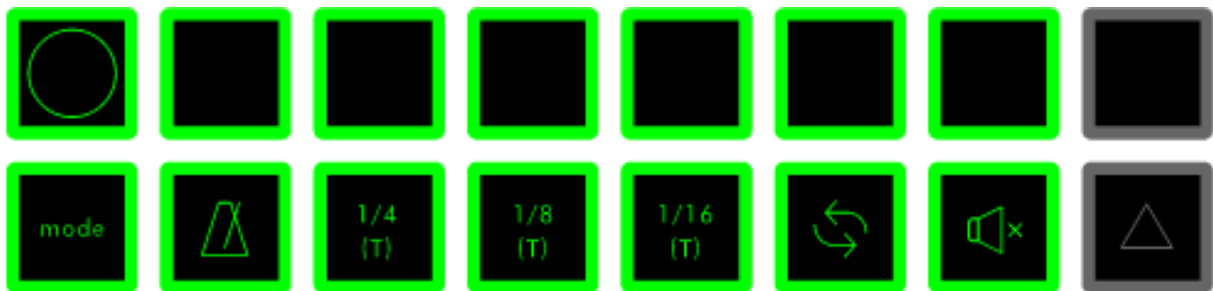
Key	Midi Note Number	Key	Midi Note Number
"0"-step	60 (C-4)	Mode	68 (G#-4)
step 1	61 (C#-4)	Tap-tempo	69 (A-4)
step 2	62 (D-4)	1/4 (T)	70 (A#-4)
step 3	63 (D#-4)	1/8 (T)	71 (B-4)
step 4	64 (E-4)	1/16 (T)	72 (C-5)
step 5	65 (F-4)	Reverse	73 (C#-5)
step 6	66 (F#-4)	Mute	74 (D-5)
step 7	67 (G-4)	Shift	75 (D#-5)

7 - Setup Recommendations

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Timetosser can accept quite a "hot" signal so it can accept input from "hot" outputting devices like analog synths and pro audio gear.

To avoid possible noise, it is advisable to get the input audio as loud as you can make it without clipping. You can toggle the input level meter on/off by pressing "shift" + "mode". Make sure the meter is on average between somewhere in the middle and full capacity, without any LEDs glowing red:



Secondly, you would typically need some form of volume control "after" the Timetosser unit. The examples that follow are to help you on your way setting up your Timetosser.

