

# MACKIE®



(Click any button or area for more details)

(Please note: only the PC plug-in looks like this)

## M-CLAV Clavinet Emulator plug-in for Traktion 2



## What is M-CLAV?



The M-CLAV plug-in emulates the sound of the amazing Hohner™ Clavinet. It works on MIDI data such as from a keyboard, or from an existing MIDI track.

The plug-in comes with Tracktion, our easy-to-use music production software application. When you install Tracktion, it is automatically installed in Tracktion's plug-ins folder. **Note:** This plug-in only works with Tracktion, and will not work with any other VST host applications you may have on your computer.

M-CLAV is a lot of funky fun, and we hope you enjoy it. Please feel free to experiment away to your heart's content!

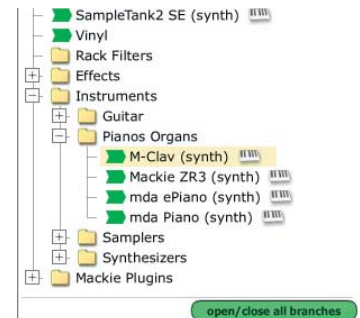
## Adding M-CLAV in Tracktion

Open up Tracktion and open your project. Drag the icon labelled “new filter..” located in the top right of the Tracktion screen, and drop it where you want the new filter to be placed. This could be on an existing MIDI track, or onto a track that you will be connecting a MIDI instrument. (In Tracktion, a filter is another name for a plug-in.)



Notice that the area in front of the volume/pan filter is glowing red; It isn't feeling shy, this is how you can tell where the filter will be placed. If there is no illumination, then you are not currently over a valid target area.

Once the “new filter” icon has been dropped, a list of available filters will appear, as if by magic. M-CLAV is located in the "Instruments/Pianos Organs" folder.



## Lock

If this is pressed, the M-CLAV interface will not disappear when you select other items or areas in Tracktion.

## Hide

This hides the M-CLAV interface from view, and is useful if you have previously selected "Lock."

## Midi controller numbers

OK, this is not part of the front panel, it just seemed like a good place to show a table of the Midi controller number that can be used to control the M-CLAV settings:

Control	Midi Controller Number
20	Pickup 1
21	Pickup 2
22	A, B, A+B, A-B
19	String Damping
18	String Brightness
23	String Click
26	Wah Resonance
28	Wah LF Range
24	Wah LFO/ENV/Manual
25	Wah Value
7	Output Level

## Knobmanship

Before getting started, please note that the chicken-head knobs can be moved by selecting, and moving the mouse vertically or horizontally. Do not try a rotary mouse move.

## Pickup Placement

M-CLAV is based on a physical model of the original clavinet. This is a hybrid stringed instrument, with hammers which hit the strings, and electric pickups to capture the vibration.

A modified, non-linear version of the Karplus-Strong algorithm is used to simulate the string vibration. Two electric pickups models simulate the original pickups of the instrument. Just like on a Hohner D6 Clavinet model, it is possible to select various combinations for the pickup outputs. Finally, a wah-wah pedal simulation is also included for that funky sound!

### Pickup 1

The physical location of the first pickup along the string. Range: 0 to 100

### Pickup 2

The physical location of the second pickup along the string. Range: 0 to 100

## Pickup Selection

One of these must be engaged for the synth to produce sound! (It is possible to have none selected, by clicking on one that is already selected.)

### Pickup A

Listen to the first pickup only.

### Pickup B

Listen to the second pickup only.

### Pickups A+B

Listen to both pickups (in-phase).

### Pickups A-B modes

Listen to both pickups (out-of-phase).

## 70's Pickup lines

- If I said you had a nice Clavinet, would you hold it against me?
- Hi, I'm a Taurus, what's your sign?

[\(Click anywhere to return to the front page\)](#)

## String Parameters: Damping

The amount of damping on the string.

Range: 0 to 100

## String Parameters: Brightness

The overall tone brightness.

Range: 0 to 100

## String Parameters: Click

The amount of click noise that occurs when notes are released.

Range: Off, 0 to 100

## Resonant Filter Control: Resonance

The amount of resonance for the wah-wah effect.      Range: 0 to 100

## Resonant Filter Control: LF Range

The lowest frequency of the wah-wah effect.      Range: 0 to 100

## Resonant Filter Control: HF Range

The highest frequency of the wah-wah effect.      Range: 0 to 100

## Mode: Value

The wah parameters changed by this knob, depend on the setting of the Filter Mode Function Select switches:

If the wah is in LFO Autowah mode, this knob selects the speed of the autowah.      Range: 0 to 100

If the wah is in ENV Autowah mode, this knob selects the sensitivity of the amplitude envelope follower.

If the wah is in Manual mode, this knob controls the wah frequency.

## Filter Mode Function Select: LFO Autowha

In this mode, the wah frequency is controlled by a low-frequency oscillator, whose frequency is set by the Value knob.

## Filter Mode Function Select: Envelope Autowha

In this mode, the wah frequency is controlled by the amplitude envelope of the signals from the pickups. The Value knob sets the sensitivity of the amplitude envelope follower.

## Filter Mode Function Select: Manual

In this mode, the wah frequency is controlled by the Value knob.

[\(Click anywhere to return to the front page\)](#)

## Output Volume Level

This is the main output level control. Range: 0 to -40 dB, -Infinity

## Voices

This controls the maximum number of sustaining notes the synth can play. The internal voice-stealing algorithm will try to reuse any non-sustaining notes. If the same note than the one being played is already in use, it will be reused immediately. It varies from 1 to 32.

Otherwise, the program will try to find a note to steal using the following rules:

- It will never steal the lowest playing note.
- If there are notes currently being released, but not terminated, steal the one that has been playing since the longest time.
- If all notes are sustained, it will steal the one that was played with the lowest velocity.

## Presets

Every change you do to a preset patch is stored into a temporary patch. This temporary patch is committed into one of the 8 preset slots whenever:

- You save the current bank using the Preset Save button (at the bottom of the Tracktion screen in the M-CLAV properties area). The temporary edits are then stored to the currently selected patch slot. You can rename the preset by clicking in the preset window, and typing the new name before you save it.
- You Alt-click on one of the 8 preset buttons. The temporary edits are then stored to the clicked preset slot. You can use this feature to quickly copy a patch in any of the 8 slots.



Click the icon to highlight, and bring up the M-CLAV properties area and the M-CLAV screen.

Preset Load, Save, Delete are in the M-CLAV properties area.

## Preset window

This window shows the name of the currently selected preset.

To change the current preset name:

1. Click in this window; your mouse pointer arrow will turn into a text tool.
2. Type in the new name.
3. Save this using the Preset Save button in the M-CLAV properties area. (See previous page about Presets).

## Service for your M-CLAV plug-in

Should your plug-in require repair, please take it to an authorized Plug-in Lube/Filter/and all-you-can-eat/Service-o-Rama™. They may ask you to go away, but do not take it personally.

After some hard use, the pixels tend to gravitate towards the bottom of the screen, or become sluggish. This is perfectly normal. The remedy is to play some Steel Band music on the Clavinet for a while to liven things up. It will take you back to the time when you were a small child, growing up in the West Indies. Do not be alarmed, this is perfectly normal.