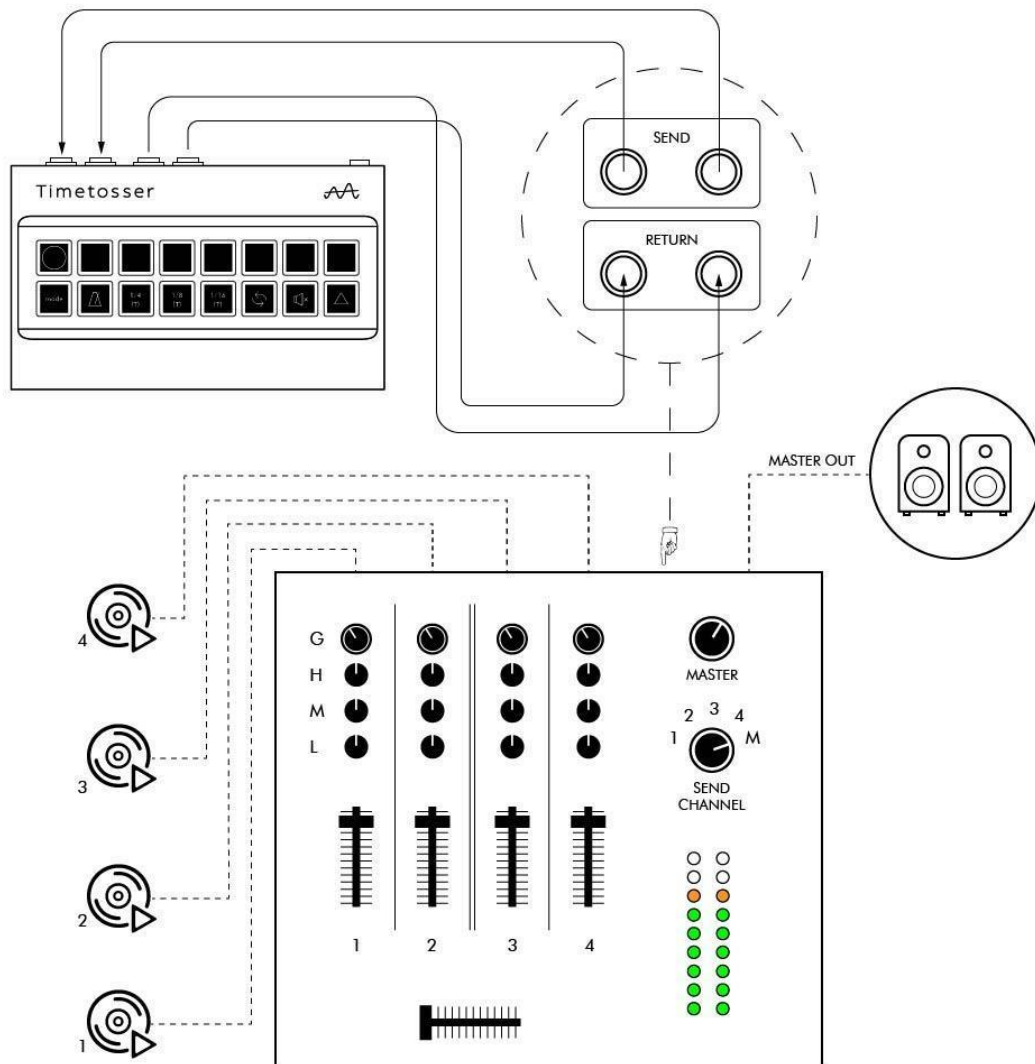
Recommended setups:

- I. DJ mixer with Send/Return feature.
- II. DJ mixer combined with amplifier.
- III. Timetosser on the output of an audio interface.
- IV. Recording/monitoring Timetosser on a drum machine.
- V. Studio mixer with a submix feature.
- VI. Studio mixer with Timetosser on the mix insert.

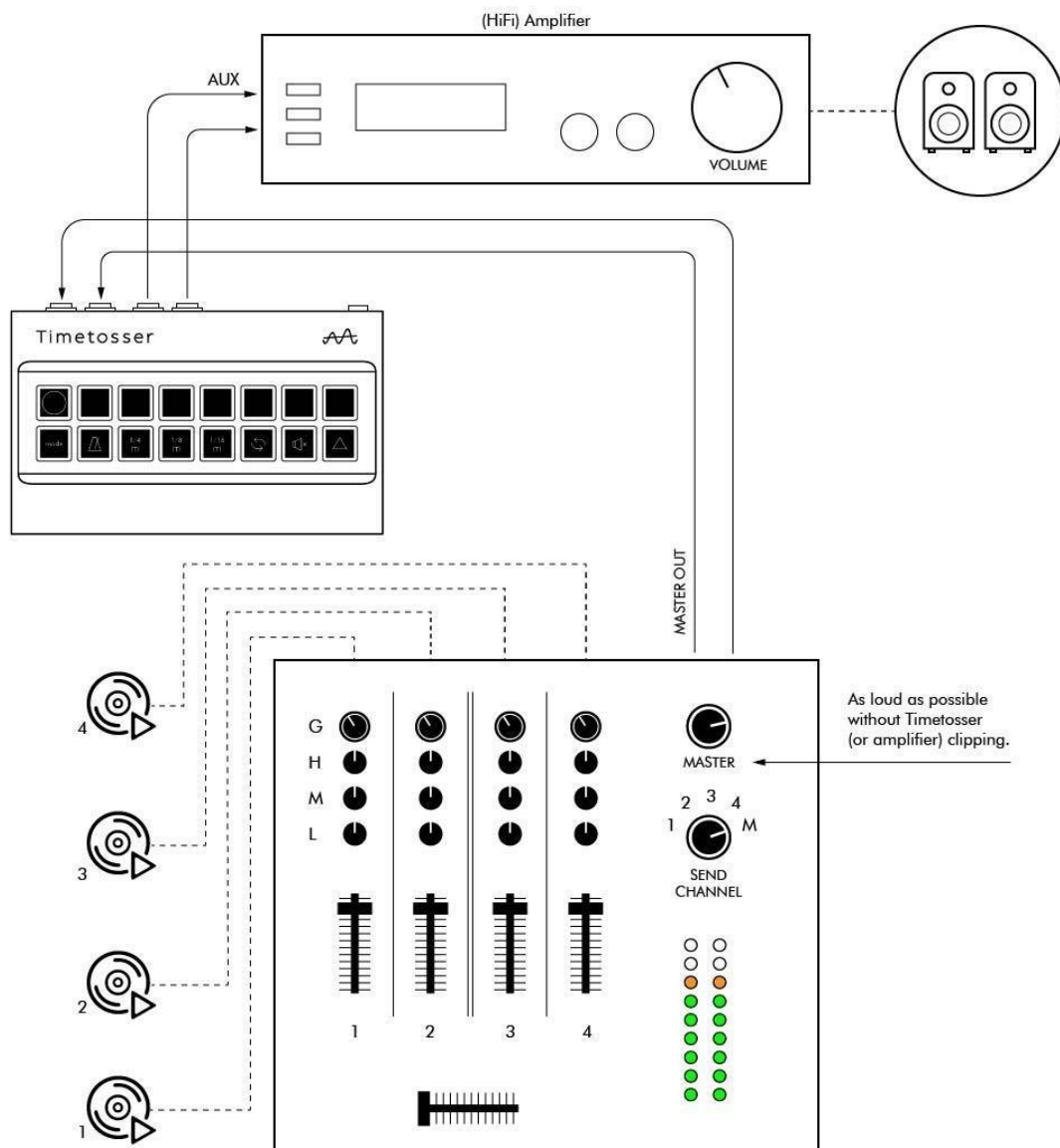
Non-recommended setups:

- VII. DJ mixer with Timetosser on the Master outputs
- VIII. Studio mixer with Timetosser on the Master outputs

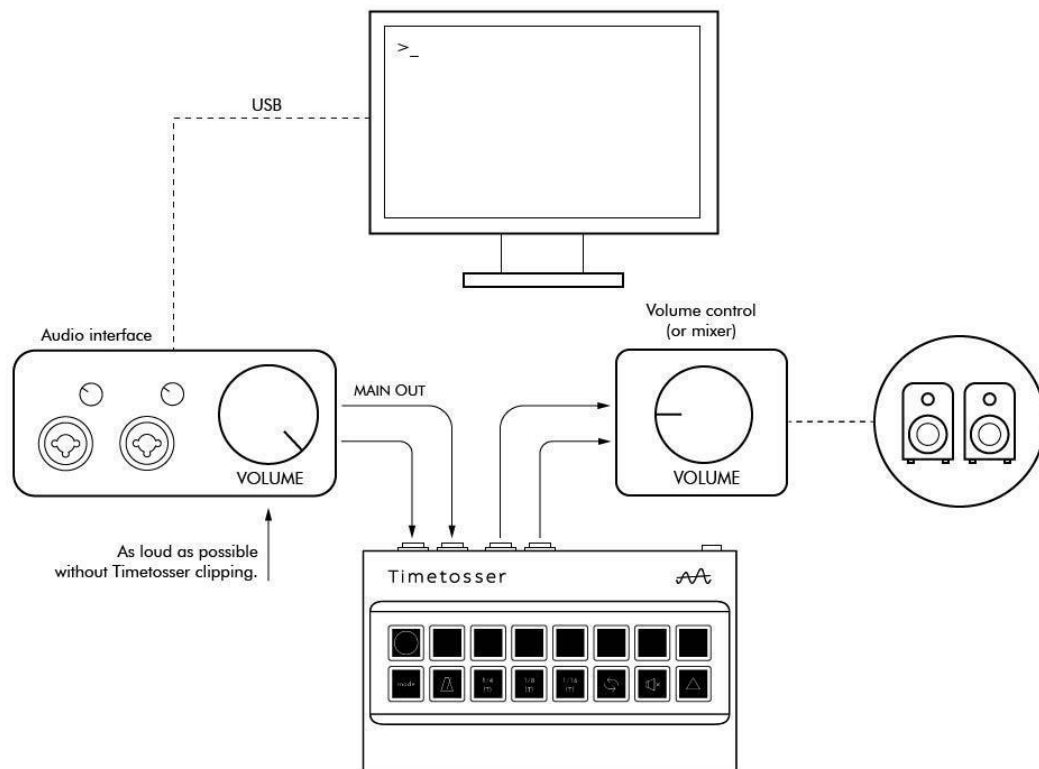
DJ mixer with Send/Return feature



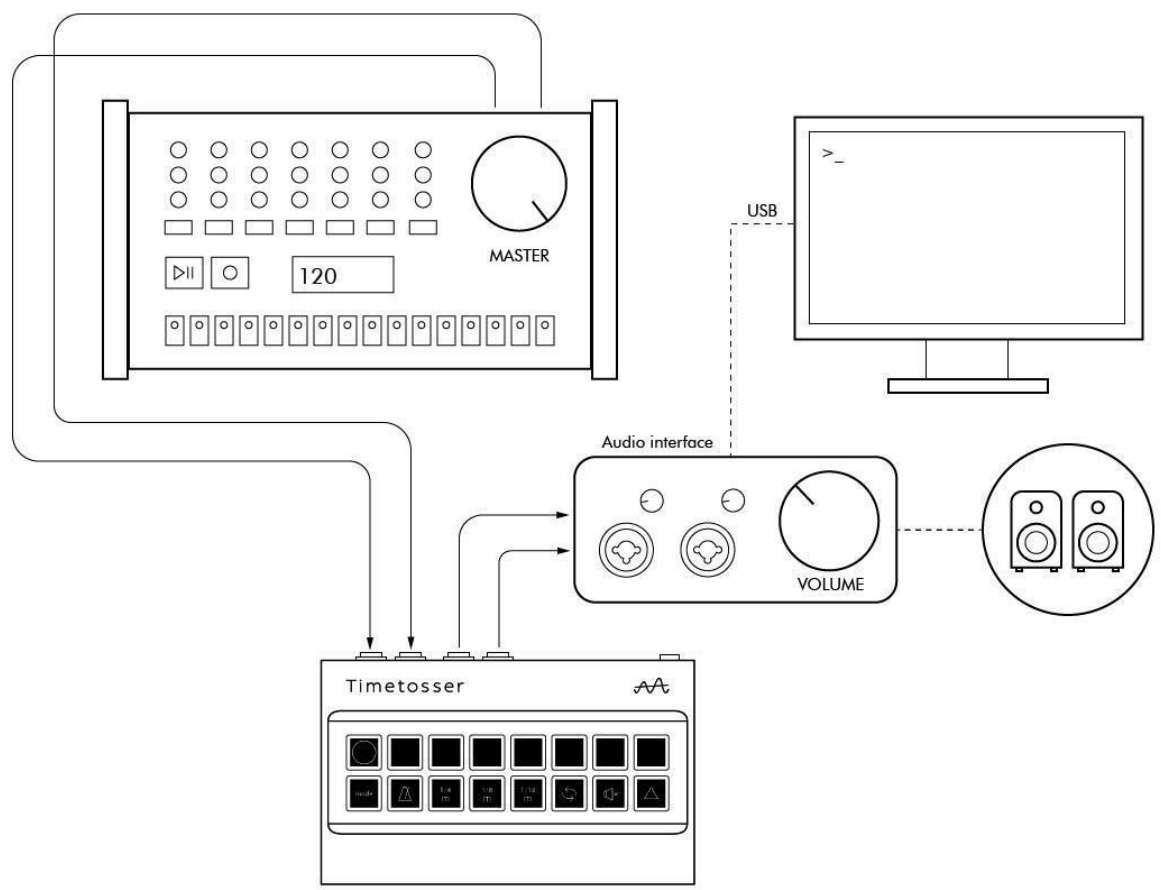
DJ mixer combined with amplifier



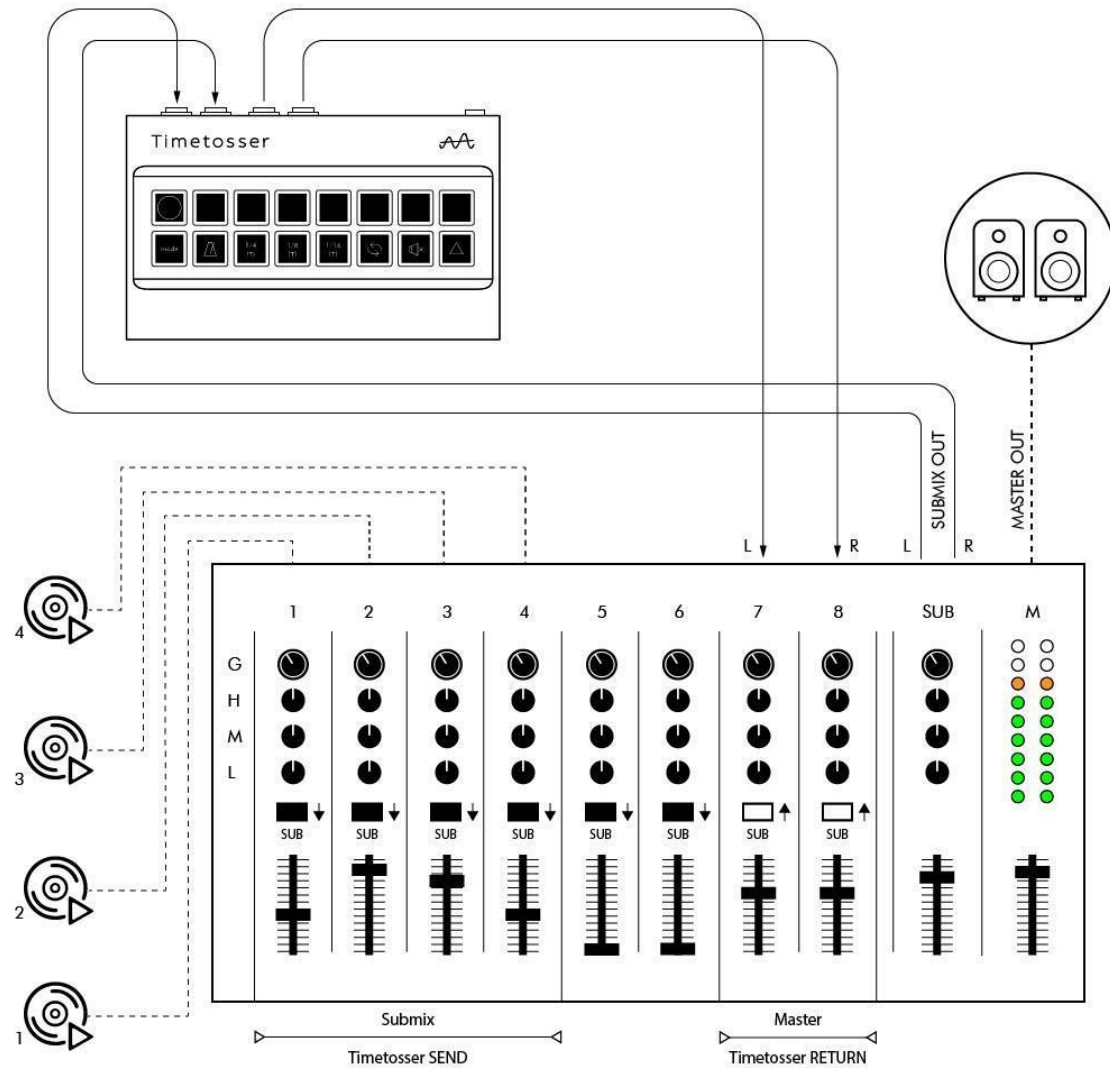
Timetosser on the output of an audio interface



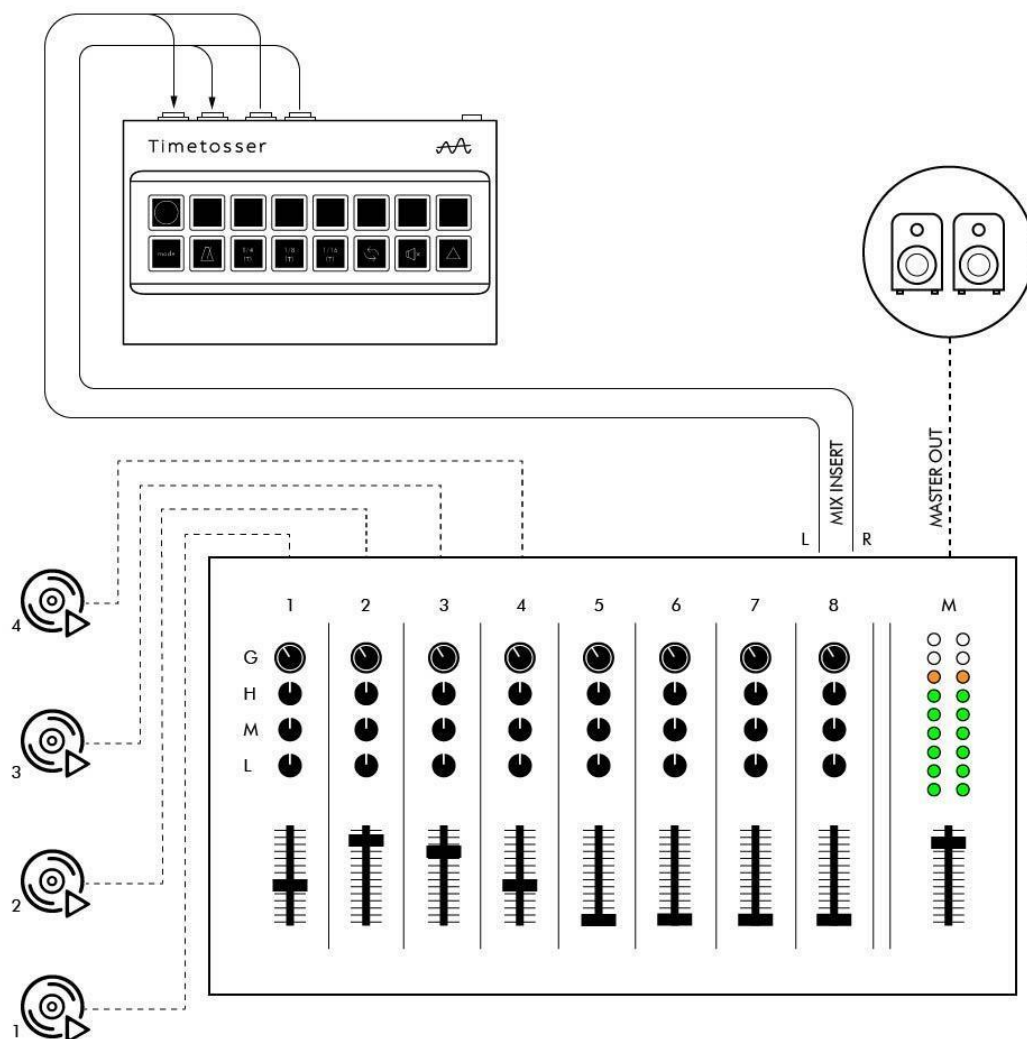
Recording/monitoring Timetossier on a drum machine



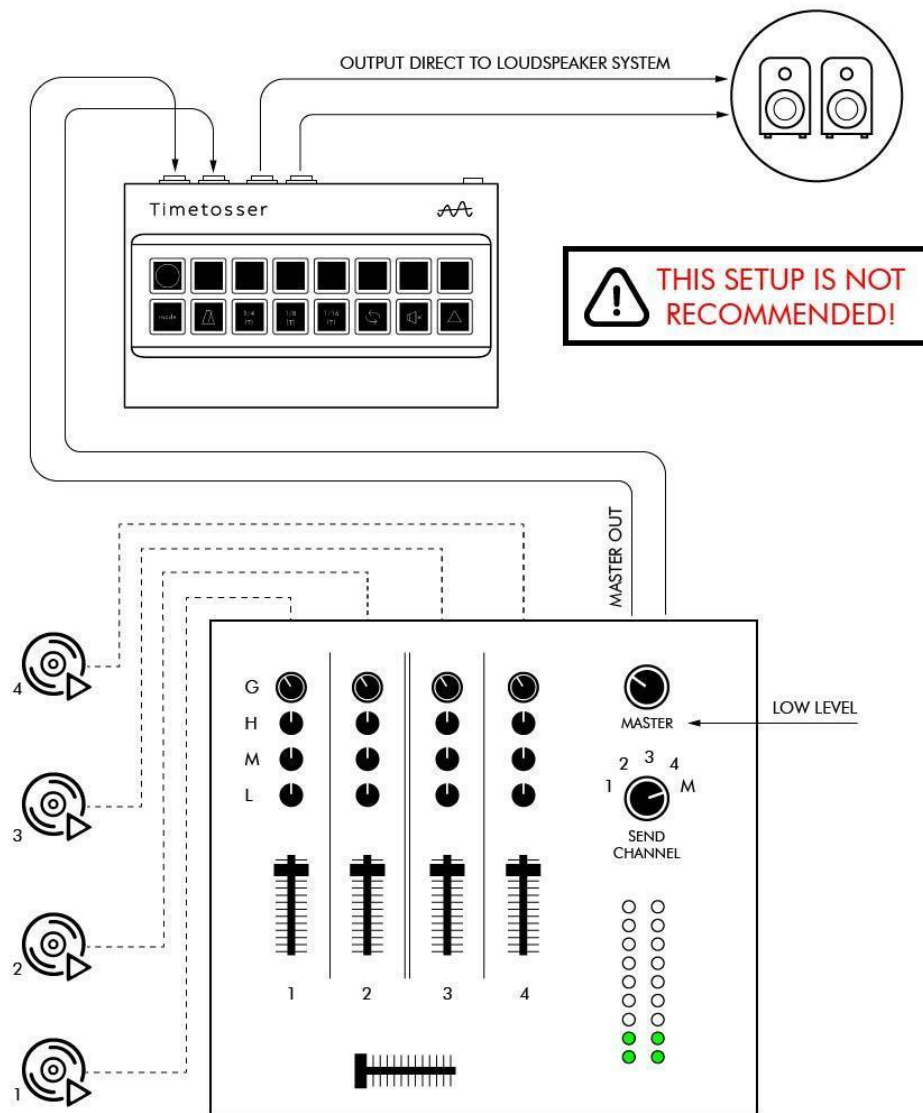
Studio mixer with a submix feature



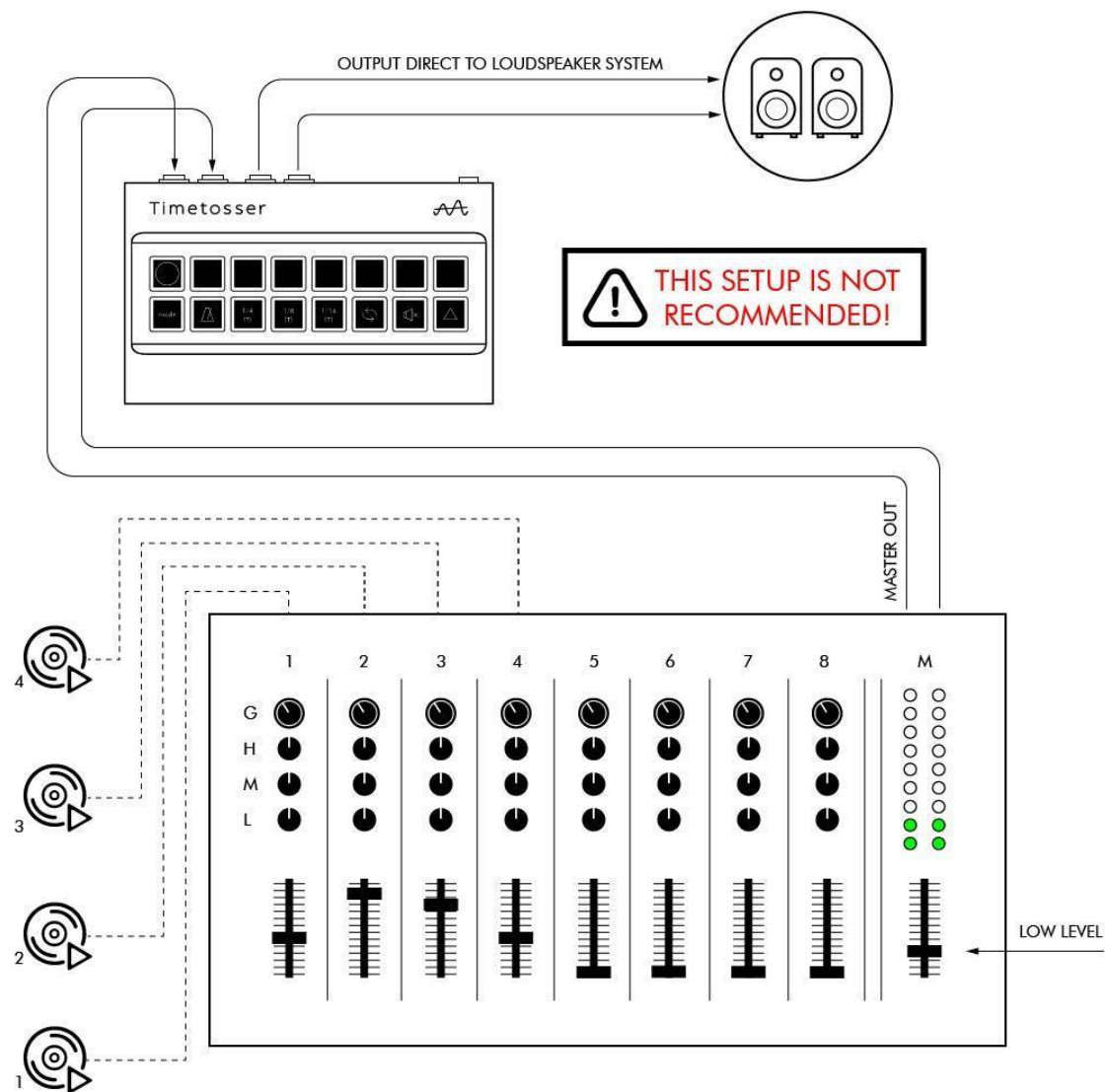
Studio mixer with Timetosser on the mix insert



DJ mixer with Timetossers on the Master outputs



Studio mixer with Timetossier on the Master outputs



8 - Troubleshooting

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Why is my Timetosser not showing its colors?

Probably Timetosser is detecting a computer, or any other USB-host. Or perhaps you have it powered through a USB-hub with other devices interfering.

When connected to a computer, Timetosser starts in plugin mode. When you power Timetosser with a separate USB charger it should start in standalone mode and the keys should look like normal.

Try to unplug all cables and power Timetosser to a wall socket with the supplied USB cable and a standard USB power adapter, like a smartphone charger. The quality of the charger can make a difference in the sound quality, so be sure to use a good one. To avoid ground loops, it is best to power Timetosser from the same wall-socket or extension cord as your other music gear.

When for some reason Timetosser is still not starting in the right mode, please let us know by sending an email to **support@alter.audio**

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